



सत्यमेव जयते

Department of Health Research
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P1.347: Development of Evidence-Based Guidelines for Lung Cancer Treatment: A GRADE-Based Approach

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INTRODUCTION

- Lung cancer remains a leading cause of cancer-related mortality globally, with substantial variation in treatment practices across healthcare settings.
- In India, clinical guideline development is **transitioning from predominantly consensus-based approaches** towards structured, evidence-based methodologies.
- There is a need for transparent, rigorous and contextually relevant guidelines that can support consistent and equitable lung cancer care across diverse healthcare settings.
- This guideline represents the **first evidence-based cancer guideline developed in India**, applying the GRADE and Evidence-to-Decision (EtD) frameworks to lung cancer treatment.



METHODS

Guideline Development Process



Guideline development period: January 2024–December 2025

- Multidisciplinary GDG:** Clinical experts, methodologists, public health professionals, health economists, patient support groups and a person with lived experience.
- PICO framework:** Priority clinical questions addressing key treatment decisions across stages of lung cancer, including oligometastatic disease.
- Evidence synthesis:** Systematic reviews conducted through Technical Resource Centres (TRCs) to synthesise the best available evidence.
- Certainty of evidence:** Assessed using the GRADE approach, considering risk of bias, inconsistency, indirectness, imprecision and publication bias.
- Formulation of recommendations:** Evidence-to-Decision (EtD) frameworks incorporated patient values, resource use, equity, acceptability and feasibility, followed by structured GDG deliberation and consensus.



ACTIONABLE TAKE-HOME MESSAGE

- Use structured evidence synthesis and GRADE rather than relying solely on consensus.
- Use Evidence-to-Decision frameworks to contextualize evidence for patient, Usehgyshen and resource considerations.
- support more equitable lung cancer care.



DISCUSSION AND CONCLUSION



1 A shift in guideline development

This guideline represents a transition from predominantly consensus-based approaches towards a structured, evidence-based methodology for clinical guideline development in India.



2 Evidence was contextualized, not simply adopted

The GRADE and Evidence-to-Decision frameworks enabled the GDG to consider certainty of evidence together with patient values, resource use, equity, acceptability and feasibility, ensuring global evidence was tailored to the Indian context.



3 Recommendations designed for diverse settings

The rigorous process aimed to produce context-specific recommendations that can support clinical decision-making across varied healthcare settings, including resource-constrained contexts, and reduce unwarranted variation in practice.



KEY MESSAGE

A rigorous evidence-to-recommendation process translated global evidence into context-specific guidance for lung cancer care in India.



FUTURE DIRECTIONS FOR RESEARCH

- ✓ Prioritize questions with low or very-low-certainty evidence identified during guideline development.
- ✓ Generate India-specific and context-relevant evidence, particularly where applicability across diverse healthcare settings is uncertain.
- ✓ Translate identified evidence gaps into focused research questions and investigator-initiated research proposals.
- ✓ Use emerging evidence to inform future updates of the guideline.



Potential research priorities may be taken forward through competitive national research funding mechanisms, including ICMR extramural programmes.



RESULTS

12 EVIDENCE-BASED RECOMMENDATIONS



SURGERY & LOCAL THERAPY

- 01 Prehabilitation before surgery
- 02 Mediastinal lymph node dissection
- 03 Radical local treatment in oligometastatic disease
- 04 SBRT vs surgery in early-stage disease
- 05 Postoperative radiotherapy after complete resection
- 06 Neoadjuvant therapy vs upfront surgery



TARGETED THERAPY

- 07 Adjuvant TKI in EGFR-mutated early-stage NSCLC
- 08 2nd/3rd-generation TKI in advanced EGFR-mutated NSCLC



IMMUNOTHERAPY

- 09 Immunotherapy in advanced NSCLC without driver alteration
- 10 Individualized lower-dose pembrolizumab when standard dose is unaffordable/unavailable



SCLC: RADIOTHERAPY

- 11 Prophylactic cranial irradiation
- 12 Timing of thoracic radiotherapy

GUIDELINE OUTPUT

12 Recommendations
Recommendations addressing early-stage, locally advanced and metastatic disease

10 NSCLC
2 SCLC

Recommendation strength

Strong ↔ Conditional

Certainty of evidence

High Moderate Low Very low

KEY AREAS ADDRESSED



REFERENCES & ACKNOWLEDGEMENTS

Scan to view full guideline / evidence profiles / supplementary material



Acknowledgements:

- Steering Group
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- External reviewers and stakeholders

Key References:

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AI DISCLOSURE STATEMENT: No generative AI tools were used in the development of this poster.