G-I-N 2018
MANCHESTER
11 – 14 SEPTEMBER 2018

Abstracts Book

Guidelines International Network
Scottish Charity No: SC 034047

NICE National Institute for Health and Care Excellence

SIGN

Abstracts

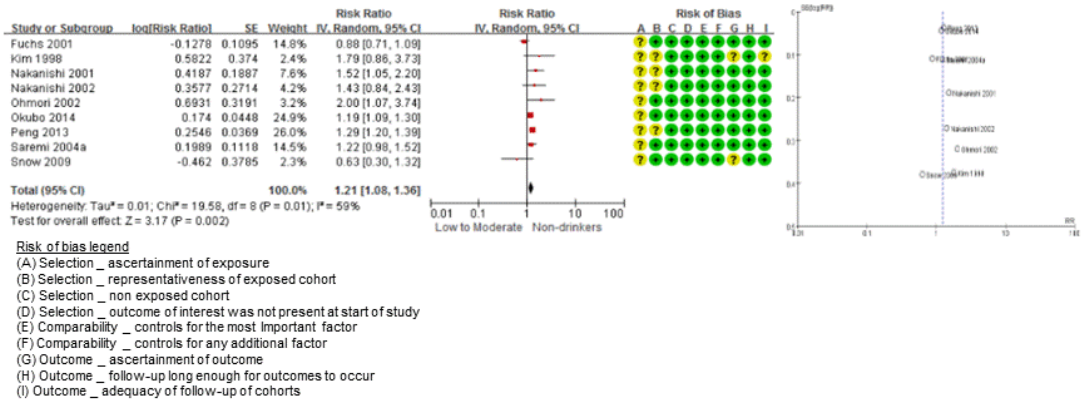


Fig 2. Relative risk of hypertension incidence in men with light to moderate alcohol intake (10.1-20.0 g/day)

OA001
ASSOCIATIONS BETWEEN GUIDELINE QUALITY INDICATORS AND GUIDELINE CHARACTERISTICS

Implementation and quality improvement (including indicators) #OA001

J.J. Jue, S. Cunningham, K. Schoelles
ECRI - Plymouth Meeting (United States Minor Outlying Islands)

Background & Introduction
Guidelines are developed within national, clinical and specialty contexts. These various contexts exert influence on guideline development.

Objectives / Goal
To explore associations between guideline quality indicators and guideline characteristics

Methods
Using publicly available data on guideline appraisals from the National Guideline Clearinghouse, we defined guideline rating scores into high (>=4 out of 5) or low (<=3 out of 5). We characterized guidelines as addressing adult or pediatric issues; being U.S. or non-U.S. developed; and subspecialty or generalist developed. We used logistic regression in STATA 13 to assess for associations.

Results & Discussion
71.7% of guidelines were developed in the U.S.; and 63.8% were developed by subspecialty societies; 8.7% addressed a pediatric population. We found that guidelines developed by U.S. organizations were less likely than those developed by non-U.S. organizations to score high on documenting conflict of interests (OR 0.09, 95%CI 0.012, 0.75); incorporating patient perspective (OR 0.17, 95%CI 0.07, 0.41); and performing external review (OR 0.12, 95%CI 0.04, 0.34). Guidelines addressing pediatric topics were less likely to score high on documentation of benefits and harms (OR 0.02, 95%CI 0.003, 0.18). Guidelines developed by subspecialty groups were less likely to score high on funding disclosure (OR 0.09, 95%CI 0.01, 0.72) and updating of guidelines (OR 0.07, 95%CI 0.16, 0.32).

Implications for guideline developers / users
This exploratory analysis suggests guidelines developed in certain context have a tendency towards particular weaknesses.

Conclusion
There is an opportunity to focus on sharing knowledge both globally and across specialties to improve guideline development and rigor in areas of weakness.

OA002
CHECKING THE CHECKBOXES - DEVELOPMENT OF CRITERIA AND METHODOLOGY FOR EVALUATION OF APPROPRIATENESS OF CLINICAL QUALITY MEASURES

Implementation and quality improvement (including indicators)
#OA002

A. Drabkin, B. Alper
DynaMed - Ipswich (United States of America)

Background & Introduction
Performance measures are developed by a wide range of organizations, are used to compare and report quality of healthcare services and have financial impact. Performance measures may be more influential than guideline recommendations in driving physician behavior. There is a need for reliable, objective, systematic assessment of the appropriateness of these performance measures.

Objectives / Goal
1.Participants will learn the DynaMed Plus initial four criteria and the methodology for using these criteria to evaluate the appropriateness of a performance measure
2. Participants will learn the process we have followed to expand and refine the criteria.

Methods
We developed 4 initial criteria for appropriateness of performance measures extrapolated from experience in assessing evidence and guidelines. We adapted these criteria iteratively with an expanded group of healthcare professionals, reaching consensus in multiple stages for the framework for the criteria, the criteria descriptions, and the methods to rate whether or not the criteria are met.

Results & Discussion
Our current set of 10 criteria each have an explicit, systematic rating process. Four criteria must be met or the quality measure is considered Not to Meet Criteria for appropriateness. Six criteria allow nuance to result in ratings of either Meets Criteria or Meets Criteria Only With Modification Suggested.

Implications for guideline developers / users
Guideline developers who create performance measures should consider these criteria for appropriateness.

Conclusion
We have extended critical appraisal principles and perspectives from evidence and guidance to quality measures. This provides a method to determine the appropriateness of one of the most increasingly prominent and influential factors in healthcare system evaluation and reimbursement.

OA003

INTERNATIONAL INSIGHTS INTO THE DEVELOPMENT OF GUIDELINE-BASED QUALITY INDICATORS. RESULTS FROM A QUALITATIVE STUDY

Implementation and quality improvement (including indicators)
#OA003

M. Bolster [1], K. Arnold [2], S. Deckert [2], M. Becker [3], J. Schmitt [2], M. Nothacker [1]
[1]AWMF-IMWi - Berlin (Germany), [2]ZEGV - Dresden (Germany), [3]IFOM - Witten (Germany)

Background & Introduction
Evidence-based clinical guidelines play an important role in health care and can be a valuable source for quality indicators (QI). However, QI development from guidelines is often not realised and international standards are still lacking.

Objectives / Goal
To identify facilitating and hindering factors in the development of guideline-based QI at the international level. Results will contribute to a standard for the development of guideline-based QI.

Methods
15 semi-structured interviews were carried out with methodologists and clinicians from 8 organisations in 6 European/Northamerican countries who have developed guideline-based QI. Interviewees were selected using purposive sampling reflecting a maximum variation of health care settings. Questions focused on methods, experiences and perceived facilitating/hindering factors in the different stages of QI development from guidelines. Interviews were analysed using qualitative content analysis.

Results & Discussion
A variety of possible approaches exist concerning timing and organization of guideline-based QI development. A programmatic approach with links to existing quality improvement strategies and involvement of various stakeholders including patients appeared as a crucial facilitating factor for developing and implementing guideline-based QI. Other facilitating factors include a clear methodology with structured criteria and decision-making processes, the pooling of clinical and methodological knowledge and QI training in the developing team as well as a shared understanding of their intended use. There is a broad agreement on the required methodological key criteria, but feasibility remains critical. Measuring qualitative aspects and individualized care pose current challenges.

Implications for guideline developers / users
With adequate planning developing guideline-based QI can succeed either parallel to or following the guideline development. Strategic partnerships are key for implementation.

OB001
GUIDELINE DEVELOPMENT CHECKLIST EXTENSION FOR RAPID GUIDELINES

Developing Recommendations
#OB001

R. Morgan [1], I. Florez [1], M. Falavigna [2], S. Kowalski [3], E. Akl [4], H. Schünemann [5]
[1]McMaster University - Hamilton (Canada), [2]Hospital Moinhos de Vento - Porto Alegra (Brazil), [3]Universidade Federal do Paraná - Curitiba (Brazil), [4]McMaster University; American University of Beirut - Beirut (Lebanon), [5]McMaster University; American University of Beirut - Hamilton (Canada)

Background & Introduction
Practice guidelines require a substantial investment of resources and time, often taking between one and three years from conceptualization to publication. However, urgent situations require the development of recommendations in a shorter timeframe.

Objectives / Goal
Based on identified challenges and solutions in developing rapid guidelines (RGs), we propose guiding principles for the development of RGs.

Methods
We utilized the Guideline International Network-McMaster Guideline Development Checklist (GDC) as a starting point for elements to consider during RG development. We built on those elements using the findings from a systematic review of guideline manuals, a survey of international organizations conducting RGs, and interviews of guideline developers within the World Health Organization. We reviewed initial findings and developed an intermediate list of elements, as well as narrative guidance. We then invited experts to validate the intermediate list, review for placement, brevity, and redundancy. We used this iterative process and group consensus to determine the final elements for RG-development guidance.

Results & Discussion
Our work identified 21 principles within the topics of the Guideline International Network-McMaster GDC to guide the planning and development of RGs. Principles fell within 15 of the 18 checklist topics, highlighting strategies to streamline and expedite the guideline development process.

Implications for guideline developers / users
Integration of these principles within currently disseminated guideline development standards will facilitate the use of those tools in situations necessitating RGs.

Conclusion
We defined principles to guide the development of RGs, while maintaining a standardized, rigorous, and transparent process. These principles will serve as guidance for guideline developers responding to urgent situations such as public health urgencies.

OB002
ACCELERATED GUIDELINE DEVELOPMENT WORKING GROUP: DEVELOPING THE AGD METHODS AND ASSESSMENT

Developing Recommendations
#OB002

S. Blanchard-Musset [1], P. Jonckheer [2], M. Laurence [3], A.W. On Behalf Of The G-I-N Accelerated Guideline Development Working Group [4]

[1]Haute Autorite De Santé - Saint Denis La Plaine (France), [2]Belgian Health Care Knowledge Centre - Bruxelles (Belgium), [3]Haute Autorité de Santé - Saint-Denis (France), [4]Guidelines International Network

Background & Introduction
There has been an increasing demand from policy makers to have rapid access to evidence-based decision supports. In this context, a **GIN Accelerated Guideline Development Working Group (AGD)-WG** was established to propose a method to develop guidelines in an accelerated way.

Objectives / Goal
To develop an **AGD method** for GIN members

Methods
(AGD)-WG performed a systematic review on rapid products, 3 surveys and 4 GIN conference workshops to produce an AGD manual. This manual is currently tested by GIN members.

Results & Discussion
The main elements of the AGD process were identified by the review and expertise from GIN members. Based on iterative design the ADG WG selected 18 flexible key elements to be gathered in an AGD core model. The key elements are flexible since they can be used or not according to the context where the core model is adapted: time requirements, type of data available, updating needs, number of questions, controversy in the topic, etc.
The first feed backs showed that some key elements are major to accelerate the process (restricted analysis to high level of evidence, optional working group, no peer review but mandatory consultation of stakeholders) and some others are minor (experienced experts implication, restricted number of experts and meetings, electronic tools used).

Implications for guideline developers / users
All documents are open access on the GIN website.

Conclusion
The current phase involves collecting GIN member experiences in applying the AGD manual in real life with a questionnaire online. How to perform an accelerated process on expert consensus is the next perspective to the (ADG) WG.

OB003
INCREASING SPEED WHILE MAINTAINING GUIDELINE QUALITY: FACT OR FICTION? – DEVELOPING PRIMARY CARE RAPID RECOMMENDATIONS

Developing Recommendations
#OB003

T. Kuijpers [1], T. Bekkering [2], M. Vermandere [2], I. Kunnamo [3], J. Burgers [1], B. Aertgeerts [4]

[1]Dutch College of General Practitioners (Netherlands), [2]KU Leuven (Belgium), [3]Duodecim (Finland), [4]KU Leueven (Belgium)

Background & Introduction
Recently, the first Primary Care Rapid Recommendations (PCRR) were published. An important aim is to translate practice-changing evidence rapidly into recommendations for clinical practice.

Objectives / Goal
To present the method of developing PCRR based on international collaboration with a systematic review team and a guideline development panel and to share this within a broader international audience with an interest in sharing investments and learning about how international collaboration might prevent duplication of effort while maintaining or gaining high quality in clinical guideline development.

Methods
A few structured questions are the starting point for summarizing the evidence by a review team. In parallel, an international guideline panel meeting online, including patients, rapidly develops recommendations. During the process we adhere to international guideline quality standards such as AGREE, IOM, and GRADE.

Results & Discussion
Due to shared efforts we were able to develop recommendations supported with evidence from high quality systematic reviews conducted in the same period of time. Within one year, we produced four RapidRecs, which were published in MAGICapp. Two of these were also published in the BMJ. We faced challenges adhering to the original timeline of 90 days from publishing of potentially practice changing evidence. Patients contributed valuable viewpoints in the panel meetings. The recommendations were developed globally, so local (national) adaptation of the recommendations is warranted.

Implications for guideline developers / users
Participants learn about how evidence could be translated into recommendations rapidly while adhering to international quality standards.

Conclusion
International collaboration between systematic review groups and guideline developers is a promising approach to prevent duplication of effort in guideline development.

OC001

GLOBAL EVIDENCE ECOSYSTEM FOR ORAL HEALTH: FROM NEW EVIDENCE TO SYSTEMATIC REVIEWS, TRUSTWORTHY, RECOMMENDATIONS AND DECISION AIDS CHANGING PRACTICE

Using technology to support uptake, implementation and evaluation #OC001

J. Clarkson [1], T. Walsh [2], A.M. Glenny [2], H. Worthington [2], D. Stirling [3], L. Young [3], A. Carrasco-Labra [4], B. Varenne [5], C. Fox [6], A. Walls [7], H.S. Selilowitz [8], P.O. Vandvik [9]

[1]University of Dundee - Dundee (United Kingdom), [2]Cochrane Oral Health, University of Manchester - Manchester (United Kingdom), [3]Scottish Dental Clinical Effectiveness Programme, NHS Education for Scotland - Dundee (United Kingdom), [4]American Dental Association - Chicago (United States of America), [5]World Health Organistaion - Geneva (Switzerland), [6]International Association of Dental Research - Greater Washington, D.c. (United States of America), [7]International Association of Dental Research - Edinburgh (United Kingdom), [8]World Dental Federation - Geneva (Switzerland), [9]Making GRADE the Irresistible Choice (MAGIC), University of Oslo - Oslo (Norway)

Background & Introduction

Oral health represents a global challenge but also an opportunity to explore how innovations in sharing work and data in an emerging Digital and Trustworthy Evidence Ecosystem (DTEE) could result in documented increased value or reduced waste. The Global Evidence Ecosystem for Oral Health (GEEOH) is a partnership of international organisations with responsibility and involvement in the different stages of the ecosystem.

Objectives / Goal

To respond to new evidence for oral health with coordinated and efficient creation, dissemination and implementation of systematic reviews, guidelines and decision aids at the point of care, ready for global adaptation and re-use, with embedded evaluation of implementation strategies.

Methods

Figure 1 visualizes the DTEE for this case study. International Association of Dental Research reports research, Cochrane Oral Health produces systematic reviews from practice-changing trials, the American Dental Association and Scottish Dental Clinical Effectiveness Programme create guidelines and recommendations and decision aids in MAGICapp for the UK and USA, the World Health Organisation and World Dental Federation consider global adaption and re-use. Information Services Scotland data is used to evaluate impact on care and patient-important outcomes producing evidence to feed the loop.

Results & Discussion

We will present the results within the Evidence Ecosystem, including barriers and facilitators for evidence synthesis, dissemination and active implementation and evaluation of delivered care for oral health.

Implications for guideline developers / users

Taking an integrated ecosystem approach can capitalise on each partner's comparative advantage resulting in more efficient and effective development, implementation and evaluation of guidelines.

Conclusion
The GEEOH exemplifies opportunities for closing the loop between new evidence and improved care.

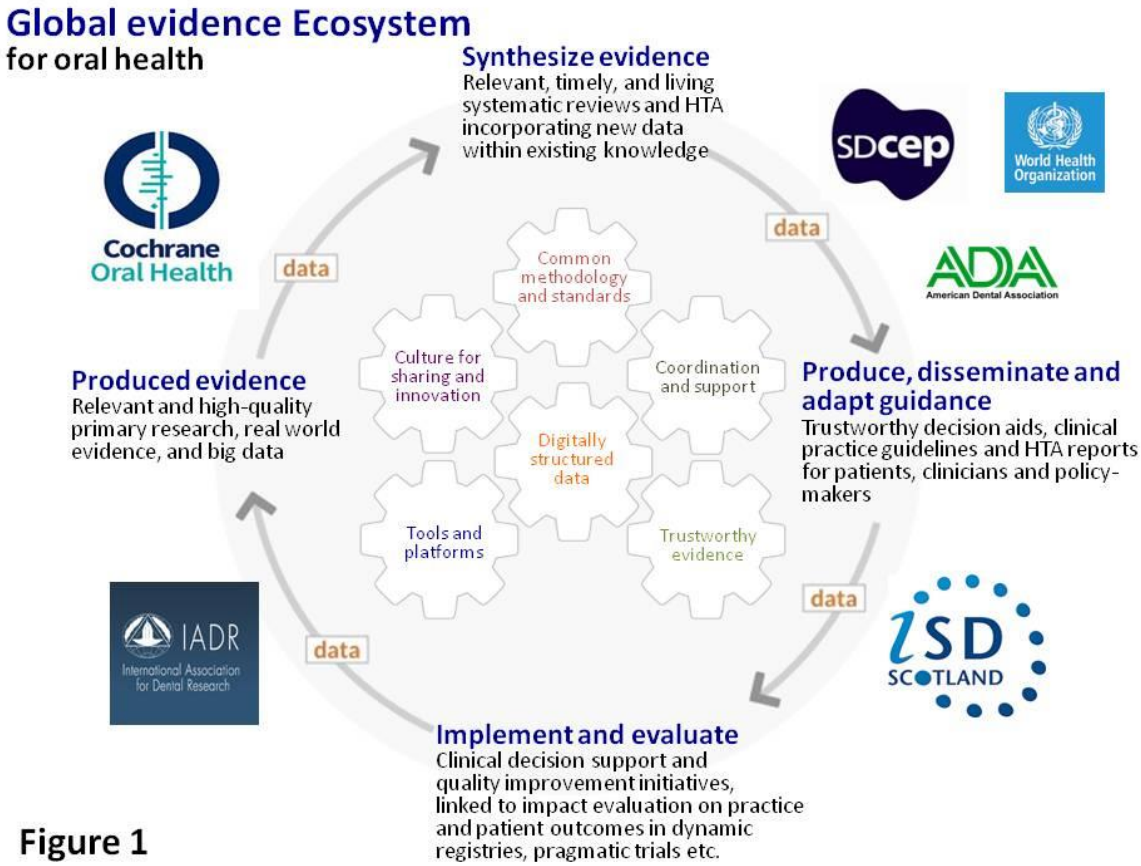


Figure 1

OC002
STRUCTURED COMPARISON OF CLINICAL PRACTICE GUIDELINES VIA CLINICAL DECISION TREES USING POPULATION BASED REGISTRY DATA, APPLIED TO NON-MUSCLE INVASIVE BLADDER CANCER

Using technology to improve guideline development methods
#OC002

K. Ebben, A. Steutel, J. Van Der Werf, T. Van Vegchel, R. Vernooij, X. Verbeek
IKNL - Utrecht (Netherlands)

Background & Introduction
Clinical practice guidelines (CPGs) can differ significantly between countries, despite similarities in evidence-based recommendations or population characteristics. Based on clinical decision trees (CDTs), we developed a method to systematically compare and identify similarities and differences between CPGs.

Objectives / Goal
Method development of structured CPG comparison, using data on the level of single concepts that represents the clinical essence on a human and computer interpretable manner.

Methods
We created CDTs for recommendations of the European Association of Urology (EAU) and Dutch CPGs for non-muscle invasive bladder cancer (NMIBC). We developed a uniform model and common vocabulary for representing CDTs. The schema consisted of decision nodes (data-items corresponding to population characteristics, e.g. T-stage), branches (data-item values, e.g. <=T2), and recommendations (e.g. chemotherapy). Then, using this model and the resulting CDTs, we compared recommendations generated by both CPGs based on real-life data from NMIBC patients from the Netherlands Cancer Registry.

Results & Discussion
Comparison of the CPGs revealed overall population characteristics for the recommendations. Preliminary results show substantial identical interventions between CDTs that are recommended to all identifiably subpopulations. Also potential clinical relevant differences were revealed.

Implications for guideline developers / users
The results of such substantiated structured CPG comparison facilitates meaningful working group discussions for CPG and CDT revisions.

Conclusion
The decision tree model and common vocabulary facilitates systematic comparison of CPGs, and clearly highlights CPG similarities and differences. Despite some overlap in population characteristics and recommendations , application of this method revealed compelling variations between EAU and Dutch oncological CPGs. Ultimately, these CPG differences may be a factor in the divergence of disease outcomes.

OC003
CONSENSUS RECOMMENDATIONS IN THE ABSENCE OF GOOD EVIDENCE: UNDERSTANDING THE SPECTRUM IN NICE GUIDELINES

Developing Recommendations
#OC003

J. Thornton, A. Meikle, P. Langford, P. Shearn
NICE - Manchester (United Kingdom)

Background & Introduction
The NICE guideline methods manual states that recommendations are based on the best available evidence. When good evidence to directly answer a review question is unavailable, a ‘consensus recommendation’ can be made based on e.g. indirect/contradictory evidence, or expert opinion'. We wanted to better understand what constitutes a consensus recommendation and when and how these recommendations are made.

Objectives / Goal
To identify and describe consensus recommendations within NICE guidelines.

Methods
A retrospective review of a convenience sample of 14 NICE guidelines (6xClinical Guidelines, 3xPublic Health, 3xSocial Care, 2xMedicines Practice).

Results & Discussion
All guidelines contained consensus recommendations; they were rarely apparent from the wording and were mostly identified from reports of committee discussion in the Linking Evidence to Recommendations sections. Recommendations addressed good practice, service delivery and interventions; they were developed as follows:
-expert opinion only with no supporting evidence
-expert opinion with limited/unclear/contradictory evidence
-extrapolation from indirect evidence
-extrapolation from recommendations in other guidelines
Methods were mostly informal consensus, one guideline used both informal and formal consensus with a modified RAND approach. Wording of recommendations varied - two followed NICE convention of denoting a ‘strong’ recommendation through ‘offer’ or other directive wording such as ‘use’, ‘support’, ‘ensure’, ‘record’, ‘document’ and ‘refer’. ‘Weaker’ wording included ‘consider’ or ‘think about’.

Implications for guideline developers / users
Guidelines need to be more transparent so consensus recommendations are easily identifiable; this will facilitate surveillance and updating. We need to define how committees can express high certainty around a consensus recommendation.

Conclusion
Consensus recommendations are prevalent across NICE guidelines and cover more than just good practice issues.

OE001
CONTRIBUTION ANALYSIS AND UNDERSTANDING IMPACT: DO YOUR GUIDELINES MAKE A DIFFERENCE?

Implementation and quality improvement (including indicators) #OE001

M. Lanigan, R. James
SIGN - Edinburgh (United Kingdom)

Background & Introduction
Our organisational aim is 'Better quality health and social care for everyone in Scotland'. Yet up until now we had no formal way of knowing if SIGN guidelines contribute to this aim.

Objectives / Goal
To introduce contribution analysis into the work of SIGN, helping us to better understand how our guidelines influence:
- knowledge and skills
- practice and behaviour change, and
- improved health and social care for people in Scotland.

Methods
To develop and refine a logic model for SIGN, workshops were held with various groups of staff and patient representatives involved in our work.
Our resources, activities, reach and outcomes were mapped.
Indicators for several topics of importance were identified to focus on.
Initial data collection and reporting has begun.

Results & Discussion
The logic model now underpins decisions and planning for the senior management team of SIGN. We are confident in being able to report on the impact of the work of SIGN and show how they make a difference. The unintended impact of starting this work was the change in thinking that it has prompted and its influence in other areas of our work. There is a greater emphasis on feedback loops, ensuring we are collecting information, reflecting and then making informed decisions about next steps.

Implications for guideline developers / users
Developers:
- Increased workload relating to data collection, analysis and reporting
- Greater understanding of what works and what doesn’t work

Conclusion
Guideline developers should consider introducing contribution analysis into their work.

OE002
YOU SAY, WE DO: NICE RESPONSE TO USERS' NEEDS OF IMPLEMENTING ITS GUIDANCE

Implementation and quality improvement (including indicators) #OE002

X. Li [1], S. Lilley [1], N. Bent [1], J. Royce [2], S. Knight [1], C. Feinmann [1], G. Leng [2]
[1]NICE - Manchester (United Kingdom), [2]NICE - London (United Kingdom)

Background & Introduction
To deliver the National Institute for Health and Care Excellence (NICE) implementation strategy, we regularly engage with stakeholders to gather feedback. This paper describes the latest survey findings and the response from NICE.

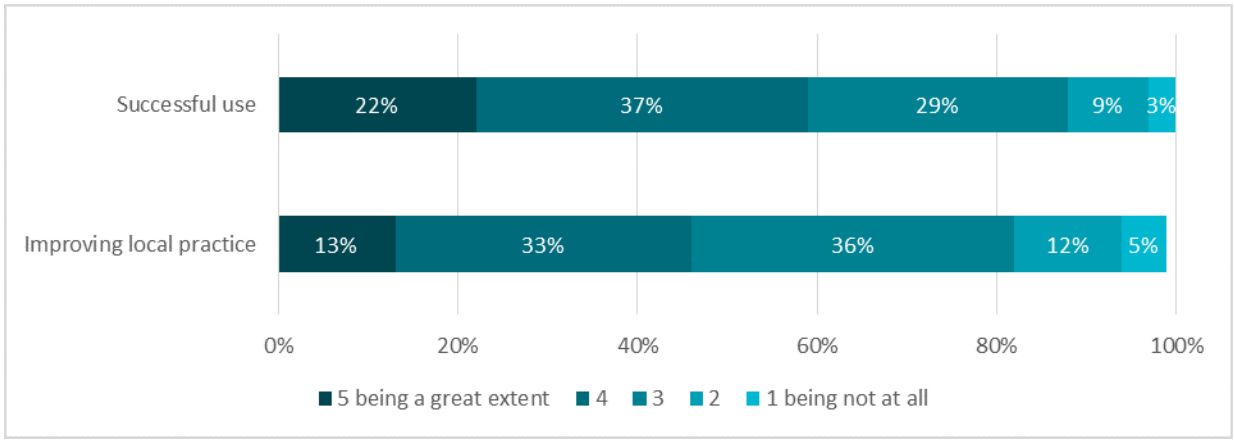
Objectives / Goal
To understand users' experiences of implementing NICE guidance in order to inform the delivery of the implementation strategy.

Methods
A 2-phase study was conducted between July and October 2017. Phase 1 included 15 interviews with representatives from health care, public health, and social care sectors. The outcomes informed the work of phase 2 in developing a 20-item survey. We discussed the survey findings across NICE and developed an action plan to inform the NICE response.

Results & Discussion
860 responses were received. The findings indicated that the most important source of information respondents used for improving local practice was NICE guidance. The top reason for using them was informing everyday practice. The majority stated that they had used NICE guidance successfully and had changed their local practice (Figure 1). Over half had a positive experience of using NICE guidance as shown in Figure 2.

Implications for guideline developers / users
Respondents highlighted challenges faced when implementing guidance and made suggestions for doing things differently. NICE has taken steps to address these issues, consisting of reflecting the 'real-world' in guidance development, clear presentation of the content, and continuing support for implementation.

Conclusion
The findings reinforce the NICE implementation strategy, the direction of travel for our 2018/19 business plans, and the long term aim of the digital content strategy.


Successful use
22%
37%
29%
9%
3%
Improving local practice
13%
33%
36%
12%
5%
0%
20%
40%
60%
80%
100%
5 being a great extent
4
3
2
1 being not at all


5
4
3
2
1
15%
40%
33%
9%
3%
5 is excellent
1 is poor

OE003
CLINICIAN PERSPECTIVES, CONTEXT AND COSTS INFLUENCE IMPLEMENTATION OF GUIDELINE RECOMMENDATIONS IN CARDIOLOGY IN THE UNITED STATES AND CANADA

Implementation and quality improvement (including indicators)
#OE003

V. Manja [1], G. Guyatt [1], S. Monteiro [1], S. Jack [1], S. Lakshminrusimha [2], J. You [1]
[1]McMaster University - Hamilton (Canada), [2]University of California, Davis - Davis (United States of America)

Background & Introduction
Clinical-practice-guidelines (CPG) are often addressing cost to develop recommendations that facilitate high-value care.

Objectives / Goal
Study factors that influence clinical decisions in the context of CPG-recommendations and explore cardiologists' knowledge and attitudes related to costs.

Methods
Cardiologists from the United States and Canada considered vignettes regarding four common clinical scenarios and selected their preferred management option. They then rated the influence of seven factors on their decision-making (safety, effectiveness, patient-centered-care, cost-considerations, local hospital-practice, medicolegal concerns, and prior experience). Follow up questions explored perceptions on cost-considerations. Analysis included ANOVA for ratings, basic content analysis for free-text responses.

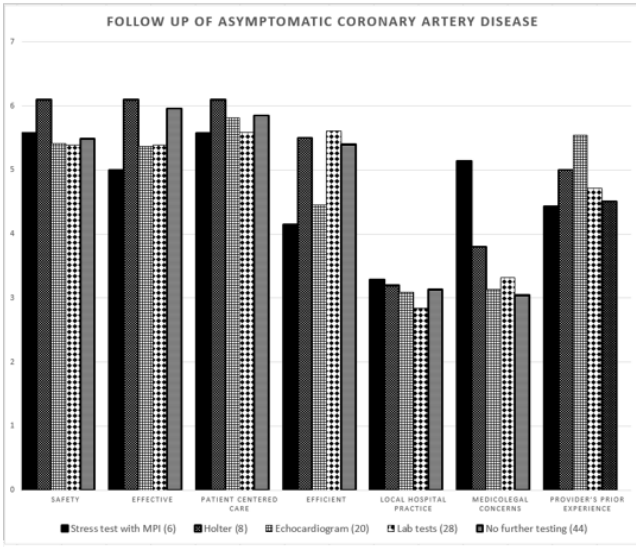
Results & Discussion
106 cardiologists completed the survey. Cardiologists frequently chose non-CPG-recommended options (Table-1); across scenarios, individual cardiologists sometimes choose recommended and sometimes non-recommended strategies. Respondents rated safety, effectiveness (evidence-based care) and patient-centered care as important determinants of decision-making regardless of whether they chose CPG concordant or discordant management options (Figure-1). 96(91%) considered out-of-pocket patient expenses to be crucial in decision-making; most, however (59%) do not feel well informed to address patient inquiries regarding costs and seldom discuss costs with patients.

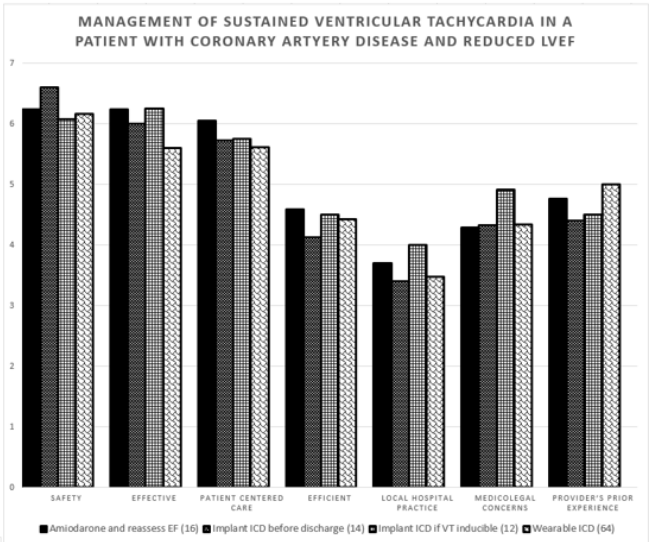
Implications for guideline developers / users
CPG-Recommendations are limited in their influence on clinical decision-making. Possible problems include insufficient incorporation of clinician perspectives in the guideline, and inadequate knowledge translation strategies or efforts.

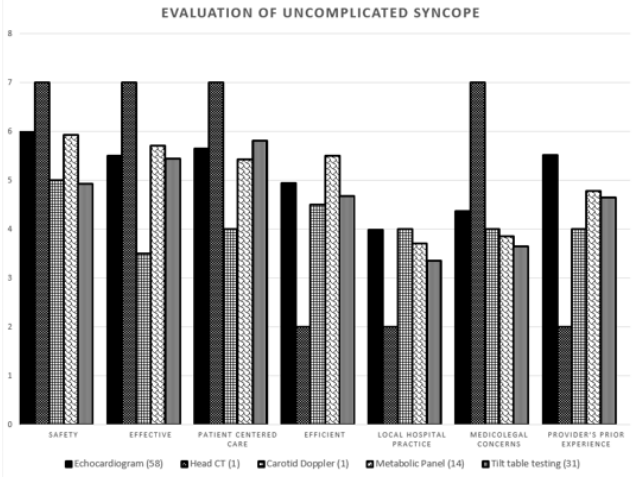
Conclusion
Cardiologists rate effectiveness similarly irrespective of whether or not their choice is concordant with CPG-recommendation. Non-adherence to CPG recommendations is frequent; individual cardiologists sometimes choose CPG concordant and sometimes discordant options, suggesting a major role of contextual factors in decision-making. Although acknowledged as important, knowledge of cost-considerations is insufficient and requires support.

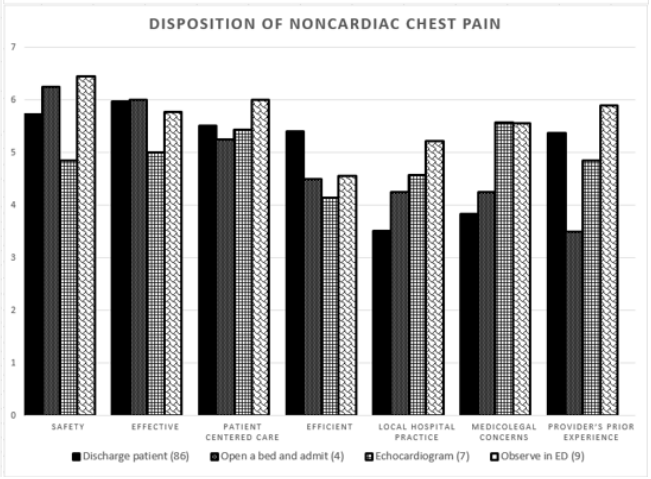
Table-1 – Management option chosen by cardiologists

	N (%) who preferred a non-CPG recommended option
Case-1 – Routine follow up of a patient with asymptomatic CAD (risk factor modification being appropriately managed by primary care provider)	62 (58)
Case-2 – Sustained VT in the setting of underlying CAD requiring revascularization, not associated with an acute coronary syndrome	92 (87)
Case-3 – work up of uncomplicated syncope, no high risk features on history and physical exam.	74 (70)
Case-4 – ER disposition of a patient with non-cardiac chest pain, unremarkable evaluation for ACS	20 (19)


FOLLOW UP OF ASYMPTOMATIC CORONARY ARTERY DISEASE
SAFETY
EFFECTIVE
PATIENT CENTERED CARE
EFFICIENT
LOCAL HOSPITAL PRACTICE
MEDICOLEGAL CONCERNS
PROVIDER'S PRIOR EXPERIENCE
Stress test with MPI (6)
Holter (8)
Echocardiogram (20)
Lab tests (28)
No further testing (44)


MANAGEMENT OF SUSTAINED VENTRICULAR TACHYCARDIA IN A PATIENT WITH CORONARY ARTYERY DISEASE AND REDUCED LVEF
SAFETY
EFFECTIVE
PATIENT CENTERED CARE
EFFICIENT
LOCAL HOSPITAL PRACTICE
MEDICOLEGAL CONCERNS
PROVIDER'S PRIOR EXPERIENCE
Amiodarone and reassess EF (16)
Implant ICD before discharge (14)
Implant ICD if VT inducible (12)
Wearable ICD (64)


EVALUATION OF UNCOMPLICATED SYNCOPE
SAFETY
EFFECTIVE
PATIENT CENTERED CARE
EFFICIENT
LOCAL HOSPITAL PRACTICE
MEDICOLEGAL CONCERNS
PROVIDER'S PRIOR EXPERIENCE
Echocardiogram (58)
Head CT (1)
Carotid Doppler (1)
Metabolic Panel (14)
Tilt table testing (31)


DISPOSITION OF NONCARDIAC CHEST PAIN
SAFETY
EFFECTIVE
PATIENT CENTERED CARE
EFFICIENT
LOCAL HOSPITAL PRACTICE
MEDICOLEGAL CONCERNS
PROVIDER'S PRIOR EXPERIENCE
Discharge patient (86)
Open a bed and admit (4)
Echocardiogram (7)
Observe in ED (9)

	Sub-Headings	Select Quotes
Cost and Cost Effectiveness	Imperative to consider costs	*'If physicians don't assist in "bending the cost of care" downward the government will do it for us.*
	Difficulty obtaining information on costs.	*'Really knowing what true costs are is not a simple task, as many factors that a typical physician would be unlikely to be familiar with contribute to cost'.*
	Incorporating costs in individual decision making	*'It is unclear to me how one can incorporate cost effectiveness analysis into INDIVIDUAL care management when there is an established standard of care in the field that indicates a treatment pathway'.*
	Physician's responsibility is to the patient, not to consider costs	*'The primary responsibility of a physician is to do the best for their individual patient'.* *'The provider is 100% responsible to the patient. If this country decides to ration health care, then I have no control, but while I do, I will use every tool to assure best QOL, and longevity'.*
	Teaching and learning	*'Need to increase awareness and improve training re cost effectiveness during residency and fellowship'.*
Out of Pocket Patient Costs	Impact of out of pocket costs on patient Compliance	*'Out of pocket expenses realistically will dictate compliance w. prescribed meds. and treatment plans'* *'These are frequently uncommunicated concerns which may dictate patient behavior and compliance'.*
	Determining OOP costs for each patient	*'In our current chaotic "system" it is very difficult to determine what those out of pocket expenses will be'.* *'Out of pocket expenses are important but information are not easy to obtain'*
	Shared Decision Making – discuss costs with patients	*'I always inform patients that if they cannot afford a medication or test to NOT pick up the medication or schedule the test and call me/ the office.' 'Knowing out of pocket expense would not change necessary tests, however, it would allow for dialogue and formation of a payment plan if needed'.*
	Out of pocket patient costs as a tool to change behaviour	*Probably having people bear a greater share of the costs of health care may prevent them from demanding tests; however, would also discourage the ones who we feel really need it.*
Patient and Societal Factors	Patient and Peer Expectations, Medicolegal Concerns	*'Patients perceive that a physician has not done anything for them when no tests are performed. They commonly perceive as "the doctor does not care enough". The referring physician also has expectations that tests will be performed so they can give answers to their patient. Vasovagal syncope may be the most common cause. However, in my experience I have come across cases where that was the only cardiac symptom related to a patient having critical CAD needing CABG surgery. Patients may pass out from syndromes such as long QT and have sudden death. Unless it is one or two isolated episodes, if there was no cardiac work-up done, it becomes very difficult to defend oneself in court. The cost of my life getting disrupted with a law suit trumps the costs if doing an echo, carotid and event monitor or loop recorder. Thus, I would not factor cost effectiveness here'* *'I feel that the primary conflict is with other providers, mostly outside of cardiology, who are fearful of missed diagnoses, and seem oblivious to the cost of false positives and overtesting and overtreatment'.*
Insurance and Contextual Factors	Insurance companies usually have reasonable policies	*'Insurance rules are usually based on Professional Guidelines and are reasonable, even though annoying. If physicians knew the costs of tests, they might change their ordering profile'.*
	The problems with insurance company pre-authorizations and other restrictions.	*'In private practice often times one must request "prior authorization" in order to proceed as per your clinical judgement, which comes from someone at the insurer with check list who really does not understand the clinical situation. This person may even be a physician but if he/she is an obstetrician who does not understand cardiology, for example, I have experienced totally inappropriate decision making. The most glaring example was a patient presenting at night with a STEMI confirmed by emergency cardiac cath with atypical symptoms about whom my office was informed by the local insurance company on the following day that this procedure was going to be denied professional and hospital payment because the patient did not fit their criteria for the admission and cath/PCI!'.*
	Contextual Factors in the US	*'I am at the VA, where the issue of cost to patients is much less of an issue compared to private practice'.*
	Canadian Context	*'Such challenges are infrequent'.*

OF001
HOW CAN WE INTEGRATE GRADE AND A FORMAL CONSENSUS METHOD INTO AN INTERNATIONAL GUIDELINE PROJECT? THE EXAMPLE OF AN INTERNATIONAL CONSENSUS CONFERENCE ON PATIENT BLOOD MANAGEMENT

Working with guideline panels and committees
#OF001

H. Van Remoortel [1], M.M. Mueller [2], P. Meybohm [3], K. Aranko [4], P. Vandekerckhove [5], E. Seifried [5]

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Background & Introduction
Patient Blood Management (PBM) aims to optimise the care of patients who might need a blood transfusion. An international consortium of European, American, Canadian and Australian organizations organized a 2-day International Consensus Conference (ICC) to develop evidence-based recommendations on 3 PBM topics: preoperative anemia, Red Blood Cell (RBC) transfusion triggers and implementation of PBM programs.

Objectives / Goal
To integrate the GRADE methodology and a formal consensus method in the process of developing recommendations.

Methods
Systematic reviews on 17 PICO questions were conducted by a Scientific Committee (>20 international experts and methodologists) according to the GRADE methodology. The Consensus Development Conference format was used as the formal consensus methodology to develop evidence-based recommendations. (Figure 1)

Results & Discussion
We screened ~18.000 references and included >140 studies across the 3 PBM topics. During the ICC, plenary sessions with the audience (100-200 stakeholders) were followed by closed sessions where multi-disciplinary decision making panels (>50 experts and patient organizations) formulated draft/final recommendations. Two chairs (content-expert and methodologist) moderated these sessions and 2 rapporteurs were keeping the notes of the discussions. The Evidence-to-Decision template (GRADEpro software) was used as the central basis in the process of formulating recommendations. (Figure 2)

Implications for guideline developers / users
Using a systematic, rigorous and transparent evidence-based methodology in a formal consensus format is of utmost importance to all clinicians performing haemotherapy in order to perform the most (cost-)effective medical treatment.

Conclusion

This ICC-PBM resulted in evidence-based recommendations supported by an international stakeholder group of experts in blood transfusion.

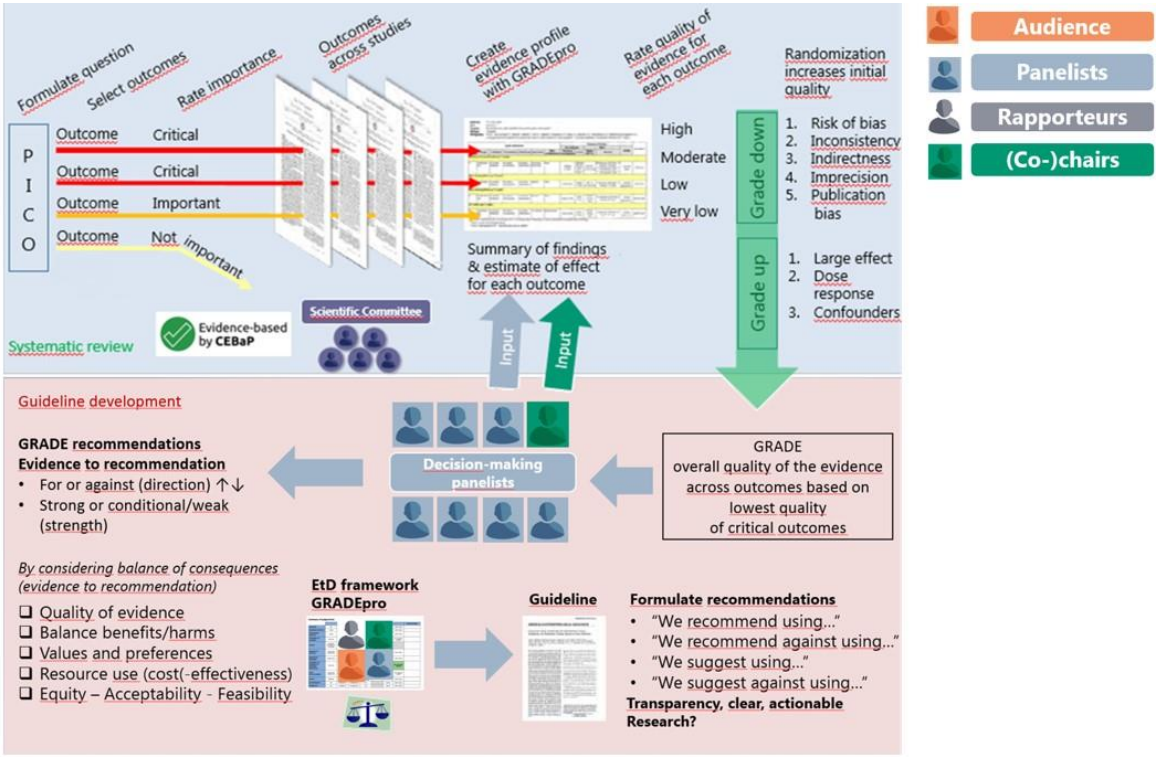


Figure 1. Schematic overview of the GRADE methodology and the contribution of the different groups involved in the consensus meeting (based on GRADE meeting, Edinburgh 2009).

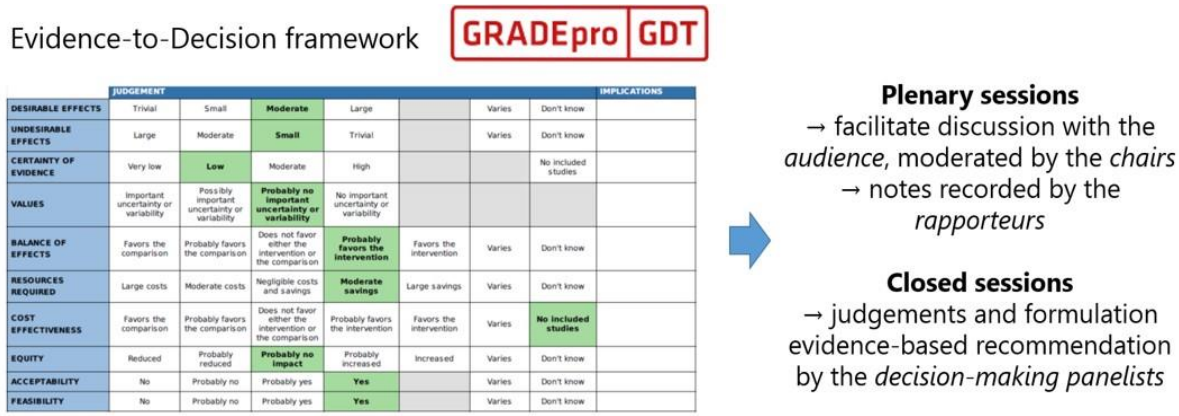


Figure 2. The importance of the Evidence-to-Decision framework when going from the evidence toward recommendations (source: GRADEpro software).

OF002
CONFIDENCE IN RECOMMENDATIONS BASED ON NETWORK META-ANALYSIS: THRESHOLD ANALYSIS AS AN ALTERNATIVE TO GRADE

Grading evidence and recommendations
#OF002

D.M. Phillippo [1], S. Dias [1], N.J. Welton [1], D.M. Caldwell [1], N. Taske [2], A.E. Ades [1]
[1]University of Bristol - Bristol (United Kingdom), [2]National Institute for Health and Care Excellence - London (United Kingdom)

Background & Introduction
Guideline development requires synthesising evidence on multiple treatments of interest, typically using Network Meta-Analysis (NMA). Often the studies included are assessed as having flaws and the reliability of results from the NMA can be in doubt. Therefore, guideline developers need to assess the robustness of recommendations made based on the NMA to potential biases in the evidence. Recent approaches proposed to do this include GRADE NMA and threshold analysis.

Objectives / Goal
We apply threshold analysis retrospectively to published NICE guidelines for headaches and social anxiety, and compare with GRADE NMA.

Methods
Threshold analysis derives thresholds to quantify how much the evidence could be adjusted for bias before the recommendation changes, and what the revised recommendation would be. GRADE NMA combines quality assessments for each piece of evidence into an overall judgement of confidence in the recommendation.

Results & Discussion
The quality of each piece of evidence is typically unrelated to its influence on the NMA results. In our examples, recommendations are only sensitive to plausible biases in a small proportion of the evidence. In larger networks with greater numbers of trials, recommendations are robust against almost any plausible biases.

Implications for guideline developers / users
Threshold analysis can give guideline developers more confidence in recommendations where thresholds are large and can highlight decision-sensitive studies and comparisons.

Conclusion
GRADE NMA assesses evidence quality, but does not account for the influence of evidence on the recommendation. Threshold analysis directly indicates the sensitivity to and impact of potential bias in each piece of evidence. This knowledge can be used to make better-informed recommendations.

OF003
ADAPTING GRADE FOR DIAGNOSTIC TEST ACCURACY STUDIES: LESSONS FROM THE 2018 NICE DEMENTIA GUIDELINE UPDATE

Grading evidence and recommendations
#OF003

M. Harrisingh, K. Hopkins, J. Pink
NICE - Manchester (United Kingdom)

Background & Introduction
GRADE (Grading of Recommendations Assessment, Development, and Evaluation) was designed to evaluate the quality of evidence for the effectiveness of interventions and to help develop clinical guidelines. However, other study types, such as diagnostic test accuracy studies (DTAs), need a different approach and while there has been some discussion in the literature[1], there is a shortage of detail about the best way to adapt GRADE for these studies.
[1] Schunemann AH, Oxman AD, Brozek J et al. 2008. GRADE: grading quality of evidence and strength of recommendations for diagnostic tests and strategies, BMJ 336, 1106-1110.

Objectives / Goal
This presentation will explain the approach taken by the NICE Guideline Updates Team to adapt GRADE for DTAs and why this approach was successful and could be used more widely in the future, using the 2018 update of the Dementia guideline as an example.

Methods
A modified GRADE process was carried out using likelihood ratios (LRs). Study level risk of bias and indirectness were assessed using QUADAS-2, and at the outcome level using the weighting of studies at moderate or high risk of bias/indirectness in the meta-analysis. Inconsistency was based on the i2 statistic and imprecision was based on whether confidence intervals crossed LRs corresponding to a small but important effect.

Results & Discussion
An example of the results from this review is shown in Table 1. The committee understood the evidence presented using the modified GRADE tables and made recommendations on the use of SPECT in the diagnosis of frontotemporal dementia.

Table 1. Example of modified GRADE table for diagnosing FTD versus non-FTD using 99mTc-HMPAO SPECT.

Review questions:

- What are the most effective methods of primary assessment to decide whether a person with suspected dementia should be referred to a dementia service?
- What are the most effective methods of diagnosing dementia and dementia subtypes in specialist dementia diagnostic services?

Studies	Sensitivity	Specificity	Measure*	Summary of findings (95%CI)	Risk of Bias	Inconsistency	Indirectness	Imprecision	Quality
Single camera									
3 studies	0.51 (0.20, 0.81)	0.93 (0.90, 0.95)	LR+	6.05 (2.77, 13.22)	Very serious[1]	Not serious	Not serious	Not serious	Low
			LR-	0.63 (0.40, 1.01)	Very serious[1]	Not serious	Not serious	Serious[4]	Very low
Multiple camera									
2 studies	0.74 (0.53, 0.88)	0.90 (0.53, 0.99)	LR+	7.88 (1.14, 54.71)	Serious[2]	Serious[3]	Not serious	Serious[5]	Very low
			LR-	0.30 (0.15, 0.59)	Serious[2]	Not serious	Not serious	Serious[4]	Low
All evidence pooled									
5 studies	0.59 (0.37, 0.78)	0.91 (0.84, 0.95)	LR+	7.03 (3.36, 13.10)	Very serious[1]	Not serious	Not serious	Not serious	Low
			LR-	0.46 (0.24, 0.69)	Very serious[1]	Serious[3]	Not serious	Serious[4]	Very low

Notes:

* LR= Likelihood ratio, LR- negative LR, LR+ positive LR

1. Greater than 33.3% of the weight in a meta-analysis came from studies at high risk of bias
2. Greater than 33.3% of the weight in a meta-analysis came from studies at moderate or high risk of bias
3. i^2 was greater than or equal to 50%
4. LR- 95% CI crossed 0.5.
5. LR+ 95% CI crossed 2.

OG001
COCHRANE AND MAGIC PARTNERSHIP: RESULTS FROM MUSCULOSKELETAL PILOT PROJECT ON ARTHROSCOPIC SURGERY FOR DEGENERATIVE KNEE DISEASE

Using technology to support uptake, implementation and evaluation #OG001

R. Buchbinder [1], D. O'connor [1], R. Johnston [1], R. Brignardello-Petersen [2], P. Vandvik [3], T. Agoritsas [4], S. Van De Velde [3], S. Phillips [5]

[1]Monash University (Australia), [2]McMaster University & Universidad de Chile (Canada), [3]MAGIC & Norwegian Institute of Public Health (Norway), [4]McMaster University & University of Geneva (Canada), [5]Therapeutic Guidelines Limited (Australia)

Background & Introduction
Cochrane Musculoskeletal (CM) and MAGIC are working on pilot projects to harmonise the flow from reviews to guidelines and decision support systems. Arthroscopic surgery for degenerative knee disease is a low-value treatment where large variation exists and research translation is urgently needed.

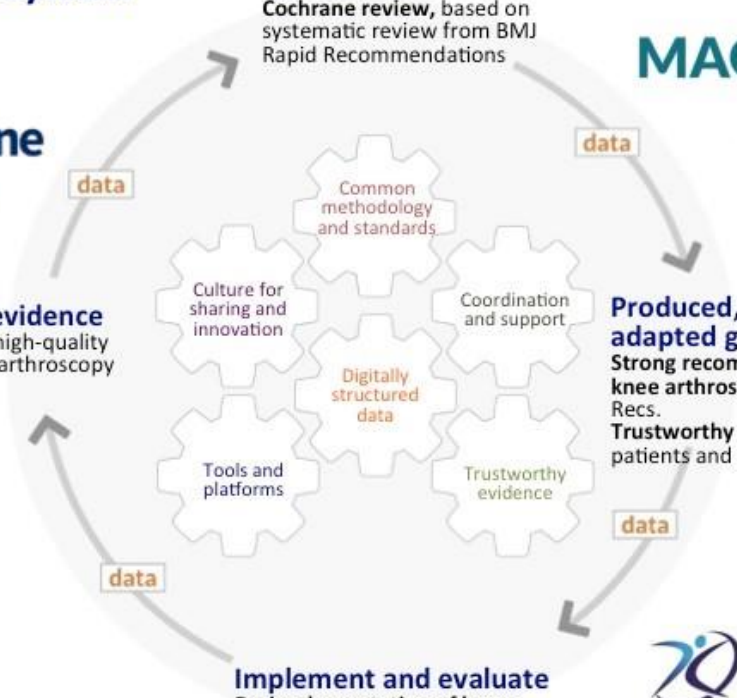
Objectives / Goal
To describe our experiences with a partnership pilot project on arthroscopic surgery for degenerative knee disease.

Methods
In 2017 CM contributed to a BMJ Rapid Recommendation (and BMJ Open Rapid Review) on knee arthroscopy for degenerative knee disease. A strong recommendation against the use of arthroscopy in nearly all patients with degenerative knee disease was made. The rapid review was recently converted to a Cochrane review incorporating new evidence. MAGICapp and SHARE-IT were used to create a decision aid to disseminate this evidence to consumers. The content of the decision aid was informed by qualitative interviews with consumers and health professionals about their information needs and preferences. The decision aid is being piloted with Australian consumers and clinicians. Methods to integrate it with Australian primary care EHR management software are being explored. The decision aid will be evaluated in a randomised trial in Australian primary care. Therapeutic Guidelines will update their guideline recommendation if needed.

Results & Discussion
We will present the results within the Evidence Ecosystem (Figure 1), including: barriers and facilitators for evidence synthesis, development of the decision aid, and plans for implementation and evaluation.

Conclusion
The Evidence Ecosystem for musculoskeletal conditions, as illustrated by this case study, provides opportunities for closing the loop between synthesised evidence and improved care.

Digital and Trustworthy Evidence Ecosystem



Synthesized evidence
Cochrane review, based on systematic review from BMJ Rapid Recommendations

Produced, disseminated and adapted guidance
Strong recommendation against knee arthroscopy from BMJ Rapid Recs.
Trustworthy decision aids for patients and clinicians

Implement and evaluate
De-implementation of knee-arthroscopy, using SHARE-IT decision aids in Australia linked to impact evaluation on practice and patient outcomes in dynamic registries, pragmatic trials etc.

Produced evidence
Relevant and high-quality trials on knee arthroscopy

Cochrane
RevMan 5
MAGIC app
Therapeutic Guidelines
ANZMUSC

OG002

A SERIES OF NUTRITIONAL RECOMMENDATIONS AND ACCESSIBLE EVIDENCE SUMMARIES COMPOSED OF SYSTEMATIC REVIEWS (NUTRIRECS)

Developing Recommendations
#OG002

B. Johnston [1], D. Zeraatkar [2], C. Valli [3], M. Rabassa [3], C. Marshall [4], A. Lyddiatt [5], R. El Dib [6], R. Vernooij [7], Y. Chang [2], M. Han [8], P. Vandvik [9], M. Bala [10], P. Alonso-Coello [11], G. Guyatt [2]

[1]Department of Community Health and Epidemiology, Faculty of Medicine, Dalhousie University, Halifax, Canada - Halifax (Canada), [2]Department of Health Research Methods, Evidence and Impact, McMaster University, Hamilton, Ontario, Canada - Hamilton (Canada), [3]Iberoamerican Cochrane Centre Barcelona, Biomedical Research Institute San Pau (IIB Sant Pau), Barcelona, Spain - Barcelona (Spain), [4]Cochrane Consumer Network, and Honorary Patron of the Guidelines International Network, Wellington, New Zealand - Wellington (New Zealand), [5]Cochrane Consumer Network and Stragey for Patient Oriented Research (SPOR), Canada - London (Canada), [6]Institute of Science and Technology, Unesp - Univ Estadual Paulista, São José dos Campos, Brazil - São José Dos Campos (Brazil), [7]Department of Research, Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht, The Netherlands - Utrecht (Netherlands), [8]Department of Preventive Medicine, College of Medicine, Chosun University, Republic of Korea - Gwangju (Korea, republic of), [9]Institute of Health and Society, Faculty of Medicine, University of Oslo, Oslo, Norway - Oslo (Norway), [10]Division of Epidemiology and Preventive Medicine, Department of Hygiene and Dietetics, Jagiellonian University Medical College, Krakow, Poland - Krakow (Poland), [11]CIBER de Epidemiología y Salud Pública (CIBERESP), Barcelona, Spain - Barcelona (Spain)

Background & Introduction

Many nutritional guidelines do not adhere to internationally recognized standards for trustworthy guidelines. Limitations of existing guidelines include inadequate handling of conflicts of interest, limited involvement of key stakeholders including consumers, limited high quality systematic reviews, and the endorsement of strong recommendations based on low quality evidence.

Objectives / Goal

To develop novel and trustworthy nutritional recommendations, setting an example other organizations involved in topic-related guideline development.

Methods

As a solution, we propose NutriRECS, an international team that will develop trustworthy nutrition recommendations. Rather than endorsement by an institution, we will independently publish in a top-tier journal. The BMJ Rapid Recommendations project has demonstrated the feasibility of this approach. Each NutriRECS project will be led by a steering committee, and a panel comprised of methodologists, consumers and nutrition experts, all with minimal conflicts of interest.

Results & Discussion

As an example of NutriRECS methods, we will present the development of a project on red meat and health outcomes, including the assembly and composition of the panel, engagement of consumers, the development of the research questions, as well as the integration of our systematic reviews on the health effects of red meat ingestion, and consumer values and preferences. For the latter, we will present de novo research we are conducting. We will also

present our plans to translate evidence using state-of-the-art user-friendly formats (i.e. MAGICapp).

Implications for guideline developers / users

NutriRECS represents a new independent model of developing trustworthy guideline having previously shown to be feasible.

Conclusion

NutriRECS will serve as a model for other topic-related organizations wishing to develop trustworthy, independent guideline recommendations.

OG003
RATING THE APPLICABILITY OF RANDOMIZED AND NON-RANDOMIZED STUDIES IN SYSTEMATIC REVIEWS ON THE EFFECTS OF INTERVENTIONS

Grading evidence and recommendations
#OG003

T. Devji [1], H. Schunemann [1], E. Akl [2], H. Munthe-Kaas [3], H. Nøkleby [3], J.J. Yepes-Nuñez [1], S. Schandelmaier [1], G. Guyatt [1]
[1]McMaster University - Hamilton (Canada), [2]American University of Beirut - Beirut (Lebanon), [3]Norwegian Institute of Public Health - Oslo (Norway)

BACKGROUND & INTRODUCTION
STUDIES INCLUDED IN A SYSTEMATIC REVIEW OFTEN VARY CONSIDERABLY IN POPULATION, INTERVENTION, COMPARATOR AND OUTCOME CHARACTERISTICS. THESE FACTORS CAN INFLUENCE CONFIDENCE IN THE EVIDENCE AS IT APPLIES TO A REVIEW OR GUIDELINE QUESTION. NO FORMAL INSTRUMENT CURRENTLY ADDRESSES THESE APPLICABILITY (DIRECTNESS) ISSUES.

OBJECTIVES / GOAL
WE HAVE DEVELOPED AN INSTRUMENT TO ADDRESS THE APPLICABILITY OF RESEARCH EVIDENCE FROM RANDOMIZED AND NON-RANDOMIZED STUDIES IN A SYSTEMATIC REVIEW OR GUIDELINE. THE INSTRUMENT WILL OPERATIONALIZE CRITERIA THAT LEAD TO RATING DOWN THE QUALITY OF EVIDENCE FOR INDIRECTNESS IN GRADE.

METHODS
WE CONDUCTED A SYSTEMATIC REVIEW TO IDENTIFY EXISTING APPLICABILITY CHECKLISTS OR INSTRUMENTS THAT SERVED AS THE BASIS FOR DEVELOPING INDIVIDUAL ITEMS FOR OUR INSTRUMENT. WE PRESENTED THE DRAFT INSTRUMENT TO AN EXPERT PANEL OF GRADE WORKING GROUP MEMBERS WHO PROVIDED FEEDBACK REGARDING CLARITY AND COMPREHENSIVENESS. WE REVISED THE INSTRUMENT ACCORDINGLY. WE ARE CURRENTLY CONDUCTING A PILOT STUDY WITH SYSTEMATIC REVIEWERS AND GUIDELINE DEVELOPERS TO INFORM THE FINAL INSTRUMENT AND AN ASSOCIATED GUIDANCE DOCUMENT.

RESULTS & DISCUSSION
THE INSTRUMENT ADDRESSES DOMAINS OF POPULATION, INTERVENTION, COMPARATOR AND OUTCOME APPLICABILITY ISSUES. EACH DOMAIN INCLUDES 3 SIGNALING QUESTIONS WITH RESPONSE OPTIONS: YES; PROBABLY YES; PROBABLY NO; NO, WORDED SO THAT A RESPONSE OF 'YES' INDICATES GREATER CERTAINTY IN APPLICABILITY. RESPONSES TO SIGNALING QUESTIONS PROVIDE THE BASIS FOR DOMAIN-LEVEL APPLICABILITY JUDGMENTS.

IMPLICATIONS FOR GUIDELINE DEVELOPERS / USERS
THE INSTRUMENT WILL PROVIDE A USEFUL STRUCTURE FOR USE SYSTEMATIC REVIEW AUTHORS AND GUIDELINES DEVELOPERS TO ADDRESS THE APPLICABILITY OF EVIDENCE TO THEIR INTENDED CONTEXT.

CONCLUSION
WE ANTICIPATE THAT GRADE DIRECTNESS WILL BE BETTER INFORMED BY THE SYSTEMATIC AND TRANSPARENT APPROACH OUR INSTRUMENT PROVIDES.

OH001
BENEFITS AND HARMS: INTERPRETING ADVERSE EVENTS IN A CLINICAL EVIDENCE REVIEW

Developing Recommendations
#OH001

K. Kelley, R. Boffa
National Guideline Centre/ RCP - London (United Kingdom)

Background & Introduction
Developing recommendations for guidelines requires guideline committees to consider and balance the relative benefits and harms of a treatment. This can be robustly done taking a modelling approach but with time constraints and the limitations of available data this is not always possible, so the question remains how do developers' best support committees to do this.

Objectives / Goal
To explore the impact of adverse effects data on the committee's decision making using the example of the NICE ADHD guideline (NG87).

Methods
The number of serious adverse events and discontinuation due to side effects were included in the outcomes in the effectiveness review and an additional review was completed on specific adverse effects of pharmacological treatments.

Results & Discussion
The results of the reviews were presented to the committee over several meetings and it was difficult to summarise the impact of the adverse effects and to support the committee in making sense of the data when considering the relative harms. Evidence on adverse events is usually of low quality compared to effectiveness evidence and the presentation and meaning of zero event data was challenging. The committee found it difficult to interpret the evidence on individual adverse events in the context of the clinical efficacy review and used this review to develop recommendations on monitoring treatment.

Conclusion
Adverse event data is difficult to analyse and it is challenging for guideline committees to understand when weighing up benefits and harms. It is important that guideline developers work on methods to support the committees to make full use of the evidence.

OH002
QUANTITATIVE BENEFIT HARM ASSESSMENT OF BLOOD PRESSURE TARGETS IN OLDER PEOPLE WITH HYPERTENSION AND MULTIPLE CHRONIC CONDITIONS

Systematic reviewing and evidence synthesis
#OH002

H.E. Aschmann [1], C.M. Boyd [2], C.W. Robbins [3], R.A. Mularski [4], W.V. Chan [5], O.C. Sheehan [2], R.F. Wilson [6], W.L. Bennett [7], E.A. Bayliss [8], T. Yu [9], B. Leff [2], K. Armacost [10], C. Glover [10], K. Maslow [10], S. Mintz [10], M.A. Puhan [1]

[1]University of Zurich, Epidemiology, Biostatistics and Prevention Institute - Zurich (Switzerland), [2]Johns Hopkins University, School of Medicine, Division of Geriatrics and Gerontology - Baltimore (United States of America), [3]Kaiser Permanente Care Management Institute, Center for Clinical Information Services - Denver (United States of America), [4]Kaiser Permanente Northwest, The Center for Health Research - Portland (United States of America), [5]Kaiser Permanente Northwest, National Guideline Program - Portland (United States of America), [6]Johns Hopkins University Bloomberg School of Public Health, Health Policy and Management - Baltimore (United States of America), [7]Johns Hopkins University, School of Medicine, Division of General Internal Medicine - Baltimore (United States of America), [8]Kaiser Permanente, Institute for Health Research - Denver (United States of America), [9]National Cheng Kung University, Department of Public Health College of Medicine - Tainan (Taiwan, republic of china), [10]Patient caregiver partners, Johns Hopkins University, Division of Geriatrics and Gerontology - Baltimore (United States of America)

Background & Introduction
Recent trials compared different systolic blood pressure (SBP) targets in different populations and showed potential benefits, but also potential harms associated with blood pressure targets lower than 140 mmHg. The benefit harm balance of SBP targets in people with multiple chronic conditions (MCC) may depend on age, gender and comorbidities, but has never been assessed quantitatively. Recommendations in guidelines for people with MCC differ.

Objectives / Goal
To perform a quantitative benefit harm assessment stratified for age, gender and comorbidities specifically for people with MCC, taking into account all outcomes that are considered relevant by people with MCC and caregivers.

Methods
We systematically searched for evidence and selected evidence for every subgroup optimizing applicability, validity, precision and consistency across outcomes and subgroups. We calculated the benefit harm balance using the Gail/National Cancer Institute approach using weights from a preference survey among people with MCC.

Results & Discussion
In almost all subgroups, the balance was preference-sensitive, i.e. depending on the individual preferences the balance could clearly favour the lower or the higher target. On average, for most subgroups without prior stroke, 120 mmHg is likely to have a better benefit harm balance than 140 mmHg, except in women aged 50-64 with chronic kidney disease (stage 3B or 4).

Implications for guideline developers / users
Shared decision making may often be more appropriate for preference-sensitive decisions than guideline recommendations. If recommendations are issued, they should be specific for subgroups of people according to baseline characteristics or preferences for whom the benefit harm balance is clear.

OH003
NICE GUIDELINES: MEASURING THE ENVIRONMENTAL IMPACT

Other
#OH003

S. Williams [1], C. Pace [1], X. Vaz [1], L. Coombs [1], S. Munawar [2], S. Matos [2], G. Leng [1]

[1]NICE - London (United Kingdom), [2]Nottingham University Business School - Nottingham (United Kingdom)

Background & Introduction
The UK government has committed to including sustainability in all it does and has set targets to reduce carbon emissions. From 2007 to 2015 the Health and Care Sector reduced its carbon footprint by 13% but is still responsible for 39% of UK public sector carbon dioxide emissions. National Institute for Health and Care Excellence (NICE) guidance may have an environmental impact and therefore assessing sustainability of recommendations is important.

Objectives / Goal
To develop a method for assessing the environmental impact of NICE guidance using the Medicines Optimisation guideline.

Methods
The University of Nottingham developed a preliminary method for assessing the environmental impact of NICE guidelines.
Building on this work, the environmental impact (greenhouse gases emission, fresh water use, waste production) was calculated for the Medicines Optimisation guideline.
An environmental impact calculator was developed to allow local organisations to determine the environmental impact of implementing the guidelines.

Results & Discussion
Implementing the guideline may reduce avoidable medicines-related admissions to hospitals, with potential environmental savings of:

- 0.5% of the annual carbon footprint of the health and social care system in England

- 179,133 million litres of fresh water

- 4.4% of the NHS annual waste

The calculator and report were sent to end-users to trial. They recognised the importance of the work but found the calculator time-intensive to use.

Implications for guideline developers / users
Ensuring sustainability in health and social care remains important. NICE is developing methods to include environmental sustainability within guideline shared decision aids for patients and clinicians.

OI001
PATIENT REPORTED OUTCOMES MONITORING TO ASSESS LONG TERM OUTCOMES IN LINE WITH NATIONAL GUIDANCE.

Patient and public involvement
#OI001

K. Withers [1], K. Wood [2], M. Lencioni [3], G. Plahe [4], M. Griffith [3], H. Patrick [4]
[1]CEDAR Healthcare Technology Research Centre - Cardiff (United Kingdom), [2]Emory University - Atlanta (United States of America), [3]University of Birmingham UK - Birmingham (United Kingdom), [4]NICE - London (United Kingdom)

Background & Introduction
NICE Guidances IPG427 and IPG168 encourage clinicians to gather observational data to develop the evidence base relating to appropriate patient selection and long term outcomes and document adverse events of cardiac ablation for arrhythmias.
With over 2 million people in the UK suffering arrhythmias they are a significant burden to the healthcare system and patients themselves. In 2015-2016 over 245,000 consultant episodes with a primary diagnosis of arrhythmias were recorded.

Objectives / Goal
The overall aim of ablation in patients with cardiac arrhythmias is to reduce or abolish arrhythmia related symptoms and improve quality of life (QoL). We used a validated disease-specific PROM tool to gather patient reported outcomes with a 1-year follow up.

Methods
This multicentre, prospective, observational cohort study, enrolled consecutive patients who had consented to a cardiac ablation procedure between March 2013 and August 2014. Patients completed PROMs pre and post ablation and data were analysed to identify changes in symptom occurrence and severity, frequency and duration of symptoms; expectations, and impact on life.

Results & Discussion
Patients undergoing cardiac ablation procedures showed an immediate improvement in QoL scores, severity scores and impact on life scores. Improvements, seen at 8-16 weeks following treatment were maintained at 1-year follow up. The majority of responders (238/306 77%) at 1 year felt that their expectations had been met following ablation.

Implications for guideline developers / users
These results illustrate how longitudinally collected PROMs data can monitor expectations, patient symptoms, QoL and satisfaction with treatment.

Conclusion
Further research should compare these outcomes with those for patients managed medically.

OI002
THE USE OF CORE OUTCOME SETS TO INFORM GUIDELINE DEVELOPMENT

Developing Recommendations
#OI002

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University of Liverpool - Liverpool (United Kingdom)

Background & Introduction
A core outcome set (COS) is an agreed minimum set of outcomes that should be measured/reported in all clinical trials in a specific condition. They are also suitable for use in research other than randomised trials, and increasingly for routine health care practice. The Core Outcomes for Effectiveness Trials (COMET) Initiative maintains a database of COS. Many organisations now actively endorse the use of COS and the COMET database, including the National Institute for Health and Care Excellence (NICE) (https://www.niceorg.uk/process/pmg20/chapter/developing-review-questions-and-planning-the-evidence-review).

Objectives / Goal
To demonstrate how the COMET database can help guideline developers, as well as describe the issues to consider when deciding whether a COS is applicable to a guideline in development. These include the scope of the COS in terms of health condition, target population and types of intervention [COMET Handbook V1.0], and methodological standards to help users decide if a COS has been developed using reasonable methods [COS-STAD).

Results & Discussion
It is important that relevant stakeholders are involved in the development of COS to ensure that COS appropriately reflect outcomes that are important to those groups, particularly patients and health care professionals. Guideline developers are now involved in the development of some COS. If COS also appropriately reflect outcomes that are important to guideline developers, this will result in more effective and efficient use of published research.

Implications for guideline developers / users
The use of COS in guidelines will ensure that outcomes important to patients and health care professionals are considered.

Conclusion
High quality COS can aid guideline developers in prioritising outcomes for inclusion in their guidelines.

OI003

INTERPRETATION OF PATIENT REPORTED OUTCOME MEASURES: AN INVENTORY OF OVER 3,000 MINIMALLY IMPORTANT DIFFERENCE ESTIMATES AND AN ASSESSMENT OF THEIR CREDIBILITY

Developing Recommendations
#OI003

A. Carrasco-Labra [1], T. Devji [1], A. Qasim [1], M. Phillips [1], N. Devasenapathy [2], D. Zeraatkar [1], M. Bhatt [1], X. Jin [3], R. Brignardello-Petersen [1], O. Urqhart [4], F. Faroutan [1], S. Schandelmaier [1], H. Pardo-Hernandez [5], R. Vernooij [1], W. Huang [6], Y. Rizwan [1], L. Lytvyn [1], R. Siemieniuk [1], B. Johnston [7], S. Ebrahim [1], T. Furukawa [8], D. Patrick [9], H. Schünemann [1], G. Nesrallah [10], G. Guyatt [1]

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Background & Introduction

The minimal important difference (MID), the smallest change in a patient-reported outcome measure that patients perceive as an important benefit or harm. No inventory of MIDs for PROMs is currently available, requiring clinicians and researchers to navigate a vast literature to retrieve a specific MID.

Objectives / Goal

To create an inventory of published anchor-based MIDs associated with PROMs and to determine their credibility

Methods

We searched MEDLINE, EMBASE, PsycINFO, and CINAHL for studies estimating anchor-based MIDs of PROMs. Teams of two reviewers independently screened citations, identified, and extracted relevant data. We collected information on study design, disease or condition, population demographics, and characteristics of the PROMs and anchor, and created and applied a new instrument to assess credibility of MIDs.

Results & Discussion

Of 5,656 citations retrieved for title and abstract screening, 1,716 were selected for full text screening of which 338 proved eligible. We summarized over 3,000 estimates, including MIDs for PROMs across different populations, conditions, and interventions, obtained using different anchors and statistical methods. Mean change methods and receiver operating characteristics curve analysis were the most common methods to estimate MIDs. MIDs were largely calculated using patient-reported, as opposed to proxy or clinician-reported anchors. Most studies failed to report the correlation between the anchor and the PROM.

Implications for guideline developers / users

Guideline panels will be able to interpret the mangitude of the benefit/harm from a PROMs using MIDs.

Conclusion

Our inventory of available MIDs in the medical literature and their credibility will be of great use for anyone using PROMs to inform healthcare decisions, including guideline developers and clinicians.

0J001
REFRESHING GUIDELINES: CHANGING GUIDELINE RECOMMENDATIONS OUTSIDE OF AN UPDATE PROCESS

Updating guidelines
#0J001

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Background & Introduction
Guideline surveillance is undertaken by NICE, aiming to identify recommendations that are no longer current. However, on occasion there is a need to 'refresh' the guideline to factually correct and improve the usability of recommendations without changing the intent and without the need for an evidence review.

Objectives / Goal
To define what constitutes a refresh of a guideline and illustrate how this differs from an update.

Methods
Examples of changes to guidelines identified through surveillance were collated and themed. A spectrum of change was created to illustrate the minor through to major changes that could be made to guideline recommendations. This was discussed with methodologists and editors within NICE to agree the distinction between a refresh and an update to a guideline.

Results & Discussion
Refreshes identified through surveillance generally consist of:
1. Amending recommendations to bring them in line with NICE's current policy on wording without affecting the meaning.
2. Amending / adding cross referrals or hyperlinks.
3. Amending / adding footnotes.
4. Amending / adding recommendations (without an evidence review).

Any change to a recommendation that requires an evidence review is considered an update and outside of the refresh process. Refreshes are identified through surveillance and approved by NICE's Guidance Executive. The refreshes are actioned by the editorial team.

Implications for guideline developers / users
Refreshing guidelines frees up resources to invest in evidence reviews and formal updates.

Conclusion
The definition of a refresh and the distinction between refreshing and updating guidelines enables NICE to factually correct and improve the usability of recommendations without undertaking a lengthy resource intensive update process.

OJ002
GUIDELINE PROFILING: ARE THERE ANY ASSOCIATIONS BETWEEN GUIDELINE CHARACTERISTICS AND A DECISION TO UPDATE?

Updating guidelines
#OJ002

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NICE - Manchester (United Kingdom)

Background & Introduction
NICE guidelines include recommendations based on the best available evidence. The age of a guideline can be an indicator of whether recommendations may be out of date. However, it is currently unknown whether other baseline characteristics of guidelines can predict the currency of guidelines.

Objectives / Goal
This study aims to identify the characteristics of individual guidelines to create profiles and determine whether particular guideline profiles are associated with a need to update.

Methods
Logistic regression analysis will be used to estimate the relationship between the predictor characteristics and outcomes whilst controlling for the age of the guideline. Characteristics to be investigated include:
- Type (Clinical/Public Health/Social Care/Medicines Practice)
- Topic area (conditions/populations/settings)
- Type of recommendations (diagnostic/prognostic/intervention)
- New or updated guideline
- Number of previous surveillance reviews and updates
- Number of research recommendations
- Number of other NICE guidelines published within topic area
- NICE manual version used to develop guideline
- Number of issues on guideline issue log
- Static list status

It is proposed that certain guideline profiles are more strongly associated with a decision to update. A weighted scale indicating the likelihood (low, medium, high) of a ‘yes to update’ decision will be derived from these profiles.

Results & Discussion
Results will include the final regression model containing the significant predictors of a ‘yes to update’ decision and discussion of applying the findings to the surveillance review process.

Implications for guideline developers / users
The data on guideline profiles and their association with update decisions can be used to prioritise surveillance reviews and plan guideline updates.

OJ003
THE SCOPING OF UPDATED GUIDELINES: NICE'S EXPERIENCE OF TRANSLATING A SURVEILLANCE DECISION INTO A FINAL SCOPE

Scoping
#OJ003

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National Institute for Health and Care Excellence - London (United Kingdom)

Background & Introduction
The majority of NICE's guideline work is now updating. NICE's surveillance programme regularly checks guidelines to assess for updates. Following the surveillance review, identifying key areas for update, the scope builds on this to inform the update. Scoping of updates can present a number of challenges.

Objectives / Goal
To describe NICE's experience of scoping partial and full updates of guidelines and lessons learnt.

Methods
The scoping process includes eliciting the views of early recruited guideline committee members, reviewing newly published evidence and consultation. Following the surveillance report, the scope further develops the areas where updates are required, defining the populations and settings and the key issues that will be covered by the update. For partial guideline updates it also describes which recommendations in the original guidelines will be updated.

Results & Discussion
The scope of a guideline update needs to identify the key areas which require updating as well as identifying additional areas not included in the original guideline. The scope also needs to consider many other issues, including the impact of updating individual recommendations on other recommendations in the guideline and the currency of methods used to develop the original guideline. This ensures that the scope leads to a successful and consistent update. Scoping of updates also presents an opportunity to identify issues for future surveillance reviews.

Implications for guideline developers / users
Whilst the scoping of guideline updates can present challenges, NICE's thorough and transparent approach successfully works to overcome these.

Conclusion
The scoping stage of guideline updates is essential, building on the surveillance review to ensure high quality guideline updates.

OK001
INCLUDING THE PATIENT/PUBLIC PERSPECTIVE: WHAT IS WORKING AND WHAT IS NOT?

Patient and public involvement
#OK001

L. Haskell
ECRI Institute - Plymouth Meeting (United States of America)

Background & Introduction
In 2011, the Institute of Medicine (IOM) included patient/public participation as one standard for determining a clinical practice guideline's trustworthiness. Seven years later, little is known about the extent to which guidelines have incorporated patient viewpoints.

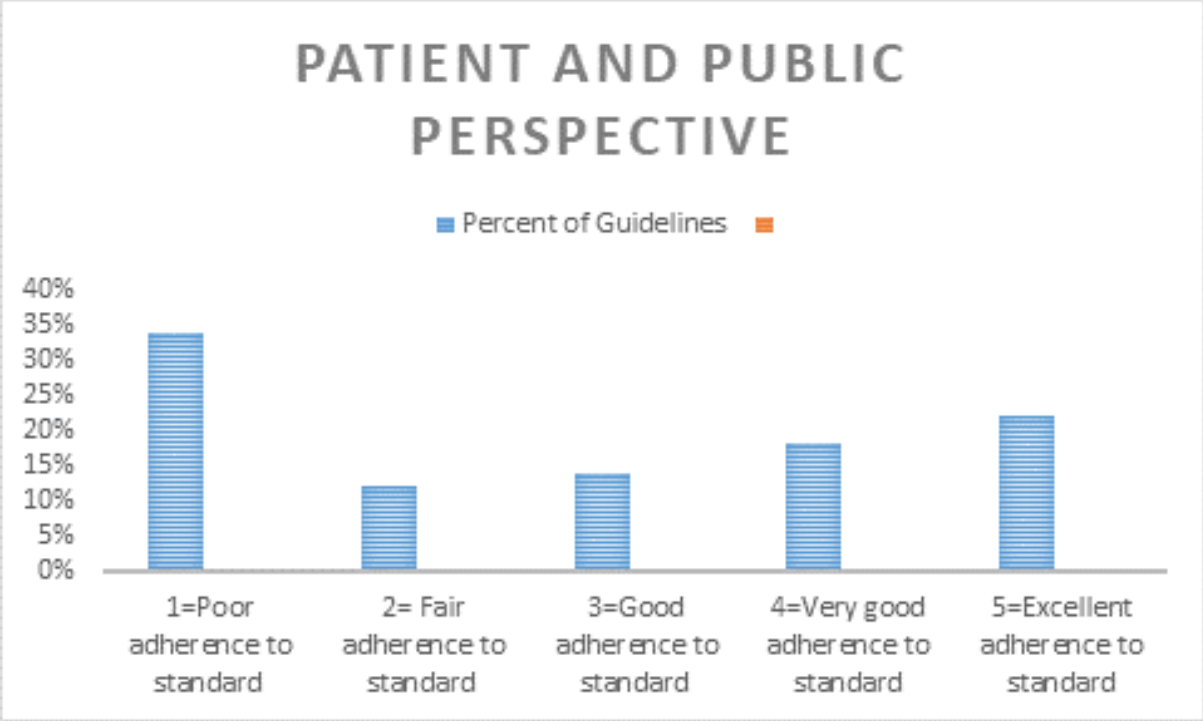
Objectives / Goal
Present an overview of how well clinical practice guidelines are fulfilling the IOM standard for patient/public perspectives. Guidelines doing the best job incorporating patient input will be examined to identify their processes.

Methods
Over 150 recently published clinical practice guidelines covering different medical topics will be scored on a scale from 1-5 indicating how well they include patient perspectives and the results compared. Guidelines scoring 5/5 for this standard will be evaluated to examine their processes. In addition, averaged scores for this IOM standard will be compared to averages for other IOM standards (e.g., synthesis of evidence).

Results & Discussion
Review of over 150 clinical practice guidelines represented on the National Guideline Clearinghouse (NGC) shows overall poor adherence to this IOM standard. However, in those guidelines that had excellent adherence, defined processes for gathering and incorporating patient perspectives were identified. Exact data on the results will be presented at the meeting. Guidelines for which patient input may not be applicable will also be examined.

Implications for guideline developers / users
Developers will benefit from considering how best to incorporate patient perspectives, resulting in clinical practice guidelines that more closely adhere to the IOM standards.

Conclusion
Inclusion of patient perspectives continues to challenge guideline developers indicating that some developers could use assistance to incorporate this standard in their CPG process.


PATIENT AND PUBLIC PERSPECTIVE
Percent of Guidelines
40%
35%
30%
25%
20%
15%
10%
5%
0%
1=Poor adherence to standard
2= Fair adherence to standard
3=Good adherence to standard
4=Very good adherence to standard
5=Excellent adherence to standard

OK002
THE INVOLVED STUDY: INVESTIGATING LAY MEMBERS' VIEWS IN GUIDELINE DEVELOPMENT

Patient and public involvement
#OK002

A.M. Biggane [1], B. Young [1], E. Whittingham [2], T. Tan [3], N. Taske [4], P.R. Williamson [1], J. Cooper [5]
[1]University of Liverpool - Liverpool (United Kingdom), [2]National Institute for Health and Care Excellence - Manchester (United Kingdom), [3]National Institute of Health and Care Excellence - Manchester (United Kingdom), [4]National Institute of Health and Care Excellence - London (United Kingdom), [5]City, University of London - London (United Kingdom)

Background & Introduction
In recent years, proponents of clinical guidelines have argued that their development is strengthened by involving relevant stakeholders. The inclusion of lay people, such as patients, carers and members of the public, is becoming increasingly common in the production of clinical guidelines. The National Institute of Health and Care Excellence (NICE) guideline development committees now include at least two lay members within this process. While social scientists have examined the processes of guideline development and implementation, little is known about lay member participation in these developments.

Objectives / Goal
This paper reports on an ethnographic study which aims to explore how lay members influence the development of clinical guidelines at NICE.

Methods
The study is using an ethnographic methodology, involving the use of observations and semi-structured interview methods. Non-participant observations are currently being conducted during 26 committee meetings for two clinical guidelines (prostate cancer and parenteral neonatal nutrition) to examine lay members' involvement in the guideline development process. Up to 15 in-depth interviews will be conducted with committee members of ongoing guidelines. The data will be analysed thematically.

Results & Discussion
Initial findings from 11 meetings attended to date point to the language used and the technical nature of the guidelines as potential constraints to meaningful lay member influence in guideline development.

Implications for guideline developers / users
The findings will inform guidance on how to ensure lay members are given due consideration.

OK003
ENGAGING PATIENTS AND CAREGIVERS MANAGING RARE DISEASES TO IMPROVE THE METHODS OF CLINICAL GUIDELINE DEVELOPMENT

Patient and public involvement
#OK003

D. Khodyakov [1], S. Grant [1], B. Denger [2], K. Kinnett [2], A. Martin [2], C. Armstrong [1], I. Coulter [1]
[1]RAND, [2]PPMD

Background & Introduction
There is a growing interest in developing methods for engaging patients and caregivers in the guideline development process (GDP). Such methods should be consistent with the way clinicians are engaged, accommodate large and diverse groups, be non-burdensome and convenient, maximize participants' unique expertise, be systematic, replicable, and scalable.

Objectives / Goal
We developed and tested a new online approach for including patients and caregivers in the GDP using Duchenne muscular dystrophy (DMD) as an example. The new method mirrors and complements the RAND/UCLA Appropriateness Method, which was used by the CDC to develop and update the DMD guidelines.

Methods
We conducted two concurrently run patient/caregiver panels (n~120). Participants in our three-round modified-Delphi process rated patient-centeredness (i.e., importance and acceptability) of DMD endocrine care management recommendations. They answered satisfaction questions and questions about the usefulness of the online method; some were interviewed about their experiences.

Results & Discussion
Participants had positive experiences, citing that the online platform was convenient to access and use, the rating scales were clear, and they were comfortable sharing their views during online discussions. Participants commented positively about the online engagement, emphasizing the communal aspect of the process and stressing the effectiveness of relaying important information about patient-centeredness to other families and medical professionals. Participants considered this method to be useful for DMD families who are not yet as engaged and thought that the study results can facilitate joint decision-making during the patient-provider encounter.

Conclusion
Our findings indicate the potential utility of scalable, online methods for directly engaging patients and caregivers in the GDP.

OL001
FACILITATING FORMAL DECISION-MAKING WHEN FOLLOWING THE ADAPTE FRAMEWORK: A MODIFIED-DELPHI APPROACH TO CLASSIFY RISK IN PREGNANCY

Adapting Guidelines
#OL001

B. Tyner [1], M. O'neill [2], K. Jordan [3], B. Clyne [4], S. Smith [5], M. Ryan [3], K. Power [6]
[1]HRB CICER and Trinity College Dublin - Cork (Ireland), [2]HRB CICER - Cork (Ireland), [3]HIQA - Dublin (Ireland), [4]HRB CICER - Dublin (Ireland), [5]HRB Centre for Primary Care Research and Royal College of Surgeons - Dublin (Ireland), [6]Coombe Women and Infants University Hospital - Dublin (Ireland)

Background & Introduction
To support the Irish National Maternity Strategy, a national clinical guideline (CG) for classifying pregnancy according to risk was prioritised. Following a systematic review, three CGs were identified as high-quality (AGREE ll), included risk factors indicating additional care, and were suitable for adapting according to the ADAPTE framework.

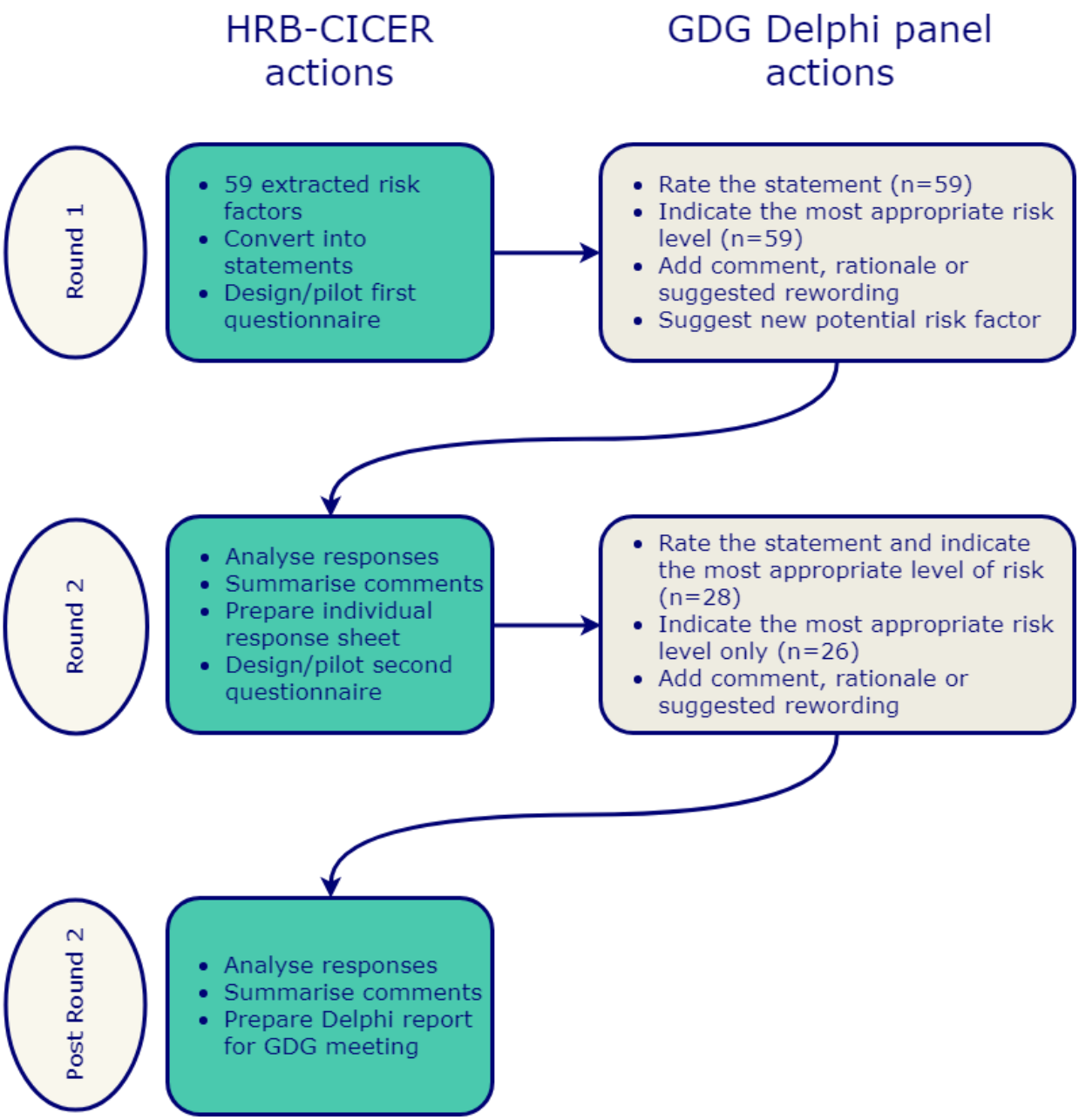
Objectives / Goal
To facilitate formal consensus, amongst the guideline development group (GDG) members, on both risk factors suitable for adaptation as indicators of risk in pregnancy and the categorisation of appropriate levels of care for these pregnancy risk groups.

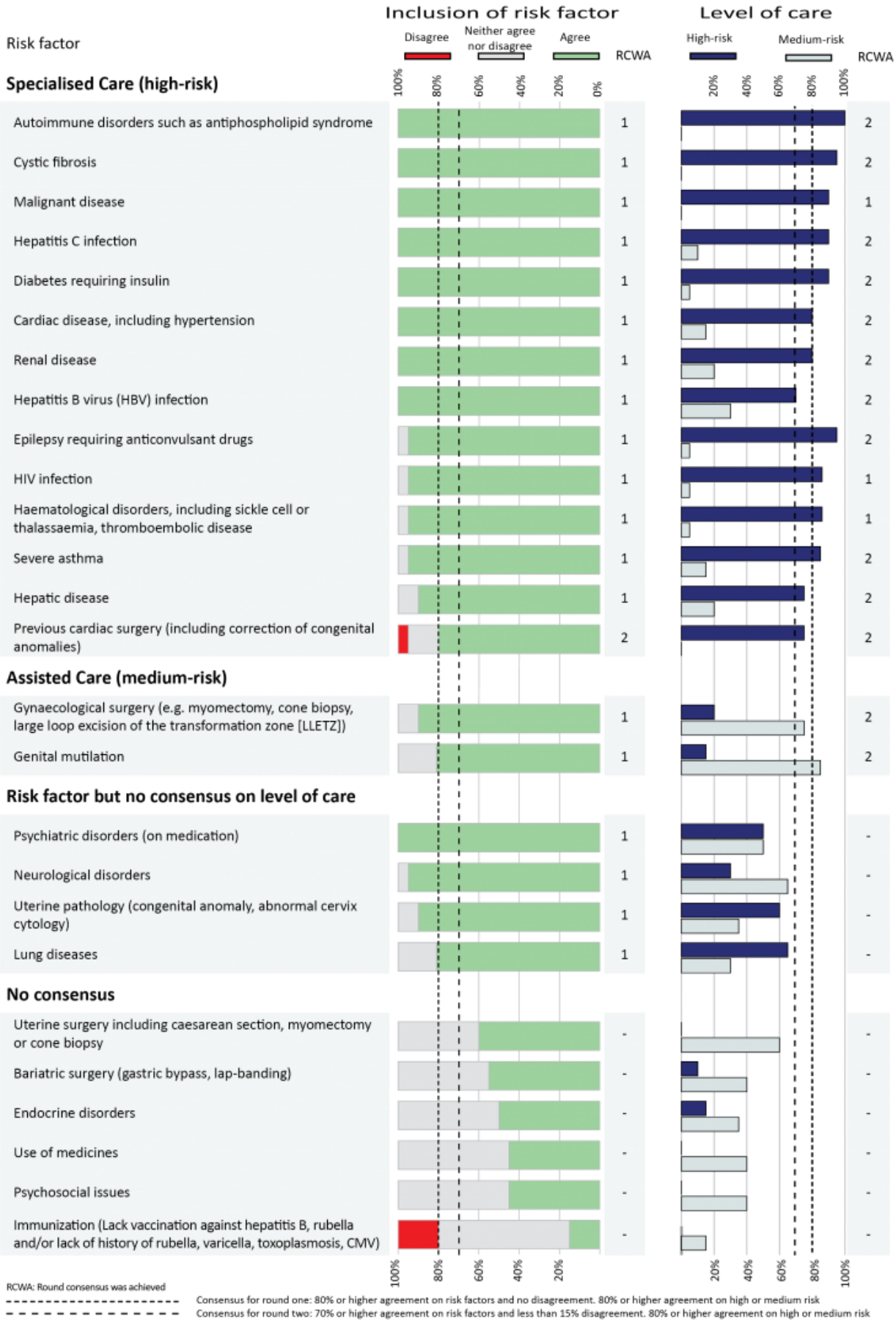
Methods
A modified-Delphi approach was chosen as a robust methodology for achieving rigorous consensus within a multidisciplinary group. GDG members had the opportunity to contribute three inputs (level of agreement on risk factor; appropriate risk level; and submit a comment/suggest a new risk factor/rewording) for 59 risk factors identified in the three CGs. A study protocol was developed and consensus defined as 80% agreement using 5-point Likert scale in round 1 and 70% using 9-point scale in round 2 of the Delphi process.

