



**LUNG CANCER
POLICY NETWORK**

Care pathways for lung cancer: building a foundation for optimal care

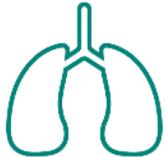
Jessica Hooper, The Health Policy Partnership

Friday 7 June 2024

Why lung cancer?



Lung cancer is the leading cause of cancer-related deaths worldwide,¹ accounting for an estimated **1.8 million deaths (18%) in 2020.**² In the vast majority of European countries, lung cancer is the leading cause of death among males.²



Lung cancer **costs health systems more** than any other cancer, and is predicted to account for over 15% of the total cost of cancer care between 2020 and 2050.³



Only 10% of people with lung cancer survive five years after diagnosis at stage IV, but earlier diagnosis at stage I could increase survival to **68–92%.**⁴

1. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/lung-cancer>
2. Sung H, Ferlay J, Siegel RL, et al. 2021. CA Cancer J Clin 71(3): 209-49.
3. Chen S, Cao Z, Prettner K, et al. 2023. JAMA Oncology 9(4): 465-72
4. Goldstraw P, Chansky K, Crowley J, et al. 2016. J Thorac Oncol 11(1): 39-51

Why care pathways?

The Lung Cancer Policy Network defines care pathways for lung cancer as:¹

Tools to support the mutual decision-making and organisation of care processes for people with lung cancer. They cover all stages of care, starting from when cancer is suspected to follow-up and end-of-life care, and are based on nationally agreed guidelines, standards and protocols.

Ultimately, care pathways aim to:²

- enhance the quality of care by increasing its consistency across different settings
- streamline health system processes
- optimise resource distribution and efficiency
- promote safety and increase satisfaction among people receiving care
- improve outcomes.

Implementation of care pathways for lung cancer can lead to improved experiences, outcomes and survival for people with the disease.

‘Only a few countries have optimal care pathways, but I don’t think they have been implemented really well because it is up to the local health services and the hospitals to implement them.’

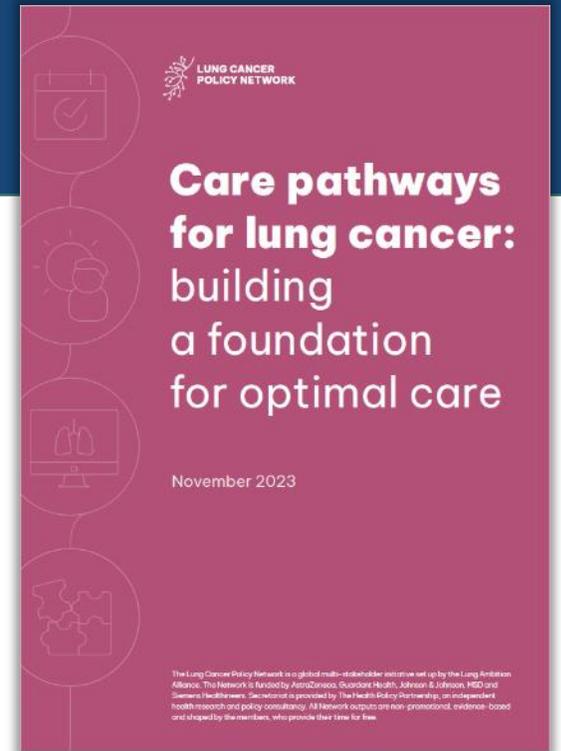
Dr Zulfiqer Otty, Townsville Cancer Centre, Australia

1. Lung Cancer Policy Network. 2023. *Care pathways for lung cancer: building a foundation for optimal care.*
2. Schrijvers G, van Hoor A, Huiskes N. 2012. *Int J Integr Care* 12: e192

Care pathways for lung cancer

In late 2023, the Lung Cancer Policy Network published *Care pathways for lung cancer: building a foundation for optimal care*. This report:

