

Description of Best Practice We used the ADAPTE method to develop a care protocol for major depression in primary care tailored for the local context, with a consideration of the organisation of health care services in primary care. The work was monitored by an expert committee composed of mental health specialists, general practitioners, health care administrators and decision-makers at regional and provincial levels. The care protocol is based on two clinical practice guidelines: the NICE guideline on the treatment and management of depression in adults (2010) and the CANMAT clinical guidelines for the management of major depressive disorder in adults (2009).

Lessons We will share the challenges associated with the adaptation of clinical recommendations and organisational strategies to the local context, and the actual implementation of the care protocol in primary care. We will discuss issues dealing with the applicability and successful uptake of recommendations in local contexts (ex.: availability of resources for guideline adaptation, types of professionals involved, barriers).

P146 ADAPTING AND IMPLEMENTING GUIDELINES FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

C Pham, M Koster. Kaiser Permanente, Southern California Permanente Medical Group, Pasadena, US

10:1136/bmjqs-2013-002293.179

Background Adaptation of high-quality external guidelines can be an efficient and effective means to develop guidance more rapidly, allowing for shifting of resources to knowledge transfer and health system implementation efforts.

Context To describe successful guideline adaptation and implementation strategies used by a large US health care organisation to improve the quality of care for adults with chronic obstructive pulmonary disease (COPD).

Description of Best Practice A multidisciplinary guideline team evaluated and adapted a guideline on Chronic Obstructive Pulmonary Disease (COPD) developed by the American College of Physicians, American College of Chest Physicians, American Thoracic Society, and European Respiratory Society (ACP/ACCP/ATS/ERS). Recommendations were evaluated and modified for implementability based on several dimensions of the GLIA tool. Implementation strategies targeted to physicians included electronic distribution of guidelines, interactive online continuing medical education, and point-of-care encounter support. Implementation efforts targeted to patients included point-of-care education booklets, online resources for COPD self-management, and proactive outreach for spirometry testing. Systems-level interventions included development of patient outreach lists and computerised decision support. Monthly reporting and review on three measures was conducted to monitor performance. Ongoing implementation efforts resulted in increased rates of spirometry testing and management of COPD exacerbations with systemic corticosteroid and bronchodilator medications over a four-year period.

Lessons Challenges arise when externally developed guidelines lack the specificity necessary for recommendations to be successfully implemented. Systematic evaluation and modification of recommendations is necessary to enhance implementability at the patient, provider and systems levels, as well as to improve performance.

P149 DEVELOPMENT OF EVIDENCE BASED GUIDELINES FOR THE TREATMENT OF SEIZURES AND EPILEPSY

U Ott, K Hegmann, M Thiese, D Passey, W Caughey, Z Carter. Rocky Mountain Center for Occupational and Environmental Health, Salt Lake City, USA

10:1136/bmjqs-2013-002293.180

Background Seizures in the past year affect approximately 20% of patients with epilepsy. Vehicle crashes are also well associated with epilepsy. Different requirements for drivers with epilepsy exist across state, regional and national jurisdictions. However, a widely accepted threshold for risk of crash of 1% is common in safety sensitive positions.

Objectives To develop evidence based guidelines for the treatment and return to work/driving for those with a history of seizures and epilepsy.

Methods A panel of 5 experts developed a set of specific questions regarding the prevalence of seizures and risks of recurrence. A research team developed a search strategy which included utilisation of specific search terms for each question. A systematic literature review was performed. Databases searched included Pubmed, EBSCO and Google Scholar.

Results 246 research articles were reviewed. For individuals with a history of a single, unprovoked seizure, evidence supports a minimum of 82.02 months (6.8 years) off anti-seizure medication and seizure free. A worker with a history of seizures should have a minimum of 10 years off anti-seizure medications and seizure free prior to returning to a safety sensitive position.

Discussion These analyses provide guidance for the treatment of seizures and epilepsy and return to safety sensitive positions. Implications The breadth of safety sensitive jobs includes fork lifting driving, truck drivers, bus drivers, overhead crane operations, and the airline industry.

P150 TRANSLATING RECOMMENDATIONS INTO CLINICAL DECISION SUPPORT: CANCERLINQ PROTOTYPE EXPERIENCE

¹E Duffy, ³J Michel, ¹J Jue, ¹E Erinoff, ¹V Coates, ²J Mann, ²S Temin. ¹ECRI Institute, Plymouth Meeting, PA, USA; ²American Society of Clinical Oncology (ASCO), Alexandria, VA, USA; ³Yale Center for Medical Informatics, Yale School of Medicine, New Haven, CT, USA

10:1136/bmjqs-2013-002293.181

Background The Guideline Elements Model (GEM) has been widely used to translate natural language clinical practice guidelines (CPGs) into clinical decision support (CDS) using a highly replicable, guideline-centric approach. A CPG recommendation-to-CDS translation process, which uses GEM-processed content to support an oncology rapid learning system (RLS) prototype, is examined here.

Objectives To develop rules for a breast cancer-specific CDS prototype using GEM-processed guideline content.

Methods We created five breast cancer patient scenarios with expert input from oncologists based on nine published CPGs. Using the Yale Center for Medical Informatics-developed GEM Cutter III editor, we parsed the narrative CPG recommendations into an XML-based, machine-readable format. GEM-processed content was then encoded into a Drools business rule management system to develop an integrated platform prototype for rules, workflow, and event processing. We used meta-tags to create value sets for key components of each recommendation by selecting terms from UMLS vocabularies, including SNOMED CT and LOINC.

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 led 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 stories 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