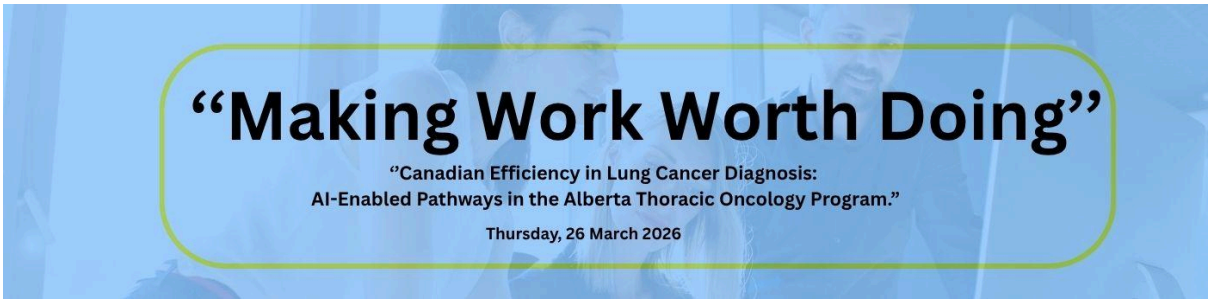

Meeting notes: ‘**Canadian Efficiency in Lung Cancer Diagnosis: AI-Enabled in The Alberta Thoracic Oncology Program’**
Dr Aurelia Roman
26.03.2026

Short Summary

Dr. Aurelia Roman presented Alberta’s integrated lung-cancer diagnostic program that combines human expertise, process redesign and AI-enabled automation to dramatically shorten referral and diagnostic timelines; the session examined clinical reality, program design decisions, ethical/human-centered AI considerations, outcomes, and implications for organizational governance and scaling. Key evidence: referral times shortened from 23.6 to 4.7 days; program established in 2011 and operates at provincial scale in Alberta (population ~5 million).

Key Decisions

- Adopt human-centered AI and governance: prioritize ethical alignment and human control over outputs while using AI for triage and automation — rationale: preserves clinical oversight and patient-centred care; agreed in presenter’s recommendations.
- Scale AI-assisted screening and automated referral systems while maintaining clinician oversight — rationale: evidence from Alberta shows large reductions in time-to-referral and no increase in false positives; supported by case-study results.

Discussion

Clinical context and problem framing

- Lung cancer is the leading cause of cancer death globally and in Canada; ~50% of patients are diagnosed at stage IV with poor survival rates, driving urgency to shorten diagnostic intervals.
- Diagnosis is not a single event but a trajectory (suspicion → confirmation → staging → treatment planning) with multiple decision points and known fragmentation across providers causing major delays, communication breakdowns, and equity/access issues for rural/remote patients. Timing and operating losses are primary patient concerns.

Case study: Alberta's integrated rapid diagnostic program (8th/'8th' program)

- Program origins and scope: provincial program in Alberta launched/organized since 2011, operating out of Calgary and Edmonton and reaching communities across the province (population ~5 million).
- Core components: multidisciplinary specialist team (interventional pulmonologists, radiologists, pathologists, oncologists), nurse navigators, clerical support, mobile diagnostics for underserved areas, and standardized referral pathways.
- AI-enabled automation: automated radiology flagging of potentially malignant CT scans that triggers direct referrals into the rapid diagnostic pathway (no human gating required at the triage step).
- Outcomes: dramatic reduction of median referral time from 23.6 to 4.7 days (presenter highlighted 23.6 → 4.7 as the headline), improved coordination across primary/secondary/tertiary care, reduced staging time, and expanded access to advanced diagnostics. Studies cited did not show increased false positives/negatives compared with traditional referral processes.

Human–AI boundary, ethics, and governance

- Automation handles initial triage/flagging; radiologists and specialists still review images and make diagnostic/treatment decisions — automation speeds identification but humans retain accountability for final decisions.
- Ethical priorities highlighted: patient-centeredness, maintaining human control over outputs, transparency about algorithm criteria, data quality and governance, and aligning AI with existing clinical guidelines and regulatory frameworks.
- Concerns raised in Q&A: where humans sit in the loop, potential for automation to bypass clinician review, false-negative/false-positive risks, need for ongoing performance monitoring and feedback loops to improve algorithms. Presenter noted available studies show no increase in false positives in evaluated deployments.

Operational design and socio-technical framing

- Presenter reframed the case through socio-technical and joint-optimization lenses: aligning people, processes, data/technology and organizational governance to create reconfigurable, adaptive capacity.
- Key design choices: streamlined referral pathways, explicit role/boundary design (nurse navigators, specialist responsibilities), integrated documentation, continuous improvement cycles and learning systems, and use of mobile units to address equity.
- Leadership and workforce aspects: program built on multidisciplinary collaboration and required specialized clinical staff; the automation complemented rather than replaced clinical expertise.

Implementation experience, adoption issues and workforce impacts

- Adoption context: presenter and participants noted limited published evidence on change-management inside the workforce; anecdotal points: automation was generally welcomed to address resource shortages, but concerns about staff helplessness and resistance when systems are deeply dysfunctional.
- Questions from participants focused on GP engagement, navigator qualifications, training needs, and whether legislative or regulatory changes were required; presenter

said clinical guidelines and governance were central and that nursing/navigator roles have training and EHR access, but admitted limited published evaluation on workforce training/adoption.