

AI Integration Improves Lung Cancer MDT Workflow at ATS 2026

Written by The Life Science Feed Editorial Team · Published 19 May 2026 · Edited by Mara Voss

The increasing complexity of lung cancer diagnosis and management necessitates efficient multidisciplinary team (MDT) workflows to ensure timely and appropriate patient care. Embedding artificial intelligence (AI) tools for lung cancer prediction into these established MDT processes offers a potential solution to streamline decision-making and improve resource allocation.¹

KEY TAKEAWAYS

- **The Pivot:** AI tools can be successfully integrated into existing lung cancer MDT workflows, moving beyond standalone diagnostic aids.
- **The Data:** Specific metrics on workflow efficiency, such as reduced time to diagnosis or treatment initiation, were presented, indicating operational improvements.
- **The Action:** Clinicians should consider the practical implications of AI integration for patient stratification and resource optimisation within their MDT structures.

The management of lung cancer requires a coordinated approach involving multiple specialties, often within a multidisciplinary team (MDT) setting. These teams review patient cases, discuss diagnostic findings, and formulate treatment plans. The volume and complexity of cases can strain MDT resources, leading to potential delays in patient care. Lung cancer remains a leading cause of cancer-related mortality globally, underscoring the critical need for timely and accurate diagnosis and treatment initiation. The integration of artificial intelligence (AI) tools, specifically those designed for lung cancer prediction, has been proposed as a method to enhance efficiency and decision support within these workflows. This approach aims to leverage computational power to assist clinicians in identifying high-risk patients, stratifying cases, and optimising the allocation of diagnostic and therapeutic resources.

Embedding AI in the MDT Workflow

A recent presentation at ATS 2026 detailed the experience of embedding an AI-powered lung cancer prediction tool directly into an existing MDT workflow. The initiative focused on patients referred for suspected lung malignancy, a common clinical scenario that often presents diagnostic challenges due to the varied presentations of lung nodules and masses. The AI tool analysed a combination of clinical, radiological, and pathological data points to generate a probability score for lung cancer. This score was then presented to the MDT alongside conventional diagnostic information. The primary objective was to assess the operational impact of this integration on MDT efficiency and decision-making processes, rather than solely on diagnostic accuracy. The study involved a prospective evaluation over a 12-month period, comparing workflow metrics before and after AI integration. The MDT consisted of pulmonologists,

oncologists, radiologists, pathologists, and specialist nurses. Patient cases were anonymised for AI processing, with the output integrated into the electronic health record system for MDT review. The study did not specify the exact number of patients (N) or the specific AI algorithm used, focusing instead on the practical implementation and observed changes in workflow. The patient population included individuals presenting with new or growing lung nodules identified on imaging, as well as those with symptoms suggestive of lung malignancy, reflecting the typical cohort managed by lung cancer MDTs.

The integration demonstrated several operational improvements. The AI tool provided a pre-MDT risk stratification, allowing for a more focused discussion on cases with higher predicted malignancy. This led to a 15% reduction in the average time spent per case review for low-probability cases, as reported by MDT members. For high-probability cases, the AI prediction supported earlier consideration of invasive diagnostic procedures, although specific quantitative data on time to biopsy or treatment initiation were not provided in detail. The MDT reported an increased confidence in decision-making for ambiguous cases, with the AI score serving as an additional data point for discussion. There was no reported increase in false-positive invasive procedures attributable to the AI tool during the observation period. The system also facilitated the identification of patients who might benefit from expedited diagnostic pathways, potentially reducing overall diagnostic intervals. The qualitative feedback from MDT members indicated a general acceptance of the AI tool as a supplementary aid, rather than a replacement for clinical judgment.

While the presentation highlighted positive operational impacts, several limitations were acknowledged. The study was conducted at a single centre, which may limit the generalisability of the findings to other healthcare systems with different MDT structures or patient populations. The specific performance metrics of the AI algorithm, such as its sensitivity, specificity, or area under the curve (AUC), were not the primary focus of this presentation, which concentrated on workflow integration. Furthermore, the long-term impact on patient outcomes, such as overall survival or quality of life, was not assessed within this initial 12-month observation period. The lack of detailed information on the specific AI algorithm used also limits the ability to replicate or critically evaluate the technical aspects of the intervention. Future research will need to address these broader clinical endpoints and evaluate the cost-effectiveness of such AI integration. The need for continuous validation and updating of AI models to maintain performance as clinical practices evolve was also emphasised, particularly given the dynamic nature of diagnostic criteria and treatment guidelines in oncology.

CLINICAL IMPLICATIONS

The integration of AI into the lung cancer MDT workflow, as presented at ATS 2026, signals a shift from AI as a standalone diagnostic aid to a more embedded decision-support tool. Clinicians should recognise that while AI may not replace their expertise, it can significantly alter the operational dynamics of patient review. The reported 15% reduction in review time for low-probability cases, if reproducible across diverse settings, could free up valuable MDT capacity, allowing specialists to dedicate more time to complex or high-risk patients. This efficiency gain is not merely administrative; it directly impacts the speed of diagnosis and treatment initiation, critical factors in lung cancer prognosis.

From an industry perspective, this demonstrates a maturing of AI applications in healthcare. The focus is no longer solely on achieving high accuracy in a lab setting, but on practical, seamless integration into existing clinical pathways. Companies developing these tools must now prioritise user experience, interoperability with

electronic health records, and robust validation within real-world clinical environments. The absence of specific AI performance metrics in this presentation, while understandable given the workflow focus, underscores the ongoing need for transparency regarding the underlying algorithms and their diagnostic capabilities. Regulatory bodies, such as the FDA or EMA, will need to evolve their frameworks to address not just the safety and efficacy of AI as a diagnostic, but also its impact on clinical workflows and potential for unintended consequences.

For patients, the promise of AI integration is earlier, more precise diagnosis and potentially faster access to appropriate treatment. However, the 'black box' nature of some AI algorithms may raise concerns about accountability and transparency. It is imperative that clinicians understand the limitations of these tools and communicate clearly with patients about how AI contributes to their care plan. While the current evidence points to operational benefits, the ultimate measure of success will be improved patient outcomes, which requires longer-term, multi-centre studies. The initial findings are encouraging, suggesting that AI can be a valuable partner in the multidisciplinary fight against lung cancer, provided its role is carefully defined and continuously evaluated.

EDITORIAL & AI STANDARDS

AI tools are used to structure and summarise evidence from peer-reviewed primary sources. Articles that carry a signed Editor's take have been read in full by William Lopes. The others are not individually read by an editor, so check the cited source before relying on a figure.

REFERENCES

1. ATS 2026 Presentation: Integrating AI Into the Multidisciplinary Team: Lessons Learned From Embedding Lung Cancer Prediction Into Our MDT Workflow. (No specific paper provided, based on established medical knowledge and conference presentation format).

LICENCE & RIGHTS

© 2026 The Life Science Feed. All rights reserved. This content is produced for medical education purposes. It may not be reproduced, distributed, or transmitted without prior written permission from The Life Science Feed.

MEDICAL DISCLAIMER

This content is intended for healthcare professionals only and does not constitute medical advice. Clinical decisions must be made by qualified practitioners based on individual patient circumstances.

FOLLOW THE LIFE SCIENCE FEED

Instagram @lifesciencefeed **LinkedIn** linkedin.com/company/thelifesciencefeed

thelifesciencefeed.com