

by the Ministry of Health (MOH) Drug Advisory Committee (DAC) in Singapore. In 2021 ACE introduced the company-led submission (CLS) process for cancer medicines, which allows pharmaceutical companies to request evaluations alongside regulatory reviews. This review reports key findings from the first year of its implementation. **Methods:** A total of 10 CLS topics from the first year of implementation were included. We reviewed the status and outcomes of the DAC recommendations. We also used descriptive statistical methods to evaluate the time from HTA submission to first HTA recommendation and from regulatory approval to first HTA recommendation. The timelines were further analyzed by whether submissions were parallel submissions (i.e., HTA submission in tandem with regulatory review) or sequential submissions (i.e., HTA submission after regulatory approval). These statistics were compared with overseas reference jurisdictions (Australia, Canada, and the UK).

**Results:** At the time of review, three topics were pending discussion. Of the remaining seven topics, three (43%) received positive recommendations for inclusion on the MOH Cancer Drug List and three (43%) received negative recommendations. The DAC was unable to make a recommendation on one topic. The median time from HTA submission or regulatory approval to first HTA recommendation was 172 days (range 169 to 263 days) and 279 days (range 53 to 374 days), respectively. Notably, parallel submissions (75 days; n=2) had considerably shorter timelines from regulatory approval to first HTA recommendation than sequential submissions (328 days; n=4). These timelines were within the range of the overseas reference countries.

**Conclusions:** Parallel CLS allows HTA processes to be conducted in tandem with regulatory reviews, moving HTA recommendations upstream and expediting patient access to clinically effective and cost-effective medicines. Efforts will be made to further evolve the CLS process to achieve timely reimbursement reviews from regulatory approval and to expand this process to noncancer medicines.

## PD119 Interventions To Improve Long COVID Symptoms: A Systematic Review Of Randomized Controlled Trials

Cillian McDowell ([cmcdowell@hiqa.ie](mailto:cmcdowell@hiqa.ie)), Barrie Tyner, Shibu Shrestha, Leah McManus, Fearghal Comiskey, Patricia Harrington, Kieran A. Walsh, Michelle O' Neill and Máirín Ryan

**Introduction:** Long COVID, which encompasses a range of prolonged and persistent symptoms that occur after the acute SARS-CoV-2 infection period, can have substantial negative physical, mental, social, and economic effects. This systematic review aimed to assess the effectiveness and safety of interventions to improve long COVID symptoms to inform updates to the interim long COVID model of care in Ireland.

**Methods:** Studies were identified in the MEDLINE, Embase, and CENTRAL databases through February 2023. Inclusion criteria

were: (i) participants with long COVID, as defined by the study authors; (ii) random assignment to either an intervention or a comparison group; and (iii) quantitative assessment of the severity or frequency of long COVID symptoms. Exclusion criteria were: (i) signs or symptoms not reasonably attributable to prior SARS-CoV-2 infection; (ii) interventions not intended to treat long COVID; and (iii) not a randomized controlled trial. Two reviewers independently screened studies, extracted data, and assessed study quality using the Cochrane risk-of-bias tool for randomized trials. The results were synthesized narratively.

**Results:** Fifty-seven studies were included, and 283 potentially relevant ongoing trials were identified. Twenty-four trials investigated pharmaceutical and other medical interventions, most of which were examined in single studies. Thirty-three trials investigated non-pharmaceutical interventions. Risk of bias was high in 41 of the 57 (72%) studies. Interventions targeted a diverse range of long COVID symptoms. Studies generally had small sample sizes and short follow-up periods and did not adequately examine intervention safety. Evidence for the effectiveness of pharmaceutical and other medical interventions was limited. Potential short-term improvements were seen for some people following personalized exercise and physiotherapy and rehabilitation programs. However, long-term outcomes were not assessed.

**Conclusions:** Effective interventions to improve the symptoms of long COVID remain elusive and those included in this review do not yet have sufficient evidence to support them. In the absence of strong evidence for specific interventions, a holistic approach should be used to support people with long COVID.

## PD122 Evaluating The Efficacy Of Cytokine Filtration In Cardiac Surgery For Endocarditis: A Comprehensive Study

Marcus Carvalho Borin ([marcusborin@gmail.com](mailto:marcusborin@gmail.com)), Carina Rejane Martins, Daniel Pitchon dos Reis, Geraldo Jose Coelho Ribeiro, Julia Teixeira Tupinambas, Karina de Castro Zocrato, Lelia Maria de Almeida Carvalho, Marcela Pinto de Freitas, Maria da Gloria Cruvinel Horta, Mariana Michel Barbosa, Mariza Cristina Torres Talim, Sergio Adriano Loureiro Bersan and Silvana Marcia Bruschi Kelles

**Introduction:** Despite medical advancements, endocarditis still results in high mortality rates. Surgery, while often essential, elevates the risk of hyperinflammation, sepsis, and cytokine release. The use of a cytokine filter to prevent this remains controversial. This study reviewed existing literature to assess the efficacy of cytokine filters and to support its integration into supplementary health services.