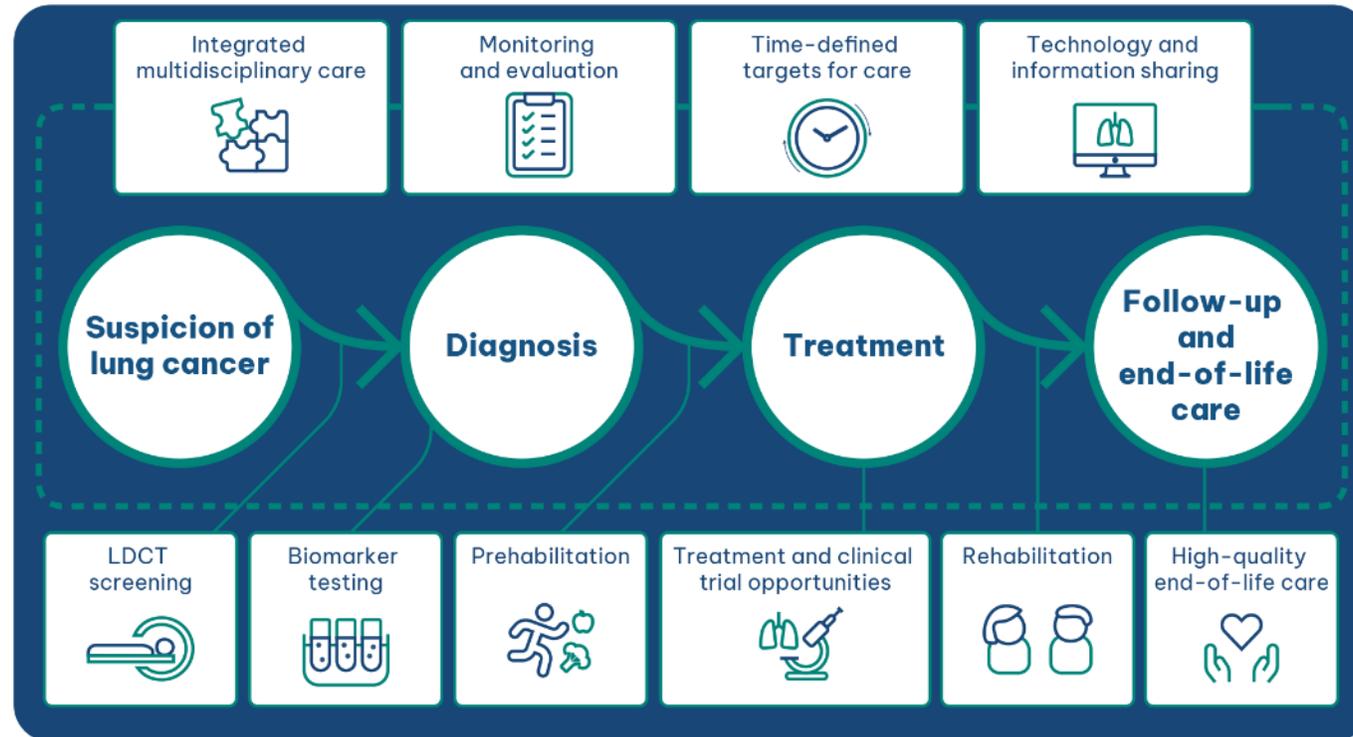
- explores the essential role that care pathways play in delivering **best-practice** lung cancer care
- supports health system leaders and decision-makers to deliver **high-quality care** and **optimise effective, consensus-driven care pathways** for lung cancer
- sets out **tangible actions** to support the development of care pathways in the context of changing approaches to lung cancer care, and the needs of individual health systems and countries/regions.



‘This report will be helpful in practice to assist in implementing a care pathway for patients.’

Tiffany Gowan, American College of Radiology, US

How can care pathways for lung cancer support the delivery of high-quality care?



‘The care pathway has to capture everything: the whole journey.’

Dr Mohamad Saab, University College Cork, Ireland

‘The way we create optimal care pathways is crucial. All people involved in the care of the person with lung cancer must feel a sense of investment in the pathway to deliver the highest-quality care.’

Professor Robert Thomas, University of Melbourne, Australia

Introduce comprehensive prehabilitation and rehabilitation programmes for people with lung cancer

Prehabilitation: key considerations



- Prehabilitation programmes should be **appropriate for all lung cancers**. Currently, prehabilitation programmes for lung cancer are only well established for early-stage, operable cancer.^{1 2}
- Through considered and **personalised interventions**, prehabilitation can enable people with cancer to prepare for treatment and improve their chance of good clinical outcomes.^{3 4}
- Introducing **prehabilitation for more advanced lung cancer** could improve individuals' treatment efficacy, health outcomes and quality of life.¹

Rehabilitation: key considerations



- Rehabilitation activities are highly varied⁵ and, when integrated into the cancer pathway, may **improve physical health, emotional health and quality of life** as well as reducing symptom burden.⁶
- People with lung cancer struggle to access rehabilitation due to **long waiting times and limited awareness** of available services.⁷
- To support effective integration of rehabilitation services into the care pathway, **barriers to access must be systematically identified and addressed**.^{5 7}

1. Roberts J, Shepherd P. 2021. Nursing Times 117(11): 25-28

2. Fenemore J, Roberts J. 2021. Nursing Times 117(10): 30-33

3. UK Lung Cancer Coalition. 2018. Millimeters Matter.

4. Macmillan Cancer Support. 2020. Prehabilitation for people with cancer: Principles and guidance for prehabilitation within the management and support of people with cancer.

