Introduction. Mitral regurgitation (MR) is the most prevalent heart valve condition in Western countries. Open-heart mitral valve reconstruction is the conventional surgical treatment for MR, whereby the valve's cords are replaced with expanded polytetrafluoroethylene cords. Novel devices have introduced minimally invasive alternatives, such as transapical beating-heart valve repair. Among these alternatives, the Harpoon™ Mitral Valve Repair System (Edwards Lifesciences LLC) may have potential advantages (a smaller diameter valve introducer to minimize bleeding and a different anchoring mechanism). This study aimed to assess the efficacy and safety of Harpoon in minimally invasive mitral valve surgery.

Methods. An early assessment of the technology was conducted by reviewing relevant literature from the following databases: PubMed, EMBASE, Web of Science, the Trip Database, the International Clinical Trials Registry Platform, ClinicalTrials.gov, the Cochrane Library, and the Centre for Reviews and Dissemination. Relevant clinical studies published up to 30 January 2018 were included.

Results. Only two publications, by the same research group, were included: an observational study of 11 patients and the prospective, nonrandomized TRACER trial (n = 30). During the procedure, MR was reduced from severe to none in 73 to 86 percent of patients and severe to mild in 14 to 27 percent. At one month, MR was rated as mild or lower in 82 to 89 percent of patients. At six months, MR had worsened to moderate or severe in 16 percent of patients from the TRACER trial. Safety issues within 30 days (18% to 27% of patients) included intraoperative conversion to open surgery, reoperation, pleural effusion, hemopericardium, and atrial fibrillation. There were no intra- or postoperative deaths.

Conclusions. Current evidence on the Harpoon device is scarce. Although published studies showed improvement in MR in most patients, there are still issues regarding safety, lack of long-term results, comparability with other procedures, and costs. While promising, further research is required before recommending routine use of this technology.

PP108 Assessing CHA2DS2-VASc Score For Predicting Ischemic Stroke In The Non-Atrial Fibrillation Population

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Introduction. Cerebrovascular disease is the most common cause of death in China, and the incidence of ischemic stroke (240 per 100,000 people) is higher than that of hemorrhagic stroke (82 per 100,000 people). More than 80 percent of strokes can be prevented by early control of risk factors. Therefore, identifying and managing high-risk groups is a top priority in preventing stroke. The CHA2DS2-VASc score is a key prediction tool for stratifying stroke risk in individuals with atrial fibrillation (AF) as follows: zero score is low risk; one is intermediate risk; and two is high risk. The present study was undertaken to evaluate the accuracy of the CHA2DS2-VASc scoring system for stratifying ischemic stroke risk in the non-AF population.

Methods. We searched PubMed, EMBASE, and the Cochrane Library in June 2018 for relevant diagnostic studies. Study selection, data extraction, and quality assessment (using the QUADAS-2 criteria) were performed independently by two authors. Methodological variation across the selected studies precluded meta-analysis, so the results were synthesized narratively.

Results. Seven prospective studies involving 50,652 patients (6,760 with ischemic stroke) were included. The treatment threshold ranged from two to four across the studies. Three studies reported diagnostic accuracy at a threshold of two, with a sensitivity above 0.8 and a specificity ranging from 0.32 to 0.68. The diagnostic odds ratio was greater than two (seven studies). The two studies using a treatment threshold of four reported a sensitivity of 0.59 to 0.76 and a specificity of 0.43 to 0.69. One study used a threshold of three, with a sensitivity of 0.79 and a specificity of 0.39.

Conclusions. The CHA2DS2-VASc score may be used to predict ischemic stroke in the non-atrial fibrillation population. Treatment thresholds greater than two provide more optimal diagnostic accuracy, although the predictive performance of the CHA2DS2-VASc score may be better in patients with chronic obstructive pulmonary disease but not AF.

PP113 A Framework To Enhance Eurasian Economic Union Cooperation On Health Technology Assessment: Lessons From The European Network for Health Technology Assessment

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Introduction. The Eurasian Economic Union (EAEU), which currently includes Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia, was established in 2015. Pursuing economic integration, and modeled in part after the structure of European Union, the EAEU launched a common medicines market in 2017. There have been various developments regarding cooperation in health technology assessment (HTA) across the EAEU countries, exemplified by a conference held in Kazakhstan in 2017. Here we discuss some considerations for developing cooperation in HTA throughout EAEU based on the experiences of implementing the European Network for Health Technology Assessment (EUnetHTA).

Methods. Legal and review documents regarding the implementation of EUnetHTA were obtained from the European Commission website and research databases to inform this narrative review.