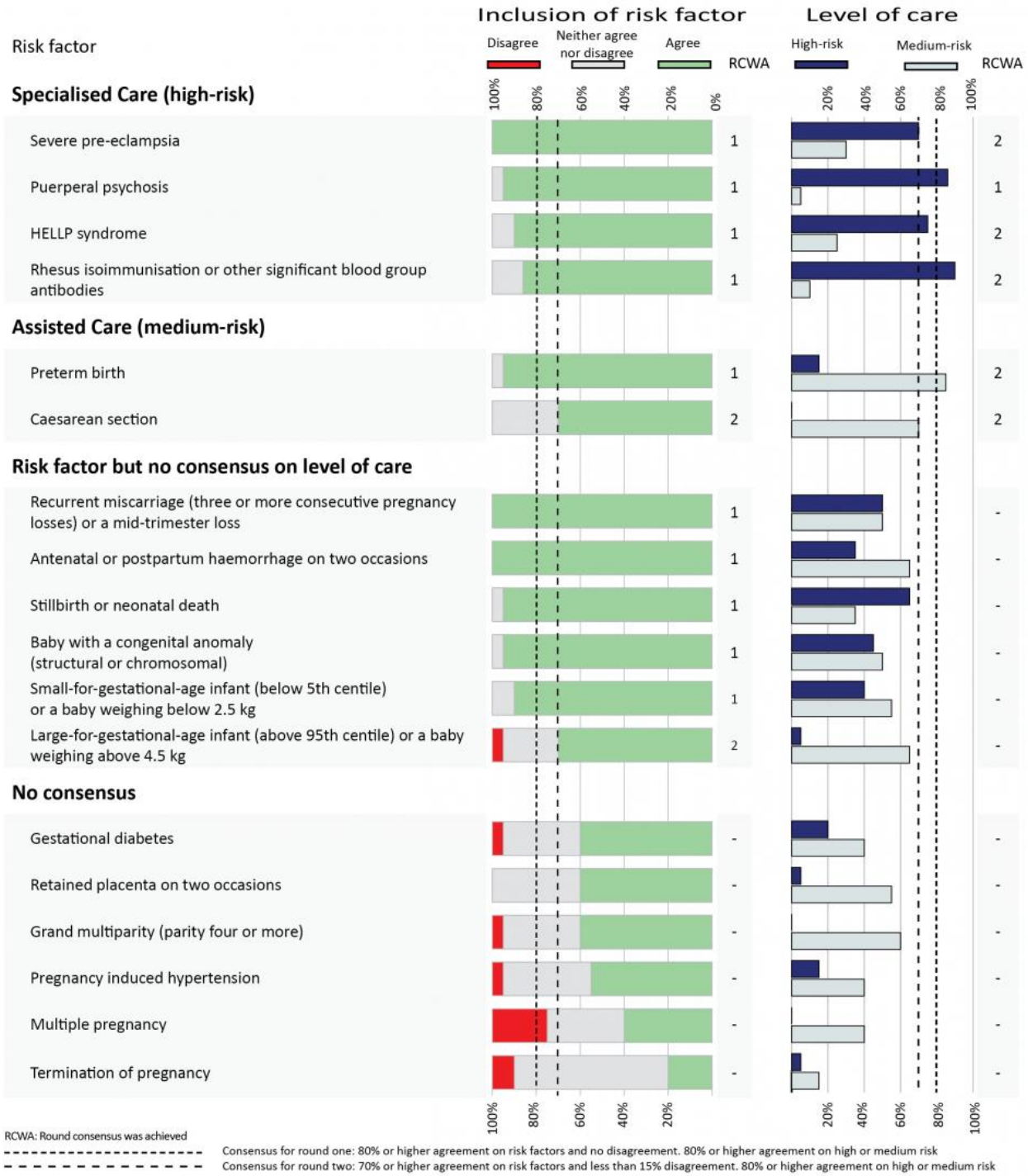
Results & Discussion
Nineteen risk factors achieved consensus as criteria for high-risk, five for medium-risk and 12 for inclusion as risk factors but no consensus was reached on appropriate risk level. Twenty-three did not achieve consensus.

Implications for guideline developers / users
A modified-Delphi approach offers GDGs an expeditious, transparent and rigorous method for documenting and reporting formal consensus on a large number of questions, while fostering cross-disciplinary communication between a wide range of experts.

Description of the best practice
CREDE reporting guidelines were followed. Informed by systematic review of existing CGs using the AGREE ll tool.


HRB-CICER actions
GDG Delphi panel actions
Round 1
59 extracted risk factors
Convert into statements
Design/pilot first questionnaire
Rate the statement (n=59)
Indicate the most appropriate risk level (n=59)
Add comment, rationale or suggested rewording
Suggest new potential risk factor
Round 2
Analyse responses
Summarise comments
Prepare individual response sheet
Design/pilot second questionnaire
Rate the statement and indicate the most appropriate level of risk (n=28)
Indicate the most appropriate risk level only (n=26)
Add comment, rationale or suggested rewording
Post Round 2
Analyse responses
Summarise comments
Prepare Delphi report for GDG meeting


Inclusion of risk factor
Level of care
Risk factor
Disagree
Neither agree nor disagree
Agree
RCWA
High-risk
Medium-risk
RCWA
100%
80%
60%
40%
20%
0%
Specialised Care (high-risk)
Autoimmune disorders such as antiphospholipid syndrome
Cystic fibrosis
Malignant disease
Hepatitis C infection
Diabetes requiring insulin
Cardiac disease, including hypertension
Renal disease
Hepatitis B virus (HBV) infection
Epilepsy requiring anticonvulsant drugs
HIV infection
Haematological disorders, including sickle cell or thalassaemia, thromboembolic disease
Severe asthma
Hepatic disease
Previous cardiac surgery (including correction of congenital anomalies)
Assisted Care (medium-risk)
Gynaecological surgery (e.g. myomectomy, cone biopsy, large loop excision of the transformation zone [LLETZ])
Genital mutilation
Risk factor but no consensus on level of care
Psychiatric disorders (on medication)
Neurological disorders
Uterine pathology (congenital anomaly, abnormal cervix cytology)
Lung diseases
No consensus
Uterine surgery including caesarean section, myomectomy or cone biopsy
Bariatric surgery (gastric bypass, lap-banding)
Endocrine disorders
Use of medicines
Psychosocial issues
Immunization (Lack vaccination against hepatitis B, rubella and/or lack of history of rubella, varicella, toxoplasmosis, CMV)
RCWA: Round consensus was achieved
Consensus for round one: 80% or higher agreement on risk factors and no disagreement. 80% or higher agreement on high or medium risk
Consensus for round two: 70% or higher agreement on risk factors and less than 15% disagreement. 80% or higher agreement on high or medium risk



RCWA: Round consensus was achieved

Consensus for round one: 80% or higher agreement on risk factors and no disagreement. 80% or higher agreement on high or medium risk

Consensus for round two: 70% or higher agreement on risk factors and less than 15% disagreement. 80% or higher agreement on high or medium risk

OL002
DEVELOPING REGISTRY-ENABLED QUALITY MEASURES FROM GUIDELINES FOR CERUMEN IMPACTION AND ALLERGIC RHINITIS USING A TRANSPARENT AND SYSTEMATIC PROCESS

Adapting Guidelines
#OL002

J. Michel [1], A. Tsou [1], E. Erinoff [1], D. Dawson [2], J. Denneny [3], S. Schwartz [4], R. Rosenfeld [5]
[1]ECRI Institute - Plymouth Meeting (United States of America), [2]Private Practice - Muscatine (United States of America), [3]American Academy of Otolaryngology - Head and Neck Surgery Foundation - Alexandria (United States of America), [4]Virginia Mason Medical Center - Seattle (United States of America), [5]State University of New York Downstate Medical Center - Brooklyn (United States of America)

Background & Introduction
Quality measures derived from evidence-based guidelines can improve care, but capturing data can be challenging and unexplained clinically relevant differences may appear during adaptation. A systematic process for adapting guidelines into a clinical registry could reduce unexplained measure differences and the burden of data collection.

Objectives / Goal
Adapt recommendations from two evidence-based guidelines published by the American-Academy of Otolaryngology-Head and Neck Surgery Foundation (AAO-HNSF) into registry-enabled quality measures using a transparent and systematic process.

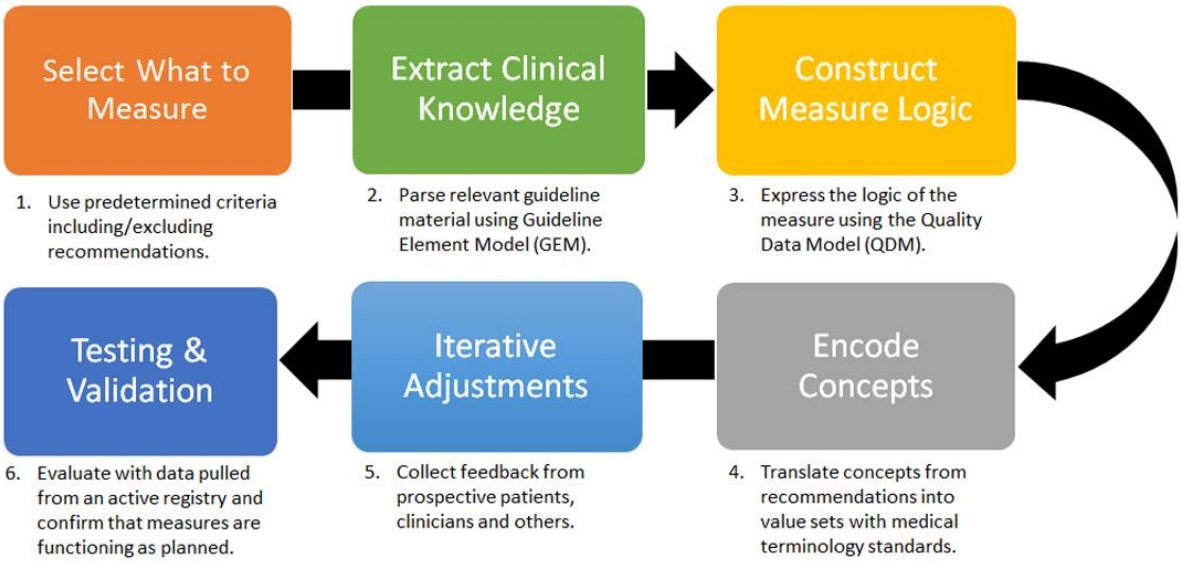
Methods
We used a stepwise process to select high impact, encodable recommendations from the source guidelines, extract recommendations into the Guideline Elements Model, and translate recommendations into measures using the Quality Data Model (Figures 1 & 2). Clinical concepts were encoded using standardized medical terminology. Draft measures were refined through an iterative process involving subject matter experts, registry representatives, clinical informaticists, and public comment. Final measures were inserted into the qualified clinical data registry, which maps data from electronic health records to the quality measures.

Results & Discussion
Of the 29 overall guideline recommendations, we excluded 18 because of complicated logic, weak recommendation strength, and difficulty expressing concepts with clinical terminology standards. From the 11 remaining recommendations, we authored 14 potential quality measures, of which 7 were retained after group discussion and public comment. These measures were embedded within the AAO-HNSF registry for initial validation testing.

Implications for guideline developers / users
Developing high quality, registry enabled measures from guidelines using a rigorous, reproducible process is feasible.

Conclusion
We translated guideline recommendations into registry-enabled measures using a systematic approach. This process can facilitate measure development and data collection.

Figure 1. Process Map for Guideline Adaption into Registry-Enabled Quality Measures



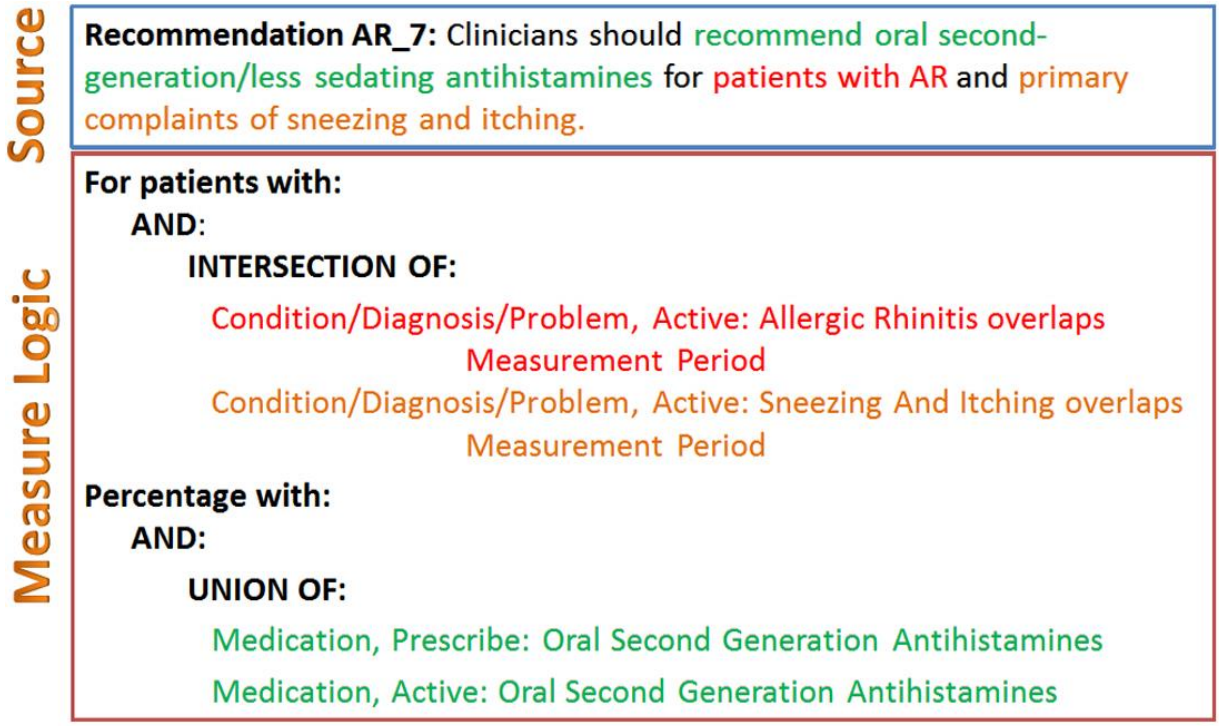


Figure 2. Demonstration of transparent measure development with links between clinical concepts from the source guideline recommendation to the finished quality measure.

OL003
DEFINING THRESHOLDS FOR NORMALITY IN A NICE CLINICAL GUIDELINE CONTEXT: APPROACHES AND APPLICABILITY

Adapting Guidelines
#OL003

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National Guideline Alliance, Royal College of Obstetricians and Gynaecologists - London NW1 4RG, UK (United Kingdom)

Background & Introduction
Clinical guidelines (CGs) recommend how healthcare professionals (HCPs) should care for people with a usually well-defined condition. Operational definitions of health conditions are needed for evaluation, research and optimization of interventions. However, some conditions are complex and multifactorial, therefore CGs are not always based on a widely standardised and well-defined health disorder.

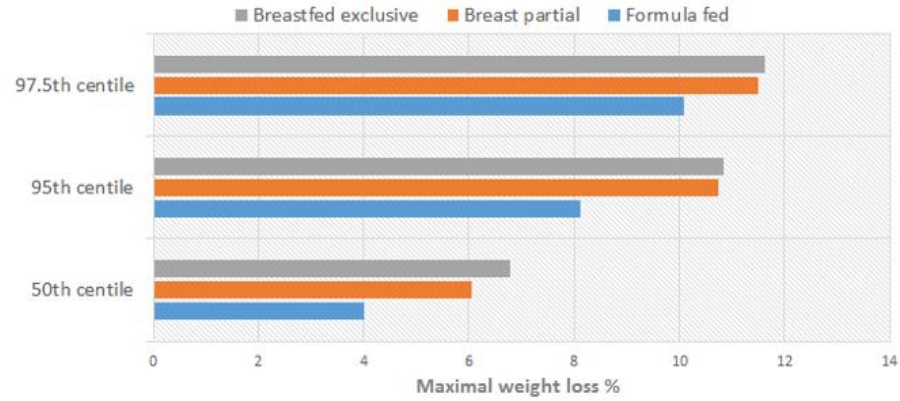
Objectives / Goal
To define normal weight loss in healthy term neonates and thresholds for intervention using an example from a recently published NICE clinical guideline.

Methods
A systematic review was conducted and key information about maximum weight loss was extracted.

Results & Discussion
Seven cohort and 2 population-based cohort studies were identified reporting the timing, variation and maximal weight loss of 171, 562 neonates. Based on the best available evidence, it was concluded that weight loss of up to 10% of birthweight is common in the early days of life, regardless of feeding type, and that birthweight is usually regained before 3 weeks of age as feeding is established. By defining normal thresholds of weight loss, it is possible to identify those neonates who will and will not benefit of further care and family support.

Implications for guideline developers / users
Defining thresholds for normality is unusual in CGs. Most health conditions are well-defined and clinical decision thresholds are usually specified using evidence about the downstream harms and benefits of the decision. However, with complex conditions, defining these thresholds can facilitate treatment approaches and reduce the anxiety of parents.

Conclusion
A clinical question about ‘normality’ can be informative in CGs, particularly in loosely defined conditions.



	50th centile	95th centile	97.5th centile
Breastfed exclusive	6.79	10.85	11.63
Breast partial	6.04	10.74	11.51
Formula fed	4	8.11	10.08

OM001
IMPLEMENTING A MAMMOGRAPHY DECISION AID FOR WOMEN AGES 40-49 IN A PRIMARY CARE SETTING: A PILOT STUDY

Implementation and quality improvement (including indicators) #OM001

E. Liles
Kaiser Permanente Center for Health Research - Portland (United States of America)

Background & Introduction
The U.S. Preventive Services Task Force recommends that 40-49-year-old women make individual decisions about mammography screening. In August 2017, Kaiser Permanente Northwest released a decision aid for discussing mammography during a primary care office visit. The aid estimates individual benefit and risk, and then compares these in an icon-array illustration.

Objectives / Goal
To understand whether a decision aid improved women's knowledge of screening mammography and to assess providers' views about its usefulness.

Methods
We surveyed a group of women 40-49 with whom 9 providers had discussed screening mammography before the decision aid was released; we also surveyed women with whom the same PCPs discussed screening mammography when using the decision aid. An e-mailed survey asked about knowledge of mammography benefits and risks and other topics. We held two focus groups with primary care providers, before and after implementation.

Results & Discussion
25 patients completed pre-implementation surveys; 18 completed post-implementation surveys. Between groups, there was no difference in education, and there was no significant difference in proportion of women with "adequate" knowledge of mammography; fewer than 5% had adequate knowledge. In both groups, most respondents could not distinguish between false positives and over-detection. Providers felt the aid was helpful, but often did not have time to open it. They expressed concern that radiologists' approach to mammography conflicted with the decision aid.

Implications for guideline developers / users
Ensuring consistent messaging across a health system could improve decision aid effectiveness.

Conclusion
This pilot study found no improvement in knowledge of mammography screening risks and benefits among 40-49-year-old women using a decision aid.

OM002
DISSEMINATION OF GUIDELINE-BASED CLINICAL DECISION SUPPORT THROUGH AN INNOVATIVE ONLINE CLINICAL DECISION SUPPORT REPOSITORY

Using technology to support uptake, implementation and evaluation #OM002

J. Michel
ECRI Institute - Plymouth Meeting (United States of America)

Background & Introduction
Guidelines are often a source for clinical decision support (CDS), but CDS is difficult to share between institutions. Consequently, multiple institutions develop CDS from a guideline, with differences in interpretation resulting in unintended variations. Recently, CDS Connect was launched to facilitate sharing but it is untested for sharing actively used guideline-based CDS.

Objectives / Goal
Disseminate guideline-based CDS through CDS Connect.

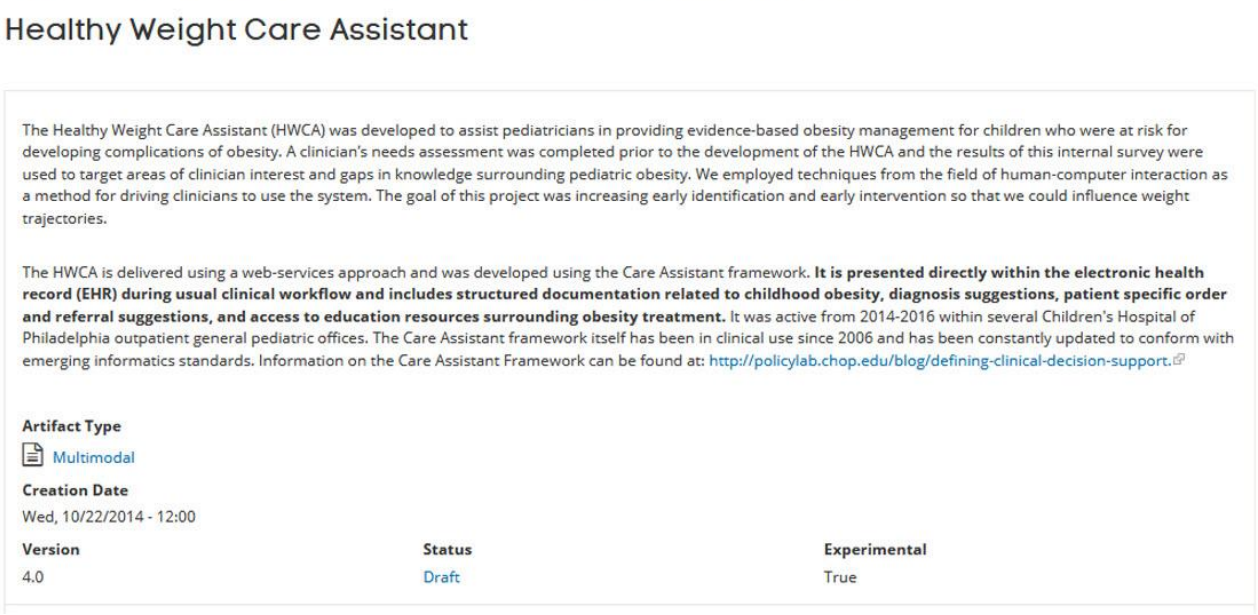
Methods
CDS artifacts developed from guidelines were selected for upload. We collected required artifact meta-data including the assessment of the evidence, pilot experience, and considerations for future users. We compiled the executable files into a downloadable file to facilitate sharing. We authored instructions for future users seeking to implement the artifact. We counted page views the first month after release.

Results & Discussion
Two guideline-based CDS artifacts were uploaded to CDS Connect, one too recently to collect data. The first artifact has been viewed 114 times, with 9 source-code downloads (Figure 1). Each artifact contained an evidence summary detailing the source guidelines, quality of evidence, strength of recommendations, and decisions made while adapting the evidence into CDS. The CDS Connect team supported the upload process by providing quality control.

Implications for guideline developers / users
Guideline developers should consider dissemination of CDS artifacts based on their guidelines using this or similar mechanisms. Guideline users could leverage published artifacts to identify existing logic, find collaborators, and build upon one another’s work.

Conclusion
Guideline-based CDS artifacts were uploaded into the CDS Connect online repository. A description of evidence sources was supported during the upload. Artifacts are publically available and point directly to their source guidelines.

Figure 1. The Healthy Weight Care Assistant as Presented on CDS Connect



Healthy Weight Care Assistant

The Healthy Weight Care Assistant (HWCA) was developed to assist pediatricians in providing evidence-based obesity management for children who were at risk for developing complications of obesity. A clinician's needs assessment was completed prior to the development of the HWCA and the results of this internal survey were used to target areas of clinician interest and gaps in knowledge surrounding pediatric obesity. We employed techniques from the field of human-computer interaction as a method for driving clinicians to use the system. The goal of this project was increasing early identification and early intervention so that we could influence weight trajectories.

The HWCA is delivered using a web-services approach and was developed using the Care Assistant framework. **It is presented directly within the electronic health record (EHR) during usual clinical workflow and includes structured documentation related to childhood obesity, diagnosis suggestions, patient specific order and referral suggestions, and access to education resources surrounding obesity treatment.** It was active from 2014-2016 within several Children's Hospital of Philadelphia outpatient general pediatric offices. The Care Assistant framework itself has been in clinical use since 2006 and has been constantly updated to conform with emerging informatics standards. Information on the Care Assistant Framework can be found at: http://policylab.chop.edu/blog/defining-clinical-decision-support.

Artifact Type

Multimodal

Creation Date

Wed, 10/22/2014 - 12:00

Version	Status	Experimental
4.0	Draft	True

OM003

IDEASTM: CREATING GUIDELINE-BASED INTERACTIVE PATIENT DECISION AIDS TO PROVIDE TAILORED RECOMMENDATIONS

Using technology to support uptake, implementation and evaluation #OM003

Y. Zhang [1], G.P. Morgano [1], A. Darzi [1], D. Plutecka [2], C. Helen [2], E. Akl [3], S. Nancy [1], J. Brozek [1], H. Schünemann [1]

[1]Department of Health Research Methods, Evidence, and Impact, McMaster University - Hamilton (Canada), [2]Evidence Prime - Hamilton (Canada), [3]Department of Internal Medicine, Faculty of Health Sciences, American University of Beirut - Beirut (Lebanon)

Background & Introduction

The McMaster GRADE Center, developed guidelines on venous thromboembolism (VTE) prevention, diagnosis, and management in collaboration with the American Society of Hematology.

Objectives / Goal

To create interactive decision aids (iDeAs™) for VTE guidelines utilizing the semi-automated iDeAs™ creator with the GRADEpro application. Our focus was on representing different approaches to defining baseline risk of individual patients, a neglected area in decision aids.

Methods

We tested IDeAs™ prototypes with experts and conducted qualitative user testing. We developed different approaches to defining patient-specific baseline risks and integrated this in the GRADEpro decision aid creator.

Results & Discussion

We created prototypes based on key conditional recommendations from the ASH VTE guidelines. The iDeAs™ incorporate patient-specific baseline risk as well as patients' specific values into the decision-making process.

Our iDeAs™ allow individualizing a recommendation based on patient-specific baseline risks and expected utility theory. These features distinguish the proposed approach from decision aids that are currently available.

Implications for guideline developers / users

Adding decision aid development during the development of, or directly following from, guideline recommendations has the potential to improve the dissemination and implementation of guideline recommendations. Our semi-automated iDeAs™ are based on GRADE Evidence to Decision Frameworks and interactive Summary of Findings Tables using the GRADEpro online application.

Conclusion

iDeAs™ differ from other decision aid tool available by specifically considering patient-specific baseline risks and deriving information directly from the GRADE evidence to decision frameworks.

ON001
DIRECTING THE UPDATE OF SEDATION GUIDANCE THROUGH EFFECTIVE SCOPING

Scoping
#ON001

D. Stirling, M. West, S. Rutherford, J. Clarkson
Scottish Dental Clinical Effectiveness Programme (SDCEP), NHS Education for Scotland - Dundee (United Kingdom)

Background & Introduction
Developments in the area of dental sedation, including publication of a Royal College Standards Report, led to uncertainty within the UK dental profession and concern that provision of sedation would diminish. Consequently, the UK Chief Dental Officers asked the Scottish Dental Clinical Effectiveness Programme (SDCEP) to update its *'Conscious Sedation for Dentistry'* guidance.

Objectives / Goal
To gain insight into the current provision of dental sedation and training and understand challenges associated with recent developments to inform the scope of the guidance update.

Methods
Semi-structured interviews with sedation providers and trainers were carried out to obtain stakeholders' views. Interviewees were invited to comment on the provision of dental sedation in general and on the previous SDCEP guidance and the recently published Standards Report. The insight gained informed the guidance update. Six months after publication, end-users were surveyed to evaluate their perceptions of the guidance, including the extent to which concerns identified at scoping had been addressed.

Results & Discussion
Seeking the views of 21 interviewees working in various settings revealed an essential need for clarification around specific aspects of sedation provision (e.g. fasting, advanced sedation, training). Eight common themes to address through guidance updating were identified and the clinical scope was widened in response to the interview results. After publication, the user survey confirmed that most concerns had been addressed with clarity of the guidance particularly valued.

Implications for guideline developers / users
Understanding users' perspectives provides crucial insight to inform and enhance guidance development and implementation.

Conclusion
Engaging effectively with stakeholders at scoping can ensure that guidance addresses users' concerns.

ON002
DEVELOPING RECOMMENDATIONS FOR CONDITIONS WITH MULTIPLE TREATMENT OPTIONS: A CASE STUDY

Developing Recommendations
#ON002

V. Colpani [1], C. Stein [1], C.K. Duarte [2], C.B. Migliavaca [1], A.D.V. Frankenberg [1], C.G. Fritsch [3], D.U. De Moraes [4], D.R.V. Rados [5], J. Giacomazzi [6], M.V. Beretta [4], M.A.Z. Marcolino [3], P.K. Ziegelmann [4], R.B. Petersen [7], M. Falavigna [1]
[1]Hospital Moinhos de Vento - Porto Alegre (Brazil), [2]Universidade Federal de Minas Gerais - Belo Horizonte (Brazil), [3]UFCSPA - Porto Alegre (Brazil), [4]UFRGS - Porto Alegre (Brazil), [5]Hospital de Clinicas de Porto Alegre - Porto Alegre (Brazil), [6]Instituto Tacchini de Pesquisa em Saúde - Porto Alegre (Brazil), [7]McMaster University - Hamilton (Canada)

Background & Introduction
In guidelines developed for conditions with many treatment options, comparison between 2 interventions may result in several pairwise comparisons for decision-making, a process that is not feasible.

Objectives / Goal
To present the methodology used to develop the recommendations in the Brazilian guideline for type 2 diabetes mellitus (DM2).

Methods
We followed G-I-N/IOM standards and GRADE methodology. The guideline provided recommendations on monotherapy and intensification treatments to control blood glucose levels. We performed a network meta-analysis (NMA), including over 292 RCTs, analyzing 7 outcomes and 9 drug options or no treatment. We used GRADE-NMA guidance to assess the certainty of evidence. Evidence profiles and evidence-to-decision tables were presented using no treatment as a common comparator. Drugs considered better options than placebo were assessed in a second round in pairwise comparisons.

Results & Discussion
Using intensification treatment as an example, in the first round, the panel made decisions about 9 drugs compared to placebo, and 4 of them were potential candidates. In the second round, we performed pairwise comparisons among these 4 drugs (6 pairwise comparisons) to define the recommendation. The process took 4 hours, with a panel of 9 experts, after being exposed to a methodology with a similar question for initial DM2 treatment.

Conclusion
Appling GRADE to recommendations involving several treatments is a complex process that may require the assessment of several domains beyond treatment effects, such as costs and patients' values and preferences. The 2-step approach is an alternative that focuses on narrowing the candidates for a recommendation and has proven effective in this example.

ON003
CLOSING THE KNOWLEDGE CYCLE: DEVELOPMENT OF A NATIONAL RESEARCH AGENDA BASED ON KNOWLEDGE GAPS DERIVED FROM DUTCH GENERAL PRACTICE GUIDELINES.

Updating guidelines
#ON003

J. Wittenberg, J.A.M. Van Balen, J.S. Burgers
NHG - Utrecht (Netherlands)

Background & Introduction
Most research programs focus on specialized and hospital related topics such as treatment of cancer. Research on primary care topics such as obstipation, fatigue and pimples, is less common. As part of the guideline programme of the Dutch College of General Practitioners, guideline developing working groups identify knowledge gaps. When these gaps would be bridged by research, the evidence base of the guidelines would be more robust.

Objectives / Goal
To develop a National Research Agenda for primary care in order to bridge the knowledge gaps in current guidelines.

Methods
Knowledge gaps were derived from 79 Dutch general practice guidelines. In addition, we asked input and suggestions from stakeholders in health care. The resulting research questions were categorized according to the International Classification for Primary Care (ICPC) and according to overarching themes such as elderly care, oncology and e-health. Finally, the research questions were prioritized by participants of an online survey (n=232) followed by an invitational conference (n=79) with general practitioners and other stakeholders (i.e. patient organisations, medical specialists).

Results & Discussion
In total we collected 787 research questions from the guidelines and additional input from stakeholders. These were prioritised into 23 Top-10 lists for each ICPC-chapter and theme. The national research agenda could help both researchers and research funders to focus on the research questions that matter most. The research findings will be useful at the next update of the guidelines, closing the knowledge cycle and optimising the impact of research.

Implications for guideline developers / users
Identifying knowledge gaps in guidelines could lead to return on investment for guideline developers.

OO001
AN INNOVATIVE APPROACH TO INCLUDING THE VOICE OF CHILDREN AND YOUNG PEOPLE IN GUIDELINES – AN EVALUATION

Developing Recommendations
#OO001

J. Fielding [1], H. Roscoe [2], G. Leng [3]
[1]National Institute for Health and Care Excellence - Manchester (United Kingdom), [2]Social Care Institute for Excellence - London (United Kingdom), [3]National Institute for Health and Care Excellence - London (United Kingdom)

Background & Introduction
The UK's National Institute for Health and Care Excellence (NICE) involves patients and the public in developing guidelines, but only adults (16 and over) can join our guideline committees.
NICE published its guideline on child abuse and neglect in 2017. To ensure that children and young people (CYP) had a voice in shaping this guideline's recommendations, a young people's reference group was set up as a consultation mechanism throughout guideline development. The group has also helped to disseminate the guideline.

Objectives / Goal
To review the impact of involving young people in developing NICE guidelines, particularly:
- Evaluate the success of the young people's reference group
- Explore the benefits and challenges of this involvement strategy
- Reflect on the lessons learned and produce recommendations for involving young people in other guidelines

Methods
The presentation will share:
- How the reference group's contributions shaped recommendations
- Interviews with the reference group about their experience and how the involvement worked for them
- Interviews with the committee chair and guideline developers

Results & Discussion
We will explore how this involvement strategy can work for other guideline developers wishing to ensure children and young people have a voice in developing the guidelines that directly affect them.

Description of the best practice
We will share how best practice on involving children and young people within health and social care was used to build full and meaningful involvement of children and young people into developing this NICE guideline.

OO002
CAPTURING PATIENT EXPERIENCES FROM ONLINE HEALTH COMMUNITIES TO INFORM GUIDANCE PRODUCTION

Patient and public involvement
#OO002

R. Rahman, K. Harris, J. Powell
NICE Interventional Procedures Programme - London (United Kingdom)

Background & Introduction
NICE's Interventional Procedures Programme produces guidance on safety and efficacy of procedures used in the NHS. It uses questionnaires to seek information about the impact of procedures from patients, which has limitations. This study evaluates the ability to capture patient experience from online forums to inform guidance production.

Objectives / Goal
To explore the feasibility of using online forums to capture patient experiences for Prostate-Artery Embolisation (PAE).

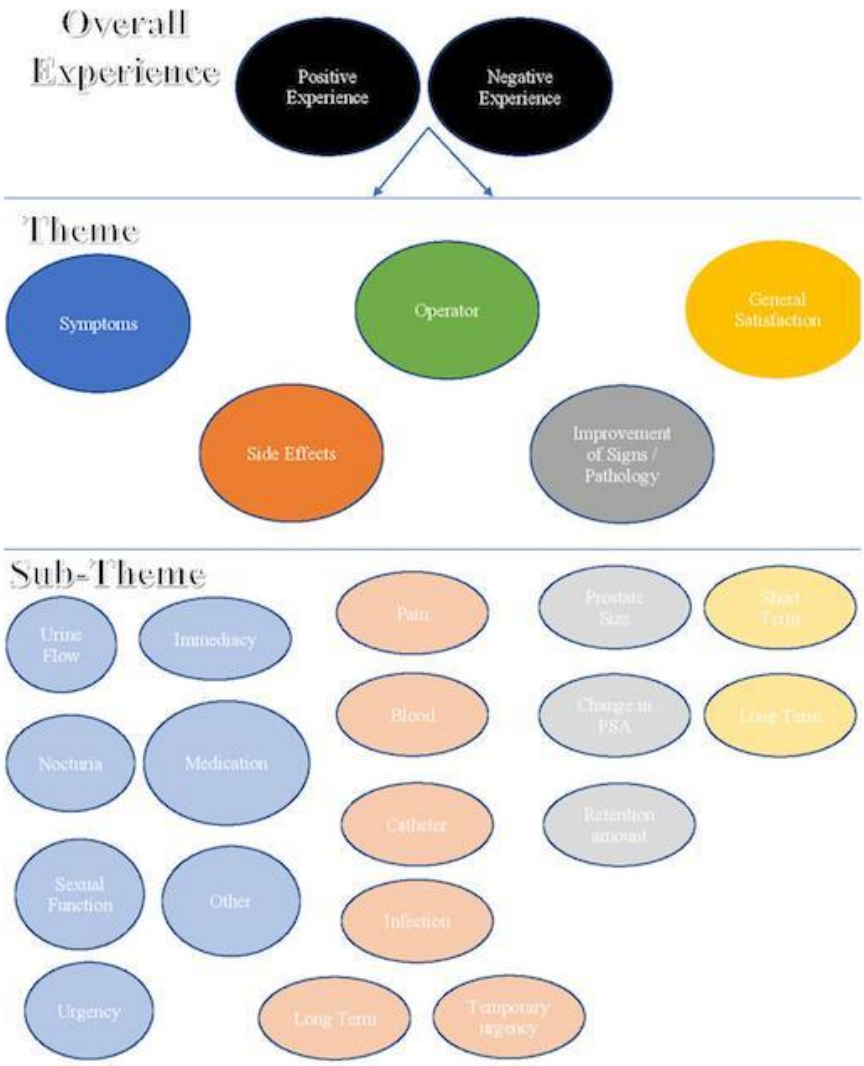
Methods
Comments were analysed via an inductive thematic and structured approach.
1)Identified all PAE forums via google.
2)Forum comments were included/excluded using criteria from the IPP manual.
3)All comments where coded for being positive, negative, mixed/neutral. Then subsequently re-coded for themes and sub themes.
4)Frequency of all themes were analysed and a thematic map produced.

Results & Discussion
Out of 2396 comments, 476 comments from 101 users were included. Most unique comments were positive.
Themes linked to patient experience were: symptom relief, side effects, general satisfaction, procedural factors, biochemical markers and the operator. Analysing further sub-themes and frequencies demonstrated which factors were valued by patients.

Implications for guideline developers / users
Standardised system of online forums can provide a significant additional dimension to evaluate patient experience. In contrast the IPP did not receive any returned patient questionnaires for PAE.

Conclusion
Systematic analysis of online forums to evaluate patient experience of a procedure is: practical and identifies what large numbers of patients value the most Such analysis has the potential to make a useful contribution to guidance production.

Description of the best practice
Patient experience is key to healthcare quality. Analysig online forums is an alternative way to evaluate patient experience more robustly.


Overall Experience
Positive Experience
Negative Experience
Theme
Symptoms
Operator
General Satisfaction
Side Effects
Improvement of Signs / Pathology
Sub-Theme
Urine Flow
Immediacy
Pain
Prostate Size
Short Term
Nocturia
Medication
Blood
Change in PSA
Long Term
Catheter
Retention amount
Sexual Function
Other
Infection
Urgency
Long Term
Temporary urgency

OO003
USING SOCIAL MEDIA TO SUPPORT UPTAKE, IMPLEMENTATION AND EVALUATION OF NICE GUIDANCE

Using technology to support uptake, implementation and evaluation #OO003

E. Adelanwa [1], J. Stone [1], R. Smith [2], A. Thomas [3]
[1]Digital Media Manager, NICE - London (United Kingdom), [2]Head of Media, NICE - London (United Kingdom), [3]NICE - London (United Kingdom)

Background & Introduction
NICE's media team promotes audience engagement with quality social media content.

Objectives / Goal
Produce content that resonates.
Boost reputation.
Demonstrate impact.
Work better for less.

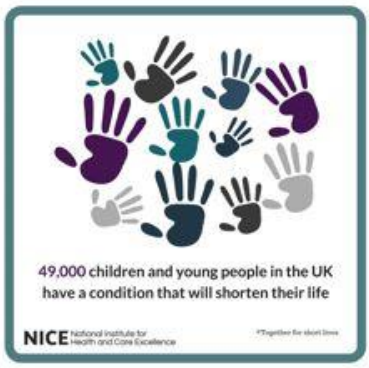
Methods
Social media lets us speak directly to our audiences. NICE pioneered using Snapchat in the health sector. We recently completed an Instagram pilot with a new 'drip-feed' storytelling technique. We have introduced Facebook Lives and Twitter chats, working with stakeholders. All our digital content – infographics, animations, videos, podcasts, blogs and news stories – is produced in-house with no external budget.
We assess and amend our strategy by measuring our work's impact. Our digital metrics dashboard tracks analytics month-to-month, across all channels.

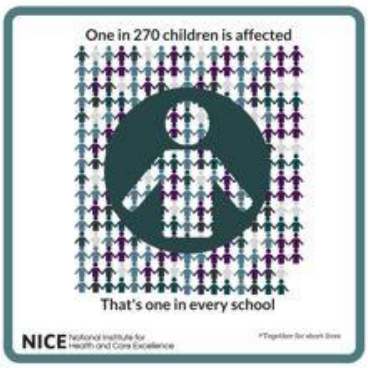
Results & Discussion
A recent World Antibiotic Awareness Week campaign generated over 375,700 Twitter impressions, increased Facebook engagements by 75% and led to 9,000 people seeing a geofilter co-branded with Public Health England.
A Facebook Live co-hosted with Prostate Cancer UK and St George's Hospital in March has been our most successful, reaching more than 17,000 people.
Our Instagram pilot attracted a new audience and a higher level of engagement than other social channels.

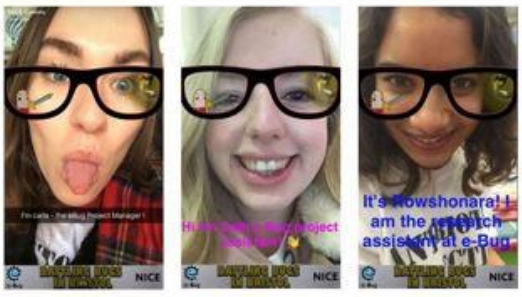
Implications for guideline developers / users
Effective use of social media creates an engaged audience of advocates who can be primed to promote guidelines.

Conclusion
Our model delivers business objectives, enhances NICE's reputation, and helps us gain real insight into our audience.

Description of the best practice
The NICE media team proactively engage with audiences on Facebook, LinkedIn, Instagram, Snapchat and Twitter. We host live events and apply a structured approach to interacting. We use analytics to assess impact and enhance our strategy.







Our WAAW Snapchat geofilter in use

NICE National Institute for Health and Care Excellence

Digital metrics report
Nov

Highlights

In November 2017, 74% of coverage was positive in tone. Positive coverage was driven by our activity around the hearing loss guideline consultation, World Antibiotic Awareness Week and two positive breast cancer drug recommendations (palbociclib and ribociclib). There was a larger amount of negative coverage than normal due to ongoing calls to ban mesh in our guidance. Main and primary care newsletters subscriber numbers continue to rise. Although we saw a small drop in open rates there was still an increase in overall clicks through to our website.

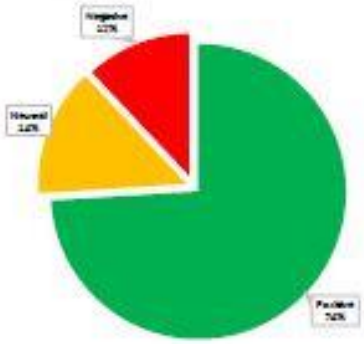
Our social media audience continues to grow. Facebook saw the biggest growth with a 12% increase in followers. Our instagram channel launched on 13th November and we ended the month with over 200 followers and our content received more than 6,800 impressions (number of times posts were seen). Interaction rate across all channels increased significantly, this is likely down to our multi-channel approach for World Antibiotic Awareness Week where we held our first Facebook Live and a Twitter Q&A. There were over 4,900 views of our YouTube videos.

Most viewed website news stories

Topic	Views
Crohn's disease TA, ustekinumab	11,554
Sepsis QS consultation	7,552
Acute medical emergencies guideline consultation	7,489
Breast cancer TA, palbociclib	5,394
TA/HST changes launch	5,254
Antimicrobial prescribing guidance launch	4,894
Hearing loss guideline consultation	4,558
Child abuse guideline consultation	4,451
BNF app launch	4,520
Falls in older people QS	4,432

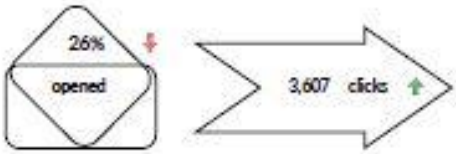
Coverage tone

Nov

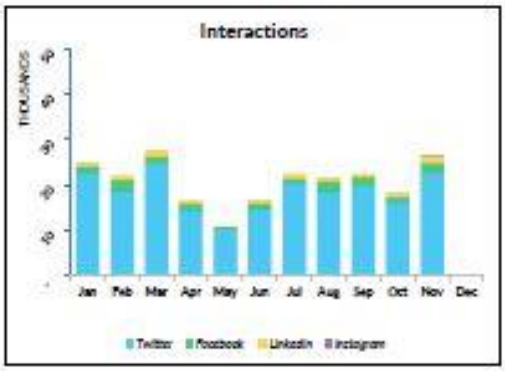


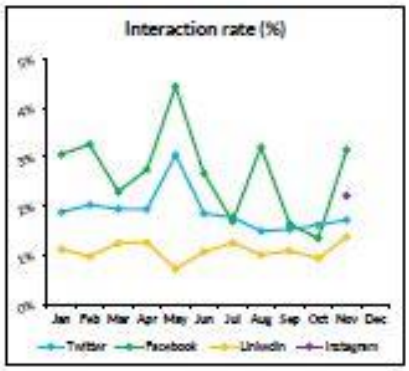
Newsletter subscribers

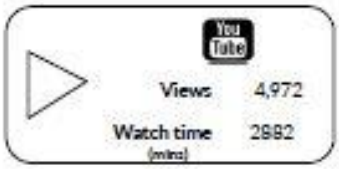
Main	23,628	↑
Primary care	12,438	↑



Followers	136,717	↑	2,815	↑	7,027	↑	236	↑
Impressions	1,321,612	↑	66,141	↓	113,236	↑	6,897	↑







OP001
WHICH DATABASES SHOULD BE USED TO IDENTIFY STUDIES FOR SYSTEMATIC REVIEWS OF ECONOMIC EVALUATIONS?

Systematic reviewing and evidence synthesis
#OP001

H. Wood, M. Arber, J. Isojarvi, E. Baragula, M. Edwards, A. Shaw, J. Glanville
York Health Economics Consortium - York (United Kingdom)

Background & Introduction
Guidelines may be based on a systematic review (SR) of evidence, including economic evaluations (EEs). Research on databases to identify EEs largely predates closure of NHS EED and HEED: two databases indexing EEs.

Objectives / Goal
To assess which databases are now the best sources of EEs and identify the most efficient combination of databases. To assess the quality of MEDLINE search strategies used in SRs of EEs: record retrieval relies on search sensitivity not just database selection.

Methods
A quasi-gold standard (QGS) set of EEs was sourced from SRs of EEs undertaken to inform health technology assessments. Yield for 9 databases, and combinations of databases, was calculated. The number and characteristics of references not found in the databases was assessed. Reported MEDLINE search strategies in each source SR were re-run, and sensitivity and precision calculated.

Results & Discussion
Across 9 databases, 337/351 QGS references could be found (yield 96%). Embase yielded most references (314) (Table 1). The most efficient combination to find all 337 references was Embase + HTA Database + MEDLINE/PubMed + Scopus (Table 2). 14/51 references (4%), largely non-journal reports and conference abstracts, were not found in any database tested. 29/46 source SRs reported a MEDLINE strategy that enabled reproduction. Mean sensitivity was 89% and mean precision was 1.6%.

Implications for guideline developers / users
Searching beyond key databases for published EEs to inform guidelines may be inefficient, providing the search strategies are adequately sensitive. Searchers should prioritise developing search strategies in key databases to ensure high sensitivity and best possible precision, and consider approaches to identify grey literature.

Table 1: Yield and number of unique references identified for each database

	Embase	Scopus	MEDLINE	PubMed	Science Citation Index	CEA Registry	Social Science Citation Index	HTA Database	EconLit
Number of QGS retrieved (out of 351)	314	295	285	285	271	119	63	35	12
Yield* (%)	89	84	81	81	77	40	18	10	3
Number of unique references	2	1	0	0	0	0	0	13	0
*Yield = (No. of QGS retrieved/Total number of QGS records) x 100									

Table 2: Yield for key database combinations

	Number of QGS retrieved (out of 351)	**Yield* (%)**
All databases combined	337	96
Most efficient combinations to find all 337 available references		
Embase + Scopus + HTA Database + MEDLINE	337	96
Embase + Scopus + HTA Database + PubMed	337	96
Most efficient combinations of healthcare databases		
Embase + HTA Database + MEDLINE	333	95
Embase + HTA Database + PubMed	333	95
Combination of freely available (non-subscription) databases		
PubMed + HTA Database+ CEA Registry	299	85

OP002
PERFORMANCE OF OVID MEDLINE SEARCH FILTERS TO IDENTIFY HEALTH STATE UTILITY STUDIES

Economic analysis and health technology assessments
#OP002

M. Arber, S. Garcia, T. Veale, M. Edwards, A. Shaw, J. Glanville, H. Wood
York Health Economics Consortium - York (United Kingdom)

Background & Introduction
Researchers working in evidence synthesis and model production need to identify studies reporting health state utility values (HSUVs) effectively and efficiently.

Objectives / Goal
To assess the sensitivity of three Ovid MEDLINE search filters developed to identify studies reporting HSUVs, to improve the performance of the best performing filter, and to validate resulting search filters.

Methods
Three quasi-gold standard sets (QGS1, QGS2, QGS3) of studies were harvested from reviews of studies reporting HSUVs. The performance of three initial filters was assessed by measuring their relative recall of studies in QGS1. The best performing filter was then developed further using QGS2. This resulted in three final search filters (FSF1, FSF2, FSF3), which were validated using QGS3.

Results & Discussion
FSF1 (sensitivity maximizing) retrieved 132/139 records (sensitivity: 95%) in the QGS3 validation set. FSF1 had a number needed to read (NNR) of 842. FSF2 (balancing sensitivity and precision) retrieved 128/139 records (sensitivity: 92%) with a NNR of 502. FSF3 (precision maximizing) retrieved 123/139 records (sensitivity: 88%) with a NNR of 383.

Implications for guideline developers / users
Guideline development may include consideration of HSUVs. We developed and validated a search filter (FSF1) to identify studies reporting HSUVs with high sensitivity (95%) and two other search filters (FSF2 and FSF3) with reasonably high sensitivity (92% and 88%) but greater precision. These are the first validated filters available for HSUVs. The availability of filters with a range of sensitivity and precision options enables searchers to choose the filter most appropriate to the resources available for their research.

OP003

SEARCH STRATEGIES OF STUDIES ON THE QUALITY ASSESSMENT OF GUIDELINES: A CROSS-SECTIONAL STUDY

Other

#OP003

K. Lixin [1], S. Nianzhe [1], Y. Yurong [1], T. Yajing [2], W. Aimei [3], L. Zhanfei [3], L. Cuncun [4], C. Yaolong [4], Q. Zhou [1]

[1]The First Clinical Medical School, Lanzhou University (China), [2]School of Public Health, Lanzhou University (China), [3]The Second Clinical Medical School, Lanzhou University (China), [4]Evidence-based Medicine Center, School of Basic Medical Sciences, Lanzhou University (China)

Background & Introduction

The AGREE enterprise recommends that seven international guideline databases including NGC, NICE, SIGN, GIN, Canadian Medical Association Infobase, National Health and Medical Research Council (NHMRC), and eGuidelines are used to search for guidelines. However, there are critical eligibility criteria for including guidelines in those databases. Therefore, if we only search the guideline databases, we will miss some guidelines and there is no standard search strategy for guidelines.

Objectives / Goal

To investigate the search strategy from studies on the quality assessment of guidelines.

Methods

PubMed, Embase and Web of science were searched for studies on the quality assessment of guidelines. Two reviewers independently screened literature and extracted data, any disagreements were solved by discussion. We used frequency and percentage to deal with the results with Office Excel 2013.

Results & Discussion

We included 81 studies on the quality assessment of clinical practice guidelines. The main journal databases included: PubMed (Medline) (31.9%), Embase (18.4%), CINAHL (9.9%), Cochrane (8.5%), Web of science (3.5%), TRIP (2.8%), PsycINFO (2.8%), SCOPUS (2.1%). The main databases of clinical practice guidelines included: NGC (30%), SIGN (20%), GIN (20%), NICE (14.3%). Google search engine and/or Google Scholar were also searched using relevant search terms to identify any relevant CPGs in 10 studies (12.3%).

Implications for guideline developers / users

Some regulations need to be developed in the next step to regulate various database among studies on the quality assessment of guidelines.

Conclusion

An increasingly number of studies on the quality assessment of guidelines were published, of which database searching varied a lot among different institutions.

OR001
KNOWLEDGE TRANSLATION INTERVENTIONS FOR THE IMPLEMENTATION OF GUIDELINES: A TARGETED REVIEW

Implementation and quality improvement (including indicators) #OR001

K. Spithoff, K. Kerkvliet, M. Brouwers
McMaster University - Hamilton (Canada)

Background & Introduction
Gaps between what is known about optimal care from research evidence and what happens in practice are common. Knowledge translation interventions (KTIs) (e.g., education, audit and feedback) are designed to change behaviours, improve patient outcomes, optimize the health system and better enable the implementation of guideline recommendations. Knowledge users (e.g., guideline implementers, decision-makers) often struggle to choose optimal KTIs for their context.

Objectives / Goal
To identify KTIs with known effectiveness and develop an online resource to assist knowledge users with the selection and implementation of effective and appropriate KTIs.

Methods
A targeted search of the Cochrane EPOC and Health Systems Evidence databases and Implementation Science journal was conducted to identify systematic reviews that evaluated the effectiveness of KTIs. Effectiveness data, contextual factors, and KTI operationalization details were extracted from the review articles. KTIs demonstrating potential effectiveness and contextual appropriateness were prioritized for inclusion in an online KTI resource.

Results & Discussion
85 reviews were identified for data extraction and the KTIs demonstrated variable effectiveness. 17 KTIs were prioritized for inclusion in the online resource, of which 3 provided data particularly relevant to the context of clinical practice guideline implementation: practice guideline implementation tools, printed education tools, and patient-mediated KTIs. In general, evidence regarding specific operationalization of the KTIs was lacking (e.g., KTI content and format, who should deliver the KTI, frequency and duration of the KTI).

Implications for guideline developers / users
Evidence and resources are available to assist guideline developers/users to select effective and appropriate KTIs to implement guidelines; however, more research is needed on specific aspects of their operationalization.

OR002
DE-IMPLEMENTATION OF LOW-VALUE CARE PRACTICES BASED ON GUIDELINE RECOMMENDATIONS

Implementation and quality improvement (including indicators) #OR002

A. Nijboer [1], E. Verhoof [1], S. Van Dulmen [2], A. Van Ooijen [1]
[1]Dutch Nurses' Association (V&VN) - Utrecht (Netherlands), [2]Radboud University Nijmegen Medical Centre - Nijmegen (Netherlands)

Background & Introduction
Low-value care provides little or no benefit for the patient, causes harm and wastes limited resources. A previous study assessed 125 Dutch nursing guidelines and found 66 nursing interventions that should be left undone.

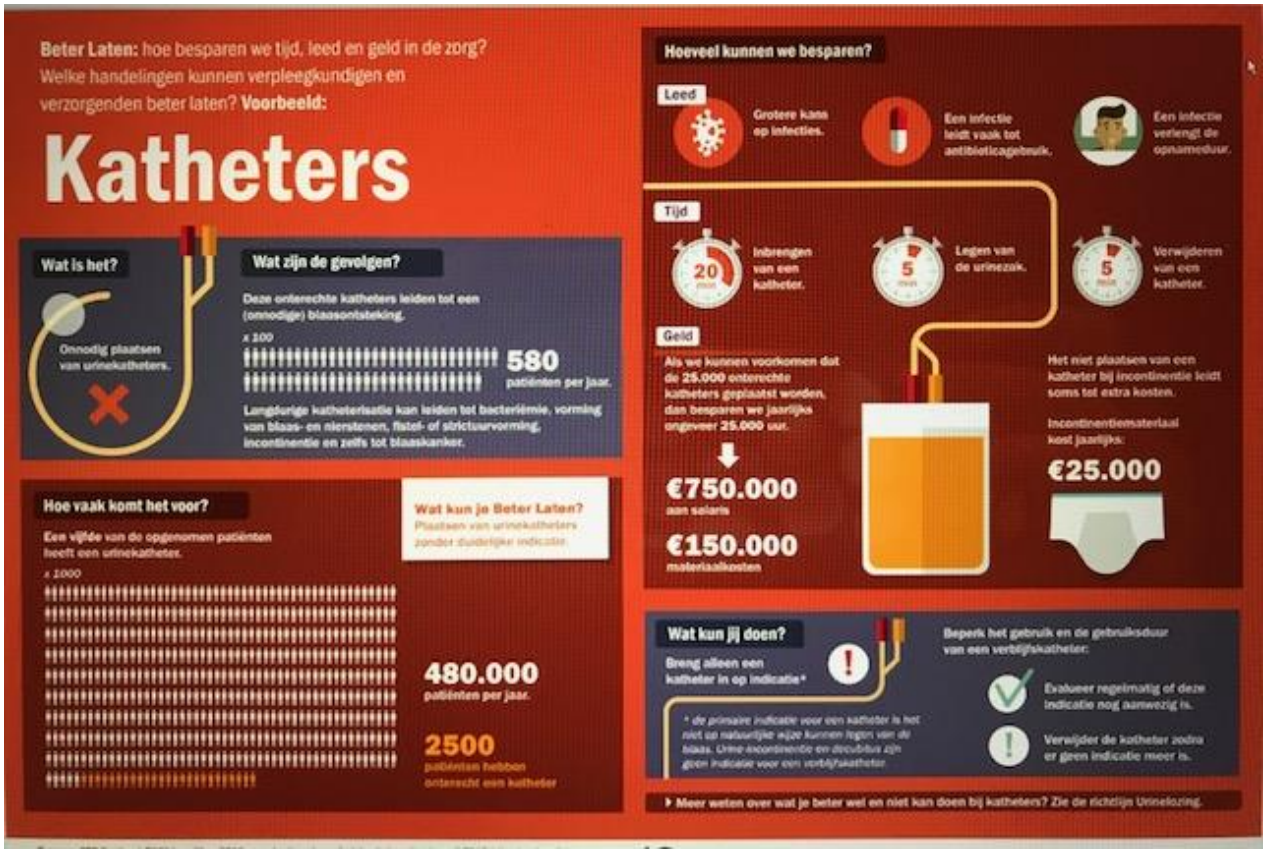
Objectives / Goal
To stimulate the use of guidelines and to encourage nurses to de-implement low-value care practices.

Methods
Communication activities and online campaigns focused on increasing awareness that nurses still perform non-effective or even harmful care. Three infographics, an instruction film and a budget-impact analysis were made to increase the dialogue about the quality of nursing care. Nurses' perspectives on these activities were evaluated by online questionnaires.

Results & Discussion
600 nurses answered the questionnaire. Online media-activities resulted in 13.000-40.000 hits per activity. Study results were discussed in a broad variety of national media, from national news-shows to newspapers. Nurses organized multiple discussion sessions in their organizations. For example, one hospital spoke about the impact of this study with 200 nurses. The next step is to increase awareness and to share best practices in a way that local initiatives are stimulated to enhance the quality of care.

Implications for guideline developers / users
During guideline development developers should also focus on interventions that should be left undone. To make de-implementation of unnecessary interventions successful, it is important to make recommendations more tangible for professionals. Show the impact of unnecessary and un-effective interventions and increase the awareness by discussing these items on a local level.

Description of the best practice
The first de-implementation strategy in nursing guidelines regarding interventions that should be left undone. It generated national attention and activities in local settings.


Beter Laten: hoe besparen we tijd, leed en geld in de zorg?
Welke handelingen kunnen verpleegkundigen en verzorgenden beter laten? Voorbeeld:
Katheters
Wat is het?
Onnodig plaatsen van urinekatheters.
Wat zijn de gevolgen?
Deze onterechte katheters leiden tot een (onnodige) blaasontsteking.
x 100
580
patiënten per jaar.
Langdurige katheterisatie kan leiden tot bacteriëmie, vorming van blaas- en nierstenen, fistel- of strictuurvorming, incontinentie en zelfs tot blaaskanker.
Hoe vaak komt het voor?
Een vijfde van de opgenomen patiënten heeft een urinekatheter.
x 2000
480.000
patiënten per jaar.
2500
patiënten hebben onterecht een katheter
Wat kun je Beter Laten?
Plaatsen van urinekatheters zonder duidelijke indicatie.
Hoeveel kunnen we besparen?
Leed
Grotere kans op infecties.
Een infectie leidt vaak tot antibioticagebruik.
Een infectie verlengt de opnameduur.
Tijd
20 min
Inbrengen van een katheter.
5 min
Legen van de urinezak.
5 min
Verwijderen van een katheter.
Geld
Als we kunnen voorkomen dat de 25.000 onterechte katheters geplaatst worden, dan besparen we jaarlijks ongeveer 25.000 uur.
€750.000
aan salaris
€150.000
materiaalkosten
Het niet plaatsen van een katheter bij incontinentie leidt soms tot extra kosten.
Incontinentiemateriaal kost jaarlijks:
€25.000
Wat kun jij doen?
Breng alleen een katheter in op indicatie*
* de primaire indicatie voor een katheter is het niet op natuurlijke wijze kunnen legen van de blaas. Urine-incontinentie en decubitus zijn géén indicatie voor een verblijfskatheter.
Beperk het gebruik en de gebruiksduur van een verblijfskatheter:
Evalueer regelmatig of deze indicatie nog aanwezig is.
Verwijder de katheter zodra er geen indicatie meer is.
Meer weten over wat je beter wel en niet kan doen bij katheters? Zie de richtlijn Urinelozing.


Beter Laten: hoe besparen we tijd, leed en geld in de zorg?
Welke handelingen kunnen verpleegkundigen en verzorgenden beter laten? Voorbeeld:
Wondzorg
Wat is het?
Reinig en bedek geen primair gesloten wonden.
Waarom Beter Laten?
Dit draagt niet bij aan wondgenezing, voorkomt geen infecties en het verwijderen van verband of pleisters kan pijnlijk zijn.
Hoe vaak komt het voor?
Jaarlijks worden er bijna
1,5 miljoen
operaties uitgevoerd in Nederland.
Per wond worden er gemiddeld
2
pleisters gebruikt.
Verpleegkundigen reinigen en bedekken de meeste operatiewonden routinematig.
Wat kunnen we besparen?
Tijd
5
Een verpleegkundige is gemiddeld 5 minuten bezig met wondverzorging.
Naar schatting 2 minuten om de patiënt uit te leggen dat een pleister niet nodig is.
Geld & tijd
Als de helft van de operatiewonden niet meer bedekt wordt bespaart dit jaarlijks ongeveer:
€ 2.100.000
verbandmateriaal
94.000 uur wondzorg
€ 2.800.000
salariskosten
Wat kun jij doen?
1
Reinig of bedek geen primair gesloten wonden.
2
Gebruik geen antiseptica bij primair gesloten wonden vanwege het geringe risico op infectie.
3
Bekijk meer aanbevelingen in de richtlijn wondzorg.

Beter Laten: hoe besparen we tijd, leed en geld in de zorg?
Welke handelingen kunnen verpleegkundigen en verzorgenden beter laten? **Voorbeeld:**

Fixeren

Wat is het?

Alle interventies die de zelfstandigheid, de bewegingsvrijheid en het gedrag van de cliënt beperken.

Top 3

48% 37% 17%

Wat kun je Beter Laten?

Vermijd vrijheidsbeperkende interventies (VBI).

Wat kunnen we besparen

Tijd

Bespaart tijd doordat personen niet meer vast of losgemaakt hoeven worden, kost tijd doordat personen kunnen gaan dwalen.

Mogelijk kan wel bespaard worden op gedragsbeïnvloedende medicatie.

Minder leed voor de cliënt.

Hoe vaak komt het voor?

Jaarlijks verblijven ongeveer **250.000** personen in de langdurige zorg.

67.000 personen krijgen een vrijheidsbeperkende interventie, voornamelijk bedhekken.

Waarom Beter Laten?

1. Kans op psychisch lijden.
2. Langdurig gebruik kan leiden tot delier, decubitus, incontinentie, contracturen, afname van de spiermassa en verslechtering in cognitief functioneren.
3. Minder inzet van vrijheidsbeperkende interventies is mogelijk zonder dat het gebruik van medicatie en het aantal vallen en letsels toenemen.
4. Iedereen heeft recht op bescherming van de persoonlijke levenssfeer en integriteit van het lichaam.

Wat kun jij doen?

- Zoek naar de mildste vorm van VBI, gekoppeld aan de aanleiding.
- Het toepassen van elke vorm van VBI moet altijd zeer weloverwogen, veilig en zorgvuldig, multidisciplinair en in overleg met patiënt/wettelijk vertegenwoordiger en familie worden genomen.
- De meest ingrijpende vorm - fixatie met enrundhand, polsband, enkelband en arm of beenband - alleen in uiterste nood toepassen.
- Kaart het aan bij je leidinggevende als VBI ingezet moet worden vanwege gebrek aan personeel.
- Bekijk de handwijking vrijheidsbeperking

▸ **Meer Beter Laten:** bekijk algemene tips en meer voorbeelden op www.venvn.nl/beterlaten

OR003
ASSESSMENT OF THE QUALITY, CREDIBILITY AND IMPLEMENTABILITY OF 161 CLINICAL PRACTICE GUIDELINES USING THE AGREE-REX INSTRUMENT

Developing Recommendations
#OR003

I.D. Florez [1], M. Brouwers [2], K. Kerkvliet [2], K. Spithoff [2]
[1]Universidad de Antioquia - Medellin (Colombia), [2]McMaster University - Hamilton (Canada)

Background & Introduction
A new tool, the AGREE-REX, was recently developed to support the development, report and assessment of the quality (i.e., credibility and implementability) of recommendations, and to complement the AGREE-II tool. We assessed CPGs from different organizations published between 2013 and 2015 using the beta version of the AGREE-REX

Objectives / Goal
To assess the clinical credibility and implementability of recommendations from 161 guidelines recommendations using the AGREE-REX tool.

Methods
CPGs from different organizations were assessed by two independent appraisers per guideline using the 11-items beta version of the AGREE-REX. The CPGs were rated using the tool's 7-point response scale per item of the tool was rated. Country of origin, year of publication and type of organization (government-supported/professional society) were evaluated as a source of variation in scores. One-way ANOVA tests were used to examine mean differences in the scores.

Results & Discussion
One-hundred-sixty-one CPGs from 70 organizations were appraised by 322 participants. The highest scores were obtained with the Evidence, Clinical Relevance and Patients/population relevance items, while the lowest scores were with the Policy values, Local applicability and Resources, Tools and Capacity items. CPGs developed by government-supported organizations, developed in the UK and Canada, or published in 2015 had significantly higher scores($p<0.05$).

Implications for guideline developers / users
Our findings may be considered a baseline upon which to measure future improvements in the quality, credibility and implementability of CPGs recommendations.

Conclusion
There is significant room for improvement in some elements of CPG recommendations such as the considerations of Patients/Population values, Policy values, Alignment of values, Local applicability and Resources, Tools and Capacity for implementation

OS001
INCREASING VALUE AND REDUCING RESEARCH WASTE IN SYSTEMATIC REVIEWS TO INFORM GUIDELINE DEVELOPMENT

Systematic reviewing and evidence synthesis
#OS001

W. Wiercioch [1], R. Nieuwlaat [1], J.J. Yepes Nuñez [1], G.P. Morgano [1], I. Etxeandia [1], N. Santesso [1], R. Kunkle [2], H. Schünemann [1]
[1]McMaster University - Hamilton (Canada), [2]American Society of Hematology - Washington (United States of America)

Background & Introduction
Trustworthy guidelines should be based on systematic reviews (SRs) for assessment of benefits and harms of alternate healthcare options. In using published SRs, guideline developers may face a mismatch between the review and guideline questions, narrow scopes, and lack of synthesis of patient-important outcomes.

Objectives / Goal
To describe an approach for identifying existing SRs to inform guidelines, and to highlight shortcomings that make reviews less usable to guideline developers.

Methods
In our American Society of Hematology-McMaster venous thromboembolism guidelines, we conducted literature searches in Medline, Embase, and the Cochrane Library to identify published SRs. Based on methods of data collection, study appraisal, reporting and synthesis, we classified them as requiring minor updates, major updates, or useable only as a reference source for addressing guideline questions.

Results & Discussion
For ten guidelines consisting of 219 questions, 31 questions could be addressed with a minor update, 104 with a major update, and 84 requiring a new SR. As applied to one guideline, of 56 reviews identified, 32 were classified as requiring major updates, 2 as minor, and 22 as a reference source. Key reasons for SRs not being directly usable included lack of search strategy for updating, lack of reporting of all study results, no risk of bias assessment, and only partially addressing the guideline question.

Implications for guideline developers / users
Developers should be aware that with published SRs, additional work is often required for the evidence synthesis.

Conclusion
Inadequate reporting and mismatch with questions that are important to patients and clinicians leads to diminished value of published reviews and duplication of research efforts.

OS002
RAPID SYSTEMATIC REVIEWS TO INFORM RECOMMENDATIONS IN NATIONAL CLINICAL GUIDELINES: THE NORWEGIAN EXPERIENCE

Systematic reviewing and evidence synthesis
#OS002

C. Hodt-Billington [1], L.M. Reinar [2], M. Græsli [2], G.E. Vist [2]
[1]The Norwegian Directorate of Health - Oslo (Norway), [2]The Norwegian Institute of Public Health - Oslo (Norway)

Background & Introduction
Recommendations within National clinical guidelines should be informed by systematic reviews of the relevant evidence. Conducting systematic reviews of high quality is time consuming and many initiatives are ongoing internationally with the aim of more rapid results. So also in Norway.

Objectives / Goal
To describe our method and experiences of the first three years of rapid reviews for use in guidelines.

Methods
Collaboration between the Norwegian Directorate of Health who produce National Guidelines and the Norwegian Institute of Public Health (previously Norwegian Knowledge Centre) who conduct systematic reviews. In order to conduct systematic reviews faster, we have restricted number of questions (PICOs) per systematic review, short introduction and discussion chapters. Our methods-peer-reviewers agree to respond within one week and the guideline group provide clinical-expert-peer-reviewers. Our plan is completed systematic reviews by four to five months.
We follow standard methods for systematic reviews with peer reviewed and published protocol (and review), peer reviewed search strategy, two people independently reading abstracts and full text articles against inclusion criteria, risk of bias assessment, data extraction and grading. However, we limit our literature searches to the four to eight most relevant databases.

Results & Discussion
Our first three years produced 20 systematic reviews. Products varied: updates (5); systematic reviews (14); overview of reviews (1). Number of PICO per review varied: one (11); two (3), three (2); four (2); five (1); 31 (1). Number of included studies per review was 4 (median (range: none to 21)). All reviews were successfully used to inform National Guidelines.

Conclusion
We will continue with this collaboration.

OS003

ADULTS' PERSPECTIVE ABOUT MEAT CONSUMPTION: A MIXED METHODS SYSTEMATIC REVIEW FOR TRUSTWORTHY GUIDELINE RECOMMENDATIONS

Patient and public involvement
#OS003

C. Valli [1], M. Rabassa [1], D. Zeraatkar [2], I. Sola [1], R. W M Vernooij [3], M. Bala [4], B. Johnston [5], G. Guyatt [6], P. Alonso-Coello [7]

[1]Iberoamerican Cochrane Centre - Service of Clinical Epidemiology and Public Health, Biomedical Research Institute San Pau (IIB Sant Pau), Barcelona, Spain. - Barcelona (Spain), [2]Department of Health Research Methods, Evidence and Impact, McMaster University, Hamilton, Ontario, Canada - Ontario (Canada), [3]Department of Community Health and Epidemiology, Faculty of Medicine, Dalhousie University, Halifax, Canada; Department of Research, Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht, The Netherlands - Utrecht (Netherlands), [4]Chair of Epidemiology and Preventive Medicine, Department of Hygiene and Dietetics, Jagiellonian University Medical College, Krakow, Poland - Krakow (Poland), [5]Department of Health Research Methods, Evidence and Impact, McMaster University, Hamilton, Ontario, Canada; Department of Community Health and Epidemiology, Faculty of Medicine, Dalhousie University, Halifax, Canada - Halifax (Canada), [6]Department of Health Research Methods, Evidence and Impact, McMaster University, Hamilton, Ontario, Canada; Department of Medicine, McMaster University, Hamilton, Ontario, Canada - Ontario (Canada), [7]Iberoamerican Cochrane Centre - Service of Clinical Epidemiology and Public Health, Biomedical Research Institute San Pau (IIB Sant Pau), Barcelona, Spain; CIBER de Epidemiología y Salud Pública (CIBERESP), Barcelona, Spain - Barcelona (Spain)

Background & Introduction

Optimal nutritional guideline development requires consideration of adults' perspective. Systematic reviews on people's food choices should inform guideline panels for the development of appropriate nutrition recommendations.

Objectives / Goal

To identify, describe and systematically summarize research evidence on people's beliefs, preferences and attitudes on meat consumption.

Methods

We searched in six primary databases from inception to March 2018. We will include primary studies reporting both qualitative and quantitative research on adults' perspective about meat consumption. We will evaluate the risk of bias of the included studies with the Critical Appraisal Skills Programme checklist and with the GRADE (Grading Recommendations, Assessment, Development and Evaluation) system for qualitative and quantitative studies, respectively. We will also use the GRADE system to rate the certainty of the evidence. Qualitative findings will be synthesized using the constant comparison thematic approach, whereas quantitative results will be summarised narratively if meta-analysis is not possible.

Results & Discussion

We have retrieved 18,251 references. Screening of search results is in progress. So far, we have screened 1,500 references and included 113 eligible studies to full-text assessment. We will present the results as well as the challenges and opportunities of conducting this type of large mixed methods systematic review, in the context of meat consumption recommendations.

Implications for guideline developers / users

Our results, taken together with an on-going systematic summary of the effect estimates, will help guideline developers to formulate more informed recommendations on meat consumption.

OT001

DEVELOPING CLINICAL PRACTICE GUIDELINES THAT COMBINE EFFICIENCY AND RIGOROUS METHODOLOGY: A NEW APPROACH BY THE EUROPEAN RESPIRATORY SOCIETY

Developing Recommendations
#OT001

T. Tonia [1], M. Miravitlles [2], D. Rigau [3], N. Roche [4], C. Genton [5], V. Vaccaro [5], T. Welte [6], M. Gaga [7], G. Brusselle [8]

[1]Institute of Social and Preventive Medicine, University of Bern - Bern (Switzerland), [2]Pneumonology Department, Hospital Universitari Vall d'Hebron - Barcelona (Spain), [3]Iberoamerica Cochrane Center - Barcelona (Spain), [4]Service de Pneumologie et Soins Intensifs Respiratoires, Hôpital Cochin, Université Paris Descartes - Paris (France), [5]Scientific Activities Department, European Respiratory Society - Lausanne (Switzerland), [6]Respiratory Medicine, Medical School, Hannover - Hannover (Germany), [7]Respiratory Medicine Dept and Asthma Center, Athens Chest Hospital "Sotiria" - Athens (Greece), [8]Dept of Respiratory Medicine, Ghent University Hospital - Ghent (Belgium)

Background & Introduction

Clinical practice guidelines have to be evidence-based and developed following a transparent approach. Due to time and resource limitations, this might lead to only a limited number of questions being addressed. As a result, some topics relevant for clinical decision making are not assessed and clinicians are left without guidance.

Objectives / Goal

The European Respiratory Society (ERS) aimed to develop a transparent process that will allow answering most relevant clinical questions for each topic, while adhering to evidence-based principles.

Methods

Clinical questions will be divided *a priori* into those to be answered via systematic and those to be answered via pragmatic evidence appraisal. Comparative questions (especially in topics with new evidence, controversy, or related to expensive, aggressive or specialized interventions) will be systematically reviewed following the full GRADE approach. Questions about disease monitoring, referral, multimorbidity, drug interactions or treatment hierarchy will be answered through a summary of best available evidence, anticipated indirect effects or drug pharmacological properties. The Evidence to Decisions framework will be used for all questions and will document other factors considered for making recommendations, e.g. costs, feasibility, clinical experience etc (see Figure).

Results & Discussion

This approach will result in guidelines that are relevant to clinicians and will facilitate the production of implementation tools, e.g. algorithms, decisions trees and apps that can support shared decision-making.

Conclusion

Transparent use of evidence will remain the basis of all ERS guidelines but by applying this approach future guidelines will be able to address more complex issues of clinical decision making and, therefore, be more useful to clinicians.

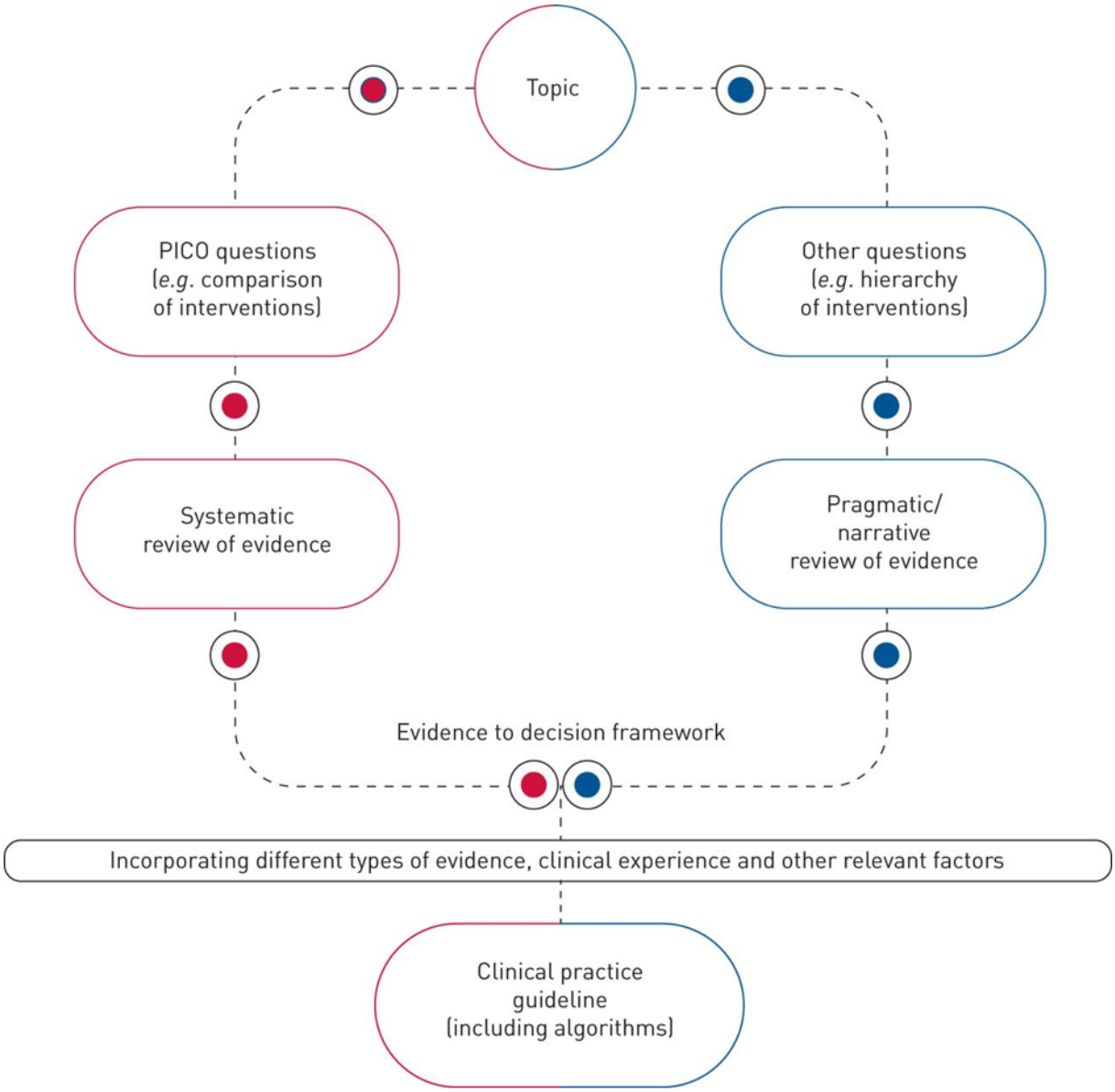


Figure: Overview of the new ERS process for clinical practice guideline development
(Figure taken from Miravitlles et al. ERJ 2018 51: 1800221; DOI: 10.1183/13993003.00221-20, reproduced with permission from ERJ)

OT002
CONSISTENCY OF RECOMMENDATIONS ACROSS GUIDELINES (CRAG) FOR HYPERTENSION

Adapting Guidelines
#OT002

P. Oettgen, B. Alper
EBSCO - Ipswich (United States of America)

Background & Introduction
More than 65 currently active clinical practice guidelines (CPGs) are available for the diagnosis and treatment of hypertension. Consistency across CPGs can increase the trust in the recommendations, while inconsistency can identify recommendations warranting further development.

Objectives / Goal
To evaluate the consistency of recommendations for hypertension across multiple guidelines

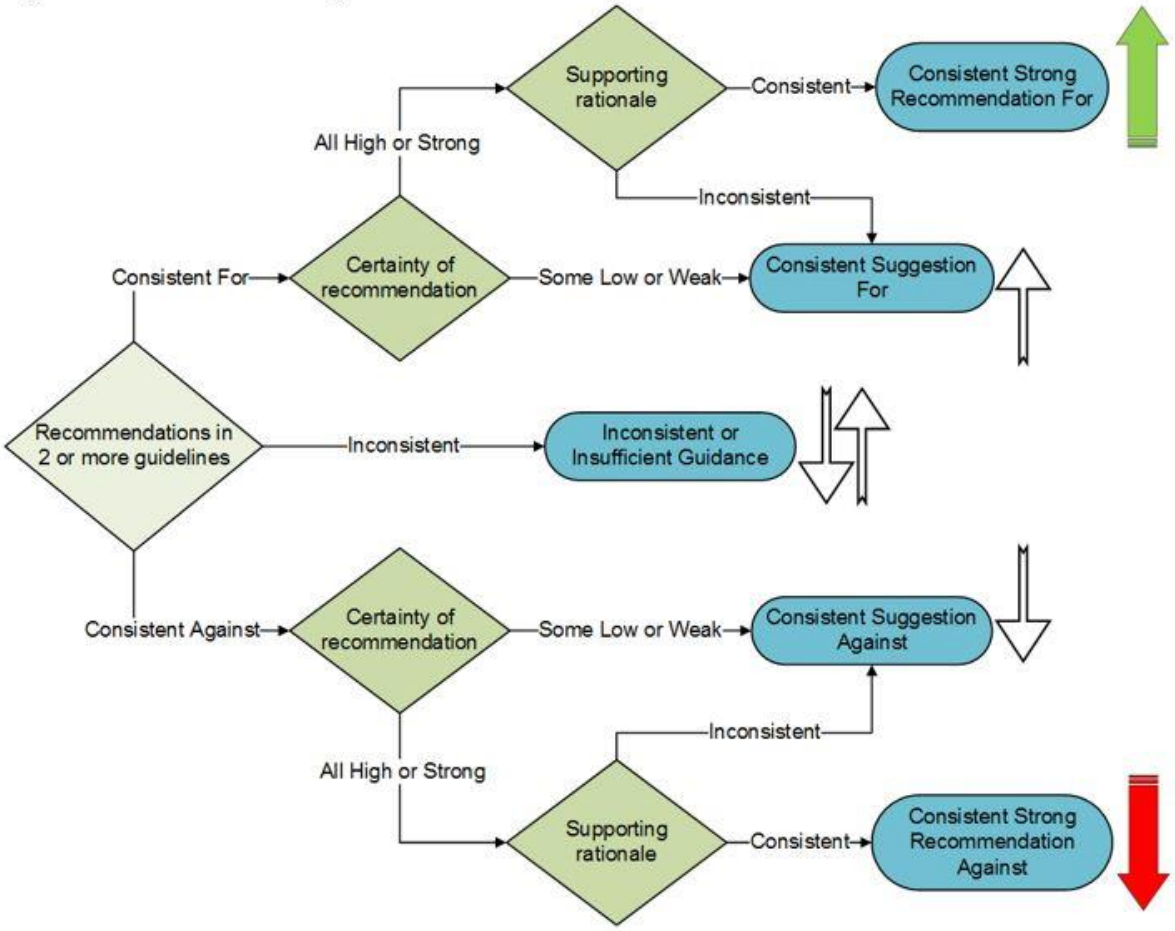
Methods
We identified the most prominent currently active English-language CPGs relevant to general management of hypertension, and the hypertension management recommendations from prominent evidence-based clinical references. We generated reference recommendations describing discrete and unambiguous specifications of the Population, Intervention and Control states. For each reference recommendation, three raters reached consensus on coding the direction and strength of the recommendation made by each CPG and clinical reference. For each reference recommendation, we classified the consistency of recommendations across the CPGs and clinical references (Figure 1).

Results & Discussion
Of the 65 recommendations addressed by two or more CPGs, seventeen (26%) were “Consistent Strong Recommendations For”, implying global and universal support for a high expectation for performing these actions, twenty-one (32%) were “Consistent Suggestions For”, and one (1.5%) was “Consistent Suggestion Against”, implying global and universal support for consideration of these actions though not necessarily with a high degree of expectation for their implementation, and twenty-six (40%) were “Inconsistent or Insufficient Guidance” .

Implications for guideline developers / users
This study provides a method for evaluating consistency of recommendations across CPGs.

Conclusion
Inconsistency in recommendations across CPGs for hypertension is frequent. Future studies are needed to define the causes for inconsistency and develop methods to minimize it.

Figure 1. Classification System for Consistency of Recommendations Across Guidelines



OT003
TRUSTWORTHY GUIDELINES IN THE NATIONAL GUIDELINE CLEARINGHOUSE: THE INSTITUTE OF MEDICINE'S HOPE REALIZED?

Implementation and quality improvement (including indicators) #OT003

J.J. Jue, S. Cunningham, L. Hermanson, K. Hudson, C. Martin, A. Moran, K. Petersen, K. Schoelles, M. Nix
ECRI - Plymouth Meeting (United States Minor Outlying Islands)

Background & Introduction
In 2017, Agency for Healthcare Research and Quality's National Guideline Clearinghouse (NGC) launched the National Guideline Clearinghouse Extent Adherence to Trustworthy Standards (NEATS) Assessments, presenting publically available unbiased assessments of clinical practice guidelines (CPGs) on transparency and rigor of development. These Assessments utilize the NEATS Instrument, a 15-item appraisal tool developed in response to the 2011 U.S. Institute of Medicine report on standards for CPG development.

Objectives / Goal
To describe and characterize CPGs trustworthiness within NGC

Methods
NGC used the NEATS Instrument to appraise all CPGs meeting inclusion criteria submitted over 1 year, with each CPG undergoing dual review by trained NGC staff. We summarize descriptive statistics of completed NEATS Assessments and follow-up.

Results & Discussion
155 CPGs had NEATS Assessments performed, of these, 88.4% were published in 2017 or later. On the whole, these guidelines scored well based on the NEATS assessments. There was documentation of funding sources for 88%; guideline development groups were multidisciplinary in 86% and they had methodologist in 79%. Averages scores for other items of the NEATS Assessment were mostly between 4 and 5, where 5 is the highest score. The lowest average scores were in the areas of Patient and Public Involvement (2.8) and External Review (3.2).

Implications for guideline developers / users
This snapshot provides insight into where guideline developers should focus efforts on improving their guideline development.

Conclusion
Recent CPGs in NGC are trustworthy, due in part to changes made by guideline developers to meet standards of NGC's revised inclusion criteria and NEATS Assessments, a result of the IOM's call for trustworthy standards for CPGs.

P001
ADAPTING INTERNATIONAL GUIDELINES IN LOW AND MIDDLE INCOME COUNTRIES _ A PRAGMATIC APPROACH FROM INDIA

Adapting Guidelines
#P001

F. Cluzeau [1], A. Mehndiratta [1], S. Sharma [2], N. Prakash Gupta [3], J. Sankar [4]
[1]Imperial College London - London (United Kingdom), [2]Department of Neuropsychopharmacology, Institute of Human Behaviour and Allied Sciences, - Delhi (India), [3]National Health Systems Resource Centre - Delhi (India), [4]All India Institute of Medical Sciences - Delhi (India)

Background & Introduction
In India, Standard Treatment Guidelines (STGs), are developed by many agencies. The quality of these guidelines is uncertain.The Ministry of Health and Family Welfare (MoHFW), convened an STG task force to develop a framework for developing STGs

Objectives / Goal
Develop a pragmatic method for adapting evidence-based guidelines to the Indian setting

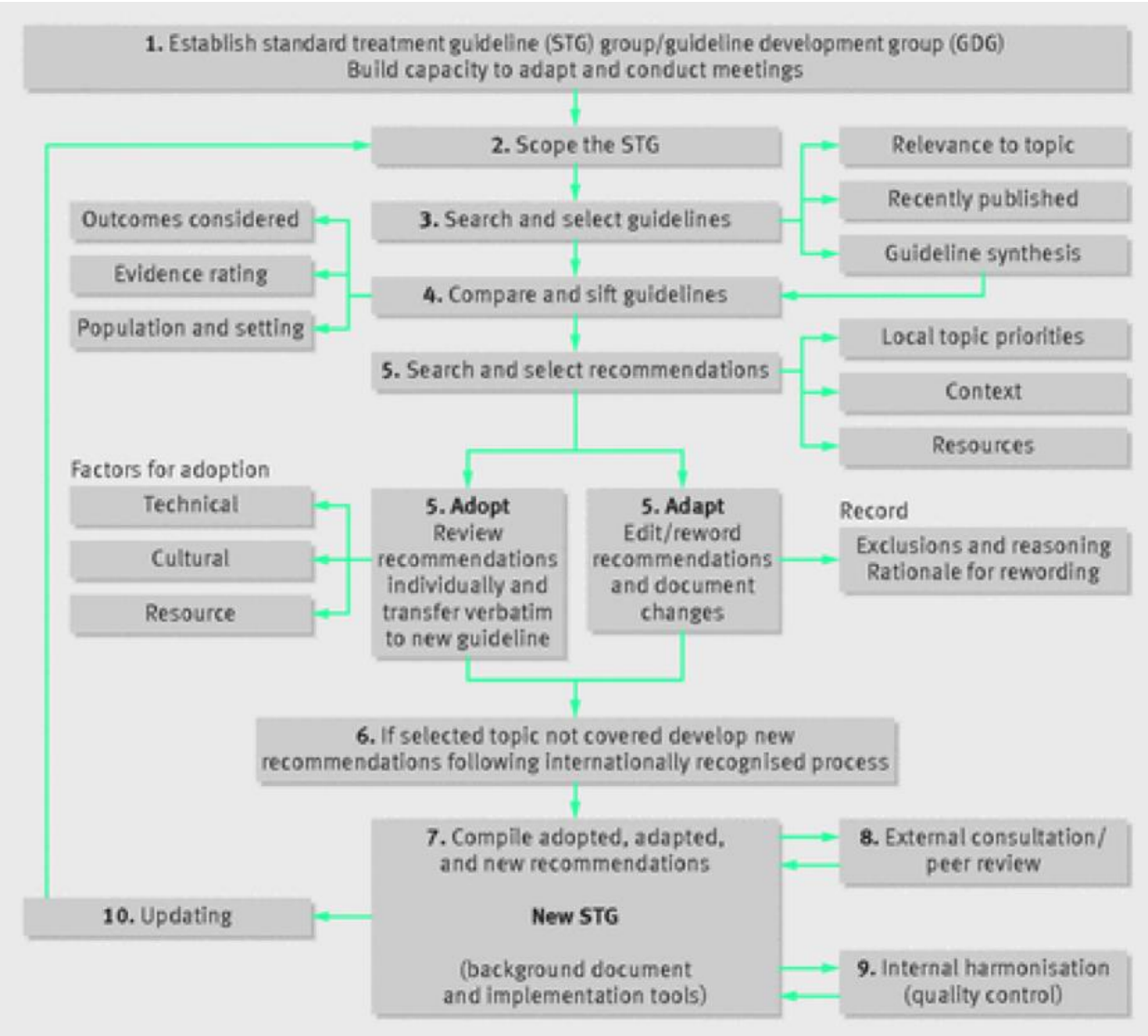
Methods
The Task Force used a 10 step adaptation approach from a pilot framework by the National Institute for Health and Care Excellence (NICE), literature review and expert consensus and drafted an STG handbook. The MoHFW approved fourteen STG topics, convened a multi-stakeholder guideline development group (GDG) for each and a training workshop. GDG prepared the STG scope, searched existing guidelines from the National Guidelines Clearinghouse (NGC), identified relevant recommendations and adopted or adapted them for India. Draft adapted STGs were reviewed by STG task force and independent experts

Results & Discussion
The MoHFW published 12 adapted STGs. GDGs adapted recommendations using their expertise, diverse clinical settings, resource availability. Adaptation ranged from minor edits to major changes, all documented. Issues relevant to India were often missing from source guidelines. NGC did not have all relevant guidelines. Source guideline developers used different systems for grading quality of evidence.

Implications for guideline developers / users
The pragmatic adaptation framework provides a feasible alternative to de novo guideline development for India and other low and middle-income countries

Conclusion
A global guideline adaptation approach is urgently needed, building from country experiences.

Description of the best practice
The adaptation framework provides a useful contribution to wider global efforts to develop a validated approach in producing guidelines relevant to low and middle-income countries


1. Establish standard treatment guideline (STG) group/guideline development group (GDG)
Build capacity to adapt and conduct meetings
2. Scope the STG
Relevance to topic
Recently published
Guideline synthesis
3. Search and select guidelines
Outcomes considered
Evidence rating
Population and setting
4. Compare and sift guidelines
Local topic priorities
Context
Resources
5. Search and select recommendations
Factors for adoption
Technical
Cultural
Resource
5. Adopt
Review recommendations individually and transfer verbatim to new guideline
5. Adapt
Edit/reword recommendations and document changes
Record
Exclusions and reasoning
Rationale for rewording
6. If selected topic not covered develop new recommendations following internationally recognised process
7. Compile adopted, adapted, and new recommendations
New STG
(background document and implementation tools)
8. External consultation/ peer review
9. Internal harmonisation (quality control)
10. Updating

P002
ADAPTIVE CLINICAL PRACTICE GUIDELINE DEVELOPMENT METHODS IN RESOURCE-CONSTRAINED SETTINGS – FOUR CASE STUDIES FROM SOUTH AFRICA

Adapting Guidelines
#P002

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Background & Introduction
New clinical practice guideline (CPG) development is expensive and time-consuming and therefore often unrealistic in settings with limited funding or resources. Rather than starting from scratch, adapting from available CPGs or evidence, using a transparent process, is possible.

Objectives / Goal
We describe four case studies of rigorous processes for adapting CPGs for use in South Africa.

Methods
The South African Guidelines Excellence Project (SAGE) held a workshop (April 2017) to provide an opportunity for dialogue regarding different adaptive approaches to CPG development. Four panellists presented case studies to share their experiences, the methodologies used, challenges and lessons learned.

