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Surgical Outcomes of Lung Cancer Surgery in Tasmania

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Abstract: Introduction: Lung cancer is the most common cause of cancer death in Australia, with more than 13000 cases per year. Until now, there has been a major deficiency of national comprehensive thoracic surgery data. The thoracic workload for surgeons as well as caseload per unit, is highly variable, with some centres performing less than 15 cases per annum, thus raising concerns about optimal care at low-volume sites. This is an attempt to review the outcomes of lung cancer surgery in Tasmania. Method: The objective of this study is to determine the surgical outcomes of lung cancer surgery at Royal Hobart Hospital (RHH) with the primary outcome of surgical mortality. Four hundred fifty-one cases were analysed retrospectively from 2010 to May 2022. Results: A total of 451 patients underwent thoracic surgery with a primary diagnosis of lung cancer. The primary outcome of 30-day mortality was <0.5%. The mean age was 65.3 years, with male predominance and a 4.2% prevalence of Indigenous Australians. The mean LOS was 7.5 days. The surgical approach was either VATS (50.3%) or Thoracotomy (49.7%), with a trend towards the former in recent years with an increase in the proportion of VATS from 18.2% to 51% (p<0.05) in complex resections since 2019. A corresponding reduction in conversion rate to open was observed (18% vs. 5.5%), and there were no deaths within this subgroup. Lung resections were divided into lobectomy (55.4%), wedge resection (36.8%), segmentectomy (2.9%) and pneumonectomy (4.9%). The RHH demonstrates good surgical outcomes for lung cancer and provides a sustainable service for Tasmania. Conclusion: This retrospective study reports the surgical outcomes of lung cancer surgery at the Royal Hobart Hospital, thereby providing insight into the surgical management of lung cancer in the state thus far. The state has been slow to catch up on the minimally invasive program, but the overall results have been comparable to most peers.

Keywords: lung cancer, thoracic surgery, lung resection, surgical outcomes **Conference Title:** ICLC 2023: International Conference on Lung Cancer

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