

Pharmaceutical Benefits Scheme (PBS); this placement increases access by limiting patients' payments to AUD42.50 (USD28.62) maximum per prescription. Alternatively, manufacturers of therapies for other chronic or rare life-threatening conditions can participate in Australia's Highly Specialised Drugs Program and/or Life Saving Drugs Program to facilitate access.

**Conclusions:** Companies can accelerate and optimize market access by using the TGA-PBAC parallel process. Other Asia-Pacific countries can model components of Australia's approach to advancing access to innovative, live-saving therapies.

## PP94 Robotic-Assisted Thoracoscopic Surgery Versus Video-Assisted Thoracoscopic Surgery And Open Thoracotomy: A Systematic Review And Meta-Analysis

Jiyeon Lee ([jiyeonlee9942@necare.kr](mailto:jiyeonlee9942@necare.kr)) and Youjin Jung

**Introduction:** Robot-assisted surgery is one of the minimally invasive surgical approaches that has been increasingly utilized across a wide range of surgeries. However, there is limited evidence of robotic-assisted thoracic surgery (RATS) for patients with lung cancer. This study aims to evaluate the safety and effectiveness of RATS in lung cancer patients compared with video-assisted thoracoscopic surgery (VATS) and open thoracotomy.

**Methods:** A comprehensive search for studies that compared RATS versus VATS or open thoracotomy published until 12 April 2022, was conducted. Two review authors independently assessed studies for inclusion and risk of bias, and extracted data. We used results of reported perioperative outcomes, oncological outcomes, and survival outcomes. When more than two studies contributed data, meta-analyses were performed.

**Results:** Four randomized controlled trials (RCT) were included. Firstly, three RCTs comparing RATS with VATS were identified. Compared with the VATS group, the RATS group had significantly lower blood loss, more harvested lymph nodes and lymph node stations. However, there were no significant differences in operative time, transfusion rates, hospital stay, drainage duration, reoperation, readmission, postoperative pain, and postoperative complications. Survival outcomes were not reported. Secondly, one RCT comparing RATS with open thoracotomy was identified. Compared with open thoracotomy group, the RATS group had significantly lower blood loss, less postoperative pain, and shorter chest drainage duration. On the other hand, there were no significant differences in operative time, hospital stay, postoperative complications, number of harvested lymph nodes and lymph node stations, and survival outcomes (disease-free survival, overall survival).

**Conclusions:** Evidence on the effectiveness and safety of RATS compared with VATS or open thoracotomy for lung cancer is of

low certainty, but we suggest that RATS is a feasible and safe alternative to conventional thoracic surgeries for lung cancer patients on the basis of current data. Additionally, more and better studies are required to provide evidence on the benefits and cost-effectiveness of RATS.

## PP96 Continuous Innovation In Neurostimulation Therapies For The Management Of Chronic Pain: Challenges For Health Technology Assessment Policy

Rashmi Joglekar ([Rashmi.joglekar@medtronic.com](mailto:Rashmi.joglekar@medtronic.com)) and Liesl Strachan

**Introduction:** Chronic pain is a debilitating condition with a high burden of disease. Neurostimulation therapy is an established modality for patients with chronic pain refractory to pharmacological based approaches and conservative interventional therapies. The therapy has evolved over the decades, based on improved understanding of the mechanisms of action, as well as technological advancement in device design.

Our objective is to conduct a review of the innovation in neurostimulation therapy for chronic pain, in the context of health technology assessment (HTA), and its implications on policies related to patient access.

**Methods:** A qualitative literature review was conducted to identify published HTAs, systematic reviews, clinical guidelines and other relevant articles and reports on neurostimulation therapies used in pain management. Searches were limited to the past 10 years to ensure that a contemporary analysis was conducted.

**Results:** Our review indicates that there has been continuous innovation in neurostimulation therapies for chronic pain. This includes improvements in battery longevity and reduced size, advances in the design of leads, the development of novel stimulation waveforms and personalized programming using sophisticated algorithms including sensing and feedback loops, and remote management to name a few. Clinical research has also enabled an expansion in the range of neural targets and indicated subpopulations. The literature shows that apart from reduction in pain, neurostimulation therapy facilitates improvements in the quality of life, and reduction in opioid dependence, carer burden and disability, which are outcomes important to patients as well as to society at large. Clinical guidelines are largely supportive of neurostimulation for the management of chronic refractory pain in carefully selected patients.

**Conclusions:** The range and complexity of neurostimulation devices and the variety of study designs presents a challenge for evidence synthesis. HTA bodies need to ensure that the methodologies for evaluating a heterogeneous therapy such as neurostimulation for pain management are robust, and that the policies for determining access to such innovative therapies are patient-centric and fit-for-purpose.