Results & Discussion
Four CPGs represented the topics: mental health, health promotion, chronic musculoskeletal pain, and pre-hospital emergency care. Each CPG used a different approach, however, using transparent, reportable methods. They included advisory groups with representation from content experts, CPG users and methodologists. They assessed CPGs and systematic reviews for adopting or adapting. Each team considered local context issues through qualitative research or stakeholder engagement. Lessons learned include that South Africa needs fit-for-purpose guidelines and that existing appropriate, high-quality guidelines must be taken into account.

Implications for guideline developers / users
Guidelines development should be a rigorous, transparent and an inclusive process. Each approach may need to be contextualised to the needs of the setting.

Conclusion
Various approaches to CPG development have been proposed. Approaches for adapting guidelines are not clear globally and there are lessons to be learned from existing descriptions of approaches from South Africa.

P003
AN INNOVATIVE APPROACH TO NICE ANTIMICROBIAL PRESCRIBING GUIDELINES FOR MANAGING COMMON INFECTIONS

Adapting Guidelines
#P003

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Background & Introduction
The National Institute for Health and Care Excellence (NICE) is developing antimicrobial prescribing guidelines for managing specific common infections to minimise antimicrobial resistance. The guidelines provide recommendations for when, or when not, to use an antimicrobial medicine for specific infections, for all people in all care settings. They are aimed at prescribers but are applicable to all health and care practitioners and the public. A novel approach to the guideline format helps to communicate and implement the recommendations.

Objectives / Goal
To develop antimicrobial prescribing guidelines for managing common infections to reduce inappropriate use and antimicrobial resistance by using a novel approach to guideline presentation.

Methods
Using innovative approaches for prioritising included evidence.
Addressing previous user feedback through visual representations, short summaries of guidance and presenting the guideline using a layered approach.

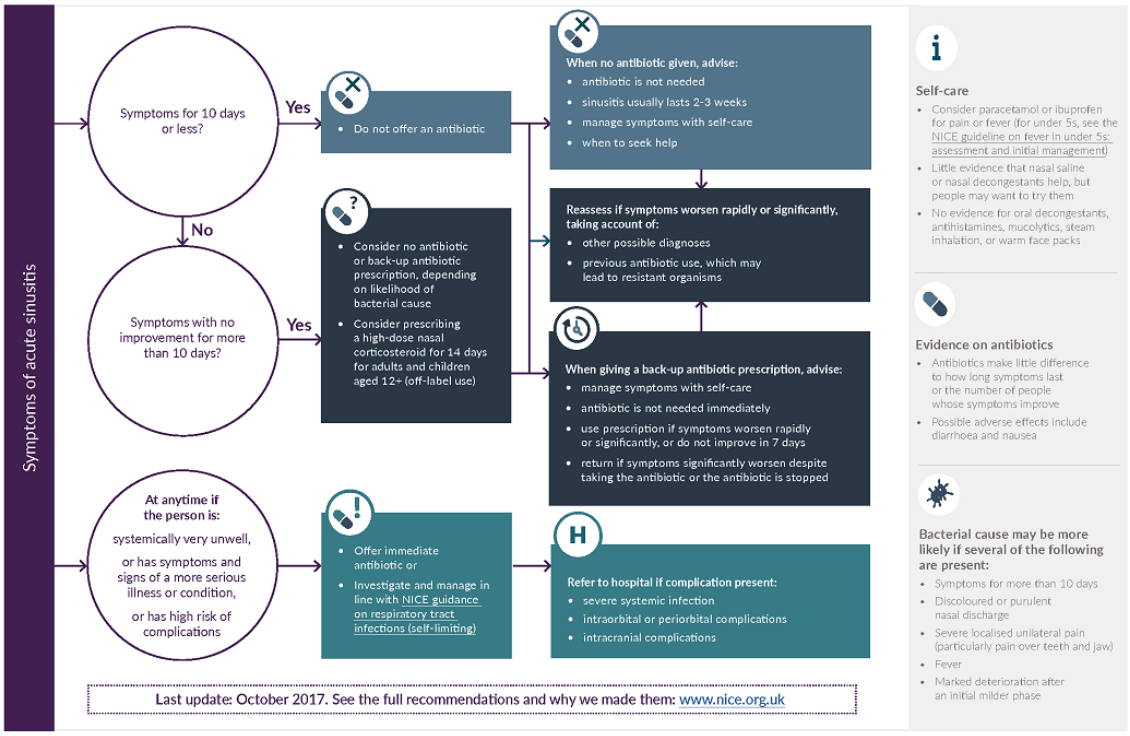
Results & Discussion
The first 3 guidelines on sinusitis (acute), sore throat (acute) and otitis media (acute) showcase the approach. For each guideline there is: a visual summary of recommendations, a guideline (including links to the committee rationale [explaining why the recommendations were made] – a new feature for published guidelines) and an evidence review.
See figures 1 and 2 - visual summary on sinusitis.

Implications for guideline developers / users
User feedback collected when they accessed the visual summaries has been positive and welcomed. Users have found the summaries useful as an aide memoire, as educational tools and to support patient education.

Conclusion
User feedback suggests the visual summary is a useful way of presenting guidelines for busy health professionals and can also be used to help support decision-making with patients.

Sinusitis (acute): antimicrobial prescribing

NICE National Institute for Health and Care Excellence



Sinusitis (acute): antimicrobial prescribing

NICE National Institute for Health and Care Excellence

Antibiotics for adults aged 18 years and over

Antibiotic[1]	Dosage and course length for adults
First choice	
Phenoxymethylpenicillin	500 mg four times a day for 5 days
First choice if systemically very unwell, symptoms and signs of a more serious illness or condition, or at high risk of complications	
Co-amoxiclav	500/125 mg three times a day for 5 days
Alternative first choices for penicillin allergy or intolerance	
Doxycycline	200 mg on first day, then 100 mg once a day for 4 days (5-day course in total)
Clarithromycin	500 mg twice a day for 5 days
Erythromycin (in pregnancy)	250 mg to 500 mg four times a day or 500 mg to 1000 mg twice a day for 5 days
Second choice (worsening symptoms on first choice taken for at least 2 to 3 days)	
Co-amoxiclav[2]	500/125 mg three times a day for 5 days
Alternative second choice for penicillin allergy or intolerance, or worsening symptoms on second choice taken for at least 2 to 3 days	
Consult local microbiologist	

[1] See BNF for appropriate use and dosing in specific populations, for example, hepatic impairment, renal impairment, pregnancy and breast-feeding
[2] If co-amoxiclav used as first choice, consult local microbiologist for advice on second choice

Antibiotics for children and young people under 18 years

Antibiotic[1]	Dosage and course length for children and young people[2]
First choice	
Phenoxymethylpenicillin	1 to 11 months, 62.5 mg four times a day for 5 days 1 to 5 years, 125 mg four times a day for 5 days 6 to 11 years, 250 mg four times a day for 5 days 12 to 17 years, 500 mg four times a day for 5 days
First choice if systemically very unwell, symptoms and signs of a more serious illness or condition, or at high risk of complications[2]	
Co-amoxiclav	1 to 11 months, 0.25 ml/kg of 125/31 suspension three times a day for 5 days 1 to 5 years, 5 ml of 125/31 suspension or 0.25 ml/kg of 125/31 suspension three times a day for 5 days 6 to 11 years, 5 ml of 250/62 suspension or 0.15 ml/kg of 250/62 suspension three times a day for 5 days 12 to 17 years, 250/125 mg or 500/125 mg three times a day for 5 days
Alternative first choice for penicillin allergy or intolerance	
Clarithromycin	Under 8 kg, 7.5 mg/kg twice a day for 5 days 8 to 11 kg, 62.5 mg twice a day for 5 days 12 to 19 kg, 125 mg twice a day for 5 days 20 to 29 kg, 187.5 mg twice a day for 5 days 30 to 40 kg, 250 mg twice a day for 5 days 12 to 17 years, 250 mg twice a day or 500 mg twice a day for 5 days
Doxycycline[3]	12 to 17 years, 200 mg on first day, then 100 mg once a day for 4 days (5-day course in total)
Second choice (worsening symptoms on first choice taken for at least 2 to 3 days)	
Co-amoxiclav[4]	As above
Alternative second choice for penicillin allergy or intolerance, or worsening symptoms on second choice taken for at least 2 to 3 days	
Consult local microbiologist	

[1] See BNF for children for use in specific populations (e.g. hepatic and renal impairment)
[2] In practice, the prescriber will use age bands with other factors such as severity of the condition and the child's size in relation to the average size of children of the same age
[3] Doxycycline is contraindicated in children under 12 years
[4] If co-amoxiclav used as first choice, consult local microbiologist for advice on second choice.

P004
COMPARISON BETWEEN THE ORIGINAL AMERICAN COLLEGE OF RHEUMATOLOGY TREATMENT GUIDELINE AND ADAPTED RECOMMENDATIONS FOR THE EASTERN MEDITERRANEAN REGION AND BRAZIL

Adapting Guidelines
#P004

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Background & Introduction
Guideline adaptation provides an alternative solution in view of reduced financial and human resources and time constraints, making the process more efficient and avoiding duplication of efforts. However, it is necessary to consider the cultural and organizational differences in the new setting to ensure applicability in practice.

Objectives / Goal
To compare the American College of Rheumatology (ACR) recommendations for the treatment of early rheumatoid arthritis (AR) and adapted recommendations for the Eastern Mediterranean Region (EMR) and Brazil.

Methods
We used the GRADE-Adolopment approach to adapt the 2015 ACR RA treatment guideline to the EMR and Brazil. The source guideline addressed 15 questions. For the EMR and Brazil guidelines, 8 questions were prioritized, 6 of which were the same for both guidelines.

Results & Discussion
The recommendations for the 6 questions covered by the EMR and Brazilian guidelines agreed both in direction and strength. All recommendations were in the same direction as the ACR guideline recommendations, but the strength of 3 recommendations changed from strong to conditional in the Brazilian guideline and of 5 changed from strong to conditional in the EMR guideline. Conditional recommendations were made based on cost issues, feasibility, and impact on health inequities. Although all recommendations were in the same direction, there was 50% disagreement between the original and adapted guidelines regarding the strength of recommendations.

Implications for guideline developers / users
Adoption of recommendations may not be appropriate when dealing with different settings. An adaptation method such as GRADE-Adolopment is preferred because it allows tailoring the recommendations to local issues, such as costs, values and preferences, and equity.

P005
DIFFERING GUIDANCE FROM PUBLIC HEALTH GUIDELINES: IDENTIFYING CHALLENGES TO DEVELOPING GUIDELINE-BASED DECISION SUPPORT FOR LEAD SCREENING AND MANAGEMENT

Adapting Guidelines
#P005

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Background & Introduction
Pediatric lead exposure can cause lifelong cognitive and behavioral problems. Guidelines for management and screening programs remain crucial to public health efforts to address this problem. While guideline-based clinical decision-support (CDS) may facilitate screening, differing recommendations across guidelines presents challenges for creating shareable CDS.

Objectives / Goal
Identify similarities and differences in lead screening and management recommendations from U.S. public health guidelines.

Methods
We reviewed lead guideline documents from the Center for Disease Control (CDC), 60 public health departments, the American Academy of Pediatrics (AAP), and the Center for Medicare and Medicaid Services (CMS). We extracted definitions of elevated lead level, lead screening and reporting requirements, and guidance on medical management and follow-up.

Results & Discussion
States provided different thresholds for elevated lead levels (Figure 1). We identified 51 lead screening and management guidelines with publication dates ranging between 2003 and 2018. There was variability in screening and management recommendations (Figure 2). While local risk factors can explain differences in screening recommendations, there is less justification for differences in management. Adapting these guidelines into sharable CDS will require support for localization and alignment of recommendations.

Implications for guideline developers / users
Guideline users looking to disseminate effective lead screening and management programs need to be aware of regional and local differences in guidelines for clinicians. Guideline developers should consider how multiple similar guidelines on a topic can impede the development of sharable, scalable CDS.

Conclusion
Guidelines for lead screening and management have wide variability. Developing sharable CDS for lead screening and evaluation will necessitate resolving or accounting for these local differences.

Figure 1. Definitions of Elevated Lead Level for 50 States and District of Columbia

Definitions of Elevated Lead	N	Description
No elevated level specified, no guidance or policy statement	3	Arkansas, North Dakota, Wyoming
Lead ≥ 3	1	New Hampshire
Lead ≥ 5	37	Alabama, Alaska, Arizona, California, Colorado, Connecticut, D.C., Delaware, Hawaii, Idaho, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, Wisconsin
Lead ≥ 10	10	Florida, Georgia, Illinois, Kansas, Louisiana, Missouri, Nevada, New Jersey, New York (New York City uses ≥ 5), West Virginia

Figure 2. Lead Screening and Management Recommendations

Screening Recommendations		
Policy or Guidance	**Support Universal Screening**	**Mandatory Reporting**
51 (3 organizations, 45 states, 3 counties)	17 (16 states, 1 county)	39 States

Management Recommendations						
Intervention	**Localities (n)**	**Localities Recommending Interventions by Elevated Lead Level (# of localities recommending, cumulative)**				
		≥3 mcg/dl	**≥10 mcg/dl**	**≥15 mcg/dl**	**≥20 mcg/dl**	**≥45 mcg/dl**
Follow up Lead Testing	33	1	26	33	33	33
In Person Home Assessment	34	0	4	22	34	34
Iron Testing	19	0	10	13	19	19
Abdominal X-Ray for Foreign Body	16	0	3	3	13	16
Early Intervention Referral	12	0	4	10	12	12
Multivitamin or Iron Supplement	8	0	6	7	8	8

From 63 policy or guidance statements reviewed (50 states + District of Columbia, 9 localities funded by CDC (Chicago, Harris Country, Houston, Los Angeles, Marion Country, New York City, Philadelphia, Seattle King County, Salt Lake County), and 3 professional organization policies (American Academy of Pediatrics, Center for Medicare and Medicaid Services, and Centers for Disease Control)

P006
EVIDENCE MAP OF GRADE GUIDELINES IN LATIN AMERICAN AND THE CARIBBEAN

Adapting Guidelines
#P006

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Background & Introduction
In Latin America and the Caribbean efforts have been made to advance in the methodological development of evidence informed clinical practice guidelines.

Objectives / Goal
To develop an evidence map of GRADE clinical practice guidelines developed in Latin America and the Caribbean.

Methods
A systematic search of the literature was conducted in databases, developers websites, health ministries, repositories and grey literature. Reports were included if they were informed based clinical practice guidelines developed in Latin American and Caribbean countries. Information about country, health condition, publication date, implementation resources were extracted

Results & Discussion
4878 reports were retrieved. 95 guidelines with GRADE methodology were identified. 79.79% of the guidelines were developed within the last 4 years. 73.68% are from Colombia, 13,68% from Peru, 3.16% from Argentina, 3.16% from Chile and 3.16% from Costa Rica. It was found that 68.42% were developed for non-communicable diseases, 5.26% for pregnancy, childbirth and puerperium problems, 8.42% for neonatal and pediatric pathology and 10.53% for communicable diseases. Our results show a slow and progressive incorporation of GRADE methodology in the region. GRADE guidelines have been embraced mainly by Colombia and partially by other countries. Topics for guidelines continue to be comparable to the HICs and they don`t address communicable diseases.

Implications for guideline developers / users
The identified regional GRADE guidelines would allow to create a repository which can help the adaptation process of the region and strengthening the national guideline programs.

Conclusion
Continuous efforts must be made to introduce GRADE approach in the development of guidelines in Latin America and the Caribbean

P007
GUIDELINE ADAPTATION IN TIMES OF SCARCITY. STUDENT INVOLVEMENT TO ADAPT INTERNATIONAL GUIDELINES TO THE NATIONAL CONTEXT

Adapting Guidelines
#P007

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Background & Introduction
Although the ADAPTE-procedure aims to shorten the time spent on guideline development, guideline adaptation remains an intensive assignment. In addition, the profession Occupational Therapy (OT) is in the early stages of guideline development.

Objectives / Goal
To streamline effort to adapt the existing international guidelines;
To train students in guideline adaptation

Methods
The ADAPTE-procedure is taught during the course 'Evidence Based Practice in OT' of the two year Flemish interuniversity Masters in OT. To practice their skills, teams of students had to update existing international OT guidelines and adapt them for the Belgian context. A process evaluation took place to assess the experience of the students.

Results & Discussion
Students updated five international OT guidelines and adapted them for the Belgian context. These versions of the updated and adapted guidelines will be revised by senior guideline developers.
Students indicated that these assignments are meaningful, not only because they gained experience in applying the theory into practice, but also because they did something useful for the national clinical OT practice.

Implications for guideline developers / users
Involving students in guideline development has proved to be beneficial: senior researchers gain time and students practice their knowledge and skills on real cases.

Conclusion
In guideline adaptation, combining student involvement with senior expertise benefits both parties.

Description of the best practice
The reciprocal relationship between the senior guideline experts and students benefits both parties. Experts save time and students gain valuable skills in applying the knowledge taught by experts.

P008
IDENTIFICATION AND EVALUATION OF CLINICAL PRACTICE GUIDELINES FOR PRIORITY COMMUNICABLE DISEASES IN FRANCOPHONE COUNTRIES OF SUB-SAHARAN AFRICA.

Adapting Guidelines
#P008

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Background & Introduction
Clinical practice guidelines (CPGs) are tools to translate evidence into practice and to improve the effectiveness and consistency of care. Malaria, HIV and lower respiratory infections (LRIs) drive a substantial disease burden in sub-Saharan Africa. In francophone countries in particular, little is known about the content and quality of CPGs for these conditions and their quality may impact patient care.

Objectives / Goal
To identify and appraise CPGs for HIV, malaria and LRIs in selected francophone countries of sub-Saharan Africa.

Methods
We conducted a systematic search of published and grey literature to identify countries' CPGs for HIV, malaria and LRIs (bronchitis and pneumonia). Two reviewers independently appraised the CPGs using the AGREE II instrument.

Results & Discussion
We identified 41 CPGs (disease-specific and broader primary care guidelines) published between 1998 and 2016 in 17 countries. For feasibility considerations and based on pre-determined criteria, we included 22 for appraisal,resulting in these median domain scores across countries and diseases: scope and purpose 44%, stakeholder involvement 28%, rigor of development 0%, clarity of presentation 67%, applicability 10% and editorial independence 4%.

Implications for guideline developers / users
In this limited-resource context, adaptation and contextualisation of reference guidelines might be a preferable approach to *de novo* CPG development. Developers should focus on improving access to CPGs, involving patients and target users, developing local expertise in methodology and promoting transparent processes through adequate reporting and conflict of interest declarations.

Conclusion
CPGs for HIV, malaria and LRIs in this region are mostly adaptations of reference CPGs (WHO).Improvements are needed in the overall quality of development and reporting of these adaptations.

P009
MANAGEMENT OF CHRONIC HEART FAILURE

Adapting Guidelines
#P009

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Background & Introduction
A CPGs implementation strategy has been developed by the national instance for assessment and accrediatation in healthcare in Tunisia “INEAS “.

Objectives / Goal
First adaptation projects have been started with the Tunisian society of cardiology and other healthcare professionals to develop a guideline on the management of chronic heart failure.

Methods
INEAS team has relied on the ADAPTE toolkit to develop its first guidelines. After the constitution of an experts’ panel, a PIPOH question related to the subject was determined and a working plan has been developed. A literature search strategy covering 5 years was carried out. Several databases including GIN, Dynamed plus, Pubmed were explored. Four INEAS methodologists used the PRISMA Flow diagram then the AGREE II toolkit to assess the quality of selected GPCs. Five guidelines were screened. The SIGN Guideline “ Management of chronic heart failure” was retained.

Results & Discussion
After the critical appraisal using tools 14 and 15 of the ADAPTE, a meeting was conducted with the experts panel to discuss the results. The context study consisted in the inclusion of Tunisian data and checking the availability of some medicines in Tunisia. The final adapted guideline was a combination of translated recommendations from the SIGN guideline and a data synthesis of the Tunisian context.

Implications for guideline developers / users
A working group including INEAS team, healthcare professionals and patients was in charge of the development of the guideline. An implementation strategy is planed with policy makers.

Conclusion
CPGs development is on its way to be considered as an important actor in Tunisian healthcare system reform.

P010
SUPPORTING CLINICIANS, EMPOWERING PATIENTS. HOW NICE GUIDANCE SUPPORTS SHARED DECISION-MAKING IN HEALTH AND SOCIAL CARE

Adapting Guidelines
#P010

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Background & Introduction
The National Institute for Health and Care Excellence (NICE) is increasingly engaging with shared decision-making (SDM) as a mechanis to support patient autonomy and choice, and to support the implementation of its guidance.

Objectives / Goal
This session will describe the work of NICE's work in relation to SDM policy and practice in the UK. It will demonstrate NICE's approaches to embed SDM in its work and how evidence can support clinicians and patients to make decisions.

Methods
Since 2015 NICE has run the Shared Decision Making Collaborative: an international network of academics, policy makers, practitioners, and professional and patient organisations with a commitment to SDM. The Collaborative's work has influenced NICE's own work in relation to SDM.

Results & Discussion
To date the SDM Collaborative has met 5 times, establishing actions and change within the wider NHS system and at NICE including the establishment of:
a NICE-wide group with oversight for SDM
patient decision aids (PDA)s development programme as part of NICE's work, including formal processes for PDA topic selection, prioritisation and development
a webpage to support and promote SDM – www.nice.org.uk/sdm
specific consideration of SDM in our guidelines manual

Implications for guideline developers / users
Inclusion in the guidelines manual requires developers to think explicitly about values/preferences when writing recommendations, and to present the underpinning evidence supporting preference-sensitive decisions

Conclusion
Evidence and guideline recommendations can only get us so far. Developers need to consider patient choice and autonomy, acknowledge the limits of the evidence base, and, even where evidence is strong, support people to make individual choices about their treatment and care.

P011
STRENGTHENING NATIONAL EVIDENCE-INFORMED GUIDELINE PROGRAMS: A TOOL FOR ADAPTING AND IMPLEMENTING GUIDELINES IN THE AMERICAS

Adapting Guidelines
#P011

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Background & Introduction
Guidelines are one of many elements that can help to achieve quality health care with safety, efficiency, and equity in Latin-American and the Caribbean.

Objectives / Goal
To develop a manual that presents policy-oriented and methodological strategies for developing and/or strengthening national guideline programs.

Methods
The manual was developed through a literature review of guideline programs and guideline development manuals worldwide along with the experiences of the authors. A draft of this document was reviewed by 17 policy makers, methodologists, guideline developers and experts in guideline implementation.

Results & Discussion
This manual is presented in three chapters: Chapter 1 presents the components of national guideline programs, with a description of the activities to be carried out by the management level (national, regional, institutional). Chapter 2 provides operational information of the GRADE guideline adaptation process. Chapter 3 provides information on implementation of recommendations to help guide managers, institutions, and decision-makers.
Implications for guideline developers / users
This document showcases the requirements for developing, strengthening and implementing guideline programs which give support to health policy development in the Region. Additionally, the manual emphasizes the use of rapid adaptation methods as an efficient and rigorous strategy for formulating recommendations on prevention and management of different health conditions. It additionally reflects the experience of the PAHO through the technical assistance it provides throughout Latin America and the Caribbean.

Conclusion
PAHO offers this manual to public health authorities, administrators, decision-makers, health professionals, patients and other users, as a tool for developing national guidelines programs and evidence-informed guidelines.

P012
TECHNICAL CAPACITY BUILDING FOR GUIDELINE DEVELOPMENT AND IMPLEMENTATION IN LATIN AMERICA AND THE CARIBBEAN

Adapting Guidelines
#P012

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Background & Introduction
The Evidence and Intelligence for Health Department provides technical cooperation for strengthening national guideline programs. The Americas have started to develop evidence informed guidelines and have requested methodological support.

Objectives / Goal
To present the strategies developed by PAHO to strength technical capacity building for guideline development and implementation in Latin-American and the Caribbean

Methods
The Evidence and Intelligence for Health Department conducted a two-day workshop in several countries that included the conceptual bases for guideline adaptation, conflict of interest management, systematic review elaboration, GRADE approach, recommendations formulation, use of local evidence and guideline implementation. Technical assistance was provided as well.

Results & Discussion
The workshop has capacitated 165 experts in El Salvador, Guatemala, Mexico, Panama, Dominican Republic and Peru with the aim to strength the national guideline programs. The workshop participants included decision makers; professionals involved in guideline adaptation and implementation; and clinicians. Methodological assistance was provided for the development of clinical practice guidelines on the management of Kidney chronic disease in Panama; Premature newborn in the Dominican Republic; and Preeclampsia in El Salvador. Support was provided to Peru to support its guidelines policies.

Implications for guideline developers / users
It is expected that each workshop participant act as an agent of change to promote GRADE methodology for guidelines. It is also expected that they would start the institutionalization of national guidelines programs and guideline implementation within their institution

Conclusion
PAHO will continue strengthening the capabilities of policy makers and public health and clinical professionals to develop and implement high quality guidelines.

P013
TRANSITIONING TO VALUE-BASED CARE THROUGH SYSTEM-LEVEL, EVIDENCE-BASED GUIDELINES

Adapting Guidelines
#P013

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Background & Introduction
Healthcare systems are struggling with rising costs and uneven quality. Systems that make the shift from focusing on the volume of services provided to the outcomes patients achieve are most likely to succeed. Key to this transformation, is ensuring care is consistently delivered based on best evidence.

Objectives / Goal
Oregon Health & Science University (OHSU) created the Office of Clinical Integration and Evidence-Based Practice (EBP) whose focus is developing evidence-based clinical guidelines for the OHSU health system.

Methods
Guidelines are developed in partnership with multidisciplinary content expert teams with representatives from each hospital, and patient advocates. The Office of Clinical Integration and EBP uses the GRADE methodology to appraise and summarize research evidence. Content expert teams bring their clinical expertise to interpreting the evidence to develop practice recommendations and consensus statements. Multidisciplinary, clinical implementation teams formally implement each guideline, and use metrics to drive for continuous improvement.

Results & Discussion
To-date, the Office has developed five clinical guidelines, engaging more than 100 clinicians from across the health system. Post-implementation data have shown improvements in patient-important outcomes, such as: reductions in length of stay and opioid use.

Implications for guideline developers / users
Engaging providers across the system in designing clinical pathways has made implementation of guidelines more achievable, and has allowed for OHSU to make meaningful strides in transforming the health system into one integrated and focused on value.

Conclusion
The delivery of coordinated, consistent care is key to clinical integration within a health system.

P014
BEYOND THE GUIDELINES: DEVELOPING CLINICAL ALGORITHMS TO GUIDE SHARED DECISION-MAKING ABOUT WHETHER TO STOP OSTEOPOROSIS TREATMENT

Developing Recommendations
#P014

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Background & Introduction
Osteoporosis increases the risk for fragility fracture. Two trials have demonstrated that bisphosphonate use beyond 3-5 years reduces fragility fracture; however, the risk of atypical femur fracture, a serious complication, also increases with longer use. In 2012, The Kaiser Permanente (KP) National Guideline Program developed a guideline regarding bisphosphonate use, but primary care and specialty providers found it too vague and asked for more specific guidance.

Objectives / Goal
To design evidence-informed, usable guidance for bisphosphonate holiday and discontinuation in primary care.

Methods
In 2017, we held a series of conference calls with five endocrinologists and one pharmacist from five regions of KP. Our task was to review evidence for, create, and agree upon visual algorithms that could guide use of bisphosphonates in primary care. We then presented these algorithms to a larger group of stakeholders from all eight KP regions, achieved consensus and adopted them as supplementary documents to the guideline.

Results & Discussion
We created four visual algorithms that guide clinicians through considerations for bisphosphonate holiday and discontinuation. The algorithms help clinicians navigate complex pathways of patient risk profiles and value considerations.

Implications for guideline developers / users
Visual algorithms to guide clinical practice may be useful for topics involving multiple, sequential clinical decisions, in which the balance of benefit and risk for individual patients is highly variable and the quality of supporting evidence is low.

Conclusion
Clinical decision algorithms to guide bisphosphonate usage employ conditional logic and shared decision-making in support of traditional guidelines.

Description of the best practice
Supplemental visual algorithms can translate guidelines governing complex clinical decisions to practice.

P015
CLINICAL IMPORTANCE AND IMPRECISION IN GUIDELINE DEVELOPMENT

Developing Recommendations
#P015

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Background & Introduction
Uncertainty exists as to how to determine clinical importance in guidelines and its impact on recommendations. NICE guideline developers use minimally important differences (MIDs) in assessing clinical importance, but different approaches are used and there appears to be no evidence whether this impacts recommendations.

Objectives / Goal
To identify whether using established MIDs to determine clinical importance, compared to statistical significance or default imprecision values from GRADE, has an impact on recommendations.

Methods
Data were extracted for outcomes informing selected recommendations from a convenience sample of guidelines. Outcomes were reassessed to determine whether clinical importance changed if a different approach was applied. A qualitative judgement was made regarding whether the recommendation might change.

Results & Discussion
Outcomes informing six recommendations from four published guidelines were extracted covering a range of methods to determine clinical importance.

Table 1 - Clinical importance change and effect on recommendations

			Change in clinical importance with alternative method (%)		
Guideline	**Guideline clinical importance method**	**No. outcomes assessed**	**Grade imprecision**	**Statistical significance**	**Effect on recommendation**
1	GRADE imprecision	7	N/A	33	None
2	Any change, GRADE imprecision, & established MIDs	96	9	28	None
3	GRADE imprecision, established MIDs	27	11	22	None
4	GRADE imprecision	54	N/A	22	None

Implications for guideline developers / users
Determining the effect of MIDs and decisions on clinical importance in guideline development has important implications for development of decision making methodology.

Conclusion
Changes in clinical importance were observed in ~30% of outcomes. There was no evidence that the method of determining clinical importance affected recommendations. This suggests that separate consideration of imprecision and clinical importance is alone, not sufficient to impact recommendations.

P016
COMMITTEE DISCUSSIONS IN NICE PUBLIC HEALTH GUIDELINES AND THE GRADE EVIDENCE TO DECISION FRAMEWORK: QUALITATIVE STUDY

Developing Recommendations
#P016

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Background & Introduction
GRADE Evidence to Decision (EtD) frameworks (2016) offer a transparent and rigorous method for articulating factors that shape guideline recommendations. The National Institute of Health and Care Excellence (NICE) implemented aspects of GRADE developed prior to the EtDs while following NICE methodology for reporting committee discussions as a basis for recommendations.

Objectives / Goal
(1) Critically examine factors considered by NICE public health committees when formulating recommendations and (2) evaluate how committee discussions map to the GRADE EtD framework for public health.

Methods
Qualitative study of committee discussions in three NICE guidelines using framework analysis.

Results & Discussion
Five themes emerged from the published committee discussions: ethics and equity; stakeholder considerations; system considerations; trade-off between benefits and harms; and causal or logical considerations, such as causal pathways from exposure to effect and effective components of complex interventions. The NICE manual includes “conceptual framework or logic model” as a component of committee discussion, but there is no equivalent in the GRADE EtD. This distinction may represent an important difference between public health and clinical guidelines.

Implications for guideline developers / users
This thematic framework could be helpful in simplifying methodological guidance for committees and in understanding the social and scientific issues that shape public health recommendations. Guideline developers and the GRADE Working Group may wish to consider methods of articulating causal relationships in explaining the basis for recommendations.

Conclusion
GRADE EtDs demonstrate content validity in relation to these examples. NICE’s methods for reporting committee discussions encompass the considerations presented in GRADE EtDs with the addition of conceptual frameworks and logic models to articulate causal relationships.

P017
CONSERVATIVE TREATMENTS FOR LOW BACK PAIN: A GUIDELINE FROM THE CANADIAN CHIROPRACTIC GUIDELINE INITIATIVE

Developing Recommendations
#P017

A. Bussères [1], G. Stewart [2], F. Al Zoubi [3], P. Decina [4], M. Descarreaux [5], D. Haskett [6], C. Hincapie [7], I. Pagé [5], S. Passmore [8], J. Srbely [6], M. Stupar [7], J. Weisberg [9], J. Ornelas [10]

[1]McGill University - Montreal (Canada), [2]niversity of Manitoba - Winnipeg (Canada), [3]McGill University - Montréal (Canada), [4]CMCC - Toronto (Canada), [5]UQTR - Trois-Rivières (Canada), [6]Guelph University - Guelph (Canada), [7]University of Toronto - Toronto (Canada), [8]University of Manitoba - Winnipeg (Canada), [9]Ottawa, Prvate practice - Ottawa (Canada), [10]Rush University - Chicago (United States of America)

Background & Introduction
Low back pain (LBP) results in significant burden to society.

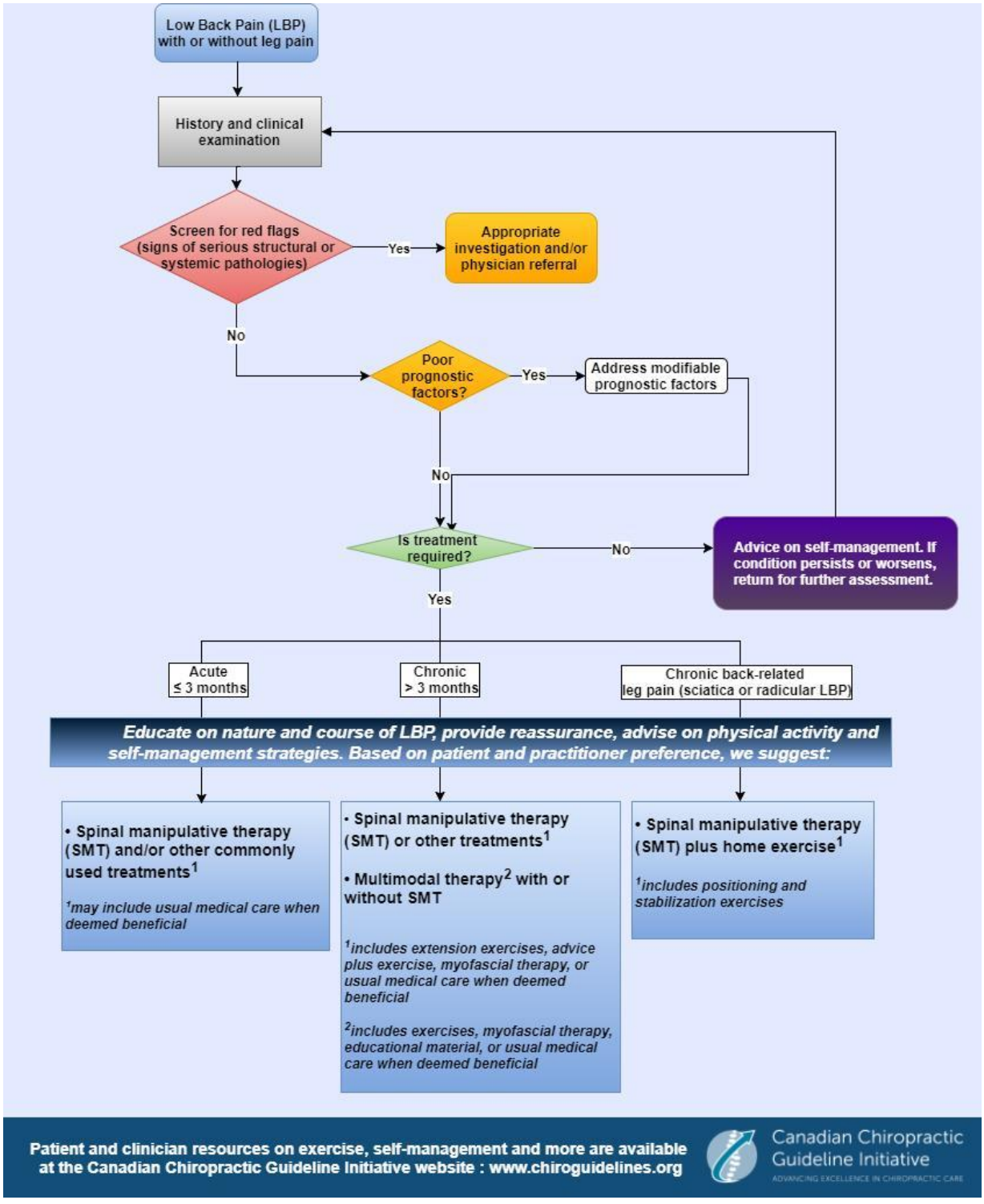
Objectives / Goal
To develop a guideline on the management of LBP in adults, and address the use of spinal manipulation therapy (SMT) compared with other conservative treatments.

Methods
The topic areas were chosen based on an AHRQ comparative effectiveness review, specific to SMT. The panel updated search strategies in Medline. We assessed admissible systematic reviews and RCTs for each question using AMSTAR and Cochrane Back Review criteria. Evidence profiles served to summarize judgments of the evidence quality and link recommendations to the supporting evidence. Using the Evidence to Decision Framework, the panel determined the certainty of evidence and strength of the recommendations. Consensus was achieved using a modified Delphi technique. The guideline was peer reviewed by an 8-member multidisciplinary external committee.

Results & Discussion
For patients with acute (0-3 months) LBP, we suggest offering advice (posture, staying active), reassurance, education and self-care strategies in addition to SMT, usual medical care when deemed beneficial, or a combination of SMT and usual medical care to improve pain and disability. For patients with chronic (>3 months) LBP, offer advice and education, SMT or SMT as part of a multimodal therapy (exercise, myofascial therapy or usual medical care). For patients with chronic back-related leg pain, offer advice and education along with SMT and home exercise (positioning and stabilization exercises).

Implications for guideline developers / users
Recommendations are consitent with other international guidelines.

Conclusion
A multimodal approach including SMT, self-care, and exercise is an effective treatment strategy for acute and chronic back pain, with or without leg pain.


Low Back Pain (LBP) with or without leg pain
History and clinical examination
Screen for red flags (signs of serious structural or systemic pathologies)
Yes
Appropriate investigation and/or physician referral
No
Poor prognostic factors?
Yes
Address modifiable prognostic factors
No
Is treatment required?
No
Advice on self-management. If condition persists or worsens, return for further assessment.
Yes
Acute ≤ 3 months
Chronic > 3 months
Chronic back-related leg pain (sciatica or radicular LBP)
Educate on nature and course of LBP, provide reassurance, advise on physical activity and self-management strategies. Based on patient and practitioner preference, we suggest:
• Spinal manipulative therapy (SMT) and/or other commonly used treatments[1]
[1]may include usual medical care when deemed beneficial
• Spinal manipulative therapy (SMT) or other treatments[1]
• Multimodal therapy[2] with or without SMT
[1]includes extension exercises, advice plus exercise, myofascial therapy, or usual medical care when deemed beneficial
[2]includes exercises, myofascial therapy, educational material, or usual medical care when deemed beneficial
• Spinal manipulative therapy (SMT) plus home exercise[1]
[1]includes positioning and stabilization exercises
Patient and clinician resources on exercise, self-management and more are available at the Canadian Chiropractic Guideline Initiative website : www.chiroguidelines.org
Canadian Chiropractic Guideline Initiative
ADVANCING EXCELLENCE IN CHIROPRACTIC CARE

P018
CORRELATES OF KNOWLEDGE AND ASSESSMENT SKILLS RELATED TO THE MANAGEMENT OF CHILDHOOD DIARRHEA AMONG PUBLIC AND PRIVATE FRONTLINE WORKERS IN UTTAR PRADESH, INDIA

Developing Recommendations
#P018

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Background & Introduction
Frontline workers (FLWs) – accredited social health activists (ASHAs) and rural medical providers (RMPs) –play a pivotal role in early detection and prompt treatment of childhood diarrhea.

Objectives / Goal
The study attempts to understand current knowledge and assessment skills related to management of severe diarrhea with dehydration and the gap between them (know-do gap) among ASHAs and RMPs, identify factors underlying the gap, and determine effective intervention strategies to address the gap.

Methods
We surveyed 473 ASHAs and 447 RMPs in six districts of Uttar Pradesh, India. While their knowledge was assessed using face-to-face interviews, their assessment skills were assessed using video vignettes. We used multinomial logistic regression to assess the effectiveness of different intervention strategies in reducing know-do gap.

Results & Discussion
Around 7.3% FLWs knew at least one of the dehydration signs and could identify the same from the video vignette, and around 55% FLWs neither had knowledge nor could identify any of the signs. Around 26.5% FLWs knew the signs but were unable to identify, and around 11.1% could identify but lacked knowledge. While diarrhea-related information from television, marginally reduced the know-do gap [relative risk ratio (RRR)=0.42; 95% CI: 0.17-1.04]; focused training on diarrhea [RRR=0.31; 95% CI: 0.09-0.99] and inter-personal communication about diarrhea from a health worker [RRR=0.21; 95% CI: 0.05-0.87] significantly reduced the know-do gap about a dehydration related sign.

Implications for guideline developers / users
A reduction in know-do gap among FLWs could be achieved by targeted interventions in the form of diarrhea focused and refresher trainings, repeated messaging through inter-personal communication, and use of mass media.

P019
DEFINING THE CERTAINTY OF NET BENEFIT

Developing Recommendations
#P019

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Background & Introduction
The GRADE Working Group provides a widely-used methodology to assess and report the quality or certainty of evidence and strength of recommendations. This approach does not directly report the certainty that the balance between the desirable and undesirable health effects is favorable.

Objectives / Goal
Objective: To share definitions and methodology for determining the certainty of net benefit

Methods
These concepts were iteratively developed with input from many individuals.

Results & Discussion
A. Steps to generate the net effect estimate (Figure 1):
1. Determine the outcomes to be combined.
2. Determine the quantified relative importance for each outcome.
3. Determine the importance-adjusted effect estimate for each outcome.
4. Combine the importance-adjusted effect estimates.

B. Steps for rating the certainty of net benefit:
1. Classify the precision of the net effect estimate (see Figure 2).
2. Consider other domains influencing certainty for outcomes that are potential differentiators for the likelihood of net benefit.
3. Consider the range of relative importance for outcomes and perform a sensitivity analysis.

Implications for guideline developers / users
Guideline developers can explicitly reporting the certainty of net benefit with recommendations. This approach involves many judgments that are already made explicitly or implicitly when guideline panels make recommendations. Reporting the judgments made when using this approach would allow readers to interpret their confidence in how the ratings were made.

Conclusion
The certainty of net benefit provides an alternative framework to the current GRADE approach for certainty of evidence of effects across health outcomes.

Figure 1. A stepwise approach to rating the certainty of the net effect estimate

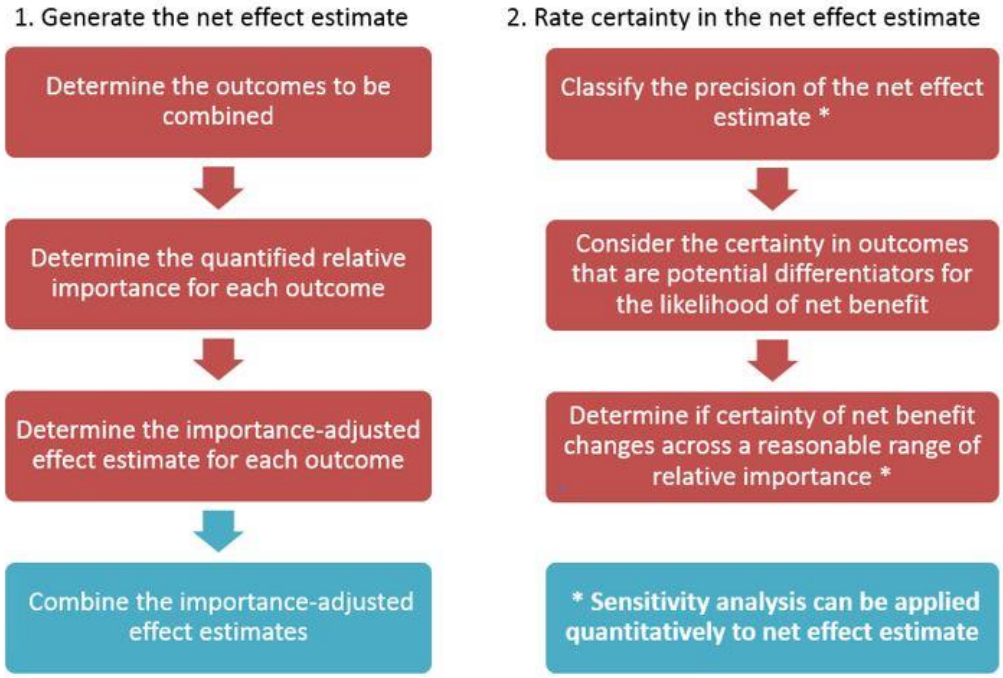
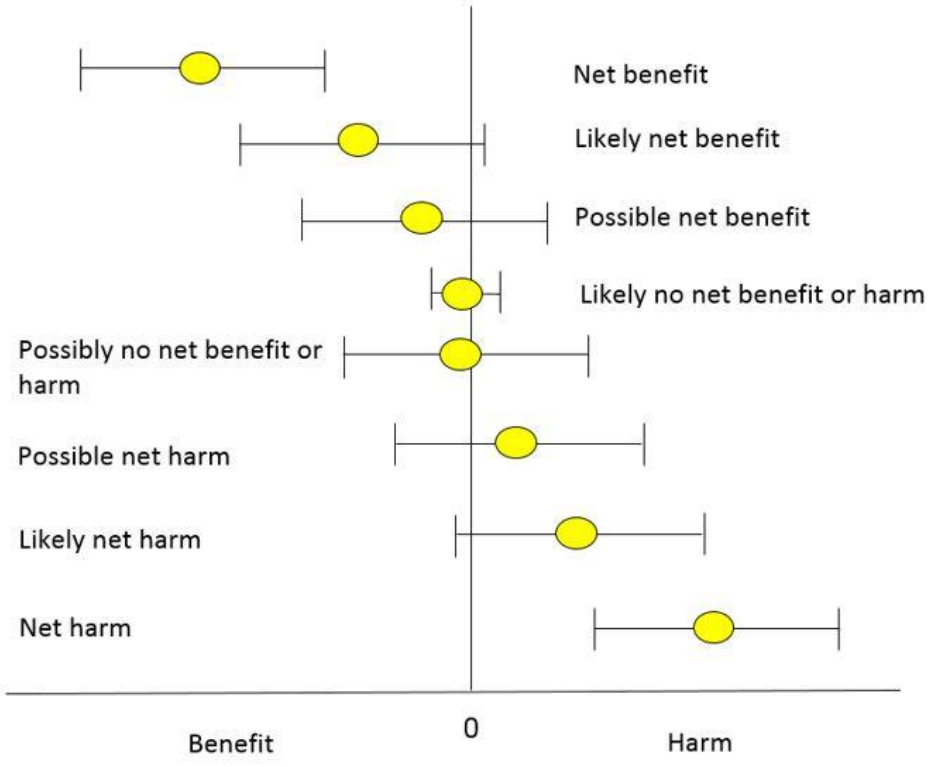


Figure 2. Classification of precision of net effect estimate



P021
DEVELOPING CONTENT FOR A MHEALTH INTERVENTION TO IMPROVE RETENTION IN CARE AND PROMOTE ADHERENCE TO ANTIRETROVIRAL THERAPY: A QUALITATIVE STUDY

Developing Recommendations
#P020

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Background & Introduction
Improved retention in care and proper adherence to antiretroviral therapy are important steps to end the AIDS epidemic as a public health threat.

Objectives / Goal
The Health Belief Model (HBM) was used to develop text messages targeted at improving retention in care and promoting adherence to treatment.

Methods
We conducted five focus group discussions (FGD) with health workers, care-givers and clients attending HIV treatment centres. Discussion topics were informed by constructs of the HBM and factors that may influence retention in care and adherence to treatment. Qualitative data were transcribed and analyzed using Atlas-ti 6.0. Themes were generated and used to draft intervention messages. Texts messages were presented in a follow-up FGD in order to develop optimal phrasing and finalized for the intervention.

Results & Discussion
Findings indicated that brief, polite, personalized, caring, encouraging and educational text messages would facilitate clients retention and adherence, suggesting that text messages may serve as an important ‘‘cue to action.’’ Participants emphasized that messages should not mention HIV due to fear of HIV disclosure. Participants also noted that text messages should capitalize on the importance of treatment in prolonging lives.

Implications for guideline developers / users
Mobile cellphone text messages could be used as add-on in patient care.

Conclusion
Applying a multi-stage content development approach to drafting text messages, resulted in message content that was consistent across different focus groups. This approach could help answer ‘‘why’’ and ‘‘how’’ text messaging may be a useful tool to support clients’ health. The effects of these messages are being evaluated in a randomized trial.

P022
DEVELOPMENT OF A NATIONAL GUIDELINE PROGRAM IN BRAZIL

Developing Recommendations
#P021

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Background & Introduction
In Brazil, most clinical practice guidelines (CPGs) are developed by medical societies or professional groups, with variations in methodology and process. However, there is a need for trustworthy recommendations, and the country is trying to improve the transparency of the process.

Objectives / Goal
To describe the main points highlighted by scientists in evidence-based medicine and CPG development, stakeholders and police makers about the next steps in CPG development in Brazil.

Methods
A workshop with 18 people, including representatives of medical societies, Ministry of Health, and academia, involved in the different steps of guideline development, from priority setting to document approval and implementation. A structured discussion was conducted, with definitions of SWOT (Strengths, Weaknesses, Opportunities, Threats) for the development of a national guideline program in Brazil, followed by the definition of the next steps.

Results & Discussion
We identified relevant aspects related to the following areas: training; political influence; conflicts of interest; litigation; CPG development methods; lack of national data; and topic prioritization. To improve the CPG process, next steps were defined as follows: development of a national network for CPG development; standardization of methods among different groups using international methodologies (GRADE and Adolopment); training; definition of a common agenda to avoid duplication of activities; and enhancement of the relationship between groups and institutions engaged in CPGs.

Implications for guideline developers / users
Discussing CPG development within the country is important to act in synergy in the development of better national guidelines.

P020
DEVELOPING AN "EVIDENCE-BASED CLINICAL PROTOCOL FOR HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY (HIPEC) IN CARCINOMATOSIS"

Developing Recommendations
#P022

M.T. Vallejo-Ortega, J. Feliciano-Alfonso, P.A. Triviño-Heredia, M.P. Gutierrez, G.A. Gómez, M. García
Instituto Nacional de Cancerología - Bogotá (Colombia)

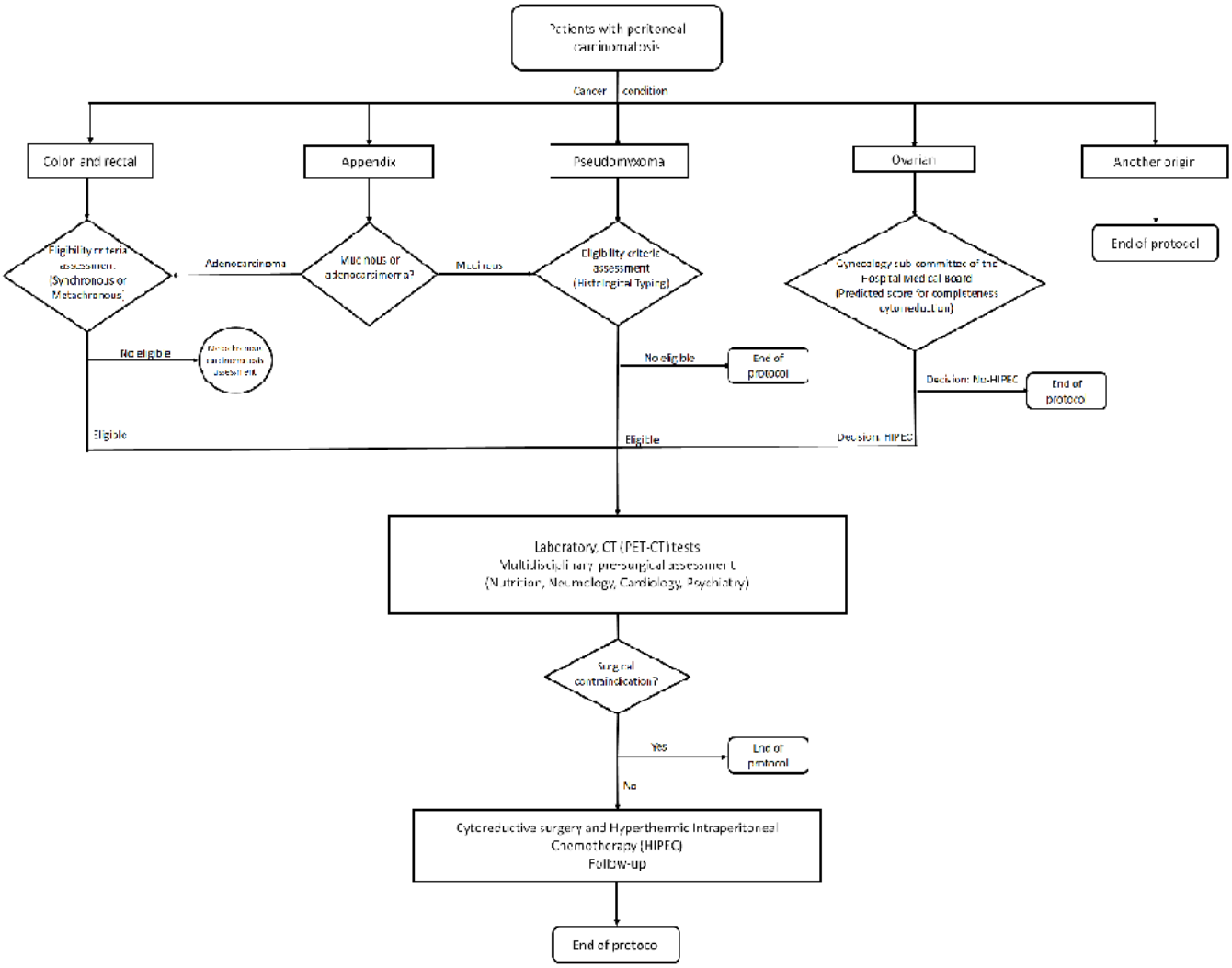
Background & Introduction
Carcinomatosis is a complex biological process associated with poor prognosis in oncology. During last decades, hyperthermic intraperitoneal chemotherapy (HIPEC) has been developed and used as a therapeutic alternative. Due to carcinomatosis low frequency, few guidelines include recommendations about conditioning HIPEC use under unspecified circumstances. Consequently, proper patient selection for HIPEC is imperative in order to improve overall and progression-free survival at oncologic institutions.

Objectives / Goal
To present the "Evidence-based Clinical Protocol for Hyperthermic Intraperitoneal Chemotherapy (HIPEC) in Carcinomatosis" developed abiding by a Colombian handbook for clinical protocol (CP) development.

Methods
The aim of this CP was to establish the HIPEC indications in carcinomatosis for people with either colorectal, appendix, or ovarian cancer and pseudomyxoma peritoneii. We complied by the "Handbook to develop clinical protocols (CP) at Instituto Nacional de Cancerología". This approach included conducting systematic reviews for identifying evidence-based and consensus-based guidelines as well as a multi-institutional RAND/UCLA consensus method to formulate the indications.

Results & Discussion
Thirty-seven indications were formulated for specified conditions (Fig.1). During development process, the main challenges to be overcome were formulating HIPEC indications in ovarian cancer and performing the formal consensus due to both few HIPEC experts and presence of conflicts of interest in some participants. Disclosures were daunting because votes from these panelists could not be censored.

Implications for guideline developers / users
CP development is an alternative to complement guidelines recommendations; nevertheless, in rare conditions, there are methodological limitations that could affect their validity and should be addressed in the near future.


Patients with peritoneal carcinomatosis
Cancer condition
Color and rectal
Appendix
Pseudomyxoma
Ovarian
Another origin
Eligibility criteria assessment (Synchronous or Metachronous)
Adenocarcinoma
Mucinous or adenocarcinoma?
Mucinous
Eligibility criteria assessment (Histological Typing)
Gynecology sub-committee of the Hospital Medical Board (Predicted score for completeness cytoreduction)
End of protocol
No eligible
No eligible
End of protocol
Decision: No-HIPEC
End of protoco
Eligible
Eligible
Decision: HIPEC
Laboratory, CT (PET-CT) tests
Multidisciplinary pre-surgical assessment
(Nutrition, Neurology, Cardiology, Psychiatry)
Surgical contraindication?
Yes
End of protocol
No
Cytoreductive surgery and Hyperthermic Intraperitoneal Chemotherapy (HIPEC)
Follow-up
End of protoco

P023
DEVELOPMENT OF AN EVIDENCE-BASED CLINICAL PROTOCOL USING A GUIDELINE-BASED METHODOLOGY APPROACH: INDICATIONS OF INTENSITY-MODULATED-RADIOTHERAPY TECHNIQUE (IMRT)

Developing Recommendations
#P023

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Background & Introduction
Radiotherapy is a fundamental element of several oncologic treatments. Even though different techniques are available, intensity-modulated-radiotherapy (IMRT) is considered as advanced but expensive. Consequently, it was necessary to contextualize the use of this technique within the Colombian benefit plan framework.

Objectives / Goal
To present the methodology approach used for development of Evidence-Based Clinical Protocol: Indications of IMRT.

Methods
We abided by the “Handbook to develop clinical protocols (CP) at Instituto Nacional de Cancerología” to accomplish our undertaking. Therefore, we identified evidence-based and consensus-based guidelines through systematic review of literature and formulated indications via multi-institutional RAND/UCLA consensus method. As strategies to handle conflict of interest (CI), we used vote restriction and a decision-making process incorporating evidence with robust outcome measures (overall survival and quality of life) exclusively.

Results & Discussion
Twenty-four indications were formulated. Most of them were approved by unanimity, especially those related with head and neck, prostate, penis, gastrointestinal and central nervous system cancers. During external reviewing, the indications were accepted by clinicians and institutional decision-makers with and without disclosures.

Implications for guideline developers / users
Robust-outcome-based assessment and quality-of-evidence in included GPCs could be considered as control measures for handling CI during decision-making in CP development.

P024
DEVELOPMENT OF AN EVIDENCE-BASED CLINICAL PROTOCOL USING A GUIDELINE-BASED METHODOLOGY APPROACH: INDICATIONS OF INTENSITY-MODULATED-RADIOTHERAPY TECHNIQUE (IMRT)

Developing Recommendations
#P024

M.T. Vallejo-Ortega, P.A. Triviño-Heredia, J. Feliciano-Alfonso, G.A. Gómez
Instituto Nacional de Cancerología - Bogotá (Colombia)

Background & Introduction
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Results & Discussion
Twenty-four indications were formulated. Most of them were approved by unanimity, especially those related with head and neck, prostate, penis, gastrointestinal and central nervous system cancers. During external reviewing, the indications were accepted by clinicians and institutional decision-makers with and without disclosures.

Description of the best practice
Robust-outcome-based assessment and quality-of-evidence in included GPCs could be considered as control measures for handling CI during decision-making in CP development.

P026
DEVELOPMENT OF RECOMMENDATIONS FOR GOOD PRACTICE IN ADDITION TO EVIDENCE BASED GUIDELINES WITHIN A EUROPEAN SOCIETY

Developing Recommendations
#P026

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Background & Introduction
The evidence-based approach is considered the gold standard of medical guidance. However, some topics, although associated with a large variation in practice, cannot be addressed in an evidence-based guideline, as there is insufficient evidence or the topic requires practical recommendations on how to perform a procedure.

Objectives / Goal
In addition to an existing guideline program, our European Society has recently developed a manual for the development of recommendations for good practice. The manual sets out a standardised methodology based on universal guideline principles with the aim of framing and improving the methodological quality of recommendations for good practice.

Results & Discussion
The methodology for developing recommendations includes 9 steps (based on evidence-based guidelines): topic selection, composition of a working group, scope and outline, preparation of a draft, discussion and consensus, stakeholder consultation, approval, publication and dissemination, and updating. The preparation of the draft can include data collection through a formal literature searches for specific questions, through a survey (for instance on current practice), or based on expertise only.

Implications for guideline developers / users
The manual for recommendations for good practice formalizes the process of development of these documents, which will impact their quality, and the acceptance. The manual is currently used for the development of several recommendations papers by our society. Caution is needed that topics which can be addressed as evidence-based guidelines are not selected for recommendations papers.

Description of the best practice
Recommendations for good practice are relevant for certain topics of guidance, and should be developed according to a standardised methodology. A manual for development of recommendations for good practice could be helpful.

	Recommendations for good practice	Evidence-based guidelines
Topic	Clinical / laboratory topics that cannot be addressed as an evidence based guideline, but with significant uncertainty and variation in practice	Clinical / laboratory topics with sufficient evidence based to answer key questions
Output	One or more papers published in HROpen Implementation tools	Full guideline Summary published in HROpen If relevant: Patient version, tools
Supporting evidence	Expert opinion Observational data, if available	Systematics reviews, RCTs, or lower quality evidence
Recommendations	Consensus based	Primarily evidence based
Development group	Working group	Guideline development group
	8-10 members	10-15 members
	Content experts	Content experts Non-expert clinicians Patient representative Allied health care professionals
Time frame	12 months from the first WG meeting	18 months from the first GDG meeting
External review	Recommended *(can be redundant if a large group of stakeholders was included during development)*	Obligatory

P026
DEVELOPMENT OF THE EVIDENCE-INFORMED CLINICAL PRACTICE GUIDELINE FOR THE MANAGEMENT OF PRIMARY THROMBOCYTOPENIA IMMUNE IN CHILDREN

Developing Recommendations
#P026

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Background & Introduction
Primary thrombocytopenia immune (PTI) is one of the most frequent thrombocytopenia in children. The diagnostic and treatment of PTI is highly variable

Objectives / Goal
To present the collaborative process of developing and evidence-based Clinical Practice Guideline for management of PTI in Colombia.

Methods
The Fundación Hospital la Misericordia guideline was developed using the PAHO developing manual with the support of Cochrane STI and scientific societies. The multidisciplinary group developed the guideline using de novo methods. The search was performed until February 2018, evidence synthesis and GRADE evidence profiles were created. Patient preferences and resources use were included.

Results & Discussion
The guideline was elaborated with these objectives: 1. To define criteria diagnostic of acute, persistent and chronic PTI 2. To present the management strategies for PTI 3. Provide recommendations for urgency treatment. The GDG found challenging to formulate recommendations regarding diagnostic because the different resources of the country and the low access to a pediatric hematologist on the recommended times. Recommendations were given so pediatricians can administrate the initial treatment.

Implications for guideline developers / users
The evidence is low quality and the recommendations were formulated to maximize implementation and improve outcomes of children with PTI. The GDG identified the pharmacologic interventions for the treatment in order to use splenectomy as a last option given the future implications for the children

Conclusion
The developing of a regional guideline faces several challenges. However, the collaborative efforts of networks and organizations allow to produce a high quality guideline with a high feasibility of implementation in different settings.

P027
DEVELOPMENT PROCESS OF THE BRAZILIAN GUIDELINE FOR DIAGNOSIS AND TREATMENT OF CHRONIC HEART FAILURE

Developing Recommendations
#P027

M. Falavigna [1], A. Biolo [1], V. Colpani [1], L. Cruz [1], C. Stein [1], C.B. Migliavaca [1], A.L.P. Ribeiro [2], A.F.S.B. Brito [3], D.U. De Moraes [4], E.R.R. Da Silva [4], E.V.D.M. Junior [3], E.C. Rezende [3], J.S.E. Ebeidalla [3], G.C. Souza [5], J.A.D.F. Neto [6], L.A.Z. Moura [7], L.B.D.S. Neto [5], M.V. Simões [8], P. Chueiri [1], P.R. Da Rosa [1], L.E.P. Rohde [1]

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Background & Introduction
Heart failure has a high prevalence and burden of disease in Brazil. Access to healthcare in developing countries is not optimal, with a lack of trustworthy guidelines tailored to these regions.

Objectives / Goal
To present the methodological development of the Brazilian guideline for diagnosis and treatment of chronic heart failure, supported by the Ministry of Health.

Methods
The guideline was developed following the G-I-N and IOM standards and the GRADE methodology. Two meetings were held, one for scoping and one for formulation of recommendations. The expert panel consisted of 17 multidisciplinary professionals, including cardiologists, primary care physicians, nurses, nutritionists, physical educators, and policy makers. The process involved 11 methodologists, using 10 to 40% of their working hours.

Results & Discussion
Over 10 months, an independent group was responsible for evidence search and synthesis, involving the development of 7 new systematic reviews (SR) and 10 SR updates, decision tree and budget impact analysis for diagnosis, and structured search for costs and patients' values and preferences. We provided 24 recommendations, 8 for diagnosis, 11 for pharmacological interventions, and 5 for non-pharmacological treatments. Fourteen were considered strong and 10 conditional (weak). Quality of evidence was high in 6 recommendations, moderate in 10, low in 4, and very low in 4.

Implications for guideline developers / users
Our guideline can be adopted or adapted using GRADE-Adolopment for other low- and middle-income countries.

Conclusion
In developing countries, development of trustworthy guidelines for diseases with a high burden should be a priority.

P028
FROM EVIDENCE TO A GUIDELINE RECOMMENDATION USING A DUTCH TRANSLATION OF THE GRADE EVIDENCE TO DECISION FRAMEWORK

Developing Recommendations
#P028

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Background & Introduction
Formulating recommendations taking into account both scientific knowledge and contextual aspects remains challenging for guideline developers.

Objectives / Goal
Our objective was to revise the guideline for physiotherapy in patients with Rheumatoid Arthritis (RA) using a Dutch translation of the GRADE Evidence to Decision (EtD) framework.

Methods
Two researchers and guideline developers from the Royal Dutch Society for Physical Therapy (KNGF) translated the EtD framework into Dutch and made it applicable to the local setting. After consensus, a third content expert was consulted and the final adapted assessment tool was composed. The adapted tool consisted of eleven questions on the (un)desired effects, quality of the evidence of the desired effects, balance in desired and undesired effects, value of desired effects, costs, acceptability and feasibility, assessed on a 5-8 point scale. The tool was used by each member of the guideline panel, resulting in a strong or conditional recommendation for or against, or a conditional recommendation neither for nor against an intervention.

Results & Discussion
The formulated recommendations were used for discussion, after which the final recommendation was formulated, allowing an equal share of each guideline panel member.

Implications for guideline developers / users
The translation and application of the EtD tool is a first step into Dutch guideline development to enhance the process of evidence to decisions.

Conclusion
The GRADE EtD framework was successfully translated into Dutch and was used to generate recommendations in a systematic and transparent way to revise the guideline for physiotherapy in patients with RA.

P029
FROM IDEALISM TO PRAGMATISM IN GUIDANCE FOR HEALTH PROTECTION: ACHIEVING A BALANCE BETWEEN EVIDENCE BASED AND GOOD PRACTICE GUIDANCE.

Developing Recommendations
#P029

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Background & Introduction
As in other areas of public health, there is enthusiasm for developing guidance in health protection. However, there are particular challenges in relation to the scarcity of good quality evidence supporting prevention and management of communicable diseases. The Scottish Health Protection Network (SHPN) – an obligate network established to enable a cohesive 'health protection service for Scotland' – has made significant efforts to improve the quality of health protection guidance for use in Scotland, as well as to balance practitioner demands for guidance on topics where the evidence base is not robust, with a desire to maintain the highest possible standards of guidance development.

Objectives / Goal
To create a Framework to support the development of health protection guidelines, integrating published scientific evidence with expert and local practitioner experience.

Methods
The SHPN has produced a guidance development model that relies on stakeholder involvement to provide practice based knowledge to supplement guidance where the traditional sources of evidence are lacking. The decision-making process adopted makes explicit the differences in sources of evidence input, i.e. research evidence, professional intelligence and organisational values or preferences.

Results & Discussion
The SHPN has created two categories of guidance: one primarily supported by scientific evidence (Evidence Based Guidelines); and a second, to permit guidance where scientific evidence is less readily available (Good Practice Guidance).

Implications for guideline developers / users
0

Conclusion
Adopting these two categories of guidance has allowed addressing a wider range of topics to meet practitioner needs, while setting clear methodological and quality assurance standards to maintain validity and rigour, appropriate to the class of guidance.

Description of the best practice
0

P030
GUIDELINES IN ERA OF REALISTIC MEDICINE-THE RESPONSE OF SIGN

Developing Recommendations
#P030

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SIGN - Glasgow (United Kingdom)

Background & Introduction
Internationally patient choice is recognised as being important in clinical decision making. In Scotland the Chief Medical Officer challenged the profession in the annual reports Realistic Medicine and Realising Realistic Medicine to recognise that patients may choose to opt for often less aggressive interventions based on their individual perspectives.

Objectives / Goal
To review the work of SIGN, to better understand where the guidelines recognise that choice exists and seek to understand the perception of guidance.

Methods
Recent guidelines and our developer's handbook was reviewed. Consultation with stakeholders was undertaken and a review of Guidelines and Realistic Medicine was written and published.

Results & Discussion
SIGN now makes strong or conditional recommendations for or against interventions based on the balance of benefits and harms. This replaced recommendations ranked on the quality of evidence. In discussion with stakeholders alternative methods of wording guidance received strong support with the guidance being specific about both the recommendation and why it is recommended. Recent guidelines now also contain many strong recommendations to consider using (or not using interventions). This recommendation to consider necessitates more individualised discussions. Stakeholders were keen to be involved in dialogue, which lead to better understanding and suggestions for further improvement.

Implications for guideline developers / users
Guidelines produce guidance not standards of care, they have always done this but in recent years guidance has been interpreted as limiting rather than permitting choice. Guideline organisations can change this perception by engaging.

Conclusion
The role of guidelines in enhancing patient choice needs to be clearly communicated.

P031
HOW HEALTH EQUITY CHARACTERISTICS WERE REPORTED IN CHINESE CLINICAL PRACTICE GUIDELINES

Developing Recommendations
#P031

V. Welch [1], X. Wang [2], Y. Chen [2], L. Ke [2], X. Luo [2], L. Yao [2], K. Yang [2]
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Background & Introduction
To consider equity issues in clinical practice guidelines (CPGs) development and implementation has become increasingly important, although incorporating equity into guidelines remains a challenge. The number of Chinese CPGs raises quickly by year, while no study has examined how they considered health equity when forming recommendations.

Objectives / Goal
To investigate how health equity issue was reported in recommendations from Chinese CPGs.

Methods
With terms “指南” and “指引”, we searched CNKI, WanFang and CBM from January 1, 2016 to February 1, 2018, and collected Chinese CPGs published in 2016 and 2017. Two independent reviewers finished screening data abstraction. The consensus on screening and data abstraction were reached between the two reviewers. We investigated the PROGRESS-Plus factors reported in recommendations, and data was summarized as frequency and percentage.

Results & Discussion
108 (73 in 2016 and 35 in 2017) CPGs were included after screening. 65(60.2%) CPGs reported one or more (one in 54 guidelines) PROGRESS-Plus factors in their recommendations, and PROGRESS-Plus factors was reported as follows: Place of residence(2,1.9%), including economy underdeveloped regions and locations with limited access to the intervention; Race/ethnicity/culture/language(2,1.9%), and both only mentioned language; Occupation(2,1.9%); gender/sex(9, 8.3%); religion(0); education(2,1.9%); socioeconomic position(2, 1.9%); and social capital(0). For other factors, only personal characteristics like age(60,56%) and disability(1,0.9%) were noted.

Implications for guideline developers / users
Chinese guideline developers may need to pay more attention to health equity when formulating recommendations.

Conclusion
The PROGRESS-Plus factors reported in the Chinese clinical practice guidelines could to some degree, reflect the gaps concerning the reporting and awareness of equity issue and the PROGRESS-Plus framework among Chinese guideline developers.

P032
HOW WELL DID THE US HIGH BLOOD PRESSURE GUIDELINES CONSIDER ISSUES RECOMMENDED IN A G-I-N CHECKLIST FOR MODIFYING DISEASE DEFINITIONS?

Developing Recommendations
#P032

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Background & Introduction
In 2017 the G-I-N Preventing Overdiagnosis Working Group published advice for groups modifying the definition of a disease, including an 8-item checklist. The recent ACC/AHA guidelines high blood pressure guidelines modified the definition of hypertension, lowering the threshold for the definition.

Objectives / Goal
To determine how well the 2017 ACC/AHA guidelines had considered the items described in the G-I-N checklist for modifying disease definitions.

Methods
We reviewed the recent blood pressure guidelines to determine whether the guidelines had considered the items included in the checklist, and whether evidence existed to address these issues.

Results & Discussion
The new guidelines would label an additional 31 million people in the United States as having high blood pressure, with nearly half the adult population being defined as having hypertension. In the newly defined group, approximately 25 million people would not be recommended to start medication. The effects of the disease label have been shown to have harms, and no benefits have been demonstrated, making these newly diagnosed people at risk of harm. About 3 million people are at high risk of cardiovascular disease and are likely to benefit from blood pressure lowering treatment. For the remaining 3 million, harms and benefits are in rough balance.

Implications for guideline developers / users
The checklist clarifies who will benefit and be harmed by the change in the definition and demonstrates how the checklist can help guideline groups in their deliberations.

Conclusion
Most of those newly defined as hypertensive are likely to be harmed. Shared decision making is important for those where harms and benefits closely balance.

P033
IMPROVING THE USE OF DECISION ANALYSIS MODELING IN CLINICAL PRACTICE GUIDELINES: A RESEARCH PROTOCOL

Developing Recommendations
#P033

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Background & Introduction
Decision analysis modeling (DAM) techniques (i.e. decision trees, Markov models) can facilitate the assessment of diagnostic tests by estimating their related clinical relevant outcomes under a range of scenarios. However, methods to integrate modeling evidence in clinical guidelines (CGs) have not been formally developed so far.

Objectives / Goal
To evaluate the use of DAM in CGs development and provide methodological guidance.

Methods
This project will include four main components. 1) Systematic review (SR) of CGs development handbooks. We will conduct a search in MEDLINE, EMBASE, G-I-N and US-NGC databases. We will summarize the available guidance to consider DAM evidence. 2) SR of DAM evidence of mammography breast cancer screening intervals. We will conduct a search in MEDLINE, EMBASE and NHS-EED databases and extract DAM estimates on clinical outcomes. We will exclude studies reporting costs or ICERs. We will assess the risk of bias with the ISPOR-AMCP-NPC tool and rate its certainty with the GRADE approach. 3) Development of a DAM on breast cancer staging. We will develop a Markov model to compare the relative effectiveness of conventional (bone scan plus computed tomography) vs. positron emission tomography staging. 4) Evaluation of the use of DAM in CGs. We will interview guideline methodologists about the potential use of DAM and display them presentation formats that we will prototype and user-test them with our previous clinical scenarios results and in real CGs.

Results & Discussion
We will present the detailed methodology at G-I-N conference.

Implications for guideline developers / users
Our project will produce new knowledge about the use of DAM in CGs.

P034
INTEGRATING GUIDELINES AND EVALUATIONS; THE SWEDISH MODEL FOR IMPROVING ADHERENCE TO NATIONAL GUIDELINES IN PSORIASIS

Developing Recommendations
#P034

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Background & Introduction
The Swedish National Board of Health and Welfare works with the aim to establish good and equal health care in Sweden. In a decentralized healthcare system national guidelines provides steering. Further information on improvement areas from a steering perspective can however be achieved by combining the guidelines with indicators for assessments, target-levels and an evaluation of current performance using national patient registries and questionnaires.

Objectives / Goal
The aim is to establish good and equal health care in Sweden for persons with Psoriasis by providing guidance for decision-making in management and governance issues.

Methods
A standardized, systematic and transparent processes to develop the guideline, which includes a body of scientific evidence and best practice with prioritized recommendations, indicators and a National assessment and evaluation was used. These processes involve patients, professionals and decision-makers in the health care system. Evaluation was done based on different nationwide patient registries together with directed questionnaires.

Results & Discussion
A guideline for Psoriasis was published in March 2018. The guideline contains recommendations, monitoring indicators as well as assessments of financial and organisational consequences of the recommendations.

Implications for guideline developers / users
The integrated work provides best available knowledge and guidance on methods to use for psoriasis. As such it is a very valuable tool for health care providers working with development and improvement of the health care given.

P035
IS LOWER VALUE CARE DESCRIBED BY DO-NOT-DO RECOMMENDATIONS IN DUTCH CLINICAL GUIDELINES?

Developing Recommendations
#P035

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Background & Introduction
Lower value healthcare should not be provided. Clinical guidelines provide do-not-do recommendations that stimulate de-adoption of lower value care. However, it is unclear whether these do-not-do-recommendations (actually) describe lower value care.

Objectives / Goal
To identify lower value care from do-not-do-recommendations in Dutch clinical guidelines.

Methods
We assessed the list of a total of 719 do-not-do recommendations in Dutch clinical guidelines originating from Wammes et al (2016). Each recommendation was assessed by two assessors. They assessed: the strength of the formulated recommendation (strong/weak) and the category (do-not-do without exceptions/do-not-do routinely/do-not-do for a specific subgroup/do-not-do except in the context of a study trial). Lower value care was defined as strongly formulated do-not-do recommendations without exceptions.
We analysed the data descriptively and a 85% agreement between two assessors was considered as sufficient.

Results & Discussion
A total of 310 recommendations (43%) were strongly formulated. Of those, 42 (6% of all recommendations) were formulated without any exceptions and described lower value care. Agreement between assessors ranged from 77% to 92%.

Implications for guideline developers / users
When guideline developers aim to identify and prioritize lower value care, they should be aware of the need for clear formulation and specification of their do-not-do recommendations.

Conclusion
Less than 10% of 719 do-not-do recommendations in Dutch clinical guidelines described lower value care. Lower value care cannot be deduced from do-not-do recommendations without a more detailed assessment of the formulation and specificity of the recommendation and healthcare context.

P036
METHODOLOGICAL QUALITY OF SRI LANKAN CLINICAL GUIDELINES ASSESSING THE AGREE II INSTRUMENT

Developing Recommendations
#P036

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Background & Introduction
The AGREE II tool can be used to assess the methodological quality of clinical practice guidelines (CPGs).

Objectives / Goal
To assess the quality of the CPGs using the AGREE-II.

Methods
We evaluated 94 Sri Lankan guidelines published in 2007. Two reviewers independently extracted data. Each item with a score discrepancy of more than three between the two reviewers was discussed further. Any disagreements were resolved by consensus or were assessed by a third reviewer. Poor quality was defined as the item score of ≤3. We obtained the score for each domain by summing all individual item scores according to AGREE-II instrument.

Results & Discussion
All the CPGs were developed by the Academic Colleges. The percentages of poor quality of all the items were more than 50% except the items 1, 2 and 22. Median score (range) and percentage of guidelines with domain score of <30 were as follows; scope and purpose [33.3% (2.8-83.3%) 42.6%], stakeholder involvement [14.9% (0.0-61.1%), 81.9%], rigor of development [6.1% (0.0-49%), 98.9%], clarity and presentation [30.5% (8.3-61.1%), 46.8%] and applicability [8.3% (4.2-14.6%), 100%]. For the domain 'editorial independence' the score was 50% for all the CPGs. Eighty six (91.5%) of the guidelines were scored as poor overall quality. Of 94 guidelines 8 (8.5%) would be recommended to be used with modifications and 86 (91.5%) not be recommended for clinical practice.

Implications for guideline developers / users
Major efforts are needed to update the existing CPGs according to the principles of evidence based medicine.

Conclusion
The quality of the guidelines were very low.

P037
PATIENT AND OTHER STAKEHOLDERS' PERSPECTIVE: LIVING ONLINE DATABASE OF SYSTEMATIC REVIEWS

Developing Recommendations
#P037

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Background & Introduction
The available evidence on patients and other stakeholders' perspective is widely diverse. Retrieving this type of evidence is challenging for several reasons, including the heterogeneous terminology used in the published literature, which makes it challenging to tailor search strategies or to classify the identified studies.

Objectives / Goal
To develop a free access, online database to compile and classify evidence on patients and other stakeholders' evidence.

Methods
The proposed database is linked to Epistemonikos (http://www.epistemonikos.org/), the largest database of systematic reviews in the world. References are searched for using a pre-specified search strategy for this type of research. Screening is conducted following a crowdsourcing approach; eligible systematic reviews are reviewed and classified in duplicate. The following data is extracted: classification of the systematic review according to study design, stakeholders involved (patients, healthcare professionals, or caregivers), and characteristics of stakeholders (i.e. country/region, ethnicity, and health condition of interest).

Results & Discussion
Over 7,000 references for the years 2014-2016 have been screened, resulting in over 700 eligible systematic reviews. Screening activities are underway; we will present the preliminary contents of the database at the conference.

Implications for guideline developers / users
Patients' and other stakeholders' research evidence is invaluable for developing healthcare recommendations that are consistent with their perspectives. These, hence, will be more likely acceptable and implementable. Facilitating the retrieval of this type of evidence is therefore crucial.

Conclusion
The proposed database aims to become a one-stop shop for guideline developers, researchers and clinicians searching for evidence on patients' and other stakeholders' research evidence.

P038
RECOMMENDATIONS IN CLINICAL PRACTICE GUIDELINES ON GOUT: SYSTEMATIC REVIEW AND CONSISTENCY ANALYSIS

Developing Recommendations
#P038

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Background & Introduction
Gout is one of the most common inflammatory arthropathies, with incidence increasing in the past decades. Clinical practice guidelines are statements that include recommendations intended to optimise patient care.

Objectives / Goal
We conducted this study to compare and analyse the recommendations from clinical practice guidelines (CPGs) on gout worldwide, examine the consistency across CPGs, and provide suggestions to develop and update gout guidelines.

Methods
We conducted systematic searches in MEDLINE, CBM, GIN, NICE, NGC, WHO, SIGN, DynaMed, UpToDate, and Best Practice databases, from their inception to January 2017 to identify and select CPGs related to gout.

Results & Discussion
A total of 15 gout guidelines including 390 recommendations were retrieved. In all guidelines, less than 40% of evidence was of high quality. The main topics covered by the recommendations were diagnosis, pharmacologic treatment of acute gouty arthritis, pharmacologic urate-lowering therapy (ULT) of chronic gout, lifestyle interventions, prophylaxis, and management of asymptomatic hyperuricemia. There was substantial discrepancy between the guidelines in recommendations covering the use of corticosteroids as a first-line treatment for acute gout, the use of colchicine, indications for ULT, the use of febuxostat as first-line ULT, the use of allopurinol, and the timing of ULT initiation.

Conclusion
A substantial number of countries are devoting to development of gout guidelines, but the process of updating guidelines is stagnant. Quality of evidence is poor in most guidelines, and recommendations between guidelines are not consistent.

P039

REPORTING, PRESENTATION AND WORDING OF RECOMMENDATIONS IN CLINICAL PRACTICE GUIDELINE FOR GOUT: A SYSTEMATIC ANALYSIS

Developing Recommendations
#P039

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Background & Introduction
Recommendations should be presented as clear, specific and actionable statements. The RIGHT working group is developing a checklist for reporting recommendations (RIGHT for recommendations).

Objectives / Goal
We systematically analyzed recommendations from gout guidelines as an example, aiming to provide a basis for developing a reporting standard.

Methods
We systematically searched the major databases and guideline websites from their inception to January 2017 to identify and select gout CPGs.

Results & Discussion
A total of 15 gout guidelines with a range of 5 to 80 recommendations were retrieved. Several indicators were used in the gout guidelines to facilitate identification of recommendations, including grouping all recommendations in a summary section, formatting recommendations in a particular or special way, using locating words for recommendations and indicating the strength of recommendation (SOR) and quality of evidence (QOE). We found some components commonly involved in recommendations of gout. The wording of recommendations varied across guidelines. Recommendations were detailed and explained in the section of recommendation statement. In some guidelines, other materials were accompanied with recommendations to assist their reporting in some guidelines.

Implications for guideline developers / users
Guideline developers can be guided to write recommendations if a standard for reporting recommendations is established. Guideline audience will better understand and apply guidelines if recommendations are reported clearly, adequately and consistently.

Conclusion
Variability and inconsistency were found on the reporting and presentation of recommendations in the current gout guidelines. The RIGHT working group is developing a reporting standard for recommendations, which is expected to change this condition.

P040
THE EUROPEAN COMMISSION INITIATIVE ON BREAST CANCER AND ITS EUROPEAN GUIDELINES FOR BREAST CANCER SCREENING AND DIAGNOSIS

Developing Recommendations
#P040

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Background & Introduction
The European Commission Initiative on Breast Cancer (ECIBC) is an EC initiative aiming to ensure and harmonise the quality of breast cancer (BC) care across European countries on a sustainable basis, contributing to improving health & reducing health inequalities.

Objectives / Goal
1.Development of a voluntary European QA scheme (includes quality and safety requirements, relevant to citizens, for BC services in Europe, whenever possible based on evidence).
2.Compilation of evidence-based recommendations on BC screening and care services in Europe (developing the European Breast Guidelines on screening&diagnosis and collecting existing high-quality evidence-based guidelines on all BC care processes on the Guidelines Platform)

Methods
The European Breast Guidelines are being developed with GRADE using GRADEpro Guideline Development Tool. A workflow to make the guideline development process more efficient was created and improved throughout the process.
Evidence-to-Decision frameworks (Etds) are used to provide a systematic and transparent process from evidence to the healthcare decision.

Results & Discussion
The first 11 evidence-based recommendations on screening and diagnosis are published (complete Etds) in a dedicated webpage. Approximately 60 recommendations will be published by 2019. This evidence is made available to define the European QA scheme requirements.

Implications for guideline developers / users
The presentation of the guideline development process workflow used may help other guideline developers in planning their work. The ECIBC web design, showing complete EtDs, may help those wishing to adapt recommendations.

Conclusion
The multidisciplinary, transparent and robust development process used, together with the coupling of the guidelines with a QA scheme that will assess their correct implementation and a continuous stakeholders' engagement will enhance implementation.

P041
THE SWEDISH NATIONAL GUIDELINE FOR ENDOMETRIOSIS

Developing Recommendations
#P041

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National Board of Health and Welfare - Stockholm (Sweden)

Background & Introduction
The Swedish National Board of Health and Welfare works with guideline development in areas, where the health care services are in particular need of guidance. The recommendations cover a broad range of issues and reflects the available evidence and best practice.

Objectives / Goal
The aim is to establish good and equal health care in Sweden for women with Endometriosis by providing guidance for decision-making in management and governance issues.

Methods
A standardized, systematic and transparent process to develop the guideline, which includes a body of scientific evidence and best practice with prioritized recommendations. The process involves patients, professionals and decision-makers in the health care system.

Results & Discussion
A guideline for Endometriosis with recommendations and indicators for monitoring were developed and published. The guideline provides recommendations for diagnosis as well as for pharmacological, non-pharmacological, surgical and organisational management. For many of the issues the evidence is limited or poor. Hence, the majority of the recommendations are based on best practice retrieved through a systematic process. The guideline also contains assessments of financial and organisational consequences of the recommendations.

Conclusion
The guideline provides best available knowledge and guidance for the issues presented. As such, it is a valuable tool for health care providers working with development and improvement of the health care for Endometriosis. However, it was evident that additional support is needed to strengthen the competence of staff and managers about the disease and support the implementation of the national guidelines.

P042
TRANSLATING HEALTH TECHNOLOGY ASSESSMENTS INTO APPROPRIATE CARE GUIDES

Developing Recommendations
#P042

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Ministry of Health, Singapore - Singapore (Singapore)

Background & Introduction
The Agency for Care Effectiveness (ACE) is Singapore's national health technology assessment (HTA) agency. ACE also publishes "Appropriate Care Guides" (ACGs) – succinct guides with evidence-based messages focussed on shifting clinician behaviour towards appropriate practices.

Objectives / Goal
This abstract aims to illustrate the impact of ACGs, guided by HTA, to drive clinically- and cost-effective patient care.

Results & Discussion
ACE evaluated two new classes of diabetic medication – SGLT-2 and DPP-4 inhibitors. SGLT-2 inhibitors was shown to be cost-effective versus DPP-4 inhibitors. Therefore, among SGLT-2 inhibitors, only dapagliflozin, being the most cost-effective, was listed on the Medication Assistance Fund (MAF).
An ACG on "oral glucose-lowering agents in T2DM" was developed incorporating these decisions (Figure 1).
The ACG recommends using metformin as the initial agent and adding sulfonylureas if glucose control is inadequate. If sulfonylureas are unsuitable or inadequate, DPP-4 inhibitors are commonly used. However, based on clinical- and cost-effectiveness, SGLT-2 inhibitors are preferred over DPP-4 inhibitors, except for patients with renal impairment. The ACG also recommends using the lowest cost agent within the same class of drugs with comparable efficacy and safety, that is, dapagliflozin for SGLT-2 inhibitors, and linagliptin for DPP4-inhibitors.
Following publication, dapagliflozin usage doubled by year end, while rest of SGLT-2 inhibitors remained stagnant (Figure 2). Among the DPP-4 inhibitors, linagliptin also showed an increasing trend. However, the expected decline in the entire class of DPP-4 inhibitors remains to be seen as changing prescribing behaviours require time and additional interventions.

Conclusion
ACGs translate HTA into practice guides which results in appropriate practices.

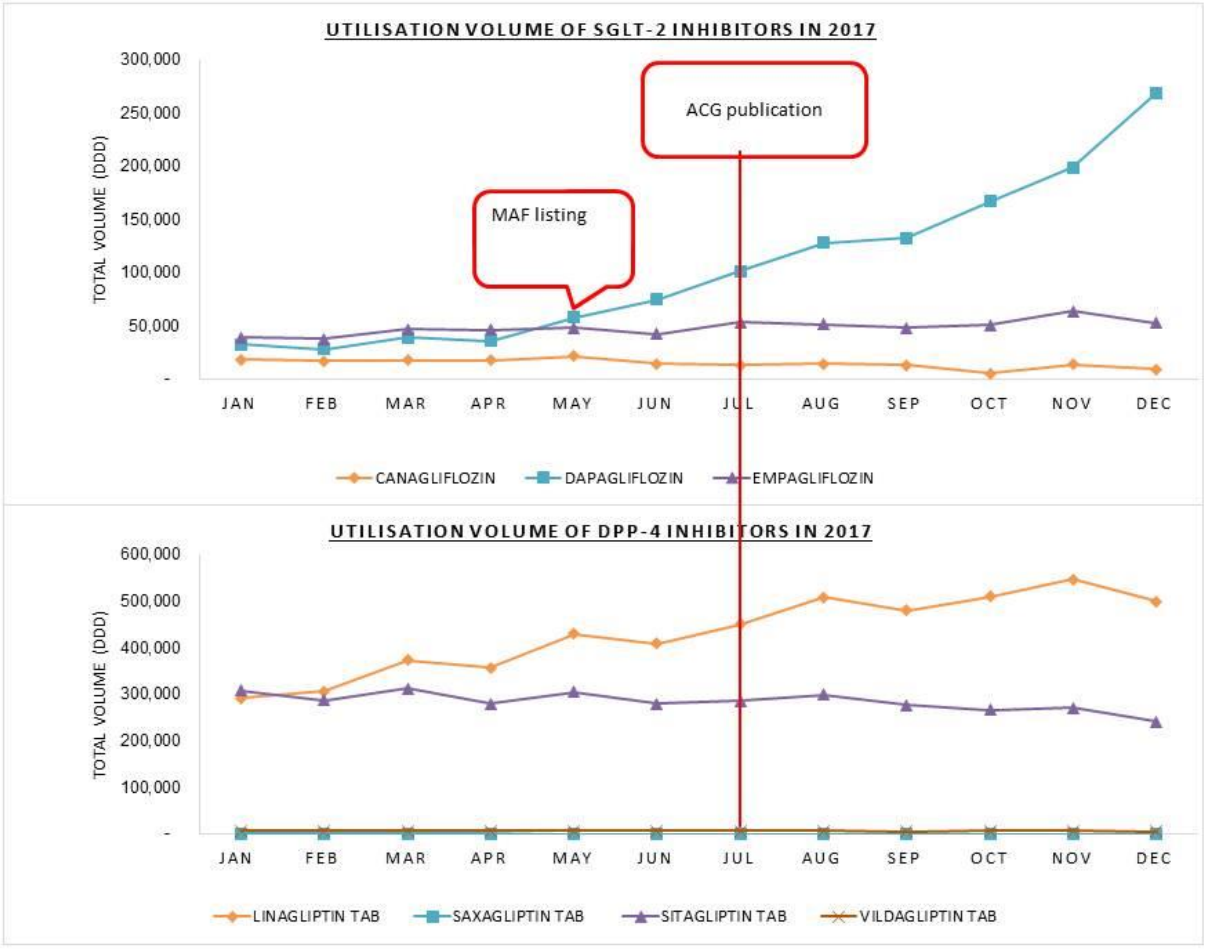
Appropriate Care Guide

Oral glucose-lowering agents in type 2 diabetes mellitus – *an update*

Updated:
3 August 2017

Key messages

1. Establish patient-centred glycaemic targets.
2. Individualise treatment plans based on drug and patient profiles.
3. Select metformin as the initial glucose-lowering agent as it has long-term efficacy and safety data.
4. Use second generation sulfonylureas when metformin is unsuitable or insufficient in achieving control. Avoid chlorpropamide and glibenclamide as they cause more hypoglycaemia than other sulfonylureas.
5. SGLT-2 inhibitors are appropriate for patients who are at risk of hypoglycaemia, are overweight, or with cardiovascular disease.
6. Reserve DPP-4 inhibitors for patients with renal impairment.


UTILISATION VOLUME OF SGLT-2 INHIBITORS IN 2017
TOTAL VOLUME (DDD)
300,000
250,000
200,000
150,000
100,000
50,000
-
ACG publication
MAF listing
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
CANAGLIFLOZIN
DAPAGLIFLOZIN
EMPAGLIFLOZIN
UTILISATION VOLUME OF DPP-4 INHIBITORS IN 2017
TOTAL VOLUME (DDD)
600,000
500,000
400,000
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200,000
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JAN
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P043
ARE QALYS APPROPRIATE WHEN EVALUATING PUBLIC HEALTH INTERVENTIONS?

Economic analysis and health technology assessments
#P043

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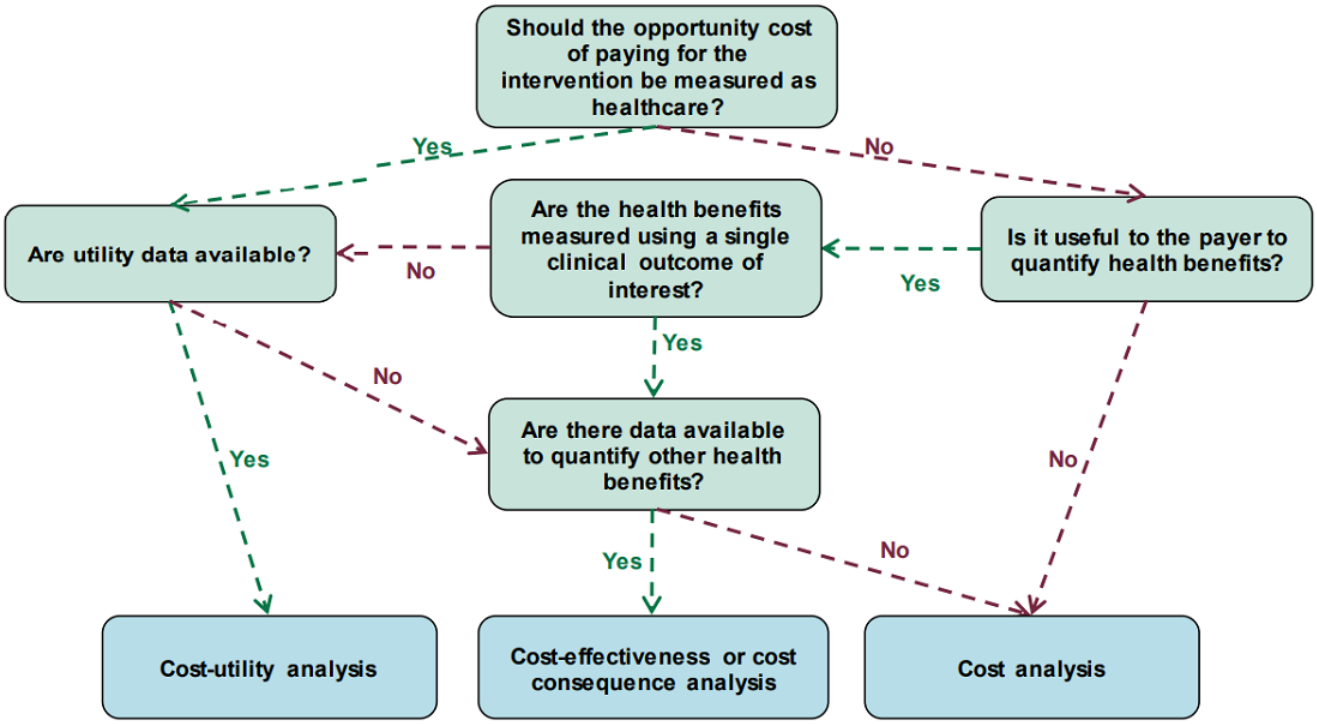
Background & Introduction
Quality-adjusted life years (QALYs) are commonly used in health technology appraisals. NICE recommends that public health economic evaluations take a cost consequence or cost benefit approach and present a public sector or societal perspective. However, it is not clear how or if the costs and benefits that fall outside the NHS should be incorporated into this threshold for cost-effectiveness.