5. Burnett C, Bestall JC, Burke S, et al. 2022. Clin Oncol (R Coll Radiol) 34(11): 724-32

6. Curry J, Patterson M, Greenley S, et al. 2021. Support Care Cancer 29(11): 6995-7011

7. Nwosu AC, Bayly JL, Gaunt KE, et al. 2012. Support Care Cancer 20(12): 3247-54 6995-7011

Determine clear, time-defined targets for different stages of lung cancer care

Establishing time-defined targets along the care pathway can help streamline care processes to reduce delays in diagnosis and treatment.

- Undue waiting times for diagnosis and access to the lung cancer treatment pathway have been identified across the globe,¹⁻⁴ but they can be addressed through effective care pathway implementation.
- Adding specific time intervals to care pathways for lung cancer may help reduce unnecessary delays and improve outcomes.
- Some countries (e.g. Australia⁵ and England⁶) have begun adding interval target times to national care pathways for lung cancer.

‘When you look at the spectrum of aggressiveness of tumours, lung cancer is on the more aggressive side, so you’ve got less time to successfully treat these individuals compared with some other cancers. These differences in urgency of care need to be acknowledged in care pathways because they are causing disparities in outcomes as a result of the delays.’

Professor David Baldwin, University of Nottingham, UK

1. Frank P, Ciupek A, Varriale P, *et al.* 2022. P1.09-01 The Lung Cancer Patient Experience and Care Pathway: A Multi-Country Survey. International Association for the Study of Lung Cancer 2022 World Conference on Lung Cancer; 07/08/22
2. Malalasekera A, Nahm S, Blinman PL, *et al.* 2018. *Eur Respir Rev* 27(149): 180045
3. Cassim S, Chepulis L, Keenan R, *et al.* 2019. *BMC Cancer* 19(1): 25

4. Jacobsen MM, Silverstein SC, Quinn M, *et al.* 2017. *Lung Cancer* 112: 156-64
5. Optimal Care Pathways Steering Committee. <https://optimalcarepathways.com.au/ocp-lc-pathways/>
6. NHS England. 2020. *National Optimal Lung Cancer Pathway.*

Readily incorporate innovative treatments into care pathways for lung cancer

Health systems should be prepared to accommodate the increasingly diverse treatment routes for people with lung cancer into the care pathway.

Integrating precision medicine innovations

- The development of precision medicine for lung cancer has been shaped by recent advances in genomic profiling and the association of numerous genetic mutations with an increased risk of lung cancer.¹
- There is growing recognition that precision cancer care can improve the outcomes and survival of people with lung cancer.^{2 3}

Integrating clinical trial opportunities

- Participation in clinical trials for advanced-stage lung cancer can increase average survival time tenfold.⁴
- Awareness of suitable trials among people with lung cancer and the multidisciplinary team is often low;⁵ access opportunities are varied; and there is an under-enrolment of certain populations based on their socioeconomic status, ethnicity, gender and other factors.⁶

1. Aapro M, Lievens Y, Baird A M, *et al.* 2020. *Leave No One Behind – Delivering Innovation in Lung Cancer Care.*
2. Brown NA, Aisner DL, Oxnard GR. 2018. *Am Soc Clin Oncol Educ Book* 38: 708-15
3. Jiang W, Cai G, Hu PC, *et al.* 2018. *Acta Pharm Sin B* 8(4): 530-38
4. Davis JS, Prophet E, Peng HL, *et al.* 2019. *JNCI Cancer Spectr* 3(2): pkz010

5. Frank P, Ciupek A, Varriale P, *et al.* 2022. P1.09-01 The Lung Cancer Patient Experience and Care Pathway: A Multi-Country Survey. International Association for the Study of Lung Cancer 2022 World Conference on Lung Cancer; 07/08/22
6. Lung Cancer Europe. 2020. *Disparities and challenges in access to lung cancer diagnostics and treatment across Europe.*

Care pathways are situated in the context of changing approaches to lung cancer care

For the development and continued optimisation of care pathways for lung cancer to be effective, they must be situated in, and adapt to, the changing policy landscape.

