

SUMMARY

Harnessing innovation to optimise lung cancer diagnosis for better equity, access and outcomes

Globally, lung cancer diagnosis remains suboptimal, contributing to unnecessary loss of life; applying innovative approaches throughout the diagnostic process offers a route to better outcomes and experiences for everyone with the disease.

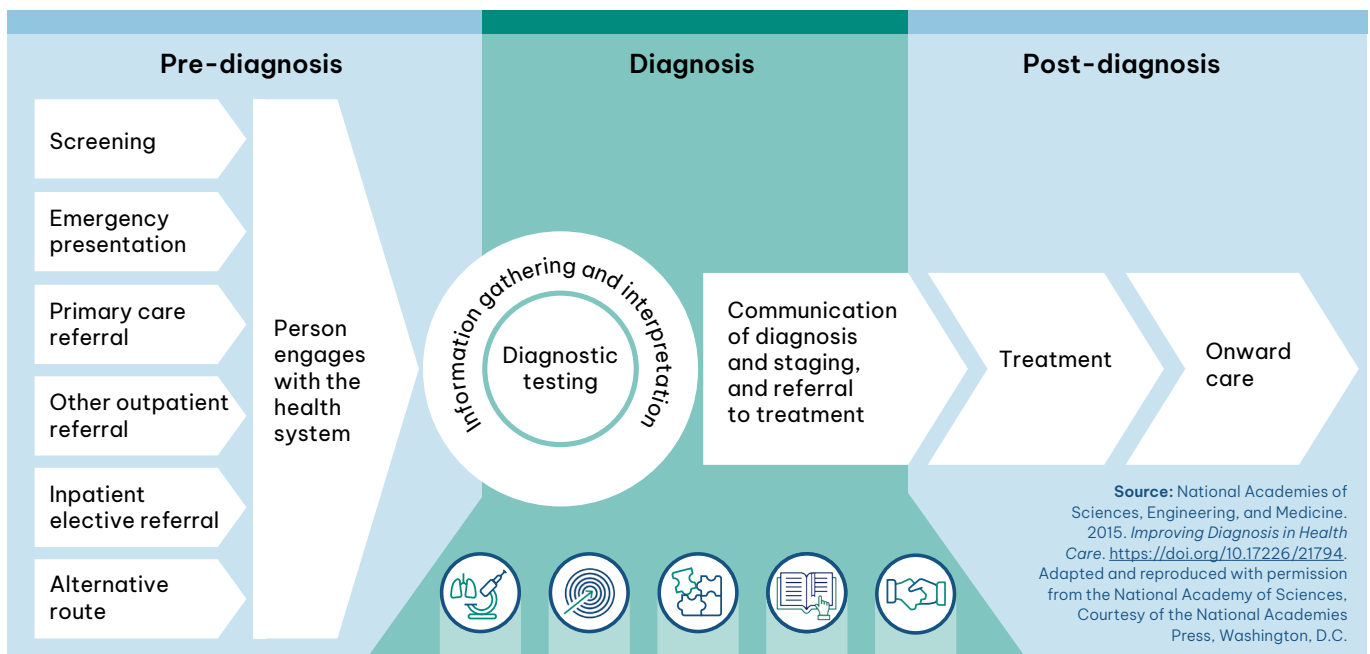
Accurate and timely diagnosis of lung cancer is essential to addressing disparities and delivering more optimal care. Differences in survival are associated with geographic location, sex and socioeconomic position; other biological and demographic factors add further complexity.¹⁻³ Widespread gaps in access to diagnostic testing and new technologies also continue to delay diagnosis and contribute to persistent inequalities in outcomes for people with lung cancer.⁴⁻⁶

The diagnostic landscape for lung cancer is rapidly evolving, creating new opportunities for improvement – but these must be thoughtfully adopted. Advances in our molecular understanding of the disease and the rise of biomarker testing enable more comprehensive and accurate diagnoses.⁷ These novel approaches

also offer the potential to enhance diagnostic efficiency and timeliness. For optimal effectiveness, it is important to select and tailor an appropriate suite of diagnostic interventions and processes according to the needs of different health systems and populations.

A comprehensive approach to diagnosis must be better embedded as a critical component of lung cancer care, and reflected in policy and practice across health systems. The diagnostic process is not limited to the moment a person is diagnosed; it begins with a person's first interaction with a healthcare professional and continues through confirmation of disease.⁸ Consequently, a multifactorial and multidisciplinary approach is required to take up the variety of opportunities to optimise care before, during and after diagnosis (Fig. 1). Policy commitments – such as the adoption of a lung health resolution at the 2025 World Health Assembly – signal growing recognition of the importance of an efficient diagnostic process.⁹ But translating these commitments into local strategies and action will require strengthened infrastructure and investment.

Fig. 1. The cancer diagnostic process



Health system leaders and decision-makers must optimise lung cancer diagnosis to improve equity, access and outcomes.

This should include streamlining all phases of the diagnostic process (pre-diagnosis, diagnostic testing and staging, post-diagnosis) through a multi-pronged approach, to ensure efficient and equitable referral, treatment and care:



Identify and address gaps in research and implementation that contribute to key challenges:

- provide dedicated funding to address gaps in diagnosis research and implementation
- explore known and emerging diagnostic biomarkers and technologies, and investigate how they can be integrated effectively and equitably into practice.



Implement approaches to recognise and reduce diagnostic errors, delays and costs:

- implement innovative approaches to reduce diagnostic error and streamline diagnostic processes
- incorporate cost-effectiveness analyses and systematic consideration of health system resources and priorities when developing strategies to optimise diagnosis.



Facilitate effective teamwork among healthcare professionals across the diagnostic process:

- support effective collaboration and communication within and between multidisciplinary teams.



Enhance guidance, education and training for healthcare professionals, informed by the latest evidence and diagnostic tools:

- ensure guidance and recommendations for diagnosis reflect the latest evidence, to help improve care experiences and outcomes
- implement a variety of resources to help train and equip healthcare professionals so they can support optimal diagnosis.



Establish a payment and care delivery environment that supports accessibility to the latest innovations:

- address challenges around reimbursement and knowledge of diagnostic tests to reduce inequalities in access.

References

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To learn more about optimising diagnosis of lung cancer, read the [full report](#).