Objectives / Goal
The objective of this research was to investigate the methodology used in public health modelling, and to determine whether or not QALYs are an appproriate measure.

Methods
We reviewed past NICE public health guidance and the associated economic evaluations to assess whether methods tended to be based on the cost per QALY alone or if other benefits are taken into account. In those instances where non-health benefits are included, we evaluated how this was done and whether it was done consistently. We also assessed whether utility measurement (i.e. the EQ-5D and the focus on health-related quality of life, rather than positive wellbeing) is appropriate.

Results & Discussion
Results showed that a range of methodologies were used to evaluate public health interventions in the UK and that the methods used were inconsistent. In many cases, QALY outcomes and cost-effectiveness thresholds were used in cases that were not reflective of the true opportunity costs.

Implications for guideline developers / users
The methods used to evaluate public health interventions in the UK vary substantially. ICERs were not always the most appropriate outcome. A simple flow diagram was developed to help decision makers to determine the most appropriate outcome (see Fig 1).


Should the opportunity cost of paying for the intervention be measured as healthcare?
Yes
No
Are utility data available?
No
Are the health benefits measured using a single clinical outcome of interest?
Yes
Is it useful to the payer to quantify health benefits?
Yes
No
Yes
No
Yes
Are there data available to quantify other health benefits?
No
Yes
No
Cost-utility analysis
Cost-effectiveness or cost consequence analysis
Cost analysis

P044
BUDGET IMPACT OF INCLUDING SHORT-ACTING INSULIN ANALOGUES IN PUBLIC HEALTH SYSTEM OF A UPPER-MIDDLE INCOME COUNTRY

Economic analysis and health technology assessments
#P044

A.C.D.F. Lopes, E.V.D. Melo Junior, A. Brigida De Souza, P.T.C. Gomes, J.S.E. Ebeidalla
BRAZILLIAN MINISTRY OF HEALTH - Brasilia (Brazil)

Background & Introduction
Brazilian Public Health System (SUS) has decided to include short-acting insulin analogues on its drug list for free access for Type 1 Diabetes Mellitus. All costs will be held by the Ministry of Health (MoH)

Objectives / Goal
To estimate the budgetary impact of replacing regular human insulin with short-acting insulin analogues for the population aged between 04 and 18 years with type 1 diabetes mellitus (DM1) in the Brazilian Public Health System (SUS) over a time horizon of 15 years.

Methods
Data obtained from the literature and national statistics were used to estimate drug demand. Three price scenarios were considered: reimbursement of the Brazilian Popular Pharmacy Program (PFPB) without adjustment; PFPB adjusted for 2016; and centralized purchase by MoH. Sensitivity analysis was included.

Results & Discussion
In 15 years, the exclusive disbursement for regular insulin was estimated at USD 86.2 million in PFPB-without adjustment scenario, USD 122.9 million in PFPB-adjusted scenario and USD 44.9 million for centralized acquisition and the total incremental budgetary impact would be respectively USD 64.5 million, USD 29.9 million and USD 103.5 million. The parameters whose uncertainty represented the greatest impact in the estimates were: quantity-dependent discount, population weight, and price of drugs.

Implications for guideline developers / users
Budget impact analysis is important for assessing the impact of recommendations on a guideline. The guideline for DM 1 was published in March 2018.

Conclusion
Budgetary impact with insulin therapy for children and adolescents shows an increased trend. Including short-acting insulin analogues, the increase would reach 331%. Magnitude of budgetary impact is specially correlated with access setting.

P045
ECONOMICS RESOURCES FOR THE DEVELOPMENT OF GUIDELINES IN A UPPER MIDDLE-INCOME COUNTRY

Economic analysis and health technology assessments
#P045

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Brazilian Ministry of Health - Brasília (Brazil)

Background & Introduction
The Brazilian Public Health System (SUS) has in recent years prioritized the development of guidelines with a purpose of better health care and the allocation of resources. The development of these documents is a costly and time-consuming process.

Objectives / Goal
To Describe the resource allocation for the process of developing guidelines for the period 2015-2017 in Brazilian Public Health System (SUS).

Methods
Descriptive case study

Results & Discussion
In the period from 2015 to 2017, it was planned to financing the development of guidelines USD 3,575,638.27, distributed in USD 520,561.37 in 2015, USD 1,157,671.77 in 2016 and USD 1,897,405.13 in 2017, showing growth during. For the most part, the guidelines development projects were sponsored by the SUS Institutional Development Support Program (PROADI-SUS) through a tax waiver for USD 2,207,887.50. Of the total cost of USD 1,966,476.09 (55%), direct preparation of guidelines and USD 266,906.91 (7%) were allocated to the education activities, the other 32% went to support activities development of guidelines. During the period, 20 guidelines were produced or updated in 2015, 20 in 2016 and 26 in 2017 and were promoted six training courses in methodologies for developing guidelines

Implications for guideline developers / users
Allocation of specific resources has a direct impact on the capacity to generate guidelines and improve methodological rigor since it enables training execution and extension of partnerships.

Conclusion
The allocation of resources has shown an increase in recent years allowing the Brazilian Ministry of Health to support its capacity to elaborate and revise its guidelines and support actions for methodological improvement.

P046
ECONOMIC MODELS OF INTERVENTIONS AIMED AT WIDENING ACCESS TO TREATMENT. THE EXAMPLE OF AMBULATORY CARE FOR PATIENTS WITH HAEMATOLOGICAL CANCERS.

Economic analysis and health technology assessments
#P046

J. Hawkins
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Background & Introduction
Cost per QALY outcomes may not be appropriate for informing healthcare recommendations aimed at increasing the number of people treated without necessarily impacting upon outcomes on an individual patient level.

Objectives / Goal
To explore the use of economic modelling for making healthcare recommendations around interventions primarily aimed at widening access to treatment.

Methods
Audit data, identified during development of the 'NICE Haematological Cancer: Improving Outcomes Guideline (2016)', of 1310 patients from two UK ambulatory care units was used to inform an economic model. The main outcome was the number of high dependency bed days that could be saved by offering ambulatory care for patients receiving intensive chemotherapy. Total cost of providing an ambulatory care program, infection and death within 30 days were also considered.

Results & Discussion
Offering ambulatory care saved high dependency bed days with no impact upon infection or death.
Whilst the cost per bed day is significantly less in ambulatory care (£65/67 vs £202) overall budget savings are unlikely to be realised given the excess demand for high dependency beds and consequent increase in people treated.

Table 1: Bed days and costs from two ambulatory care units 2011-2016

	Number Patients	Bed Days	Bed Days per Patient	Total Cost of Program	Cost per Bed Day
Sheffield					
All Diagnoses	202	2318	11.5	£150,868	£65
London					
All Diagnoses	1108	12324	11.1	£827,533	£67

Implications for guideline developers / users
Such interventions may be an efficient use of resources even when total costs increase and evidence of health improvement is lacking.

Conclusion
Economic modelling is useful for considering such interventions but decision rules may need to be applied flexibly. The conclusions hold for other healthcare services with excess demand.

P047
GUIDELINE FOR MUCOPOLYSACCHARIDOSIS: HEALTH ACCESS AND INCREMENTAL COST IMPACT

Economic analysis and health technology assessments
#P047

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Background & Introduction
In 2017, the National Committee for Technology Incorporation – Conitec approved guidelines for mucopolysaccharidosis type 1 (MPS1) and mucopolysaccharidosis type 2 (MPS2) treatments, allowing access to costly technologies that were obtained only by judicial mean in this country.

Objectives / Goal
Estimate the incremental cost of the inclusion of Laronidase and Idursulfase for MPS1 and MPS2 treatments in the Brazilian Public Health System (SUS), respectively.

Methods
Using data from acquisitions of treatments by the Ministry of Health to settle medical lawsuits, incidence and prevalence and average weight of the patients from the literature and the cost of acquiring medicines by judicial means in 2017. A comparison was built between the cost of providing treatment by judicial means in 2017, and a projection of the overall cost after treatments were incorporated the SUS in 2018.

Results & Discussion
The estimated incremental cost of including these treatments in SUS will be of R$108.916.163,45 (R$20.463.307,77 with Laronidase and R$88.452.854,68 with Idursulfase) which represents 1,49% of the total budget to acquire high-cost medicines of the Ministry of Health, considering the 41,8% of estimated patients will start treatment after guideline implementation, with estimated cost savings of about R$18 million.

Implications for guideline developers / users
Estimate the cost of incorporation the technologies in the guidelines helps policy-makers to guarantee the implementation in the universal systems through of reducing the cost and expanding the access to health.

Conclusion
The guidelines for the MPS1 and MPS2 allowed a standard of the health assistance expanding the access to treatment and will save more than R$18 million to SUS in 2018.

P048
PROTOCOL FOR LITERATURE REVIEW: ECONOMIC EVALUATIONS FOR HLA-B*58:01 GENETIC SCREENING IN ASIAN GOUT PATIENTS BEFORE ALLOPURINOL TREATMENT

Economic analysis and health technology assessments
#P048

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Background & Introduction
Gout is the most common inflammatory condition encountered in general practice, with a reported prevalence of gout worldwide ranging from 0.1 to 10%. Patients with gout are at increased risk of joint damage, renal impairment, hypertension, metabolic syndrome, and cardiovascular disease. The allopurinol is effective, cheap, and the most frequently used urate-lowering drug. However, it is associated with severe cutaneous adverse reactions (SCAR), including Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN). A strong association between HLA-B*58:01 and allopurinol-induced SJS/TEN was found, especially in Han Chinese, Thais, Indians, and Koreans. The current Asian gout guidelines did not make related recommendations because of lack of economic evidence.

Objectives / Goal
To conduct the literature review to assess the economic effect of HLA-B*58:01 screening test prior to the initiation of allopurinol on Asian gout patients.

Methods
We will include cost-effectiveness analysis, cost-utility analysis, and cost-benefit analysis by searching following sources: MedLine, EconLit, and Google Scholar from its inception until March 01, 2018 with no language restriction. We also identified the references of included articles. We will synthesize the results based on the quality assessment and information extraction.

Results & Discussion
The results and discussion will be presented in the conference.

Implications for guideline developers / users
The results will provide guideline developers with new economic evidence in the recommendation on HLA-B*58:01 screening and allopurinol use, especially for the Asian gout patients. The users (physicians and policy makers) will be helped in their clinical decisions and government policies.

Conclusion
The conclusion will be presented in the conference.

P049
RESOURCE USE AND COST IN GUIDELINES: SYSTEMATIC SURVEY OF METHODOLOGICAL MANUALS

Economic analysis and health technology assessments
#P049

A.J. Sanabria Uribe [1], A. Kotzeva [2], A. Selva Olid [3], S. Pequeño [1], R.V.M. Vernooij [1], L. Martínez García [1], Y. Zhang [4], I. Solà [1], J. Thornton [5], P. , Alonso-Coello [1]
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Background & Introduction
Resource use and cost (RUC) are one of the factors usually considered when formulating clinical recommendations. Guideline developers face difficulties in introducing this relevant aspect in their guideline development process.

Objectives / Goal
To identify and summarise RUC guidance for guideline developers available in methodological manuals from guideline organisations.

Methods
We searched the Guidelines International Network library, Medline (via PubMed), the Cochrane Methodology Register and Google; until December 2017. Two authors independently selected the eligible documents. The most recent versions of methodological manuals for developing guidelines were included. We excluded manuals for adapting, endorsing or updating guidelines, and those describing the methodology followed in the development of one or more guidelines. One author extracted the data and another author checked the quality of the data extracted.

Results & Discussion
We included 77 guidance documents from a total of 67 organisations. Fifty-nine organisations (88.1%) considered RUC during the guideline development process. Fifty-five (82.1%) considered RUC at some point when developing recommendations: 44 (65.7%) explicitly, 5 (97.5%) implicitly, and 6 (9.0%) as a potential option. From the organisations that explicitly considered RUC (n=44), 12 (27.3%) provided explicit guidance to identify, assess and use the RUC evidence when developing recommendations. Twenty-three of the 44 (52.3%) considered RUC when moving from the evidence to recommendations.

Implications for guideline developers / users
There is limited guidance to incorporate RUC in guideline development. Given the limited resources of most guideline organisations better and mostly pragmatic guidance is needed.

Conclusion
Much more guidance much needed in this area, mainly of pragmatic nature given the resource restrains of most guideline organisations.

P050
WHY A CREATIVE SYSTEM-WIDE APPROACH WITH MULTIPLE GUIDELINES WORKS FOR LOW AND MIDDLE-INCOME COUNTRIES

Economic analysis and health technology assessments
#P050

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[1]Effective Basic Services - Bamenda (Cameroon), [2]Effective Basic Services (eBASE) Africa - Bamenda (Cameroon)

Background & Introduction
Health systems in resource-challenged settings are challenged with developing de novo evidence-based guidelines. Healthcare workers skills are weak in adapting or contextualizing guidelines. Resource allocation is an important consideration if evidence is to get into practice. Addressing health inequities requires that practices and conditions peculiar to poorer segments of the communities be considered.

Objectives / Goal
To evaluate the economic costs of using multiple guidelines in a systemwide approach in resource-challenged settings.

Methods
We identified barriers and facilitators for getting research evidence into practice for new-born care in Cameroon. We searched relevant databases for clinical practice guidelines for the continuum of new-born care. We conducted an economic evaluation of using multiple guidelines within JBI GRiP and PACES. We evaluated based on conditions that affect poor communities and effects on health facilities (HF) within health systems. We stratified underlying practice as per high income or/and low-income benefits.

Results & Discussion
We identified seven barriers to evidence implementation; 18 peri-natal harmful practices; eight relevant guidelines. We identified 25 criteria from primary studies, systematic reviews and guidelines for new-born care clinical audits. The marginal cost for evidence implementation for one extra health facility was $472 compared to a fixed cost of $4,079 per HF. 5 clinical practices disfavoured low-income clients; 1 disfavoured high-income clients and 19 disfavoured both.

Implications for guideline developers / users
Developing clinical audits criteria from multiple existing guidelines and implementation using a systemwide approach will be cost-effective in resource-challenged settings.

Conclusion
This approach showed higher returns on investments and increase in our coverage of clinical conditions.

Table 1: Economic Evaluation of systemwide approach

simulation for training 3 health facilities					simulation for training a single health facility				
	unit cost (XAF)	Freq.	Num participants	simulation for many health facilities	unit cost (XAF)	Freq.	Num participants	simulation for many health facilities	
Guidelines acquisition	40,000	1		40000	40,000	1		40,000	
Training workshop 1	450,000	1		450000	450,000	1		450,000	
Training workshop 2	250,000	1		250000	250,000	1		250,000	
Training workshop 3	150,000	1		150000	150,000	1		150,000	
module	100,000			100000	100,000			100,000	
Training per participant per day (transport, refreshments, materials, Logging)	50,000	1	22	1,100,000	50,000	1	12	600,000	
Communication credit	5000	12		60000	5000	12		60,000	
Bulk sms	1000	12		12000	1000	12		12,000	
Radio sessions	500,000	1		500000	500,000	1		500,000	
TOTAL			25	2662000			15	2,162,000	
TOTAL in $				5023				4,079	
variable cost (XAF|$)								500,000	943
marginal cost (per facility) (XAF|$)								250,000	472

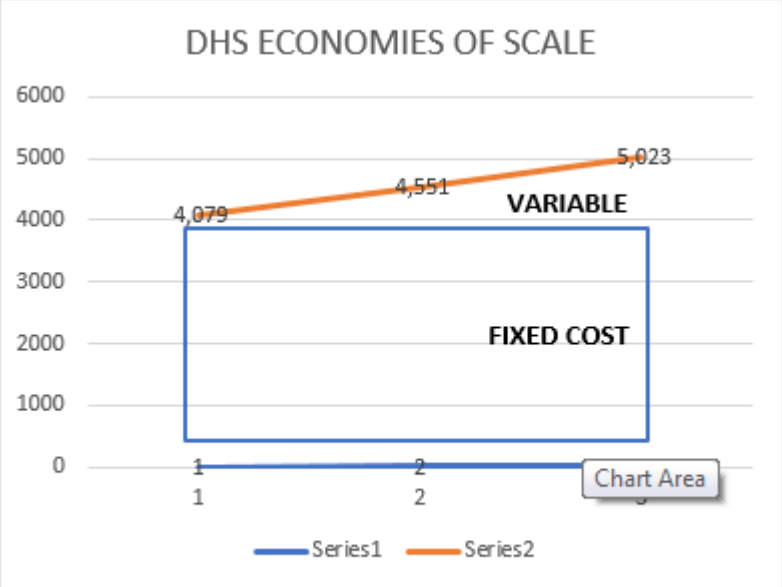

Figure 1: Economies of Scale for using District Health Service

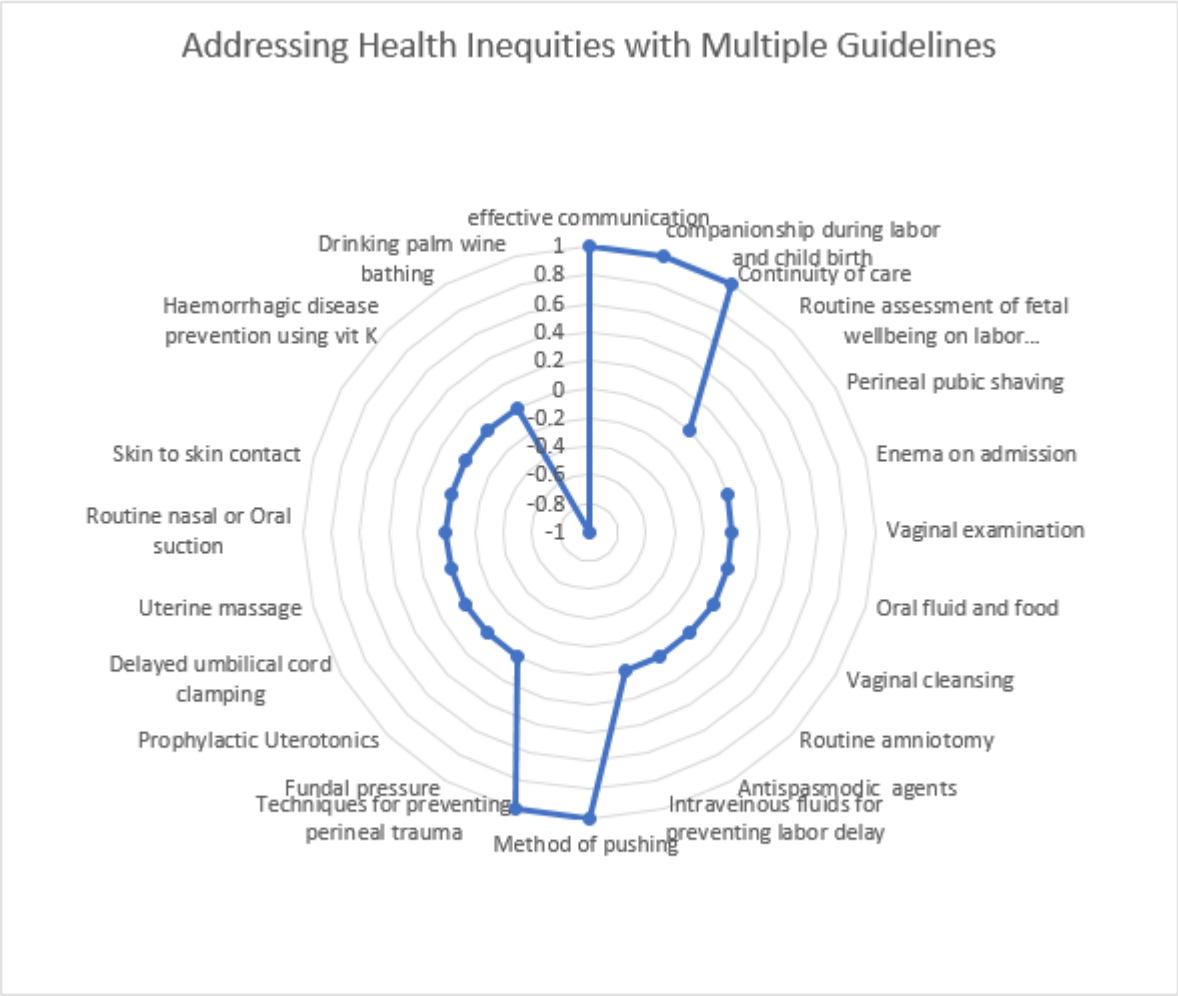

Figure 2: Addressing Multiple Health Inequities with Multiple Guidelines

P051
WHY PARAMETER INTERACTION MATTERS IN PROBABILISTIC SENSITIVITY ANALYSIS: AN EMPIRICAL TEST

Economic analysis and health technology assessments
#P051

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Background & Introduction
In probabilistic sensitivity analysis (PSA), it is typical to see distributions assigned to all parameters in a model. However, attention is only usually paid to estimating covariance or interactions between a small number of parameters.

Objectives / Goal
This study explores the impact of interaction assumptions on the outcomes of PSA, and their implications for decision making.

Methods
An eight-state Markov model was developed, with input parameters for transition probabilities, costs and utilities for all health states. Three alternative approaches to parameter correlation were taken and were applied to a variety of different structural assumptions in the model (increased granularity of inputs, positive and negative correlations, difference base case outcomes, etc.). The impact of all permutations on the shapes of the PSA scatter plot and CEAC was recorded.

Results & Discussion
The analysis demonstrates that independent variation in inputs is likely to cause a 'cancelling out' effect in the aggerated results, suggesting a false level of certainty in the PSA's results. The extent of this outcome depended on a number of factors, such as the complexity of the model structure, the proximity of the model’s base case results to the cost-effectiveness threshold and the magnitude of artificial correlation applied to each parameter.

Implications for guideline developers / users
This analysis demonstrates the outcomes of a PSA can be influenced by the level of detail that the modellers choose to include and modellers can, theoretically, create 'false' confidence in PSA results. A checklist is provided to help with the critical appraisal of probabilistic model outputs.

P052
APPRAISAL OF RECOMMENDATIONS ON THE PHARMACOLOGICAL PREVENTION OF PRIMARY FRACTURES: A SYSTEMATIC SURVEY OF CLINICAL GUIDELINES

Grading evidence and recommendations
#P052

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Background & Introduction
Previous studies have highlighted discrepancies among clinical guidelines (CG) regarding fracture risk thresholds for pharmacological treatment for preventing primary fractures.

Objectives / Goal
To identify and assess the quality of CGs with recommendations on fracture prevention in postmenopausal women.

Methods
Multistep approach consisting of: 1) a systematic search of CGs that include recommendations on pharmacological fracture prevention; 2) appraisal of methodological quality using the AGREE II instrument for newly developed CGs or CheckUp for updated CGs, 3) identification and description of pharmacological treatment thresholds, and evaluation of potential predictors of lower/higher thresholds including the optimal inclusion of women's perspectives or the existence of important conflicts of interest.

Results & Discussion
We will present the detailed methodology and preliminary results at the conference.

Implications for guideline developers / users
This study will foster debate among CG developers on strategies to tackle the variability of pharmacological prophylaxis of fractures in women.

Conclusion
We expect to provide an estimation of variability among CGs in a specific health issue and to stir a discussion on preventing this phenomenon.

P053
FRAMEWORK FOR ASSESSING THE OVERALL QUALITY OF EVIDENCE OF AN ESTIMATE OF THE BENEFIT HARM BALANCE

Grading evidence and recommendations
#P053

H.E. Aschmann [1], C.M. Boyd [2], C.W. Robbins [3], W.V. Chan [4], R.A. Mularski [5], E.A. Bayliss [6], R.F. Wilson [7], W.L. Bennett [8], O.C. Sheehan [2], M.A. Puhan [1]

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Background & Introduction
We recently performed a quantitative benefit harm assessment on insulin vs sulfonylurea added to metformin in type II diabetes. Of 16 outcomes relevant to treatment decisions, evidence was lacking for 8 and sparse or inconsistent for 5.

Objectives / Goal
To propose a framework for assessing the overall quality of evidence of an estimate of the benefit harm balance, applying the criteria used in GRADE to the three key determinants of a benefit harm assessment: baseline risk, relative effects and relative importance of outcomes.

Methods
We considered whether and how the criteria used in GRADE can be applied to baseline risks and relative importance of the outcomes and to the estimate of the benefit harm balance. We followed GRADE's guidance for network meta-analytic estimates of the relative effect.

Results & Discussion
When evidence was lacking, we assigned very low quality for the outcome. Evidence on baseline risks of the remaining outcomes was of moderate to high quality, and on relative risks of low to high quality. For the absolute effect on each outcome, we assigned the lower quality of the baseline risk and relative risk. The overall quality of evidence of the benefit harm balance was low, averaging the quality across outcomes weighted by the impact of each outcome on the benefit harm balance.

Implications for guideline developers / users
Statistical and non-statistical uncertainty in the baseline risks and in the relative importance of outcomes contribute to the overall low quality of evidence.

Conclusion
This framework allows explicit assessment of the quality of and the confidence in the estimate of the benefit harm balance.

P054
GRADING SYSTEMS OF QUALITY OF EVIDENCE AND STRENGTH OF RECOMMENDATION IN CHINESE GUIDELINES

Grading evidence and recommendations
#P054

K. Lixin [1], S. Nianzhe [1], W. Hao [2], X. Shujun [2], X. Yujie [2], W. Zijun [2], C. Gang [1], C. Yaolong [3], Q. Zhou [4]

[1]The First Clinical Medical School, Lanzhou University (China), [2]The Second Clinical Medical School, Lanzhou University (China), [3]Evidence-based Medicine Center, School of Basic Medical Sciences, Lanzhou University (China), [4]First Clinical Medical School, Lanzhou University (China)

Background & Introduction
Assessing the quality of evidence and strength of recommendation with appropriate grading systems can promote the scientific recommendations development, and help guideline users implement recommendations reasonably.

Objectives / Goal
To investigate the status of quality of evidence and strength of recommendation grading in Chinese Guidelines.

Methods
With terms “Zhinan” and “Zhiyin”, we searched China National Knowledge Infrastructure (CNKI), WanFang Data and Chinese Biomedical Literature Database (CBM) from January 1, 2016 to February 1, 2018, and collected Chinese CPGs published in 2016 and 2017. A supplementary search of Medlive also was conducted. Then we screened and analysed all included papers by two independent researchers.

Results & Discussion
A total of 135 Chinese CPGs were included, of which 79 were published in 2016, and 56 published in 2017. 85(63%) guidelines reported the quality of evidence and strength of recommendation: 29% (25/85) used classification recommendation of TCM (Traditional Chinese Medicine), 35% (30/85) used GRADE approach, 19% (16/85) used standards of other societies, 12%(10/85) used self-designed standards, 11% (9/85) used the international standard or its adaptation. 64(47.4%) guidelines reported levels of the quality of evidence and strength of recommendation, 29 (21.5%) only reported strength of recommendation, 5(3.7%) only reported levels of the quality of evidence.

Implications for guideline developers / users
Various grading systems brought obstacles for correct interpretation and application of recommendations.

Conclusion
The grading systems of quality of evidence and strength of recommendation varied greatly in Chinese guidelines.

P055
HOW MANY GUIDELINE DEVELOPMENT HANDBOOKS RECOMMEND GRADE SYSTEM：A CROSS-SECTIONAL STUDY

Grading evidence and recommendations
#P055

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Background & Introduction
GRADE is a sensible and transparent approach to grade quality of evidence and strength of recommendations for clinical guidelines. More than 100 organizations have endorsed or are using GRADE. Guidelines development handbooks are designed for guideline panels to produce high-quality guidelines.

Objectives / Goal
To identify how many guideline development handbooks recommending GRADE system to assess the quality of evidence and the strength of recommendations.

Methods
We systematically searched PubMed and TRIP databases using the terms handbook, toolkits, manual. We also searched the Google, websites of guidelines development organizations and the references of the identified literature and handbooks.

Results & Discussion
Results: We identified 16 guideline development handbooks published after 2004. 10 handbooks (62%) reported the approaches appraising and summarizing the quality and strength of recommendations: 2 used GRADE system, 1 mentioned GRADE as one of recommended approaches, 1 declared GRADE would be used in the future, whiles 6 referred to grading approaches developed by manual developers or other organizations. In addition, 2 handbooks just reported the evidence assessment in guideline development, and 1 of which didn’t refer to appraising approach.
Discussion: Few guideline development handbooks recommended GRADE system to assess the quality of evidence and summarize the strength of recommendations. Some handbooks reported the modified GRADE approach or would use GRADE in future. We suggest guideline development handbooks recommend the optimum approach or system to formulate explicit recommendations.

Description of the best practice
no

P056
ONWARDS AND UPWARDS: IMPROVING THE QUALITY OF NICE GUIDELINES

Grading evidence and recommendations
#P056

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Background & Introduction
NICE has been developing evidence-based guidelines for the National Health Service in England since 1999. Ensuring these guidelines continue to be developed to internationally agreed best quality standards is an increasing challenge in a resource-constrained health system.

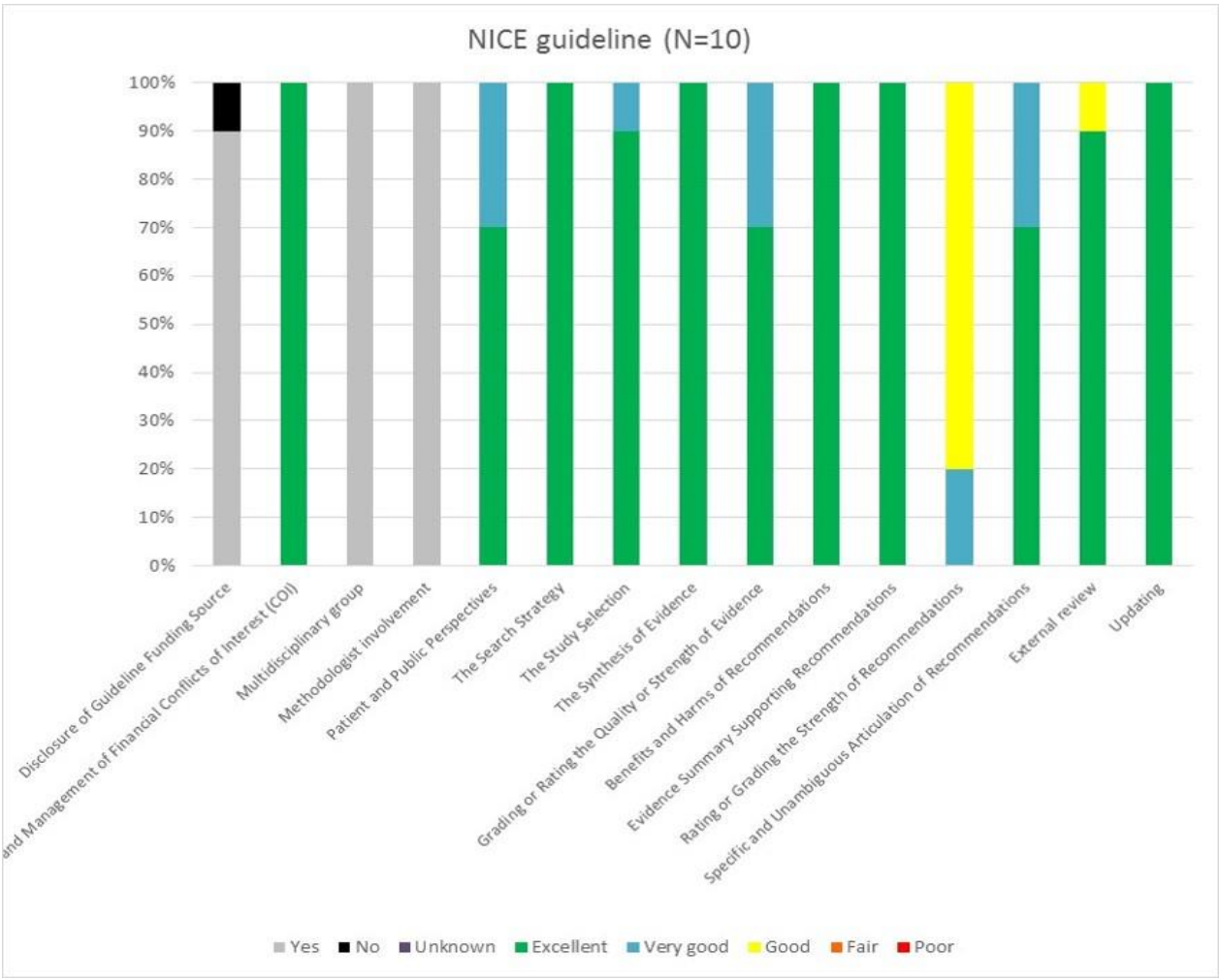
Objectives / Goal
To compare the quality assessment of NICE guidelines as judged by an independent organisation with those produced by other organisations, and to identify areas for improvement.

Methods
A search of the AHRQ's National Guideline Clearinghouse (NGC) was conducted to identify guidelines that had been assessed by NGC using the Extent Adherence to Trustworthy Standards (NEATS) tool. Guidelines were then compared based on countries/international groups (NEATS assessments: 15 criteria: 3 with 3-point rating Yes/No/Unknown and 12 with 5-point rating from poor to excellent).

Results & Discussion
A total of 120 guidelines with NEATS assessments were retrieved. 10 NICE guidelines were included in this cohort. Compared to other guidelines, NICE guidelines performed very well overall apart from the criterion ‘Rating or Grading the Strength of Recommendations’. Feedback from the NEATS assessments team indicated that this is due in part to a lack of clarity in the rating of the strength of NICE guideline recommendations. Instead of a formal rating of strength, NICE uses the terms ‘offer’ and ‘consider’ to indicate strength. (Results for other countries/international groups are available).

Conclusion
Although NICE continues to produce high quality guidelines, there is still room for improvement.

Description of the best practice
Further work on a bigger cohort will be undertaken to consider how we can improve the clarify of the strength of NICE guideline recommendations.


NICE guideline (N=10)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Disclosure of Guideline Funding Source
and Management of Financial Conflicts of Interest (COI)
Multidisciplinary group
Methodologist involvement
Patient and Public Perspectives
The Search Strategy
The Study Selection
The Synthesis of Evidence
Grading or Rating the Quality or Strength of Evidence
Benefits and Harms of Recommendations
Evidence Summary Supporting Recommendations
Rating or Grading the Strength of Recommendations
Specific and Unambiguous Articulation of Recommendations
External review
Updating
Yes
No
Unknown
Excellent
Very good
Good
Fair
Poor

P057
QUALITY APPRAISAL OF CLINICAL GUIDELINES IN OBSTETRICS AND GYNECOLOGY IN INDIA

Grading evidence and recommendations
#P057

R. Ag, D. John
GTB Hospital - New Delhi (India)

Background & Introduction
In India, the quality of guidelines has been found to be modest to low and in many cases the methods used fell short of basic standards and were not based on research evidence.

Objectives / Goal
The objective of the panel is to present the quality of clinical practice guidelines (CPG) in obstetrics and gynecology India.

Methods
All reported guidelines in obstetrics and gynecology conducted in India were identified, and subjected to inclusion using 3 point assessment criteria (relevance, clarity of intervention/outcome, and appropriate use of healthcare resources). The included CPG were appraised using AGREE II checklist.

Results & Discussion
From a list of 47 Clinical Guidelines in Obstetrics and Gynecology in India, 8 guidelines included were assessed using AGREE II checklist. The overall assessment scores ranged from 8% to 22% with a median score of 15%. None of the guidelines were recommended as 'Yes' by either of the reviewers. Only 1 review had identified cost as one of the focus areas as part of the guideline.

Implications for guideline developers / users
There is need for sensitization and capacity building of clinicians and public health professionals on the development of CPG related to obstetrics and gynecology in India.

Conclusion
The quality of obstetrics and gynecology CPG in India is poor

P058
SAMPLE SIZE IN TEST ACCURACY SYSTEMATIC REVIEWS: A METHODOLOGICAL SYSTEMATIC REVIEW

Grading evidence and recommendations
#P058

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Background & Introduction
The Grading of Recommendations Assessment, Development and Evaluation (GRADE) working group has developed a common, sensible and transparent approach to grading quality of evidence and strength of recommendations. Test accuracy reviews are increasingly published in the literature and their results are used in making clinical and policy decisions and in informing clinical practice guidelines. Additional guidance is needed about operationalizing some the GRADE domains to assess certainty of evidence in test accuracy reviews.

Objectives / Goal
to assess the proportion of test accuracy systematic reviews that consider sample size when

Methods
We conducted a methodological systematic survey of test accuracy systematic reviews published in 2016-2017. We reviewed a random sampling of 280 systematic reviews(SR). We calculated the proportion of SR discussing sample size in the discussion. We calculated the preferred sample size required for accurate results using an equation that integrates the prevalence, margin of error and values of sensitivity or specificity. We reported the proportion of reviews that meet the minimum sample size.

Results & Discussion
We are in the process of completing this work and we will have the results ready at the time of the presentation.

Implications for guideline developers / users
The findings of this study will inform the test accuracy researchers, guidelines developers, guidelines users and clinicians about the current practice of considering sample size as a factor that may affect the quality of the results in SR

Description of the best practice
This work will inform future initiatives to empirically assess the effect of imprecision in test accuracy reviews and recommendations from CPGs.

P059
SURVEY ON THE SYSTEMATIC REVIEW OF CITATIONS IN TCM GUIDELINES

Grading evidence and recommendations
#P059

Y. Chen [1], M. Zheng [2], Y. Yang [2], S. Gao [2], Y. Zhao [2], J. Wang [3], C. Qian [3], X. Luo [3], Y. Ma [3], X. Liu [3]

[1]Evidence-Based Medicine Center, School of Basic Medical Sciences, Lanzhou University; WHO Collaborating Centre for Guideline Implementation and Knowledge Translation, Lanzhou University - Lanzhou (China), [2]The First People's Hospital of Lanzhou City - Lanzhou (China), [3]Lanzhou University - Lanzhou (China)

Background & Introduction
Systematic reviews(SRs), which explicitly use methods to identify, select, critically appraise, and synthesize the results of all existing studies of a given question, are considered the highest level of evidence for decision makers.

Objectives / Goal
To investigate the citation status of SRs on Traditional Chinese Medicine(TCM) in clinical practice guidelines(CPGs) and provide reference for the development of TCM guidelines.

Methods
We searched CNKI, CBM and WanFang Data to identify potentially eligible SRs indexed from January 1st 2008 to December 31th 2017. The citation data of include SRs were obtained on Google Scholar by two reviews independently. Citation analysis method was used to analyze the citation frequency of SRs in TCM guidelines.

Results & Discussion
We identified 92 CPGs, suggesting that only 18(19.6%) cited SRs in the 52 CPGs which provided citations. The total number of these cited SRs was 49(medium: 2), none was Cochrane SRs, and most guidelines(77.8%) cited 1 to 3 SRs. 91.8%(45/49) SRs were indexed by Google Scholar, the total citation frequency was 911(medium:7, range:0 to 301). 81.6% of the SRs(40/49) were in Chinese, 18.4%(9/49) were in English, and 91.8%(45/49) were used as the evidence for recommendations.

Conclusion
The ratio of SRs cited by TCM guidelines is low. There are 140 SRs in the field of Complementary & Alternative Medicine of TCM in the Cochrane Library. However, fewer cited in TCM guidelines. Although most were used as evidence for recommendations, overall, CPGs in TCM cited less SRs seriously. Guideline developers should pay attention to developing recommendations based on SRs more.

P060
TESTING THE USABILITY OF A TEMPLATE FOR MAKING DIAGNOSTIC RECOMMENDATIONS ACCORDING TO THE GRADE FOR DIAGNOSIS APPROACH

Grading evidence and recommendations
#P060

M. Van Den Donk [1], T. Kuijpers [1], M.W. Langendam [2], M.K. Tuut [3], J.J.A. De Beer [4], P.J. Van Der Wees [5]

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Background & Introduction
To implement the GRADE for diagnosis approach in Dutch guidelines, we developed a Dutch template for making diagnostic recommendations. In accordance with GRADE for diagnosis, this template uses a stepwise approach that includes formulating structured PICO questions, grading the certainty of the evidence for the links in the chain of the test-treatment pathway, and going from evidence to decision.

Objectives / Goal
To test the usability of a Dutch template derived from GRADE for diagnosis.

Methods
We selected two diagnostic questions in two guidelines from the Dutch College of General Practitioners. A guideline methodologist together with a content expert from the guideline panel summarized the evidence and drafted the guideline text and a recommendation following the template. We discussed these drafts and proceeded from evidence to decision with the guideline panel. To evaluate the template, we asked panel members and guideline methodologists for feedback on the process.

Results & Discussion
Participants were positive: the template gives a systematic structure of all the steps and clear instructions on how to define and rate the certainty in the different types of evidence. It facilitates writing a coherent guideline text ending in a recommendation that is based on a process taking into account patient relevant outcomes and not only diagnostic accuracy. However, thorough knowledge of GRADE is necessary to apply the template successfully. Furthermore, following the template was time-consuming, especially for the guideline methodologist, so panel members suggested to reserve this approach for controversial diagnostic questions.

Implications for guideline developers / users
Using the template enables formulating diagnostic recommendations that are based on patient relevant outcomes.

P061
THE CHALLENGES OF MAKING AND GRADING RECOMMENDATIONS ON TESTS

Grading evidence and recommendations
#P061

C. Hyde
University of Exeter - Exeter (United Kingdom)

Background & Introduction
Making recommendations on tests is challenging. However, experience is growing. NICE's Diagnostic Assessment Committee has been considering recommendations on tests for 8 years. The presenter has been a member of the committee since its inception and he will reflect on his personal experience trying to make sense of the evidence that the committee has been presented with in over 30 pieces of guidance.

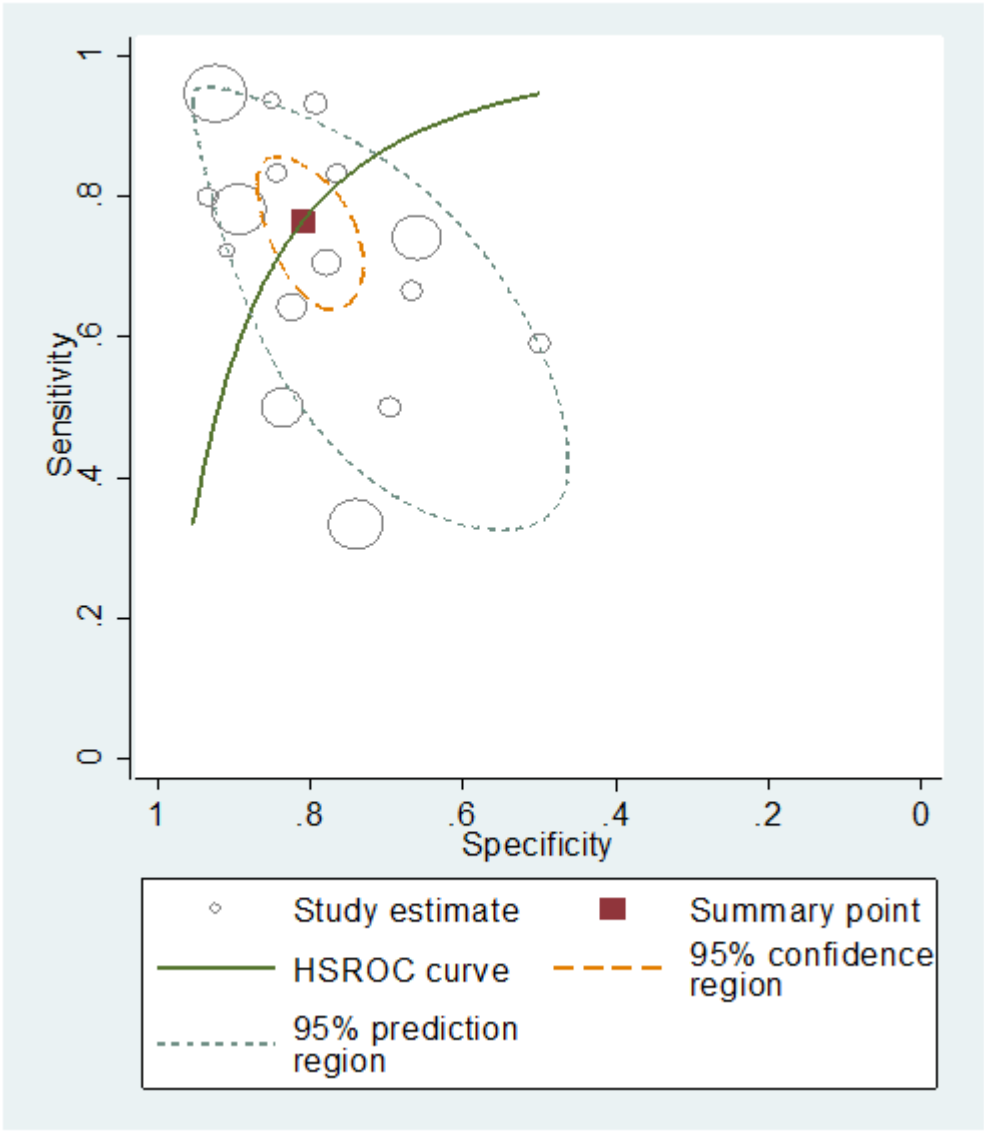
Objectives / Goal
To identify and illustrate some of the challenges of making and grading evidence on tests, particularly accuracy data.

Methods
Case studies of the evidence bases of peices of NICE diagnostics guidance, carried out by a single researcher with experience in making policy decisions on tests.The views do not represent those of NICE.

Results & Discussion
The work is on-going. An early key theme emerging is that profusion of evidence can be as much of a problem as little evidence, the traditionally quoted challenge to guideline developers. Multiple estimates of test accuracy are common. Further these estimates are often very variable as illustrated. The heterogeneity can usually not be explained using even advanced statistical approaches leaving guideline developers wondering which estimates to believe. These may encompass values suggesting good accuracy, favouring adoption, or poor accuracy. Using summary estimates of accuracy is not an appropriate solution to this problem.

Implications for guideline developers / users
Current grading systems assume summary estimates are always available and are a valid starting point for considering the downstream consequences. This approach is questionable even if the evidence is down-graded for its heterogeneity.

Conclusion
Further development of systems to grade test evidence is required.


Sensitivity
0
.2
.4
.6
.8
1
1
.8
.6
.4
.2
0
Specificity
Study estimate
Summary point
HSROC curve
95% confidence region
95% prediction region

P062
THE LEVEL OF EVIDENCE FOR DAA-BASED TREATMENT CLINICAL OUTCOMES IN UNTREATED CHRONIC HCV

Grading evidence and recommendations
#P062

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National Evidence-based Healthcare Collaborating Agency (NECA) - Seoul (Korea, republic of)

Background & Introduction
The treatment of hepatitis C virus (HCV) infections has significantly changed with the introduction of direct-acting antiviral agents (DAAs).

Objectives / Goal
The objective of this systematic review and meta-analysis was to evaluate the effectiveness and safety of DAAs and PR alone (pegylated interferon by injection plus oral ribavirin) in treatment-naïve chronic HCV genotype 1, non-pregnant adults.

Methods
We searched eight bibliographic databases and hand search up to November 2016. We performed the level of evidence in two ways - GRADE, USPSTF.

Results & Discussion
Seventeen trials that included a total of 2,539 patient met eligibility criteria. Compared with PR alone, DAA plus PR provided more clinical benefits for SVR (SVR12 RR 1.48, 95% CI 1.36-1.60; SVR24 RR 1.41, 95% CI 1.21-1.64). Grade 3/4 AEs in DAA-based therapy were significantly lower than PR alone (RR, 0.85; 95% CI, 0.73-0.99). HRQoL tends to deteriorate during the treatment period in both DAA-based therapy and PR alone. All-cause mortality, any adverse events (AEs), discontinuation, serious AEs were not statistically differ. Our assessment was that for the outcomes of all-cause mortality, HRQoL, SVR, AEs were limited only by weaknesses related to imprecision, and provide low-quality evidence. ‘Insufficient’ when the USPSTF strength of evidence was applied.

Conclusion
The results provide low-quality evidence that DAA-based therapy seemed to increase the risk of SVR, grade 3/4 AEs. The evidence does not permit any conclusion about the treatment effectiveness or safety.

P063
THE USE OF GRADE-CERQUAL IN GUIDELINE DEVELOPMENT – CHALLENGES AND OPPORTUNITIES

Grading evidence and recommendations
#P063

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NICE - Manchester (United Kingdom)

Background & Introduction
NICE has been using GRADE to assess the confidence in findings from quantitative evidence synthesis in clinical guidelines since 2007. NICE guidelines, in particular public health and social care guidelines, are increasingly using qualitative evidence to consider the acceptability of interventions and people's experience of care. In line with this increasing use of qualitative evidence NICE has begun to implement GRADE-CERQual when assessing the confidence in findings from qualitative evidence synthesis.

Objectives / Goal
To build on the use of GRADE for quantitative evidence reviews in NICE guidelines and ensure that findings from qualitative evidence synthesis are considered in a systematic and transparent way through the use of GRADE-CERQual.

Methods
GRADE-CERQual has been used in qualitative evidence reviews undertaken for published NICE guidelines and will be used in an increasing number of NICE guidelines in the future. Adoption of the GRADE-CERQual has been supported by training and mentoring provided by the GRADE-CERQual project group.

Results & Discussion
We will present feedback on how GRADE-CERQual has been used in NICE guidelines, the impact this has had on recommendation development and assess the challenges and opportunities of using GRADE-CERQual in guideline development.

Implications for guideline developers / users
Guideline developers increasingly need to take account of qualitative evidence. GRADE-CERQual offers a transparent method for assessing confidence in findings from qualitative evidence synthesis. Training and support is helpful for guideline developers adopting GRADE-CERQual, as many guideline developers are new to using qualitative evidence synthesis.

P064
A GLIMPSE OF A COMPREHENSIVE IMPLEMENTATION STRATEGY IN DUTCH PHYSICAL THERAPY: KNOWLEDGE PLATFORM AND E-LEARNING

Implementation and quality improvement (including indicators)
#P064

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Background & Introduction
Current implementation of physical therapy guidelines in the Netherlands consists of publicity, patient information, and (physical) training. However, implementation appears inadequate as guideline uptake remains low.

Objectives / Goal
To increase guideline uptake by developing a comprehensive implementation strategy including two key elements: a web-based *Knowledge Platform* and e-learning.

Methods
In a stakeholder analysis the Royal Dutch Society for Physical Therapy (KNGF) interviewed groups of physical therapists (PT) to determine user needs. PTs tested the knowledge platform. E-learning modules were developed in cooperation with educational experts.

Results & Discussion
The knowledge platform offers guideline information in layers. Recommendations are quick to find while users in search of more in depth information browse further from 'Recommendations' to 'Explanation' to 'Methods'. In addition, other relevant information and tools on the specific topic are shown. In e-learning modules the content of the guideline is supported by videos, cases and questions. Compared to regular training, e-learning is easy accessible at low costs and has the ability to reach a great number of PTs. Along with training and intercollegial case discussions, e-learning is embedded in the professional registration for PTs. This year, two guidelines will be implemented according to the new strategy.

Implications for guideline developers / users
An example of an integrative strategy and innovative tools for implementation of guidelines in daily practice.

Conclusion
Both the user-friendly and transparent offering of guidelines and accessibility of e-learning are examples of promising tools to support implementation. Incorporated in a comprehensive strategy (with allocated time and budget) guideline uptake and adherence is expected to increase.

TARGET GROUP/SUGGESTED AUDIENCE

P065
ACADEMY RESOURCES FOR EVIDENCE-BASED NUTRITION PRACTICE GUIDELINE (EBNPG) IMPLEMENTATION AND EVIDENCE-BASED PRACTICE RESEARCH

Implementation and quality improvement (including indicators)
#P065

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Background & Introduction
The Academy of Nutrition and Dietetics (Academy) is nutrition professional organization that has published over 30 EBNPG, yet measurement of implementation and impact on patient outcomes have been minimally evaluated. There is paucity of literature indicating that EBNPG are not followed by most practitioners. It is of utmost importance for practitioners to implement EBNPG as they are gold standard in patient care, and conduct evidence-based research to improve future guidelines.

Objectives / Goal
To encourage and support nutrition professionals including the registered dietitian nutritionist (RDN) with implementation of EBNPG, and evidence-based research.

Methods
Conduct a narrative review of existing literature to identify barriers for implementation of EBNPG, and RDN barriers for participation in evidence-based research. Match existing Academy resources that can address the identified barriers.

Results & Discussion
Implementation barriers are profoundly complex but can be categorized into: personal factors (awareness); guideline factors (complexity); and external factors (resources). The Academy disseminates EBNPG, addressing awareness, yet resources with practical information on implementation is lacking. RDN barriers for evidence-based research are lack of time, support, and limited knowledge of methodology. The Academy has developed several resources to assist in evidence-based research. The Nutrition Care Process and Terminology (NCPT) is a framework for RDNs to document nutrition care; ANDHII, an online data collection platform utilizing NCPT; the Dietetics Practice Based Research Network, assists members conduct evidence-based research.

Conclusion
The Academy offers several resources to support and encourage evidence-based research, yet is lacking resources for implementation of EBNPG. A resource with practical tips “Bridging EAL Guidelines to Practice” is currently under development.

P066
ANALYSIS OF PRACTICE GUIDELINES AT INTERNATIONAL PRACTICE GUIDELINE REGISTRY PLATFORM

Implementation and quality improvement (including indicators) #P066

W. Mengshu [1], M. Yanfang [2], L. Xufei [2], C. Yaolong [2]
[1]The first hospital of Lanzhou university - Lanzhou (China), [2]Evidence Based Medicine Centre of Lanzhou University - Lanzhou (China)

Background & Introduction
The International Practice Guideline Registry Platform (http://www.guidelines-registry.org, IPGRP) was launched in 2013. There is no study to show the information of registered guidelines.

Objectives / Goal
To analyze the data of registered guidelines at the IPGRP.

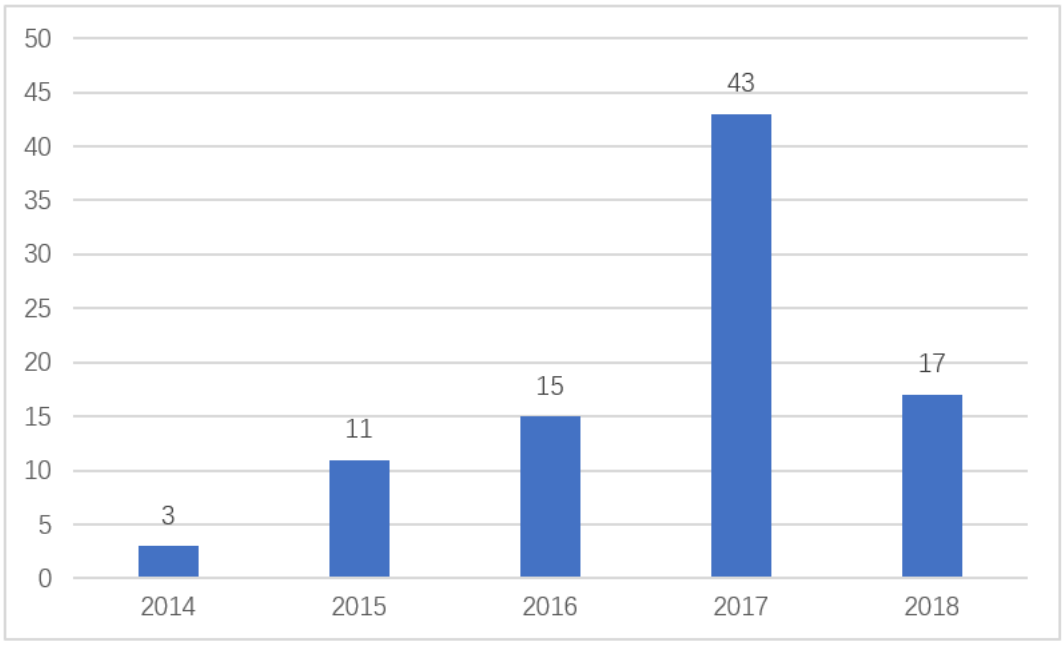
Methods
We searched IPGRP from 2014 to 2018. The Excel was used to perform data extraction and analysis.

Results & Discussion
There were 89 guidelines registered at IPGRP from 2014 to 2018. In terms of guideline classification, there are 39 guidelines, 19 Chinese medicine guidelines, 17 expert consensuses, 7 rapid recommendation guidelines, 3 patient guidelines, and 4 other guidelines. 61 guidelines used GRADE, seven used the JBI (Joanna Briggs Institute) rating system, and five used the OCEBM (Oxford Centre for Evidence-based Medicine, OCEBM) rating system. Sixteen guidelines did not report any rating system. Most of guidelines (83%) reported that their evidence based on systematic reviews. Only 20 guidelines submitted their protocols at IPGRP. Sixty-eight guidelines reported the funding information and of which 9 guidelines were funded by pharmaceutical companies.

Implications for guideline developers / users
The IPGRP provides an important platform for guideline developers and users to search and find essential guidelines information before they are published and help them to judge the transparency of guideline development.

Conclusion
During the past 4 years more and more guidelines from different medical societies were registered at the IPGRP. The IPGRP will provide additional methodological support to guideline developers.

Description of the best practice
IPGRP is supposed to improve the transparency of development of practice guideline, avoid duplication and promote the dissemination and implementation of guidelines.



Number of clinical practice guidelines registered in International Clinical Practice Guideline Registry Platform

P067
APPLYING GUIDELINE METHODOLOGY TO FACILITATE IMPLEMENTATION OF A NEW REGULATION

Implementation and quality improvement (including indicators) #P067

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Scottish Dental Clinical Effectiveness Programme (SDCEP), NHS Education for Scotland - Dundee (United Kingdom)

Background & Introduction
A new EU regulation, applicable in UK law, restricts the use of dental amalgam in specific patient groups from July 2018. This is a predefined legal provision rather than an independently developed clinical recommendation. With concern that interpretation of the regulation may vary, the expectation that compliance would require a significant change in practice and severely limited time, guidance to inform both policy and the profession was urgently required.

Objectives / Goal
To use a rapid and robust process to develop clinical advice in response to policy, service and patient needs to support the implementation of the new regulation.

Methods
Scottish Dental Clinical Effectiveness Programme (SDCEP) convened a multi-disciplinary short-life working group to develop ‘implementation advice’. Appropriate elements of SDCEP’s NICE-accredited guidance development process, including open consultation, were applied to provide advice on alternatives to dental amalgam.

Results & Discussion
Applying elements of good practice in guideline development methodology facilitated the development of credible implementation advice within a substantially reduced time-frame. This allowed a rapid response to the need for advice on a new development affecting the clinical practice of the majority of UK dentists. The inclusion of open consultation in particular ensured that stakeholders could inform the final product.

Implications for guideline developers / users
The development and advancement of guideline methodology can benefit the development of other important forms of clinical advice.

Conclusion
Elements of guideline development methodology can be utilised to enhance the quality and development of non-standard guideline-related products in a rapid and responsive manner.

P068
APPLYING THE ACA PROCESS IN IMPLEMENTING CPGS IN STROKE REHABILITATION: A SOUTH AFRICAN CASE STUDY

Implementation and quality improvement (including indicators)
#P068

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Background & Introduction
Clinical practice guideline (CPGs) activity has escalated internationally in the last 20 years, along with refinements in development methodologies. Despite this, there remains a lack of practical support for end-users regarding putting recommendations effectively and efficiently into local practice.

Objectives / Goal
This paper outlines a process developed to endorse and assist implement CPG recommendations for best practice stroke rehabilitation to South African settings.

Methods
A broad stakeholder / end-user project team was convened to discuss (and endorse) recommendations to deliver stroke rehabilitation as relevant to South African contexts. The Adopt, Contextualise, Adapt (ACA) model was applied and an algorithmic approach was developed to put the ACA model into practice during project team discussions. The project team led three stakeholder workshops in different geographical regions to apply the ACA to the recommendations from existing CPGs. Local barriers which could delay the implementation of recommendations were identified and provided as prompts to guide discussions regarding specific implementation strategies.

Results & Discussion
The ACA process was efficient in terms of time, stakeholder effort and resources. It enabled policy-makers, clinicians, managers and consumers to make practical decisions about how recommendations could be implemented, for instance seeking funding, changing legislation, improving workforce numbers and skills, or changing culture. Short and longer-term timeframes for action and outcome measurement were established, as were people responsible for championing change.

Conclusion
The ACA process to endorse and assist implementation of CPGs could be useful in any country, to assist stakeholders to develop local strategies to assist in implementing existing international CPG recommendations.

P069
ARE “GUIDELINES” ALWAYS EVIDENCE-BASED?

Implementation and quality improvement (including indicators) #P069

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ESHRE - Grimbergen (Belgium)

Background & Introduction
The definition of guideline is ‘a general rule, principle or piece of advice, intended to advise people on how something should be done’. Clinical practice guidelines offer evidence-based recommendations for the management of typical patients. The GRADE-approach is a transparent and structured approach for rating the quality of a body of evidence in systematic reviews and guidelines, developed to overcome the shortcomings of previous grading systems and unify grading across guidelines.

Objectives / Goal
Pubmed was searched for all guideline papers published in one month (search term guideline[ti] OR guidelines[ti] filtered on Publication date from 2017/05/01 to 2017/05/31).

Methods
The search resulted in 467 papers that were exported to Endnote. After removal of 5 duplicates, 462 papers were assessed on title and abstract. Of these, 317 were excluded: 71 comments or responses, 22 papers on development, 160 papers on dissemination and implementation and 64 other papers. Another 22 papers were excluded for which the full text could not be retrieved.

Results & Discussion
In the final analysis, 124 papers were included. Of these, 72% (89) were evidence-based guidelines, whereas 28% (35) were consensus-based. Of the evidence-based guidelines, only 18% (22) used GRADE or a modified GRADE approach.

Conclusion
The term guideline implies an evidence-based approach and is perceived as such by clinicians. The assessment of a random sample of publications using “guideline” in the title shows that a significant proportion are consensus-based rather than evidence-based guidelines. Thus, a specific terminology for consensus-based documents is recommended, while the term “guideline” should be reserved for evidence-based, preferably GRADE-compliant guidance documents.

P070
ASSIST EARLY HOSPITAL DISCHARGE SCHEME – IMPROVING HOSPITAL FLOW AND THE TRANSITION FROM HOSPITAL TO HOME CARE

Implementation and quality improvement (including indicators) #P070

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[1]Mansfield Council - Mansfield (United Kingdom), [2]NICE - Manchester (United Kingdom)

Background & Introduction
Mansfield District Council (MDC) has created the Advocacy, Sustainment, Supporting Independence and Safeguarding Team (ASSIST) Hospital Discharge Scheme (HDS). The development, implementation and delivery of the ASSIST drew on and illustrates NICE Guidance for transition between inpatient hospital and community settings in practice.

Objectives / Goal
The HDS supports and expedites the transition between hospital and community or care home settings for adults with social care needs, or those medically fit people who could not leave hospital without intervention.

Methods
Council housing staff work alongside social care workers and medical professionals in the hospital. They identify vulnerable patients in need of additional support to return home e.g. property alterations or temporary accommodation in a dedicated respite unit. Most cases are a complex combination of social and welfare need.

Results & Discussion
The project, funded by local government and the NHS has seen real benefits on the wards of the local hospital. Evaluation by Nottingham Business School found in a 9 month period it speeded the transfer of 1,129 patients, saved 5078 bed days and £1.4m to the local health economy.

Implications for guideline developers / users
ASSIST demonstrates the opportunities in bringing hospital, housing needs and social care into a whole system approach to provision.

Conclusion
ASSIST has the potential to be emulated across the UK and in overseas settings to improve patient care and generate considerable savings to the health and social care system.

P071

BEST PRACTICE GUIDELINE INTEGRATION WITHIN CANADIAN NURSING CURRICULA: MAPPING THE SCIENCE OF IMPLEMENTATION.

Implementation and quality improvement (including indicators)
#P071

E. Santa Mina, D. Rose, S. Espin, M. Vahabi
Ryerson University - Toronto (Canada)

Background & Introduction

Best Practice Guideline (BPG) implementations, in university nursing program curricula, lack systematic approaches. Although a Canadian nursing school faculty integrated 15 BPGs within individual courses, the approach lacked process and outcome indicators to measure knowledge dissemination and influence on student nursing practice, as they advance from education to employment. Supported by a 3-year provincial government grant (2018-2020), and in conjunction with a professional nursing association, faculty plan an implementation science strategy to measure effective BPG implementation and uptake in nursing curricula.

Objectives / Goal

The team articulates three project goals: 1) to enhance BPG implementation strategies in existing courses, 2) to expand BPG implementation across undergraduate and graduate curricula; and 3) to develop academic process and outcome indicators that monitor and evaluate BPG uptake and dissemination in education and practice.

Methods

The implementation science methodology utilizes quantitative and qualitative procedures to assess needs specific to the context of academic BPG implementation (instructors' and students' BPG knowledge and values), current pathways and barriers to BPG implementation across curricula, awareness and utilization of support networks, and relevant process and outcome indicators to create evaluation and research databases.

Results & Discussion

The research team presents the BPG implementation science plan with strategies to identify facilitators and barriers. Faculty, students, simulation leaders, clinical partners, and advisory panel members are among key champions and stakeholders.

Implications for guideline developers / users

The presentation explores preliminary implementation science, methodological recommendations for academic settings, who consider BPG implementation within curricula.

Conclusion

Implementation science approach is a strong methodological approach to BPG curriculum implementation.

Description of the best practice

Registered Nurses Assocaition of Ontario Best Practice Guidelines

P072
CAN THE IMPACT OF GUIDELINES BE EVALUATED? THE TRANSFORMATION OF PAPER GUIDELINES INTO A DIGITAL INFORMATION MODEL

Implementation and quality improvement (including indicators)
#P072

R. Kieft, A. Nijboer, E. Verhoof
Dutch Nurses' Association (V&VN) - Utrecht (Netherlands)

Background & Introduction
Nurses document information about patients' health status in an electronic health record. Through documentation nurses communicate with professionals and patients. Nursing data is also used to compare quality of care. Accurate record keeping is therefore essential and it must meet professional standards. The quality of nursing data is, however, suboptimal. Furthermore, knowledge is limited with regards to clinical reasoning and decision making.

Objectives / Goal
A national information model has been developed to establish consistent data for nursing practice. This model addresses the nursing diagnoses, flowing from assessment to care planning and patient outcomes. The data-elements of this model are derived from guidelines.

Methods
Information models for wound care and pain were established and pilot-tested in four healthcare organisations. Baseline and effect measurement were used to examine the quality of documentation and the effects on clinical reasoning.

Results & Discussion
A baseline and effect measurement will be held between May - September 2018. The results will provide insight into the effects of standardizing guidelines into electronic health records on documentation, clinical reasoning and the accuracy of data transfer. The results gain knowledge about the quality of guidelines, while users indicate if and why they derogate from requirements.

Implications for guideline developers / users
To develop information models based on guidelines it is important that guidelines use the clinical reasoning process as a framework and include national terminology standards on a consistent basis. Data about the use of guidelines can be used to develop and revise guidelines.

Conclusion
The transformation of paper guidelines into digital information models stimulates data transfer and evidence-based decision making.

TARGET GROUP/SUGGESTED AUDIENCE

P073
CHECKING THE CHECKBOXES - EVALUATION OF APPROPRIATENESS OF COMMON QUALITY MEASURES

Implementation and quality improvement (including indicators)
#P073

A. Drabkin, B. Alper
DynaMed - Ipswich (United States of America)

Background & Introduction
Performance measures are used to evaluate the quality of clinical care. In the US, the Center for Medicare and Medicaid Services (CMS) Merit-based Incentive Payment System (MIPS) introduced 271 performance measures with broad impact. The appropriateness of these performance measures have not been systematically and transparently assessed.

Objectives / Goal
1.Participants will learn our criteria and methodology for using them criteria to evaluate an individual performance measure for evaluation of appropriateness of a performance measure.
2. Participants will learn the current assessment status of 271 MIPS measures using the criteria and methodology described.

Methods
We developed 4 initial criteria for appropriateness of performance measures extrapolated from experience in assessing evidence and guidelines. We adapted these criteria iteratively and are applying the criteria to individual quality measures from the MIPS set. Each measure is rated Meets Criteria (MC), Does Not Meet Criteria (DNMC), or Meets Criteria with Modification Suggested (MCMS).

Results & Discussion
As of April 2018, 227 of the 271 MIPS measures have been reviewed (83.8%), Of these, 79 (34.8%) MC, 86 (37.9%) DNMC, and 62 (27.3%) MCMS. Problems with current measures include use of surrogate markers of disease rather than clinical outcomes, lack of supporting evidence, and lack of adequate specificity in the population and/or intervention required.

Implications for guideline developers / users
Guideline developers who create performance measures should consider these criteria for appropriateness.

Conclusion
Most MIPS quality measures do not meet our criteria for appropriateness. Substantial modification is needed to avoid promotion of unproven practices and diversion of limited resources for the efforts of implementation, measurement and reporting.

P074
CONTEXTUAL AND PHYSICIAN-EXPERIENCE RELATED FACTORS LIMIT IMPLEMENTATION OF EVIDENCE-BASED CLINICAL PRACTICE GUIDELINE RECOMMENDATIONS

Implementation and quality improvement (including indicators)
#P074

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Background & Introduction
Clinicians patient management is often discrepant with evidence-based clinical-practice-guidelines (CPG).

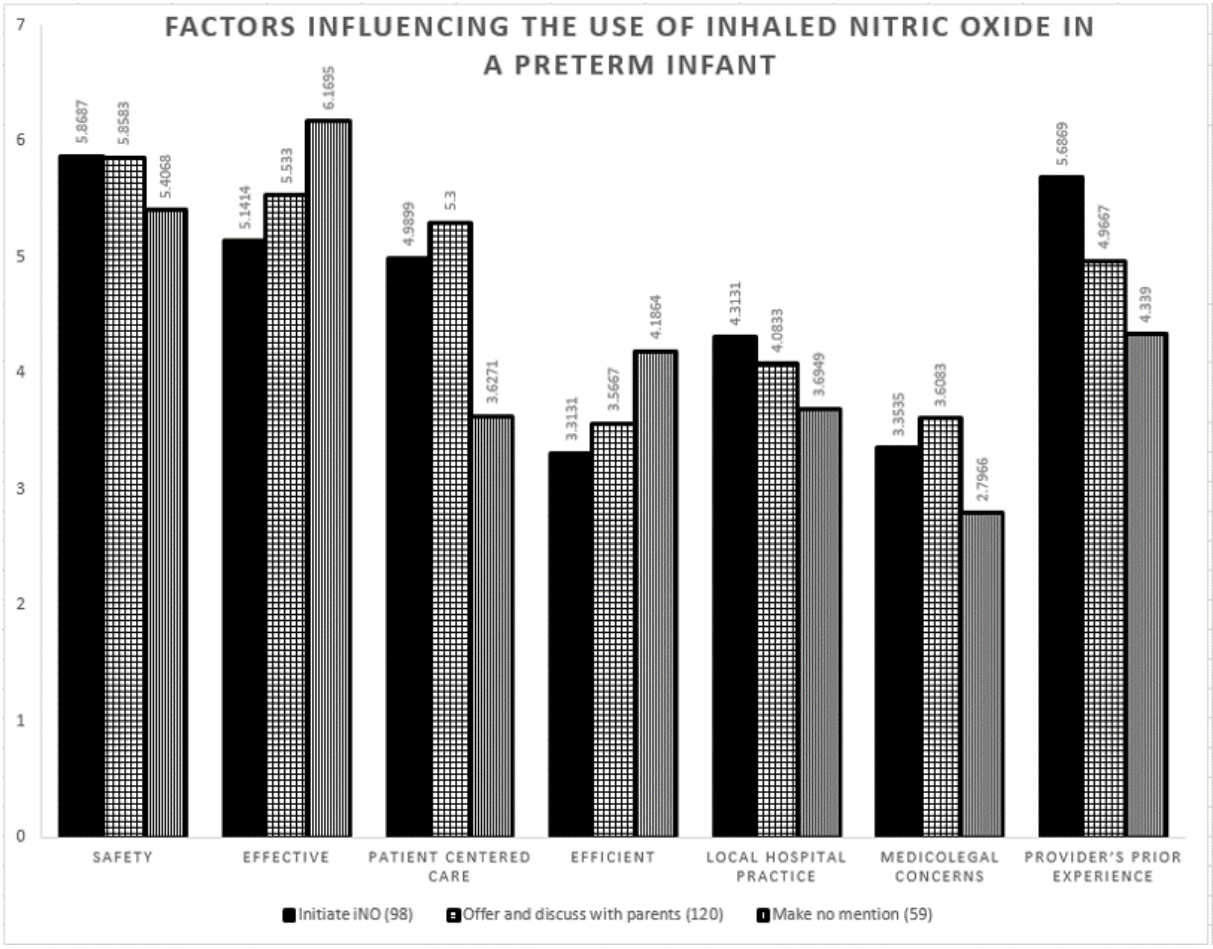
Objectives / Goal
To study effect of conditional/conflicting CPG-recommendations on decision-making using two clinical vignettes; one concerning use of inhaled nitric oxide (iNO) in preterm with hypoxemic respiratory failure (HRF) and another regarding therapeutic hypothermia (TH) in late-preterm neonates with perinatal asphyxia.

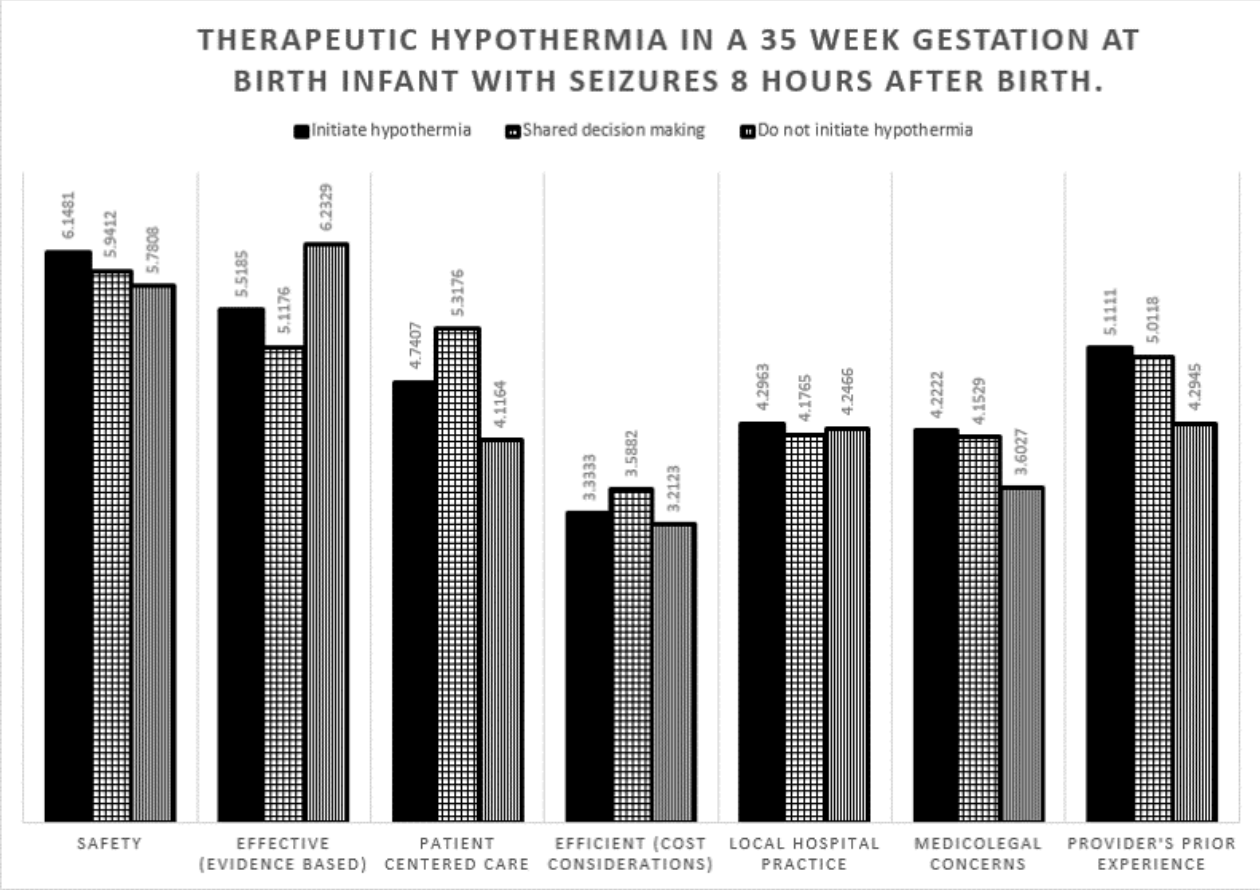
Methods
Neonatologists considered the vignettes and selected from three management options - initiate therapy, engage parents in shared decision-making (SDM) or not consider therapy. They then rated the influence of seven factors (safety, effectiveness, patient-centered-care, efficiency, local hospital-practice, medicolegal concerns, and prior experience) on their decision. Analysis included ANOVA for ratings and basic content analysis of free-text responses.

Results & Discussion
336 neonatologists answered the survey (response-rate 10%); response patterns differed for the two scenarios. 79% of neonatologists chose to initiate/offer iNO; only 44% initiated/offered TH. For both scenarios, differences in rating of importance of the factors between CPG concordant and discordant responders proved small (Figures 1&2). Individual neonatologists often chose a CPG-recommended option for one but not the other scenario. Contextual factors led to a higher use of iNO versus TH. Comments revealed that non-prescribers emphasize evidence of limited benefit, while prescribers emphasized physiological rationale, anecdotal personal experience, a perceived necessity to exhaust all options in desperate situations, and an aversion to consider costs.

Implications for guideline developers / users
Guideline efforts should consider contextual and physician-experience related factors in guideline development and implementation.

Conclusion
Neonatologists often chose iNO but seldom chose TH. Contextual factors strongly influence decision-making; consideration of different perspectives may improve guideline adherence and provision of high-value care.


FACTORS INFLUENCING THE USE OF INHALED NITRIC OXIDE IN A PRETERM INFANT
7
6
5
4
3
2
1
0
5.8687
5.8583
5.4068
5.1414
5.533
6.1695
4.9899
5.3
3.6271
3.3131
3.5667
4.1864
4.3131
4.0833
3.6949
3.3535
3.6083
2.7966
5.6869
4.9667
4.339
SAFETY
EFFECTIVE
PATIENT CENTERED CARE
EFFICIENT
LOCAL HOSPITAL PRACTICE
MEDICOLEGAL CONCERNS
PROVIDER'S PRIOR EXPERIENCE
Initiate iNO (98)
Offer and discuss with parents (120)
Make no mention (59)


THERAPEUTIC HYPOTHERMIA IN A 35 WEEK GESTATION AT BIRTH INFANT WITH SEIZURES 8 HOURS AFTER BIRTH.
Initiate hypothermia
Shared decision making
Do not initiate hypothermia
6.1481
5.9412
5.7808
5.5185
5.1176
6.2329
4.7407
5.3176
4.1164
3.3333
3.5882
3.2123
4.2963
4.1765
4.2466
4.2222
4.1529
3.6027
5.1111
5.0118
4.2945
SAFETY
EFFECTIVE (EVIDENCE BASED)
PATIENT CENTERED CARE
EFFICIENT (COST CONSIDERATIONS)
LOCAL HOSPITAL PRACTICE
MEDICOLEGAL CONCERNS
PROVIDER'S PRIOR EXPERIENCE

	Concepts	Explanation	Selected Participant Quotes
Reasons to use iNO	High Stakes, Few Alternatives.	Lack of options and the need to try all available treatments based on the imperative of saving life	*'Cost of human life saved when the child is not measured in dollars and cents'.* *'If I had a potentially life-saving treatment available and parents/society expected me to try to save a baby's life, then I would not limit care even when cost is high'.* *'The fact that there is no alternate therapy and the ATS statement helps'*
		Consider effectiveness of therapy over costs.	*'Effectiveness of therapy should be the primary consideration for life threatening situations'.*
	Physician's Judgements based on experience and parent's trust in physician.	Anecdotal past successes. Unethical to withhold potentially lifesaving treatment.	*'I have used this therapy in many preterm infants with PPHN with good results* *'Families ask for resuscitation and intervention despite the odds, there is a cost associated but no family, that I have met to date, weighs the medical cost in choosing an intervention that may prolong an infant's life'.*
		Balance, benefits, harms, costs and context. Try to wean as soon as possible.	*'Will only initiate iNO if baby is in hypoxemic respiratory failure and will always discuss with parents regarding initiation, will obviously only continue the therapy for as long as it is effective and wean off as quickly as possible'.*
	Malpractice concerns	Medicolegal liability if not used	*'It's much less than the malpractice payout would be if he died. Would assist parents in insurance negotiations'.*
Reasons not to use iNO	Lack of Evidence of Benefits	Note that there is no evidence of benefit in this population and that it is expensive for a non-proven therapy	*'My decision is based on evidence. The insurance company is not covering based on a lack of evidence. There is no good outcomes data to support this.'* *'Until evidence is presented for effectiveness, this sort of expense is not justified and the treatment should not be covered. I also think the charges by the company are scandalous'.*
Cost and Context Elements	Costs should not be considered	Not the physician's role to consider costs. Costs should not influence treatment decisions. Others should resolve cost issues	*'Cost considerations usually do not influence my clinical decisions.'* *'Cost should not be an issue with regards to decision making in clinical practice, other than totally futile interventions'.* *'Decisions should primarily be based upon evidence not finances'.* *'This is a matter to be resolved by the hospital, the payer, and an arbitrator'.*
	Costs should be considered	Need to consider costs	*'Cost benefit analysis should be considered in all treatment decision'.* *'Cost of treatment versus risks and efficacy must always be considered'.*
	Consider cost Effectiveness	Note that an infant's life saved may have long term benefits to society in the form of future contributions and quality adjusted life years (QALY)	*'Due to the response of iNO and successful discharge home on relatively low support, can argue that the cost of iNO is offset by the potential future QALY and societal contributions'.* *'The least cost effective things in Neonatology are still more cost effective in terms of QALYs vs most of adult health care. Had I started iNO "just to do something" without belief in it, I would have felt bad about the cost burden'.*
	Consider costs in NICU context and cost of new therapies.	All NICU care is expensive. Should accept high costs as a factor in our treatments.	*'This charge is likely less than 10% of the total hospital bill for this extremely premature baby'.* *'If cost and outcomes controlled therapeutic decisions, why would we resuscitate anyone less than 26 week'?*
	Hospital/insurance will cover costs	Costs covered by hospitals, government insurance	*'Our hospital will eat the cost'.* *'The family would never bear the cost of iNO; the hospital always takes the financial risk under circumstances such as these'.*
Shared Decision Making	Involve parents in decision making	Discuss the evidence and costs including potential personal costs with parents.	*'I speak to all families that I will initiate iNO discuss evidence base, costs'* *'I am in the habit of discussing potential uncovered costs with parents when there is not a lot of evidence to support the use of said therapy or test'.* *'I still administer the drug after mentioning the insurance concern to the parents and getting their consent'.*
	Barriers to shared decision making	High stress situation, wish to do everything to save an infant's life	*'I would be more inclined to discuss the use of iNO with the family prior to initiating therapy. BUT so many parents will not understand the implications'.* *'This could explode into an ethics conversation as well. We may end up being forced to explain costs to families up front, and there are some situations that I have done this-but only in non-life threatening situations-such as genetic testing'.*
Equity and Ethics	Ethical Issues and Equity concerns	Unethical to base treatment decisions on ability to pay, may raise equity issues if treatment is based on insurance coverage	*'Not appropriate to deny care b/o potential costs unless parents are the ones making that decision under this circumstance. Minority families in particular are very concerned about their infants receiving the requisite care and not to be denied b/o perceived ability to pay'. 'unethical'.* *I believe a child from a poor family deserves it as much as a child from a wealthy family, and any other approach would be discriminatory'.*
	Conflicts of Interest	Pharmaceutical companies need to make a profit, the goals of the company and that of the clinician may not always coincide.	*'There are many examples of inequity in pharmaceutical products and services in American medicine. This is just one that must be corrected where treatment is driven by expert opinion rather than dogma. The insurance company is running a business, we are in the business of providing health care services to our patients; the goals don't always coincide'.*

P075
DEVELOP THE REPORTING GUIDELINE FOR CLINICAL PRACTICE GUIDELINES OF ACUPUNCTURE

Implementation and quality improvement (including indicators) #P075

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Background & Introduction
Clinical practice guidelines(CPGs) of acupuncture can help to regulate acupuncture treatment and improve the clinical efficacy of acupuncture. In recent years, a lot of acupuncture guidelines have been published successively, whereas the reporting quality still needs to be improved.

Objectives / Goal
To develop the extension of the RIGHT reporting guideline for acupuncture CPGs.

Methods
The study was performed with the following steps: 1) systematically evaluate acupuncture guidelines; 2) write protocols and register on the EQUATOR; 3) investigate the expectations of clinicians, researchers, and methodologists for the information of acupuncture guidelines; 4) start three roundsof Delphito select items; 5) hold a face-to-face consensus meeting.

Results & Discussion
We have finished the reporting quality evaluation of acupuncture guidelines with RIGHT standard, and found the reporting quality was low in guidelines evidence, recommendations, review and quality assurance, and funding and declaration and management of interests. Meanwhile, we have established RIGHT for acupuncture workgroup including acupuncture clinicians, methodologists, Chinese medicine clinicians, Chinese medicine doctors, western clinicians, medical editors, health economists, etc. Finally, the item pool of acupuncture guidelines reporting guideline has been collected.

Implications for guideline developers / users
Acupuncture guidelines developers can improve the reporting quality of guideline by following the reporting guideline of acupuncture CPGs. Clinicians also can better implement acupuncture CPGs based on this reporting guideline.

Conclusion
The reporting guideline of acupuncture CPGs together with STRICTA and Systematic reviews for acupuncture constituted the reporting guideline system for acupuncture studies, thus improved the quality of research on the field of acupuncture.

P076
DEVELOPMENT OF A QUESTIONNAIRE TO ASSESS CLINICIAN DETERMINANTS OF GUIDELINE USE

Implementation and quality improvement (including indicators)
#P076

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Background & Introduction
In previous research we found 178 questionnaires employed between 2005 and 2014 to identify clinician determinants of guideline use. Few questionnaires thoroughly probed for determinants and only 3 were validated.

Objectives / Goal
To develop and validate a questionnaire to assess clinician determinants of guideline use.

Methods
The research team blended determinants of guideline use from existing frameworks; mapped all unique items (questions, statements) from the 178 questionnaires to determinants (content validity); selected one or more items for each determinant (content validity), refined wording of items (face validity), and addressed overlap between items or distinguished concepts within a single item (construct validity).

Results & Discussion
Items from 178 questionnaires were mapped to a 22-determinant framework. Through three rounds, team members reviewed and modified the list and wording of determinants and corresponding items. The Clinician Guideline Determinants Questionnaire contains four main sections: demographic information, 27 close-ended items reflecting clinician (n=21) and guideline (n=6) determinants, 2 open-ended items to solicit additional determinants, and 3 items on learning style.

Implications for guideline developers / users
The questionnaire can be widely used to comprehensively assess clinician and guideline determinants of guideline use. Those administering the questionnaire can choose yes/no or Likert scale response options, and pose items for an entire guideline or specific recommendations.

Conclusion
The questionnaire fills an important gap not addressed by previous “home-grown” questionnaires that did not generate reliable knowledge to inform the design of effective implementation interventions. Guideline developers/implementers, clinicians, or others who pilot-test the questionnaire and publish their findings will further contribute to its improvement and validation.

P077
DEVELOPMENT OF AN ASSESSMENT PROGRAM IN CANCER CARE FOR MEASURING CLINICAL PRACTICE GUIDELINES AND CLINICAL PROTOCOLS ADHERENCE IN COLOMBIA

Implementation and quality improvement (including indicators)
#P077

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Background & Introduction
Clinical Practice Guidelines and Clinical Protocols (CPG/CP) implementation is a global challenge. Developing countries make efforts designing strategies to put them into practice. Recently, Colombian Ministry of Health promoted CPG/CP through institutional qualifications according to their adherence measurement; however, national health system decentralization through different Health Maintenance Organization (HMO and Insurance Plans and fragmentation of delivery services leads to difficulties in GPC/PC adherence measurement. Therefore, it is necessary to create a GPC/PC adherence assessment program in cancer care.

Objectives / Goal
To develop a GPC/PC adherence assessment program at Instituto Nacional de Cancerología as a model to be implemented as a National Strategy.

Methods
At first, we carried a review of national laws and domestic methodological strategies for assessment of GPC/PC implementation and adherence. Afterwards, we created the adherence assessment method and socialized it to institutional GPC/PC implementation actors to contextualize the review findings into the local clinical practice. Ultimately, the proposed methodology was validated by measuring adherence of two national GPC (breast and cervix cancer).

Results & Discussion
We found two bills and a standard related with GPC/CP adherence report; nonetheless, the available implementation methods do not give specific methods to fulfill national law requirements. To contextualize the evidence into the institutional governance and management structure (Fig.1), we proposed a cross-sectional approach flowchart (Fig.2), which was followed in both GPC adherence measurement processes.

Implications for guideline developers / users
In Colombia, GPC/PC adherence assessment in cancer care is still a methodological challenge due to an inconsistency between the domestic law and available methods.

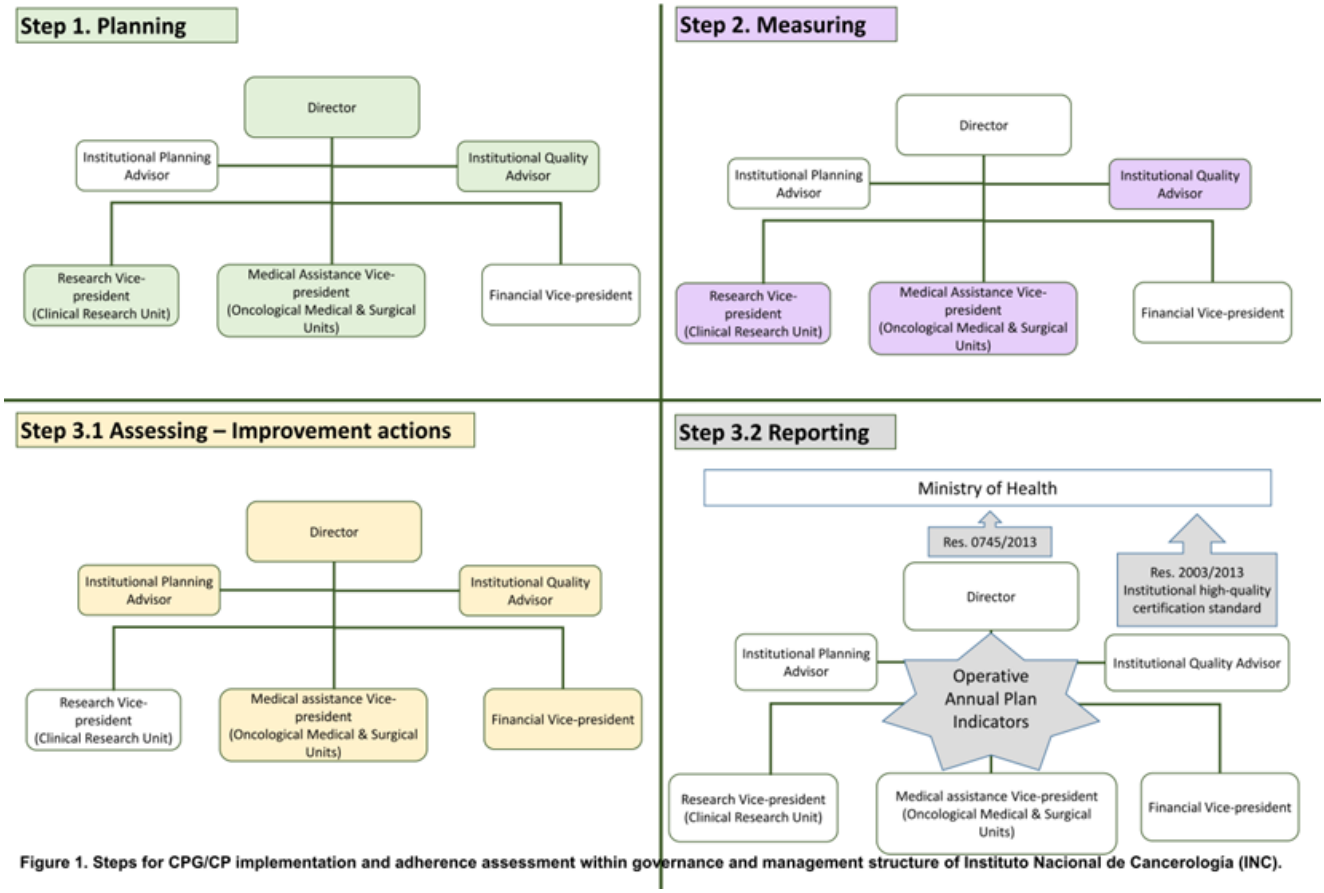

Figure 1. Steps for CPG/CP implementation and adherence assessment within governance and management structure of Instituto Nacional de Cancerologia (INC).

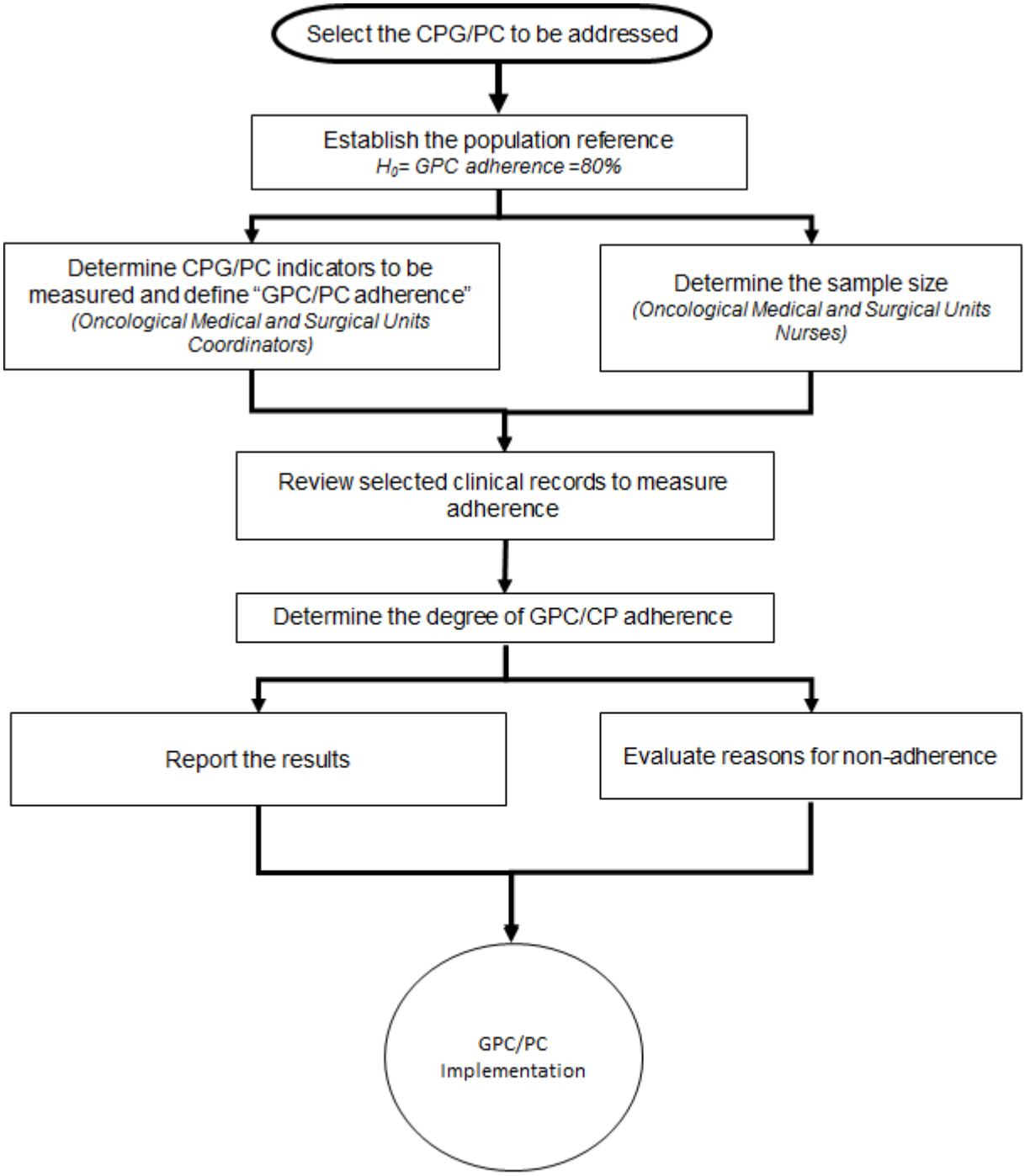

Fig.2 GPC/PC adherence assessment method

P078
EFFECTIVENESS AND SAFETY OF STRATEGIES DESIGNED FOR IMPLEMENTING CLINICAL PRACTICE GUIDELINES. AN OVERVIEW OF SYSTEMATICS REVIEWS.

