

**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.