Results. Achieving recognition of the role of HTA at an intergovernmental level, akin to the actions of the European Commission prior to establishing EUnetHTA, appears pivotal at the current stage of HTA development among EAEU members.

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Similar to the EUnetHTA project stage of 2006-2008, the existing HTA structures and national standards will need to be accurately and systematically assessed by a working-group appointed specifically for that purpose. Besides the importance of accepting a unifying framework similar to the EUnetHTA core model, implementation features that are specific to the context of EAEU countries could include the development of common adaptation toolkits and glossaries. Capacity building efforts may also prove crucial to ensure the sustainability of HTA-related cooperation.

Conclusions. Optimization of resources by streamlining HTA processes, whether in research, policy, or results dissemination, and avoiding duplication of effort by HTA agencies, is relevant in the context of limited healthcare resources in developing countries. This overview is an attempt at facilitating discussion to inform policy and research efforts to streamline HTA processes.

PP121 How To Involve Patients In Decisions About Antibiotic Prophylaxis After Tick Bite

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Introduction. Antibiotic prophylaxis with a single dose of doxycycline after a tick bite is one of the tools for preventing Lyme disease, which is becoming increasingly prevalent in Quebec. The aim of this work was to revisit this practice in adults and children younger than 8 years of age.

Methods. To assess the safety and absolute risk reduction (ARR) of doxycycline for preventing Lyme disease in contraindicated populations, two systematic reviews were conducted with a re-analysis of the original efficacy data. A knowledge mobilization framework was used to consider the scientific, contextual, and experiential evidence, taking into account information on patients' and clinicians' experiences.

Results. A single dose of doxycycline prescribed within 72 hours of being bitten by a tick (Ixodes scapularis) could prevent cutaneous manifestation of Lyme disease (ARR -2.8%, 95% confidence interval: -11.7–6.1; p = 0.06), without serious side effects, provided that the bite occurred in a geographical region where at least 25 percent of nymph and 50 percent of adult ticks are infected with the disease. However, the level of evidence was low and its generalizability to other contexts was doubtful. The decision to prescribe antibiotic prophylaxis may be based more on the fear of Lyme disease, rather than on effectiveness data and the real risk of contracting Lyme disease.

Conclusions. It may be challenging for clinicians to discuss Lyme disease prophylaxis with patients and their families in contexts where people are fearful of the disease, and the risk of contracting it from a tick bite is uncertain. Decision aids that provide scientific evidence on the real risk of developing Lyme disease after a tick bite, particularly in Quebec, can promote informed decisions based on patient preferences and values by supporting discussion between clinicians and patients.

PP123 Management of Patients' Conflicts Of Interest And Of Commitment In Health Technology Assessment

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Introduction. Health technology assessment (HTA) and the development of clinical practice guidelines (CPGs) support important health policy and clinical decisions. Conflicts of interest (COI) and conflicts of commitment (COC) can undermine the credibility and integrity of these processes, that of the actors involved, and, more alarmingly, the health of the population. Thus, management of COI and COC is critical. Although COI among experts participating in HTA and CPG development are increasingly discussed and managed, little is said about COCs and the possible COI and COC associated with patient participation. The aim of our study, which is part of the Institut national d'excellence en santé et services sociaux (INESSS) continuing improvement process for COI and COC management, was to identify best practices in this matter.

Methods. We examined the COI and COC management policies of ten HTA and CPG organizations and performed a review of the relevant academic literature.

Results. Three HTA and CPG organizations had norms regarding the management of patients' COI and COC, whether they were representatives of patient associations or not. These norms addressed situations such as: when a patient represents a patients' association; when a patients' association or an individual patient has important (financial) ties with the pharmaceutical industry; or when an expert or one of his/her family members suffers from the disease related to the HTA or CPG. The declaration of a COI or COC should not necessarily lead to the individual's exclusion from the entire HTA or CPG development process, but it must lead to some evaluation and management. Patients appointed to share their perspectives are not considered to have COI or COC if their mandate is explicit.

Conclusions. The COI and COC of all participants in HTA and CPG development should be managed fairly and transparently. Therefore, the management of COI and COC among patients participating in HTA or CPG development should be based on the same principles as those applied to clinical experts.

PP124 Smart Capability Building For Effective Patient Involvement

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Introduction. A new Health Technology Assessment (HTA) agency, Health Technology Wales (HTW), has been established to consider the identification, appraisal, and adoption of non-medicine health technologies. This includes, for example, medical devices, surgical procedures and diagnostics. HTW recognizes the importance of effective patient and public involvement (PPI) and is building smart capabilities.

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