Implementation and quality improvement (including indicators)
#P078

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Clinical research institute national University of Colombia - bogota (Colombia)

Background & Introduction
For clinical practice guidelines (CPGs), Implementation strategies can be defined as techniques used to improve the adoption, application, and sustainability of the recommendations include in a guideline; these are intrinsically complex social interventions, since they address multifaceted and complicated processes within interpersonal, organizational and community contexts.

Objectives / Goal
Determine the main results in effectiveness, implementation and safety of the use of implementation strategies for CPGs, on users (health professionals, decision makers, patients or health administrators) of the CPGs.

Methods
We developed an overview of systematics reviews of randomized clinical trials, cluster randomized trial, quasi-experimental studies to obtain the information about effectiveness, implementation and safety results. The evidence was summarized and presented according to GRADE the evaluation quality of evidence report.

Results & Discussion
Thirteen systematic reviews were included. We found information on implementation strategies for CPGs aimed at patients, health workers, and health administrators (discrete and multifaceted). The reported results were diverse and heterogeous: effectiveness, implementation assessed on patients, healthcare workers and institutions.

Implications for guideline developers / users
It is necessary to generate recommendations on the report of results in the studies of implementation strategies for guidelines, as well as to recommend the complete description of strategies to generate pooled results and ensure the comparability.

Conclusion
The existing evidence on the effectiveness, implementation and safety results of the strategies is controversial, and scarcely informative. Safety outcomes and information of implementation strategies must be generate.

Description of the best practice
Evaluation of the evidence according to the GRADE methodology, should be integrated to support the recommendations on the use of implementation strategies for CPGs.

P079
EMBEDDING QUALITY IMPROVEMENT (QI) ACTIVITIES WHEN EVALUATING THE IMPACT OF GUIDELINES: A FEASIBILITY STUDY

Implementation and quality improvement (including indicators)
#P079

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Background & Introduction
In 2017, the Scottish Dental Clinical Effectiveness Programme published its NICE accredited guidance for the oral health management of patients at risk of Medication-related Osteonecrosis of the Jaw (MRONJ). MRONJ is a rare but serious side-effect of specific medications used in the treatment of bone disease and some cancers.

Objectives / Goal
To explore the feasibility of embedding a Quality Improvement (QI) activity within the guideline impact evaluation process.

Methods
Pre- and post-publication questionnaire data were gathered about dentists' clinical practice and beliefs. Following publication of the guidance, participants identified 3 recommendations where current practice was not compliant with the guidance, before identifying barriers to compliance and implementing action plans for improvement. Following completion of the post-publication questionnaire, participants completed a report reflecting upon changes to their practice and beliefs.

Results & Discussion
149 dentists completed both questionnaires; 38% participated in the QI activity. Common barriers were identified at patient-level (e.g. medication uncertainty), practitioner-level (e.g. knowledge, confidence) and environmental-level (e.g. time, practice systems). Action plan strategies included; improved communication strategies with patients, greater utilisation of guidance resources and system changes (e.g. computer software). Perceived benefits about participating included greater awareness of the guidance recommendations, resulting in increased knowledge and confidence and improved compliance with guidance recommendations.

Implications for guideline developers / users
Embedding a QI activity when evaluating guideline impact is feasible and may help improve compliance.

Conclusion
This study demonstrated the feasibility of embedding a QI activity within the guidance impact evaluation process. Further work is required to robustly measure its effect and applicability to other guidance topics.

P080
ENHANCING THE QUALITY OF HEART FAILURE CARE: A PERSON-CENTRED PATHWAY BUILT AROUND COORDINATED INTEGRATED SYSTEMS FOR IMPROVEMENT IN HEART FAILURE CARE

Implementation and quality improvement (including indicators)
#P080

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Background & Introduction
A local collaboration between healthcare, academia and life sciences drove transformational change across traditional healthcare boundaries in the Kent, Surrey and Sussex region of the UK. It utilised a data driven quality improvement approach, drawing on NICE Quality Standards for chronic heart failure (HF) and patient experience, to improve care for HF patients.

Objectives / Goal
Collaborative design and application of data benchmarking to reduce variation in care for HF patients, improve outcomes and provide a strong platform to discuss and make key recommendations to healthcare providers and commissioners.

Methods
Regional clinical leadership, design of appropriate metrics and mechanisms for providers in the pathway to collaboratively meet and review their respective performance against the metrics. In 2016/17, a mandatory national Best Practice Tariff (BPT) for non-elective admissions for HF was introduced, designed as an incentive to improve adherence to NICE guidance.

Results & Discussion
9 NHS provider Trusts achieved an Appropriate Care Score of 63% in quarter 1 rising to 76% in quarter 4. In the top three Trusts, admissions reduced by a combined 190 patients than baseline forecasts and estimated mortality fell by 35 lives. This could account for a potential cash-releasing saving in the region of £0.5m based on average healthcare costs.

Implications for guideline developers / users
BPTs can be used as a performance incentive to improve adherence to evidence-based guidance and outcomes for patients and the local healthcare economy.

Conclusion
The HF Project made a positive difference to the population in the acute and community Trusts across the local region.

P081
E-SCOPE: A STRATEGIC APPROACH TO IDENTIFY AND ACCELERATE IMPLEMENTATION OF EVIDENCE-BASED BEST PRACTICES

Implementation and quality improvement (including indicators)
#P081

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Background & Introduction
Development of large-scale clinical practice guidelines with multiple recommendations can be time-consuming and expensive.

Objectives / Goal
Kaiser Permanente Southern California's Evidence Scanning for Clinical, Operational and Practice Efficiencies (E-SCOPE) Initiative developed a process to identify and accelerate implementation of evidence-based practices in the clinical care setting.

Methods
A six-member team (evidence specialist, project managers, quality leaders) conducted quarterly evidence searches, screened and selected relevant abstracts, and distributed prescreened studies of effective clinical practices to physician and operations leaders for implementation consideration. The E-SCOPE team engaged stakeholders, conducted evidence presentations to emphasize expected benefits of identified practices, supported formation of multidisciplinary implementation teams, facilitated team meetings, and monitored progress via initiative-specific metrics.

Results & Discussion
Since 2014, E-SCOPE identified and supported ongoing implementation of 27 evidence-based best practices, with a mean time from identification to launch of implementation of 16 months (range 4 to 36 months). Successful implementation of practices requires strong stakeholder support and ownership; optimizing use of existing practices, processes and systems; ongoing monitoring of progress; and dedicated project management support for troubleshooting barriers. More complex interventions may require considerable changes in physician practice and behavior or the establishment of new processes or systems.

Description of the best practice
Using proactive identification of high-quality evidence, development of focused recommendations, stakeholder engagement, and implementation support and monitoring, the E-SCOPE process successfully identified and implemented evidence-based practices; minimized reliance on resource-intense large scope clinical practice guidelines; and reduced the time gap between publication and delivery of important patient care interventions supported by high-quality published evidence.

P082
EVALUATING THE EFFECTIVENESS OF GUIDELINE IMPLEMENTATION IN A CLUSTER RANDOMIZED TRIAL

Implementation and quality improvement (including indicators)
#P082

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Background & Introduction
Despite advances in method development aiming to provide trustworthy recommendations over the past 15 years, there are few initiatives linking the implementation of clinical practice guidelines (CPGs) and the monitoring and evaluation of their effectiveness in clinical practice.

Objectives / Goal
To present the development of a clinical trial to evaluate the effectiveness of CPG recommendations and implementation.

Methods
In 2016, we developed a CPG with 21 recommendations for the management of brain-dead potential organ donors in Brazilian intensive care units (ICUs). Of these, 5 recommendations were strong and all were based on low or very low quality according to GRADE. Seventeen key recommendations were used for the development of a bedside checklist, which was pilot tested in two ICUs to assess its applicability.

Results & Discussion
We designed a cluster randomized trial to evaluate the effectiveness of the checklist in reducing potential organ donor losses due to cardiac arrest and increasing the number of organs recovered (trial registration: NCT03179020). Additionally, data are being collected on adherence to each recommendation in the checklist to identify associations between these individual recommendations and outcomes. Institutions were selected based on the number of potential organ donors reported in the previous 3 years. Currently, 61 Brazilian institutions are enrolled, with more than 620 potential donors enrolled from an expected sample of 1200.

Implications for guideline developers / users
For guidelines with recommendations based on low or very low quality of evidence, clinical studies, such as RCTs and before-and-after studies, may be an alternative to evaluate their impact on outcomes, which may be helpful for future updates.

P083
FAILURE MODE AND EFFECT ANALYSIS (FMEA) MAY ENHANCE IMPLEMENTATION OF CLINICAL PRACTICE GUIDELINES: AN EXPERIENCE FROM THE EASTERN MEDITERRANEAN

Implementation and quality improvement (including indicators)
#P083

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[1]King Saud University - Riyadh (Saudi Arabia), [2]King Saud Bin Abdulaziz University for Health Sciences - Riyadh (Saudi Arabia), [3]Prince Sultan Military Medical City - Riyadh (Saudi Arabia)

Background & Introduction
Implementation of clinical practice guidelines(CPGs) has been shown to reduce practice variation and improve healthcare quality and patient safety.There is a limited experience of CPG implementation (CPGI) in the Eastern Mediterranean.TheCPG Program at our institution was launched in 2009.

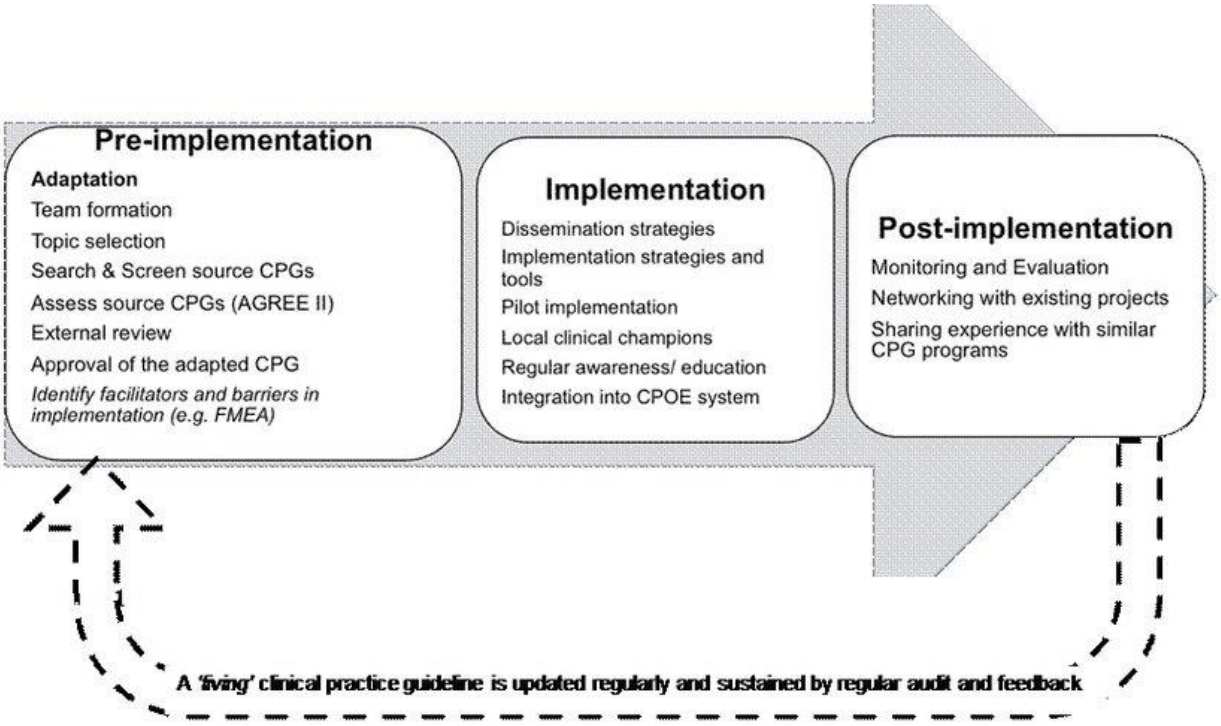
Objectives / Goal
We conducted a Failure Mode and Effect Analysis(FMEA) for further improvement of the CPGI.

Methods
This was a prospective qualitative/ quantitative study. Our FMEA included (1) process review and recording of the steps and activities of CPGI;(2)hazard analysis by recording activity-related FMs and their effects, identification of actions required, assigned severity, occurrence, and detection scores for each FM and calculated the risk priority number(RPN) by using an online interactive FMEA tool;(3)planning:RPNs were prioritized,recommendations,and further planning for new interventions were identified;and (4)monitoring: after reduction or elimination of the FM.

Results & Discussion
The data were scrutinized from a feedback of quality team members using an FMEA framework to enhance the implementation of 29 adapted CPGs. The identified potential common FMs with the highest RPN (≥80) included awareness/training activities,accessibility of CPGs,fewer advocates from clinical champions, and CPGs auditing.Actions included (1)organizing regular awareness activities, (2)making CPGs printed and electronic copies accessible,(3)encouraging senior practitioners to get involved in CPGI,and(4)enhancing CPGs auditing as part of the quality improvement sustainability plan.

Implications for guideline developers / users
This work has identified the FMEA as an additional resource for the G-I-N Implementation Working Group.

Conclusion
In our experience, FMEA could be a useful tool to support and inform CPGI in different centers, similar to ours. It helped us to identify potential failures and monitor barriers to implementation of CPGs.


Pre-implementation
Adaptation
Team formation
Topic selection
Search & Screen source CPGs
Assess source CPGs (AGREE II)
External review
Approval of the adapted CPG
Identify facilitators and barriers in implementation (e.g. FMEA)
Implementation
Dissemination strategies
Implementation strategies and tools
Pilot implementation
Local clinical champions
Regular awareness/ education
Integration into CPOE system
Post-implementation
Monitoring and Evaluation
Networking with existing projects
Sharing experience with similar CPG programs
A 'living' clinical practice guideline is updated regularly and sustained by regular audit and feedback

P084
GUIDELINES FOR EARLY DETECTION OF BREAST AND CERVICAL CANCER IN BRAZIL: BARRIERS TO IMPLEMENTATION.

Implementation and quality improvement (including indicators)
#P084

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[1]Instituto Nacional de Cacer - Rio De Janeiro (Brazil), [2]Universidade Federal de Ciencias da Saude de Porto Alegre - Porto Alegre (Brazil), [3]Universidade Federal de Minas Gerais - Belo Horizonte (Brazil)

Background & Introduction
Primary health care (PHC) is responsible for conducting screening tests and early diagnosis actions in accordance with evidence-based health practice. In cancer screening, health professionals should take into account risks, benefits, patient preferences and values, in order to avoid overdiagnoses and overtreatment, as guidelines for early detection of breast and cervical cancers are counterhegemonic in comparison to what happens in clinical practice.

Objectives / Goal
To identify barriers to implement guidelines for early detection of breast and cervical cancer in Brazil from the perspective of health decision-makers.

Methods
A cross-sectional and exploratory research has been carried out, in which a quantitative-qualitative method was applied. The sample included 54 cancer coordinators of federal, state and municipal levels in Brazil.

Results & Discussion
The main barriers for implementation of guidelines for early detection of breast cancer were: conflicts with medical specialty societies (31%), low adherence of professionals (21%) and fragmentation of services (17%). The main barriers for cervical cancer screening guidelines were: low organizational tradition on guideline implemenation (25%) and low adherence of professionals (21%). Non-governmental organizations that uncritically amplify the guidelines of medical societies had also been identified as a barrier.

Implications for guideline developers / users
Implementing interventions can be challenging and strategies targeted at healthcare workers is essential. Decision-makers may use a range of strategies to implement health interventions, and these choices should be based on evidence of the strategies' effectiveness.

Conclusion
We have identified the main barriers to implement clinical guidelines for early detection of breast and cervical cancer in Brazil, providing subsidies, in order to plan implementation strategies.

P085
IMPROVING THE SCREENING, DETECTION AND MANAGEMENT OF HYPERTENSION THROUGH PILOT IMPLEMENTATION OF QUALITY STANDARDS IN KERALA

Implementation and quality improvement (including indicators)
#P085

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Background & Introduction
In India 1.6 million people die every year of coronary heart disease and stroke. In 2017 the Ministry of Health and Family Welfare (MHFW) published a Standard Treatment Guideline (STG) and derived Quality Standards (QS) to improve hypertension management. These are being implemented in Kerala, mapping on a national programme of Non Communicable Diseases (NCDs) management in Family Health Care (FHC).

Objectives / Goal
To improve the prevention and management of hypertension in primary care in Kerala through pilot implementing QS derived from nationally developed guidelines.

Methods
- Local Committee contextualized national QS for Kerala practice
- Baseline data was collected on infrastructure, equipment and current hypertension management in 10 selected FHCs, gaps for implementation identified
- Bespoke data collection tools were designed
- All relevant FHCs staff received training
- QS were implemented in all FHCs in April 2018

Results & Discussion
Two QS were approved: 1) Opportunistic Blood Pressure (BP) screening for ≥ 18 year population 2) maintaining target BP in treated hypertensives according to detailed protocol. PHCs cover ≈20000 ≥ 18 year population. None routinely conducted opportunistic hypertension screening. There was a lag in staff training and gaps in antihypertensive drugs supply. 198 staffs were trained. NCD cards and reporting forms were redesigned.

Implications for guideline developers / users
Guideline developers should consider drafting QS for implementers to work from.

Conclusion
Locally agreed QS provide viable tools for implementing guidelines in FHC and within quality improvement programmes, but require detailed preparation and additional staffing.

Description of the best practice
Introducing hypertension QS in pilot FHCs provides useful learning for upscaling to state level in India.

P086
MAKING MEASUREMENT OF HYPERTENSION CARE EASIER

Implementation and quality improvement (including indicators) #P086

M. Minchin, A. Coppel, G. Leng
NICE - Manchester (United Kingdom)

Background & Introduction
Measuring adherence to recommended practice has been identified as a cornerstone of any strategy to improve the quality of care. Measurement also provides assurance to developers that their guidance is being used.
We will present work undertaken to measure care against the NICE guidance for hypertension using data available from electronic medical records (EMR).

Objectives / Goal
(1) To provide primary care services with data on the quality of care for people with hypertension
(2) Underpin a regional initiative to reduce the number of cardiovascular events associated with hypertension.

Methods
A 'hypertension indicator pack' was developed to measure care against the NICE guidance. The pack supports data extraction from clinical systems by providing clinical codes and logic to specify population, timeframes and extraction sequencing. The data were delivered back to the provider in a performance and comparative practice dashboard– supporting peer review.
Measurement is part of a regional quality improvement package being delivered by the British Heart Foundation to:
(1) reduce unwarranted variation
(2) enable providers to measure care against best practice
(3) use provider-level benchmarking data to monitor progress.

Results & Discussion
The pack was initially used across 12 practices with the findings presented back to the practices that were involved with positive feedback. Expanding the use beyond the initial 12 practices brought challenges around technical expertise and information governance.

Implications for guideline developers / users
Guideline developers should consider what additional support they could provide to measure implementation. Measuring care using routinely collected data reduces administrative burden and supports peer review.

Description of the best practice
Measurement of care using routinely collected data in the EMR.

P087
NUMBER AND TYPE OF GUIDELINE IMPLEMENTATION TOOLS VARIES BY GUIDELINE, CLINICAL CONDITION, COUNTRY OF ORIGIN, AND TYPE OF DEVELOPER ORGANIZATION: CONTENT ANALYSIS OF GUIDELINES.

Implementation and quality improvement (including indicators)
#P087

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Background & Introduction
Guideline implementation tools (GI tools) can improve clinician behavior and patient outcomes. Analyses of guidelines published before 2010 found that many did not offer GI tools. Since 2010 standards, frameworks and instructions for GI tools have emerged.

Objectives / Goal
This study analyzed the number and types of GI tools offered by guidelines published in 2010 or later.

Methods
Content analysis was used to categorize GI tools by condition, country, and type of organization. English-language guidelines on arthritis, asthma, colorectal cancer, depression, diabetes, heart failure, and stroke management were identified in the National Guideline Clearinghouse. Screening and data extraction were in triplicate.

Results & Discussion
Eighty-five (67.5%) of 126 eligible guidelines published between 2010 and 2017 offered one or more of a total of 464 GI tools. The mean number of GI tools per guideline was 5.5 (median 4.0, range 1 to 28). Most GI tools were for clinicians (239, 51.5%), few were for patients (113, 24.4%), and even fewer to support implementation (66, 14.3%) or evaluation (46, 9.9%). Most clinician GI tools were guideline summaries (116, 48.5%), and most patient GI tools were condition-specific information (92, 81.4%). Government agencies and developers in the United Kingdom were more likely to generate guidelines that offered all four types of GI tools.

Conclusion
Organizations could improve the number and range of GI tools they develop. Research should examine the cost-effectiveness of various types of GI tools so that developers know where to direct their efforts and scarce resources.

P088
PRESCRIBING INDICATORS FOR PATIENTS WITH TYPE 2 DIABETES AND THEIR PREDICTIVE VALUE FOR CLINICAL OUTCOMES

Implementation and quality improvement (including indicators)
#P088

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Background & Introduction
Prescribing quality indicators (PQIs) for the management of type 2 diabetes were developed, based on the guideline of the Dutch College of General Practitioners, with a special focus on clinical action indicators measuring start or intensification of treatment when indicated.

Objectives / Goal
We investigated in a prospective cohort study whether the PQIs were associated with better intermediate outcomes after one year.

Methods
Data were used from the Groningen Initiative to Analyse Type 2 Diabetes Treatment (GIANTT) database, including >26,000 diabetic patients. Eleven PQIs measuring prescribing of glucose-lowering drugs, statins, antihypertensives, and renin-angiotensin-aldosterone-system (RAAS) inhibitors were evaluated. Associations were tested between receiving the recommended treatment in 2012 as measured by each PQI and the related outcome in the following year (glycated haemoglobin, low-density-lipoprotein (LDL)-cholesterol, systolic blood pressure (SBP), albuminuria) using regression models.

Results & Discussion
Three clinical action PQIs focusing on glucose-lowering drugs were associated with better glycated haemoglobin levels (-5.5 mmol/mol [-9.3,-1.7]; -8.2 mmol/mol [-9.5,-6.9]; -8.8 mmol/mol [-10.1,-7.5]). One current use and two clinical action PQIs focusing on statins were associated with better LDL-cholesterol levels (-0.29 mmol/l [-0.32,-0.27]; -0.97 mmol/l [-1.04,-0.90]; -0.64 mmol/l [-0.72,-0.56]). Two clinical action PQIs on antihypertensives were associated with better SBP (-8.6 mmHg [-10.6,-6.6]; -10.0 mmHg [-12.0,-8.0]). The clinical action PQI focusing on RAAS-inhibitors was associated with a lower risk of albuminuria (OR:0.19 [0.08,0.48]).

Conclusion
Nine PQIs for type 2 diabetes treatment, including eight clinical action indicators, were associated with better intermediate cardiovascular and renal outcomes, which supports their validity for clinical practice.

P089
PROMOTING THE USE OF A SELF-MANAGEMENT STRATEGY AMONG NOVICE CHIROPRACTORS TREATING INDIVIDUALS WITH SPINE PAIN: MIXED METHODS PILOT CLINICAL TRIAL

Implementation and quality improvement (including indicators)
#P089

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[1]McGill University - Montreal (Canada), [2]Mcgill University - Montreal (Canada), [3]CMCC - Toronto (Canada), [4]CCMI - Vancouver (Canada), [5]Public member - Toronto (Canada), [6]Pittsburg University - Pittsburg (United States of America)

Background & Introduction
Despite guidelines recommending clinicians use Self-Management Support (SMS), uptake is suboptimal. Previously identified barriers to using SMS among chiropractors, interns and patients informed the design of a knowledge translation (KT) intervention for use in chiropractic teaching clinics.

Objectives / Goal
To estimate the feasibility and potential effectiveness of a KT intervention to promote the use of SMS among chiropractors, interns and patients with spine pain compared to “wait list.”

Methods
Pilot clinical trial across 4 outpatient-teaching clinics in Toronto, Canada. Twenty Patient Management Teams (PMTs), each composed of 6-9 interns supervised by a clinician, were allocated to either the KT intervention (training workshop, webinar, e-educational module, and opinion leader) or wait-list. We assessed clinicians’ and interns’ SMS perceived importance, skills and confidence.

Results & Discussion
Sixteen (84%) clinicians and 39 (29%) interns agreed to participate. Clinicians (n=7 and n=9) and interns (n=17 and n=22) were allocated to the KT intervention and control groups respectively. Nearly all clinicians completed baseline and first follow-up surveys. 16 and 15 interns in the intervention and control group completed the baseline surveys respectively, while 11 and 6 interns completed second follow-up surveys. Preliminary estimates showed that intervention group clinicians had greater improvements in SMS perceived importance (mean change 0.24vs-0.02), skills (1.1vs0.43), and confidence (0.51vs0.35) compared to controls. Interns in both groups had mixed results.

Implications for guideline developers / users
Theory-based tailored KT interventions may increase the likelihood of effective uptake and application of guideline recommendations within academic teaching institutions.

Conclusion
Preliminary results of this ongoing trial suggest that conducting a larger implementation trial in this setting is feasible.

P090
QUALITY IMPROVEMENT IN MULTIPLE PREGNANCY

Implementation and quality improvement (including indicators) #P090

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Background & Introduction
Multiple pregnancies have poorer outcomes compared to singleton births. They are 2.5 times more likely to result in a stillbirth and over 5 times more likely to result in a neonatal death. In 2013, the National Institute for Health and Care Excellence (NICE) published its quality standard for multiple pregnancies containing 8 areas for quality improvement: Determining chorionicity and amnionicity, labelling foetuses, MDT composition, care planning, monitoring fetal complications, tertiary level fetal medicine centre involvement, advice for preterm birth and preparation for birth.

Objectives / Goal
The Twins and Multiple Birth Association (TAMBA) aimed to assess baseline performance against these evidence based quality markers and implement improvement strategies.

Methods
A nested case-control methodology, exploring the relationship between implementation and improved outcomes. Clinical audit at 30 maternity units, grouped according to size into 4 clusters each with a control unit, and over 140 face-to-face interviews with staff.

Results & Discussion
Overall poor baseline adherence. Least adherence in labelling foetuses and care planning. However, interim analysis appears to show correlation between higher level of implementation and improved patient outcomes.
Co-produced action plans and support packages were developed providing working insight into levers to change practice includin multiple pregnancy study days, multifaceted packages of educational resources, peer support trips between units, quarterly progress monitoring, access to remote support from specialist midwives, cross site analysis.

Implications for guideline developers / users
Evidence based markers for quality improvement can focus efforts to improve patient outcomes. However, to help facilitate change in practice, co-produced action plans and support packages are essential.

Additional authors: A.McCarthy, H.Turier, D.Dillon, J.Gorringe, K.Reed.

P091
RARE DISEASE GUIDELINES: ARE THEY GOOD ENOUGH?

Implementation and quality improvement (including indicators)
#P091

K. Ritchie
Healthcare Improvement Scotland - Glasgow (United Kingdom)

Background & Introduction
The EU funded RARE-BestPractices project involved the collectionof a model collection of guidelines on rare diseases. This collection of 250 guidelines covering 40 rare conditions has been quality assessed using the AGREE II instrument.

Objectives / Goal
To determine if the quality of guidelines for rare conditions varies with date of development or other characteristics and to consider if the current quality status of rare disease guidelines is good enough to support the care of rare disease patients.

Methods
Guidelines in the model collection were assessed by a panel using the AGREE II instrument. Most assessors had participated in a workshop designed to support the use of the instrument for assessing quality of the guidelines. Data on the quality scores for each of the items in the instrument were recorded and are presented in the RareGuidelines database. The AGREE II scores of guidelines published between 2007 and 2017 were compared using Excel charts to assess if changes in quality were observed over time.

Results & Discussion
Quality of guidelines was highly variable across all the AGREE domains irrespective of the year of publication. There was some indication that 'Rigour of Development' and 'Editorial Independence' had improved but 'Stakeholder Engagement' was relatively static between 2007 and 2017.

Implications for guideline developers / users
Guidelines for rare conditions can be scarce and users may feel that using any guideline is better than no guidance at all, however, quality of the guidlines should be considered.

Conclusion
The outputs of the RARE-BestPractices project can support improved guideline development increasing the potential benefit for patients with rare conditions.

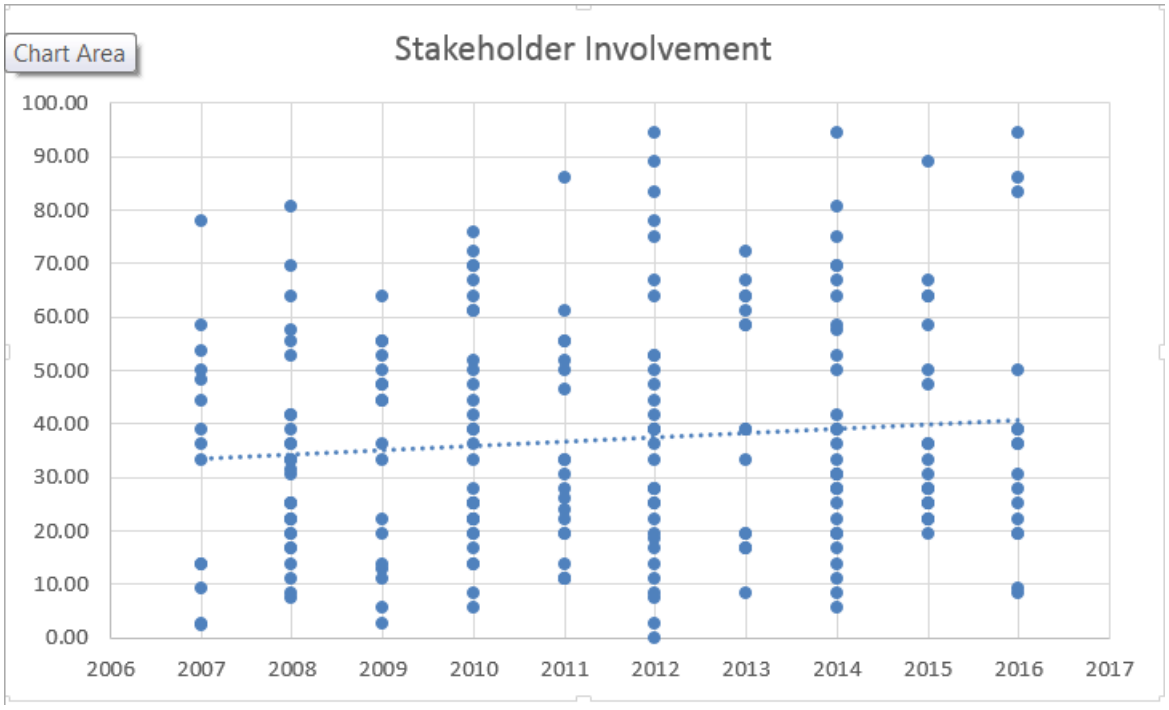
Chart Area
Stakeholder Involvement
100.00
90.00
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70.00
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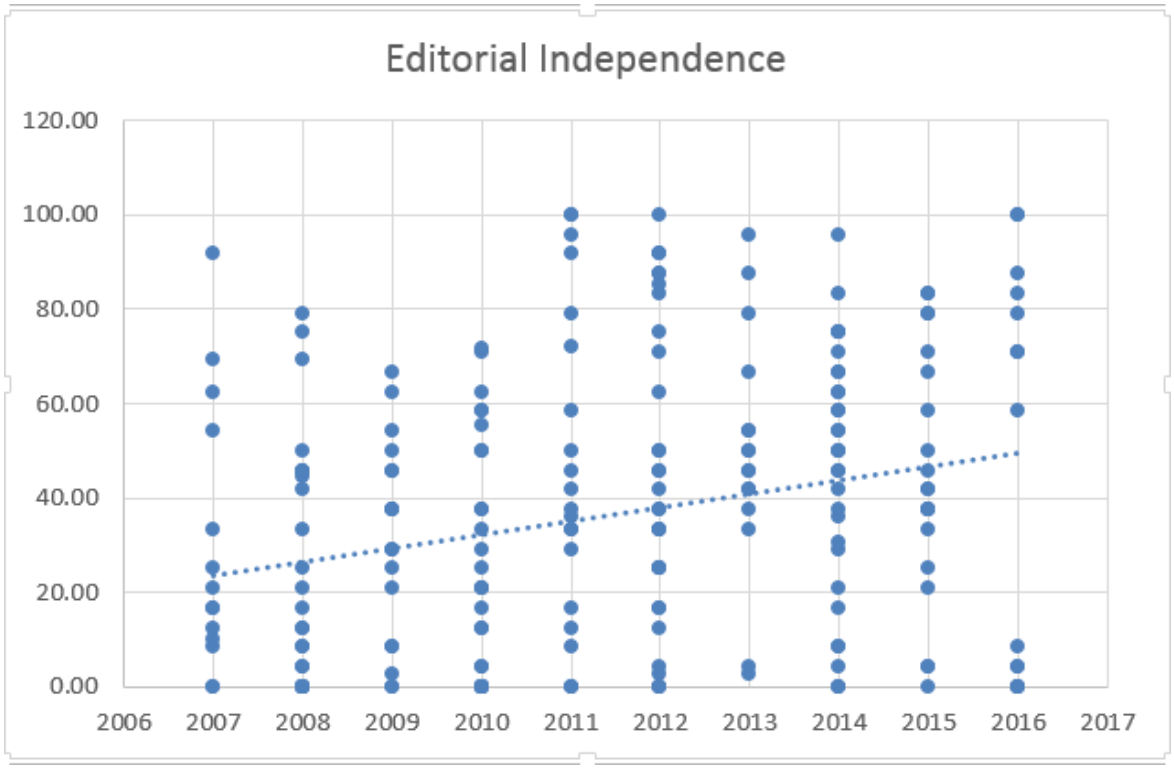
Editorial Independence
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P092
STRUCTURING GUIDELINES SO THAT USERS CAN EASILY FIND THE REASONING BEHIND RECOMMENDATIONS

Implementation and quality improvement (including indicators) #P092

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NICE - London (United Kingdom)

Background & Introduction
NICE guidelines are published as a web version containing the recommendations, and separate documents with the evidence. A survey of 99 users of the NICE website revealed that 70% said they were more likely to implement a recommendation if they understood the rationale and evidence behind it. This is in line with the findings of the DECIDE project that guideline users prefer a layered presentation of recommendations, rationales and details of the evidence.

Objectives / Goal
To use principles of the DECIDE layered presentation to help NICE guideline users better understand why we made recommendations.

Methods
NICE editors worked with NICE guideline developers, the commissioning team and methodologists to develop a new guideline structure with links from recommendations to the brief summaries of the rationales behind them, and to the relevant evidence reviews. Interviews with 11 NICE website users who tested online mock-ups found they were positive about the structure, and particularly the inclusion of rationales in the online guideline.

Results & Discussion
Developers are now using the new structure for new guidelines and updates, both for consultation and publication. Preliminary feedback from stakeholders (n= 6) suggested that rationales in draft guidelines are easy to follow and may improve understanding of why the guideline committee made the recommendations. We have used feedback to improve guideline navigation.

Implications for guideline developers / users
Initial feedback from stakeholders is encouraging. We will continue listening to stakeholders and other guideline users, and assess the impact of the changes – for example, on the number and quality of comments during consultation.

P093
SYSTEMATIC CONSTRUCTION OF INDICATORS OF HEALTHCARE SERVICES UTILIZATION: CASE MODEL OF DIABETES MELLITUS

Implementation and quality improvement (including indicators)
#P093

A. Ulyte [1], C. Bähler [2], M. Schwenkglenks [1], V. Von Wyl [1], O. Gruebner [1], W. Wei [1], E. Blozik [2], B. Brüngger [2], H. Dressel [1]
[1]EBPI, UZH - Zürich (Switzerland), [2]Helsana Group - Zürich (Switzerland)

Background & Introduction
Indicators of healthcare services utilization often reflect the appropriate practices recommended by clinical practice guidelines (CPG). Although many indicators are in use, their choice is usually subjective and could be guided by accessible data rather than comprehensive research questions.

Objectives / Goal
To develop a systematic approach to identify all potential indicators of healthcare service utilization, and evaluate their feasibility for research with claims data. We used diabetes mellitus CPG and health insurance claims data in Switzerland as case model.

Methods
Recommendation statements with specified interventions and subpopulations in Swiss diabetes CPG were selected and translated into indicators of healthcare service utilization. Indicators were classified according to disease stage, healthcare service and intervention type. Data available as mandatory health insurance claims were described and the set of developed indicators assessed for research feasibility.

Results & Discussion
A total of 93 indicators were derived from 15 guidelines. For 63 and 67 indicators, the target population or the intervention could not be identified. Nine (10%) of all indicators were feasible for research (three addressed gestational diabetes and screening, five screening for complications, and one glucose measurement). Some types of healthcare services, e.g., management of risk factors, treatment of the disease and secondary prevention, lacked feasible indicators.

Implications for guideline developers / users
Evaluation of CPG implementation is only possible when the population and intervention in a recommendation are identifiable in the data, such as administrative claims, sources.

Conclusion
The systematic approach identified a number of indicators of healthcare services utilization feasible for diabetes research with Swiss claims data. Some healthcare service types were covered less well.

P094
THE REPORTING QUALITY OF QUESTIONNAIRES ABOUT PATIENTS' PREFERENCES AND VALUES IN CLINICAL PRACTICE GUIDELINES

Implementation and quality improvement (including indicators)
#P094

L. Juan [1], B. Fei [2], E. Gloria [3], Y. Liang [4], H. Jia-Jun [1], C. Yao-Long [1], T. Jin-Hui [1], W. Xiao-Qin [1], Y. Ke-Hu [1]

[1]Lanzhou University - Lanzhou (China), [2]National Health and Family Planing Commission of the people's Republic of China - Lanzhou (China), [3]University of South Carolina, Arnold School of Public Health - Columbia (United States of America), [4]Hong Kong Baptist University - Hong Kong (China)

Background & Introduction
Clinical guidelines are an important tool for improving service quality and it recommend consideration of patients' preference and values in the clinical decision making process. Questionnaires are important approach to measure patients' preference and values, however, the benefits of questionnaires depend on their reporting quality.

Objectives / Goal
To assess the reporting quality of questionnaires about patient values and preferences in clinical practice guidelines using Burns KE's checklist.

Methods
A systematic literature search of databases was performed to identify studies on questionnaires evaluating patient values and preferences. The authors included the studies that used fully structured questionnaires. The Burns KE's checklist was used by two independent assessors to conduct a systematic appraisal in 21 items.The number and proportion of reported items for each items were also calculated.

Results & Discussion
The authors scanned 7008 records yielded by our search strategy, and a total of twenty articles were finally included. Of the 20 studies, only one study (4.8%) described the process of item generation and reduction, only four studies (19%) pilot tested the entire questionnaire. There were only six studies (28.6%) reported validity testing of questionnaires and defined the response rate, but none of them used techniques to assess non response bias. In addition, only two studies (9.5%) reported the incentive for questionnaire completion, there were five studies (23.8%) specified the sampling frame and the method to format questionnaires, respectively.

Implications for guideline developers / users
To identify the most appropriate questionnaires

Conclusion
The reporting quality of questionnaires measuring patients' preference and values was generally low, the higher reporting quality questionnaires measuring patients' preference are needed


Was the questionnaire provided in its entirety (as an electronic appendix or in print)?
Were the implications of the results stated?
Did the authors' interpretation of the results align with the data presented?
Were the analytical methods clear?
Were demographic data of the survey respondents provided?
Were methods for handling missing data reported?
Does the survey report address the research question(s) posed or the survey objectives?
Was the sample size justified?
Were strategies used to enhance the response rate (including sending of reminders)?
Was the response rate defned?
Was the response rate reported (alternatively, were techniques used to assess non response bias)?
Were additional details regarding prenotifcation, use of a cover letter and an incentive for questionnaire completion provided?
Was the method of questionnaire administration appropriate for the research objective or question posed?
Clinimetric testing: Were any clinimetric properties evaluated and reported?
Pilot testing: Was the entire questionnaire pilot tested?
Pretesting: Were individual questions within the questionnaire pretested?
Questionnaire formatting: Did the authors specify how questionnaires were formatted?
Item generation and reduction: Did the authors report how items were generated and ultimately reduced?
Was the sampling frame specifed?
Was the population of interest specifed?
Does the research question or objective specify clearly the type of respondents, the topic of interest to be addressed?
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Yes
No
Unclear

P095
USE OF THEORY TO PLAN OR EVALUATE GUIDELINE IMPLEMENTATION AMONG PHYSICIANS: A SCOPING REVIEW

Implementation and quality improvement (including indicators) #P095

C. Kim [1], L. Liang [2], S. Bernhardsson [3], R.W.M. Vernooij [4], A. Bussières [5], M.C. Brouwers [6], A. Gagliardi [1]

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Background & Introduction

Theory-informed, tailored implementation is associated with guideline use. However, few guideline implementation studies published up to 1998 employed theory.

Objectives / Goal

This study aimed to describe if and how theory is now used to plan or evaluate guideline implementation among physicians.

Methods

A scoping review was conducted. MEDLINE, EMBASE, and The Cochrane Library were searched from 2006 to April 2016. English language studies that planned or evaluated guideline implementation targeted to physicians based on explicitly named theory were eligible. Screening and data extraction were done in duplicate. Study characteristics and details about theory use were analyzed.

Results & Discussion

Of 89 articles that planned or evaluated guideline implementation targeted to physicians 42 (47.2%) were based on theory and included. The number of studies using theory increased yearly and represented a wide array of countries, guideline topics and types of physicians. The Theory of Planned Behavior (38.1%) and the Theoretical Domains Framework (23.8%) were used most frequently. Most studies used theory to inform surveys or interviews that identified barriers of guideline use as a preliminary step in implementation planning (76.2%) but most failed to explicitly link barriers with theoretical constructs. All studies that evaluated interventions reported positive impact on physician or patient outcomes.

Conclusion

While the use of theory to design or evaluate interventions appears to be increasing over time, this review found that one half of guideline implementation studies were based on theory and many of those provided scant details about how theory was used. This limits interpretation and replication of those interventions.

P096
USING DISCRETE CHOICE EXPERIMENTS TO IDENTIFY WHERE TO TARGET GUIDELINE IMPLEMENTATION EFFORTS

Implementation and quality improvement (including indicators) #P096

A. Hanbury, J. Retzler, T. Matthew
York Health Economics Consortium - York (United Kingdom)

Background & Introduction
The low impact of passively disseminating clinical guidelines and variability in guideline uptake is well reported. Where the decision is taken to engage in service improvement activities to increase guideline uptake, a robust method of identifying where to focus resources, incorporating the preferences and priorities of clinicians and patients is helpful.

Objectives / Goal
This presentation will outline how using discrete choice experiments (DCEs) can facilitate the targeting of resources for improvement activities, including guideline implementation.

Methods
DCEs are a survey-based method of exploring patient and clinician preferences, including the trade-offs they are willing to make to have these met. Respondents are presented with a series of hypothetical scenarios in blocks of two or more, describing, for example, different guideline recommendations using set descriptors (e.g., cost of new equipment, underpinning evidence base). Across the scenarios, the descriptors are systematically varied (e.g. equipment costs may be described as low, medium or high) and respondents asked to select their preferred scenario.

Results & Discussion
Analysing DCE data makes it possible to pinpoint the importance patients/clinicians implicitly place on the different characteristics of guideline recommendations. The findings can be used to predict which real life recommendations, scored according to the descriptors explored in the DCE, are most likely to be prioritised and to have the backing of clinicians/patients.

Implications for guideline developers / users
Compared with asking about preferences directly, DCEs allow quantification of priorities, where patients/clinicians could find it difficult to explicitly declare. It can also pinpoint the trade-offs they are more willing to accept.

Conclusion
DCE can generate evidence to help inform evidence-based decision-making.

P097

USING THE THEORETICAL DOMAINS FRAMEWORK TO EXPLORE BARRIERS TO AND FACILITATORS OF SOUTH AFRICAN PRIMARY CARE CLINICAL GUIDELINE IMPLEMENTATION: PERSPECTIVES OF PRIMARY CARE CLINICIANS

Implementation and quality improvement (including indicators)
#P097

T. Kredo [1], S. Cooper [1], A. Abrams [1], J. Muller [1], T. Mokganyetji [1], K. Daniels [1], J. Volmink [2], S. Atkins [3]
[1]South African Medical Research Council - Cape Town (South Africa), [2]Stellenbosch University - Cape Town (South Africa), [3]University of Tampere - Tampere (Finland)

Background & Introduction
Clinical practice guidelines (CPGs) risk having little impact if ineffectively implemented. Within the South African Guidelines Excellence (SAGE) Project, we engaged a range of South African primary health care (PHC) guideline developers and users to explore CPG activities.

Objectives / Goal
To explore barriers to and facilitators for CPG use by South African PHC providers.

Methods
We used qualitative research methods. Seven focus groups were conducted (48 clinicians) in four South African provinces with different clinical cadres from PHC facilities in rural, urban and peri-urban settings.

Results & Discussion
PHC providers are knowledgeable about CPGs, trust their credibility and are motivated to use them. CPGs were seen by nurses to provide reassurance and professional authority/independence where doctors are scarce. They perceived CPGs as facilitating patient engagement and standardized care. Barriers to CPG use included inadequate systems for CPG distribution and version control, poor circulation of CPG-related notifications, insufficient and substandard copies of CPGs, linguistic inappropriateness, unsupportive monitoring/auditing, limited involvement of end-users in CPG development, and inadequate training. Future aspirations included improving the design of CPGs, translating CPGs into local languages, making printed and digitally-formatted CPGs more available, more CPG supplementary materials, accessible clinical support and public engagement, and training for all professional cadres.

Implications for guideline developers / users
Exploring the factors affecting South African PHC CPG implementation and use can support targeted implementation strategies, therefore maximising the use of the limited available resources.

Conclusion
PHC providers are motivated to use CPGs, but face many systemic barriers to using them. Strategies addressing identified barriers may improve CPG implementation and healthcare impact for the country.

P098
WHAT HELPS GUIDELINE IMPLEMENTATION? A LOOK BACK AT A SIGN GUIDELINE: SIGN 144 GLAUCOMA REFERRAL AND SAFE DISCHARGE

Implementation and quality improvement (including indicators)
#P098

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Background & Introduction
Challenges exist in updating and implementing guidelines.

Objectives / Goal
Determine the need to update SIGN guideline144: Glaucoma referral and safe discharge. Evaluate its implementation since publication in March 2015.

Methods
This pilot tested an approach to concurrently scoping the need for an update and evaluating the implementation of a SIGN guideline. This included a small working group and consultation with the wider optometry community. The evaluation was a mixed methods approach.

Results & Discussion
We identified the key issues and timeframes for the guideline update. The evaluation of implementation evidenced that:
-optometrists reported increased confidence in patient management and decision making around referrals to secondary care (n=79)
-there were improvements in referral detail and accuracy to secondary care (audit data)
Enablers for implementation:
-Focused implementation strategy in the guideline
-Training relevant to key recommendations
-Guideline group members championing change
-Visibility of SIGN and the guideline

Barriers for implementation:
-Limitations of traditional dissemination channels
-Patient and clinician expectations

Implications for guideline developers / users
1) Consider a focused implementation strategy as part of the guideline development process including group members championing change.
2) Maximise resources by ensuring the timely update of the guideline, evidence implementation and awareness raising.

Conclusion
The pilot highlighted the importance of a well-developed implementation strategy as part of the guideline development and commitment from group members to ensure its success. It also showed that concurrently scoping the need to update and evaluating implementation was successful and is to be considered for further updates.

TARGET GROUP

P099
INDIRECTLY, EVERYTHING IS A CONFLICT: DISTINGUISHING INDIRECT FROM IRRELEVANT CONFLICTS OF INTEREST

Managing conflicts of interest
#P099

R. Kunkle [1], K. Alexander [1], J. Castano [1], M. Cheung [2], N. Connell [3], A. Cuker [4], B. Djulbegovic [5], C. Flowers [6], L.K. Hicks [7], J. Holter-Chakrabarty [8], A. Iorio [9], R. Lottenberg [10], G. Lyman [11], N. Majhail [12], M. Pai [9], R. Plovnick [1], H. Schünemann [9], E. Senerth [13], S. Webb [1], J. Panepinto [14]

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Background & Introduction
The 2015 GIN principles offer little guidance about what makes an indirect conflict “relevant.”

Objectives / Goal
We explored characteristics of 167 interests in pharmaceutical or device manufacturers (“companies”) disclosed by 52 individuals on 9 guideline panels of the American Society of Hematology after review by 8 referees, with the aim of understanding how referees judged relevancy.

Results & Discussion
Figures 1 and 2 summarize interests and decisions for 5 panels. Three categories of indirectness emerged: (1) *financially indirect relationships* (n=113); (2) *companies indirectly affected by the guidelines* (n=141); and (3) *double indirectness*, i.e., a financially indirect relationship with an indirectly affected company (n=92). As described in Figure 3, these categories of indirectness included multiple situations. Referees judged 150 (90%) of the interests to be conflicts, and 17 (10%) not conflicts. Of these, 3 (18%) involved financial indirectness, 17 (100%) company indirectness, and 5 (29%) double indirectness. These results and our experience suggest that when an ASH guideline panelist discloses any current indirect interest with a company, we are highly likely to consider it a relevant indirect conflict. Company indirectness seems most important to decisions about irrelevancy.

Description of the best practice
To avoid calling everything or nothing a conflict, difficult judgments about indirect interests are often necessary, especially in situations of company indirectness, e.g., companies with pipeline products for which future sales may be advantaged by recommendations suggesting inadequacy of available therapies, companies with products indicated for a condition identified by a screening or diagnostic recommendation, or companies with products used to manage consequences of other interventions addressed by guidelines.

Example 1: Decisions About Indirect Conflicts for Three ASH Guideline Panels on Sickle Cell Disease

Panel and panelist ID		Description of Financial Interest: With Company	Financially Indirect	Explanations	Company Indirectly Affected	Explanations	Double Indirectness	Decision
Transfusion support for patients with sickle cell disease								
	4	Immucor	✓	R	✓	A	✓✓	Indirect conflict
	5	Ironwood	✓	R	✓	P	✓✓	Indirect conflict
	5	Novartis	✓	R	✓	C	✓✓	Indirect conflict
	5	Prolong	✓	R	✓	P	✓✓	Indirect conflict
	7	Imara	✓	R	✓	P	✓✓	Indirect conflict
	7	GBT	✓	R	✓	P	✓✓	Indirect conflict
	9	Bluebird		D	✓	P	✓✓	Indirect conflict
	9	ApoPharma	✓	R	✓	C	✓✓	Indirect conflict
	9	Novartis	✓	R	✓	C	✓✓	Indirect conflict
	11	Sanofi	✓	R	✓	P	✓✓	Indirect conflict
	11	Bio Products Laborato	✓	R	✓	A	✓✓	Not a conflict
	14	Quotient Diagnostics	✓	I		N		Indirect conflict
	14	Cerus	✓	I	✓	A	✓✓	Not a conflict
	15	Pfizer		O, R	✓	P		Indirect conflict
	15	Roche	✓	R		N		Indirect conflict
	15	Biogen	✓	R		N		Indirect conflict
Central nervous system complications of sickle cell disease								
	5	Magenta		O	✓	P		Indirect conflict
	5	Celgene		D	✓	P		Indirect conflict
	5	Bioline		D	✓	P		Indirect conflict
	5	Cellworks		D	✓	P		Not a conflict
	5	Asterias		D	✓	P		Not a conflict
	5	Amphivena		D	✓	P		Not a conflict
	8	Guerbet	✓	R	✓	A	✓✓	Indirect conflict
	12	GBT		D, R	✓	P		Indirect conflict
	12	Celgene	✓	R	✓	P	✓✓	Indirect conflict
	12	Novartis		D	✓	C		Indirect conflict
	12	Pfizer	✓	D, R	✓	P	✓✓	Indirect conflict
	12	ApoPharma		D, R	✓	C		Indirect conflict
	12	Bluebird		D	✓	P		Indirect conflict
	13	Pfizer	✓	R	✓	P	✓✓	Indirect conflict
	13	Bluebird	✓	R	✓	P	✓✓	Indirect conflict
	13	ApoPharma	✓	R	✓	P	✓✓	Indirect conflict
	13	Gamida Cell	✓	R	✓	P	✓✓	Indirect conflict
	13	Ironwood		D	✓	P		Indirect conflict
	13	ZoneOne		D	✓	P		Indirect conflict
Managing acute and chronic pain in patients with sickle cell disease								
	3	Pfizer	✓	R		N		Indirect conflict
	7	Novartis		D	✓	C		Indirect conflict
	7	Selexys		D	✓	P		Indirect conflict
	7	Sancilio		D	✓	P		Indirect conflict
	7	Pfizer	✓	R		N		Indirect conflict
	11	GE Healthcare		O	✓	A		Not a conflict
	11	Medtronic		O	✓	A		Not a conflict
	11	Pfizer	✓	R		N		Indirect conflict
	11	GBT	✓	R	✓	P	✓✓	Indirect conflict
	14	Vapogenix		O, D	✓	P		Indirect conflict
	14	Imara		D	✓	P		Indirect conflict

Example 2: Decisions About Indirect Conflicts for Two ASH Guideline Panels on Von Willebrand Disease								
		Description of Financial Interest						
Panel and panelist ID		With Company	Financially Indirect	Explanations	Company Indirectly Affected	Explanations	Double Indirectness	Decision
Diagnosis of von Willebrand disease								
	1	Shire	✓	I, R	✓	S	✓✓	Indirect conflict
	1	Baxter	✓	I, R	✓	S	✓✓	Indirect conflict
	1	CSL Behring	✓	I, R	✓	S	✓✓	Indirect conflict
	5	CSL Behring	✓	R	✓	S	✓✓	Indirect conflict
	6	CSL Behring		D	✓	S		Indirect conflict
	6	Biomarin		D	✓	P		Not a conflict
	6	Bioverativ	✓	R	✓	S	✓✓	Indirect conflict
	6	Octapharma	✓	R	✓	S	✓✓	Indirect conflict
	6	Sangamo	✓	R	✓	P	✓✓	Not a conflict
	6	Shire		D, R	✓	S		Indirect conflict
	6	Abbott		O	✓	A		Not a conflict
	6	Merck		O	✓	S		Indirect conflict
	6	Siemens		O	✓	A		Not a conflict
	7	Bioverativ	✓	R	✓	S	✓✓	Indirect conflict
	7	Grifols/Kedrion	✓	R	✓	S	✓✓	Indirect conflict
	10	Novo Nordisk	✓	R	✓	S	✓✓	Indirect conflict
	10	Shire		D, I, R	✓	S		Indirect conflict
	10	CSL Behring		D	✓	S		Indirect conflict
	11	Shire	✓	R	✓	S	✓✓	Indirect conflict
	13	CSL Behring		D, R	✓	S		Indirect conflict
Management of von Willebrand disease								
	4	CSL Behring	✓	R	✓	N	✓✓	Indirect conflict
	4	Shire	✓	R	✓	N	✓✓	Indirect conflict
	6	Bioverativ	✓	R	✓	N	✓✓	Indirect conflict
	6	Octapharma	✓	F	✓	N	✓✓	Indirect conflict
	7	Novo Nordisk	✓	R	✓	N	✓✓	Indirect conflict
	7	Roche/Genentech	✓	R	✓	N	✓✓	Indirect conflict
	7	BMS/Pfizer	✓	R	✓	N	✓✓	Indirect conflict
	7	Shire	✓	R	✓	N	✓✓	Indirect conflict
	8	Novo Nordisk	✓	R, L	✓	N	✓✓	Indirect conflict
	8	Biogen/Bioverativ	✓	R	✓	N	✓✓	Indirect conflict
	8	Shire	✓	R	✓	N	✓✓	Indirect conflict
	8	Pfizer	✓	R	✓	N	✓✓	Indirect conflict
	12	Pfizer	✓	L	✓	N	✓✓	Indirect conflict

Explanation Codes	
Codes That Explain Financial Relationship	
O	Equity **ownership** by self or spouse
E	**Employment** (self or spouse)
D	**Direct** payments or other transfers of value to self or spouse
I	Payments to **institution,** e.g., for consulting
R	**Research** funding
F	Expected (**future**) interest
L	**Leadership** role (paid or unpaid) for an organization that depends on company funding
Codes That Explain Indirect Effects of a Guideline on the Company	
N	Company markets a product directly affected by the guidelines, e.g., **named** by a recommendation.
A	Company markets a product used in **association** with other interventions addressed by the guidelines.
C	Company markets a product used to manage **consequences** of other interventions addressed by the guidelines.
S	Company markets a therapy indicated for a condition identified by a **screening or diagnostic** intervention
	recommended by the guidelines.
P	Company is developing a **pipeline** therapy for which future sales might be advantaged by recommendations
	suggesting inadequacy of available therapies.
X	Company markets a product that risks obsolesence if an **experimental** intervention is recommended as
	exemplary, e.g., curative.

P100
A CRITICAL APPRAISAL OF ACUTE KIDNEY INJURY CLINICAL PRACTICE GUIDELINES USING THE AGREE II INSTRUMENT

Other
#P100

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Background & Introduction
Acute kidney injury (AKI) is sudden kidney damage or failure that results in a rapid decline in kidney
function.

Objectives / Goal
The objective of this systematic survey is to critically appraise clinical practice guidelines (henceforth referred to as guidelines) addressing management of AKI.

Methods
We systematically searched MEDLINE, the National Guideline Clearinghouse, Guideline International
Network, and Turning Research into Practice up to March 2017. Guidelines that address diagnosis, monitoring or management of AKI in adult or pediatric populations were eligible for our review. We
restricted our review to de novo guidelines. Two reviewers, independently and in duplicate, screened titles and abstracts nnd appraised the reporting quality of AKI guidelines using the Advancing Guideline
Development, Reporting and Evaluation in Health Care instrument II (AGREE).

Results & Discussion
Eleven guidelines published from 1997 to 2016 addressing the diagnosis, monitoring or management of AKI
proved eligible. We included three guidelines for the management of the hemolytic uremic syndrome, one guideline
for the management of the hepato-renal syndrome and one guideline for the management of the cardiorenal
syndrome. The National Institute for Health and Care Excellence (NICE)
and Kidney Disease: Improving Global Outcomes (KDIGO) guidelines performed best with respect to AGREE II
criteria; only one other guideline warranted high scores on three domains.

Implications for guideline developers / users
Our study indicated there was a wide variation in the quality of guidelines with major problems with rigor, update and implementation.

Conclusion
Only two of these guidelines, the KDIGO and NICE guidelines, met most criteria of the AGREE II instrument.

P101
A METHODOLOGY GUIDE FOR GUIDELINE DEVELOPMENT FOR TURKEY

Other
#P101

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Background & Introduction
Preparing state of the art guidelines is significantly important to improve the quality of the patient care and should be considered as a part of the health policy.

Objectives / Goal
The main purpose of our study is to prepare a national methodology guide for guideline development for Turkey, which will ease the systematic development of clinical practice guidelines.

Methods
The first step was to generate a list of guidelines on developing guidelines published up to now from the literature. Systematic review of the literature nd the guidelines was be performed in order to determine country specific guideline development strategy. The methodology of the published clinical practice guidelines in Turkey, were evaluated to make further recommendations. We identify the main tasks for guideline development according to a Ansari and Rashidian's review article.

Results & Discussion
An internet-based search was done and 23 English and 1 Turkish guideline handbook/ tool were found. The systematic review of the literature was done through Pubmed/Medline according to (practice guideline) and (tool) items. 69 articles were suitable for the evaluation. We identified 28 main tasks for guideline development (Table 1)
Each task was written through the handbooks and articles based on our search by giving priority to the sources that Ansari and Rashidian suggested in their review. The draft version of the guide was finished. The next step is consultation and peer review process with the experts in guideline development from Duodecim and non-govermental organizations and public institutions in Turkey

P102
ARE TRADITIONAL CHINESE MEDICINE THERAPIES RECOMMENDED IN THE WESTERN MEDICINE GUIDELINES IN CHINA?

Other
#P102

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Background & Introduction
Traditional Chinese medicine (TCM) and Western medicine (WM) are legally parallel healthcare systems in China, and TCM is widely used in practice. According to a statistics, general WM hospitals prescribed 60% of Chinese patent medicine in Beijing. Thus, it would be important to know how TCM therapies are recommended in the WM clinical practice guidelines (CPGs).

Objectives / Goal
To understand how TCM is recommended in the guidelines and to inform the practice and policy.

Methods
By literature searches in Chinese electronic bibliographic databases and websites of relevant societies, the WM guidelines were identified and full texts were retrieved. Data were extracted on developers, target diseases and recommended therapies.

Results & Discussion
A total of 604 WM CPGs by three Chinese societies were published, and 74 (13%) guidelines recommended TCM therapies including acupuncture and herbal medicines (58%). 74 guidelines covered 63 diseases in 13 disease systems according to ICD-10, such as respiratory, digestive system, cancer and other chronic diseases ranking with higher proportion. 11 WM guidelines reported references for TCM recommendations, and five (7%) indicated recommendation strength.

Implications for guideline developers / users
Methods for reviewing and developing recommendations from WM and TCM are to be reported transparently.

Conclusion
The recommendations of TCM in WM CPGs are relatively less and basically lack of evidence support. Future guidelines should be developed with evidence-based approach and any recommendations should be supported with systematic reviewed evidence.

Description of the best practice
Health care practice should be based on well developed guidelines with grading evidence and recommendations with reviewed clinical trials.

P103
BRIDGING THE PRACTICE GAP REQUIRES A QUARTER CENTURY

Other
#P103

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Background & Introduction
The Lancet published an article titled "Atraumatic versus conventional lumbar puncture: a systematic review and meta-analysis" on March 24, 2018. The results of the meta-analysis indicated that the risk of postdural-puncture headache was 60% lower when atraumatic needles were used instead of conventional needles (RR 0.40, 95% CI 0.34–0.47).

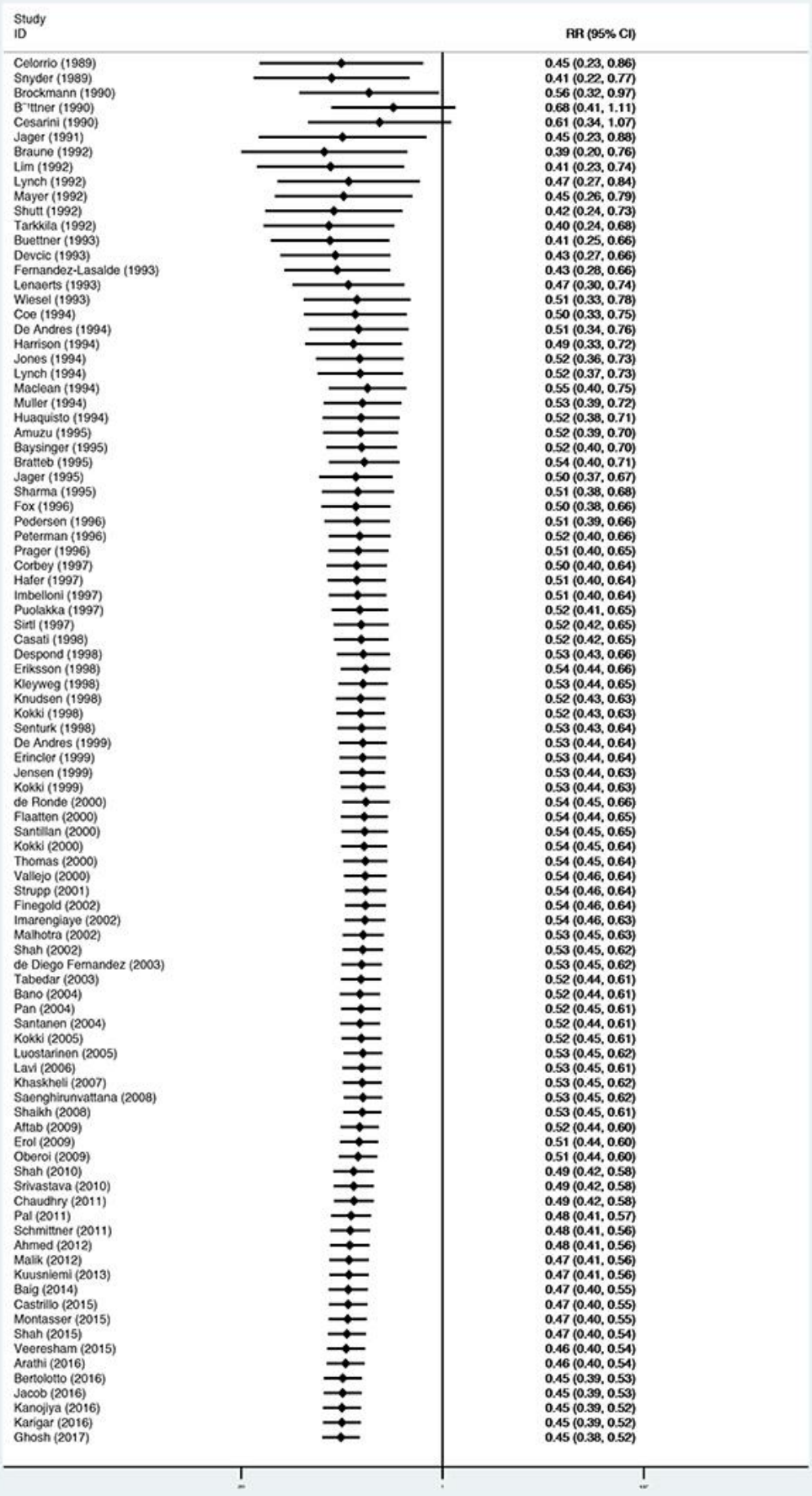
Objectives / Goal
Take this article as an example to assess how the available evidence has evolved over time.

Methods
The random effect model was used to conduct accumulate meta-analysis on the ninety-four RCTs for postdural-puncture headache in the original article.

Results & Discussion
The cumulative meta-analysis showed that The risk of postdural-puncture headache has was significantly lower with atraumatic than conventional needles based on the six RCTs conducted until 1991 (RR 0.45, 95% CI 0.23-0.88, P<0.001), and the association has remained significant since then with confidence intervals consistently narrowing as new studies became available *(Figure 1)*. However, almost 12,000 participants were still assigned to the conventional needle group in 88 RCTs conducted after 1991. There would have been enough evidence to recommend the use of atraumatic needles already in the 1990s, avoiding waste in research and risk to patients. A study from 2012 also showed that the cost of lumbar puncture performed with atraumatic needle (US$ 166.08) was lower than using a conventional needle (US$ 192.15).

Implications for guideline developers / users
Clinical transformation of high-quality evidence should be increased.

Conclusion
There is still a big gap between knowledge and practice, despite the cumulative evidence that exists for more than a quarter of a century.


Study
ID
RR (95% CI)
Celorrio (1989) 0.45 (0.23, 0.86)
Snyder (1989) 0.41 (0.22, 0.77)
Brockmann (1990) 0.56 (0.32, 0.97)
B¨ttner (1990) 0.68 (0.41, 1.11)
Cesarini (1990) 0.61 (0.34, 1.07)
Jager (1991) 0.45 (0.23, 0.88)
Braune (1992) 0.39 (0.20, 0.76)
Lim (1992) 0.41 (0.23, 0.74)
Lynch (1992) 0.47 (0.27, 0.84)
Mayer (1992) 0.45 (0.26, 0.79)
Shutt (1992) 0.42 (0.24, 0.73)
Tarkkila (1992) 0.40 (0.24, 0.68)
Buettner (1993) 0.41 (0.25, 0.66)
Devcic (1993) 0.43 (0.27, 0.66)
Fernandez-Lasalde (1993) 0.43 (0.28, 0.66)
Lenaerts (1993) 0.47 (0.30, 0.74)
Wiesel (1993) 0.51 (0.33, 0.78)
Coe (1994) 0.50 (0.33, 0.75)
De Andres (1994) 0.51 (0.34, 0.76)
Harrison (1994) 0.49 (0.33, 0.72)
Jones (1994) 0.52 (0.36, 0.73)
Lynch (1994) 0.52 (0.37, 0.73)
Maclean (1994) 0.55 (0.40, 0.75)
Muller (1994) 0.53 (0.39, 0.72)
Huaquisto (1994) 0.52 (0.38, 0.71)
Amuzu (1995) 0.52 (0.39, 0.70)
Baysinger (1995) 0.52 (0.40, 0.70)
Bratteb (1995) 0.54 (0.40, 0.71)
Jager (1995) 0.50 (0.37, 0.67)
Sharma (1995) 0.51 (0.38, 0.68)
Fox (1996) 0.50 (0.38, 0.66)
Pedersen (1996) 0.51 (0.39, 0.66)
Peterman (1996) 0.52 (0.40, 0.66)
Prager (1996) 0.51 (0.40, 0.65)
Corbey (1997) 0.50 (0.40, 0.64)
Hafer (1997) 0.51 (0.40, 0.64)
Imbelloni (1997) 0.51 (0.40, 0.64)
Puolakka (1997) 0.52 (0.41, 0.65)
Sirtl (1997) 0.52 (0.42, 0.65)
Casati (1998) 0.52 (0.42, 0.65)
Despond (1998) 0.53 (0.43, 0.66)
Eriksson (1998) 0.54 (0.44, 0.66)
Kleyweg (1998) 0.53 (0.44, 0.65)
Knudsen (1998) 0.52 (0.43, 0.63)
Kokki (1998) 0.52 (0.43, 0.63)
Senturk (1998) 0.53 (0.43, 0.64)
De Andres (1999) 0.53 (0.44, 0.64)
Erincler (1999) 0.53 (0.44, 0.64)
Jensen (1999) 0.53 (0.44, 0.63)
Kokki (1999) 0.53 (0.44, 0.63)
de Ronde (2000) 0.54 (0.45, 0.66)
Flaatten (2000) 0.54 (0.44, 0.65)
Santillan (2000) 0.54 (0.45, 0.65)
Kokki (2000) 0.54 (0.45, 0.64)
Thomas (2000) 0.54 (0.45, 0.64)
Vallejo (2000) 0.54 (0.46, 0.64)
Strupp (2001) 0.54 (0.46, 0.64)
Finegold (2002) 0.54 (0.46, 0.64)
Imarengiaye (2002) 0.54 (0.46, 0.63)
Malhotra (2002) 0.53 (0.45, 0.63)
Shah (2002) 0.53 (0.45, 0.62)
de Diego Fernandez (2003) 0.53 (0.45, 0.62)
Tabedar (2003) 0.52 (0.44, 0.61)
Bano (2004) 0.52 (0.44, 0.61)
Pan (2004) 0.52 (0.45, 0.61)
Santanen (2004) 0.52 (0.44, 0.61)
Kokki (2005) 0.52 (0.45, 0.61)
Luostarinen (2005) 0.53 (0.45, 0.62)
Lavi (2006) 0.53 (0.45, 0.61)
Khaskheli (2007) 0.53 (0.45, 0.62)
Saenghirunvattana (2008) 0.53 (0.45, 0.62)
Shaikh (2008) 0.53 (0.45, 0.61)
Aftab (2009) 0.52 (0.44, 0.60)
Erol (2009) 0.51 (0.44, 0.60)
Oberoi (2009) 0.51 (0.44, 0.60)
Shah (2010) 0.49 (0.42, 0.58)
Srivastava (2010) 0.49 (0.42, 0.58)
Chaudhry (2011) 0.49 (0.42, 0.58)
Pal (2011) 0.48 (0.41, 0.57)
Schmittner (2011) 0.48 (0.41, 0.56)
Ahmed (2012) 0.48 (0.41, 0.56)
Malik (2012) 0.47 (0.41, 0.56)
Kuusniemi (2013) 0.47 (0.41, 0.56)
Baig (2014) 0.47 (0.40, 0.55)
Castrillo (2015) 0.47 (0.40, 0.55)
Montasser (2015) 0.47 (0.40, 0.55)
Shah (2015) 0.47 (0.40, 0.54)
Veeresham (2015) 0.46 (0.40, 0.54)
Arathi (2016) 0.46 (0.40, 0.54)
Bertolotto (2016) 0.45 (0.39, 0.53)
Jacob (2016) 0.45 (0.39, 0.53)
Kanojiya (2016) 0.45 (0.39, 0.52)
Karigar (2016) 0.45 (0.39, 0.52)
Ghosh (2017) 0.45 (0.38, 0.52)

P104
COMMUNICATING THE IMPACT OF NICE GUIDANCE

Other
#P104

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NICE - Manchester (United Kingdom)

Background & Introduction
National Institute for Health and Care Excellence (NICE) guidance needs to be implemented to have an impact on the health and wellbeing of the population and the quality of care. Reviewing the uptake of guidance and communicating results is necessary to highlight areas where there remains room for improvement and those where a positive contribution has been made.

Objectives / Goal
To review and communicate the uptake and impact of NICE guidance.

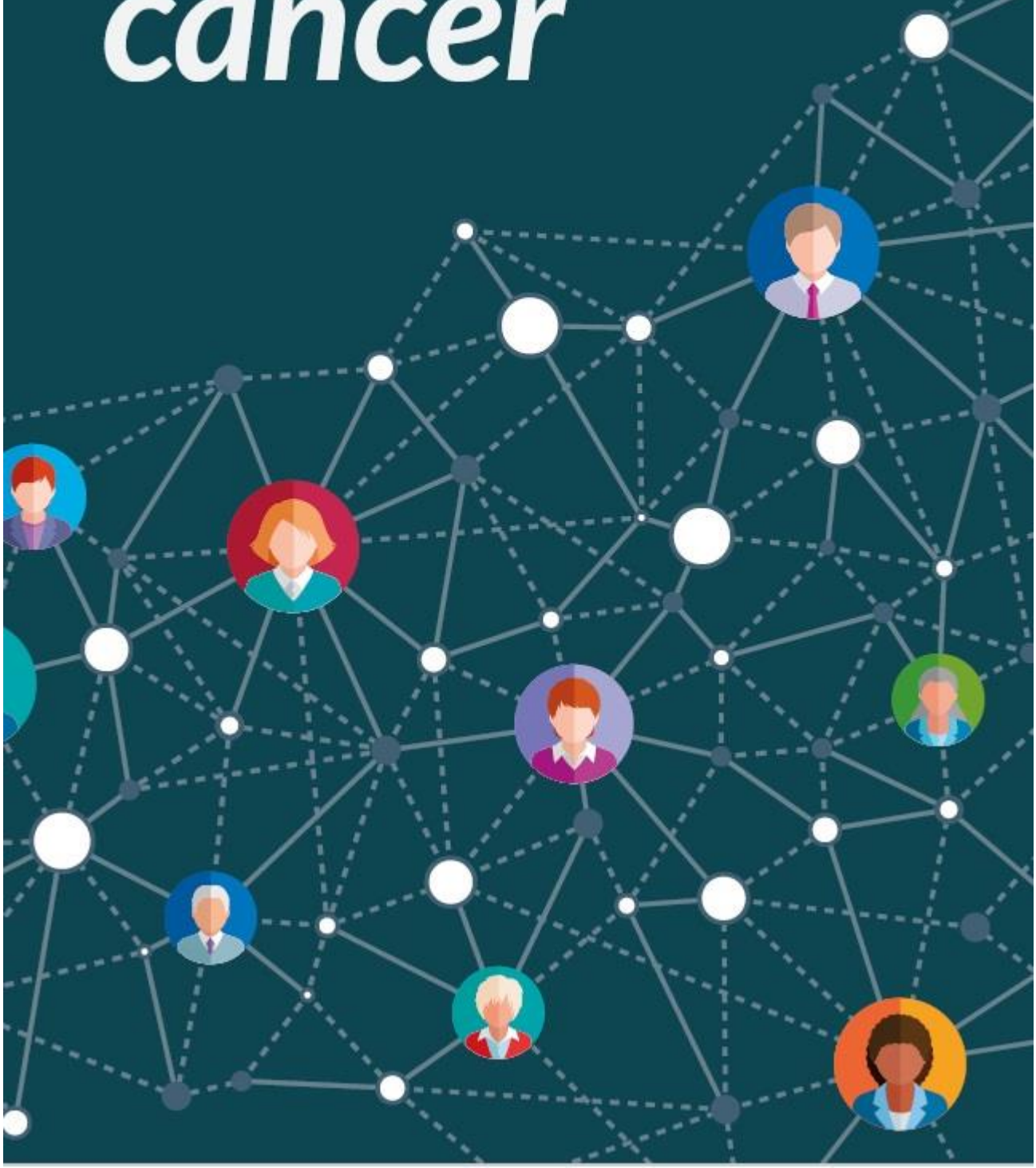
Methods
Data are routinely collected from national audits, reports, surveys and indicator frameworks to review the uptake of NICE recommendations. A topic-based reporting structure has been developed, focused on areas which align with national health and care system priorities. The reports are visually appealing and include examples of partnership working, patient quotes and outcomes data alongside uptake data to give a broad view of impact.

Results & Discussion
Presenting routinely collected data in accessible, graphically appealing, topic-focused reports has widened the audience for such information. The format of these reports has made them ideal for promotion via NICE's social media channels and the content has additionally been re-used in blogs and articles. Key metrics data measuring reach are being collected and will be available for inclusion in this presentation.

Description of the best practice
Guideline producers should monitor the uptake and impact of their recommendations. NICE has developed a process for routinely reviewing the uptake of guidance recommendations, drawing on existing data collections. These data are presented in topic-focused, visually appealing reports aligned with national health and care system priorities to highlight impact and bring to attention areas for improvement.

NICE National Institute for Health and Care Excellence

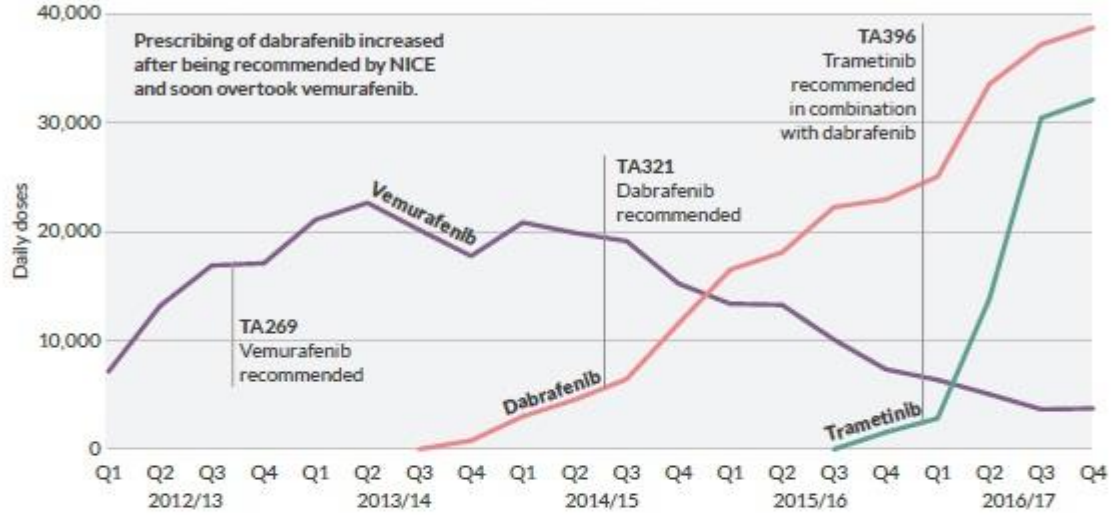
NICEimpact cancer



BRAF V600 targeted therapy

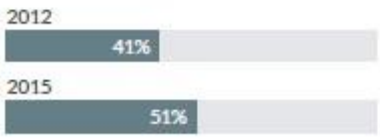
Vemurafenib was recommended by NICE in December 2012 for treating people with locally advanced or metastatic melanoma with a BRAF V600 mutation. In October 2014, another BRAF V600 inhibitor, dabrafenib, was recommended by NICE. These medicines do not differ in clinical effectiveness, but dabrafenib has a lower incidence of photosensitivity, which may be a major problem for some patients.

Prescribing of medicines for treating advanced BRAF V600 mutation-positive melanoma



Data from the Office for National Statistics on cancer survival by stage at diagnosis suggest that the survival of people with advanced melanoma has improved since 2012 when immunotherapy and BRAF V600 targeted medicines were first recommended by NICE.

Percentage of people diagnosed with melanoma at stage 4 who survive for 1 year after diagnosis



Following the NICE recommendation, prescribing of dabrafenib increased rapidly, and by January 2015 had overtaken vemurafenib. The combined prescribing of these medicines has steadily increased.

Most people with advanced melanoma are now initially treated with immunotherapy, regardless of their BRAF V600 mutation status. However, for patients with rapidly progressing disease, a short life expectancy or poor prognostic features, a BRAF V600 inhibitor may still be the most appropriate medicine. New treatments continue to be developed.

In June 2016, NICE recommended trametinib in combination with dabrafenib. This combination therapy is more effective than therapy with a single medicine, without any increase in adverse effects. Prescribing of trametinib has since increased rapidly. In October 2016, NICE was asked to appraise this combination for treating people with non-small-cell lung cancer with a BRAF V600 mutation.

P105
CPGS ON A SHOESTRING BUDGET: EVIDENCE OF IMPACT IN PHYSICAL THERAPY

Other
#P105

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Background & Introduction

The American Physical Therapy Association (APTA) is committed to developing clinical practice guidelines (CPGs) relevant to physical therapists (PTs). Limited finances requires using volunteers. Evidence exists of culture shifts toward CPG uptake. Since 2012, 15 CPGs are published, 34 are in development and 40 CPG teams have been trained.

Objectives / Goal

Describe APTA initiatives for CPG development and dissemination, and strategies to engage the PT community in implementation.
Describe evidence supporting successful uptake into practice.

Methods

APTA component sections are using many strategies to increase CPG awareness and implementation, including workshops, presentations, publications, brief summaries and websites. Volunteers are recruited for CPG development teams, appraisal processes, stakeholder reviews and public reviews, and implementation committees, increasing APTA member involvement and ownership. Products include: a critical appraisal tool for experimental interventions, an APTA sponsored CPG process manual of recommended best practices, patient and professional summaries, documentation templates.
Data from two 2018 surveys of PTs, a 2017 quality assurance study on CPG implementation, a 2015 survey on CPG uptake, a follow-up qualitative study, and statistics from the National Guideline Clearinghouse will be presented.

Results & Discussion

PT culture is shifting toward greater participation in CPG development and implementation, expecting more topics, with consensus that they help to validate clinical examinations and interventions. Naiscent evidence supports improved clinical outcomes.

Implications for guideline developers / users

Incorporate end users to ensure relevant CPG content and grow awareness of pending publications.

Conclusion

A multifaceted approach increases awareness and implementation of PT CPGs.

Description of the best practice

Multifaceted education about CPGs, participation opportunities, and dissemination of new publications support clinical implementation.

P106

EBM AND RESEARCH METHODOLOGY EDUCATION PROGRAMS: HOW AND WHEN TO TEACH. LOCAL EXPERIENCE AT UNIVERSITY OF VALPARAISO MEDICAL SCHOOL, CHILE.

Other
#P106

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Background & Introduction
Critical thinking and research are considered priority domains for medical education, and their introduction to the medical curriculum improves significant learning. The School of Medicine at University of Valparaíso (UV) offers a competency-based curriculum, which includes two courses of progressive formation, "Research-Methodology" (RM) and "Evidence-Based Medicine" (EBM).

Objectives / Goal
To describe the integrated training program RM/EBM offered at the UV.

Methods
Descriptive analysis of the theoretical and practical activities of RM/EBM programs.

Results & Discussion
This program is given during four semesters, for 6 hours per week, 3 on-site class hours and 3 of autonomous work. The thematic units of RM/EBM courses and their learning objectivs are shown in figure 1.
During classroom hours, lectures and group workshops are developed, with team and case-based learning methodologies. Throughout the autonomous work hours, students develop an independent project: in RM a primary investigation, and during EBM a synthesis of evidence centered in critical analysis of the best evidence to answer a clinical question posed by the students themselves.

Implications for guideline developers / users
Panel discussions sessions are made including patients an other stakeholders to debate about different topics regarding shared decision-making, conflicts of interest and legal clinical cases.

Conclusion
The integrated RM/EBM program represents an early, integrated and continuous curricular program for medical students, allowing them to achieve a significant knowledge and training regarding critical appraisal of scientific evidence, while including the values and preferences of patients and other stakeholders.

Description of the best practice
This program represents a valid option for progressive EBM education including patients in pannel discussions activities to promote their participation in the decision-making process.

Figure 1. Thematic units of RM and EBM courses and ther learning objectives.

SUBJECTS	THEMATIC UNITS	OBJECTIVES
RESEARCH METHODOLOGY (RM)	**I. Basic Epidemiology**	To search, read, and formulate research questions.
	II. Biostatistics	To understand the most used statistical tools for clinical research
	III. Applied research	To design and execute an ethically accountable research project.
EVIDENCE-BASED MEDICINE (EBM)	**I. Introduction to EBM**	To formulate clinical questions and perform electronic searches in most common databases.
	II. Critical Appraisal	To evaluate bias and error in studies, to interpret results, and to describe the GRADE methodology.
	III. Applied EBM	To recognize the local applicability of the evidence (clinical practice guidelines), and to interact with different stakeholders and patients.

P107
EVIDENCE-BASED CLINICAL PRACTICE GUIDELINES IN SOUTH AMERICA

Other
#P107

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IETSI - EsSalud - Lima (Peru)

Background & Introduction
Clinical Practice Guideline (CPG) are an important tool to improve clinical outcome and to efficiently allocate resources. Development of context specific recommendation is important for low and middle-income countries. However, the number of initiatives and efforts are heterogenous and little studied.

Objectives / Goal
To describe the initiatives and efforts from the public healthcare sector to produce evidence-based CPG in South America.

Methods
A systematic search of the institutions and initiatives of guideline development in South America was carried out. The search was made by internet in April 2018. The variables of interest were typed in duplicate and then compared, presenting the results in a descriptive fashion

Results & Discussion
Of the 12 countries in South America, five have current regulations for the elaboration of CPG. We found 15 institutions fulfilling this role, of which 73.3% are the Ministries of Health. 60% use an evidence-based methodology, but only 33.3% base their recommendations on GRADE.

Implications for guideline developers / users
Few countries in South America have implemented GRADE methodology in elaborating clinical practice guidelines. Ministries of Health play an important role because they norm how CPGs should be done, and which is the best methodology to use, this is a first step to start incorporating evidence to take decisions in health policies.

Conclusion
GRADE is a transparent and complex methodology. Implementing it in the elaboration of CPGs requires training and joint work among public agencies, universities, institutes, always having the Ministry of Health as a regulator.

P108
G-I-N NORTH AMERICA (NA) – CREATING AND SUSTAINING A REGIONAL GUIDELINE COMMUNITY

Other
#P108

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Background & Introduction
G-I-N NA is a regional community of clinical practice guideline developers, users and other stakeholders from Canada, Mexico and the United States of America who are interested in improving the effectiveness, rigor and efficiency of guideline development, adaptation, dissemination, implementation and performance measurement.

Objectives / Goal
To describe the development and activities of the G-I-N NA regional community and to address associated best practices and challenges.

Methods
Facilitated by its Steering Committee, G-I-N NA has partnered with key partners such as New York Academic of Medicine, Agency for Healthcare Research and Quality, and the Program in Evidence-based Care to offer a range of activities for its community.

Results & Discussion
Over 900 individuals are included in the G-I-N NA email distribution list. G-I-N NA has co-hosted three in-person biennial E-GAPPS Conferences. G-I-N NA has hosted a series of webinars each year focused on guideline methods and resources, common challenges and best practices, and advances in the guideline research enterprise. Webinars are well attended with between 50 to 170 individuals throughout North America. Topics at E-GAPPS and the webinars have been informed by the community's interests and priorities.

Description of the best practice
G-I-N NA has been a successful guideline community – its conference and webinar offerings have been well received. Surveys and meetings at G-I-N conferences have served as important strategies to elicit interests among the community to direct the work of the Steering Committee. Challenges with sustaining the community are competing priorities, time, and the lack of resources.

P109
GUIDELINE DEVELOPMENT TRAINING COURSES: A BELGIAN EXPERIENCE

Other
#P109

P. Van Royen [1], S. Mokrane [2], N. Delvaux [3], N. Dekker [1], P. Vankrunkelsven [4]
[1]Working Group Development of Primary Care Guidelines, EBPracticeNet, UAntwerp - Antwerp (Belgium), [2]Working Group Development of Primary Care Guidelines, EBPracticeNet, ULB and University of Antwerp - Brussels (Belgium), [3]Academic Center for General Practice, Department of Public Health and Primary Care, Katholieke Universiteit Leuven - Leuven (Belgium), [4]Academic Center for General Practice, Department of Public Health and Primary Care, Katholieke Universiteit Leuven - Antwerp (Belgium)

Background & Introduction
The Working Group Development of Primary Care Guidelines (WOREL) is a Belgian consortium responsible for the revision and development of evidence-based guidelines for primary care.There is need for basic training in guideline development to ensure the production of high quality guidelines. Therefore WOREL organized specific training courses in collaboration with the Belgian Centre for Evidence Based Medicine - Cochrane Belgium (CEBAM), official organization in charge of EBM training.

Objectives / Goal
The objective of this study is to evaluate the quality and satisfaction of the training provided to new guideline developers by WOREL.

Methods
The courses were targeted toward future guideline developers and took place during 2-4 days. After an introduction, the basics of EBM concepts used in guideline development and methodology were presented. Workshops were organized for some specific topics. The courses were taught by staff members from CEBAM and WOREL. Trainers and trainees evaluated the course program both on design and relevance of the content.

Results & Discussion
Between 2015 and 2017, four courses were organized for a total of 53 participants. Most of participants were health practitioners, some of them without specific EBM background. They gave a written and oral evaluation after each day. Both participants and teachers were globally satisfied, although some topics should get more attention and participants should be better selected.

Conclusion
The organization of training courses is essential for the production of high quality guidelines. Specific masterclasses on ADAPTE, GRADE, consensus procedure and stakeholders involvement should be organized.

Description of the best practice
This training was well evaluated and effective in attracting new guideline developers

Topics	Trainers
Introduction to guidelines development	P. Van Royen, H. Philips, S. Mokrane,
Clinical questions & PICO	H. Cloetens, N. Delvaux, L. De Coninck, V. Quoidbach
Bibliographic research and critical appraisal	T. Bekkering, P. Vankrunkelsven, L. De Coninck, H. Van Brabandt, P. Jonckheere, M. Simons, B. Fauquert
AGREE II	H. Philips, D. Ramaekers, N Delvaux, S. Van de Velde, M. Goossens, .B. Fauquert
ADAPTE	Ph. Koeck, P. Van Royen, N. Delvaux, T. Bekkering, G. Henrard, B. Fauquert
Stakeholders involvement in guidelines development	D. Paulus, L. De Coninck,
Consensus procedure	L. Peremans, N. Dekker, P. Van Royen , S. Mokrane
GRADE	B. Denis, N. Delvaux, P. Van Royen, D. Ramaekers
Quality indicators for developing guidelines	R. Hermens, P; Vankrunkelsven
Preparing implementation	S. Van de Velde, , H. Philips, P. Van Royen

P110
IDENTIFYING RESEARCH GAPS AND PRIORITIZING RESEARCH RECOMMENDATIONS IN GUIDELINES: A SCOPING REVIEW

Other
#P110

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Background & Introduction
Identifying research gaps and prioritizing research recommendations within the guideline development process (GDP) can be a base for prioritizing relevant research questions in order to reduce research waste.

Objectives / Goal
In order to define and implement such a process in the German Guideline Program in Oncology, we systematically searched for national and international standards and best practice examples.

Methods
We performed a systematic literature search in Medline (PubMed) up to April 2018. Additionally, national and international guideline manuals and current German guidelines were screened for practical examples and methodological requirements.

Results & Discussion
The literature search yielded 4 publications that reported either practical examples (n = 3) or methodological considerations for the prioritization of research questions (n = 3). 17 German guidelines were identified, presenting research recommendations either as additional recommendations in the respective chapters or summarized in a separate chapter. None of the guidelines fully explained the process of topic identification and prioritization. Addressing research gaps were listed as desirable in 5 out of 15 international manuals studied, without making explicit specifications for concrete procedures. A manual (National Institute for Health and Care Excellence [NICE]) refers to an established process for compiling and disseminating research recommendations to research sponsors.

Implications for guideline developers / users
There are no nationally or internationally established standards for the identification and prioritization process of research gaps in clinical guidelines.

Conclusion
Other concepts for prioritizing research issues (e.g. in the context of systematic reviews) as well as best practice examples may be considered for the development of a criteria-based process.

P111
KNOWLEDGE REGARDING TO PATIENT VERSION OF GUIDELINES: A SURVEY OF CHINESE GUIDELINE DEVELOPERS

Other
#P111

X. Wang [1], K. Yang [1], Y. Xiao [1], Y. Ma [1], L. Liu [1], Z. Wang [1], Y. Du [1], Y. Tong [1], H. Wang [1], L. Yao [2], M. Wang [3], Q. Wang [4]
[1]Evidence-based Medicine Centre, School of Basic Medical Sciences, Lanzhou University - Lanzhou Shi (China), [2]Clinical Division, School of Chinese Medicine, Hong Kong Baptist University - Hong Kong (China), [3]The First Hospital of Lanzhou University - Lanzhou Shi (China), [4]McMaster Health Forum's Impact Lab, McMaster University - Hamilton (Canada)

Background & Introduction
The patient version of guideline (PVG) is designed for patients and public of interest based on the best available evidence and centered on the health concerns of patients. Compared to clinical guidelines, PVGs can offer reliable information about disease management to patients by providing easy-to-understand guideline.

Objectives / Goal
To investigate the awareness and knowledge of PVGs among Chinese guideline developers.

Methods
A questionnaire with ten items was developed and distributed to participants of the Guideline Development Workshop in 2017 in Lanzhou, China. In addition, guideline developers in Shenzhen, Guangzhou, Xi'an, Beijing were investigated through field survey.

Results & Discussion
We distributed 150 questionnaires and received 107(71.3%), where 90(84.1%) complete were used for analysis. For awareness about PVG, 30.0% of respondents chose "just know it" and 34.4% chose "never heard". The awareness was not associated with education, departments, specialties and regions(P>0.05). For opinions on PVG, 86.7% thought PVG is necessary, 45.6% considered the biggest barrier is lack of awareness, and 90% thought reporting of PVG needs to follow a guidance.

Implications for guideline developers / users
The survey presents the status quo of the awareness and knowledge on PVGs among Chinese guideline developers, which can help stakeholders realize the need of examining the method of PVG, so as to contribute to practice.

Conclusion
The research area on PVG is at the start stage in China. The awareness of guideline developers is poor and the methodology of development and reporting needs further exploration.

P112
QUALITY OF GUIDELINES ON SNAKEBITE ENVENOMATION: A SYSTEMATIC APPRAISAL

Other
#P112

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[1]George Institute for Global Health - New Delhi (India), [2]UMR Borea, Institut de recherche pour le developpement - Cayenne (French guiana), [3]The Robinson Research Institute, University of Adelaide - Adelaide (Australia)

Background & Introduction
Snakebite is a significant public health problem in many parts of the world and has been last year added to the World Health Organization list of neglected tropical diseases.

Objectives / Goal
To appraise the quality of recent guidelines on snakebite envenomation

Methods
We searched with guidelines on management of snakebite envenomation published on or after 2010 in five electronic databases, related website and screened references of included guidelines. Guideline quality was appraised using the AGREE II tool by three independent reviewers and scores calculated as per the standard methods.

Results & Discussion
We found 471 records and screened them to include 13 guidelines on snakebite, including two by WHO(two-non English guidelines were excluded). Three full texts have not been retrieved and results of remaining 10 are presented. Guidelines scored moderately in domains of 'clarity of presentation (25% to 83%) . Guidelines were rated poorly in the domains of 'scope and purpose' (3% to 83%) , stakeholder involvement (0 % to 52%) , 'riguor of development'(0% to 66 %) , applicability (2% to 65%) and editorial independence domain (0% to 71%). Overall too most guidelines received poor scores.

Implications for guideline developers / users
There is a need to improve quality of guidelines by incluclating evidence syntheses in a formal manner, involving all stakeholders (including snakebite survivors) in guideline panels and use formal methods to formulate recommendations, take implementation issues and conflicts of interest into consideration.

Conclusion
Guideline issuing agencies, including the WHO, need to allocate adequare resources for development of high quality guidelines on snakebite .

