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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