Results Forty-five recommendations spanning nine CPGs were processed and converted into Drools rules. We identified 138 decision variables and 91 actions within the selected recommendations. From these, we encoded 148 concepts associated with value set meta-tags and 238 decision rules.

Discussion The level of difficulty required to encode the recommendations was directly related to the specificity, complexity, and decidability of each recommendation; there was significant variability among the recommendations.

Implications for Guideline Developers/Users CPG developers may need new processes in order to optimise recommendations for incorporation into CDS systems.

P151 CULTURE AND GUIDELINES: HOW CULTURAL DIFFERENCES IN TREATMENT APPROACH AFFECT INTERPRETATION OF LITERATURE AND GUIDELINE RECOMMENDATIONS

¹S Schwartz, ²C Drumheller. ¹Virginia Mason Medical Center, Seattle, USA; ²American Academy of Otolaryngology - Head and Neck Surgery, Alexandria, USA

10:1136/bmjqs-2013-002293.182

Background Guideline development activity is primarily focused in Western Europe and North America. Consequently, western medical interventions and approaches are disproportionately represented among guideline developers. scepticism about cultural variations in treatment, concern of publication bias in specific regions or languages, and resulting scepticism of foreign literature compounds the problem of accurately assessing evidence and making sound recommendations. When accounting for publication bias and/or prevailing cultural paradigms, guideline developers may struggle to determine the benefit-harm ratio of alternative/complementary interventions.

Context A recent guideline development panel struggled with precisely these issues when reviewing available literature to formulate a recommendation on acupuncture therapy for Bell's palsy patients. All physicians on the panel practiced medicine in the United States, and were unfamiliar with acupuncture therapy. Available literature came predominantly from one country with evidence of severe publication bias. The panel was unable to determine the benefit-harm ratio of acupuncture therapy, and ultimately could make no recommendation for the use of acupuncture for Bell's palsy patients.

Description of Best Practice Guideline developers need to give careful consideration to interpretation of literature when there may be significant cultural differences in treatment approach, cultural bias among the panel, or publication bias that may affect recommendations. Transparent discussion that recognises these issues will help ensure that recommendations regarding alternative/complementary interventions are sound.

Lesson for Guideline Developers Guideline developers need to be aware of potential bias as to how cultural differences in treatments are represented in guideline recommendations, and be mindful regarding the cross-cultural applicability of guideline content.

P153 SUCCESSFUL STRATEGIES IN THE IMPLEMENTATION OF CLINICAL PRACTICE GUIDELINES: CREATING EVIDENCE-INFORMED PRACTICE CULTURES

H McConnell, D Grinspun, I Bajnok. *Registered Nurses' Association of Ontario, Toronto, Canada*

10:1136/bmjqs-2013-002293.183

For over a decade, a professional nursing association has lead a programme focused on the development, dissemination, implementation and evaluation of clinical and healthy work environment guidelines. This programme has achieved considerable recognition around the globe based on its rigorous guideline development process, and innovative implementation strategies. These strategies are founded on an evidence-informed implementation model, and include individual, organisational and system level approaches. A key organisational level strategy within this programme, the Best Practice Spotlight Organization (BPSO) initiative, was designed to support health care organisations in their journey towards clinical excellence through the implementation and sustainability of multiple clinical practice guidelines. This initiative was launched in 2003 with nine organisations (acute care hospitals and home health care agencies), and has grown to include 68 BPSOs representing 294 sites. This reach has included international BPSOs in Spain, Australia, Chile, and the United States. The BPSO initiative provides specific coaching, mentoring, knowledge transfer and capacity building opportunities, and support to leaders in the BPSO sites as they implement, evaluate and work to sustain clinical guidelines both across their organisations and at the team/unit level. This strategic approach has served to trigger the development of evidence informed cultures, improve patient care and enrich the professional practice of nurses and other health care providers. This presentation will share some of the key outcomes of this guideline implementation strategy, and will highlight success storeys of how BPSOs are changing the nursing and health care landscape to foster a culture of evidence informed practice.

P154 DEVELOPMENT OF THE DOCUMENTATION AND APPRAISAL REVIEW TOOL (DART) FOR SYSTEMATIC REVIEWS

¹R Diekemper, ²B Ireland, ³L Merz. ¹American College of Chest Physicians, Northbrook, USA; ²The Evidence Doc, Pacific, USA; ³BJC HealthCare Center for Clinical Excellence, St. Louis, USA

10:1136/bmjqs-2013-002293.184

Background Systematic reviews are the foundation for evidence-based guidelines. Rigorous standards exist, but there is wide variation in implementation, highlighting the need for a more comprehensive quality assessment tool for systematic reviews.

Objective To develop a tool that sufficiently evaluates major biases relevant to experimental and observational study designs.

Methods The Documentation and Appraisal Review Tool (DART) was developed using epidemiologic principles of study design and the following resources: Overview Quality Assessment Questionnaire (OQAQ), Assessment of Multiple Systematic Reviews (AMSTAR), the Cochrane Handbook, and the standards promoted by the Agency for Healthcare Research and Quality, and the Institutes of Medicine (IOM). DART underwent multiple rounds of testing and revisions.

Results Compared to OQAQ and AMSTAR, DART includes two unique questions and several questions covered by OQAQ or AMSTAR but not both. OQAQ and DART had the highest reporting consistency. Four AMSTAR questions elicited inconsistent responses. Identifying reviewer rationale was most difficult using the OQAQ tool, and easiest using DART.