To deliver lasting change in the experiences and outcomes of people with lung cancer, health system decision-makers should adapt to evolving evidence, innovation and best practice at every stage of the care pathway.

Current aspects of the changing policy landscape include:

- a growing focus on early detection
- emergence of targeted approaches to diagnosis and treatment
- addressing the barriers to equitable care
- recognition of stigma attached to lung cancer

Moving towards more effective care pathways for lung cancer

Health system decision-makers should acknowledge the potential that evidence-based care pathways have for addressing the challenge of delivering high-quality lung cancer care.

- The development and expansion of LDCT screening programmes,¹ persisting inequalities in lung cancer outcomes,^{2 3} and accumulating technological and scientific advancements⁴ demonstrate the **variety of challenges and opportunities for the lung cancer community**.
- Effective care pathways can drive improvements in outcomes, facilitate equitable care and optimise the use of infrastructure and resources – in turn, these will **lessen the social and economic burden of cancer on the health system**.
- **Immediate action is needed from policymakers** to develop and optimise care pathways for lung cancer, which would significantly improve outcomes.

‘Care pathways have the potential to revolutionise healthcare. Every care pathway must be thoughtfully developed and organised, and informed by the latest evidence and guidelines. This way, when implemented, it will have maximal impact.’

Professor Robert Thomas, University of Melbourne, Australia

1. Burzic A, O'Dowd EL, Baldwin DR. 2022. *Cancer Manag Res* 14: 637-45
2. Vaccarella S, Georges D, Bray F, et al. 2023. *Lancet Reg Health Eur* 25: 100551
3. Redondo-Sánchez D, Petrova D, Rodríguez-Barranco M, et al. 2022. *Cancers (Basel)* 14(2): 398
4. Aapro M, Lievens Y, Baird A M, et al. 2020. *Leave No One Behind – Delivering Innovation in Lung Cancer Care*.

The report recommended ten key actions to support health system leaders and decision-makers in delivering high-quality care and optimising effective, consensus-driven care pathways for lung cancer.

These actions recognise opportunities **across** and at **specific stages** of care pathways for lung cancer to promote high-quality care.



Ensure **multidisciplinary care** throughout the care pathway



Perform continuous **monitoring and evaluation** of care pathways using evidence-based performance assessment



Determine clear, time-defined **targets** for different stages of lung cancer care, taking into account the structure and characteristics of the health system



Implement evidence-based **digital technologies** that can assist systematic information management and sharing to maximise pathway efficiency



Integrate **low-dose computed tomography (LDCT) screening** programmes, alongside **smoking cessation** support and **pulmonary nodule evaluation protocols**, into the care pathway



Ensure care pathways for lung cancer are ready to incorporate new **biomarkers**



Introduce high-quality **prehabilitation** programmes into the care pathway that are appropriate for all lung cancers



Integrate **appropriate treatments** and **clinical trial opportunities** into care pathways for lung cancer



Compile evidence to inform the delivery of comprehensive **rehabilitation**



Ensure high-quality **end-of-life care** is an integral part of care pathways for lung cancer

Acknowledgements

We would like to acknowledge all Lung Cancer Policy Network members for their contributions to this report, as well as the following organisations for their endorsement:





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Thank you for attending!

Find out more about the Lung Cancer Policy Network's resources, including the care pathways report.



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The
Health Policy
Partnership

Access The Health Policy Partnership's other work on care pathways at www.healthpolicypartnership.com



The Lung Cancer Policy Network is a global multi-stakeholder initiative set up by the Lung Ambition Alliance. The Network is funded by AstraZeneca, Guardant Health, Johnson & Johnson, MSD and Siemens Healthineers. Secretariat is provided by The Health Policy Partnership, an independent health research and policy consultancy. All Network outputs are non-promotional, evidence based and shaped by the members, who provide their time for free.

WEBINAR: Care pathways for lung cancer: how can they help build a foundation for optimal care?

Please join us for a webinar sharing the findings of the Lung Cancer Policy Network report, *Care pathways for lung cancer: building a foundation for optimal care*.

Wednesday 10 July, 15:30-17:00 CEST

A panel of expert speakers will share their experiences and discuss opportunities to improve outcomes from lung cancer and the experiences of those who are diagnosed through the development, implementation and optimisation of care pathways for lung cancer.

Please join us for the discussion and have your questions answered during the audience Q&A by our speakers!

Register here:

