# Multidisciplinary team care in lung cancer

In many centres, particularly those with adequate resources, the care of people with lung cancer includes the multidisciplinary team (MDT) as an essential component.

Over the last century or more, lung cancer has grown to become one of the most common causes of cancer death in both men and women worldwide, driven largely by the tobacco pandemic that emerged one hundred years ago. In 2018, lung cancer was the commonest cancer worldwide with over 2 million new cases and was the leading cause of cancer death in men and the second highest cause of cancer death in women (1). The epidemiology of lung cancer has become more complex this century, with better understanding of occupational and environmental risk factors (2) and differing biology of the disease in women (3).

In recent decades, innovations in diagnosis and treatment have started to erode the previously dismal survival rates. Lung cancer screening with low-dose computed tomography can reduce lung cancer mortality in high-risk groups with a significant history of tobacco smoking (4,5). Cessation of tobacco after the diagnosis of lung cancer can improve survival across all stages (6) and may infer significant cost savings for therapy (7). In 2019, the American Lung Association reported for the last 10 years an increase in overall five-year survival for lung cancer, from 17.2% to 21.7% (8), during a period that saw the introduction of screening and the advent of newer therapies for advanced disease. The introduction of immunotherapeutic agents for locally advanced non-small cell cancer (9) as well as in metastatic disease (10) may promise, in some groups, remarkable improvements in outcomes.

As treatment options have expanded, the need for high-level multidisciplinary skills has grown for all steps of the journey including accurate diagnosis and staging as well as for the delivery of cutting-edge, coordinated care. This may include interventional bronchoscopy techniques for accurate pre-operative staging (11), advances in surgical techniques (12), pathological and molecular diagnosis (13,14) and the advantages of early palliative care approaches in advanced disease (15). Recent work has emphasized the burden of psychological stress, isolation and stigma experienced by people with lung cancer (16,17).

Evidence for benefits from MDT care in lung cancer includes improvements in the receipt of treatment (18) as well as better longer term outcomes including survival (19-23). Other possible benefits from MDT presentation include better recording of performance status (18) and significant differences in specific treatment (18,22). Research into these benefits has accompanied the inclusion of MDT care in lung cancer by health policy recommendations in multiple jurisdictions around the world including Australia, the United Kingdom, the United States and Europe (24-27). A recent Australian policy report identified the lack of access to MDT care as a key barrier to high quality diagnostics and treatment, as well as recommending better availability of specialist nurses and psychological support (28). We need research into these areas as well (29) and comprehensive lung cancer MDTs should have the support of a wide range of specialties.

The papers in this series explore important aspects of MDT care including the early introduction of palliative care, the impact on advanced disease, optimal staging in the context of the MDT, gaps in our understanding of how to best implement and test the effects of MDTs, patient outcomes associated with MDT care, lung cancer surgery in the MDT setting and optimized approaches to data systems for the MDT. Key areas for future work include the implementation of smoking cessation programs in the multidisciplinary setting, expansion of psycho-oncological support, exploration of patient-related outcomes and the impact of allied health services, including pulmonary rehabilitation in the perioperative period. I would like to thank the authors for their highly-valued contributions and for the opportunity to unite such expert dissertations.

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