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 (e.g.: availability of resources for guideline adaptation, types of professionals involved, barriers).

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.

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

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.

Translating Recommendations into Clinical Decision Support: CancerLinQ Prototype Experience

E Duffy, 1J Michel, 1J Jue, 1E Erinoff, 1V Coates, 1J 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

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.