

Smoking Cessation at Diagnosis in Thoracic Cancer Care: Mixed-Methods Systematic Reviews of Barriers, Facilitators and Outcomes

A. Al-Oraibi¹, M. Evison², E. Mohan¹, H. Copeland³, L. Eng⁴, B. Evans⁵, B. Faseru⁶, J. Fathi⁷, H. Marshall⁸, K.L. Taylor⁹, K. White¹⁰, M. Wynes¹¹, K. Zius¹¹, M. Sheikh¹², R. Murray^{1*}

¹University of Nottingham, UK · ²Manchester University NHS FT / University of Manchester, UK · ³University of Leeds, UK · ⁴University of Toronto, CA · ⁵McMaster University, CA · ⁶University of Kansas Medical Center, USA · ⁷GO2 for Lung Cancer, USA · ⁸University of Queensland, AU · ⁹Georgetown University, USA · ¹⁰Cancer Institute New South Wales, AU · ¹¹IASLC, Denver, USA · ¹²IARC/WHO, Lyon, FR | *rachael.murray@nottingham.ac.uk

AIRSPACE

Addressing Disparities in Access to Tobacco
Dependency Services for Patients with
Thoracic Cancers



IASLC 2026 World
Conference on Lung Cancer
SEPTEMBER 12 – 15, 2026
SEOUL, REPUBLIC OF KOREA

BACKGROUND

- Continuing to smoke after a cancer diagnosis is associated with worse survival, higher recurrence and greater treatment-related toxicity, yet cessation support is still not consistently embedded within cancer care.
- AIRSPACE, funded by the IASLC, comprises two complementary systematic reviews addressing clinical outcomes and implementation.

METHODS

Both reviews prospectively registered on PROSPERO. MEDLINE, EMBASE, CINAHL and PsycINFO searched from inception.

QUANTITATIVE REVIEW — to 19 May 2025

Adults with thoracic cancer smoking at diagnosis; cessation vs continued smoking. Outcomes: overall and progression-free survival, recurrence, treatment-related adverse events, quality of life. JBI cohort checklist. Heterogeneity precluded meta-analysis; narrative synthesis following a SWiM guidance. Grouped by treatment intent.

QUALITATIVE REVIEW — to 20 June 2025

Peer-reviewed qualitative studies of cessation implementation and delivery across cancer care, from patient, caregiver, clinician and organisational perspectives. Thomas & Harden thematic synthesis.

STUDY SELECTION

Quantitative			
7,810 identified	5,358 screened	25 assessed	9 included
Qualitative			
6,457 identified	4,283 screened	40 assessed	27 included

CONCLUSIONS

Cessation at or after diagnosis is consistently associated with improved overall survival, most clearly in curative-intent disease — yet the window is fragile and routinely missed. Smoking is asked about but inconsistently acted upon, and responsibility is diffuse. Offer cessation to every patient at diagnosis, whatever the treatment intent.

QUALITATIVE RESULTS

27 studies	7 countries	731 participants	13 lung / thoracic
---------------	----------------	---------------------	-----------------------

Five analytical themes and 12 sub-themes were generated. Barriers operated at four levels; participants described the corresponding solutions.