P113
RNAO BEST PRACTICE GUIDELINE AND INDICATOR DEVELOPMENT USING GRADE AND GRADE CERQUAL METHODOLGIES

Other
#P113

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Registered Nurses' Association of Ontario - Toronto (Canada)

Background & Introduction
The Registered Nurses' Association of Ontario (RNAO) has aligned guideline and indicator development methodology with GRADE (Grading of Recommendations, Assessment, Development and Evaluation) and GRADE CERQual (Confidence in Evidence from Reviews of Qualitative Research) frameworks. This evidence-based approach has improved integration of guideline development and indicator development processes.

Objectives / Goal
The objectives are as follows:
1) examine how GRADE and GRADE CERQual impacts guideline development for nursing professionals,
2) understand the alignment of GRADE and GRADE CERQual into guideline and indicator development and
3) explore implications on indicator development overall and nursing-sensitive indicators

Methods
RNAO guideline development includes six steps; topic selection, panel of experts, systematic review, recommendation formulation, stakeholder review, publication and 5-year publication review. Indicator development consists of six steps including; guideline selection, extraction of recommendations, indicator selection and development, validation, implementation and quality assessment. The steps from guideline and indicator development were integrated with GRADE and GRADE CERQual.

Results & Discussion
The multiple method approach supports utilization of quantitative and qualitative research to inform evidence-based nursing science. Consideration of measurement from inception of the guideline ensures integration of indicator development, particularly nursing-sensitive indicators.

Implications for guideline developers / users
For nursing and interprofessional health providers inclusion of quantitative and qualitative research is fundamental to inform best practices. Indicator development is a key component of guidelines that must be incorporated early in the process.

Conclusion
Nursing organizations and researchers may consider adopting GRADE and GRADE CERQual methodologies to support synthesis of quantitative and qualitative literature and development of indicators to measure the impact of best practice guidelines.

RNAO Registered Nurses' Association of Ontario / L'Association des infirmières et infirmiers autorisés de l'Ontario

iaBPG INTERNATIONAL AFFAIRS & BEST PRACTICE GUIDELINES

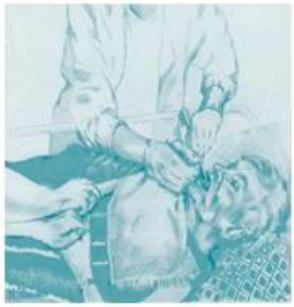
LTC LONG-TERM CARE BEST PRACTICES PROGRAM

RNAO Best Practices: Evidence Booster

Best Practice Guideline Implementation to Improve Oral Health Care

Oral Health: Nursing Assessment and Interventions, 2008

This guideline provides nurses and the interprofessional team with evidence-based recommendations to support residents 18 years of age and older who need assistance with oral hygiene care.



In 2010, the global economic impact of dental diseases amounted to US$442 billion. Across OECD countries, 5% (average) of total health expenditures originate from treatment of oral diseases. Recent findings suggest oral diseases account for productivity losses of over $1 billion per year in Canada alone.[1] Improvements in oral health would result in substantial economic benefits by reducing treatment costs and by decreasing productivity losses in the labour market.[2]

Aim: To examine changes in health outcomes associated with the implementation of the RNAO best practice guideline (BPG) *Oral Health: Nursing Assessment and Interventions, 2008* in an Ontario long-term care (LTC) Best Practice Spotlight Organization® (BPSO®).

Measure: Using indicators from the Nursing Quality Indicators for Reporting and Evaluation® (NQuIRE®) data system to determine:
(a) percentage of residents with a documented individualized care plan for oral hygiene and (b) percentage of residents who received oral care (completed independently or provided/assisted/supervised/cued) at least two times per day during the measurement period.

Clinical improvement: Noted as an increase in individualized oral hygiene care plans and an increase in residents who received oral care at least twice a day.

Figure 1: Average percentage of residents with an individualized oral hygiene care plan in one Ontario LTC-BPSO, from 2016 to 2017

Impact: A 75% increase (36.6% to 63.9%) of individualized oral hygiene care plans in an Ontario LTC-BPSO was reported from 2016 to 2017.

Practice Changes

The LTC-BPSO used several strategies to support BPG implementation. A dental hygienist trained all registered nurses on completing an oral health assessment. Following the education, nurses assessed oral care for all new admissions to the facility within seven days and on an annual basis, utilizing the Oral Health Assessment Tool (OHAT). Based on the results, an individualized plan of care was developed and documented. Annual review of the care plan was conducted when necessary to support ongoing monitoring of oral health. Volunteers in the LTC-BPSO became involved by ensuring that dental hygiene equipment was available and labeled for everyone on a monthly basis. These practice changes supported an integrated approach to oral health care optimizing all resources including volunteers.

RNAO Registered Nurses' Association of Ontario
L'Association des infirmières et infirmiers autorisés de l'Ontario

IABPG INTERNATIONAL AFFAIRS & BEST PRACTICE GUIDELINES

LTC LONG-TERM CARE BEST PRACTICES PROGRAM

RNAO Best Practices: Evidence Booster

Figure 2 : Percentage of residents who received oral care at least twice per day in one Ontario LTC-BPSO from 2016 to 2017

Impact: A 17% increase (88.9% to 96.3%) in residents who received oral care (completed independently or provided/assisted/supervised/cued) at least twice per day in one LTC-BPSO from 2016 to 2017.

Practice Changes

To support practice changes, the LTC-BPSO implemented several strategies including: establishing an Oral Health Care (OHC) team to examine policies and facilitate practice standardization, education from the Confederation College of Dental Hygiene for all staff, placement of education resources on computers for ongoing competency development, standardized assessments completed by a registered nurse on admission, and documentation of oral care on flow sheets. The OHC team continues to promote interprofessional collaboration among health-care providers to ensure sustainability. Monthly audits are conducted to ensure oral health admission assessments are completed for all residents. Documentation records help ensure that oral care is provided at least twice per day.

Conclusion: This analysis demonstrates a significant increase of individualized oral hygiene care plan and a moderate increase of residents receiving oral care twice per day within the Ontario LTC sector for BPSOs that implemented RNAO's best practice guideline, *Oral Health: Nursing Assessment and Interventions ,2008.*

RNAO launched the BPG Program in 1999[2] with funding from the Ministry of Health and Long-Term Care in Ontario, Canada. The 54 evidence-based BPGs developed to date are transforming nursing care and interprofessional work environments in all sectors in health systems worldwide. BPSOs are health-care and academic organizations that implement and evaluate these BPGs. Currently, there are 132 BPSOs across Canada and around the globe, representing more than 700 implementation sites.

NQuIRE[3], a unique nursing data system housed in the International Affairs & Best Practice Guideline Centre, allows BPSOs to measure the impact of BPG implementation by BPSOs worldwide. The NQuIRE data system collects, compares, and reports data on human resource structure, guideline-based nursing-sensitive process, and outcome indicators.

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To learn more about RNAO's IABPG Centre, please visit RNAO.ca/bpg.
This work is funded by the Ontario Ministry of Health and Long-Term Care. All work produced by the RNAO is editorially independent from its funding source. Contact NQUIRE@RNAO.ca for more details.

NQuIRE®

P114
STAKEHOLDER AND TOPIC EXPERT VIEWS OF NICE'S SURVEILLANCE REPORTS

Other
#P114

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National Institute for Health and Care Excellence - Manchester (United Kingdom)

Background & Introduction
The NICE surveillance process assesses whether to update a guideline, and publishes a report on the NICE website.

Objectives / Goal
NICE's surveillance team assessed how topic experts and stakeholders used and valued the outputs of the surveillance process to determine whether changes were needed.

Methods
Stakeholders and topic experts were each invited to complete an online survey about NICE's surveillance outputs (n=7,279 and n=117 respectively). Participants were selected because they had contributed to surveillance projects in the previous 6 months (December 2016 to May 2017). We analysed responses, including a retrospective qualitative analysis of the themes in free-text responses.

Results & Discussion
The response rate was low (192 stakeholders [2.6%] and 41 topic experts [35%]) but showed that 47% of stakeholders were not aware of surveillance reports. For the question on the value of the surveillance report, 69 of 86 (80%) stakeholders and 28 of 32 (88%) topic experts indicated a positive view of the surveillance outputs. These included: valuing the overview of the evidence base, transparency in decision making and being reassured that all new evidence was considered in deciding whether to update a guideline.

Implications for guideline developers / users
A thorough overview of the evidence with transparent reporting of the decision making about whether new evidence affects current recommendations is valuable in communicating surveillance decisions to stakeholders. This approach now forms the focus of surveillance reports.

Conclusion
We identified a need to improve the visibility of surveillance outputs.

P115
SUSTAINING THE GUIDELINE DEVELOPMENT PROCESS: LICENSING THE APPROPRIATE USE CRITERIA FOR CLINICAL DECISION SUPPORT MECHANISMS AND ELECTRONIC MEDICAL RECORDS SYSTEMS

Other
#P115

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Background & Introduction
The society of nuclear medicine and molecular imaging (SNMMI) has been developing appropriate use criteria (AUC) for high-value nuclear medicine procedures since December 2015. It assists the referring physicians in fulfilling the requirements a new program for fee-for-service Medicare reimbursement program to promote the use of AUC for advanced diagnostic imaging services (ADIS), including CT, MRI and all nuclear medicine procedures, including PET.

Objectives / Goal
To sustain the development of new topics and revisions of existing AUC, the society explored licensing the AUC to clinical decision support mechanisms (CDSM) and electronic medical records (EMR) systems.

Methods
The society modeled its AUC development process after the RAND/UCLA Appropriateness Method, following closely the Institute of Medicine's standards for developing trustworthy guidelines. It is a true multi-disciplinary process with input from all stakeholders. We contracted with Oregon Health and Science University's Evidence-based Practice Center to conduct independent and objective systematic review of the evidence. Once the AUC were finalized and published, we worked with CDSMs to translate these recommendations into electronic format and then integrated into EMRs.

Results & Discussion
The society was able to complete the AUC development of 5 topics with 100 clinical scenarios by June 2017 and started the development of 5 additional topics from July 2017 to present. Having a multi-year licensing agreement with CDSM vendors provided much needed financial support for the AUC.

Description of the best practice
Following a multi-disciplinary, transparent and widely acceptable process can result in the development of widely acceptable clinical guidance documents that can generate much needed revenue for the organizations developing these guidelines.

P116
THE AGREE PORTFOLIO: RELIABLE AND VALID TOOLS FOR EVALUATION AND BLUEPRINTS FOR DEVELOPMENT AND REPORTING

Other
#P116

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Background & Introduction
The quality of health-related guidance is highly variable, and this has an impact on the success of its implementation. Tools are needed to support their development and reporting and to help users identify the highest quality and most appropriate guidance for implementation or adaptation. The portfolio of tools created by the AGREE teams are designed to meet these needs.

Objectives / Goal
The AGREE teams created tools to optimize the development, reporting and evaluation of clinical practice guidelines and health systems guidance (see Table). This session will profile them and the methods used in their creation.

Methods
For each AGREE evaluation tool, a literature search was conducted to identify candidate items. Measurement design methods were used to generate and reduce items; create draft tools; and assess the usability, validity, and reliability of the tools. Study participants included international guideline and health systems guidance developers, users, implementers, and researchers.

Results & Discussion
The AGREE teams have produced four evaluation tools and three reporting checklists to inform the development, reporting and evaluation of clinical practice guidelines and health systems guidance. Rigorous testing of these tools indicates that they are usable, valid and reliable for their intended purposes.

Implications for guideline developers / users
Implementation of high quality, contextually appropriate guidance can improve clinical outcomes, processes of care and health system performance. The AGREE program has successfully produced tools and resources to enable achievement of these goals.

Table. Tools developed by the AGREE research program

Tool	Description
AGREE II	A 23-item tool to evaluate the overall methodological quality and reporting of clinical practice guidelines
AGREE Global Rating Scale	A 4-item evaluation tool for clinical practice guidelines which may be used as an alternative to the AGREE II when time and resources are limited
AGREE Reporting Checklist	A 23-item checklist based on the content and structure of the AGREE II to assist clinical practice guideline developers with reporting important information in guidelines
AGREE Recommendation Excellence (AGREE-REX)	A 9-item tool to evaluate the quality of clinical practice guideline recommendations
AGREE-REX Reporting Checklist	A checklist based on the content and structure of the AGREE-REX to assist clinical practice guideline developers with reporting important information about guideline recommendations
AGREE Health Systems (AGREE-HS)	A 5-item tool to evaluate the quality of health systems guidance
AGREE-HS Reporting Checklist	A checklist based on the content and structure of the AGREE-HS to assist health systems guidance developers with reporting important information in guidance documents

P117
THE REPORTING CHARACTERISTICS OF ABSTRACTS OF GUIDELINES

Other
#P117

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Background & Introduction
Currently, structured abstracts have been an effective form to help readers learn the main contents of one study at a glance. Although some working groups have developed the reporting guidelines for the abstracts of randomized controlled trials(RCTs) and systematic reviews(SRs). As far as we know, there is no reporting guidelines for the abstracts of clinical practice guidelines. So, it is unclear that how guideline developers present the main contents in guidelines' abstracts.

Objectives / Goal
Aim to explore the reporting characteristics of abstracts of the practice guidelines in PubMed from 2014 to 2016.

Methods
We searched "Practice Guideline " as "Publication Type" in PubMed from 1 January 2014 to 31 November 2016. Two hundred guidelines were selected randomly from of each year. Two reviewers independently completed data extraction and resolved disagreement by discussion.

Results & Discussion
We selected 600 guidelines from 3750 search results, and 379 of them reported the abstracts (134 were structured abstract). There were 73 forms of structured abstracts and totally involved 48 items. The top three formats of structured abstract were "background, methods, results, conclusions", "objective, methods, results, conclusions", "description, methods, populations, recommendation". The top ten items including "method(s), conclusions(s), result(s), objective(s), background, recommendations, evidence, purpose, introduction(s), aim(s)". Besides, only 27 abstracts of guidelines presented "recommendations".

Implications for guideline developers / users
The practice guideline developers should report their abstracts in a standard form, including the main recommendations at least.

Conclusion
Nowadays there are various forms of abstracts of guidelines published in journals, and most of them are non-structured abstracts. There are large disparities among the structured abstracts of guidelines.

P118
THE ROLE OF THE GUIDELINES IN BRAZILIAN HEALTH POLICIES

Other
#P118

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Background & Introduction
Brazil has an integrated universal health system to attend more than 200 million Brazilians. The Unified Health System (SUS) incorporates several principles, legislation and is structured in evidence-based health practices.

Objectives / Goal
To describe the role of guidelines in the organization of Brazilian Health Policies.

Methods
An analysis was made of the legislations that structures SUS and the role of guidelines in the elaboration of health policies regarding the access and availability of health technologies.

Results & Discussion
The use of guidelines in SUS is linked to the basic legislation of health policies (Figure 1). The Law 12.401/2011 and other supplementary publications define the guidelines as official documents to establish criteria for the diagnosis, treatment, follow-up of the disease or health impairment. The guidelines assume a normative character in SUS and determines the access to the technologies made available in different evolution phases of the disease or health problem, which should be evaluated for their efficacy, safety, effectiveness and cost-effectiveness (Figure 2). The recommendations of these documents are responsible for guiding the organization of services, standardizing conduct and informing professionals and managers, and should be development following SUS principles.

Implications for guideline developers / users
Specific legislation should be consulted to understand particularities in the implementation of the guidelines in different countries.

Conclusion
The need to align legislation and policy design in the guidelines is essential in the Brazilian context, since the guidelines are used as normative instruments and guiding health policies in the country.

The role of the Guidelines in Brazilian health policies

Figure 1- Normative character of Guidelines in Brazilian Health System

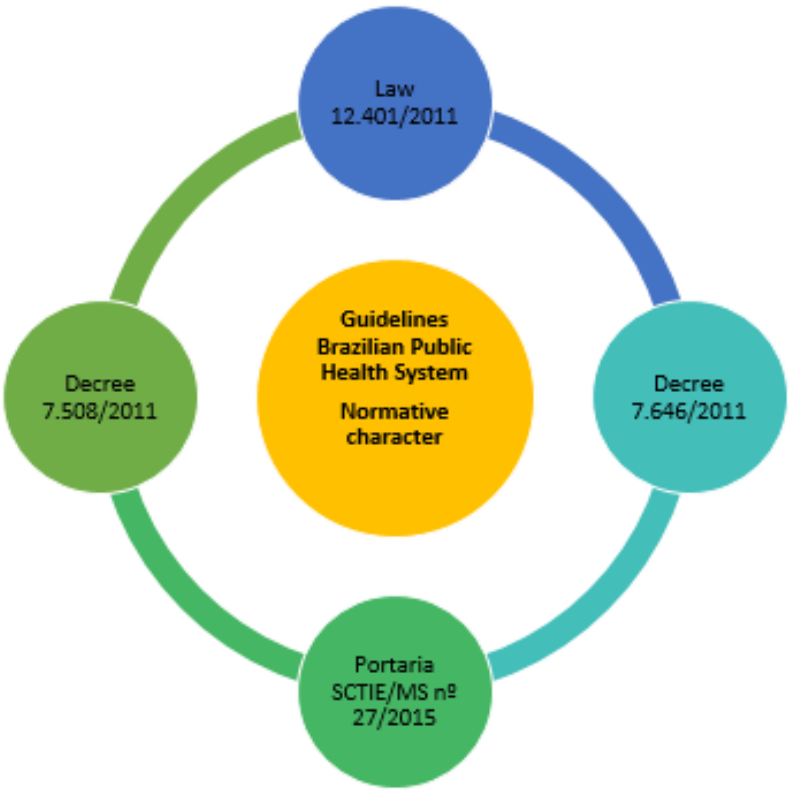
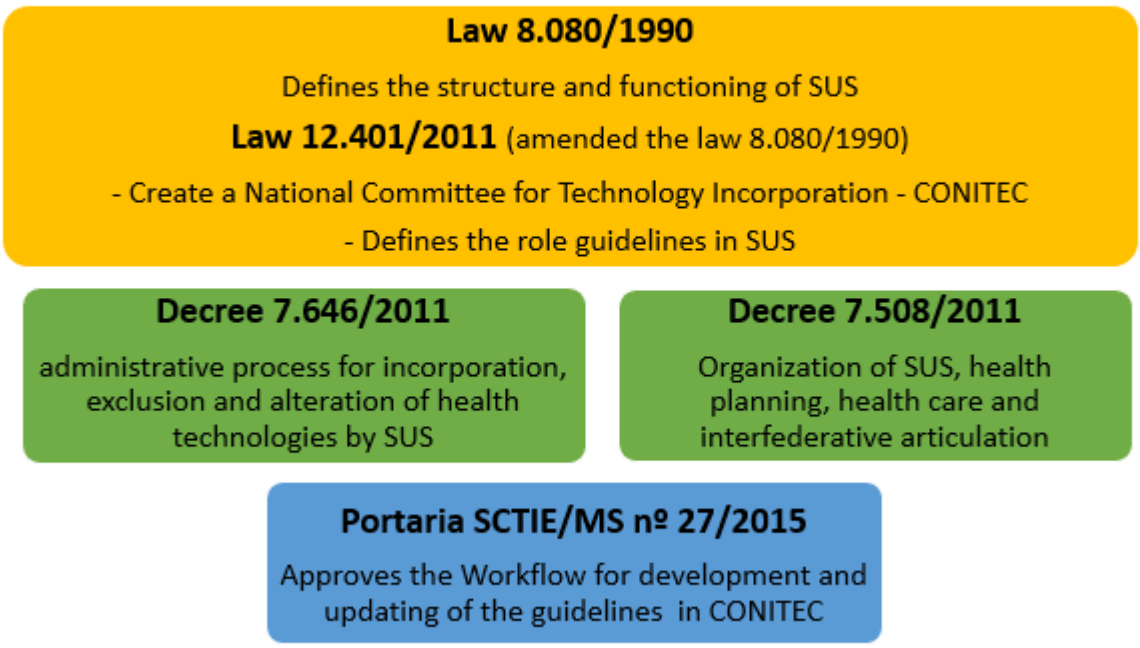


Figure 2 – Main legislations of Brazilian Public Health System (SUS)



P119
TREND AND QUALITY OF JAPANESE CLINICAL PRACTICE GUIDELINES ON CANCER

Other
#P119

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Background & Introduction
Japan Council for Quality Health Care (JQ) has managed clinical practice guidelines (CPGs) database as guideline clearinghouse. In Japan, cancer is the number-one killer, however, little is known about the trend and quality of Japanese CPGs on cancer.

Objectives / Goal
To clarify the trend and methodological quality of cancer related CPGs developed in Japan

Methods
We evaluated identified Japanese CPGs published between 2011 and 2017 using Appraisal of Guidelines for Research & Evaluation II Instrument (AGREE II). Each guideline was appraised by four expert members holding evaluation meeting. In this study, we focused on the evaluation results of Japanese CPGs on cancer and compared them with the whole. In addition, we extracted high score group on the domain 3 (Rigour of Development) of AGREE II and analyzed their characteristics.

Results & Discussion
We identified 519 CPGs and evaluated them by the AGREE II. Of these CPGs, 87 (87/519=16.8 %) were cancer related CPGs. The mean scores of each AGREE II domain were as follows (cancer/all, 0-100): Scope and Purpose, 73/63; Stakeholder Involvement, 57/46; Rigour of Development, 54/40; Clarity of Presentation, 71/59; Applicability, 48/44; Editorial Independence, 56/38. Among the evaluated CPGs on cancer, 10 (10/87=11.5%) CPGs had a score of 80 and above in the domain 3 and half of the top 10 guidelines were CPGs for palliative care.

Implications for guideline developers / users
Further studies and activities are necessary to reveal and manage individual tasks regarding CPGs development process.

Conclusion
This study indicates that the average of Japanese cancer related CPGs is above that of all field CPGs.

P120
USING RIGHT TO EXPLORE THE REPORTING CONDITION OF WHO GUIDELINES

Other
#P120

X. Wang [1], Y. Chen [1], L. Yao [2], Q. Zhou [1], N. Yang [1], Y. Xiao [1], Y. Tong [1], J. He [1], Y. Ma [1], M. Wang [3], Q. Wang [4], K. Yang [1]

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Background & Introduction
A growing focus has been put on improving reporting of practice guideline, and an international working group published the RIGHT checklist.

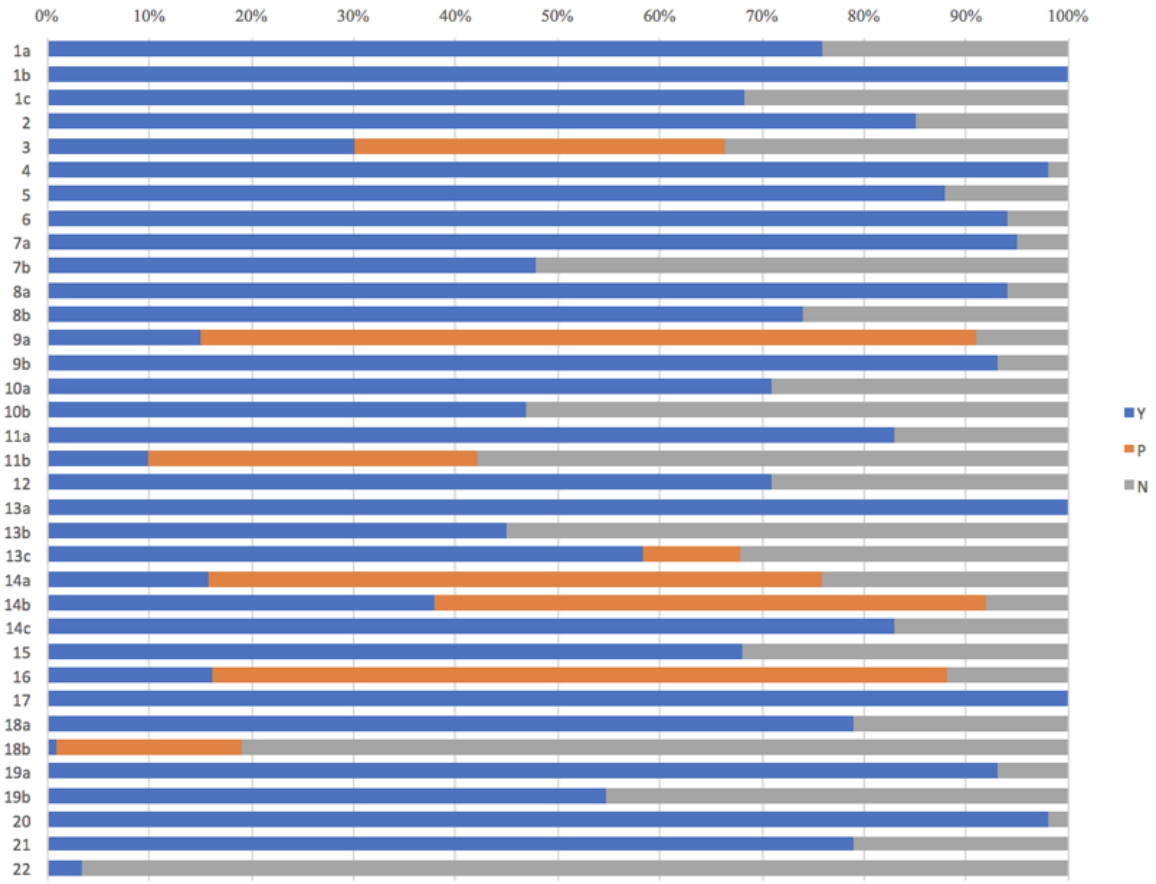
Objectives / Goal
To explore the reporting condition of WHO guidelines using the RIGHT checklist.

Methods
We obtained all WHO Guidelines Review Committee (GRC)-approved guidelines from January 2007 to December, 2017. Data including 1) basic information about the guideline, and 2) the content corresponding to RIGHT items were extracted into a predesigned form by three pairs of independent trained researchers. Summary statistics are reported as frequency and percentage.

Results & Discussion
We included 210 WHO guidelines. The overall reported number of items was increased by year. Content of 26 items were reported in average, with 65% guidelines noted more than 25 items. 29 items were described in 50% or WHO guidelines. While several items were incompletely described in a considerable proportion of guidelines, including terms and acronyms(36%), method for contributor selection(76%), strength of recommendation or certainty of evidence(9%), method for considering value and preference(56%) and resource implication(51%), process of peer review(65%), and role of funders(57%). (figure)

Implications for guideline developers / users
This is the first comprehensive and most updated assessment of reporting quality of GRC-approved WHO guidelines using RIGHT checklist. Researchers should consider the unique characteristics of guidelines and some considerations when using RIGHT.

Conclusion
The overall completeness of reporting of WHO guidelines showed an improving trend by year. The majority of RIGHT items were reported in most WHO guidelines, while some were incompletely described. Researchers should acknowledge some unique characteristics of guidelines and the considerations of using RIGHT checklist.



Y: completely reported, P: partial reported, N: not reported

Figure. Reporting of the RIGHT items in WHO guidelines

P121
ASSEMBLING STAKEHOLDERS TO EVALUATE CANCER SCREENING DECISION AIDS IN PRIMARY CARE: A QUALITATIVE STUDY

Patient and public involvement
#P121

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Background & Introduction
Decision aids to facilitate shared decision making (SDM) are becoming widespread. A focus on cancer screening decision aids has been catalyzed by disagreement among U.S. guidelines for prostate and breast cancer screening. Primary care providers and patients could benefit from decision aids that guide these discussions.

Objectives / Goal
We sought to identify factors pertinent to the design and implementation of cancer screening decision aids in primary care.

Methods
We convened a one-day workshop in Portland, OR (USA) in April 2016 to evaluate six cancer screening decision aids. Patients, health care providers, and administrators (N = 29) discussed two decision aids for lung cancer, two for breast cancer screening for women ages 40 to 49, and three for prostate cancer screening. A presenter described each decision aid; participants shared feedback regarding 1) format and usability 2) SDM elements and 3) feasibility of implementation.

Results & Discussion
Participants identified a broad range of decision points to consider. Participants argued that each format—paper, video-based, Internet-based, electronic medical record-based, smart phone application—appealed to different learning styles, target populations, and contexts. The short time available in primary care encounters prompted discussion about the feasibility of implementing all types of decision aids.

Implications for guideline developers / users
Broad implementation of cancer screening decision aids may require making multiple formats available, even within one health care system.

Conclusion
Stakeholders identified diverse patient learning styles and limited time in the office visit as major factors in the development of useful cancer screening decision aids.

P122
AUTISM GUIDELINES: DIFFERENT MODALITIES OF PATIENT ENGAGEMENT

Patient and public involvement
#P122

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Background & Introduction
The French National Authority for Health (HAS) has published 4 best practice guidelines on autism spectrum disorder (ASD) since 2011: 2 focusing on diagnostic and 2 on care and social management, for children or adults.

Objectives / Goal
To describe the different modalities used for patient involvement, their benefits and drawbacks during the development of these 4 guidelines.

Methods
A retrospective analysis was performed regarding patients or carers involvement modalities, ways of recruitment, effective participation and benefits and drawbacks during guideline development from a project manager perspective.

Results & Discussion
Fourteen persons with ASD and 33 family carers and 266 professionals were included on an individual basis from scope to diffusion process, by interviews, meetings or consultation on line. Specific adaptation was proposed and provided if needed. Direct recruitment by a call for candidates on HAS website was more informative on parent experience than indirect recruitment through major associations. Persons with ASD may have different opinions than family carers, mostly because they experienced and advocate different situations of the spectrum or disabilities. For 3 guidelines, stakeholders were involved, during scope (adult management), peer review (child diagnostic) or during a public consultation added to the usual development process (child and adult management guidelines): 5 ASD person and 155 family advocate associations have contributed compared to 73 administrator associations, 68 residential care or social services and 32 hospitals or health services.

Implications for guideline developers / users
Involving persons with ASD needs to adapt participation modalities to individual competences.

Conclusion
Opening participation through different modalities broadened the patient experience shared during development of these EBM guidelines.

P123
CONSUMER ORGANISATION ENGAGEMENT IN MATERNITY SERVICES GUIDELINES

Patient and public involvement
#P123

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Background & Introduction
The UK's National Institute for Health and Care Excellence (NICE) routinely and systematically involves consumer organisations in guideline development. Consumer organisations represent the interests of women using maternity services. They can contribute to the scoping process (via a workshop or scope consultation), respond to calls for evidence, comment on draft guidelines, and take part in dissemination and implementation activities.

Objectives / Goal
To assess how well NICE's stakeholder engagement process is working for maternity guidelines, and use the findings to maintain or improve engagement with consumer organisations in the maternity sector.

Methods
To carry out a retrospective review of the type, level and impact of consumer organisations' engagement with NICE's maternity guidelines, using our records and documentary evidence. In addition, interviews will be conducted with key organisations to understand the barriers and facilitators to participation and see if any improvements can be made to promote better engagement.

Results & Discussion
NICE values the contribution of consumer stakeholders; it is important that we maximise the input of these organisations and keep them engaged in our processes.
We will report on the levels and impact of engagement of key consumer organisations with a range of NICE's maternity guidelines. We will also make recommendations to maintain or improve the engagements.

Implications for guideline developers / users
Through understanding what works well and areas for improvement, we are able to modify our approach to engaging consumer stakeholders in guidelines to improve participation and impact.

P124
DEVELOPING PATIENT VERSIONS OF GUIDELINES WITH PATIENTS, SERVICE USERS AND MEMBERS OF THE PUBLIC

Patient and public involvement
#P124

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Background & Introduction
Through our involvement with the European collaborative project DECIDE and GIN PUBLIC, we have gained an understanding of methodology to develop and present patient versions of guidelines to patients and the public to help them to take part in decision making.

Objectives / Goal
To gain a better understanding of how the involvement of patients and the public in the development of patient versions of guidelines works in practice.

Methods
Patients were recruited to 'patient version subgroups' via clinical guideline development groups and supported by public involvement staff. Members of the public from our organisation's pool of volunteers were appointed to each 'patient version subgroup'. Patient versions of guidelines were developed using a design that has been tested with users of health information.

Results & Discussion
Roles of patients and the public include: selecting recommendations for inclusion; identifying key messages for patients from recommendations; identifying suitable quotations from patients; helping to write recommendations in plain language and helping to ensure the presentation of information is user friendly.
An evidence based design and the involvement of patients and public volunteers is now embedded into our methodology for developing patient versions of guidelines.

Implications for guideline developers / users
By involving patients and the public in the development of patient versions of guidelines, guideline developers will have a greater understanding of what works in patient versions of guidelines early on in the process.

Conclusion
Implementing evidence based findings for the presentation of information derived from guidelines together with the involvement of patients and the public ensures patient versions of guidelines are presented in a meaningful format.

P125
DEVELOPING TOOLS FOR SHARED DECISION MAKING ALONGSIDE PRACTICE GUIDELINES, BASED ON PATIENT GOALS AND PRIORITIES

Patient and public involvement
#P125

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Background & Introduction
Clinical practice guidelines provide evidence based recommendations for clinical decision making. Balancing pros and cons of different options is often preference-sensitive, depending on individual patient views and experiences. Coming to considered decisions requires shared decision making (SDM) between doctor and patient. Option tables/grids, summarising patient-relevant information, can be helpful as easy reference comparing options and to discuss the pros & cons. It is, however, unclear for which decisions option grids are most helpful and what questions should be included.
Together with several patient organisations we developed SDM-tools on diabetes and COPD.

Objectives / Goal
To give insight in the development process of SDM-tools and directions how to improve process and usability for both patients and healthcare providers.

Methods
Development-steps so far:
elicite patient needs: patient-focusgroups (COPD, diabetes) + e-mail-comments on first version;
content development, based on Dutch GP-guidelines;
translation to lay-language;
commentary phase among patients and GP-practice caregivers.
Following steps: adapt tables (discontinue one?); practice testing; further adaptations; website release (for patients and GPs).

Results & Discussion
Based on patient needs we developed 3 option-grids: two (stop smoking-options-table and diabetes-medication-table) were based on existing Dutch GP-guidelines; comments from patients and caregivers improved these tables. For the inhalation-device-options-table no GP-guideline existed, so alternative content was used; this table generated many negative comments, mainly from caregivers, on content, usability and development-process.

Implications for guideline developers / users
In SDM-tools patient information needs and professional views about optimal information should match.
For successful implementation close collaboration between patient’s and professional organisations is required.

P126
ENGAGING PATIENTS AND COMMUNITIES IN THE MODERN WORLD – HOW CAN SOCIAL MEDIA HELP US?

Patient and public involvement
#P126

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Background & Introduction
Social networks are now part of daily life. There are 1.65 billion Facebook users, and 1.3 billion Twitter users, with other social networks gaining increasing popularity.
The health and care sectors are increasingly using social media to support, promote and increase the spread of information and data in order to both improve the health literacy of individuals, and communicate guidance messages.

Objectives / Goal
To examine the National Institute for Health and Care Excellence's (NICE's) use of social media in engaging patients, carers and communities to support developing guidelines and their use in practice. Specifically, we will look at:

- Sharing knowledge about planning for and using social media effectively
- Exploring benefits and challenges of using social media
- How social media helps us better reach the patient and community groups directly affected by our guidance
- How social media makes a difference to the impact of a guideline for patients and communities

Methods
We will look at a combination of qualitative and quantitative data – interviewing individuals and organisations we communicate with, as well as looking at the key metrics data measuring social media success.

Results & Discussion
We will look at how social media can engage and involve the public in the work of guideline developers and implementers, as well as improving communication with key patient and community partners and audiences.

Description of the best practice
There is a wealth of best practice guidance available on using social media within health and social care. We will share how NICE's public involvement team uses this guidance to enhance our work.

P127
HOW PATIENT ORGANISATIONS UTILISE NICE GUIDELINES TO IMPROVE HEALTH AND SOCIAL CARE SERVICES

Patient and public involvement
#P127

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[1]NICE - Manchester (United Kingdom), [2]NICE - London (United Kingdom)

Background & Introduction
Patient organisations do not have a standard approach to participation in the National Institute for Health and Care Excellence (NICE) guideline development and implementation. Some participate in guideline development, others use guidelines to support their core work, and some do both or neither. It can therefore be difficult to identify the full impact and benefits of NICE guidelines.

Objectives / Goal
To identify the variety of techniques patient organisations implement NICE guidance in their work and the resulting benefits.

Methods
An engagement strategy was developed, which included focus groups with regional networks, attending national conferences, and electronic engagement.

Results & Discussion
We identified different ways patient organisations use NICE guidelines and quality standards, including: helping assess what 'best' practice looks like; providing a framework to create research projects on people's experience of care; providing information and support for the public; supporting their service delivery recommendations to providers and commissioners.
We identified case studies to promote good practice examples of using NICE guidelines and quality standards to improve health and care services.

Conclusion
The outcomes mean NICE has a greater understanding of how its guidelines help improve services and the role of patient organisations in this process. This can help assess guideline impact and promote good practice to other patient organisations

Description of the best practice
The ability to highlight and promote good practice enables others to replicate. This increases the impact of guidelines, the quality of services delivered, and improves the core work delivered by patient organisations. Promoting good practice also helps develop positive working relationships and breaks down barriers to future involvement.

P128
INCORPORATING EMPIRICAL DATA ON PATIENTS' VALUES AND PREFERENCES IN FOCUSED RAPID GUIDELINES: A CASE EXAMPLE OF BMJ RAPIDRECS

Patient and public involvement
#P128

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Background & Introduction
BMJ Rapid Recommendations (RapidRecs) are patient-centred guidelines created in response to potentially practice-changing evidence, published in the BMJ and MAGICapp.org. RapidRecs are developed by unconflicted multidisciplinary panels including clinicians, methodologists, patients, and caregivers.

Objectives / Goal
We sought empirical evidence on patients' values and preferences to inform guidelines.

Methods
For guideline questions that panels considered preference-sensitive, we conducted a systematic search (MEDLINE, EMBASE, PsycINFO) for evidence addressing patients' values and preferences. We included quantitative and/or qualitative studies informing patient-important outcomes that guideline panels determined *a priori*. We excluded studies of feasibility and/or acceptability considerations.

Results & Discussion
Of the 6 published RapidRecs, and the 6 in development, we conducted the search for 8 guidelines. Two systematic reviews on patients' values and preferences have been published, and two are in progress. One published review represented an innovation in systematically reviewing evidence of minimally important differences for health status measures. For the remaining three guidelines, results were summarized in a supplementary appendix. For half of the guideline questions, studies on patients' values and preferences proved rare. Identified studies seldom yielded novel and comprehensive information to inform the panel of patients' values and preferences. There were, however, isolated instances where findings proved helpful.

Implications for guideline developers / users
Searching for patients' values and preferences studies are best targeted following initial scoping. RapidRecs are rapid and focused guidelines, thus our approach may not generalise to complex guidelines.

Conclusion
The optimal approach to using published literature to inform guideline panels on patients' values and preferences related to *a priori* determined outcomes requires further exploration.

P129
INCORPORATION OF THE PATIENT PERSPECTIVE IN CLINICAL RECOMMENDATIONS: A SYSTEMATIC REVIEW OF COLORECTAL CANCER GUIDELINES

Patient and public involvement
#P129

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[1]Corporació Sanitaria Parc Taulí. Iberoamerican Cochrane Centre. REDISSEC. - Sabadell (Spain), [2]Iberoamerican Cochrane Centre - Barcelona (Spain), [3]Department of Social Psychology, Autonomous University of Barcelona - Barcelona (Spain), [4]Department of Clinical Epidemiology & Biostatistics, McMaster University - Hamilton (Canada), [5]Iberoamerican Cochrane Centre. Biomedical Research Institute- Sant Pau (IIB Sant Pau) - Barcelona (Spain)

Background & Introduction
The consideration of the patient perspective is crucial when developing recommendations. However, this process is far from being optimal in most clinical guidelines (CGs). Colorectal cancer (CRC) has an important impact on health (is the second more incident and lethal cancer) and is a preference sensitive topic.

Objectives / Goal
To identify and describe how CRC guidelines incorporate the patient perspective when formulating recommendations.

Methods
We searched the GIN library, Medline, The National Guideline Clearinghouse, NHS evidence database and Trip database (Jan 11-Nov 16). Two authors independently selected CRC CGs. One author extracted the data and another author checked it for quality control.

Results & Discussion
From the 2,447 references identified, we finally included 28 CGs. We extracted data regarding characteristics of the development institution, topic assessed (e.g. prevention or treatment), methods to assess the quality of the evidence and to formulate recommendations, inclusion of patients or patient representatives in the CG development panel, and additional strategies to incorporate the patient perspective. We will present the analysis of the results and their implications during the conference.

Implications for guideline developers / users
This work will inform the guideline community about the processes followed by CG developers to incorporate the patient perspective when developing recommendations about a health condition specially sensitive to the patient perspective.

Conclusion
This review will show how CG on CRC incorporate the patient perspective in their recommendations.

P130
INNOVATIVE PATIENT AND CARER PARTNERSHIP IN CREATING TRUSTWORTHY GUIDELINES, FROM PROTOCOL TO PUBLICATION: A CASE STUDY OF BMJ RAPID RECOMMENDATIONS

Patient and public involvement
#P130

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Background & Introduction
BMJ Rapid Recommendations (RapidRecs) are guidelines in response to practice-changing evidence, published in the BMJ and MAGICapp.org. RapidRecs are developed by unconflicted international panels of clinical experts, methodologists, and patients and carers.

Objectives / Goal
We sought to determine the feasibility and impact of patient/carer partnership at each step of guideline development.

Methods
For each RapidRec, we recruit patient/carer partners from consumer organisations, panel member referrals, and other sources. After meeting eligiblity criteria (lived experience, no conflicts), patients/carers receive information on the RapidRecs project, expected commitment, and timelines. Participants: 1) identify and prioritise patient-important outcomes for supporting systematic reviews; 2) identify practical issues for shared decision making; 3) receive training before panel deliberations; 4) participate in deliberation teleconferences; and, 5) edit draft recommendations and manuscript. We will interview patient/carer partners on their experiences to evaluate our approach. We will review impact of contributions made by patient/carer partners for each RapidRec.

Results & Discussion
We had 33 partners in 11 guidelines, from general consumer organisations (N=12), health condition-specific organisations (N=8), referrals (N=10), and other sources (N=3). Preliminary feedback has been positive. RapidRecs are focused guidelines, thus our approach may not generalise to all guidelines. Areas of improvement are determining feasibility for other guidelines, maximising patient/carer involvement without excessive burden, documenting challenges (e.g. recruitment, education) and resources required, and exploring alternative methods. Prelimenary project results will be presented at the conference.
Implications for guideline developers / users
We provide a proof-of-concept example of meaningful patient/carer partnership.

Conclusion
Patient/carer partnership in rapid guidelines is feasible, producing trustworthy, relevant, and patient-centred guidelines for shared decision making.

P131
INTERNATIONAL CONSUMER ENGAGEMENT IN GUIDELINE DEVELOPMENT: SURVEYING PATIENTS IN 30 COUNTRIES

Patient and public involvement
#P131

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Background & Introduction
There is growing focus on patient consumer engagement in guideline development. The *International Pressure Injury Clinical Guideline*, developed by representatives from peak woundcare bodies in over 30 countries and led by the US National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan-Pacific Pressure Injury Alliance, is being revised. Consumer engagement through survey, patient developers and stakeholder review are strategies included in the guideline development methodology.

Objectives / Goal
The goals of this project were to promote patient consumer involvement in guideline development and to determine consumer priorities for information/resources on pressure injury prevention and treatment to inform guideline content.

Methods
A world-wide, web-based patient/informal caregiver survey was conducted. The survey was developed with attention to readability and strategies to promote response rate. Peak woundcare bodies, consumer representative organisations and clinal staff promoted the survey. Descriptive statistics will be used to analysis results for multiple choice and Likert scale questions.

Results & Discussion
The findings of the survey, available July 2018, will contribute to the guideline clinical questions and GRADE, as well as to the development of patient resources to accompany the guideline. The success or otherwise of strategies to promote consumer engagement in guideline development through surveys will be presented, along with challenges faced by the development team, including limited budget and resources, negotiating ethics requirements internationally, accessing consumers and promoting readability, accessibility and response.

Implications for guideline developers / users
Evidence on strategies that facilitate implementation of patient surveys is needed to assist guideline development teams.

Description of the best practice
Consumer surveys are one strategy that may promote patient engagement in guideline development.

P132
IS THERE A ROLE FOR QUANTITATIVE PATIENT PREFERENCE DATA IN THE DEVELOPMENT OF CLINICAL GUIDELINES?

Patient and public involvement
#P132

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Background & Introduction
The quantification of patient preferences and the utilization of these data for healthcare decision making is currently a growing area of research. But it remains a comparatively immature area of knowledge, particularly in regards to its application to HTA and guideline development.

Objectives / Goal
We conducted exploratory research into potential areas of application for quantitative patient preference data within HTA and guideline development.

Methods
A survey and focus group were conducted with multiple myeloma patients in order to better understand which preferences would be most important to measure, and which preference elicitation method would be most appropriate. A critical appraisal workshop enabled a wide range of stakeholders to comment on the proposed use of patient preference elicitation methods in HTA, including guideline development.

Results & Discussion
Multiple myeloma patients demonstrated a wide range of preferences for treatment variables. Stakeholder opinion differed on whether and in which circumstances quantitative patient preference data could be usefully applied to the development of clinical guidelines.

Implications for guideline developers / users
It has been suggested that preference data might be useful for framing shared decision-making encounters, particularly where the clinical data is equivocal and patient decisions concerning which treatment to choose are ‘preference sensitive’. The inclusion of patient preference data would ensure that clinicians are aware of all factors known to be important to patients when making treatment decisions.

Conclusion
Quantitative patient preference data is not routinely available for all treatments or conditions, but may become more common in the near future. More work is needed to understand the potential application of these data for guideline developers.

P133
PATIENT ORGANISATION DEBRA INTERNATIONAL (DI) LEADS THE DEVELOPMENT OF CLINICAL PRACTICE GUIDELINES (CPGS) IN RARE GENETIC CONDITION EPIDERMOLYSIS BULLOSA (EB)

Patient and public involvement
#P133

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Background & Introduction
EB is a complex condition that affects the skin and many parts of the body. Little clinical guidance for care existed until DI initiated a programme to develop CPGs. Although an unusual undertaking for a patient organisation, it is unlikely that CPGs would have been developed without the drive of patients.

Objectives / Goal
DI wanted to consider the requirements of guideline development and learn how to overcome development barriers in a rare condition in order to create guidelines in all possible clinical areas as prioritised by the EB Community, with the aim of improving the quality of clinical care of people living with EB worldwide.

Methods
SIGN, GRADE, and LEGEND methodologies have been adapted for DI CPGs. Considerable patient and public involvement (PPI) in panel membership plays a key role in all development stages. In 2016, the RARE-bestpractice project analysed published CPGs using the AGREE II tool and appraisal scores were high.

Results & Discussion
Since 2011, the DI CPG network has consisted of 245 volunteers; of these, 39 (15%) were patients. Only 3 (1%) of the total members have resigned due to changes in commitments. Patients represented 12-50% (n=2/17-6/12) members per panel and participated in all development steps. 5 guidelines have been published open access across different areas of EB clinical care.

Conclusion
Despite DI being well placed to support CPG development, a rare disease presents major challenges with specific limitations of data availability in EB research. Overall, the project far exceeded objectives, and PPI strengthened the development plans in varied aspects of EB clinical care.

P134
POPULAR PARTICIPATION IN BRAZILIAN GUIDELINES: ANALYSIS OF PARTICIPATION IN PUBLIC CONSULTATIONS

Patient and public involvement
#P134

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Background & Introduction
The Public Consultation (CP) is an advertising and transparency mechanism used by Public Administration in Brazil to obtain information, opinions and criticism from society on the formulation of public policies. The CP is an important instrument in the Brazilian Health System (SUS).

Objectives / Goal
To identify the profile of contributions in CP in Brazilian guidelines.

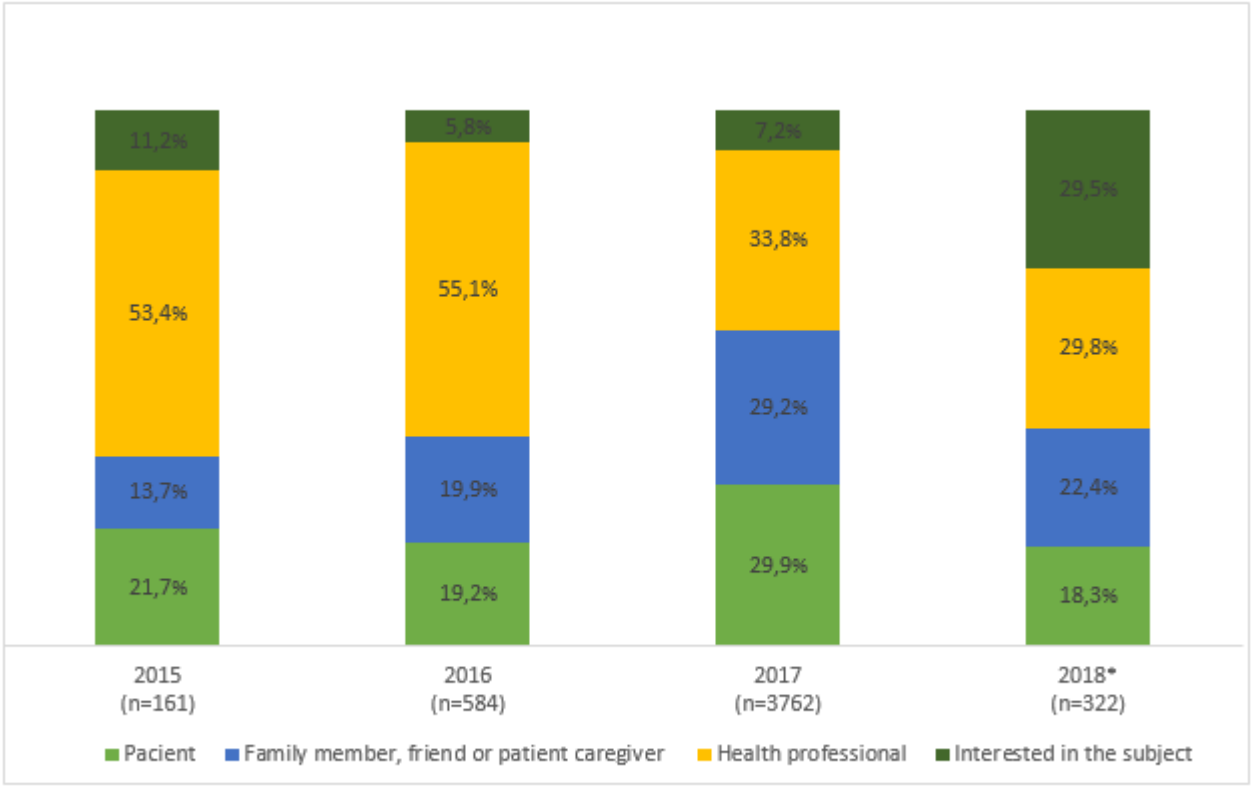
Methods
Analysis of CP published in the period from 2015 to March 2018 for identifying quantitative data, categories of participants and reports on the technical quality of the contributions analyzed by technicians.

Results & Discussion
During this period, 52 CPs were carried out, which received 5122 contributions. The number of contributions increased during this period and reached a significant number in 2017 (3911). The number of individual contributions was 17 times higher than that of a legal entity in recent years. The health professionals are the ones who contribute the most (36.7%), followed by patients (27.5%) and family, friend or caregiver (25.8%) (Figure1). The increasing participation of health professionals in CPs reflects the improvements in the quality of contributions in recent years reported by technicians who carry out their analysis. The groups, associations and organization of patients are the main responsible for the contributions of legal entities (25.1%) (Figure 2).

Implications for guideline developers / users
Social participation is an important factor to developing guidelines and implementation of these documents.

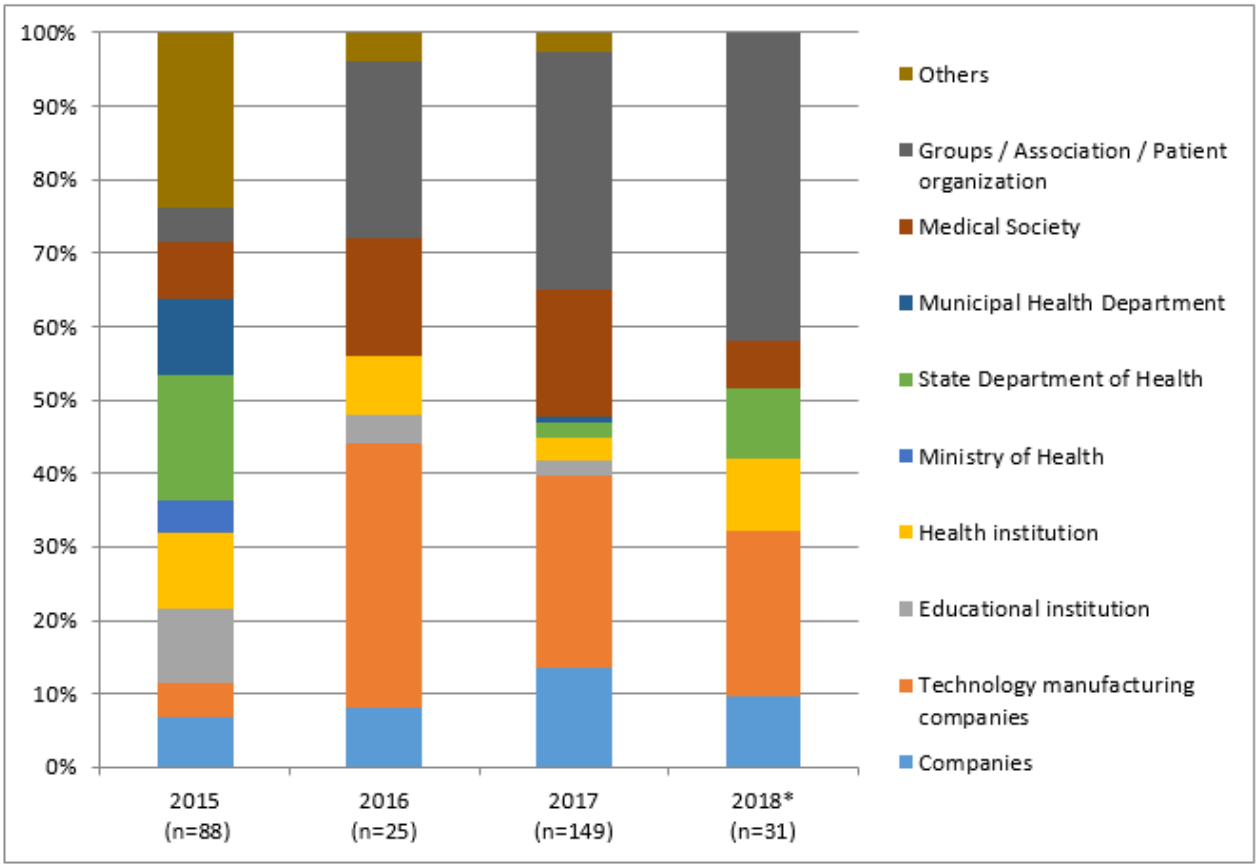
Conclusion
The number of contributions in CP is increasing and is accompanied by better quality in recent years. These contribuitions can be important to qualify discuss with health professionals and others stakeholders.

Figure 1- Public consultation contribution profile for Guidelines- Physical person



* Analysis of the data until March 2018

Figure 2- Public consultation contribution profile for Guidelines- Physical person



* Analysis of the data until March 2018

P135
PREHOSPITAL PROVIDERS PERSPECTIVES FOR CLINICAL PRACTICE GUIDELINE IMPLEMENTATION AND DISSEMINATION: STRENGTHENING GUIDELINE UPTAKE IN SOUTH AFRICA

Patient and public involvement
#P135

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Background & Introduction
In 2016 the first African emergency care clinical practice guideline (CPG) was developed for national uptake in the prehospital sector in South Africa. Comprehensive uptake of CPGs post development is not a given, as this requires effective and efficient dissemination and implementation strategies that take into account the perceptions, barriers and facilitators of the local end-users, namely private and public prehospital providers.

Objectives / Goal
We aimed to identify prehospital providers perceptions of the emergency care guidelines, including barriers and facilitators of guideline implementation and dissemination, for national decision makers, to strengthen CPG uptake in South Africa.

Methods
We conducted a qualitative study using an interpretivist phenomenology approach. We convened nine focus groups with 56 prehospital providers, across four major provinces in South Africa. Data was analysed using thematic content analysis in Atlas.ti.

Results & Discussion
Providers perceived the guidelines both positively and negatively which was influenced by previous CPG experience and exposure, unofficial communication and difference between expectations and perceived reality. Challenges to guideline implementation included autocratic communication, lack of career direction and changes in scope of practice. Providers recommended using local champions, electronic end-user documents, clear communication and enabling a clear prehospital career pathway from stakeholders to strengthen guideline implementation.

Implications for guideline developers / users
Decision makers must consider providers perceptions and needs from the start to strengthen guideline dissemination and implementation.

Conclusion
In order to disseminate and implement an emergency care CPG, decision makers must take into account the perceptions, barriers and facilitators of local end-users. This study provides clear recommendations to support this.

P136
USING ONLINE PUBLIC CONSULTATION TO IDENTIFY BARRIERS TO IMPLEMENTATION: THE BRAZILIAN MINISTRY OF HEALTH EXPERIENCE.

Patient and public involvement
#P136

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Background & Introduction
National Committee for Technology Incorporation (CONITEC) is responsible for managing the process of updating the guidelines and for developing strategies for identifying and reducing barriers to the implementation of the guidelines produced in the Brazilian Public Health System (SUS). Among the available strategies, the online public consultation can be used to identify these barriers at the beginning of the process of updating the guidelines.

Objectives / Goal
To Describe the method and implementation barriers identified in eight guidelines.

Methods
Eight guidelines, to be updated - Pulmonary Arterial Hypertension, Immunosuppression in Renal Transplantation, Asthma, Crohn's Disease, Osteoporosis, Iron Overload and Schizoaffective Disorder, were submitted to the online public consultation from September to October 2016. To identify possible barriers a specific issue was formulated: "considering its local reality, which makes it difficult to implement this guideline currently".

Results & Discussion
A total of 305 contributions were received: 59 patients, 81 health professionals, 64 specialists, 24 pharmaceutical companies, 12 medical societies, 12 patient associations and 53 other stakeholders. 261 implementation barriers have been reported, most frequently: (i) access to medicines (ii) access to new technologies not covered by the health system and (iii) difficulties in accessing health services.

Implications for guideline developers / users
Identifying existing barriers is an important step in the implementation process of the guidelines and an indicator for the development or updating of more feasible recommendations.

Conclusion
The public consultation seems to be a useful tool in updating the guidelines in SUS, allowing to identify barriers in the implementation of existing recommendations and prioritize future research questions to update guidelines.

P137
BEST PRACTICE GUIDELINES (BPG) ON AUTISM: CLINICAL PRACTICE GUIDELINES (CPG) METHOD FOR DIAGNOSIS BUT FORMAL CONSENSUS (FC) METHOD FOR INTERVENTIONS

Scoping
#P137

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Background & Introduction
Autism spectrum disorder (ASD) is a neurodevelopmental disorder which appears in early childhood and requires education, healthcare and social support. The CPG and the FC methods, are used by the French National Authority for Health to produce BPG. These guidelines are developed on the basis of a rigorous method including a systematic review of the literature, the involvement of professionals, patients and service users, and a peer review group. The FC method differs from the CPG method because convergence of opinions during the meetings is not pursued and a rating group is added to the process. The choice of method occurs during the project scoping phase of the guidelines.

Objectives / Goal
To identify which features of a topic are relevant in order to opt for a CPG or FC method.

Methods
The scope of four BPG on ASD was retrospectively analyzed regarding, objectives, existing controversies, available literature.

Results & Discussion
Two clinical guidelines analyzed were about diagnosis: (i) in children and adolescents; (ii) in adults; and two others were about: (III) interventions in children and adolescents; (iv) interventions and life pathways in adults. Scientific literature was insufficient for all four subjects. Both BPGs developed with FC method (iii & iv) were focused on interventions and characterized by the persistence of debates on the type of approach to be used for interventions. Both BPGs developed with CPG method (i and ii) were about diagnosis without major debates.

Conclusion
A BPG by FC is more suitable for topics with major controversy.

P138
DEVELOPING AN EVIDENCE-BASED GUIDELINE FOR TREATING ADULT INFLUENZA WITH CHINESE PATENT MEDICINE: A SURVEY TO SELECT QUESTIONS

Scoping
#P138

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Background & Introduction
Influenza is an acute respiratory infective disease and could be very severe. Anti-virus medications are challenged as the viruses are mutating, and some have drug resistance. Traditional Chinese medicine is popular to treat influenza in China. However, there is lack of corresponding guideline.

Objectives / Goal
To frame clinical questions of the guideline for treating adult influenza with Chinese patent medicine.

Methods
The survey was divided into two rounds: 1) the questionnaires were sent to 17 experienced doctors who were asked to raise 10 questions. 2) After removing duplicates, the questions were classified and sent to 200 doctors. They were asked to score the questions according to importance.

Results & Discussion
106 questionnaires were sent back from 12 provinces and 38 clinical questions were collected. The top three priority questions are as follows: 1) How to treat pregnant women suffered from influenza with Chinese patent medicine? 2) How about safety of Chinese patent medicine? 3) What's the best administration occasion of Chinese patent medicine to treat influenza? These questions will be discussed by experts to make a consensus on the clinical questions in guideline according to PICO principles.

Implications for guideline developers / users
Determining clinical questions are the most important step in developing guideline at the beginning. Survey is a good method to collect questions which clinicians are interested.

Conclusion
The survey collected clinical questions and their relative importance. As the first guideline for treating influenza with Chinese patent medicine, it will play a positive role in treating influenza.

P139
GLOBAL EMERGENCY CARE CLINICAL PRACTICE GUIDELINES: A LANDSCAPE ANALYSIS

Scoping
#P139

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Background & Introduction
Adaptive guideline development methods, as opposed to *de novo* (new) guideline development, is dependant on access to existing high-quality up-to-date clinical practice guidelines (CPGs).

Objectives / Goal
We described the characteristics and quality of CPGs relevant to prehospital care worldwide to strengthen guideline development in resource-poor settings for emergency care.

Methods
We conducted a descriptive study of a database of global and local CPGs relevant to emergency care produced by the African Federation for Emergency Medicine (AFEM) CPG project in 2016. Guideline quality was assessed with the AGREE II tool. End-user documents such as protocols, care pathways and algorithms were excluded.

Results & Discussion
In total, 276 guidelines were included. Less than 2% of CPGs originated from low-to-middle income countries and only 15% (n=38) of guidelines were prehospital specific, and there were no CPGs directly applicable to prehospital care in resource-constrained settings. Most guidelines used *de novo* methods (58%, n=150), were produced by professional societies or associations (63%, n=164), with the minority developed by international bodies (3%, n=7). Guideline quality varied across topics, subpopulations and producers.

Implications for guideline developers / users
Resource strapped guideline developers than cannot afford *de novo* guideline development have access to an expanding pool of high quality prehospital guidelines to translate to their local setting.

Conclusion
Although some high-quality CPGs exist relevant to emergency care, none directly addresses the needs of pre-hospital care in low-to-middle income countries, especially in Africa. Strengthening guideline development capacity including adaptive guideline development methods that use existing high-quality CPGs is a priority.

P140
INTERACTIVE EVIDENCE MAPS FOR TREATMENTS OF MULTIPLE SCLEROSIS FATIGUE: IMPROVING USABILITY OF EVIDENCE SYNTHESES FOR SCOPING AND GUIDELINE DEVELOPMENT

Scoping
#P140

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Background & Introduction
Systematic review methods are crucial for identifying research gaps and supporting rigorous guideline development. However, reports are not typically designed to optimize usability. Evidence maps, a novel format, allow user-friendly visual representation of evidence syntheses.

Objectives / Goal
Create evidence maps for the Patient Centered Outcomes Research Institute (PCORI) describing efficacy and ongoing PCORI trials for Multiple Sclerosis (MS) fatigue treatments using rigorous, reproducible methods.

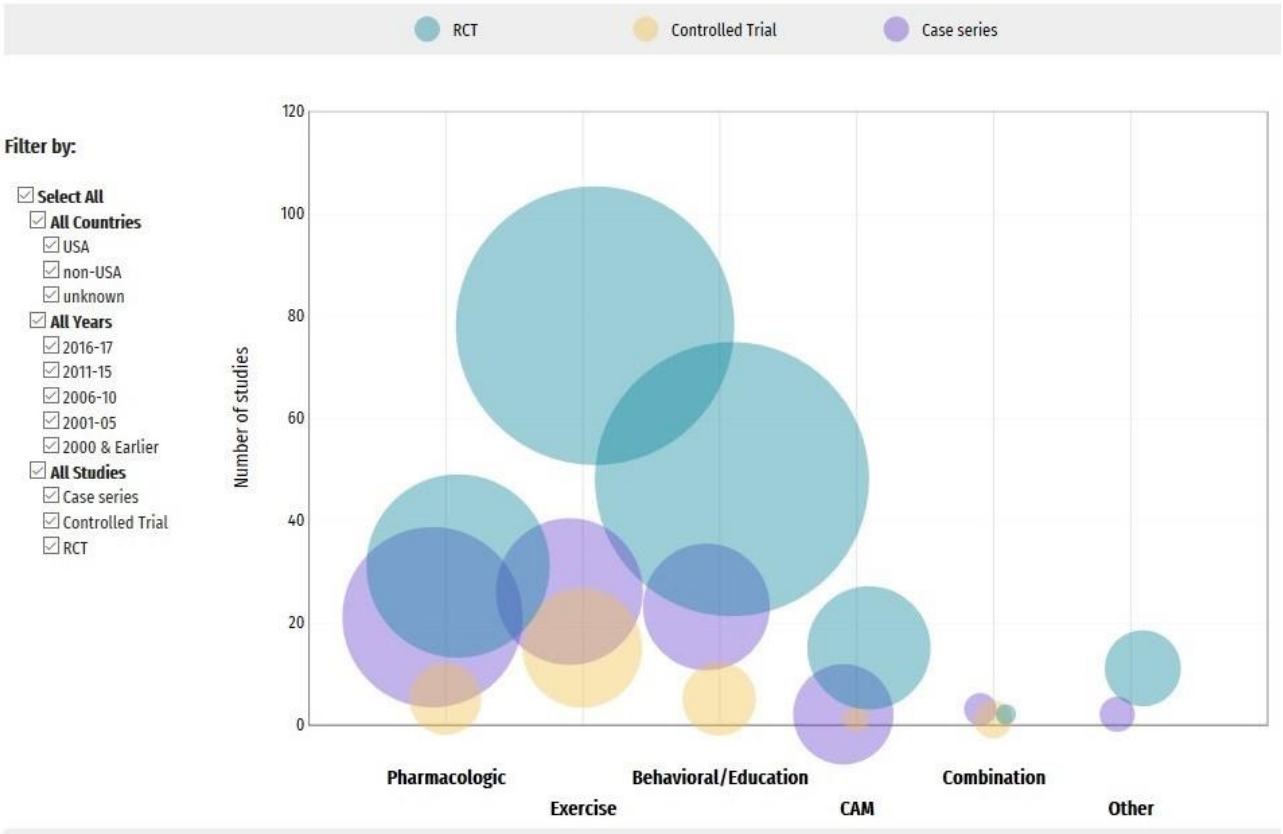
Methods
A comprehensive literature search identified articles on treatments for MS fatigue published since 1987. We searched clinicaltrials.gov and PCORI's website for ongoing research. For randomized controlled trials (RCTs), we extracted information on fatigue, quality of life, and adverse effects. We performed quantitative synthesis and appraised strength of evidence (SOE) using a modified GRADE system. We created 3 evidence maps using HTML, SVG and JavaScript.

Results & Discussion
From 1718 articles, we identified 282 meeting inclusion criteria. Map 1 summarizes 282 studies by intervention type, year, country and design (Figure 1). Map 2 summarizes 45 RCTs comparing treatments to inactive control (Figure 2). Map 3 summarizes 15 RCTs directly comparing active treatments (Figure 3). Bubble size/color capture effect sizes and SOE for fatigue efficacy and quality of life. Hovering displays numeric effect sizes and links to study abstracts.Filters allow users to customize display by fatigue measure, MS type, and outcome duration.

Implications for guideline developers / users
Interactive web-based evidence maps significantly improve accessibility to evidence for guideline developers and patients.

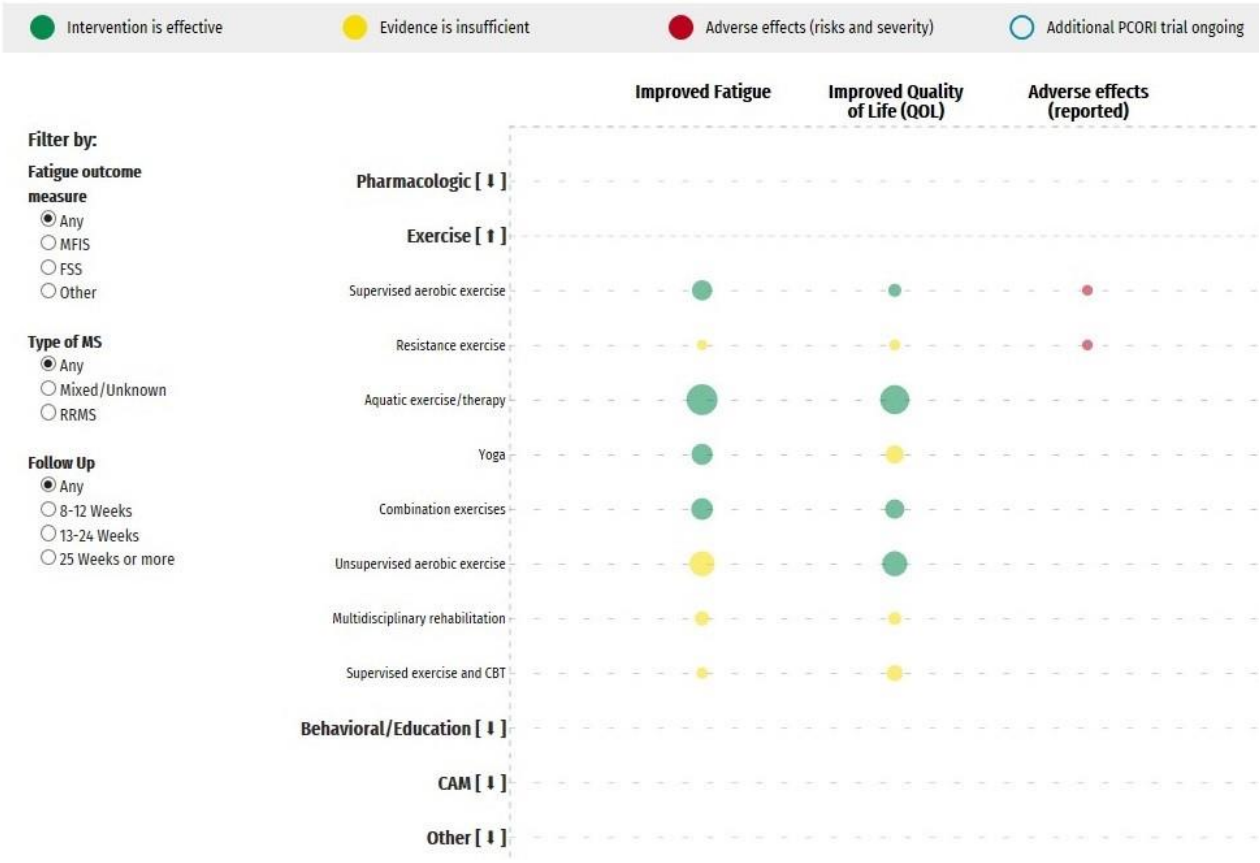
Conclusion
Creating evidence maps using rigorous, reproducible methodology is feasible. Interactive, web-based design can promote engagement with evidence.

Evidence Map 1: Overview of all Study Designs for MS Fatigue Interventions



Evidence Map 2: Benefits and Harms of MS Fatigue Interventions

(RCTs comparing intervention vs. inactive control)



Evidence Map 3: Head to Head Comparisons

RCTs directly comparing interventions

Favors one intervention | Insufficient Evidence | Ongoing PCORI-funded studies

	Amantidine	Fluoxetine	Sertraline	Endurance Exercise	Physical Therapy	Unsupervised Exercise	Yoga	CBT	CBT + Modafinil	Occupational Therapy (Standard)	Self management program (face to face)	Self (t
4'aminopyridine		●										
L-carnitine	●											
Methylphenidate**	●											
Modafinil**	●							●	●			
Aquatic exercise							●					
Balance Training					●							

P141
INTRODUCING NICE'S GP REFERENCE PANEL AND THE IMPACT ON SCOPING

Scoping
#P141

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Background & Introduction
Many of NICE's clinical guidelines are relevant to primary care, therefore engagement with GPs is essential to ensure that they consider the issues important to primary care. NICE's GP reference panel was formed in 2017, to allow additional engagement with GPs to inform guidelines.

Objectives / Goal
To describe why NICE's GP reference panel was set up; how NICE engages with the GP reference panel; to describe through case studies the impact the GP reference panel has had on NICE's guidelines.

Methods
The GP reference panel is made up of GP partners, salaried GPs, sessional GPs and GP registrars. All are GPs who are currently practising in the UK. NICE GP reference panel is a virtual group who are regularly engaged to inform NICE's scoping of guidelines and, where appropriate, at other stages of the guideline development.

Results & Discussion
Through early engagement, the GP reference panel has influenced clinical guideline scopes to help ensure relevance to GPs in the NHS. For updates of existing guidelines, the GP reference panel has identified areas for improvement or where a NICE guideline doesn't answer the questions that really matter to GPs and their patients.

Implications for guideline developers / users
Engaging GPs in the early stages of scoping guidelines ensures issues important to GPs are considered. This improves the overall quality of guidelines for the whole NHS.

Conclusion
NICE's GP reference panel has had an important impact on NICEs guidelines particularly through its scoping process.

P142
RANK OF NEED FOR GUIDELINE DEVELOPMENT BASED ON THE PERCEIVED VARIATION OF TREATMENT AND EXPECTED CLINICAL OUTCOME AMONG KOREAN PHYSICIANS

Scoping
#P142

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Background & Introduction
Korea has developed and distributed primary care guidelines for three diseases (hypertension, diabetes, and dyslipidemia) during 2013-2017. However, there is a growing demand for the development and dissemination of guidelines for other chronic diseases among physicians.

Objectives / Goal
To survey the perceived variation of treatment and expected clinical outcome in order to determine the priority of the guidelines needed for primary care

Methods
To measure the perceived variation of treatment and expected clinical outcome for 15 chronic diseases, we conducted an online survey on a 5-point Likert scale for 2 weeks among 642 Korean physicians. Response rate was 10.9% (n=70).

Results & Discussion
The 1st rank of need for CPG development based on the perceived variation of treatment was sleep disorder and proportion on ‘very much and somewhat’ was 64.3%. Depression, CVD (stroke), heart disease, COPD, and chronic renal failure showed following rank (respectively 57.2%, 52.9%, 48.6%, 44.2%, 42.8%). The 1st rank of need for CPG development based on the expected clinical outcome was heart disease and proportion on ‘very good and good’ was 88.6%. CVD (stroke), asthma, COPD, chronic liver disease and chronic renal failure showed following rank (respectively 87.1%, 71.5%, 71.4%, 68.6%, 68.5%).

Implications for guideline developers / users
Rationale of guideline development should be considered in advance.

Conclusion
As a result of surveying the perceived variation and expected outcome for end users, heart disease, CVD (stroke), and COPD were highly ranked. These factors can be used for decision making on the prioritization of guideline development.

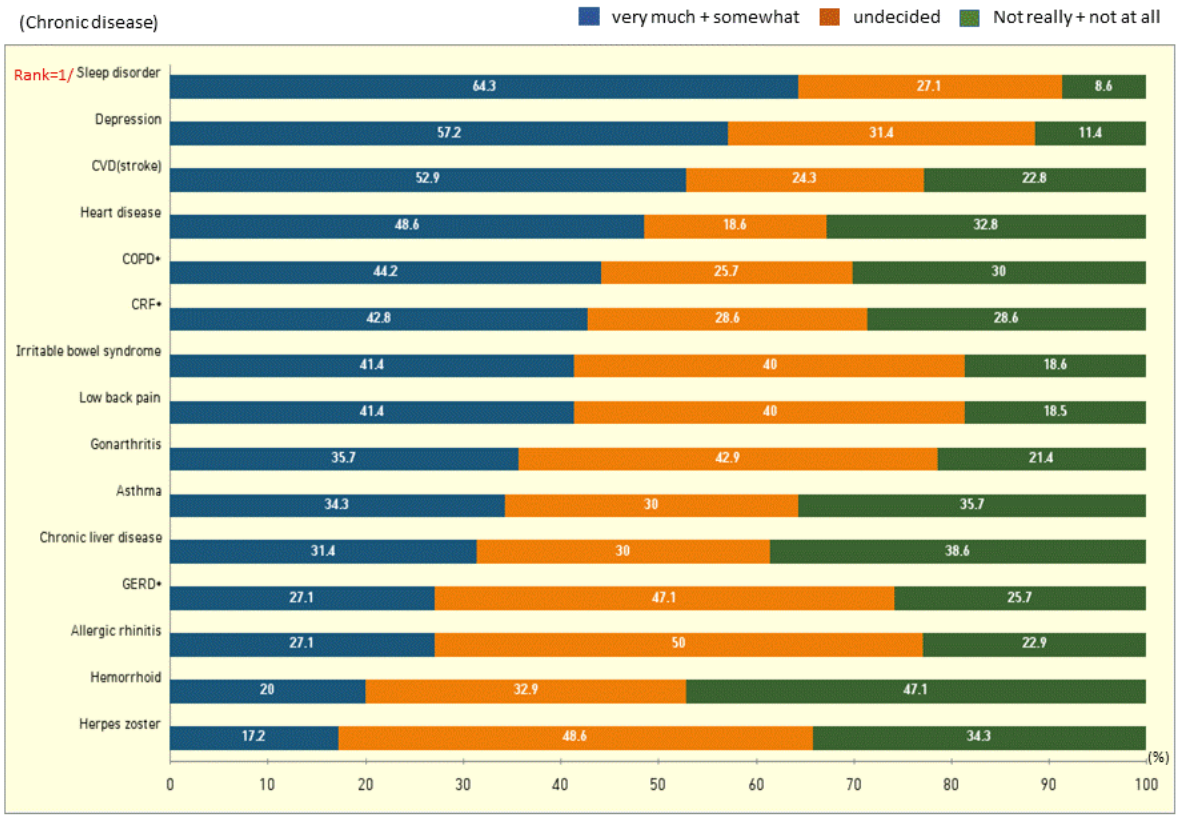

Fig 1. Rank of need for guideline development based on the perceived variation of treatment among Korean primary care physicians

* COPD: Chronic obstructive pulmonary disease
* CRF: Chronic renal failure
* GERD: Gastroesophageal reflux disease

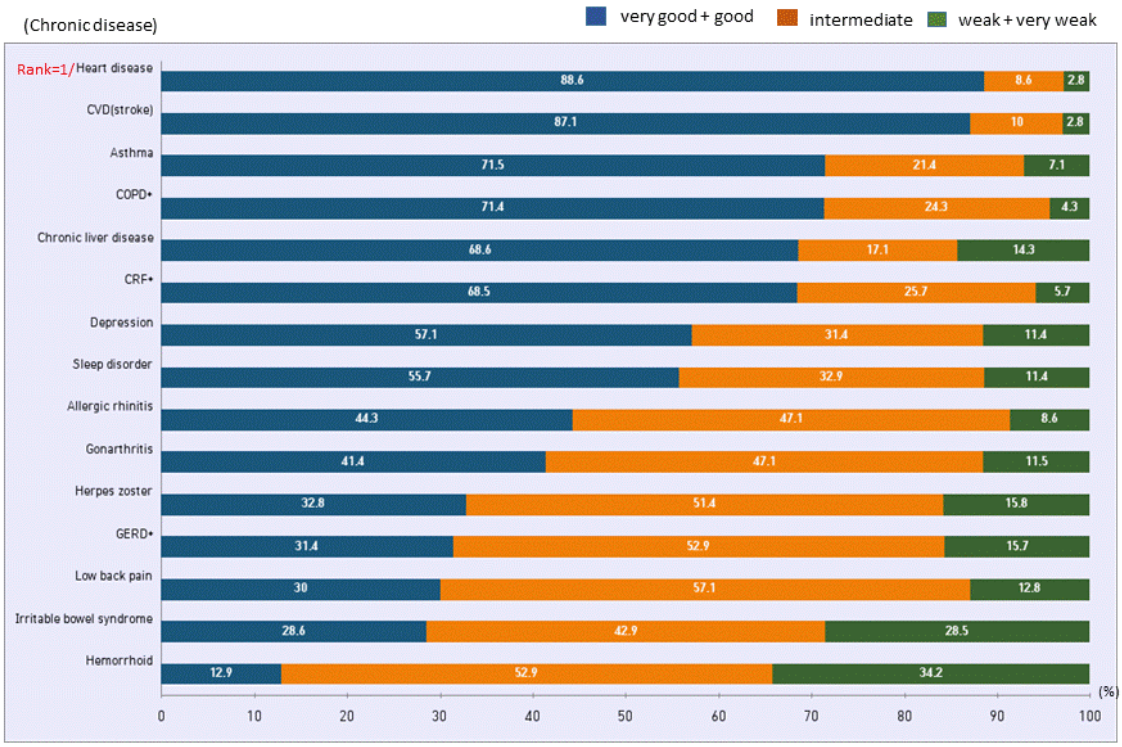

Fig 2. Rank of need for guideline development based on the expected clinical outcome among Korean primary care physicians

* COPD: Chronic obstructive pulmonary disease
* CRF: Chronic renal failure
* GERD: Gastroesophageal reflux disease

P143
SCOPING REVIEW OF SYSTEMATIC REVIEWS OF HOW PATIENTS LIVING WITH CHRONIC CONDITIONS VALUE THE IMPORTANCE OF OUTCOMES

Scoping
#P143

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Background & Introduction
Guideline developers, even being aware of the importance to include patient's perspective, might find it challenging mainly due the paucity of methodological guidance. We performed a methodological approach to inform patient's perspective in the selection of core outcome sets for four conditions: Type 2 Diabetes Mellitus, Chronic Obstructive Pulmonary Disease, Heart failure and Obesity. This work forms part of COMPAR-EU, a European project aimed to rank the cost effectiveness of self management interventions.

Objectives / Goal
To identify how patients value the importance of outcomes for self-management in the selected conditions.

Methods
We conducted a systematic search in Medline, CINHAL and PsycINFO in February 2018 limited to systematic reviews (SRs). We included SRs reporting health utilities and stakeholder's preferences, perceptions or attitudes towards the disease or a self management intervention. Outcome valuations were synthesised from health utility SRs and qualitative data led to set potential outcomes to be considered in the contextual evaluation of self management interventions.

Results & Discussion
From 6,071 references, 137 SRs were included, of these 15 reported health utilities.Qualitative SRs informed about patient's barriers or facilitators during self-management interventions and their experiences living with the disease. The selected outcomes will be ranked in a Delphi panel with stakeholders.

Implications for guideline developers / users
A scoping review addressing patient's values and preferences limited to SRs might be a useful approach to obtain patient's importance valuation of outcomes, or to complement other strategies.

Conclusion
Patient's perspectives should be included in sensitive steps like the selection of outcomes. This is a methodological proposal to face this challenge in a real situation.

P144
TECHNOLOGY IMPROVED GUIDELINE SCOPING

Scoping
#P144

S. Patel [1], S.Z. Lewis [2], C. Whittington [2], T. Feinman [2]
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Background & Introduction
Scoping reviews are an important but time- and resource-intensive component for focusing research questions. DOC Search is a new tool that uses advanced natural language processing (NLP) and machine learning (ML) algorithms in conjunction with a robust ontology management system to efficiently search large databases of biomedical literature.

Objectives / Goal
To perform a rapid assessment of the literature using DOC Search to inform the refinement and finalization of PICO questions for a guideline update.

Methods
The American College of Chest Physicians (CHEST) used DOC Search to construct queries related to the population and intervention of interest, supported by the comprehensive ontology (1.2 million concepts and 2.5 million terms) (Figure 1).

Results & Discussion
DOC Search results showed an increase in publications since the final search date (2011) of the previous guideline publication (Figure 2), as well as common co-occurring intervention terms (Figure 3) of interest to the guideline panel. These findings were subsequently used to refine and finalize PICO questions.

Implications for guideline developers / users
The simplicity of NLP and ML technology with robust synonym-rich ontology mappings provide insights for guideline developers not available through traditional methods. Additional intelligence (eg, automatic indexing of study designs, geography, age and gender breakdowns, patient characteristics, interventions, outcomes, and trending terms/concepts) facilitates refinement of research questions before comprehensive systematic searches are conducted. The evidence can be assessed to determine the feasibility of supporting quantitative analyses for PICOs of interest.

Conclusion
DOC Search has been proven to efficiently and effectively enable rapid literature assessments, which can assist guideline panels during scoping and refinement of key questions.

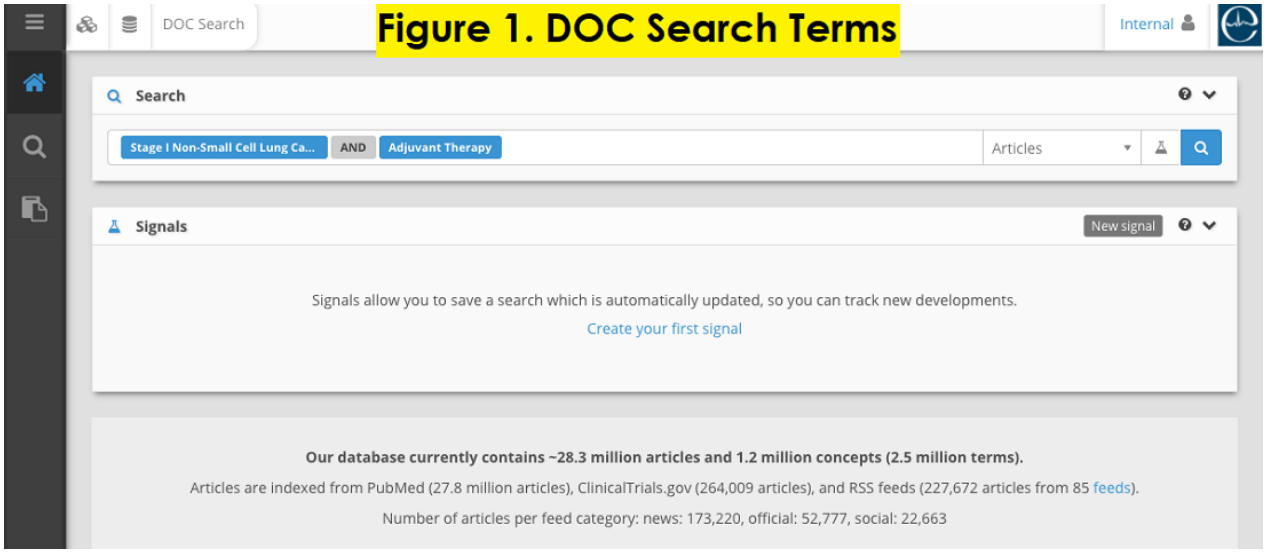

Figure 1. DOC Search Terms

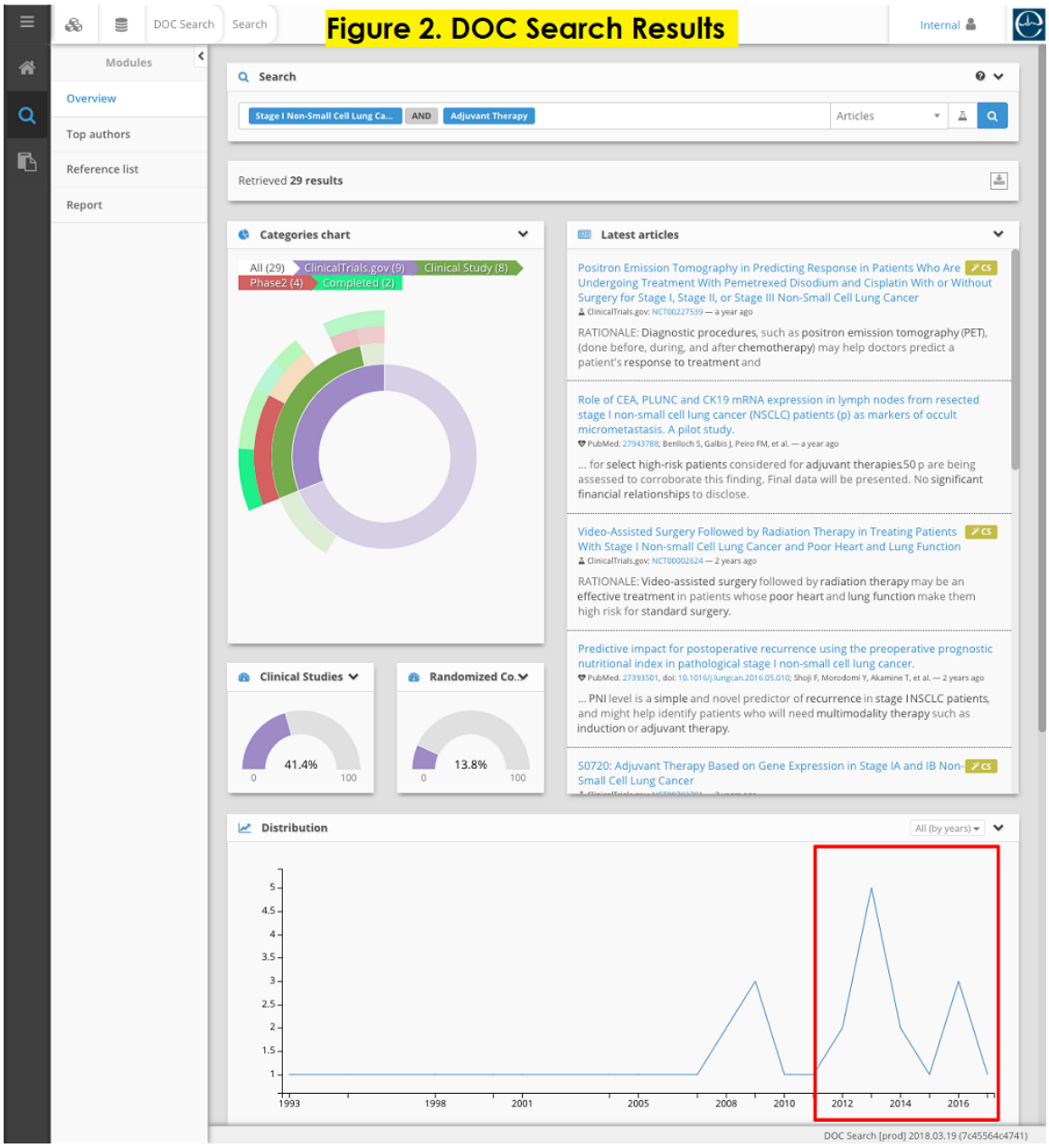

Figure 2. DOC Search Results

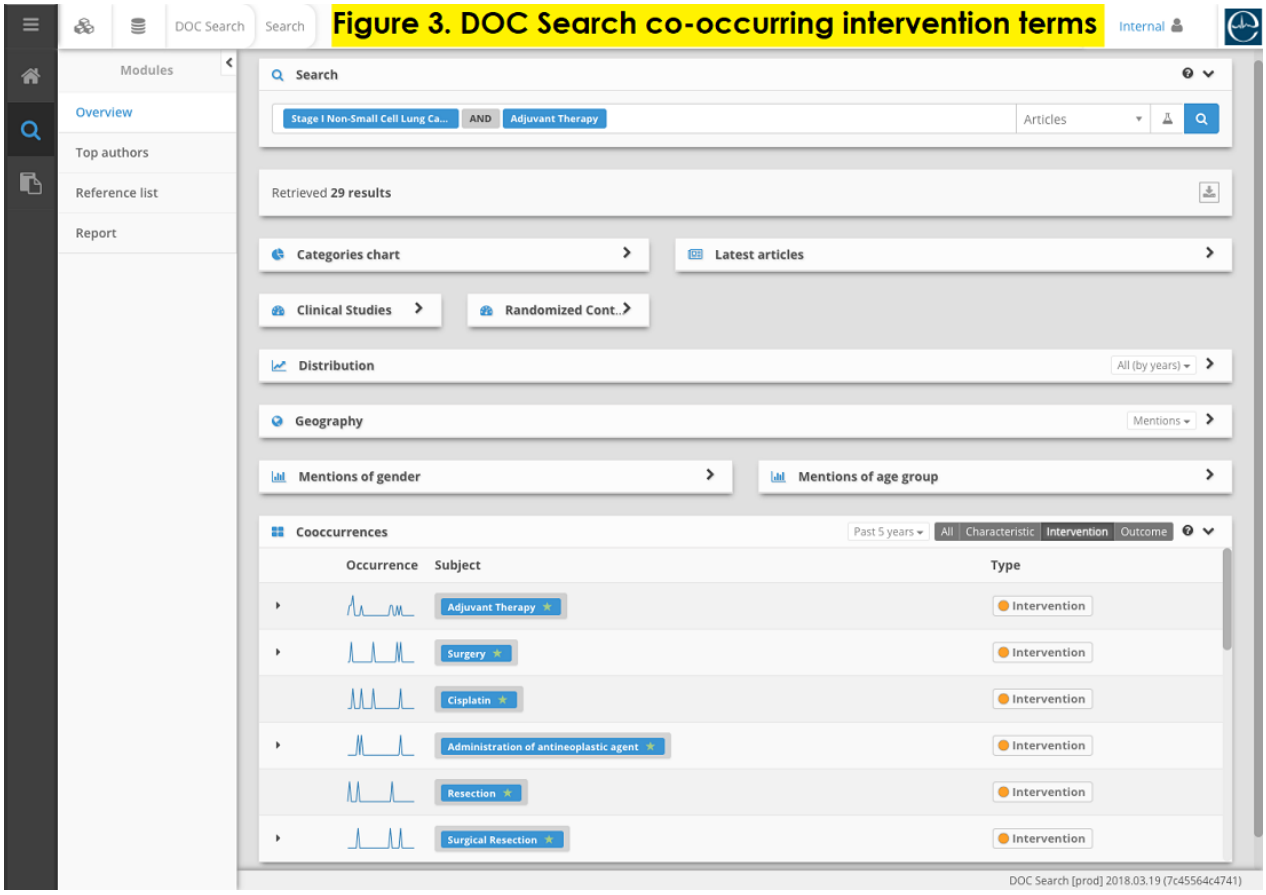

Figure 3. DOC Search co-occurring intervention terms

P145
ACUPUNCTURE VERSUS PLACEBO FOR ADULT ASTHMA: A SYSTEMATIC REVIEW AND META-ANALYSIS

Systematic reviewing and evidence synthesis
#P145

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Background & Introduction
Previous studies showed acupuncture would be a useful therapy for asthma. However different studies showed inconsistent results.

Objectives / Goal
To evaluate the effectiveness and safety of acupuncture for adult asthma.

Methods
Five English databases and four Chinese databases were searched from their inceptions to Aug 2016. RCTs which compared acupuncture with placebo or sham for adult asthma were included. Outcomes included lung function, asthma quality of life questionnaire (AQLQ), asthma control test (ACT), symptoms, exacerbation and medication usage. Meta-analysis was performed in RevMan 5.1.2. Cochrane Collaboration Tool and GRADE Summary of Findings were used to evaluate quality of evidence.

Results & Discussion
25,986 studies were found, and 11 studies involving 525 participants were included and only 9 can be merged in meta-analysis. Of these 11 studies, 4 were performed in China, others in UK, Korea, Australia, et al. Acupuncture improved forced expiratory volume in one second of the predicted value (FEV1%) (MD 3.14%, 95%CI 1.27,5.01) versus sham acupuncture. Compared with placebo, point application relieved symptoms (MD -1.55, 95%CI -2.04 to -1.06). Other outcomes showed no statistical significance. Most included studies were moderate or low quality. Adverse events were uncommon and mild.

Implications for guideline developers / users
Because lacking of blinding was considered as the most important among all bias factors, we only included control was sham or placebo and those studies were relatively rigorous. The evidence would be helpful for updated guideline of acupuncture for asthma.

Conclusion
Acupuncture has potential effects in FEV1% and symptom for adult asthma. More studies which focus on core outcomes are warranted in the future.

P146
APPLICATION OF GRADE FOR TEST-TREATMENT STRATEGIES: CHALLENGES AND POSSIBLE SOLUTIONS

Systematic reviewing and evidence synthesis
#P146

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Background & Introduction
GRADE is widely adopted in the development of clinical practice guidelines (CPG). Elaborated examples of appropriate use of GRADE for test-treatment strategies are scarce.

