

Do clinical quality registries affect quality indicator outcomes?

Victorian Lung Cancer Registry impacts on multi-disciplinary lung cancer meeting presentation.

Jessie Zeng¹, Sanuki Tissera¹, Mike Lloyd¹, Lisa Briggs⁴, Jacqueline Lesage⁴, Tom Wood⁴, Craig Underhill^{5,6}, Sagun Parakh⁷, Louis Irving, Wasek Faisal^{8,9}, Rob Blum¹⁰, Gary Richardson¹¹, Phillip Parente¹², Michelle Caldecott¹³, Inger Olesen¹⁴, Javier Torres¹⁵, Evangeline Samuel^{1, 16}, Barton Jennings¹⁷, Katharine See¹⁸, David Langton¹⁹, Tom John²⁰, Phillip Antippa^{21,22}, Gavin M Wright^{23,24}, Matthew Conron²⁵, James Bartlett²⁶, Nicola Atkin²⁷, Maggie Moore, Golsa Adabi, Nik Zeps, Susan Harden², Zoe McQuilten², John Zalcborg² and Rob G Stirling¹

Background

Lung cancer is a heterogeneous and complex disease requiring multidisciplinary input for optimal management planning, with guidelines recommending all patients be discussed in a multidisciplinary setting. Multidisciplinary discussion (MDM) aims to enhance evidence-based management, improve treatment access and optimise complex management plans. Consider using full term multidisciplinary meeting here, so clear this is referring to multidisciplinary discussion within the formal MDM/meeting structure

Method

We aimed to assess the extent and impacts of MDM discussion in patients with lung cancer described by the Victorian Lung Cancer Registry (VLCR) from 2011-2024 in Victoria, Australia. We identified MDM presented and non-presented patients and Assessed dependant management outcomes and survival impacts.

Results

18,597 patients were included, of whom 67% had evidence of presentation to a lung cancer MDM, with MDM presentation increasing from 59.1% to 80.6% during the study period. MDM presentation was associated with significantly higher levels of provision of GCT in NSCLC (52.9% vs 42.3%, $p < 0.001$), non-GCT and lower levels of no treatment (13.4% vs 24.6%, $p < 0.001$). Modifiable factors which may increase MDM presentation included higher age, stage IV disease and treatment in a private hospital. Propensity matched survival analysis in NSCLC revealed a median survival of 1.1 years (1.0-1.3 years, $p < 0.001$) for MDM presented vs non-presented individuals 0.86 years (0.76-0.94), providing a 12% reduction in mortality hazard (HR 0.88(0.82-0.95), $p < 0.001$).

Conclusions

Clinical Quality Registries enable assessment of the appropriateness and effectiveness of healthcare implementation in population-based complex disease domains and inform quality improvement initiatives within learning health systems. MDM presentation increased by 20% during this study period providing significant management optimisation and survival advantage.