Discussion DART allows for documentation of reviewer rationale, facilitating reconciliation between reviewers and documentation for future updates. DART also allows for evaluation of major biases relevant to observational study designs and the

assessment of standards recommended by the March 2011 IOM Standards for Systematic Review.

Implications for Guideline Developers/Users The proliferation of systematic reviews provides guideline developers the opportunity to utilise pre-existing research to produce evidence-based guidelines. However, the wide variation in quality means developers will need to carefully assess the quality of systematic reviews using a tool such as DART.

P155 LESSONS LEARNED: APPLYING GRADE METHODOLOGY TO EVIDENCE-BASED HEALTH TECHNOLOGY ASSESSMENT WITHIN A MANAGED CARE SETTING

J Lam. Kaiser Permanente, Southern California Permanente Medical Group, Pasadena, USA

10:1136/bmjqs-2013-002293.185

Background Health technology assessment (HTA) within the context of a managed care organisation requires rigorous evidence assessment completed in a timely and efficient manner. A modified version of the GRADE evidence grading system was piloted in a long-standing HTA programme to evaluate new and existing medical technologies with high-cost, high-volume impact.

Context An HTA programme developing evidence-based guidance to inform technology acquisition and implementation strategies within a large, US-based healthcare system.

Description of Best Practice A modified GRADE approach was used to assess the quality of evidence for six health technologies over a 6-month period. Although the application of GRADE required additional analytical time, evidence assessments were completed within a reasonable timeframe. Application of the GRADE framework allowed technology committee members to more easily understand the quality of a body of evidence, weigh the benefits and harms, account for patient values, and assess potential resource and operational implications.

Lesson for Guideline Developers Prior to adopting GRADE, many new technologies were assessed as having “insufficient” evidence. The GRADE approach provided greater clarity, and evidence that would previously have been classified as “insufficient” was graded as either “low” or “very low” quality, allowing for greater flexibility and transparency in decision-making when moving from evidence to recommendations. Diagnostic and prognostic tests or devices continued to present unique challenges as well as technologies for which limited comparative evidence was available, and more guidance for in these areas is needed. Additional elaboration on resource and operational concerns specific to evaluating new technologies would be useful to HTA programmes.

P156 CLINICAL PRACTICE GUIDELINES IN PAEDIATRICS IN THE CZECH REPUBLIC

K Klikova, R Licenik, V Mihal. Centre for Clinical Practice Guidelines, Olomouc, Czech Republic

10:1136/bmjqs-2013-002293.186

Background High quality clinical practice guidelines in paediatrics (CPGP) should be developed with standard and rigour methods. There are specialty societies in the Czech Republic developing guidelines of variable quality using different methods of development, adaptation, implementation and evaluation

Objectives The aim of this study was to analyse the methods of development, adaptation, dissemination, implementation and evaluation of Czech CPGP.

Methods The database of all CPGP was developed in 2011 and updated on a regular basis. The three types of specialty societies were decided: 1. Paediatric and neonatology societies 2. Other specialty societies developing CPGP 3. Specialty societies developing guidelines with relevant recommendation for paediatric care. The search and analysis of open resources were made to find the information about guideline methodology. Questionnaire survey to get the missing information was made.

Results There are 113 specialty medical societies in the Czech Republic. 31 societies developed 140 CPGs. 31% developed by paediatric and neonatology societies, 51% by other societies and 18% by societies developing CPGs with some paediatric recommendations. The questionnaire survey is ongoing.

Discussion The methods of development CPGP in the Czech Republic is of low quality. There are no explicit strategies for dissemination, implementation and evaluation.

Implications for Guideline Developers/Users The methods of guideline development need be standardised and should be of highest possible quality. There is already high quality methodology in the Czech Republic developed by National Reference Centre, which has been using by different specialty societies and could be used for CPGP.

P157 CLINICAL PRACTICE GUIDELINES IN THE CZECH AND SLOVAK REPUBLIC

K Klikova, R Licenik. Centre for Clinical Practice Guidelines, Olomouc, Czech Republic

10:1136/bmjqs-2013-002293.187

Background Palacky University Faculty of Medicine Centre for clinical practice guidelines is the independent academic centre focused on guidelines methodology.

Objectives The aim of this study is to analyse methods of development, adaptation, implementation and evaluation of CPGs in the Czech and Slovak Republic from 2010 to 2013.

Methods The database of all Czech and Slovak CPGs and specialty societies was developed in 2010 and updated on a regular basis. The analysis of methods of development was made. AGREE II instrument was used both in Czech and English version to evaluate quality of some CPGs.

Results There are 112 Czech specialty societies and the national Reference Centre developing CPGs. 1331 CPGs were developed till 2013 in total with increase of 33% between 2010 and 2013. The number of adopted international CPGs has increased significantly. Majority of CPGs have not stated funding and conflicts of interest. In the Slovak Republic, there are 125 specialty societies and the Ministry of Health developing CPGs. 342 CPGs were developed till 2013. Majority of CPGs were developed by government. A few CPGs stated non-governmental funding, which is always a private company support.

Discussion There has been increasing number of developed CPGs in both countries. Standardised high quality methods are not used systematically. High quality methodology was developed and used by Czech National Reference Centre.

Implications for Guideline Developers/Users There should be high quality methods used for CPG development. The developing bodies should adopt methodology already exist in the Czech Republic.