Objectives / Goal
To describe challenges and propose solutions related to evaluation of diagnostic tests for the purpose of developing guideline recommendations. This study serves as an example for methodologists that plan to use the GRADE approach for diagnosis.

Methods
In a systematic review, we created evidence profiles for the different steps in the test-treatment strategy, concerning the use of specific IgE-tests as add-on test in general practice in patients with complaints of allergic rhinitis. We assessed diagnostic accuracy, test burden, treatment effectiveness, natural course, and the link between test accuracy and management using the GRADE approach for test-treatment strategies. During the study, we systematically collected methodological and feasibility issues and proposed solutions.

Results & Discussion
The quality of the evidence in all steps of the test-treatment strategy appeared to be modest. In addition, we hardly could find any evidence about the natural course of the disease and the link between test accuracy and management. To solve these gaps in knowledge, we proposed to consult a panel of experts. Due to scattered and heterogenous pieces of evidence, the interpretation of the overall quality of evidence was complex. We discussed pros and cons of the different possible solutions.

Implications for guideline developers / users
When considering the downstream consequences of a test, guideline methodologists can benefit from the proposed options when interpreting the value of diagnostic tests.

P147
ARE SYSTEMATIC REVIEWS IN THE FIELD OF BARIATRICS RELIABLE? PRELIMINARY RESULTS OF CROSS SECTIONAL SYSTEMATIC SURVEY

Systematic reviewing and evidence synthesis
#P147

M. Storman [1], D. Storman [2], M.J. Swierz [2], K. Jasinska [2], M.M. Bala [3]
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Background & Introduction
Systematic reviews (SR) and meta-analyses (MA) are considered to be reliable sources of information. Their quality is of importance to guideline developers and can be assessed using two tools: AMSTAR 2 and ROBIS.

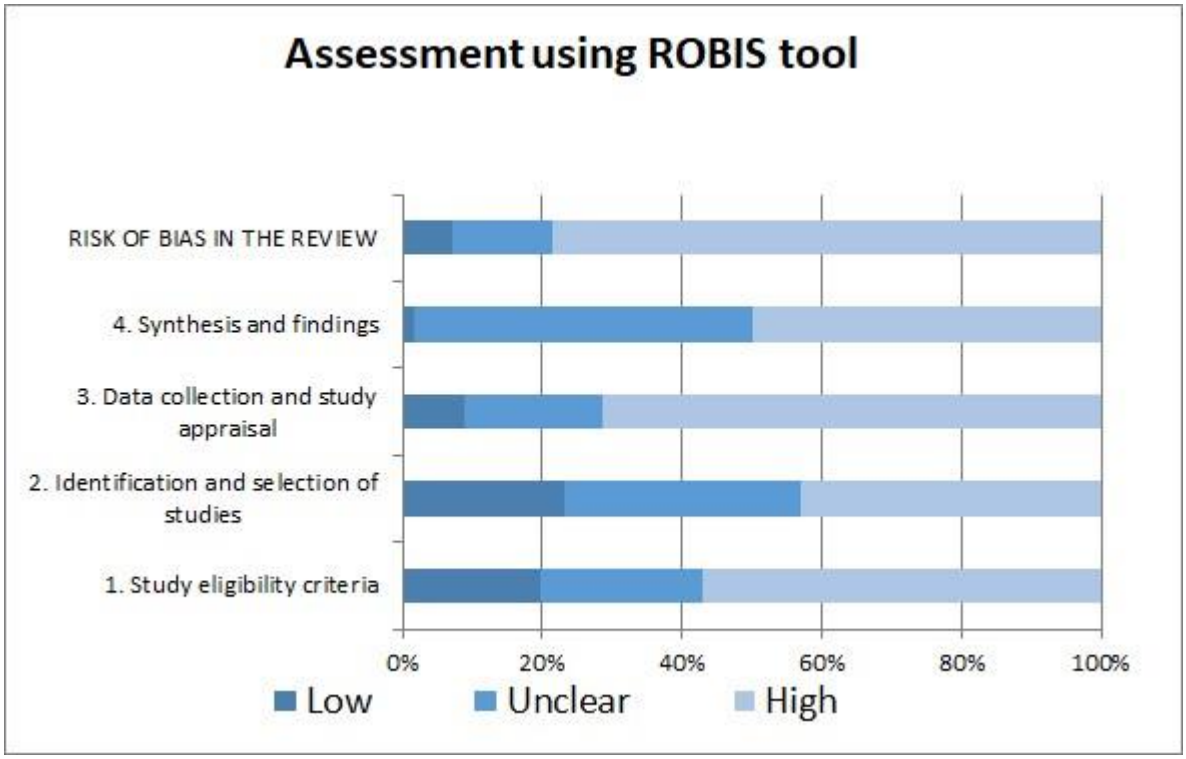
Objectives / Goal
To assess the quality of studies published as SR or MA in the field of bariatrics (BS) in 2016-2017.

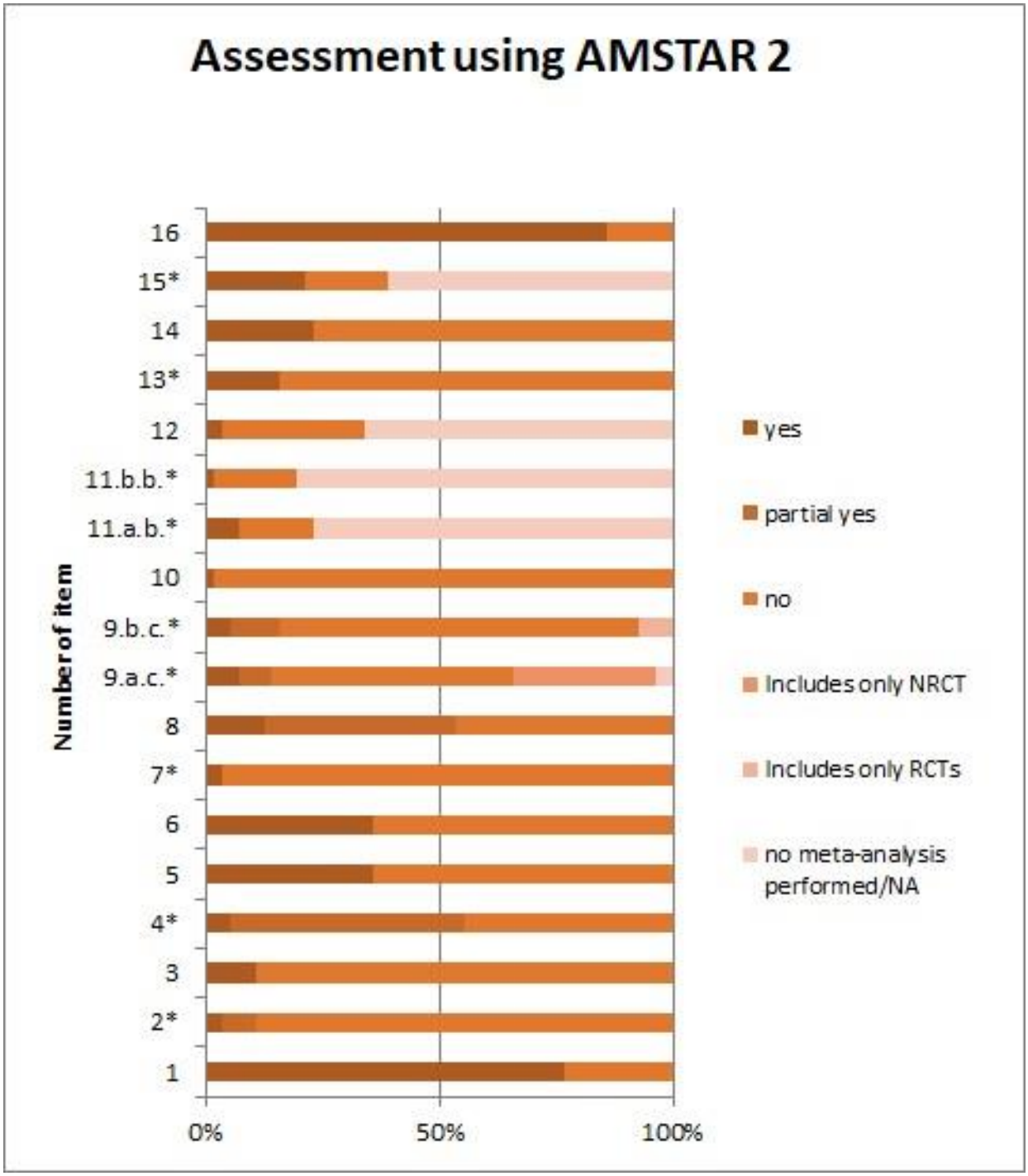
Methods
Following a protocol published in PROSPERO (CRD42017080394) we identified SR and MA in BS by searching of 3 databases using prespecified search strategy. Two authors independently: reviewed all titles and abstracts, assessed full texts of potentially eligible studies and are extracting the data and assessing the quality of included studies using tools: AMSTAR 2 and ROBIS, any discrepancies are resolved with discussion and help from the third reviewer.

Results & Discussion
Out of 4084 identified papers we finally included 74. Preliminary results (56 studies): of ROBIS (Fig.1.) overall assessment: 14.3% of studies assessed to be at low risk, 7.14% - unclear and 78.6% at high risk. Minority of studies were assessed as high quality in AMSTAR 2 (Fig.2): decisions as "yes" (denotes a positive result) in critical domains were: in item 2 - 3.6%, 4 - 5.4%, 7 - 3.6%, 9 - 12.5%, 11 - 8.9%, 13 - 16.1% and in item 15 - 21.4%.

Implications for guideline developers / users
We highly recommend that users of SR and guideline developers pay attention to the methodological quality of SR and MA used as basis for decision or recommendation in BS.

Conclusion
The quality of studies published as SR and MA in 2016-2017 in BS is highly unsatisfactory.


Assessment using ROBIS tool
RISK OF BIAS IN THE REVIEW
4. Synthesis and findings
3. Data collection and study appraisal
2. Identification and selection of studies
1. Study eligibility criteria
0%
20%
40%
60%
80%
100%
Low
Unclear
High


Assessment using AMSTAR 2
Number of item
16
15*
14
13*
12
11.b.b.*
11.a.b.*
10
9.b.c.*
9.a.c.*
8
7*
6
5
4*
3
2*
1
0%
50%
100%
yes
partial yes
no
Includes only NRCT
Includes only RCTs
no meta-analysis performed/NA

P148
CORE OUTCOME SET USE ACROSS NICE GUIDANCE PRODUCING DIRECTORATES AND TEAMS; KNOWLEDGE, FACILITATORS AND BARRIERS

Systematic reviewing and evidence synthesis
#P148

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Background & Introduction
Outcome selection and measurement across the evidence ecosystem (research through to routine clinical practice) is highly variable. This limits evidence synthesis and presents challenges to guidance developers when aggregating evidence to inform decision making on treatment options. Inconsistency in outcome selection also highlights a larger issue: that often, clinical research and policy decisions based on research may not be addressing the outcomes that matter most to patients, clinician practitioners and payers. Core outcome sets (COS) which generally define both patient and clinically relevant outcomes/measures present a solution.

Objectives / Goal
To explore the collaborative use of COS at NICE and engage teams with COS's potential for standardisation, consistency, and transparency of outcome selection and measurement to support decision making.

Methods
An online survey, individual discussion with key lead individuals, analysis of current methods guides and a workshop with technical staff from across directorates at NICE was undertaken in late 2017.

Results & Discussion
Knowledge in relation to COS varied by directorate, team and staff technical level. Barriers, solutions, and processes to facilitate a systematic approach for COS at NICE were identified.

Implications for guideline developers / users
COS could improve the relevance and consistency of outcome selection and measures both within an organisation and across the evidence ecosystem enabling enhanced pooling of data and aiding decision making.

Description of the best practice
The use of good quality peer reviewed COS for outcome selection allows the incorporation of a wider range of stakeholders views based on formal consensus methodology that potentially exceeds guideline committee perspectives.

P149
DEVELOPING GEOGRAPHIC SEARCH FILTERS FOR USE IN SYSTEMATIC LITERATURE SEARCHES TO RETRIEVE EVIDENCE ABOUT A SPECIFIC GEOGRAPHIC REGION

Systematic reviewing and evidence synthesis
#P149

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NICE - Manchester (United Kingdom)

Background & Introduction
Search filters are regularly used in literature searches to retrieve specific types of evidence for guidelines. Geographic search filters aim to retrieve evidence about specific geographic regions. Only 3 high quality geographic search filters to retrieve evidence about Africa, Spain and the United Kingdom (UK) have previously been developed. Using the presenters' experiences of developing geographic search filters for the UK, this presentation will describe how geographic search filters for other regions can be created.

Objectives / Goal
To provide knowledge of methods to develop geographic search filters.

Methods
The relative recall method was used to develop the UK geographic search filters for use in MEDLINE and Embase (OVID). Additional case studies were used to assess their effectiveness in retrieving evidence about the UK.

Results & Discussion
The filters successfully retrieve evidence about the UK. Since their development they have been used in literature searches at NICE for topics with a UK focus. For these topics, the filters have reduced the number of search hits retrieved by between 78% and 92% which has significantly reduced the time needed to select evidence for NICE guidelines.

Implications for guideline developers / users
Using geographic search filters in literature searches can save time when evidence about a specific geographic region is required.

Conclusion
Guideline developers can apply our experience to create their own geographic search filters.

P150
DEVELOPMENT OF A QUALITY ASSURANCE FRAMEWORK FOR EVIDENCE GENERATION TO SUPPORT TO CLINICAL GUIDELINE DEVELOPMENT GROUPS

Systematic reviewing and evidence synthesis
#P150

M. O'neill [1], P. Carty [1], B. Clyne [2], P. Harrington [1], S.M. O'neill [1], C. Teljeur [1], B. Tyner [1], S. Smith [2], M. Ryan [1]
[1]HIQA - Dublin (Ireland), [2]RCSI - Dublin (Ireland)

Background & Introduction
The Health Research Board funded Collaboration in Ireland for Clinical Effectiveness Reviews (HRB-CICER) was established in 2017 to independently review evidence and provide scientific support for Ireland's National Clinical Effectiveness Committee. To ensure high-quality evidence-based recommendations, it is essential that the processes used to support the development of clinical guidelines and clinical audit standards are thorough and adhere to best practice.

Objectives / Goal
The objective was to develop a quality assurance framework (QAF) that is based on international best practice in guideline development, production of systematic reviews and budget impact analysis.

Methods
International best practices in guideline development, systematic reviewing and budget impact analysis were reviewed. These were compared with the National Clinical Effectiveness Committee guideline developers' manual, national guidelines on health technology assessment, budget impact analysis (BIA) and interpretation of economic evaluations. These sources were synthesised to create the QAF. The first version was reviewed and agreed by national and international methodology experts in December 2017. It is a live document, formally updated and reviewed annually.

Results & Discussion
The QAF covers the following domains; protocol development, project management, systematic reviewing; BIA; report writing and communication. It provides prescriptive guidance and checklists. HRB-CICER team members document any deviations from the QAF highlighting why deviations occurred and the QAF is updated when necessary.

Implications for guideline developers / users
Development and use of a comprehensive QAF that documents the processes and methodology underpinning the scientific support provided should support the consistency, completeness, reproducibility, accuracy and efficiency of HRB-CICER evidence synthesis to support national guideline and audit development in Ireland.

P151
FINDING THAT PAPER IN THE LITERATURE HAY STACK: STRATEGIES AND WORKFLOW FOR FINDING KEY PAPERS IN GUIDELINE SYSTEMATIC REVIEWS

Systematic reviewing and evidence synthesis
#P151

A. Chetcuti
Cancer Council Australia - Sydney (Australia)

Background & Introduction
Evidence-based clinical guidelines are reliant on finding literature within scope of a clinical question.

Objectives / Goal
To find key papers which address the following clinical questions: what is the risk-benefit ratio for use of aspirin for prevention of colorectal cancer stratified by risk of colorectal cancer itself, and what is the optimal dose and frequency of administration?

Methods
A systematic review was performed to answer these clinical questions. A PICO table was developed to define the scope of the clinical question, and a search strategy developed that included the terms ‘colorectal cancer’ and ‘aspirin’. Databases searched were PubMed, Embase, Cochrane Database of Systematic Reviews, DARE, HTA, PsycINFO, and CINAHL for literature published from 1/01/2004 to 31/08/2016. Database results were imported into a reference manager file and duplicate studies deleted. A web-based screening tool was used to efficiently review article titles for potential relevant studies. Potential articles were then downloaded.

Results & Discussion
Across the searched databases, 2713 articles were reviewed. A total of 10 clinical trials reported in 17 articles met the inclusion criteria. Removing duplicate publications across databases and screening article titles efficiently without missing key papers are important aspects when literature searching systematically.

Conclusion
Key strategies and methods are important in finding key papers that can potential answer a specific clinical question efficient, in a timely manner. Screening thousands of articles is not only very time consuming, but the fatigue from doing so can potentially cause key papers to be missed, among a ‘hay stack’ of irrelevant literature.

P152
MALARIA GUIDANCE FOR UK TRAVELLERS ABROAD: SYSTEMATIC METHOD TO ALLOW 1) ESTIMATION OF RISK AND 2) CLEAR AND TRANSPARENT COMMUNICATION

Systematic reviewing and evidence synthesis
#P152

J. Munro, C. Redman
Health Protection Scotland - Glasgow (United Kingdom)

Background & Introduction
Since the 1970s travel abroad from the UK has increased from 5 million to over 60 million journeys annually. For over 30 years TRAVAX has provided online health guidance to support health professionals and travellers in managing infectious and non-infectious risks in 300 countries and territories.

Objectives / Goal
To develop a method allowing reproducible and transparent production of guidance on malaria risk for travellers and health professionals.

Methods
Evidence-based criteria were developed based on 1) estimation of malaria incdidence at national, Admin1 (equivalent to US State), and/ or Admin 2 (equivalent to US County) levels, 2) estimation of malaria incidence among UK travellers, and 3) evidence of chemoprophylaxis resistance. Epidemiogical assessments led to development of a range of risk maps, reflecting variation across each country, considering more or less cautious scenarios. These were presented to an expert group (Scottish Malaria Advisory Group) for consideration, criticism and consensus decision-making; which in turn led to published guidance.

Results & Discussion
Since 2014, risk/ advice for 35 countries has been reviewed using this method In all cases the risk to travellers has decreased, reflecting roll-back malaria campaigns. Brazil is an example showing risk before (Fig 1) and after (Fig 2) review. All recommendations are comprehensive, recognising in-country variation, resistance and other risk factors.

Implications for guideline developers / users
A clear, systematic method allows for efficiency in guidance review and also clarity in communications with TRAVAX users regarding rationale and evidence.

Conclusion
The use of a systematic method has increased efficiency of review, ease of communication and confidence in the final guidance developed.

Low to no risk antimalarials not usually advised

High risk antimalarials usually advised

Surrounding countries with malaria risk

This map is only intended as a guide and is not exact. The map must always be used in conjunction with the malaria advice text. Bite avoidance measures should be taken in all areas.

Click on an icon below for additional country information

Regional Information

Major Airports

Major Railways

Low to no risk antimalarials not usually advised

Low risk with additional advice – see text

High risk antimalarials usually advised

Surrounding countries with malaria risk

The map must always be used in conjunction with the malaria advice text.

This map is only intended as a guide and is not exact. Bite avoidance measures should be taken in all areas.

Click on an icon below for additional country information

Regional Information

Major Airports

States and Provinces

P153
NICE AND COCHRANE – ANY DIFFERENCE IN EVIDENCE SYNTHESIS METHODS AND INTERPRETATION?

Systematic reviewing and evidence synthesis
#P153

L.Y. Chong [1], S. Ftouh [2], R. O'mahony [3], S. Cox [4], A. Schilder [5], P. Kitterick [5], M. Ferguson [5], M. Burton [5]

[1]Ateimed Consulting/Cochrane - London (United Kingdom), [2]NGC - London (United Kingdom), [3]NICE - London (United Kingdom), [4]Cochrane ENT - Oxford (United Kingdom), [5]Cochrane ENT - London (United Kingdom)

Background & Introduction
NICE and Cochrane produce systematic reviews for interventions based on Cochrane and GRADE recommended methods. Both organisations also prioritise areas that impact on patient care and strive to use patient important outcomes. Therefore, there is an opportunity to work together. Insight into the methods used by NICE and Cochrane will facilitate such collaborations.

Objectives / Goal
To compare the evidence synthesis methods and interpretation of NICE and Cochrane.

Methods
We compared the methods prescribed by the NICE Guideline Manual to those in the Cochrane Handbook and MECIR guidelines for systematic reviews of interventions.

Results & Discussion
Both organisations have nearly identical review methods. Minor differences were identified in:
1) Types of evidence/studies searched for/used
2) Abstract screening and data extraction process
3) GRADE application and evidence interpretation.
The key difference is that NICE's reviews and ratings are focused on the NHS, whereas Cochrane reviews have an international focus and therefore some value judgements such as important thresholds of benefit and harms are left to the users.

Implications for guideline developers / users
If the current Methodological Expectations of Cochrane Intervention Reviews (MECIR) are met, other factors such as currency of the evidence (age of the review) and the choice or definition of PICO elements are likely to affect whether Cochrane reviews could be used as the main evidence in NICE guidelines.

Conclusion
NICE and Cochrane share nearly identical methods for conducting systematic reviews. Therefore, close collaboration between Cochrane and NICE is possible, and this has important benefits including avoiding duplication of work and optimising resources for the benefit of patients.

P154
POOLING EVENT COUNT DATA REPORTED IN DIFFERENT FORMATS

Systematic reviewing and evidence synthesis
#P154

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[1]University of Bristol - Bristol (United Kingdom), [2]National Clinical Guideline Centre - London (United Kingdom), [3]University of Missouri - Columbia (United States of America)

Background & Introduction
Randomised controlled trials often report event count data in different ways, particularly when multiple events can be observed on each individual. For example, the number of patients with at least one event out of all randomised, the number of events for a given exposure time, and the relative risk or hazard of an event in one group compared to another may be reported in different studies.

Objectives / Goal
To combine the different data types in a single network meta-analysis to avoid the loss of relevant data.

Methods
Using example data from the NICE T1 Diabetes and Chronic Obstructive Pulmonary Disease (COPD) guidelines we show how data on severe hypoglycaemic events and COPD exacerbations, respectively, can be combined using a Bayesian shared parameter model.

Results & Discussion
The use of a shared parameter model avoids losing up to half the relevant data in the COPD (6/13 studies) and a fifth of the data in the Diabetes (4/20 studies) examples, allowing for more precise estimates of the effects of treatments on these conditions under reasonable assumptions.

Implications for guideline developers / users
Use of advanced methods such as shared parameter models to combine data when an outcome is reported in different ways should be considered.

Conclusion
Traditional methods for meta-analysis may lead to large amounts of evidence being discarded or analysed separately making it hard to form a coherent decision. Shared parameter models can pool all relevant evidence in a coherent way.

Description of the best practice
Using shared parameter models ensures that results are as reliable as possible by making the best use of all relevant evidence.

P155
POPULATION SELECTION FOR DRUG TRIALS BASED ON PREVIOUS TREATMENT: IMPACT ON META-ANALYSES AND IMPLICATIONS FOR GUIDELINES

Systematic reviewing and evidence synthesis
#P155

R. Boffa, J. Gilbert
National Guideline Centre - London (United Kingdom)

Background & Introduction
Clinical trial enrichment methods, involving selection of participants most likely to respond to treatment, is a growing area of concern within evidence-based practice. Multiple NICE guidelines have encountered an issue of 'responder criteria' in pharmacological trials, which has led to questions of their suitability for inclusion in systematic reviews. Trials using this enrichment method could over-estimate the true efficacy of treatment in the general population. An analysis of this over-estimation could provide a clear precedent and justification for, where appropriate, excluding these trials from guideline decision-making.

Objectives / Goal
The effects of population selection based on previous treatment were investigated using the example of the recent NICE ADHD guideline.

Methods
Studies comparing ADHD medication to placebo were investigated for heterogeneity based on their population selection. Studies were categorised into those including: (1) the explicitly drug naïve (2) unclear population (3) excluding known non-responders (4) only responders (implicit methods) and (5) only responders (explicit methods).

Results & Discussion
There appears to be moderate heterogeneity between the subgroups (I^2=78.7%), however there may not be as a clear dose response effect as expected. Further analysis with greater numbers of studies across other disease areas is planned. Inclusion criteria that, explicitly or otherwise, select a population that does not reflect the population that treatment is designed for results in flawed evidence for recommendations. Quantifying the effect of enrichment methods is challenging but it is important that guideline developers at least keep the direction of effect in mind when considering evidence.

P156
QUALITATIVE STUDIES: VALIDATION OF A NEW RISK OF BIAS CHECKLIST

Systematic reviewing and evidence synthesis
#P156

R. O'mahony [1], S. Swain [2]
[1]NICE (National Institute for Health and Care Excellence) - London (United Kingdom), [2]National Guideline Centre - London (United Kingdom)

Background & Introduction
Although there are a handful of validated risk of bias critical appraisal checklists available for qualitative studies, they are often long, time-consuming and difficult to apply, and some domains overlap with each other.

Objectives / Goal
To validate a newly developed risk of bias checklist, the NGC-Q, for qualitative studies: to see if it is simpler and quicker to use than current checklists, and has clearer and discrete domains; with the aim of making the implementation of the new CERQual system easier.

Methods
A validation study will be conducted using 3 randomly selected published qualitative studies. 8 independent researchers experienced at reviewing qualitative studies will apply the new and a current validated checklist, and record their results. This step will be repeated 2 weeks later. Feedback will be sought based on open ended questions about the checklist, its usability and the time taken to complete it.

Results & Discussion
The validity and reliability of the checklist will be assessed using statistical measures, including assessment of inter-rater and test-retest reliability, and its performance will be compared to the current validated checklist.

Implications for guideline developers / users
Improved accuracy in critically appraising the risk of bias in qualitative studies

Conclusion
If the findings show that the new checklist is valid, reliable, user friendly and performs equally or better than the current checklist, then publication will be sought. If its performance is found to be inadequate, areas of inconsistency will be identified and the checklist will be further refined based on the feedback received from the reviewers. The amended checklist will then undergo a revalidation process

P157
STREAMLINING THE SYSTEMATIC REVIEW PROCESS BY USING STRUCTURED TEMPLATES FOR REVIEW PROTOCOLS: EXPERIENCE WITH JBI SUMARI

Systematic reviewing and evidence synthesis
#P157

Z. Munn, E. Aromataris, C. Stern
The Joanna Briggs Institute - Adelaide (Australia)

Background & Introduction
There now exist many different types of systematic review approaches, all which require slight deviations from the traditional effectiveness review approach. This may be off-putting for novice reviewers who may require further guidance in structuring their review protocol and question. Systematic review software may be able to support this process.

Objectives / Goal
To develop a software program to streamline the review process in terms of protocol development by using standard and customisable templates.

Methods
An agile software development approach was taken with a particular emphasis on ongoing collaboration between the end users and software developers. Throughout the development an international user group provided feedback on the software functionality to enable iterative changes throughout the development process.

Results & Discussion
The software is now available and supports protocol development and customisation for different review types. This will hopefully streamline the review process, paritcuarly for novice systematic reviewers.

Implications for guideline developers / users
This is a useful piece of software for guideline developers to structure protocols and research questions.

Conclusion
An agile software development approach combined with wide consultation and user testing can facilitate systematic review software design and development. SUMARI is designed to assist researchers and practitioners in fields such as health, social sciences and humanities to conduct systematic reviews. This new software can support systematic reviews and guideline developers to create systematic reviews for a diverse range of questions.

P158
SYNTHESISING DIFFERENT MEASURES OF RESPONSE

Systematic reviewing and evidence synthesis
#P158

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University of Bristol - Bristol (United Kingdom)

Background & Introduction
In psychiatric randomised controlled trials (RCTs), treatment response may be reported as a binary status or as a continuous measure (e.g., score on a scale). Under certain assumptions, RCTs reporting response in either format may be combined in a meta-analysis to maximise use of all available evidence.

Objectives / Goal
To illustrate how and when it is appropriate to combine response data reported on a binary or continuous scale.

Methods
A log odds ratio of response may be converted to a standardised mean difference of average scores on a continuous scale under the assumption that response is defined by a cut-off from the continuous scale which has an underlying normal distribution. We illustrate how to empirically assess the suitability of this transformation using data from two NICE guidelines: depression in adults and post-traumatic stress disorder (PTSD).

Results & Discussion
Studies reporting response on both binary and continuous scales are used to compare reported and transformed effect sizes. The transformation is reasonable for the depression data, but not the PTSD data. In the PTSD guideline, response status was based on a clinical definition and not always on a cut-off from a continuous scale.

Implications for guideline developers / users
When extracting response data, consider how response is defined and whether binary and continuous data should be pooled.

Conclusion
Theoretical and empirical checking of assumptions is essential when different types of data are combined in a meta-analysis.

Description of the best practice
Methods for combining outcome data reported in different formats allow more evidence to be included in the meta-analysis but should only be used if the assumptions are met.

P159
SYSTEMATIC ASSESSMENT OF LOW-VALUE CARE PRACTICES IN NURSING GUIDELINES

Systematic reviewing and evidence synthesis
#P159

E. Verhoof [1], S. Van Dulmen [2], T. Kool [2], G. Huisman-Dewaal [2], H. Vermeulen [3], E. Verkerk [4], A. Nijboer [5]

[1]dr. - Utrecht (Netherlands), [2]dr. - Nijmegen (Netherlands), [3]Prof - Nijmegen (Netherlands), [4]Msc. - Nijmegen (Netherlands), [5]Msc. - Utrecht (Netherlands)

Background & Introduction
Low-value care provides little or no benefit for the patient, causes harm and wastes limited resources. Reducing it is therefore important for safer and more sustainable nursing care.

Objectives / Goal
To perform a systematic assessment of nursing guidelines to provide insight into low-value care practices in Dutch clinical practice.

Methods
Dutch clinical practice guidelines were screened for recommendations stating that specific nursing care should be avoided. We combined similar recommendations and categorized them by specialty-related groups of nurses and settings.

Results & Discussion
We found 66 nursing recommendations that should be left undone in 125 practice guidelines. Most recommendations were relevant for the intensive care nurses (n=23) and those working in a hospital care setting (n=49). The quality of recommendations was not always accurate. The recommendations were sometimes formulated ambiguously and it was not possible to analyze the level of evidence of the recommendations while it was often not reported.

Implications for guideline developers / users
Guidelines have an important role in guiding professionals in providing good quality of care and to reduce unnecessary care. The do-not-do list can be used for implementation strategies to reduce low-value-care. For guideline developers it is important to use clear wording, and include the level of evidence of the recommendations in the guidelines.

Conclusion
This is the first systematical assessment of low-value care practices in nursing guidelines. The next step is to spread the list to create awareness of low-value care amongst nurses, ignite the dialogue on de-implementation of low-value care and facilitate quality improvement projects to start quantifying and reducing nursing low-value care.

P160
THE PROCESS OF A MIXED-METHODS SYSTEMATIC REVIEW: INTEGRATING QUANTITATIVE AND QUALITATIVE FINDINGS TO INFORM A NATIONAL CLINICAL GUIDELINE (NCG)

Systematic reviewing and evidence synthesis
#P160

S.M. O Neill [1], M. O Neill [1], B. Clyne [2], S.M. Smith [3], M. Ryan [3]
[1]HIQA - Cork (Ireland), [2]HIQA - Dublin (Ireland), [3]RCSI - Dublin (Ireland)

Background & Introduction
Systematic reviews are the gold standard for closing the gap between research and policy. Often systematic reviews conclude there is insufficient evidence to answer the question and inform decision-makers. A mixed-methods review strives to address this.

Objectives / Goal
To conduct a mixed-methods systematic review synthesizing quantitative data regarding clinical and cost-effectiveness of early warning systems [EWS] (synthesis 1) and qualitative data on the barriers/facilitators to implementing them (synthesis 2) in hospitals.

Methods
A systematic search of peer-reviewed and grey literature was conducted (February 2018). Two reviewers screened titles, extracted data, quality appraised and synthesised evidence independently. The process of this mixed-methods review is discussed in detail.

Results & Discussion
We conducted two syntheses (Figure 1) and used them to create a third synthesis. Throughout the process we applied the same principles across the studies but used different methods for each type. Step one: data extraction using a standard protocol that varied by type of study to capture different types of data. Step two: quality appraisal where we examined the methodological components of the studies. Step three: to synthesise the evidence, a narrative synthesis was used for the quantitative studies and a thematic synthesis for the qualitative studies. We integrated the two types of findings by using the analytic themes from synthesis 2 (qualitative) to interpret synthesis 1 (quantitative), producing synthesis 3, to inform recommendations.

Implications for guideline developers / users
By including various evidence types, mixed-methods reviews aim to maximise findings, informing decision-making.

Conclusion
This mixed-methods review helped inform a NCG and support the implementation of the EWS in acute hospitals in Ireland.

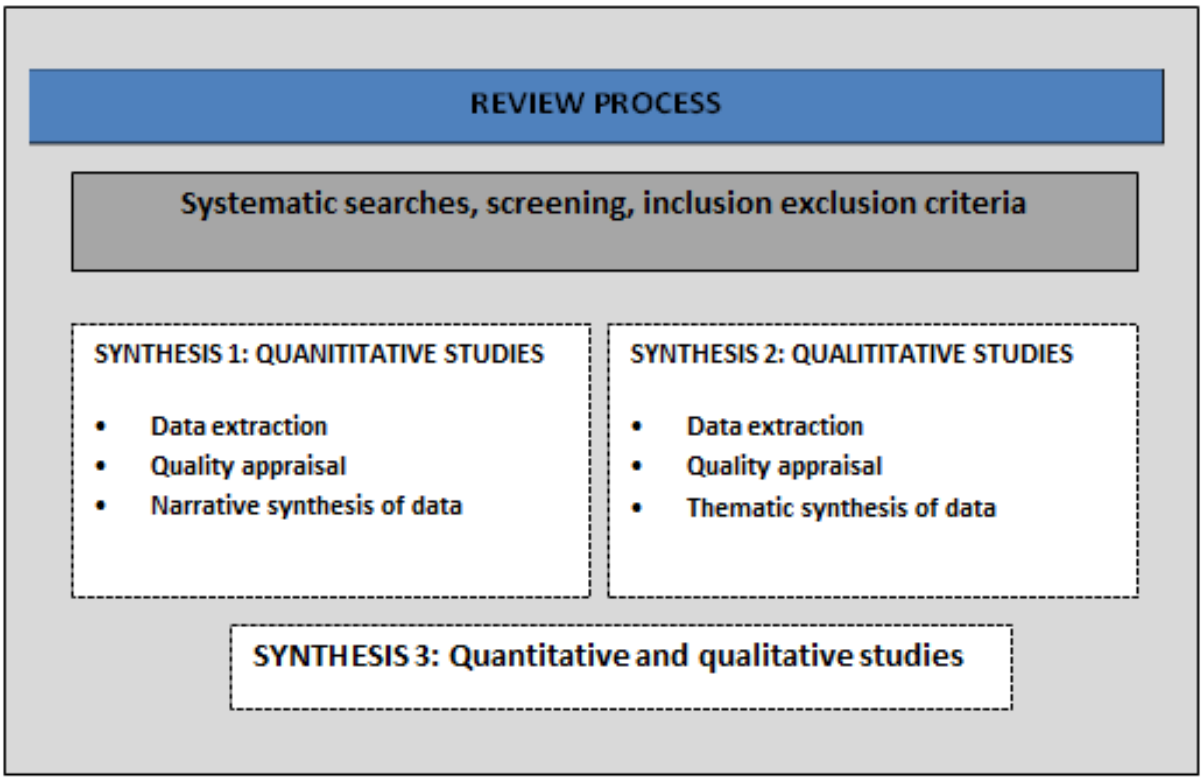

Figure 1: Sample Process for a Mixed-Methods Systematic Review

P161
THE USE OF CAMPBELL SYSTEMATIC REVIEWS IN NICE GUIDELINES

Systematic reviewing and evidence synthesis
#P161

P. O'neill [1], N. Taske [1], P. Alderson [1], H. White [2], C. Mulvihill [1]
[1]NICE - Manchester (United Kingdom), [2]Campbell Collaboration - Oslo (Norway)

Background & Introduction
Each NICE guideline poses a series of review questions that are addressed by systematic reviews. Guideline developers routinely search for existing relevant systematic reviews. Historically NICE clinical guidelines have made extensive use of Cochrane Reviews. NICE is now developing an increasing number of guidelines in public health and social care, providing opportunities to make use of Campbell Systematic Reviews when developing guidelines in areas of social policy.

Objectives / Goal
To assess the extent to which Campbell Systematic reviews are currently used in NICE clinical, public health and social care guidelines and the challenges and opportunities of making better use of Campbell Systematic Reviews in future.

Methods
NICE guidelines were reviewed to assess how Campbell Systematic Reviews have been used in guidelines to date. Discussions were also held with the Campbell Collaboration to explore how NICE and the Campbell Collaboration can better align our respective work programmes.

Results & Discussion
We will present findings on how Campbell Systematic Reviews have been used in NICE guidelines and some of the challenges and opportunities for making better use of these reviews in future. This could include making better use of the knowledge contained in Campbell Systematic Reviews when we draw up the scope for guidelines and ensuring that Campbell Systematic Reviews and guideline questions are better aligned.

Implications for guideline developers / users
Guideline developers should consider developing relationships with relevant national and international partners to ensure efficient sharing and use of systematic reviews.

P162
TYPHOID GUIDANCE FOR UK TRAVELLERS ABROAD: RAPID REVIEW IN THE ABSENCE OF DATA ON EPIDEMIOLOGY

Systematic reviewing and evidence synthesis
#P162

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Health Protection Scotland - Glasgow

Background & Introduction
Typhoid is endemic in much of Asia, Africa, Middle East, Latin America and the Caribbean; being one of several waterborne diseases posing major health problems in developing countries and especially affecting children. While a vaccine of low efficacy exists, it was considered possible that guidance over-estimated typhoid risk for travellers to these areas.

Objectives / Goal
To perform a rapid review of typhoid risk to travellers, prior to developing proportionate recommendations.

Methods
The method consisted of:
1) rapid review of evidence from peer-reviewed publications and national surveillance;
2) risk assessment consisting of a) hazard identification, b) exposure assessment, c) effects assessment, and d) risk characterisation; and
3) judgment by clinical group leading to recommendations

Results & Discussion
There was a lack of current surveillance data for countries for affected countries. Five peer-reviewed reviews estimating national and global incidence based on historic publications and access to improved water supply were assessed as was a comprehensive review conducted by Public Health Agency of Canada. Surveillance data on typhoid diagnosed in the UK provided an estimate of disease among UK travellers.

Implications for guideline developers / users
The risk assessment led to a reduction in the number of countries where typhoid vaccination is routinely recommended for UK travellers.

Conclusion
The lack of surveillance data and uncertainty surrounding typhoid epidemiology in resource-poor countries was cause for concern; accurate estimates of typhoid are certainly required to allow proportionate in-country public health action. However, in the context of travel-related guidance, consideration of hazard and exposure factors, with a cautious approach due to epidemiological uncertainty, allowed the development of recommendations.

P163
USE OF TEST ACCURACY STUDY DESIGN LABELS IN NICE'S DIAGNOSTIC GUIDANCE

Systematic reviewing and evidence synthesis
#P163

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Background & Introduction
Although there are a variety of approaches to evaluating the accuracy of tests, the terms used to describe these approaches are limited and lack standardization. We are investigating the use made of study design labels in the diagnostic guidance of one national policy making body, NICE.

Objectives / Goal
To describe the range of study design terms used and to investigate whether different weight is given to different study designs in the final guidance.

Methods
We will extend the approach used in past analysis of the methodological features of NICE guidance. All NICE Diagnostics Guidance and underpinning summaries of the evidence will be interrogated. We will abstract data on: the policy question addressed; the accuracy evidence and its inclusion criteria; the study design terms used to describe the evidence; the quality assessment process; sub-division by different study designs; and whether the final guidance recognized differences in study design. Analysis will be qualitative.

Results & Discussion
Earlier investigations suggest little use of study design terms to recognize differences in accuracy study design. We will extend these initial observations.

Conclusion
The lack of study design terms which quickly and reliably convey study designs which have different levels of intrinsic bias is an important barrier to good reporting of accuracy studies. However it is also critical for good secondary research. Without such terms all accuracy studies may be considered equal with quality assessment tools being the only means to recognize varying threat to validity arising from different study designs. These tools have not usually been designed for this purpose.

P164
WHAT IS THE EVIDENCE OF EFFECTIVENESS OF KNOWLEDGE TRANSLATION STRATEGIES FOR ALLIED HEALTH: A SYSTEMATIC REVIEW

Systematic reviewing and evidence synthesis
#P164

S. Kumar, E. Tian, R. Mumme
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Background & Introduction
While the importance of implementing evidence into practice is well recognised, there continues to be ongoing challenges in addressing evidence-practice gaps. In response to this several strategies have been trialled across a range of health professions, including allied health.

Objectives / Goal
The objective of this systematic review was to identify the evidence of effectiveness of knowledge translation strategies for allied health disciplines and its impact on patient, practitioner and the health system.

Methods
A systematic search was conducted across nine databases with language and date restrictions (PROSPERO registration -CRD42017058243). Grey literature searching, and pearling was undertaken to avoid publication bias. Methodological quality assessment was undertaken using the modified McMaster Critical Appraisal Tools. Customised data extraction forms were developed and descriptive synthesis undertaken.

Results & Discussion
Eleven studies of good methodlogical quality met the inclusion criteria with sampling and measurement bias. All studies utilised multimodal interventions with educational interventions being most commonly used. Intrinsic (knowledge, self-efficacy/behaviour change, confidence) and extrinsic factors (adherence, implementation, patient-related, costs) were common outcomes measured. While there was consistent evidence of improvement in knowledge, self-efficacy/behaviour change and adherence, evidence to support other outcomes was mixed.
Implications for guideline developers / users
How best to implement evidence into practice continues to be a “black box”. While there is some evidence of positive impact at the practitioner-level, evidence for wider impact is unclear in allied health.

Conclusion
Knowledge translation initiatives can have a positive impact for practitioners but its effect across systems is equivocal.

Description of the best practice
There is no “one size fits all” when it comes to knowledge translation initiatives in allied health.

P165
WHAT'S IN A QUESTION? RESOURCING EVIDENCE SYNTHESES

Systematic reviewing and evidence synthesis
#P165

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[1]NICE - London (United Kingdom), [2]National Collaborating Centre - London (United Kingdom)

Background & Introduction
NICE's Centre for Guidelines has an established programme for delivering high quality guidance, based on systematic reviews. A key function of this programme is to allocate sufficient resource to undertake these reviews.

Objectives / Goal
This research builds on a consensus meeting of guideline developers highlighting factors that determine how 'big' a systematic review might be, and explores relationships between the size of the evidence base estimated during scoping es to that finally included in an evidence review. The aim is to evaluate how informative such estimates are for informing resource planning.

Methods
A retrospective analysis of 50 review questions selected randomly from a convenience sample of 20 guideline topics where a scoping exercise has estimated in advance the likely volume of studies to be included.

Results & Discussion
Many factors might possibly impact on the size of a review question such as the number of interventions / comparators, subgroups and outcomes to be analysed. However, the work required to complete a review is ultimately determined by the availability of evidence to populate all the potential analyses. This analysis will demonstrate how frequently, and to what extent scoping searches underestimate or overestimate the size of the evidence base. Additional analysis may be possible (based on type of review question).

Implications for guideline developers / users
Given dwindling budgets for health technology assessment work, it is important to be able to estimate the resources an evidence review might require.

Conclusion
Producing accurate estimates of the evidence base for a review during scoping is a vital function in allocating analytical resource to complete systematic reviews.

P166
A SURVEILLANCE APPROACH TO UPDATING GUIDELINES: MAINTAINING RIGOR WHILE ENHANCING EFFICIENCY

Updating guidelines
#P166

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Background & Introduction
In 2012, the Orthopaedic Section, APTA updated Clinical Practice Guidelines (CPG) development and revision methods to align with international standards (IOM, GIN etc.) to increase transparency and systematic methods. Consensus has not been reached on methods for keeping guidelines current. The Orthopaedic Section piloted a consensus-based surveillance approach to allow certification of currency and to guide timing of a full revision for the Heel Pain - Plantar Fasciitis CPG.

Objectives / Goal
To evaluate the strengths and limitations of a consensus-based surveillance approach to CPG revision decision-making to maintain methodological rigor while reducing CPG development group workload.

Methods
A research librarian conducted a focused search to obtain high level evidence (RCTs and SRs) on the condition "heel pain". 2 independent reviewers screened full texts using the published CPG's inclusion/exclusion criteria. Evidence from included articles was extracted and summarized. Choice to certify existing recommendations or trigger full review was made based on voting and consensus discussion.

Results & Discussion
The search yielded 126 articles with 49 full texts meeting inclusion criteria: vastly less than a full systematic search, which yielded over 3,000 articles. Future work should explore thresholds for changes in recommendations to trigger full revision.

Implications for guideline developers / users
Updating approach should consider rate of change in the available evidence and the relevant benefits & harms.

Conclusion
A focused surveillance search combined with consensus decision-making may be a practical approach to reducing workload until a full update is warranted.

Description of the best practice
Focused search and consensus decisions to trigger full revision of guideline when resources are constrained and benefits and harms allow.

P167
A SYSTEMATIC REVIEW OF CLINICAL AUDITS OF EARLY WARNING SYSTEMS TO INFORM NATIONAL CLINICAL GUIDELINE UPDATES

Updating guidelines
#P167

B. Clyne [1], M. O Neill [1], K. Jordan [2], K. Power [3], S. O Neill [1], S. Smith [4], M. Ryan [1]
[1]HRB-CICER, HIQA - Dublin (Ireland), [2]HIQA - Dublin (Ireland), [3]Coombe Women and Infants University Hospital - Dublin (Ireland), [4]RCSI - Dublin (Ireland)

Background & Introduction
Clinical audit (CA) aims to improvie patient care and outcomes through structured review and evaluation of clinical care against explicit clinical standards –e.g. implementation and adherence to national clinical guidelines (NCG). CAs may represent an important evidence source to support guideline updates, however, such studies are often omitted from systematic reviews.

Objectives / Goal
To explore the utility of CA in informing the update of NCGs, using a systematic review of CAs of early warning systems (EWS) as an example.

Methods
A comprehensive electronic databases search (e.g. PubMed, EMBASE, MIDIRS, HMIC) and grey literature (e.g. websites, relevant stakeholders) was conducted from database inception to October 2017. Two reviewers independently assessed studiy eligibility according to inclusion criteria (i.e. evaluation of care against explicit clinical standards) and conducted data extraction. Audit-specific appraisal (risk of bias) tools are limited, therefore the Irish Health Service Executive (HSE) Clinical Audit Checklist was used to assess study reporting quality. A narrative summary was conducted.

Results & Discussion
From 2,363 studies screened we included 61 CAs (n=18 obstetric, n=10 paediatric, n=28 general in-patients, n=3 emergency department, n=2 mixed populations). Reported compliance rates with EWS were often poor (21-100%). The majority of CAs were poorly reported leading to challenges in critical appraisal.

Implications for guideline developers / users
CAs provide valuable information about the implementation of and adherence to NCGs. They are however, largely unpublished, difficult to identify in literature searches and poorly reported. Adherence to standardised reporting guidelines such as the SQUIRE statement may improve reporting, potentially allowing for the conduct of more robust systematic reviews to inform decision making.

P168
ALIGNMENT OF EXPERT RECOMMENDATIONS WITH THE DECISION TO UPDATE GUIDELINES

Updating guidelines
#P168

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Background & Introduction
All NICE Public Health guidelines are reviewed regularly to determine if they require updating; the decision is informed by a rapid evidence review, expert opinion and an overview of the policy landscape. If it is decided not to update a guideline, a consultation is undertaken. The relative weight of each of these components on the final decision to update is not known.

Objectives / Goal
To review alignment between topic expert opinions and the final decision to update public health guidelines.

Methods
Surveillance decisions for Public Health guidelines that received expert view through questionnaire between 2015 and March 2018 were reviewed. Alignment between expert opinion and the final update decision was assessed and the relative importance placed on the expert opinion was reviewed.

Results & Discussion
10 surveillance reviews received expert opinion, with the majority (8/10) receiving two responses. For nine guidelines, expert views and the surveillance decision were concordant. For one guideline, opinion between experts was divergent but the review concluded a need to update. For all guidelines, the decision to update was based primarily on finding new evidence that impacted on the recommendations, usually corroborated by topic experts. No significant changes in policy context were noted as key drivers for update.

Implications for guideline developers / users
Opinions of topic experts, though highly valuable, are inherently biased where a small sample is used. Wider consultation processes, as used by NICE on decisions not to update guidance, is useful in providing further validation and challenge to a decision to update a guideline.

Description of the best practice
Evidence review, expert opinion and wider consultation inform update decisions.

P169
APPLICATION OF IMPROVED METHODOLOGY FOR TIMELY GUIDELINE UPDATING

Updating guidelines
#P169

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Scottish Dental Clinical Effectiveness Programme - Dundee (United Kingdom)

Background & Introduction
Reports of osteonecrosis of the jaw in patients taking bisphosphonate drugs emerged in the mid-2000s. To address stakeholder concerns about the oral health management of these patients, the Scottish Dental Clinical Effectiveness Programme (SDCEP) used a rapid process to develop initial guidance. Given little high-quality evidence, the guidance was mainly based on expert opinion and published in 2011, following a one-month consultation period. Subsequent horizon scanning suggested that a wider range of drugs was implicated in this rare but serious side effect, indicating that the scope should be expanded and the guidance updated.

Objectives / Goal
To update the initial guidance using an improved development methodology.

Methods
Updating followed SDCEP's NICE-accredited development process, including an expanded Guidance Development Group, stakeholder surveys, systematic evidence searching and appraisal, consultation and peer review.

Results & Discussion
The rapid SDCEP guidance took 12 months to complete, using a methodologically weaker process than standard. Given the expanded scope and evidence base, a full systematic literature search and appraisal was necessary for the update. Following a standard 3-month consultation, the more robust updated guidance was completed in 18 months and published in 2017.

Implications for guideline developers / users
When developing rapid guidelines to address emerging healthcare issues there is trade-off between development time and guideline robustness. However, the time saving achieved by using a less robust methodology may not be as great as anticipated. Updating provides an opportunity to apply improvements in development methodology.

Conclusion
Where there is an urgent need for guidelines to address healthcare concerns, development using a robust methodology may be achieved in a timely manner.

P170
AUSTRALIAN CLINICAL PRACTICE GUIDELINES FOR THE PREVENTION, EARLY DETECTION AND MANAGEMENT OF COLORECTAL CANCER 2017

Updating guidelines
#P170

A. Chetcuti [1], T. Price [2], F. Macrae [3], J. St John [4], H. Ee [5], J. Emery [6], M. Jenkins [6], B. Leggett [7], K. Gormly [8], E. Murphy [9], P. Chapuis [10], C. Chan [10], A. Heriot [11], A. Luck [9], C. Koh [12], P. Gibbs [13], D. Yip [14], K. Field [11], L. Nott [15], P.J. Lee [12], P. Butow [16]

[1]Cancer Council Australia - Sydney (Australia), [2]The Queen Elizabeth Hospital - Adelaide (Australia), [3]Royal Melbourne Hospital - Parkville (Australia), [4]Cancer Council Victoria - Melbourne (Australia), [5]Sir Charles Gairdner Hospital - Perth (Australia), [6]University of Melbourne - Parkville (Australia), [7]Royal Brisbane and Womens Hospital - Herston (Australia), [8]Dr Jones and Partners medical Imaging - Adelaide (Australia), [9]Lyell McEwin Hospital - Adelaide (Australia), [10]Concord Repatriation General Hospital - Sydney (Australia), [11]Peter MacCallum Cancer Centre - Melbourne (Australia), [12]Royal Prince Alfred Hospital - Sydney (Australia), [13]Walter & Eliza Hall Institute of Medical Research - Melbourne (Australia), [14]Canberra Hospital - Garrin (Australia), [15]Royal Hobart Hospital and St John's Hospital - Hobart (Australia), [16]University of Sydney - Camperdown (Australia)

Background & Introduction
Colorectal cancer is a major cause of morbidity and mortality in Australia and is also the second most common cause of cancer death and accounts for 9% of all cancer deaths in Australia.

Objectives / Goal
The aim of this project was to revise the 2005 Australian clinical practice guidelines for the prevention, screening, early detection and management of colorectal cancer.

Methods
The Australian Government commissioned Cancer Council Australia to undertake this revision, with a focus on providing information and recommendations to guide practice across the continuum of cancer care including colorectal cancer prevention, screening and diagnosis, clinical aspects of surgery, radiotherapy and chemotherapy, follow-up and psychosocial care. The guidelines also provide an evidence base for the Australian National Bowel Cancer Screening Program. A multidisciplinary working party was formed consisting of health care professionals, a systematic review team and consumer representatives. Face-to-face and teleconference meetings were conducted to develop the scope, review progress and draft chapter content. A complete draft of the guideline was sent out for public consultation.

Results & Discussion
In total, 20 systematic reviews were performed which reviewed 77,596 articles. Microsimulation modelling evaluation was undertaken to assess the benefit, harms and cost-effectiveness of colorectal cancer screening and start/stopping ages. Evidence and consensus based recommendations were made for topic areas covered. The revised guideline was approved by the NHMRC on 27/10/2017 and is available online at https://wiki.cancer.org.au/australia/Guidelines:Colorectal_cancer.

Conclusion
This revised clinical guidelines is an important tool to guide health care professionals to the best available evidence for the prevention, screening, diagnosis, and treatment of colorectal cancer.

P171
BRAZILIAN´S PUBLIC HEALTH SYSTEM (SUS) GUIDELINES AS A TOOL FOR INCORPORATING NEW HEALTH TECHNOLOGIES

Updating guidelines
#P171

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[1]Oswaldo Cruz German Hospital - São Paulo (Brazil), [2]Ministry of Health of Brazil - Brasília (Brazil)

Background & Introduction
In the Brazilian Public Health System (SUS), the demand for analysis of new health technologies (NHT) by the National Committee for Technology Incorporation (CONITEC) can emerge from different paths (Figure 1). One of them is through the development of guidelines, which implies a priority of analysis, since our guidelines act as a tool for regulating access to technologies into SUS.

Objectives / Goal
To analyze the impact of Brazilian´s guidelines on the potential of incorporation of NHT into SUS.

Methods
Descriptive analysis of data of six Brazilian´s Public Health System guidelines (Nephrotic Syndrome (NS), Neurogenic Bladder (NB), Urinary Incontinence (UI), Immunosuppression in Liver Transplantation (ILT), Diabetic Retinopathy (DR) and Polycystic Ovary Syndrome (PCOS)). We used the SUS procedures database (SIGTAP) and the the Essential Medicines List (RENAME) to identify the technologies available on SUS.

Results & Discussion
Of the 278 health technologies considered in all six guidelines, 19.4% were innovative, with potential to be incorporated. These include health technologies for diagnosis/monitoring (13%), surgical procedures (40.7%), pharmacological (42.6%) and preventive treatments (3.7%). Across the guidelines analyzed, UI guideline had more often required NHT (54.54%), and DR guideline required few (13.51%) (Figure 2).

Implications for guideline developers / users
This approach enables CONITEC to analyze health technologies representing the best evidence-based clinical practice available for SUS incorporation. The final decision of which technologies will in fact be incorporated is dependent on the priority of the clinical condition and the results of economic analyzes and budget impact.

Conclusion
Brazilian´s Public Health System guidelines are a relevant tool for the process of health technologies incorporation and innovation.

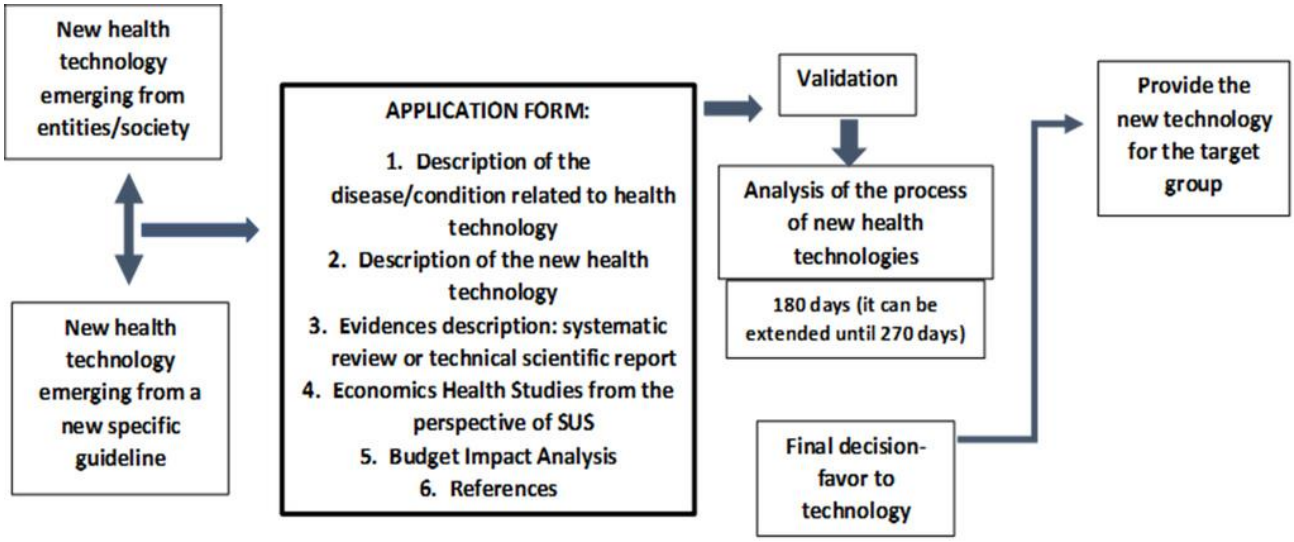


Figure 1 - Flowchart of how potential health technologies can be demanded to be analyzed for incorporation into the Brazilian Public Health System (SUS).

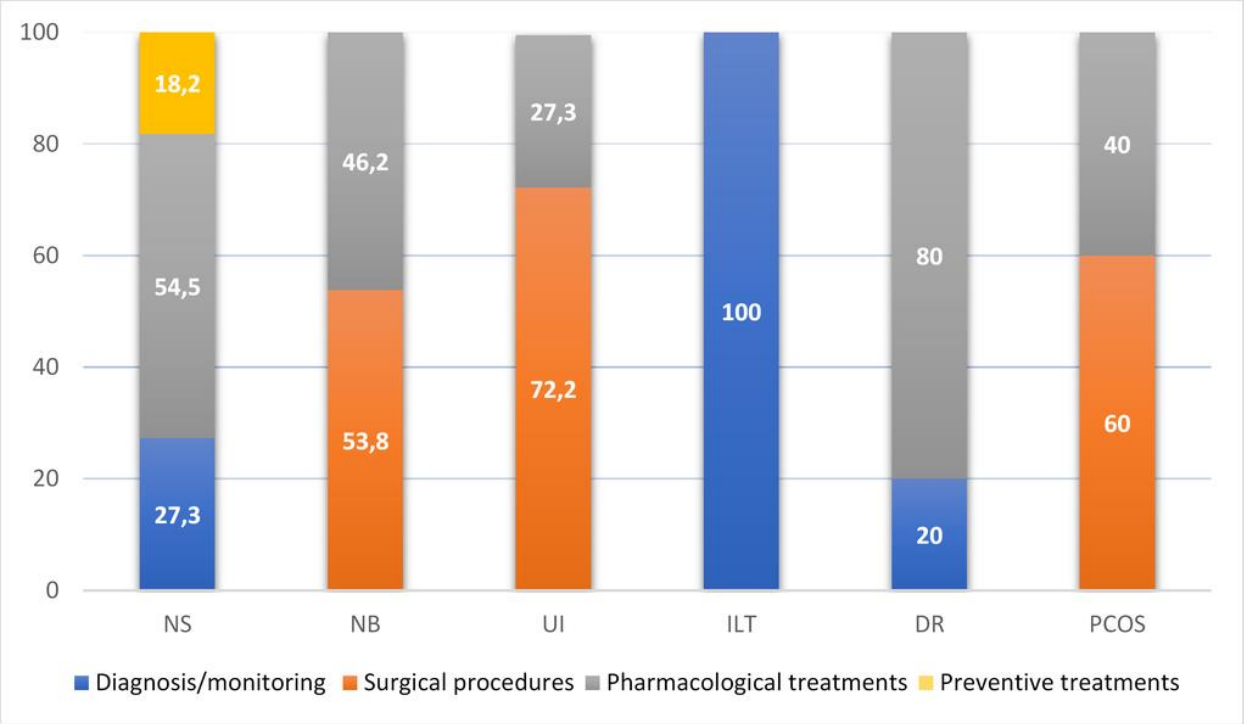


Figure 2 – Percentage of types of new potential health technologies required in each Brazilian´s Public Health System guidelines analyzed. PCOS: Polycystic Ovary Syndrome; NS: Nephrotic Syndrome; DR: Diabetic Retinopathy; NB: Neurogenic Bladder; UI: Urinary Incontinence.

P172
DEVELOPING THE UPDATING STRATEGY FOR THE EUROPEAN BREAST GUIDELINES WITHIN THE EUROPEAN COMMISSION INITIATIVE ON BREAST CANCER

Updating guidelines
#P172

E. Parmelli [1], Z. Saz-Parkinson [1], D. Lerda [1], P. Alonso-Coello [2], L. Martinez-Garcia [2]

[1]European Commission - Joint Research Centre (Italy), [2]Iberoamerican Cochrane Centre, Biomedical Research Institute (CIBERESP-IIB Sant Pau) (Spain)

Background & Introduction
DG SANTE asked the European Commission's Joint Research Centre to coordinate the European Commission Initiative on Breast Cancer (ECIBC) which aims to ensure and harmonise quality of care across Europe via the implementation of a voluntary European Quality Assurance scheme for Breast Cancer Services underpinned, for the screening and diagnosis care process, by evidence-based guidelines developed within the ECIBC, the European Breast Guidelines. Due to the rapidly evolving nature of research evidence, an updating strategy is needed to maintain the trustworthiness and usefulness of these.

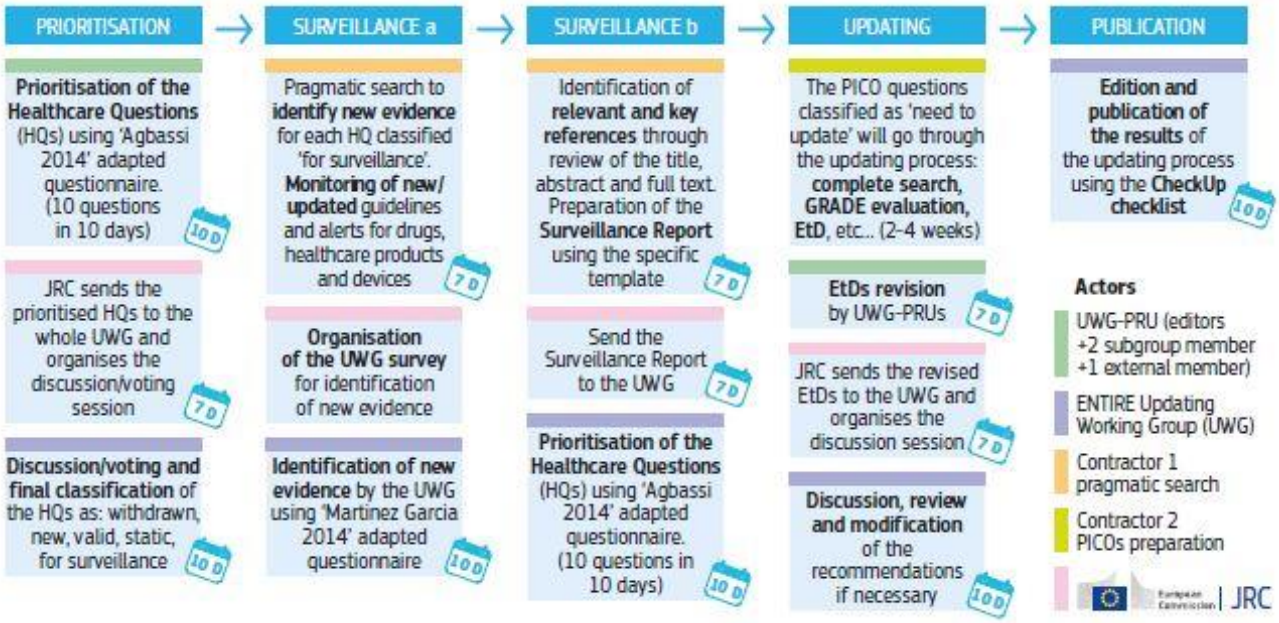
Objectives / Goal
Develop an evidence-based sustainable updating strategy for the European Breast Guidelines.

Methods
Starting from a systematic review on guidelines updating and liaising with research groups from this field, we developed a workflow for the updating strategy that was shared with the Guidelines Development Group for their input and a piloting of the strategy was planned on 7 healthcare questions.

Results & Discussion
The updating strategy workflow consists of 4 main steps: prioritisation, surveillance, updating and publication. Details are summarised in Figure1. The strategy piloting started mid-March2018, and for each step information about time and human resources needed as well as methodological and feasibility issues will be collected for evaluation to refine the strategy. Preliminary piloting results will be presented.

Implications for guideline developers / users
Presentation of a strategy for updating European Guidelines with a workflow, including timelines, may help other institutions prepare the update of their guidelines.

Conclusion
Piloting results will help improve the European Breast Guidelines' updating strategy and thus ensure they remain up-to-date and trustworthy,offering users clear,objective and independent guidance on breast cancer screening and diagnosis.


PRIORITISATION
SURVEILLANCE a
SURVEILLANCE b
UPDATING
PUBLICATION
Prioritisation of the Healthcare Questions (HQs) using 'Agbassi 2014' adapted questionnaire. (10 questions in 10 days)
10 D
JRC sends the prioritised HQs to the whole UWG and organises the discussion/voting session
7 D
Discussion/voting and final classification of the HQs as: withdrawn, new, valid, static, for surveillance
10 D
Pragmatic search to identify new evidence for each HQ classified 'for surveillance'. Monitoring of new/updated guidelines and alerts for drugs, healthcare products and devices
7 D
Organisation of the UWG survey for identification of new evidence
Identification of new evidence by the UWG using 'Martinez Garcia 2014' adapted questionnaire
10 D
Identification of relevant and key references through review of the title, abstract and full text. Preparation of the Surveillance Report using the specific template
7 D
Send the Surveillance Report to the UWG
7 D
Prioritisation of the Healthcare Questions (HQs) using 'Agbassi 2014' adapted questionnaire. (10 questions in 10 days)
10 D
The PICO questions classified as 'need to update' will go through the updating process: complete search, GRADE evaluation, EtD, etc... (2-4 weeks)
EtDs revision by UWG-PRUs
7 D
JRC sends the revised EtDs to the UWG and organises the discussion session
7 D
Discussion, review and modification of the recommendations if necessary
10 D
Edition and publication of the results of the updating process using the CheckUp checklist
10 D
Actors
UWG-PRU (editors +2 subgroup member +1 external member)
ENTIRE Updating Working Group (UWG)
Contractor 1 pragmatic search
Contractor 2 PICOs preparation
JRC

P173
MINIMUM REPORTING STANDARDS FOR PRESENTING THE RATIONALE FOR SURVEILLANCE DECISIONS ON WHETHER TO UPDATE GUIDELINES

Updating guidelines
#P173

P. Langford, E. Mcfarlane
NICE - Manchester (United Kingdom)

Background & Introduction
The Checklist for the Reporting of Updated Guidelines (CheckUp[1]) states that reasons for updating guidelines should be clearly described in the update. It is estimated that only ~60% of updated clinical guidelines report a rationale for updating[2]. NICE's guideline surveillance process comprises regular checks of whether its guidelines are up-to-date. Reports from NICE surveillance explain why a guideline needs updating or not, and could form the basis of a set of reporting standards for the rationale for guideline surveillance decisions.

Objectives / Goal
Use published reports from NICE guideline surveillance to develop minimum reporting standards for presenting the rationale for guideline surveillance decisions.

Methods
A convenience sample of NICE guideline surveillance reports on a cross-section of decisions (full, partial and no update) will illustrate how the rationale for decisions is presented. Common items will be identified, from which minimum reporting standards will be proposed. The proposed standards will be tested on further surveillance reports, before ratifying with NICE guideline developers and methodologists, and the GIN Updating Guidelines working group.

Results & Discussion
We will present our learning and experience of reporting the rationale for updating guidelines focussing on:
- Clearly presenting the impact of new evidence on current recommendations.
- Managing accumulating evidence from multiple surveillance reviews over time.
- Approaches to reporting rationales for full, partial, and no update decisions.
- Developing minimum reporting standards.

Implications for guideline developers / users
Minimum reporting standards for rationales for guideline surveillance decisions will help guideline developers report rationales for updating guidelines with greater transparency and consistency.

Conclusion
Benefits of reporting standards will be described.

References:

1. Vernooij RWM et al. (2017) Reporting Items for Updated Clinical Guidelines: Checklist for the Reporting of Updated Guidelines (CheckUp). PLoS Med 14: e1002207

2. Vernooij RWM et al. (2017) Updated clinical guidelines experience major reporting limitations. Implement Sci. 2017 12:120

P174
PARTIAL UPDATE OF A RECOMMENDATION ON DRINKING FOR KOREAN HYPERTENSION PATIENTS: A DOSE-RESPONSE META-ANALYSIS

Updating guidelines
#P174

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Background & Introduction
It has been reported that alcohol consumption is associated with increased risk of hypertension. However, recommendations on level of allowable alcohol intake and frequencies are different by nations. Also, recommendations on alcohol consumption of hypertension patients should be significantly different than that of general population.

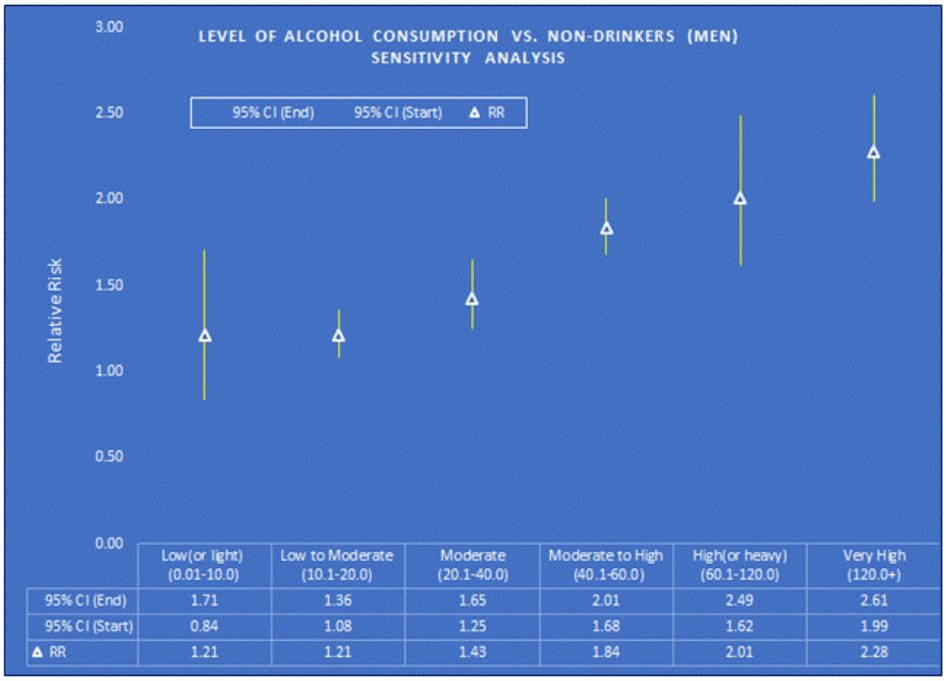
Objectives / Goal
To update recommended allowable alcohol consumption for Korean hypertension patients.

Methods
A systematic search was conducted. We searched the PubMed, EMBASE, the Cochrane Library databases, PsycINFO, Wprim, and domestic databases including RISS, KoreaMed, Kmbase, and NDSL for relevant articles published up to December 2016. A total of 10,097 references were screened, 762 studies assessed for full-text eligibility, and 15 cohort studies were included. A meta-analysis performed using Cochrane's RevMan5.3 software. Generic inverse variance method and a random model effect were used for the analysis. The Newcastle-Ottawa scale was used to evaluate the methodologic quality. The different dose categories of alcohol intake were compared with non-drinkers.

Results & Discussion
We considered dose-response meta-analysis results (Fig 1) and updated allowable alcohol consumption recommendation as: 'Drinking is best forbidden. It is recommended that alcohol consumption be reduced to less than 10 g / day if blood pressure is controlled properly (Level of evidence B, Grade of Recommendation I)'.

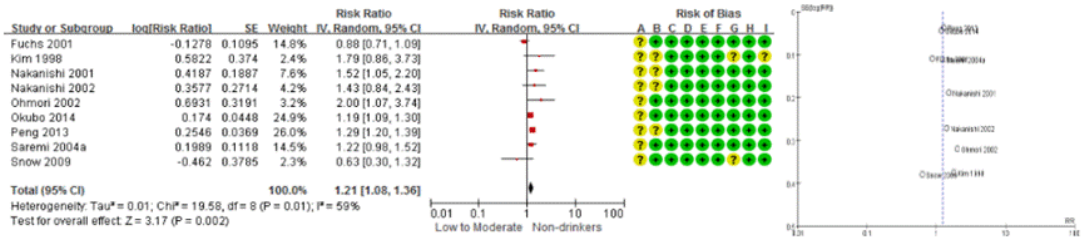
Implications for guideline developers / users
Systematic review is a viable approach to update an existing recommendation.

Conclusion
Relative risk of hypertension incidence was significantly increased in men with light to moderate alcohol intake (10.1-20.0 g/day) (RR 1.21; 95% CI 1.08-1.36) (Fig 2).



	Low(or light) (0.01-10.0)	Low to Moderate (10.1-20.0)	Moderate (20.1-40.0)	Moderate to High (40.1-60.0)	High(or heavy) (60.1-120.0)	Very High (120.0+)
95% CI (End)	1.71	1.36	1.65	2.01	2.49	2.61
95% CI (Start)	0.84	1.08	1.25	1.68	1.62	1.99
RR	1.21	1.21	1.43	1.84	2.01	2.28

Fig 1. Dose-response meta-analysis results



Risk of bias legend
(A) Selection _ ascertainment of exposure
(B) Selection _ representativeness of exposed cohort
(C) Selection _ non exposed cohort
(D) Selection _ outcome of interest was not present at start of study
(E) Comparability _ controls for the most Important factor
(F) Comparability _ controls for any additional factor
(G) Outcome _ ascertainment of outcome
(H) Outcome _ follow-up long enough for outcomes to occur
(I) Outcome _ adequacy of follow-up of cohorts

Fig 2. Relative risk of hypertension incidence in men with light to moderate alcohol intake (10.1-20.0 g/day)

P175
PRECISION FILTER SEARCHING FOR GUIDELINE SURVEILLANCE

Updating guidelines
#P175

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Background & Introduction
The NICE surveillance programme undertakes reviews of guidelines to assess the impact of new evidence that may trigger an update. In large topics with a dynamic evidence base, the literature searches for surveillance reviews frequently generate a high volume of evidence.

Objectives / Goal
The aim of the project is to explore whether:
• higher precision search filters for systematic reviews and RCTs reduce surveillance search outputs without a detrimental loss of sensitivity
• the default methodological search filters for surveillance should be revised to increase precision.

Methods
Five clinical guidelines were selected for inclusion in this retrospective analysis. The inclusion criteria were guidelines with a positive update decision and a literature search output in excess of 5000 results. The surveillance search was replicated across the databases used for each topic. Three filter approaches for RCTs and systematic reviews (see Table 1) were applied, with varying degrees of precision and sensitivity. Each of the search outputs was tested for retrieval of test studies, assessed during surveillance as having a potential impact. The main outcomes were relative precision, number needed to read and impact on the decision to update.

Results & Discussion
The use of the higher precision search filters will be considered for inclusion in the surveillance process conditional to:
• no adverse impact on the time to develop and run search strategies
• no increase in the number of the search results
• minimal impact on included studies in the search results.

Conclusion
To be stated in the final submission.

Description of the best practice
To be stated in the final submission.

Guideline	Search information	Rationale for selection*
CG181: Cardiovascular disease: risk assessment and reduction, including lipid modification [4-year surveillance]	Database = 8844 Included studies = 214 % includes = 2.4	Recent topic Large search output
CG28: Depression in Children [12-year surveillance]	Database = 5282 Included studies = 107 % includes = 2.0	Recent topic Mental health topic representation
CG121: Lung cancer: diagnosis and management [4-year surveillance]	Database = 10314 Included studies = 320 % includes = 3.1	Very large search output
CG131 Colorectal cancer: The diagnosis and management of colorectal cancer [4-year surveillance]	Database = 10763 Included studies = 329 % includes = 3.0	Very large search output
CG157: Chronic kidney disease (stage 4 or 5): management of hyperphosphataemia CG182: Chronic kidney disease in adults: assessment and management NG8: Chronic kidney disease: managing anaemia [4-year surveillance]	Database = 8399 Included studies = 162 % includes = 1.9	Chronic kidney disease theme aligned review Large search output Recent topic

* All selected guidelines met the inclusion criteria of a surveillance update decision and search output in excess of 5000 references

The 3 test approaches, varying by degree of precision, comprised:

- a higher precision approach, with lower sensitivity (McMaster[1] maximal specificity SR and RCT filters)
- a balanced sensitivity and specificity approach (McMaster[1] balanced Sens/Spec SR and RCT filters)
- a highest precision approach, with the lowest sensitivity (single search term SR[2] and RCT[3]) as a comparator approach to the McMaster filters.

The McMaster filters were selected for testing because these have undergone formal validation to maximise specificity (and therefore precision) and to balance sensitivity and specificity. The highest precision single term filters were selected as comparators because they have undergone formal testing and provide useful benchmarks for assessing the performance of the McMaster filters.

[1] Health Information Research Unit, McMaster University (2004-2017) (https://hiru.mcmaster.ca/hiru/hiru_hedges_medline_strategies.aspx [online; accessed 24 November 2017]
[2] Boynton J, Glanville J, McDaid D, Lefebvre C: Identifying systematic reviews in MEDLINE: Developing an objective approach to search strategy design. J Inform Sci. 1998, 24: 137-154.
[3] McKibbon, K. A., Wilczynski, N. L., Haynes, R. B. and for the Hedges Team (2009), Retrieving randomized controlled trials from medline: a comparison of 38 published search filters. Health Information & Libraries Journal, 26: 187–202. doi:10.1111/j.1471-1842.2008.00827.x

P176
QUALITY EVALUATION OF BRAZILIAN GUIDELINES

Updating guidelines
#P176

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Background & Introduction
The guidelines are documents that aim to guarantee the quality of health care. For this reason should be elaborated with methodological rigor, to guaranteeing the quality, transparency and implementation of recommendations.

Objectives / Goal
Evaluate the methodological quality of Brazilian guidelines with three updates, the last one being between 2014 and 2018 with AGREE II tool.

Methods
Descriptive study. Two reviewers, independently and blinded applied the AGREE II tool.

Results & Discussion
Seven guidelines published between 2001 and 2018 were selected, totaling 21 evaluations. Guidelines ranged from rare to prevalent diseases in Brazilian population. The average overall evaluation of these guidelines was 54.1% (Sd 15.1%). The individually guidelines evaluation showed improvement of the overall evaluation over time, ranged from 21.4% for guidelines published in 2001 and 71.4% for those published between 2017 and 2018. The evaluation of guidelines by domains showed that domain 5: "Applicability" had the worst performance (9%) and domain 4: "Clarity in presentation" the best score (49.7%). However over time evaluation of domains has improved. These results point to the need for adjustments that help ensure the implementation of the guidelines.

Implications for guideline developers / users
Evaluating and knowing the quality of the documents that guides the clinical practice in the country becomes essential to guarantee the quality of health care.

Conclusion
The evaluation of the quality of the Brazilian guidelines has increase over time. However, the development of methodological tools adapted to the Brazilian context would help the developers groups to improve the methodological quality, transparency, adhesion and implementation of these documents.

Figure 1 - Overall assessment of guidelines selected.

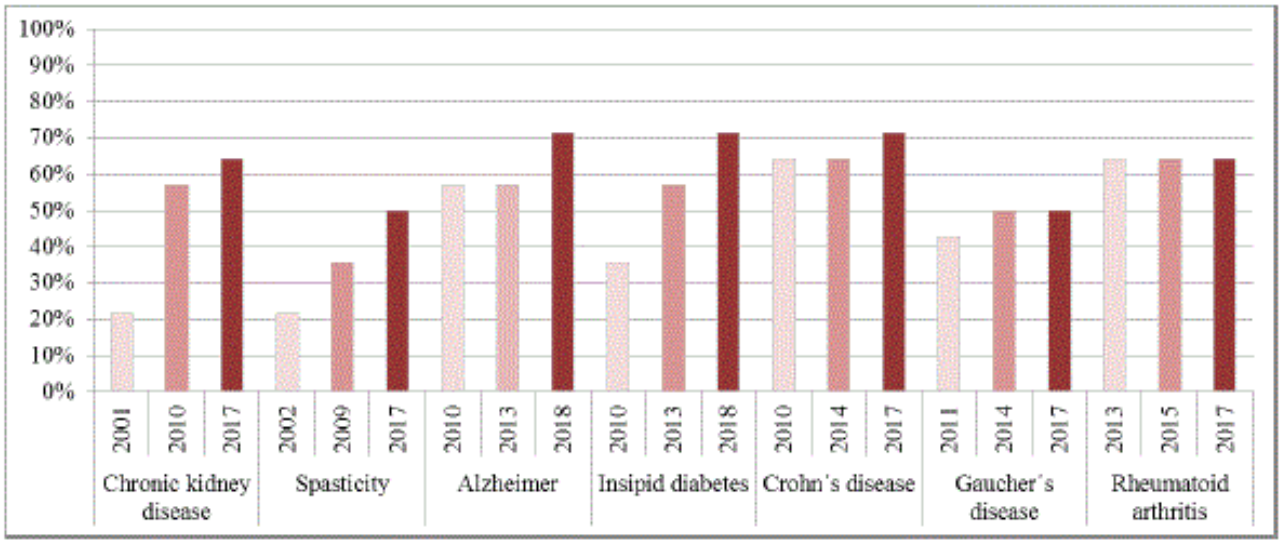

Table 1 - Evaluation of the AGREE II by domains

	Evaluation of the AGREE II by domains					
Guideline, year	**1 (%)**	**2 (%)**	**3 (%)**	**4 (%)**	**5 (%)**	**6 (%)**
Chronic kidney disease, 2001	22.2	22.2	6.3	38.9	4.2	21.2
Chronic kidney disease, 2010	25.0	25.0	22.9	44.4	10.4	38.4
Chronic kidney disease, 2017	30.6	27.8	29.2	69.4	14.6	47.0
Spasticity, 2002	19.4	22.2	6.3	36.1	12.5	46.9
Spasticity, 2009	22.2	19.4	7.3	33.3	8.3	34.0
Spasticity, 2017	25.0	22.2	17.7	36.1	8.3	34.0
Alzheimer, 2010	25.0	25.0	15.6	41.7	8.3	27.8
Alzheimer, 2013	25.0	36.1	17.7	22.2	8.3	44.4
Alzheimer, 2018	30.6	55.6	36.5	69.4	8.3	34.0
Crohn's disease, 2010	38.9	25.0	19.8	69.4	2.1	14.8
Crohn's disease, 2014	27.8	19.4	19.8	61.1	6.3	27.6
Crohn's disease, 2017	52.8	41.7	25.0	66.7	6.3	27.6
Insipid diabetes, 2010	16.7	19.4	15.6	47.2	2.1	12.7
Insipid diabetes, 2013	25.0	19.4	26.0	41.7	14.6	61.6
Insipid diabetes, 2018	55.6	86.1	43.8	63.9	10.4	40.5
Gaucher´s disease, 2011	44.4	30.6	10.4	47.2	14.6	53.3
Gaucher´s disease, 2014	36.1	25.0	17.7	41.7	12.5	46.9
Gaucher´s disease, 2017	33.3	22.2	9.4	47.2	10.4	40.5
Rheumatoid arthritis, 2013	30.6	50.0	37.5	52.8	6.3	23.4
Rheumatoid arthritis, 2015	19.4	38.9	26.0	55.6	12.5	42.7
Rheumatoid arthritis, 2017	27.8	33.3	28.1	58.3	8.3	31.9
Global average	**30.2**	**31.8**	**20.9**	**49.7**	**9.0**	**35.8**
(sd)	**(10.4)**	**(16.1)**	**(10.4)**	**(13.5)**	**(3.8)**	**(12.4)**

Calculation of the score of each domain performed according to the AGREE Next Steps Consortium (2009) recommendation. The AGREE II Instrument [electronic version]. Accessed on 04/14/18. http://www.agreetrust.org.

P177
RAPID REVIEWS TO IDENTIFY PRIORITIES FOR UPDATING PUBLISHED GUIDELINES

Updating guidelines
#P177

A. Stein [1], H. Emengo [2], S. Florida James [3], J. Kelly [3]
[1]SIGN - Edinburgh (United Kingdom), [2]Healthcare Improvement Scotland - Glasgow (United Kingdom), [3]SIGN - Edinburgh (United States of America)

Background & Introduction
SIGN piloted a rapid review process in three guidelines to check the currency of the recommendations three years after publication.

Objectives / Goal
The pilot aimed to find out if a rapid review of other guidelines, technology appraisals and overviews of evidence are robust enough to determine whether recommendations need updated. Time and resource used to conduct the review was also considered.

Methods
Rapid reviews to scope for new evidence were conducted for three published SIGN guidelines on topics with varying amounts of published evidence (Squamous Cell Carcinoma (SCC), Glaucoma, and Osteoporosis). Results were compared to the guideline to check if an update was required.
The results of the review were summarised and circulated to the original guideline development groups for consultation and to identify any gaps.

Results & Discussion
Time taken to conduct the reviews ranged from two days for a small topic (SCC), to one month for an evidence-rich, comprehensive guideline (Osteoporosis).
For SCC no new evidence was identified.
There was emerging evidence for a new technology in the diagnosis of Glaucoma, but further trials are needed before a recommendation can be made.
For Osteoporosis the rapid review missed pivotal RCTs on new pharmacological therapies, which were identified during consultation with guideline group members.

Conclusion
A combination of a rapid review and feedback from clinical experts provided sufficient information to determine whether the guidelines needed to be updated, without being too resource intensive.

Description of the best practice
A rapid scoping search, with input from relevant healthcare professionals, can provide sufficient information for decision-making on updates to guidelines.

P178
SURVIVAL ANALYSIS OF A COHORT OF NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE GUIDELINES

Updating guidelines
#P178

A. Murray, E. Mcfarlane, P. Alderson, T. Tan, K. Nolan
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Background & Introduction
The surveillance team at NICE check guidelines at regular intervals to see if they need updating. A previous survival analysis suggested that 86% of NICE clinical guidelines are still up-to-date 3 years after their publication, with a median life span of 60 months(1). No formal survival analysis has previously been done for NICE public health and social care guidelines.

Objectives / Goal
To provide an overview of how long NICE guidelines remain valid and to examine any differences between guideline types (clinical, public health or social care), guideline themes (groups of guidelines on related topics such as cancer or cardiovascular disease), and update history.

Methods
Surveillance decisions will be collated across clinical, public health and social care guidelines and the lifespan calculated in months. A Kaplan-Meier analysis will be performed and used to estimate guideline survival. If data allows, further analyses will be undertaken to consider the impact of guideline type, theme, and whether the guideline has been previously updated.

Results & Discussion
The results of the analysis will provide an up-to date survival estimate of NICE guidelines. Further investigations will reveal if there are any differences in lifespans between guideline types, themes and whether the guideline has been previously updated.

Implications for guideline developers / users
This data will be useful for guideline developers when deciding strategies for reviewing guideline content. For example, how often guidelines should be checked for update, whether approaches should vary for different guideline types or topics.

Conclusion
A survival estimate of NICE guidelines will be described and various subgroup analyses discussed.

1. Alderson LJH, Alderson P, Tan T (2014 [cited 2018 Apr 6]) Median life span of a cohort of National Institute for Health and Care Excellence clinical guidelines was about 60 months. Journal of Clinical Epidemiology 67(1):52–5

P179
THE CONSIDERATION OF OUTCOMES IN GUIDELINE SURVEILLANCE

Updating guidelines
#P179

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Background & Introduction
NICE guideline surveillance involves checking published guidelines to see if they need to be updated. However, this process does not currently include formal consideration of outcomes. Core Outcome Sets (COS) are increasingly being used in guideline development, although their use in surveillance has not yet been considered.

Objectives / Goal
To explore the use of outcomes in surveillance by:
*Exploring the discrepancy in outcomes between surveillance and a relevant COS
*Identifying outcomes in a guideline update which are included in the surveillance review
*Evaluating the feasibility of using topic expert engagement in helping to prioritise relevant outcomes

Methods
A convenience sample of 3 NICE guidelines will be used. For each, outcomes will be extracted from the surveillance review, the guideline and a relevant COS. Outcomes in a guideline update will be extracted and compared to outcomes from the corresponding surveillance review. A pilot questionnaire including outcome prioritisation will be sent to topic experts and the usefulness of the responses determined.

Results & Discussion
A total of 190 questions were included across guidelines (137: COPD, 27: bipolar, and 26: Crohn's disease). So far, 35 outcomes have been identified from surveillance reviews, guidelines and COS.
Following analysis, we will present:
*The frequency that outcomes identified in surveillance are in the relevant COS
*The frequency that outcomes are used in surveillance decision-making
*The outcomes identified in surveillance which were included in the guideline update
*The feasibility of topic expert engagement to prioritise outcomes for surveillance

Implications for guideline developers / users
Through demonstrating the importance of considering outcomes, we will inform process developments in guideline surveillance.

P180
THEMED SURVEILLANCE: ADVANTAGES AND DISADVANTAGES OF CONCURRENTLY SURVEYING MULTIPLE GUIDELINES IN A THEME.

Updating guidelines
#P180

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Background & Introduction
The aim of guideline surveillance is to assess whether guideline recommendations need to be updated. The surveillance process includes intelligence gathering (from guideline development processes and experts), searches for new evidence, consultation on update decision, final decision sign-off.
Recent work was undertaken to categorise the NICE guideline portfolio (n=355 guidelines) into 7 major themes, further categorised into sub-themes (for example 4 NICE guidelines included in the 'alcohol' sub-theme for the theme of 'risk behaviours'). This provided an opportunity to conduct surveillance reviews across multiple guidelines within a sub-theme concurrently, with potential to realise economies of scale and taking a more holistic approach to considering recommendations across NICE guidelines.

Objectives / Goal
To identify the advantages and disadvantages of conducting surveillance across multiple guidelines within a theme for all steps of the process.

Methods
Retrospective analysis using closed- and open-ended questionnaire feedback from staff who completed themed surveillance reviews (n=14). Follow-up focus groups (n=2) to explore the findings in more depth.

Results & Discussion
We will present our learning and experience of adopting themed guideline surveillance with a focus on:
• Any benefits and efficiencies realised;
• The circumstances when the approach worked well;
• Any drawbacks and unintended consequences.
Any adaptations to the surveillance process and methods that resulted from this research will be outlined.

Implications for guideline developers / users
This research may help to clarify an efficient and robust approach to themed surveillance across multiple guidelines.

Conclusion
The overall suitability of the approach will be discussed.

P181
TOO MANY GUIDELINES TO KEEP ON TOP OF: CAN WE THEME THEM TO BE MORE EFFICIENT?

Updating guidelines
#P181

K. Nolan, C. Haynes, M. Omar, E. Mcfarlane
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Background & Introduction
NICE has a portfolio of in excess of 275 guidelines. One of the procedural principles at NICE is regular review (surveillance) of all of its guidelines. Guideline surveillance explores if there is new evidence or contextual factors that may render a guideline inaccurate or not fit for purpose. However with competing demands for resources and a finite annual capacity for development, pragmatic decisions have to be made to manage the NICE guideline portfolio. Recognising the overlap and relatedness of guidelines, work was carried out to generate a framework to map the NICE portfolio to allow for thematic surveillance of guidelines as opposed to individual reviews.

Objectives / Goal
To develop an internal framework to categorise the NICE guideline portfolio to allow for thematic guideline surveillance.

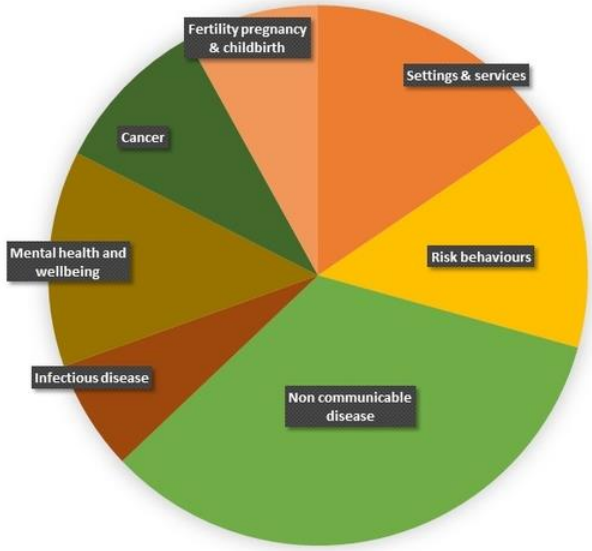
Methods
An existing framework which had previously been used to theme NICE public health guidelines was amended and applied to all NICE guidelines. Guidelines were mapped to the most appropriate topic and sub-topics were created for large areas.

Results & Discussion
7 overarching themes were developed with various subthemes, and in some cases, additional themes (see Figure 1). Where possible surveillance reviews occur on a sub-theme basis, thus allowing for potential efficiencies in evidence searching, stakeholder and topic expert engagement. Additionally, theming surveillance has highlighted overlap in recommendation content across guidelines and allowed for appropriate cross referencing and linkage between guidelines to be made.

Conclusion
The use of a themed approach to classifying guidelines offers a pragmatic solution that allows NICE to maintain and review a large portfolio of guidelines.

Figure 1. Surveillance Themes

Main themes



Example Sub-themes

Settings & services theme
Healthcare
Home
Outdoor
Prison and other secure settings
Service transitions
Services for children
Workplace
Other

Example additional themes

Healthcare sub-theme
Medicines management
Oral care
Service delivery, organisation and staffing
Learning disabilities

P182
TOO MANY GUIDELINES: A SUSTAINABLE APPROACH TO GUIDELINE SURVEILLANCE

Updating guidelines
#P182

K. Nolan, E. Mcfarlane
NICE - Manchester (United Kingdom)

Background & Introduction
NICE is committed to keeping its portfolio of more than 275 guidelines up to date, however the task is substantial. Guideline surveillance explores if there is new evidence or contextual factors that may render a guideline inaccurate or not fit for purpose. Historically a surveillance review including a systematic search of the evidence base of each guideline has been undertaken at least every 4 years.

Objectives / Goal
To develop a sustainable approach to surveillance of the guideline portfolio that will allow NICE to react quickly to changes in evidence.

Methods
A review was undertaken covering 4 broad areas.
1. Initiating surveillance – including exploration of the guideline portfolio and historical updating patterns.
2. Scope of surveillance – including overarching purpose and necessary outputs
3. Surveillance process – including opportunities for efficiencies, interrogation of resource intensive stages and opportunity to have positive impact elsewhere in guideline development cycle
4. Engagement – including the synergies with other organisations work (e.g. NIHR, Cochrane) and use of external expertise

Results & Discussion
Review of the key areas led to the development of a new approach. The key changes are:
1. Switch to a 5 year review cycle
2. Enhanced event tracker with rapid surveillance to react quickly to key changes in evidence
3. Themed approach to surveillance reviews (parallel surveillance of related guidelines)
4. Focused search approaches informed by enhanced upfront intelligence gathering

Implications for guideline developers / users
The new approach is currently being rolled out. The review has highlighted the potential for further changes with advances in digital technologies which will need future consideration.

P183
TRACKING SURVEILLANCE DECISIONS THROUGH TO UPDATES, WHAT CAN WE LEARN?

Updating guidelines
#P183

Y. Martinez, E. Mcfarlane, M. Harrisingh, J. Bennie, C. Haynes
NICE - Manchester (United Kingdom)

Background & Introduction
NICE guidelines are based on the best available evidence and regular checks are undertaken to determine if an update is needed using a surveillance process.

Objectives / Goal
How much of the evidence informing the decision to update was used in the update process?
Why studies informing the surveillance decision were excluded from the update?
Extent the recommendations have changed.