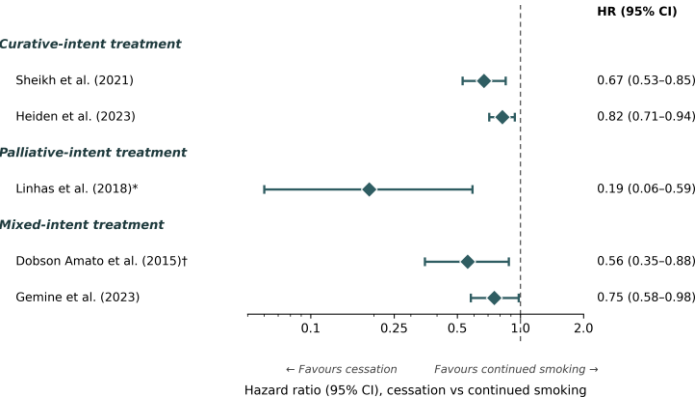
LEVEL	BARRIER	SOLUTION
Patient & family	Motivation peaks at diagnosis then fades; smoking used to cope with stress and fear; family can help or hinder	Start at diagnosis and repeat after surgery, discharge and relapse; treat smoking as emotional coping — behavioural support plus pharmacotherapy
Clinical encounter	Shame, stigma and fear of harming rapport silence the conversation; smoking asked about but not acted upon; support withheld in advanced disease	Blame-free language and communication training; shift from ask/advise to ask-offer-refer-follow-up with opt-out referral; offer by preference, not prognosis
Service & organisation	Responsibility diffuse and unowned; consultations too crowded to counsel; staff lack training, space and funding	Define who identifies, refers, prescribes and follows up; embed tobacco treatment specialists in cancer services; fund dedicated roles and clinic space
System & policy	Referral and electronic record workflows are weak; progress relies on individual champions	Build smoking status, prompts, referral and follow-up into the EHR; leadership buy-in, policy support and routine monitoring

Quality (JBI): 19 moderate, 7 high, 1 low. All 27 studies met criteria on methodological congruity, ethics and conclusions; only 4–6 reported researcher reflexivity or philosophical positioning.

QUANTITATIVE RESULTS

9 studies	18,678 participants	100% lung cancer
--------------	------------------------	---------------------

Overall survival: all nine studies favoured cessation, six significantly. Adjusted hazard ratios 0.19–0.82.



Adjusted hazard ratios for overall survival, grouped by treatment intent. The signal is strongest in curative-intent and surgically treated cohorts; palliative-intent evidence rests on a single cohort.

OUTCOME	STUDIES	EVIDENCE
Overall survival	9	Consistent benefit
Progression-free survival	2	Both favour cessation
Disease recurrence	1	Within progression only
Treatment-related AEs	3	Not comparable
Quality of life	1	Not reported by smoking status

KEY MESSAGE

Cessation improves survival. Shift from asking about smoking to reliably treating it - embedded in cancer care, blame-free and clearly owned.

Disclosures and AI Use Statement



Smoking Cessation at Diagnosis in Thoracic Cancer Care: Mixed-Methods Systematic Reviews of Barriers, Facilitators and Outcomes | A. Al-Oraibi et al. | WCLC 2026

Funding

This work was funded by the International Association for the Study of Lung Cancer (IASLC) Tobacco Control and Smoking Cessation Committee. The study received no funding from any pharmaceutical, biotechnology or tobacco industry source.

Author disclosures

No disclosures

AI use disclosure

Tool used and contribution. Claude (Anthropic) was used as a supportive tool in the preparation of this poster and its accompanying video script, specifically to assist with layout design, with condensing text from the authors' two completed systematic review manuscripts, and with drafting narration. No AI tool was used to conduct the literature searches, screen records, extract data, appraise study quality, or generate, analyse or interpret any of the underlying data. All scientific content derives from the authors' systematic reviews and has been reviewed and approved by the authors, who take full responsibility for its accuracy.

Artificial Intelligence (AI) Use Disclaimer: In accordance with the standards and guidance set forth by the Accreditation Council for Continuing Medical Education (ACCME), individuals in control of content are required to disclose the use of artificial intelligence (AI) in the development of educational materials. This includes identification of the specific AI tool(s) utilized and a description of how AI contributed to content creation as a slide reference. IASLC maintains oversight of all educational content and conducts a thorough review process to ensure that materials are evidence-based, fair-balanced, and free from commercial bias, consistent with ACCME Standards for Integrity and Independence. While AI may be used as a supportive tool in content development, it does not replace clinical expertise or independent medical judgment. Learners are advised to critically evaluate all information presented and apply their own professional judgment when incorporating knowledge into clinical practice.

Acknowledgements

We thank the IASLC Tobacco Control and Smoking Cessation Committee for supporting the AIRSPACE programme