**Methods:** An exhaustive search of the MEDLINE, Cochrane Library, Embase, LILACS, and CytoSorbents Corporation databases was conducted to identify relevant meta-analyses and systematic reviews. The study focused on randomized controlled trials and case series studies assessing the efficacy of cytokine filtration. Key variables considered were the duration of antibiotic treatment, severity of endocarditis, and surgical treatment rationale. These factors were crucial for evaluating clinical outcomes and patient survival after surgery.

**Results:** The systematic reviews yielded mixed outcomes. Two found no benefits for hemoadsorption, while one found that it reduced mortality rates and intensive care unit stays based on observational studies. Randomized controlled trials, however, showed no significant impact for cytokine filters on mortality rates or postoperative hemodynamic parameters. In contrast, case series studies reported potential benefits, but these results were confounded by biases in patient allocation and failure to account for critical variables like antibiotic treatment duration, case severity, and surgical rationale. These discrepancies highlight the complexity of evaluating the effectiveness of cytokine filtration in surgical settings.

**Conclusions:** Randomized and non-randomized controlled trials on the role of cytokine filters in cardiac surgery for endocarditis reported contradictory findings. Only case series studies suggested benefits from cytokine filters, necessitating further high quality research before recommending their widespread use. Understanding the implications of these results is essential, underscoring the need for more rigorous studies to resolve these inconsistencies.

## PD124 Genicular Artery Embolization For The Treatment Of Knee Osteoarthritis: A Systematic Review And Meta-analysis

Yadira González-Hernández ([yadira.gonzalezhernandez@sescs.es](mailto:yadira.gonzalezhernandez@sescs.es)), Aránzazu Hernández-Yumar,

Aythami De Armas-Castellano, Cristina Valcárcel-Nazco, Montse Carmona-Rodríguez, Mar Trujillo-Martín and Tasmania del Pino-Sedeño

**Introduction:** The genicular artery embolization (GAE) procedure has been recently adopted for the management of pain secondary to inflammatory diseases of the locomotor apparatus. The number of studies assessing its use in patients with knee osteoarthritis (KO) has been increasing in recent years.

**Methods:** We included two randomized controlled trials (RCTs) evaluating the use of GAE in patients with chronic pain secondary to KO. A cost analysis was also conducted to compare the costs of GAE and standard treatment from the perspective of the Spanish National Health System over a time horizon of one year. The potential improvement in quality-adjusted life-years necessary to consider GEA as cost effective for this indication was estimated. We also ran extensive sensitivity analyses.

**Results:** Estimates for pain showed contradictory results, and no significant differences were observed between the two treatments with respect to overall function, health-related quality of life (HRQoL), and need for pain medication. No serious complications or major adverse events were observed. The quality of evidence was assessed by GRADE as moderate to low. The cost analysis showed that GAE results in an incremental cost of EUR3,432.37 per patient. Sensitivity analyses revealed a wide range within which the incremental cost can vary.

**Conclusions:** There are insufficient data to discern any differences between GAE and standard treatment for patients with KO in terms of pain, function, HRQoL, need for analgesics, and rates of adverse events and complications. Larger RCTs are required to evaluate the effect of GAE in patients with chronic pain secondary to KO and to determine whether its additional cost is warranted.

## PD125 Safety, Efficacy, And Effectiveness Of Robotic Surgery In General And Digestive Surgery

Jessica Ruiz-Baena ([jessicarui@gencat.cat](mailto:jessicarui@gencat.cat)),

Joan Segur-Ferrer, Laia Ramos Masdeu,

Maria-Dolors Estrada Sabadell and

Rosa Maria Vivanco-Hidalgo

**Introduction:** Robotic surgery (RS) is a minimally invasive surgical modality performed with the support of a console and mechanical arms that enable remote control. The advantages of RS are clear from the point of view of surgeons but remain unclear in terms of clinical results. We evaluated the safety, efficacy, and clinical effectiveness of RS compared with open or laparoscopic surgery.

**Methods:** A systematic review of randomized controlled trials and systematic reviews with meta-analyses was conducted to assess RS in the following surgical procedures: Nissen fundoplication, Heller myotomy, cholecystectomy, rectopexy, splenectomy, pediatric Kasai portoenterostomy, and gastric banding. Outcomes of interest were related to safety (complications, blood loss, and risk of infection) and efficacy or effectiveness (length of hospital stay, quality of life [QoL], recovery, patient satisfaction, conversion to another technique, urinary function, and rates of mortality, readmission, reoperation, and esophageal perforation). The evidence quality was assessed with version two of the Cochrane risk-of-bias tool for randomized trials, AMSTAR 2, and GRADE.

**Results:** Nissen fundoplication RS was similar to laparoscopy in terms of complication and conversion rates, recovery, and QoL. Heller myotomy RS reduced the rate of esophageal perforations but had similar perioperative blood loss and rates of mortality, conversion, and re-admission to laparoscopy. Cholecystectomy RS was similar to laparoscopy with respect to rates of readmission and complications, blood loss, and risk of infection. Rectopexy RS was similar to laparoscopy in terms of conversion, reoperation, and complications rates, blood loss, recovery, patient satisfaction, and QoL. Splenectomy RS decreased blood loss but was similar in risk of infection and rates of complications and conversion to laparoscopy.