Methods
Two guidelines that underwent surveillance in 2016 are included in this work: Chronic obstructive pulmonary disease in over 16s (2 areas for update; 12 review questions) and Autism spectrum disorder in under 19s (1 area for update; 2 review questions). Data was collected at the unit of the review question to capture information from the surveillance and subsequent update process. We performed a descriptive analysis of the data with a focus on the extent of the change to recommendations after the update and the consistency of the evidence base that informed the surveillance and update processes.

Results & Discussion
Recommendations were changed within each review question including minor and major changes (Table 1). Percentage of studies informing surveillance decision that were included in the subsequent update ranged from 0 to 75% for 8 review questions. Number of studies informing the update that were missed/excluded from surveillance ranged from 1 to 67.

Implications for guideline developers / users
These data could be used to improve the feedback loop between developers, subsequent surveillance and future updates.

Table 1 Evidence base informing surveillance and update processes

	ASD* RQ1&2	COPD† RQ1	COPD RQ2	COPD RQ3	COPD RQ3.1	COPD RQ4	COPD RQ5	COPD RQ6
Review question changed in update?	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Number of studies informing surveillance decision to update	20	4	2	4	4	8	4	3
Studies from surveillance included in update	5 (25%)	3 (75%)	0 (0%)	0 (0%)	0 (0%)	1 (12.5%)	0 (0%)	1 (33.3%)
Main reasons for exclusion of studies informing surveillance decision from update:								
Not relevant study design	4	1	0	0	0	0	0	0
Conference abstract/research letter/commentary	0	0	0	0	1	1	1	0
Study had methodological issues	10	0	2	0	2	6	3	2
Study did not contain outcomes of interest	1	0	0	0	0	0	0	0
Study did not contain intervention of interest	0	0	0	4	1	0	0	0
Number of studies informing update that were missing/excluded from surveillance	18	11	23	1	1	3	45	4
Main reasons studies informing update were missing/excluded from surveillance:								
Study published out of search dates for surveillance	8	10	18	1	1	3	26	4
Study was missed by surveillance search	5	1	5	0	0	0	19	0
Study was excluded during sifting for surveillance	3	0	0	0	0	0	0	0
Study was found within a systematic review	1	0	0	0	0	0	0	0
Study was taken from the original guideline	1	0	0	0	0	0	0	0
Recommendation changed following update?	Yes - minor	Yes - major	Yes - major	Yes - major	Yes - major	Yes - major	Yes - major	Yes - major

*ASD: autism spectrum disorder; †COPD: chronic obstructive pulmonary disease

P184
TRAUMATIC BRAIN INJURIES – FINNISH CURRENT CARE GUIDELINE

Updating guidelines
#P184

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Background & Introduction
TBI is the most common cause of permanent disability in people under the age of 40 years. In developed countries, TBI causes more loss of productive life-years than cancer, cerebrovascular diseases, and HIV/AIDS combined.

Objectives / Goal
To update the Finnish Guidelines on TBI.

Methods
A multidisciplinary working group including experts from neurology, neurosurgery, neuroradiology, neuropsychology, psychiatry, general practice and neurointensive care was gathered. The most recent scientific literature on pre-hospital care, emergency management, neuroimaging, surgical and neurointensive care, and rehabilitation was reviewed.

Results & Discussion
The annual incidence of TBI in Finland is about 20,000 and the majority of TBIs are mild in severity. Falls are the most common cause of injury and approximately half of the injured are under the influence of alcohol. Preventive measures should be especially focused on decreasing the number of fall- and alcohol-related injuries. The diagnosis of TBI is based on the acute clinical signs /symptoms and conventional neuroimaging. TBI severity is classified into mild, moderate and severe. Pre-hospital, intensive and surgical care of TBI aims in minimizing the amount of secondary complications. Commonly, the outcome of mild TBI is favorable and patients recover within months after injury. Patients with moderate and severe TBI require multidisciplinary rehabilitation.

Implications for guideline developers / users
Because of various interest groups and large economical influence, TBI is a sensitive topic for guideline producers. It's essential, that rigorous methods are followed, when writing the guidelines. Careful initial evaluation and documentation was assessed to be the most important topic for implementation.

Description of the best practice
Finnish current care guideline on traumatic brain injury.

P185
UPDATING CLINICAL GUIDELINES: FEASIBILITY TEST OF THE UPPRIORITY TOOL

Updating guidelines
#P185

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Background & Introduction
The UpPriority tool is being developed as a pragmatic tool to prioritise review questions for update within a clinical guideline. UpPriority aims to identify the most important items required to prioritise clinical questions for updating; establish descriptions and rating scales for each item plus guidance on how to rate; and present results to support decision-making in guideline updating prioritisation processes.

Objectives / Goal
To evaluate the feasibility of the UpPriority tool for prioritising questions for update.

Methods
We will assess the feasibility of using the UpPriority tool for the NICE surveillance process. A convenience sample of guidelines will be selected. Initially, we will evaluate the tool for prioritising questions already identified for update within the NICE surveillance process (test 1). We will also evaluate the tool for prioritising questions for update within a guideline that has not undergone surveillance (test 2). The results of the second test will be added to the outcome of the surveillance review to determine the harmonisation of the two processes.

Results & Discussion
The feasibility test will allow NICE to establish if this tool could be a useful addition to the surveillance process. It will also help inform future development of the tool, particularly around its potential to be used in NICE surveillance.

Implications for guideline developers / users
The development of pragmatic and easy-to-use tools that can be adopted by different guideline developers is important to support the standardisation of prioritisation processes for updating guidelines.

Conclusion
Prioritising questions for update is relevant to ensure guidelines are up to date whilst using resources efficiently.

P186
15 YEARS OF HAEMATOLOGICAL MALIGNANCIES OUTCOME REPORTING TO NICE: DATA FOR CORE OUTCOME SETS

Using real world evidence and big data
#P186

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Background & Introduction
HARMONY, an IMI Big Data for Better Outcomes project, aims to optimise the use of real-world evidence across 7 classes of haematological malignancies (HM). Development of core outcome sets (COS) that meets the requirements of all stakeholders, including the various European Union regulatory agencies, HTA bodies and payer organisations evidence requirements, is key factor for the harmonisation of the data and future success of the project to enhance market access to novel oncology treatments.

Objectives / Goal
Ascertain the stability of outcome provision by clinical trialists to NICE HTA over a 15 year period to inform core outcome set development for a big data project.

Methods
Outcome data was extracted from all publically available and completed technology appraisals (TAs) performed by NICE (2001 - 2017). Outcomes were analysed by the following domains; time to event, tumour response, safety and patient reported outcomes with regard to frequency and year of reporting.

Results & Discussion
39 completed technology appraisals met the inclusion criteria (8% of all published TAs). Outcome reporting was stable across the majority of HM classes and outcome domains. More recent TAs contain a wider range of tumour response measures reflecting advances in technology and a trend towards time to next treatment reporting.

Implications for guideline developers / users
The analysis and consideration of previous outcomes submitted by clinical trialists within a disease area can provide a timely and resource light mechanism for HTA input into core outcome set development.

Conclusion
The use of previous completed reports can provide a valuable indication of outcome preference by a HTA agency for use in COS.

P187
IDENTIFYING OPPORTUNITIES FOR ANALYSIS OF REAL WORLD DATA IN GUIDELINE DEVELOPMENT

Using real world evidence and big data
#P187

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Background & Introduction
Traditional guideline development methods focus on the use of published evidence to support recommendations. Most guidelines include areas in which there are uncertainties or in which robust evidence is lacking. Committees may make a research recommendation on key uncertainties, with the intention of informing future decision-making. Analysis of real world data (RWD) may provide an opportunity to address these uncertainties during guideline development in future.

Objectives / Goal
To identify published research recommendations that might be supported by analysis of RWD.

Methods
Guideline research recommendations published by a national guidance developer were reviewed to identify uncertainties that might be addressed by analysis of RWD.

Results & Discussion
Seventeen research recommendations were identified where RWD might provide answers to questions that we cannot currently answer from the published literature. A range of epidemiological and prognostic questions were identified that would require prospective studies involving large numbers of individuals which would be costly and time-consuming.

Implications for guideline developers / users
Exploration of guideline research recommendations could help to provide example use cases and identify the value of use of RWD in addressing uncertainties, and lead to greater use in live guidelines.

Conclusion
Guideline developers should identify activities that will benefit from analysis of RWD and consider the sources, expertise, processes, methods and tools that are required to explore RWD as a source of evidence.

P188
USE OF CORE OUTCOME SETS TO FACILITATE USE OF BIG DATA IN DECISION-MAKING: A TOOLKIT

Using real world evidence and big data
#P188

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Background & Introduction
With the ability to collect large amounts of data, the use of big data in healthcare decision-making is on the horizon. Indeed, pooling data across sources wide and diverse populations has the potential to transform the development of HTA and clinical guidelines. Despite much enthusiasm about its potential, the challenges of using big data are not insignificant.

Objectives / Goal
The IMI Big Data for Better Outcomes (BD4BO) programme is looking to address enablers for using big data. The standardisation or harmonisation of outcome data is a key factor to reduce high levels of variation that is typical of big data especially on an international level. The development and use of core outcome sets (COS), agreed minimum sets of outcomes in a disease area, could mitigate this issue.

Results & Discussion
We have developed a practical and methodological toolkit on developing COS with a focus on real-world settings; it provides a stage-by-stage approach, from planning through to dissemination and review. The toolkit signposts existing guidance and provides checklists, and novel methodological options to involve important stakeholders throughout the process.

Implications for guideline developers / users
Lack of harmonised outcomes makes pooling of data difficult; this presents an obstacle for HTA and guideline developers who require an overall estimate of all the evidence on treatments to make their decisions. Wider use of COS has the potential to facilitate decision-making.

Description of the best practice
If COS incorporate different stakeholder needs in development and are then used widely across different evidence sources, the evidence generated is more likely to address different stakeholder needs.

P189
A GUIDELINE DEVELOPER'S POTENTIAL FUTURE STATE: USING A CLINICAL DECISION SUPPORT AUTHORING TOOL DURING GUIDELINE DEVELOPMENT

Using technology to improve guideline development methods
#P189

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Background & Introduction
The Agency for Healthcare Research and Quality has sponsored the development and testing of a clinical decision support (CDS) Authoring Tool. Converting evidence-based clinical practice guideline recommendations into CDS is known to improve care quality.

Objectives / Goal
To make it easier for non-software engineers to translate text from guidelines and other evidence-based sources into structured code that is executable by a CDS system at a local level.

Methods
The CDS Authoring Tool generates executable logic in the Health Level Seven (HL7) Clinical Quality Language standard and uses the HL7 Fast Healthcare Interoperability Resources DSTU2 data model. The tool accesses the National Library of Medicine's Value Set Authority Center through application programming interfaces. Initial tool development focused on cholesterol management and opioid management as use cases. Tool outputs underwent clinical, operational and technical validation in a live clinical environment.

Results & Discussion
Testing demonstrated consistently valid and reliable CDS execution that aligned with the "source" guideline. Results and lessons learned will be shared with attendees.

Implications for guideline developers / users
Creating CDS during guideline development provides guideline authors the opportunity to more clearly define and represent data elements, along with the conditions that must be met to present a care recommendation. It shows commitment to guideline implementation and enables rapid integration into practice given the shareable, standards-based, interoperable CDS expression.
The CDS Authoring Tool is open source licensed and freely available through cds.ahrq.gov at github.com/ahrq-cds/ahrq-cds-connect-authoring-tool.

Conclusion
Uptake of evidence-based guidelines into clinical practice, the ultimate goal of guideline developers, may be facilitated through the use of a publicly-accessible clinical decision support authoring tool.

P190
HOW GUIDELINE DEVELOPERS ARE DOING WITH GRADE? A 5 YEARS' EXPERIENCE IN THE COLOMBIAN GUIDELINE DEVELOPMENT PROGRAM; A QUALITATIVE STUDY OF COLOMBIAN GDG EXPERIENCE.

Using technology to improve guideline development methods
#P190

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Background & Introduction
Grading of Recommendations Assessment,Development and Evaluation(GRADE) methods and framework have been adopted to assess the quality of evidence and to develop recommendations fin Colombia. However, GRADE's development is not complete and a focus on dialog about methodological challenges related to its implementation and use are required.

Objectives / Goal
To advance the understanding of the implementation and use of the GRADEapproach in the context of guideline development in a diverse Guideline Development Groups (GDGs) participants.

Methods
A phenomenological qualitative approach that involved semi-structured qualitative interviews in 14 members from GDG in Colombia. We used a purposive, non-probabilistic sampling methodology theory-based and aiming to variation between the cases. Interviews, recorded and transcribed, focused on a-priori designed theoretical framework.

Results & Discussion
The experience of GDG's are framed in three overarching themes. GDG's conformation and dynamics, the GRADEapproach as a new tool and the experience in the use of the GRADE approach. Aspects that represented challenges was the relation between methodologist and clinicians, training and guidance during the application of GRADE, perceived expertise to produce valid assessment in subjective domains like indirectness. Other findings were the misuse of the assumed risk, the need for focusing questions and appropriateness of good practice statements and the generation of recommendations with low or very low quality of evidence.

Implications for guideline developers / users
An evaluation of new strategies to approach these challenges and enhanced the utility and validity of the approach should be warranted.

Conclusion
It is necessary to improve relations between panels members, training and inclusion of clinicians in GRADE from the beginning of the guideline development process.

P191
METHODOLOGY OF EVIDENCE-BASED CHILD PROTECTION IN MEDICINE

Using technology to improve guideline development methods #P191

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Background & Introduction

The German child protection guideline (*AWMF S3(+) CHILD (SEXUAL) ABUSE AND NEGLECT GUIDELINE: INCLUDING YOUTH WELFARE AND EDUCATION*) is the first overarching, evidence-based medical guideline about this topic, worldwide. Representatives from 80 different professional societies, organisations and government ministries representing medicine and healthcare, youth and social services, education and other partners in child protection were involved in the guideline development.

Objectives / Goal

From conception, this unique and wholistic medical guideline has had a strong focus on collaboration and communication with youth welfare, education and other relevant child protection actors and covers numerous areas of child protection including child maltreatment prevention, detection, diagnosis and protection measures.

Methods

340 participants from these professional societies and organisations and government ministries completed an online questionnaire detailing actual child protection cases they have worked on in the course of their everyday professional work to ensure a case-based practice-related representative overview of the uncertainties in child protection.

Results & Discussion

Data on 476 real world child protection cases was gathered, coded and anaylsed according to 430 variables and used to develop 20 case vignettes. 254 PICO questions were generated from these case vignettes and reduced to 33 PICO questions through priorisation of interventions and outcomes and amalgamation. The representatives ranked the final 33 questions to determine the 23 topics in the guideline. Following a systematic review of relevant literature, 150 evidence-based recommendations were composed and voted on through 3 Delphi method rounds. Five versions of the guideline will be written.

Description of the best practice

A procedural and case-based practice-related approach to guideline development.

P192
USERS' EXPERIENCES WITH THE INTERACTIVE EVIDENCE-TO-DECISION FRAMEWORK (IETD): A QUALITATIVE ANALYSIS

Using technology to improve guideline development methods
#P192

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Background & Introduction
The interactive Evidence to Decision (iEtD) tool, developed in the context of the DECIDE project, is a stand-alone version of the, also interactive, GRADEpro-GDT Evidence to Decision (EtD) frameworks. The iEtD is freely available online but little is known about how organizations have been using it and how their user experience was.

Objectives / Goal
To evaluate users' experiences with the iEtD and identify the main barriers and facilitators for its use.

Methods
We contacted all users registered in the iEtD via email and invited those who referred a real use of the software to a semi-structured interview. Audio recordings were transcribed, and one researcher did a content analysis of the interviews, supported with the honeycomb framework.

Results & Discussion
We invited the 20 users who referred the use of the tool in a real scenario. We finally interviewed the seven users than accepted the invitation (from six countries, four continents). The most common scenario they described was using the iEtD in the context of guideline development. The majority of participants reported having an overall positive experience, without any major difficulties navigating or using the different sections of the framework. They also reported having used most of the framework criteria satisfactorily.

Conclusion
A very limited number of users have used the iEtD tool since its development. Although the experience is in general positive, our work has identified some important limitations.

Description of the best practice
Our findings could be of use to improve this resource, and for the further development of the interactive GRADEpro-GDT, EtD frameworks or other similar electronic tools.

P193
BRAZILIAN GUIDELINES: BARRIERS AND CHALLENGES IN THE IMPLEMENTATION OF THE GRADE METHODOLOGY

Using technology to support uptake, implementation and evaluation #P193

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Background & Introduction
Brazilian guidelines play an important role in structuring Public Health System. The elaboration of transparent documents with systematic methodology are essential to guide the decision making and the improvement of health actions.

Objectives / Goal
Describe strategies for implementation the use of GRADE in the development of guidelines in the Ministry of Health (MS).

Methods
Identification of actions carried out for to disseminate the GRADE method in the development of guidelines and the challenges and barriers reported by the technicians who participate in the management committee of MS Guidelines.

Results & Discussion
In 2016 the MS launched the methodological guideline for the development of Brazilian clinical guidelines. This document was fundamental to present the new methodology to be used and to support the training of technicians involved in the elaboration. Several workshops were offered for MS professionals and partner institutions in 2016 and 2017. In addiction, the MS was partnership a workshop with methodologists from the GRADE group. The main barriers identification for implementation were the structuring of the guideline in research questions, high costs to development of guidelines and cost to enable professionals in this methodology.

Implications for guideline developers / users
The implementation of new methodologies requires investment to enable professionals and dissemination of the practice.

Conclusion
The maintenance of strategies for implementation and investment to enable professionals are important actions to overcome the main barriers identification the implementation of this new methodology and improve the quality of Brazilian guidelines.

P194
CREATING AND DISSEMINATING PATIENT-CENTERED CLINICAL DECISION SUPPORT

Using technology to support uptake, implementation and evaluation #P194

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Background & Introduction
The Agency for Healthcare Research and Quality has been supporting a multi-component clinical decision support (CDS) initiative aimed at incorporating patient-centered outcomes research findings into clinical practice. Evidence-based clinical practice guidelines, as a source of synthesized outcomes research into practice recommendations, can serve as a basis for this effort.

Objectives / Goal
1. Engage stakeholders in a learning collaborative to advance patient-centered CDS
2. Create resources for developing and sharing interoperable, patient-centered CDS through a public repository
3. Advance CDS research as a mechanism for disseminating evidence into practice
4. Evaluate the initiative

Methods
We convene researchers, clinicians, professional societies, patients, and others to accelerate collaborative learning. We developed a CDS authoring tool that translates text into executable statements using HL7 standards and created a public repository to share interoperable CDS resources. We have developed, tested, and shared CDS using this new infrastructure, initially in cholesterol management and currently in opioid and pain management.

Results & Discussion
Preliminary findings show active and productive stakeholder engagement in patient-centered CDS, which have led to improvements in the CDS, the authoring tool, and the repository. Analytics and feedback show growing use of and interest in the CDS repository. Data and learnings continue to be collected and will be presented at the conference.

Implications for guideline developers / users
Lower resourced guideline developers/users may find specific components of this initiative worthwhile in their efforts to translate and implement patient-centered evidence into practice.

Conclusion
Supporting the creation and dissemination of executable findings of patient-centered outcomes research into shareable clinical decision support resources establishes an infrastructure to advance informed decisionmaking and health care quality.

P195
CREATION OF SINGLE INFORMATION SPACE FOR HEALTH CARE PROVIDERS IN UKRAINE

Using technology to support uptake, implementation and evaluation #P195

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Background & Introduction
There is a need to create a single information resource in order to provide an adequate information support for medical documents' development and access to the international information databases and organizations which work on principles of EBM for all health care providers and the public.

Objectives / Goal
To ensure wide access to experts and the public to the methodical materials, valid medical documents, the Registry of medical and technological documents (the Registry of MTD) as an information resource has been created.

Methods
The Registry of MTD database contains current orders, clinical protocols, guidelines, medical care standards. Its content is regularly updated. Easy navigation and search across the content of the website make it a useful tool for providing information support for users. Transparency at all stages of medical documents development improves the confidence of professionals and the public in new documents.

Results & Discussion
This resource is designed as information space for the placement of complete and accurate information in healthcare. The website contains information on the meeting of multidisciplinary working groups, conducting of electronic consultations with the public, publications, presentations, evaluation of the methodological quality of the guidelines by AGREE II, etc. In addition, there is an opportunity to ensure the effective interaction with other information resources and support of feedback channels.

Description of the best practice
The creation of the Registry of MTD is a practical solution of task concerning increasing of effectiveness of multidisciplinary working groups, improving the quality of medical care, expanding access to special information for all stakeholders and finally achievement better outcomes in public health.

P196
IMPROVING HOW PEOPLE FIND GUIDELINES, ADVICE, TOOLS, RESOURCES AND NEWS ON THE NICE WEBSITE.

Using technology to support uptake, implementation and evaluation #P196

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Background & Introduction
www.nice.org.uk has offered a browse by topic function for some time. We held user research sessions and discovered that there were a number of issues. Most notably:

- Users were often overwhelmed by the amount of content.
- It was difficult for users to quickly and easily find what they needed.

Many users opted to use the search bar instead. This can mean they miss additional tools and resources that support uptake and implementation.

Objectives / Goal
- Increase the number of people accessing guidance and advice from these pages.
- Increase use of tools and resources linked from topic browse pages.
- Make news items more visible.

Methods
- Collaborative working between the digital services, corporate communications and publishing teams.
- Ongoing review and improvements based on user feedback and analytics.

Results & Discussion
The first testing period showed the initial changes were having a positive impact on user experience. We'll make improvements incrementally over the next few months.

Description of the best practice
This is the first large-scale digital project involving a proper multidisciplinary team approach, bringing in expertise from across the organisation. In addition, the iterative approach of making small changes to the page layout based on feedback and analytics means the page will deliver the best possible experience for a wide range of users.
In this project we have:
Used evidence from our audience insights work to inform decisions.
Used an iterative approach, making incremental changes to the page's layout based on feedback and analytics.
Brought in experts from across the organisation.

P197
MAXIMISING THE USE OF GUIDELINES BY TOMORROW'S PRACTITIONERS: A PEER TO PEER APPROACH

Using technology to support uptake, implementation and evaluation #P197

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Background & Introduction
The NICE student champion scheme aims to embed the use of guidance and high quality information resources in undergraduate trainees through an education programme.

Objectives / Goal
The objective of this evaluation is to assess the impact of the scheme on students use of evidence

Methods
The evaluation uses data from a range of sources:
External analysis of student feedback and focus groups
Case study – Queen's University Belfast
Guideline case studies from former student champions

Results & Discussion
1507 student champions and more than 11,000 undergraduates from 40 schools in health and social care have been involved in the scheme since 2010. This has been achieved by a small team (1.6 WTE).
Feedback from over 8000 respondents showed that (i) NICE Evidence search is considered to be an increasingly useful evidence based resource, (ii) the training increased search confidence and (iii) helped champions and peers use evidence-based information sources (including guidelines) consistently and critically.
Further data will be provided from cases studies.

Implications for guideline developers / users
Running a training programme with undergraduates provides them with an awareness and understanding of the role of evidence based guidelines in their future careers.

Conclusion
A peer to peer approach provides a large and beneficial reach for such programmes relative to the initial resource used[. This finding is in agreement with previous research reporting on the benefits of peer-teaching on the confidence of health and social care users.

Description of the best practice
The scheme trains champions to access and use guidelines and authoritative information more effectively, and provides them with the tools to cascade learning to their peers.

P198
UNDERSTANDING HOW PEOPLE INTERACT WITH THE NEW NICE ANTIMICROBIAL PRESCRIBING GUIDELINES

Using technology to support uptake, implementation and evaluation #P198

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Background & Introduction
The National Institute for Health and Care Excellence (NICE) launched its first antimicrobial prescribing guideline in October 2017 to help tackle antimicrobial resistance. NICE's audiences have told us that they want a short summary of the guideline so we developed a 2-page visual summary alongside the guideline. To evaluate how people are using the guidelines and the visual summaries, we looked at website analytics, heatmaps and recordings. We also ran a survey to get direct user feedback.

Objectives / Goal
To evaluate how people are using the new NICE antimicrobial prescribing guidelines and visual summary products by looking at interactions on the NICE website.

Methods
We looked at the usage of the guidelines and visual summary using website analytics, heatmaps, user recordings and online surveys. We also monitored the response on social media.

Results & Discussion
Website analytics and recordings showed how people are interacting with the guidance and which sections they are most interested in. Heatmaps also show how people are using our guidelines by showing where they click on a page.
Survey data gave us direct feedback from our audiences on the visual summaries and how they are using them in practice. The feedback to date has been incredibly positive.
We have also received a lot of positive feedback on social media.

P199
BALANCING QUALITY AND RESOURCES IN CLINICAL GUIDELINE DEVELOPMENT – WHY WE DO WHAT WE DO

Working with guideline panels and committees
#P199

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Background & Introduction
Evidence-based medicine is considered essential to high quality healthcare. However, developing clinical practice guidelines of high quality within a limited time frame and with a limited budget requires skill and practice.
In 2017, the Danish Health Authority delegated the responsibility of harmonising and improving the quality of clinical cancer guidelines to the Danish Multidisciplinary Cancer Groups (DMCG.dk) and the Danish Center for Clinical Practice Guidelines – Cancer (DCCPG-C). Thus, clinical practice guideline development has become an increasingly demanding task for clinicians who are already faced with extensive time-constraints; the clinical work naturally has their first priority.

Objectives / Goal
Our objective is to achieve an optimal balance between high quality guidelines and resource consumption in guideline development driven by clinicians.

Results & Discussion
Our starting point was 24 cancer groups who generated guidelines based on varying methods, layouts and of varying quality; hence, a quite elastic methodology was required. DCCPG-C developed a common template and supplementary instructions. The latter were inspired by the Oxford Levels of Evidence, as the heuristic approach best matched the clinicians' limited resources.

Description of the best practice
Our model supports solid clinical anchoring which is equally beneficial when it comes to implementation. Agility is enabled through working with existing clinical groups; synergy with monitoring and research is achieved through our organisational set-up. Our model has yet to be consolidated and we are open for suggestions to refine our workflow and products.

P200
BEST PRACTICE STATEMENTS IN WHO GUIDELINES

Working with guideline panels and committees
#P200

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Background & Introduction
Best practice statements (BPS) may be provided in guidelines in lieu of evidence-based recommendations when there is a high level of certainty that the benefits of the recommended intervention outweigh the harms. However, BPS are not clearly defined and terminology is inconsistent, leading to both overuse (an evidence review and standard recommendation should have been developed) and underuse (unnecessarily performing evidence reviews when none is necessary).

Objectives / Goal
To describe BPS in World Health Organization (WHO) guidelines and to propose a new definition and typology for BPS.

Methods
Building on previous descriptive work presented at GES 2018, we formulated definitions and a typology for BPS using an iterative consensus-based approach based on the cohort of guidelines approved by the WHO quality assurance body for guidelines

Results & Discussion
Of 202 guidelines in the cohort, 42 contained BPS. These statements were variably labelled and presented. Several discrete categories emerged both in the objectives for BPS and in the underlying constructs. We provide proposed definitions for these categories.
Objectives for BPS included: 1) Implementation considerations; 2) sustainability principles 3) health systems goals 4) the re-statement of established principles 5) further information. Underlying constructs included: 1) human rights and ethics principles and conventions; 2) indirect evidence based on physical or other principles; 3) indirect evidence based on established clinical principles and 4) other reasons where the BPS does not reasonably require the systematic collection of evidence

Implications for guideline developers / users
This work may help guideline developers more strategically use BPS, provide clear rationale statements, better report them, and avoid their inappropriate use

Description of the best practice
N/A

P201
DOING WHAT WE DO: THE IMPACT ON GUIDELINE COMMITTEE MEMBERS

Working with guideline panels and committees
#P201

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Background & Introduction
Guideline development methods typically utilise a committee, panel or group within the approach. Members of these committees often make a significant contribution in terms of their time. Understanding the impact of guideline development on these people can help in terms of recruiting and retaining the relevant experts.

Objectives / Goal
NICE quality standards committees have been operating for 5 years and are formed of both standing and specialist members. The objective of this study is to evaluate the impact on members of being involved in these groups.

Methods
Data and information about the impact on these members is to be gathered and analysed from:
- Facilitated group discussions at away-days
- Exit surveys

Results & Discussion
Early results show that the self-reported impacts on committee members include:
- Increased understanding and knowledge of topics
- Increased knowledge about function of the health and care system
- Increased understanding of how to apply guidelines
- Increased awareness of what constitutes effective chairing
- Increased skills and ability to work across organisational boundaries
- Support for content of CPD portfolio
- Increased demands on time and need to balance with requirements of role/jobs

Further detailed results will be confirmed.

Implications for guideline developers / users
Developers should explore the impact of the role and involvement in the process on committee members. This will enable them to articulate the benefits to potential members. Given that committee members are often giving up a significant amount of their own time, it is also important to ensure that the process of being a committee member enhances those opportunities

P202
EQUAL INVOLVEMENT OF ALL RELEVANT STAKEHOLDERS IN GUIDELINE DEVELOPMENT; A TESTCASE IN DUTCH PHYSICAL THERAPY.

Working with guideline panels and committees
#P202

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Background & Introduction
In 2016, the Royal Dutch Society for Physical Therapy (KNGF) started with the revision of their 2010 guideline for Hip/knee Osteoarthritis, using the GRADE methodology. To enhance implementation, a widely supported guideline was necessary.

Objectives / Goal
The objective was to revise the guideline with stakeholders from different healthcare associations, patient associations, and healthcare insurers.

Methods
Twenty-two stakeholders were involved in the process of development, including physical therapy members of the KNGF, the Dutch Orthopaedic Association, the Dutch College of General Practitioners, the Dutch federation for patients and the Dutch association for healthcare insurers. A guideline panel and review group with these stakeholders formulated recommendations and commented on the written content. A joint project group of the KNGF and researchers from the Leiden University Medical Centre wrote the guideline based on the formulated recommendations.

Results & Discussion
The process of guideline revision was complex because of many different interests. However, it is expected that the jointly revised guideline will be published in May 2018.

Implications for guideline developers / users
A widely supported and implemented guideline will contribute to more uniform treatment strategies in healthcare professionals, more acceptance of patients and financial reimbursement for the described care.

Conclusion
It is expected that equal and substantial involvement of primary stakeholders during the process of development will lead to a widely supported guideline among healthcare professionals, patients and healthcare insurers.

Description of the best practice
Involvement in guideline developpment of different stakeholders with different interests is a complex process. However, equal and substantial involvement will lead to a widely supported guideline.

P203
ESTABLISHMENT OF A METHODOLOGICAL EXPERT GROUP: A NOVEL APPROACH TO OPTIMIZING PRIMARY CARE GUIDELINE REVISION AND DEVELOPMENT IN BELGIUM

Working with guideline panels and committees
#P203

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Background & Introduction
The Working group Development of Primary Care Guidelines is a Belgian consortium responsible for the revision and development of evidence-based guidelines for primary care practitioners. Since its establishment in 2014, several guideline development groups (GDGs) have struggled with the labor-intensive rigorous methodological aspect of the developmental process, thereby jeopardizing the Working group's annual target of 5 methodologically sound guideline revisions.

Objectives / Goal
To revise and redefine the roles and responsibilities of the different GDG members.

Methods
In May 2017, an Expert Group was established within the Working group. This 7-member Group is in charge of the methodological and preparatory aspects of the guideline revision/development process. As a result, the other GDG members can focus on delivering substantive expertise and on writing the actual guideline.

Results & Discussion
So far, the Expert Group has supported 3 monodisciplinary guideline revisions, as well as 3 multidisciplinary guideline development start-ups. In particular, the Group helps to define clinical questions, develops search strategies, screens and critically appraises evidence from other guidelines, and prepares GDG/stakeholder meetings. During its monthly meetings, the Expert Group follows up on the current guideline revisions, takes a critical look at the different processes and procedures, and strengthens its internal expertise.

Implications for guideline developers / users
Taking full advantage of the individual GDG members' strengths, whether methodological or substantive, may help guideline developers to optimize both the quality and quantity of their guideline output.

Conclusion
The establishment of a methodological Expert Group seems to be a promising approach to sustaining high-quality primary care guideline development in Belgium.

P204
MINDLINES IN GUIDELINES

Working with guideline panels and committees #P204

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Background & Introduction
The concept of “mindlines” could be helpful to improve the generation of guidelines. Mindlines are collectively shared, mostly tacit knowledge, shaped by many sources including accumulated personal experiences, education (formal and informal) and the narratives about patients that are shared among colleagues. Since mindlines play such an important role and provide an alternative view on clinical knowledge creation, they could potentially inform the development of guidelines that clinicians will follow as they are meaningful and useful for everyday practice.

Objectives / Goal
To inform closer links between the development and use of clinical guidelines and the ‘mindlines’ that emerge informally among communities of clinicians.

Methods
An ethnography of guideline development panels at NICE to explore how insights from mindlines might be incorporated into their work. Findings will be compared with data from guideline panels in the Netherlands and Norway.

Results & Discussion
During this presentation we will present preliminary data on how clinical guideline developers engage in producing recommendations from evidence and how mindlines are involved in these processes.

Implications for guideline developers / users
We anticipate to develop:
- A richer theorization of the notion of mindlines in clinical knowledge development, especially how they emerge and get refined through group interaction.
-Insights into how to overcome the barriers that guideline development panels face incorporating a broad range of knowledge sources into their recommendations.
- Preliminary criteria for critically appraising guidelines that have sought to incorporate such broad knowledge sources.

P205
SIMULATION FOR TEACHING GRADE IN GUIDELINES DEVELOPMENT IN SUB-SAHARAN AFRICA

Working with guideline panels and committees
#P205

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Background & Introduction
In sub-Saharan Africa, opportunity for participation in guideline development lags behind well-resourced settings. We developed a simulation workshop, embedded in a clinical guideline module, to provide experience to novice guideline panellists.

Objectives / Goal
To describe the development and operationalisation of a simulated guidelines development meeting using the GRADE evidence-to-decision framework.

Methods
In 2017, we selected a topic relevant to Africa and assigned roles to participants in advance of a three-hour simulated meeting led by a facilitator experienced in guidelines development. During the session there was active management of conflicts of interest, discussion of challenging concepts such as balance of benefit and harm, equity, and stakeholders' preferences. Participants were encouraged to contribute to the discussions either within their roles or from their own experience and to reach consensus on a recommendation and wording. This informed production of a facilitator's manual outlining a step-by-step approach to delivering the simulated GRADE evidence-to-decision process. In 2018, a trainer delivered the simulation according to the manualized instructions.

Results & Discussion
Twenty participants, including policy-makers and full-time students, attended the 2018 simulation. Feedback included that this approach provided an unexpected, hands-on learning experience and created a playful, safe environment. Some participants expressed discomfort that assigned roles restricted their questions and requested more time to reflect on key learning points.

Implications for guideline developers / users
Simulation according to manualized instructions offers scalable, experiential learning for building capacity in GRADE for guidelines in less-resourced settings.

Conclusion
Guideline panel role-play can provide a real-world experience in a safe space, but requires skilled facilitation to ensure maximal participation and learning.

P206
THE VALUE OF AN EXPERT ADVISORY GROUP: EXPLORATION OF BARRIERS AND FACILITATORS WITHIN THE ROADMAP INTERNATIONAL BIG DATA PROJECT

Working with guideline panels and committees
#P206

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NICE (United Kingdom)

Background & Introduction
ROADMAP, an IMI Big Data for Better Outcomes (BD4BO) project, aims to optimise the use of real-world evidence in Alzheimer's disease. To ensure that project outputs are of high scientific quality and applicable across various European Union Market access frameworks, an Expert Advisory Group (EXAG) comprising of regulatory/ Health Technology Assessment (HTA) experts was established. The EXAG provides an open forum for project leads to receive individual expert opinions on specific outputs and activities. Virtual or in-person meetings are held approximately every 3 months.

Objectives / Goal
To evaluate user experiences of the EXAG and to identify the main barriers and facilitators of this format for eliciting expert opinions.

Methods
Surveys were undertaken with EXAG members and ROADMAP consortium members, including project leads. Further feedback was gained through a presentation at a ROADMAP conference.

Results & Discussion
Positive experiences of this format as a way of eliciting a range of views to inform project outputs were cited by consortium members. Key facilitators related to the use of technology to engage across a European-wide project, and the usefulness of pre-meeting briefing documents. Key barriers included the scheduling of meetings and experts' inability to answer some discussion questions from an individual perspective. These findings have facilitated improvements to methods for expert engagement in the remaining period of the project and will be utilised in subsequent projects.

Implications for guideline developers / users
This work will provide key learning points for the establishment and governance of future expert groups/committees.

Conclusion
This work has received support from the EU/EFPIA Innovative Medicines Initiative Joint Undertaking (ROADMAP grant n° 116020).

P207
VARIATION IN CRITERIA WEIGHTINGS AMONG THE GROUPS FOR PRIORITIZATION OF GUIDELINE DEVELOPMENT IN KOREA

Working with guideline panels and committees
#P207

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Background & Introduction
Some criteria for prioritization of guideline development can be considered more important and it is necessary to find out the variance among stakeholder groups in advance.

Objectives / Goal
To identify variation in criteria weighting for CPGs development between groups

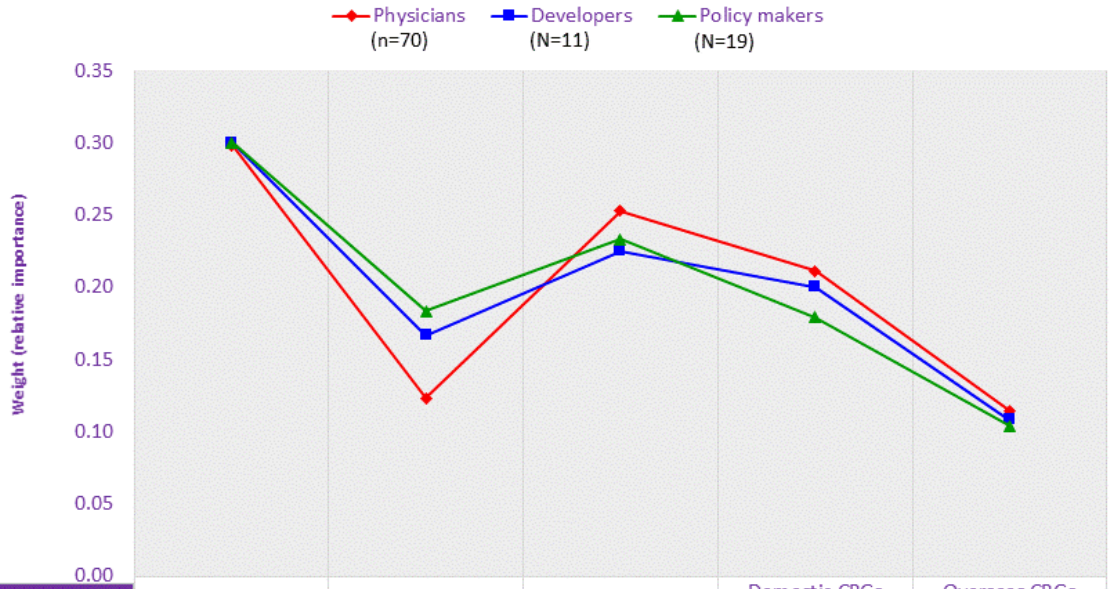
Methods
5 criteria from comprehensive review were determined for prioritization of guideline development (Table 1) and each weighted relative to one another (score 1 indicate most important criteria). 3 groups including end-user physician panel (n=642), guideline developer panel (n=33) and policy makers panel (n=72) participated online survey to rank the relative importance. Each group weighted the criteria independently. Overall response rate was 13.4% (n=100).

Results & Discussion
The criteria weighting was consistent with each other among 3 groups except showing least variation around the ‘National policy’ (Fig. 1). The average weight of burden of disease criteria (0.2987) was the highest, followed by need for intensive care (0.2459), domestic CPGs development demand (0.2035), national policy (0.1403), and overseas CPGs development situation (0.1117).

Implications for guideline developers / users
When developing CPGs, it is necessary to consider the opinions of relevant stakeholders.

Conclusion
There was no variation in criteria weightings among the groups. Burden of disease, need for intensive care and end-users demand were important factors in prioritizing CPGs for new development diseases.

FIG. 1. VARIANCE IN CRITERIA WEIGHTINGS AMONG GROUPS



Criteria for prioritization of CPGs development	Burden of disease	National policy	Need for intensive care	Domestic CPGs development demand	Overseas CPGs development situation
Physicians	0.2981	0.1233	0.2528	0.2113	0.1145
Developers	0.3000	0.1667	0.2250	0.2000	0.1083
Policy makers	0.3000	0.1833	0.2333	0.1792	0.1042

Table 1. Criteria and details for prioritization of CPGs development

Prioritization of guideline development		Items
Average Weight (Rank)	Criteria	
0.2987 (1)	Is it an important health problem in Korea? (Burden of disease)	· Mortality, Prevalence, DALY, Quality of life
0.1403 (4)	Is it a chronic disease to develop CPG according to national policy?	· National policy (Korea) · Chronic disease mentioned by HP2020, WHO · Chronic diseases covered by Health insurance medical care benefits
0.2459 (2)	Is it a chronic disease that needs priority for intensive management?	· No. of outpatient visit, Medical expenses, No. of medical treatment, Inpatient admission rate (chronic diseases)
0.2035 (3)	Is it a chronic disease that needs development and dissemination of primary care CPGs in Korea?	· Is there a guideline development demand of end-users? · Is there the rationale to develop new guidelines? - No existed guidelines - Chronic disease with a large perceived treatment variation among Korean physicians - Chronic disease with a great expected clinical outcome among Korean physicians · Is there a possibility of implementing guidelines?
0.1117 (5)	Is it a chronic disease that has been developed with priority for primary care in foreign countries?	· List of overseas guideline development (web search: WHO, German AZQ, USA USPSTF/ CPSTF, New Zealand, Scotland SIGN, UK NICE, Austria NHMRC) · List of domestic guideline development

P208
WOMEN'S VALUES AND PREFERENCES FOR BREAST CANCER SCREENING TO INFORM THE CANADIAN TASK FORCE ON PREVENTIVE HEALTH CARE: SYSTEMATIC REVIEW

Working with guideline panels and committees
#P208

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University of Alberta - Edmonton (Canada)

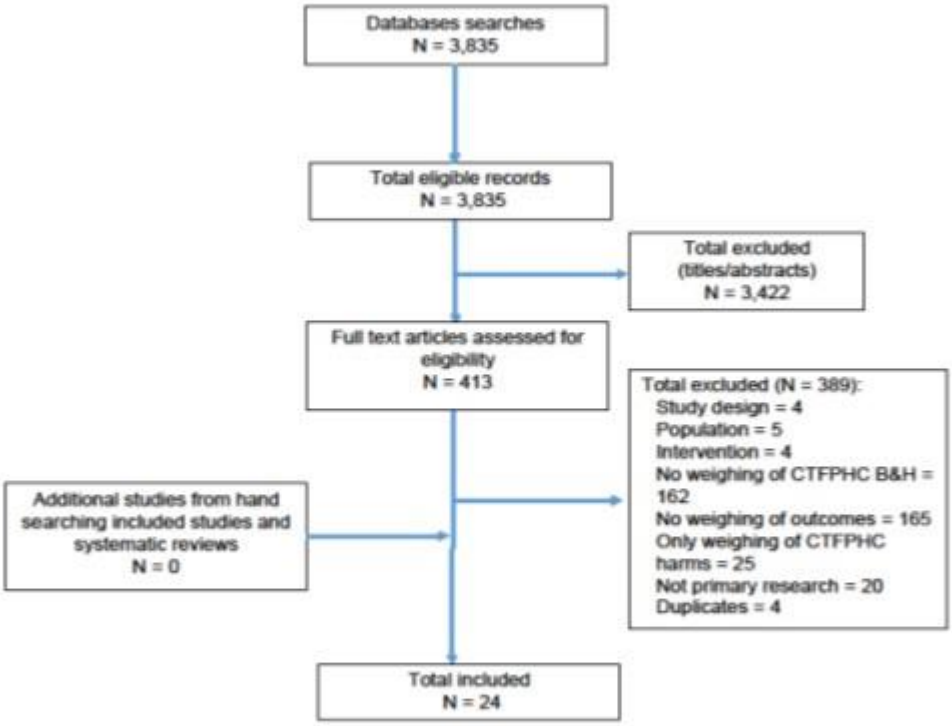
Background & Introduction
Trustworthy guidelines will explicitly consider input on stakeholder and patient perspectives.

Objectives / Goal
To examine women's preferences for critical outcomes from breast cancer screening, to inform the Canadian Task Force on Preventive Health Care (CTFPHC).

Methods
Standard systematic review methodology was followed. We included studies where authors had women consider at least one benefit (breast-cancer, all-cause mortality) and one harm (false positive recall [FPs], FPs leading to biopsy, overdiagnosis) rated as critically important by the CTFPHC for making decisions. We also contextualized findings within the Theory of Planned Behavior, to help explain factors influencing women's screening decisions.

Results & Discussion
24 studies published in 10 countries and with diverse study designs and sample sizes (n=6-156,000) were included (Figure). Data suggest that women weigh the benefits greater than the harms (with overdiagnosis more important than FPs) for the most part, but the reliability of these findings is likely biased by the limited exposure in most studies to complete data. Information on all outcomes (especially when absolute benefits are low) may make a substantial minority of women (especially in their 40s) decline screening. Screening decisions are influenced by competing outcomes, previous screening experience (becoming "habitual"), beliefs about the outcomes (e.g., viewing overdiagnosis as a treatment issue), and attitudes of others. There was uncertainty about the women's numerical and conceptual understanding of outcomes as presented by authors.

Conclusion
Our findings support efforts to increase awareness and better inform women about the outcomes and choices they can make about breast cancer screening. This review enhanced deliberations by the CTFPHC.


Databases searches
N = 3,835
Total eligible records
N = 3,835
Total excluded
(titles/abstracts)
N = 3,422
Full text articles assessed for
eligibility
N = 413
Total excluded (N = 389):
Study design = 4
Population = 5
Intervention = 4
No weighing of CTFPHC B&H =
162
No weighing of outcomes = 165
Only weighing of CTFPHC
harms = 25
Not primary research = 20
Duplicates = 4
Additional studies from hand
searching included studies and
systematic reviews
N = 0
Total included
N = 24

PL001

GUIDELINES – A BRIEF HISTORY AND WHY WE NEED THEM

Dr Fergus Macbeth

Associate Director of the Wales Cancer Trials Unit, Cardiff and Honorary Professor at Cardiff University

Clinical guidelines have been around in one form or another since the days of Hippocrates. But it was in the 1990s that, with the promulgation of evidence-based medicine by David Sackett and colleagues, systematically developed guidelines started to be written and published. In the UK the work of Jeremy Grimshaw and Jim Petrie clearly identified the shortcomings of traditional guidelines. As a result SIGN was established in the Royal College of Physicians of Edinburgh and set methodological standards which were to lead the way. I will give a brief very personal view of the changes I have seen over the past 25 years or so since then.

It is generally assumed that clinical guidelines are inevitably a ‘good thing’ – but it is not always clear whether, given the plethora of overlapping and sometimes conflicting guidelines around the world, we really need them all. There are good reasons why they might help healthcare professionals and providers - such as the volumes of new ‘evidence’ accruing every year with its variable quality and the often noisy accompanying clamour from industry and the press, or the widely acknowledged problems of unjustifiably variable clinical practice and outcomes. But is their real purpose always clearly expressed or understood?

I will explore this issue and how it links to some of the problems all guideline developers face such validity versus timeliness, localism versus internationalism and narrow versus general clinical expertise.

PL002

PROGRESS IN EVIDENCE-BASED MEDICINE: A QUARTER CENTURY ON – FOCUSSING ON THE ROLE OF GUIDELINES IN EBM

Professor Gordon Guyatt

Distinguished Professor in the Department of Health Evidence and Impact at McMaster University

This talk deals with three issues: challenges in including patients in guideline panels, dealing with conflict of interest, and challenges in applying GRADE.

Challenges in including patients in guideline panels include: i) difficulty recruiting individual representative of the population of interest, in particular disadvantaged populations; ii) educating patients so that they develop a sophisticated understanding of the evidence; and iii) ensuring they play an optimal role in the panel deliberations. Experience to date provides some guidance in dealing with these challenges.

Dealing with conflict of interest remains a vexing problem for guideline panels. Essentially, the problem is two fold. First, a tension between ensuring that conflicts do not influence recommendations, and ensuring optimal input for those with the most sophisticated understanding of the issues and the deepest expertise. Second, dealing with both financial and non-financial conflicts. Approaches include i) the complete exclusion of anyone with either a financial or non-financial conflict of interest; ii) the selective recusal of individuals with conflicts for particular recommendations; iii) formulation of a standard of more and less serious conflicts, with exclusion of only the latter; and iv) complete exclusion of those with conflicts, but provision for input through conversations with panel members.

Challenges in applying GRADE include whether or not to address all the elements identified in the GRADE evidence to decision framework that includes magnitude of benefits and harms; certainty of the evidence; values and preferences; costs; equity; feasibility; and acceptability. Other issues include ensuring insuring clarity of perspective (individual, population, or public health) and deciding on what it is, exactly, in which one is rating one’s certainty. There are no generalizable right answers to any of these issues, but acknowledgement of the issues and careful consideration in the context can lead to the right decisions in the context of particular guidelines.

PL003

CURRENT CHALLENGES AND SOLUTIONS, DEVELOPING GUIDELINES WITHIN THE EVIDENCE ECOSYSTEM

Linn Brandt, MD, PhDc

Hospital-based General Internist, University of Oslo, Norway

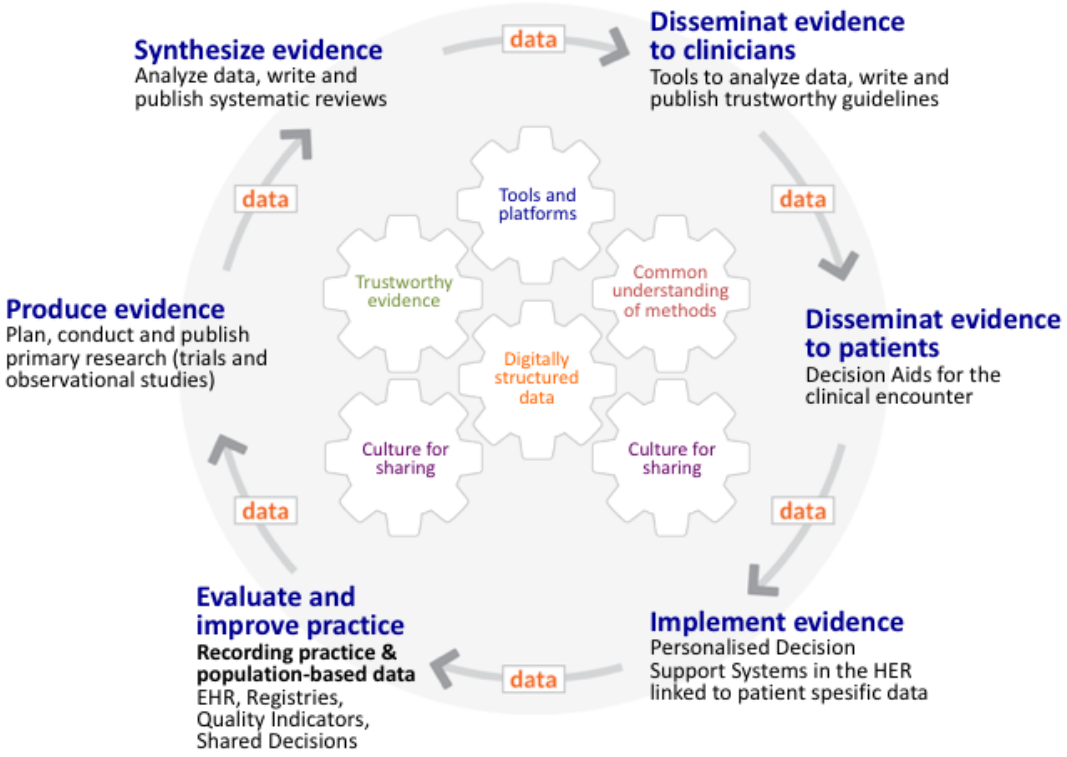
In the last decade, advances in standards, methods and tools for trustworthy guidelines have increased the possibilities to disseminate best current evidence to clinicians and patients at the point of care. Currently, however, the evidence ecosystem from pre-clinical evidence through guidelines to dissemination to clinician and patients functions poorly. EHealth solutions with digitally structured data in platforms for creating, publishing and dynamically updating systematic reviews and guidelines hold promise to more efficiently share, adapt and reuse content and thus improve the ecosystem function. To harness the opportunities, however, key stakeholders need to agree upon available standards, methods, and implement these tools in real life guidelines.

Imagine a trustworthy, efficient and integrated evidence ecosystem that closed the loop from production of high quality and relevant evidence to improved patient care and efficient use of health resources. People and organisations would move out of their siloes to embrace a culture of collaboration and a common understanding of standards, methods, processes and tools. Digitally structured data in integrated platforms at each step of the evidence ecosystem would let evidence flow from its production onwards to evidence synthesisers, disseminators, implementers and improvers. The result would be reduced waste through increased efficiency, reduced duplication and increased value in health care and research.

Although the full realization of this vision remains elusive, the presentation will include real world examples to demonstrate how a collaborative network of people and organizations have used current opportunities in the evidence ecosystem to increase efficiency, and how policy-makers, clinicians and patients will benefit downstream. The presentation will focus on processes that are important for guideline development and dissemination, as well as the value of digitally structured and shareable data to further enhance the evidence ecosystem.

The Digital and Trustworthy

Evidence Ecosystem



PL004

FROM REVIEW TO DELIVERY - EMBEDDING THE VOICE OF THE SERVICE USER IN OUR WORK

Jonathan Senker

Chief Executive of Voiceability

In this presentation Jonathan Senker will argue that involving people who use services in guideline development is not just the right thing to do but improves decision taking and outcomes. His presentation will challenge participants to consider how to involve people who use services in guideline development, rather than whether or not to do so.

Given the intellectually challenging nature of developing evidence-based guidelines, on the face of it, it would appear to be difficult to involve people with learning disabilities (intellectual impairments) as full members of guideline committees. Drawing on his experience of chairing a guideline committee which did exactly this, Jonathan argues that it is not just possible, but advantageous to always involve people who use services. He will suggest that this improves the decision-making processes in guideline development as well as the recommendations made and their potential impact.

Jonathan will contend that in developing guidelines we must practice what we preach, by taking an evidence-based approach to the very processes for guideline development. Jonathan will illustrate that such an approach can go hand in hand with - and be assisted by - effective user involvement. People who use services are interested more than anything else in practical changes and Jonathan will urge that this is reflected in a thorough-going emphasis on implementation.

PL005

DOES COST MATTER? COMBINING CLINICAL GUIDELINES AND HTA THE CASE OF COLOMBIA

Hector E. Castro M.D, DrPH*

Senior Technical Director of Pharmaceutical Economics and Financing at Management Sciences for Health-MSH, USA

All health systems face the challenge of managing finite resources to address an unlimited demand for services. Over the past decades different health systems have established specialized bodies in charge of conducting health technology assessments (HTAs) and developing clinical practice guidelines (CPGs) aimed at better informing healthcare policies and clinical practice.

On the one hand, HTA examines the consequences of the application of health technologies aimed at better informing resource-allocation decision-making. On the other, CPGs are statements developed in a systematic fashion to assist practitioner and patient decisions about appropriate healthcare for specific clinical circumstances. Both HTAs and CPGs are closely related to evidence-based medicine (EBM).

With increasing attention to universal health coverage (UHC), Colombia an upper-middle-income country in South America started in 2008 evidence based CPGs development and using HTAs to update the national benefits package in 2011. In the case of Colombia the strong influence of the judicial courts on behalf of the patients has shaped healthcare coverage and created financial strain within the system.

The establishment of the Health Technology Assessment Institute of Colombia (IETS) at the same time of publication of recently developed CPGs for over 40 healthcare conditions served as an opportunity to incorporate cost-effectiveness and cost-utility analyses of the most relevant PICO questions within each guideline in order to raise awareness of opportunity costs of clinical decisions within healthcare practitioners and prescribers.

The discussion focuses on the evolution of using EBM approaches to inform macro/micro decision-making within this setting, as well as the experienced opportunities and challenges that might be of help to other low and middle-income countries (LMICs) committed to advancing to more fair and sustainable UHC. Since policy making is rather iterative and intricate, more discussion and research in LMICs could serve to depict further lessons learned in the near future.

PL006

DOES COST MATTER? THE ROLE OF COST-EFFECTIVENESS IN CLINICAL GUIDELINES

Professor Joanne Lord

Health Economist, Southampton University, UK

All health systems face cost constraints – limits on how much funders will pay translate to limits on solid resources at all levels. Clinicians have to decide how much time to spend with which patients, when to call on the time of colleagues, when to use the resources that they control and when to fight for more. Clinicians, budget holders, managers, policy-makers and politicians have to make choices between worthy uses of healthcare resources. This understanding is commonplace. Costs matter.

The question of whether costs are the business of clinical guideline developers is more contested. The 1992 Institute of Medicine committee on clinical practice guidelines concluded that developers 'need not' use economic criteria when drawing up recommendations on appropriate care, not because costs can or should be avoided, but because of uncertainty or disagreement over whether clinical guideline developers are the right people to be making these judgements. The committee made a 'modest proposal' that guideline developers prepare information about the costs and health implications to help practitioners, patients and policy-makers to consider the options. This modesty echoes in the Guidelines International Network Standards for Clinical Practice Guidelines: that guideline recommendations should be "clearly stated and based on scientific evidence of benefits; harms; and, if possible, costs."

As a health economist, I have tried to give modest nudges in clinical guidelines and to be analytically immodest in technology assessments. There is a balance. But are guideline developers the right people to consider costs? If you don't, others with less understanding of the evidence will. You also risk doing harm with recommendations that divert resources from better uses. This is not to trivialise the question of how. Economic analysis is hard in the expansive world of guideline pathways and we need better ways to find and answer cost questions that matter.

PL007

A CHINESE PERSPECTIVE FOR GUIDELINES: DOES COST MATTER

Professor Yaolong Chen MD, M.Sc., M.B.B.S.

Professor, Evidence Based Medicine Centre of Lanzhou University, China

Clinical practice guidelines are an important tool for healthcare delivery in China. Implementation of cost effective treatment and care will help to optimise resource use and patient outcomes for the country with the largest population in the world. Substantial variability in clinical practice exists among hospitals and in different districts across China, which can be minimized by the use of cost effective interventions. Beside, China is the only country where Western medicine and traditional Chinese medicine are practised alongside each other at every level of the healthcare system. From 1993 to 2017, nearly 1000 guidelines including Western medicine and traditional Chinese medicine were developed in China. However, very few of them identify and apply health economics evidence. For example, a study showed that only 11.32% of Chinese guidelines reported that economics should be considered but none of them use any such evidence.

We propose the following recommendations to promote Chinese guideline developers to use cost effectiveness evidence: firstly, given the low quality of Chinese guidelines and the limited resources available, the adoption or adaptation of existing high quality international health economics evidence and guidelines is a potentially efficient and cost effective approach. Secondly, to improve the transparency, guideline developers should follow RIGHT reporting checklist to elaborate whether or how they consider or use health economics evidence in their guidelines. Thirdly, more local high quality health economics studies should be implemented and synthesized in the future. Fourthly, Chinese guideline developers and methodologists should enhance communication and cooperation with international guideline and evidence base healthcare organisations such as GIN, Cochrane and INAHTA.

PL008

INTERNATIONAL PERSPECTIVES ON HOW TO DEVELOP GUIDELINES WITH COST IN MIND

Douglas K. Owens, MD, MS

Henry J. Kaiser, Jr. Professor
Professor of Medicine and Health Research and Policy
Professor of Management Science and Engineering
Senior Fellow, Freeman Spogli Institute for International Studies
Director, Center for Primary Care and Outcomes Research
Director, Center for Health Policy
Vice-Chair, U.S. Preventive Services Task Force
Stanford University, Stanford, CA USA

Practice guidelines have most commonly been based on considerations of clinical effectiveness of interventions, with relatively limited, if any, discussion of economic consequences. I will provide an overview of the efforts to include cost and cost-effectiveness analysis in practice guidelines by groups in the U.S. I will also discuss potential benefits and challenges associated with including costs or cost-effectiveness analysis in guidelines, including methodological challenges. Among these challenges are lack of agreement on appropriate thresholds for cost effectiveness in the U.S., limited high-quality analyses of cost effectiveness, and concerns about the applicability of economic analyses in a highly diverse health-care system.

PL009

USING REAL-WORLD EVIDENCE

Professor Julian Elliott

Lead for Evidence Systems at Cochrane, Senior Research Fellow at Cochrane Australia and Head of Clinical Research in the Department of Infectious Diseases, Alfred Hospital and Monash University (Australia)

Real world evidence is generated by the combination of routine care observational data ('real world data') and appropriate analytical techniques. Its purpose is to improve our understanding of the benefits, risks and costs of medical products and other health interventions, complementing the information derived from formal research studies. Many public and private health sector organisations are increasing their investments in the generation and use of this form of evidence, increasing its relevance for health guidelines.
Analyses of observational data have been an important evidence source for guidelines for some time, but the landscape is changing as investments translate into larger, more accessible, and at times better characterised data sources, combined with advances in analytical methods, and the partnerships and policies that promote their use. Fundamental challenges persist, including the methods, technical systems and human processes for rigorous capture and characterisation of health data; methods for making causal inferences from observational data; and the evolution of appropriate policy and governance frameworks to maximise public good outcomes. In the context of health guidelines, there is a need to develop better intersections with learning healthcare systems, including appropriate use of aggregate and individual-level data, and provision of guidance for broad populations and small population segments and individuals.

This presentation will aim to provide an overview of the field from the point of view of health guidelines, including current understandings of the most important opportunities and challenges, examples of what's working and what's not, and potential future scenarios.

PL010

USING FORMAL CONSENSUS METHODOLOGY

Professor Andrew Hutchings

Department of Health Services Research and Policy at the London School of Hygiene & Tropical Medicine, London (UK)

Guideline development involves making decisions at various stages of the process, for example, on the questions to be considered or on the final recommendations. Formal consensus development methods have been used in guideline development as a means for obtaining and synthesizing views of guideline group members. Such methods typically involve two or more rounds where group members generate and/or rate questions. Feedback of results and, in some cases, structured discussion allow group members to revise their judgments between rounds with the aim of establishing a consensus view of the group.
The last decade has seen advances in the ways that the quality of evidence is assessed during guideline development and the ways that the strength of recommendations are determined. Less attention has been paid to the different ways that formal consensus development is used and how different approaches might lead to differences in the guidelines and recommendations produced.

This talk will provide a brief summary of different formal consensus development methods. The main focus will be an assessment of the evidence for the use of formal consensus development approaches in guideline development and how variations in these approaches might influence guidelines and their recommendations.

PL011

THE ROLE OF EXPERTS IN GUIDELINE DEVELOPMENT: THE GOOD, THE BAD AND THE UGLY

Dr Eve Kerr

Louis Newburgh Research Professor of Internal Medicine at the University of Michigan Medical School, Director of the Ann Arbor VA Center for Clinical Management Research, a VA Health Services Research and Development Center of Innovation, Director of the Michigan Program on Value Enhancement, Member of the University of Michigan Institute for Healthcare Policy and Innovation, USA

While multiple organizations, including the Guidelines International Network, the US National Academy of Medicine and National Institute for Health and Care Excellence, have published standards for developing trustworthy guidelines, the role of experts on guideline committees remains controversial and unevenly applied. For this session, experts may be defined as individuals who have particular expertise in the subject matter based on their clinical specialty or funded research focus, and those who represent the experience and views of practitioners directly affected by the guideline. Most guideline developers recognize the important role of experts, and many strive to include experts among a multidisciplinary group of developers while managing the experts' conflicts of interests. Recently, as a result controversies in guideline conclusions about appropriate Hemoglobin A1c targets for patients with Type 2 Diabetes Mellitus, there has been renewed interest in approaches to balance the important role of experts in guideline development with the potential for conflict of interest. Using the diabetes controversy as an example, this talk will review how the use of experts may have influenced interpretation of evidence across six different diabetes guidelines, and review established and emerging approaches for minimizing conflict while incorporating the view of experts.

PL012

AUTOMATED DECISION AIDS FROM GUIDELINES

Professor Thomas Agoritsas, MD, PhD

Hospital-based General Internist and Health Research Methodologist, University Hospitals of Geneva, Switzerland ; Assistant Professor, McMaster University, Canada

The volume and complexity of new evidence published every day require guidance for clinicians. Yet, at the same time the majority of important decisions in health care are not clear cut and require shared decision making. More than two thirds of recommendations include in widely used evidence summaries are weak recommendations. And the proportion of preference-sensitive decisions is likely even higher, given the numerous comorbidities that patients present in real clinical practice.
Therefore guidance to clinicians and tools for shared decision making should go hand in hand. To engage into collaborative deliberation, both patients and clinicians need to have an easy access to current best evidence in ways that support meaningful conversations. However, traditional decision aids have been hard to produce, onerous to update, and are not being used widely at the point of care. Similarly, and despite major progress on synthesis and appraisal, the production and dissemination of guidelines has largely been tailored to meet the educational needs of clinicians, and are not suited for shared decision making.
In this presentation, we will explore new developments in the semi-automated production of decision aids from digitally-structured evidence summaries in guidelines, using our web-based authoring and publication platform: the MAGICapp (www.magicapp.org). We will discuss opportunities as well as challenges with this generic approach, including limitations with the available evidence, patients' need to discuss practical issues, and questions of presentation formats.

We will illustrate how guidelines and decision aids can be produced together in our recent BMJ Rapid Recommendations (http://www.bmj.com/rapid-recommendations), and discuss how efforts to enhance a trustworthy digital Evidence Ecosystem may help provide a stream of patient centered evidence conveyed to patients and clinicians for a wide array of clinical decision.

PL013

HOW DO YOU RECONCILE STRONG RECOMMENDATIONS WITH PATIENT CHOICE AND SHARED DECISION MAKING?

Dr Gregor Smith

Deputy Chief Medical Officer, Scottish Government
Honorary Clinical Associate Professor at the University of Glasgow
Fellow of the Scottish Patient Safety Programme and Salzburg Global

The first “Realistic Medicine” report was published by the Chief Medical Officer for Scotland, Dr Catherine Calderwood, in 2016. Developed directly from discussion with clinicians across Scotland, the concept seeks to introduce greater realism in health care; focusing on bringing true value to the patient by promoting a personalised approach to care, with shared decision making, reduction in unwarranted variation, harm and waste, better understanding and management of risk and the promotion of improvement and innovation. Since then, Realistic Medicine has gathered strong and enthusiastic support from right across the clinical and care professions, with two subsequent reports, “Realising Realistic Medicine” and “Practising Realistic Medicine”, outlining how the philosophy is bringing about a shift in culture and practice within NHS Scotland. Dr Gregor Smith, Deputy Chief Medical Officer for Scotland and a co-author of the three reports, will outline the changes that this has brought about and the evolving role and relationship that Realistic Medicine has to the application of evidence and guidelines.

PL014

FULLY INFORMED DECISION MAKING: PATIENT ACCESS TO THEIR HEALTH CARE DATA

Professor Catherine DesRoches

Department of Medicine, Harvard Medical School, Boston (USA)

OpenNotes is an international movement advocating for greater transparency in healthcare. We urge doctors, nurses, therapists, and clinicians to share the notes they write with their patients. The goal of sharing notes is to increase the patients understanding of their care, improve communication, better engagement, bolster safety, and enable the growth of a trusting partnership between clinicians and patients.

The OpenNotes initiative began in 2010 as a year-long pilot project, with 105 primary care physicians at three diverse U.S. healthcare centers inviting 20,000 patients to read notes online through patient portals. Findings from the study suggest that shared notes improve communication, safety, patient-doctor relationships, and may help patients become more actively involved in their health and healthcare. Further research suggests that giving patients access to their notes results in safer care, more accurate records, and increased trust between patients and clinicians. And, while clinicians worry that sharing notes with patients will increase their workload, disrupt workflow, cause patients to worry or become confused or upset by what they read, research suggests that these worries are unfounded.

OpenNotes is challenging assumptions regarding user populations. Contrary to predictions that note-sharing would be a benefit primarily to tech-savvy patients, interest appears widespread (about 80% of patients in the OpenNotes trial read at least one note). Non-Caucasian patients, those speaking a primary language other than English, or having a lower level of formal education are equally or more likely to report benefits from reading their notes.

Today, more than 27 million patients in the United States have easy access to their clinicians notes through online patient portals. Relatively simple and scalable, OpenNotes is sending a powerful message about how organizational transparency and inclusivity can empower patients and doctors and improve the delivery of healthcare.

PL015
TRAINING IN PRACTICE INTERVENTION TO TARGET ANTIBIOTIC PRESCRIBING: A FEASIBILITY STUDY

Implementation and quality improvement (including indicators)

L. Young [1], E. Duncan [2], C. Ramsay [2], I. Black [3], H. Cassie [4]

[1]Scottish Dental Clinical Effectiveness Programme, NHS Education for Scotland - Dundee (United Kingdom), [2]Health Services Research Unit, University of Aberdeen - Aberdeen (United Kingdom), [3]Quality Improvement In Practice Training, NHS Education for Scotland - Glasgow (United Kingdom), [4]NHS Education for Scotland / University of Dundee - Dundee (United Kingdom)

Background & Introduction
Despite Scottish Dental Clinical Effectiveness Programme (SDCEP) guidance, evidence suggests that dentists often prescribe antibiotics unnecessarily. To support implementation of SDCEP's recommendations for antibiotic prescribing, the Training in Practice intervention to Target Antibiotic Prescribing (TiPTAP) project proposed a theory- and evidence-based educational intervention for integration into an existing national outreach training programme.

Objectives / Goal
To develop and explore the feasibility and acceptability of integrating the TiPTAP intervention into a national outreach training programme.

Methods
The intervention was co-designed with NHS Education for Scotland's Quality in Practice Training Team, a multi-professional dental advisory group and implementation research experts. Intervention content was informed by qualitative data from stakeholders and mapped using established methods for behaviour change intervention development to generate a list of potential Behaviour Change Techniques (BCTs; active ingredients of interventions). BCTs were prioritised by the project co-designers to select candidate BCTs and modes of delivery. Feasibility and acceptability was evaluated via observation, questionnaire and interview.

Results & Discussion
TiPTAP was delivered in 10 dental practices. Selected BCTs were delivered as intended. Engagement appeared to vary across practices although questionnaire data indicated that practice staff positively rated the intervention's acceptability and appreciated the whole team approach. Suggestions for improvement were gathered, and the intervention has been adapted accordingly. Going forward, the impact of the intervention will be evaluated in a national randomised controlled trial.

Implications for guideline developers / users
Taking a co-design approach to the development of implementation interventions may facilitate adoption into service delivery.

Conclusion
TiPTAP provides an example of effective partnership working integrating intervention development and implementation into existing service delivery.

PL016
GUIDELINES TO PRACTICE - IMPLEMENTING PATIENT-CENTRED PROCESSES FOR STROKE REHABILITATION

E. Lynch [1], S. Hillier [2]

[1]University of Adelaide - Adelaide (Australia), [2]UniSA - Adelaide (Australia)

Background & Introduction
Australian Clinical Guidelines for stroke recommends that every patient be assessed for rehabilitation and mandates the Assessment for Rehabilitation Tool (ART: developed in 2012) to guide clinicians in evidence-based decision-making. The ART was originally disseminated passively via email, and its impact on clinical practice was unclear, therefore a more active multifaceted intervention was implemented and compared to a single educational outreach visit.

Objectives / Goal
To describe the factors related to implementation of the ART and to compare the effectiveness of an education intervention and a multifaceted intervention for improving rehabilitation assessment practices.

Methods
A mixed methods cluster RCT involved 10 Australian hospitals (clusters), randomly assigned to receive a single educational outreach visit, or a multifaceted intervention. Medical records were audited before, and 6 months after, the interventions, and focus groups were held.

Results & Discussion
In the pre-intervention audit 37% did not receive a documented rehabilitation assessment (from total 292) compared to 27% post; the multifaceted intervention was not more effective than education only (74% vs 72%, p=0.51). Findings from the focus groups (48 participants) highlighted that use of the ART varied across sites, and did not correspond with findings from the medical record audit.

Implications for guideline developers / users
Values and beliefs may be subterranean in clinical settings and need to be factored into guideline implementation plans and processes.

Conclusion
A single educational outreach visit was as effective as a multifaceted intervention for improving rehabilitation assessment practices for patients with stroke. A number of issues remain to be addressed to achieve greater equity for patients with stroke in accessing rehabilitation.

PL017
IMPROVING QUALITY OF LIFE IN PATIENTS WITH LOWER LIMB OSTEOARTHRITIS (OA)

E. Busby [1], C. Bird [2], N. Bent [2], G. Leng [2]

[1]NHS - Stafford (United Kingdom), [2]NICE - Manchester (United Kingdom)

Background & Introduction
OASIS was set up to create a high quality and efficient treatment pathway based on NICE guidance. A 6 week programme was formed, focusing on education with a holistic approach and exercise to improve strength and fitness.

Objectives / Goal
The OASIS pathway aimed to facilitate the rehabilitation and self-management of patients with lower limb OA. This was through increasing function and reducing pain based on validated outcome measure scores whilst remaining cost effective and time efficient.

Methods
A steering group was formed, including physiotherapy assistants, crucial to implementing the programme, physiotherapists and invited patients. The group met to analyse and critique latest evidence and guidance, design group-based education sessions and an evidence-based exercise regime.

Results & Discussion
The project has been closely monitored with a mix of audits, PDSA's (Plan, Do, Study, Act), functional and pain data scores, patient satisfaction and stories.
Complete 2016 data shows:
• Reported pain scores reduced in 63% of patients
• 96% of patients improved in at least 1 functional measure.

Implications for guideline developers / users
Opportunity for guideline developers to learn from a successful and sustainable evidence-based OA rehabilitation service and potential for improved outcomes for service users.

Conclusion
There is potential for this service model to be the main treatment for lower limb OA, thus increasing OA self-management and cost savings to the health and social care system.

PS001
LOW BACK AND RADICULAR PAIN: AN INTERACTIVE CARE PATHWAY FOR IMPLEMENTING THE BELGIAN GUIDELINE

Implementation and quality improvement (including indicators)
#PS001

P. Jonckheer [1], A. Desomer [1], B. Depreitere [2]
[1]KCE - Brussels (Belgium), [2]1University Hospitals Leuven - Leuven (Belgium)

Background & Introduction
In May 2017, a Belgian clinical guideline was edited, based on the "NICE guideline 2016 – Low back pain and sciatica in over 16s: assessment and management." However, an additional step was requested by the healthcare professionals for implementing it.

Objectives / Goal
Support the implementation of the Belgian guideline into the clinicians' daily practices by elaborating a care pathway identifying each clinical step, its accordant therapeutic interventions and the role of each type of care provider.

Methods
Several sources of data (systematic review of literature; survey among managers of care pathways in Belgium and 7 other countries; discussion with clinicians' and patients' groups) were used to develop a Belgian pathway in close collaboration with a multidisciplinary team of healthcare providers: general practitioners, physiotherapists, osteopaths, chiropractors, specialists in physical medicine and rehabilitation, orthopaedic surgeons, neurosurgeons, professionals working in chronic pain clinics, psychologists, occupational therapists, occupational physicians...

Results & Discussion
The care pathway encompasses the comprehensive approach of adult patients with low back or radicular pain, from the hyper-acute to the chronic phase. Several tools present the pathway: overviews, algorithms, booklets and interactive tools (http://lowbackpain.kce.be/). All scientific organisations from the professionals involved in the project are currently disseminating this pathway.

Implications for guideline developers / users
The pathway elaboration is a crucial step to improve the implementation of a guideline in such multidisciplinary health topic as low back pain.

Conclusion
Involvement of all healthcare disciplines and translation of guidelines in a care pathway stimulate adherence of the scientific organisations to disseminate the recommendations.

PS002
ENHANCING TRUSTWORTHINESS OF CHOOSING WISELY RECOMMENDATIONS AND KNOWLEDGE TRANSFER – INTERNATIONAL APPROACHES

Implementation and quality improvement (including indicators) #PS002

M. Nothacker [1], A. Qaseem [2], P. Vandvik [3], I. Kopp [4]
[1]AWMF-Institute for Medical Knowldge Management - Marburg Berlin (Germany), [2]American College of Physicians - Philadelphia (United States of America), [3]MAGIC; Institute of Health and Society - Oslo (Norway), [4]AWMF-Institute of Medical Knowldge Management - Marburg (Germany)

Background & Introduction
The “Choosing Wisely” (CW) campaign aims to promote conversations between healthcare professionals and patients to avoid unnecessary interventions [1]. CW-recommendations should be evidence based and address real potential for improvement. However, CW-recommendations have been criticised for their weak methodology and sparse impact [2].
[1] Levinson W. et al. “Choosing Wisely”: a growing international campaign. BMJ Qual Saf. 2015, 24(2):167-74.
[2] Atkinson P et al. CJEM Debate Series: #ChoosingWisely – The Choosing Wisely campaign will not impact physician behaviour and choices. CEJM 2018, 20(2):170-75.

Objectives / Goal
To discuss the need for methodological rigor for developing trustworthy CW-recommendations in alignment with G-I-N standards for high quality guidelines and to explore, how CW-recommendations could enhance guideline implementation.

Methods
Short presentations will address
1) Methodology: Manual and Criteria for the development of trustworthy CW-Recommendations. (M. Nothacker, Association of the Scientific Medical Societies in Germany)
2) Context: A model for delivering high value care to improve patient outcomes. (A. Qaseem, American College of Physicians)
3) Implementation at the point of care: Using technology and digitally structured data to insert trustworthy recommendations into local decision support systems. (P. Vandvik, MAGIC)
In a moderated discussion, strengths and limitations of these approaches will be explored.

Results & Discussion
Model recommendations will be identified and conformity with methodological requirements will be delineated. Enriched by discussion, strategies to enhance CW methodology will be compiled.

Implications for guideline developers / users
Proposing a sound methodology to select and implement recommendations to reduce low value care from a G-I-N perspective.

PS003
GUIDELINES AND VALUE INTERVENTIONS: INSIGHTS AND SYSTEM LEARNING

Implementation and quality improvement (including indicators) #PS003

P. Chrisp [1], G. Leng [2]
[1]NICE - Manchester (United Kingdom), [2]NICE - London (United Kingdom)

Background & Introduction
With pressures on healthcare budgets, there is more focus on reducing the use of lower value interventions. This session outlines the use of guidelines in forming payment mechanisms and influencing behaviour to do this.

Objectives / Goal
To provide system insights and learning on the place of guidelines to help remove, reduce or restrict lower value interventions.

Methods
NICE identifies evidence-based recommendations against the routine use of interventions that are not cost effective or harms outweigh benefits. Working collaboratively, low value interventions are prioritised using agreed criteria, and system levers identified that can be used for their removal, reduction or restriction, for example policy development and incentives. Practitioner and service user input, and shared decision making, are critical.

Results & Discussion
Policy was developed using NICE guidance to stop routine prescribing of 18 low value medicines in primary care. A long list of procedures has also been developed and is being prioritised for decommissioning. Implementation will be monitored.

Implications for guideline developers / users
Guideline developers should consider making recommendations against the use of specific interventions where there is strong evidence that the practice is absolutely ineffective, or when compared with alternatives, in terms of quality and/or cost. guideline developers should identify and engage with system partners to embed these recommendations and influence payment mechanisms, incentives and behaviour to reduce the inappropriate use of low value interventions.

Conclusion
Recommendations against the use of ineffective interventions, coupled with system levers, offer the opportunity to improve quality of care and release resources for investment in higher value care.

PS004
G-I-N LOW AND MIDDLE INCOME COUNTRIES (LMIC) WORKING GROUP: WHAT WE DO, WHY WE DO, AND HOW WE DO IT?

Other
#PS004

J.L. Mathew, I. Maweu, S. Huckson, R. Morgan, C. Abeysena
PGIMER - Chandigarh (India)

Background & Introduction
The 'G-I-N Low and Middle Income Countries (LMIC) Working Group (WG)' comprises a network of G-I-N members striving to foster evidence-based guideline development, dissemination and implementation in resource-constrained healthcare settings.

Objectives / Goal
To provide the G-I-N community insights into the challenges in LMIC towards guideline development/dissemination/implementation; and glimpses of how the LMIC WG is working to address these.

Methods
A series of short presentations (12 minutes each) followed by interactive discussion (40 minutes):
1.G-I-N LMIC WG: WHAT AND WHY? (Joseph Mathew). This presentation will highlight the reasons for creating the WG, what has been done so far, and plans for the future.

2.GUDELINE ADOPTION, ADAPTATION AND ALTERNATIVES. (Chrishantha Abeysena). This presentation will highlight how guidelines are developed, or adopted, or adapted using Sri Lanka as an example.

3.CAPACITY BUILDING MODELS. (Irene Maweu). This presentation will highlight models to build capacity and capability amongst individuals and organizations in developing countries for evidence-based guideline development.

4.LMIC GUIDELINE CHECKLIST. (Rebecca Morgan). This presentation will highlight the ongoing work of the WG towards creating a tailor-made checklist applicable for prioritization of activities for guideline development in LMIC.

5.MODERATED DISCUSSION. (Sue Huckson). This interaction will engage panellists and participants in a discussion on how the WG can engage with other G-I-N members (individual and organizational) to advance the goals of the WG.

6.SUMMARY

Results & Discussion
Not applicable

Implications for guideline developers / users
Guideline developers and users in developing and developed countries will have a better appreciation of the issues involved in low resource settings, and be able to work together to redress these.

Conclusion
Not applicable

PS005
Strengthening the Use of Evidence in Quality Improvement: Experience in U.S. Healthcare Delivery Systems

Implementation and quality improvement (including indicators) #PS005

H. Wu
Kaiser Permanente - Oakland (United States of America)

Background & Introduction
Healthcare quality improvement (QI) is often shaped by expert input and internal evaluation without much consideration of the published evidence. QI teams may lack the time or skills to assess the evidence, or they may not consider it to be relevant. Kaiser Permanente's (KP) Care Management Institute, Evidence Services unit develops clinical practice guidelines for a large integrated U.S. healthcare system. Additionally, it provides general and targeted support for implementation of evidence-informed QI initiatives.

Objectives / Goal
To share experiences and lessons learned about how KP incorporates evidence in QI.

Methods
Evidence Services provides both general education and project-specific consultation for KP, targeting QI project leaders. General education includes workshops about how to conduct rapid reviews in a Plan-Do-Study-Act process and how to use critical appraisal tools such as AMSTAR and AGREE II. Project-specific consultation includes conducting rapid reviews, critical appraisals, and advising on fidelity considerations when external guidelines or evidence are adapted for internal use.

Results & Discussion
Evidence Services' work has been used to clarify the best strategic focus for QI and to restrain from implementing interventions that are not backed by evidence. Demand for project-specific evidence support is high, but organizational resources to provide direct support are finite. General education is a more sustainable and scalable model than project-specific support, but the most meaningful level of focus and skill-building is unclear.

Implications for guideline developers / users
Evidence is under-utilized in QI. Guideline developers and related groups should use their expertise to expand the use of evidence in QI, through either targeted or general support.

W001A
RUNNING A SUCCESSFUL NETWORK TO SUPPORT METHODOLOGISTS AND GUIDELINE DEVELOPERS: SHARING EXPERIENCES FROM UK EVIDENCE SYNTHESIS NETWORKS

Systematic reviewing and evidence synthesis
#W001A

J. Thornton [1], R. Hill [2], E. Mcfarlane [1], L.C. Chen [1]
[1]NICE - Manchester (United Kingdom), [2]NICE - Liverpool (United Kingdom)

Background & Introduction
We established the 'North West Evidence Synthesis Network' (NWESN) to bring together guideline developers, health researchers and policy makers from across our region in order to share knowledge and expertise and raise awareness of methodological developments. Other UK networks have been initiated: 'Liverpool Evidence Synthesis Network' (LivEN), Health Research Methodology and Implementation (HeRMI), Bangor Evidence Synthesis Hub (BESH), Peninsula Systematic Review discussion group (PenSR). Feedback from members has been positive with both personal and institutional benefits.

Objectives / Goal
The workshop aims to:
-advocate the role of networks
-discuss the practicalities to establishing/running networks
-explore what guideline developers and methodologists need from networks

Results & Discussion
The workshop is an opportunity to discuss different networks and explore the challenges of initiating and running networks. It intends to raise awareness of the benefits of networks and what they can offer methodologists and guideline developers. We hope to encourage more people to connect with and establish methodological networks.

Implications for guideline developers / users
Our presentation at the Global Evidence Summit 2017 demonstrated the benefits of the NWESN. Implications for guideline developers include updating on new methods and the opportunity to share skills, information and support across researchers and institutions.

Description of the workshop
Short presentations to compare and contrast the remit and function of the different networks.
Small group discussions to explore:
-What guideline developers and methodologists want from networks
-Challenges to establishing/running networks and strategies to overcome these
-Future directions for networking
-How networks can be better connected
Followed by group feedback and conclusions.

Target Group
All staff involved in evidence synthesis and guideline development.

W001B
BUILDING A GUIDELINE THAT MEETS THE HIGHEST STANDARDS: BREAKING IT DOWN TO WHAT YOU NEED TO KNOW AND DO

Implementation and quality improvement (including indicators) #W001B

J.J. Jue, L. Haskell, S. Cunningham, K. D'anci, J. Reston, K. Schoelles
ECRI - Plymouth Meeting (United States Minor Outlying Islands)

Background & Introduction
Are you preparing to develop a guideline and want to know what standards the guideline will be held to? Or have you invested a lot in guideline development and wonder why your guideline has not gotten the highest marks on evaluation? Then this workshop is for you!

Objectives / Goal
To learn what is required to meet the highest standards for CPG development.

Results & Discussion
Come learn critical steps in the guideline development process that will help your guideline meet the highest standards for trustworthy guidelines. Understand what needs to be documented in the guideline and how. Glean insights into how guidelines are assessed and evaluated from experts who have developed and assessed hundreds of guidelines.

Description of the workshop
This workshop will be a practical breakdown of the quality standards for guidelines. We will describe essential guideline development principles and processes. We will highlight what documentation is important.
Topics addressed:
1. What are the standards for clinical practice guideline transparency?
2. What are acceptable ways to manage and document the conflict of interest of panel members?
3. How can you ensure your guideline development group is multidisciplinary and how should that be documented?
4. What kind of methodologist is needed?
5. What are various ways to effectively incorporate patient and public perspectives?
6. What are the essential pieces of the systematic review that need to be documented?
7. How should your recommendations be worded? What are the standards?
8. What should the updating policy be for the guideline?

Target Group
Guideline developers

W002A
WHY WE DO WHAT WE DO AND HOW WE CAN DO IT BETTER: STRENGTHENING SYNERGY BETWEEN GUIDELINE AND HTA COMMUNITIES

Developing Recommendations
#W002A

H.J. Schunemann [1], B. O' Rourke [2], H. White [3], J. Rodriguez Moreno [4], A. Willemsen [5], I.M. Verstijnen [6]

[1]McMaster University - Hamilton (Canada), [2]CADTH - Ottawa (Canada), [3]NHMRC - Melbourne (Australia), [4]IETS - Bogotá (Colombia), [5]EUnetHTA - Diemen (Netherlands), [6]NHCI - Diemen (Netherlands)

Background & Introduction

Guideline communities develop evidence-based best-practice information to help clinicians and end-users optimize decision-making. Health Technology Assessment (HTA) communities have similar aims but often have a greater focus on comparative clinical effectiveness and cost-effectiveness in support of policy makers. Despite these overlapping responsibilities and interest, a chasm may exist between guideline development and HTA. This could result from lack of collaboration or simply a lack of awareness of the role that each plays. As a result, organizations duplicate their efforts. Linkages between guideline developers and HTA producers are rarely considered yet have the potential to significantly benefit both communities. This workshop, organized by the GINAHTA steering committee, aims to explore this potential further.

Objectives / Goal

To provide practical guidance on how to cultivate effective collaboration between guideline developers and HTA producers to provide mutual benefit.

Results & Discussion

To develop specific recommendations regarding ways to better integrate guideline development and HTA, and to determine the next steps for the GINAHTA Working Group.

Description of the workshop

A brief plenary introduction will be followed by an interactive workshop based on case examples. The case studies will describe a specific technology topic that resulted in both a Guideline and a HTA recommendation. One case study will be on a drug topic, and another on a medical device. Workshop participants will then be divided into groups to actively answer specific questions related to the examples presented. We will collect contributions from the audience and summarize it as GINAHTA guidance.

Target Group

HTA and guideline developers, policy makers and other relevant stakeholders.

W002B
HOW TO CONVERT YOUR GUIDELINE INTO USEFUL INFORMATION FOR PATIENTS AND THE PUBLIC

Implementation and quality improvement (including indicators) #W002B

N. Santesso [1], Z. Saz-Parkinson [2], D. Plutecka [3], Z. Les [3]
[1]McMaster University - Hamilton (Canada), [2]European Commission - Ispra (Italy), [3]Evidence Prime - Krakow (Poland)

Background & Introduction
When developing guidelines, large amounts of evidence about benefits and harms, values and preferences, resources, and feasibility and equity issues are summarised. This information is typically in a format not suitable for most audiences. Clinical guidelines aim to improve quality of care, and should target various groups including patients, healthcare professionals, and policy makers, and it is important that the information is tailored to their needs.

Objectives / Goal
Participants will 1. learn how to prepare guideline recommendations in a version easily understandable to patients and the public; 2. use GRADEpro to prepare an online version.

Results & Discussion
Presenting information from guideline recommendations so that it is accessible to patients or the public is a big challenge for guideline developers. We have developed a format based on past research about how to present patient versions of guidelines, and on user testing of different patient versions developed within the GRADEpro software. By using GRADEpro, we have been able to easily convert the same information used by guideline panels when making recommendations, to an online version for the public.

Description of the workshop
This is an interactive hands-on workshop. We will briefly discuss the challenges and best practices for presenting guideline recommendations to patients and the public . We will showcase the development of the public versions from the European Commission Initiative on Breast Cancer. Participants will then practice using GRADEpro to directly prepare guideline recommendations for patients and the public and experiment with different interactive tables and graphical displays

Target Group
Guideline Developers, Healthcare Professionals, Consumers

W003A
REDUCING BIAS IN GUIDELINE DEVELOPMENT - MANAGING CONFLICTS OF INTERESTS

Managing conflicts of interest
#W003A

J. Karpusheff
NICE - Manchester (United Kingdom)

Background & Introduction
GIN recently asserted that whilst conflicts of interests “cannot be totally avoided”, their management must be “fair, judicious and transparent”[1]. NICE principles include the use of unbiased Committees to support this. NICE has recently reviewed and revised its Declaration of interests policy.
[1] Schunemann, HJ. et al Guidelines International Network: Principles for disclosure of interests and management of conflicts in guidelines. Annals of Internal Medicine. 2015, 163:548-553.

Objectives / Goal
To describe the new NICE policy and how it fits with the GIN principles for conflict of interests. To discuss a range of potential conflicts of interests, using the AGREE checklist criteria for competing interests.

Methods
Interests that could arise from Committee members in guideline development will be explored.

Results & Discussion
The NICE policy aims to give clearer direction to developers on how to manage interests.

Implications for guideline developers / users
The management of conflicts of interests is key to a fair and transparent process of guidance development. As the AGREE criteria states, it is important to report how competing interests might have influenced the development of the guideline [1]. [1] https://www.agreetrust.org/wp-content/uploads/2016/02/AGREE-Reporting-Checklist-2016.pdf

Conclusion
The workshop will provide the opportunity to explore how interests might be reported and managed to reduce bias in guideline development.

Description of the workshop
The workshop will present attendees with a range of possible scenarios. In the role of quality assurance teams, attendees will determine how interests should be categorised and managed. Decisions will be discussed against the AGREE criteria to review how far assurances could be given that all measures to reduce bias have been taken.

Target Group
Guideline developers. Guideline Committee members.

W003B
GINTECH – SHARING OF DATA WITHIN THE EVIDENCE ECOSYSTEM

Using technology to support uptake, implementation and evaluation #W003B

T. Kuijpers [1], L. Brandt [2], B. Alper [3], I. Kunnamo [4], A. Mitchell [5], Z. Munn [6], K. Robinson [7], C. Whittington [8]

[1]Dutch College of General Practitioners (Netherlands), [2]University of Oslo, MAGIC (Norway), [3]EBSCO Health (United States of America), [4]Duodecim (Finland), [5]NICE (United kingdom), [6]JBI (Australia), [7]JHU (United States of America), [8]Dr.Evidence (United States of America)

Background & Introduction
An important aim of GINtech is facilitating sharing of data between systems and tools. We use the evidence ecosystem as a framework to visualize the flow of data between different elements, and to facilitate tailored discussions about standards for digitally structured data. Currently we experience lack of digitization and interoperability between tools, which results in inefficient linking within and between the different parts of the evidence ecosystem.

Objectives / Goal
We aim to agree on what standards to use and how data should be structured to obtain efficient linking and transfer of data throughout the evidence ecosystem.

Results & Discussion
We will present examples of digitized content in four domains: 1) production, 2) synthesizing, 3) disseminating, and 4) implementing and evaluating. In small groups we will discuss preferred standards for the sharing of data, barriers, facilitators, wishes and knowledge gaps for every domain. This will be followed by a plenary discussion to foster agreement on standards for the sharing of data.

Implications for guideline developers / users
Participants will partake in the development of digital standards as well as learn about the key role of digital structured data, available technology and how to make use of it in guideline development.

Description of the workshop
This is an interactive workshop with short presentations followed by small group discussions. We will use the results to foster agreement on standards for the sharing of data across the evidence ecosystem.

Target Group
Guideline developers and tool developers with an interest in sharing of data and learning about how the different parts of the evidence ecosystem can be linked.

W004A
AN INTRODUCTION TO NETWORK META-ANALYSIS FOR DECISION MAKING

Systematic reviewing and evidence synthesis
#W004A

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Background & Introduction
Decision making in health technology assessments and guidelines is usually based on evidence provided by randomised controlled trials. Often numerous interventions are available for a given condition and patient population but no single trial has compared all of them. A joint, coherent, analysis of all evidence is required to determine the most effective intervention. Network meta-analysis (NMA) is an extension of conventional meta-analysis for estimating the relative effects of all interventions of interest compared to each other. Any number of interventions can be compared provided they form a connected network of comparisons. The threshold method can be used to assess robustness of recommendations based on NMA results.

Objectives / Goal
To understand the assumptions underlying NMA, when to use it, how results should be interpreted to inform a decision and how confidence in the decision can be assessed through threshold analysis.

Results & Discussion
NMA is regularly used in health technology assessments and guidelines. It provides coherent results, which are essential for decision making when there are multiple candidate interventions for recommendation. The robustness of decisions to potential bias in the evidence can be assessed and discussed with guideline committees and stakeholders.

Implications for guideline developers / users
NMA should be considered when more than two interventions are being compared. This adds complexity to data extraction and analysis but provides a coherent summary of the evidence needed to support decision making.

Description of the workshop
Lectures will introduce key concepts and assumptions using examples from published NICE guidelines. Discussion points and exercises will be included to reinforce key concepts.

Target Group
Guideline commissioners, systematic reviewers and health economists.

W005A
SYSTEMATIC CONSTRUCTION OF INDICATORS TO EVALUATE IMPLEMENTATION OF CLINICAL PRACTICE GUIDELINES

Implementation and quality improvement (including indicators) #W005A

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Background & Introduction
Indicators derived from guidelines are frequently used to assess the utilization of appropriate health care. Although many indicators are reported, a systematic development approach is rarely undertaken.

Objectives / Goal
To construct a systematic approach to develop indicators of healthcare services utilization from clinical practice guidelines (CPG), and assess their feasibility for research.

Results & Discussion
The developed approaches and indicators (individual and the whole set) will be discussed. Possible biases in the approach, encountered challenges and their potential solutions will be reviewed.

Implications for guideline developers / users
Participants will gain insight into the challenges to systematically evaluate the implementation of CPG and to assess the intensity of appropriate healthcare services utilization.

Description of the workshop
The workshop will start with an introduction to the challenges of evaluating clinical practice guidelines (CPG) implementation, qualities and legal status of CPG. Participants will discuss the CPG and data sources available for their assessment in their national healthcare systems. They will work in groups to develop a strategy to find the relevant CPG, translate recommendation statements to indicators, and evaluate their feasibility for research with existing databases. Participants will discuss major obstacles to the process and possible solutions. Group work will be followed by a discussion of results, their implications for healthcare services utilization monitoring and research.

Target Group
Researchers and public officers with interest and some experience of translating guidelines and recommendations into measurable indicators, and with some experience with data sources available for the assessment.