AI In Emergency Care

ECBC Showcase

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Flex time description

Literature review – understanding the broader landscape of AI in emergency medicine

Provincial lens - exploring AI use within British Columbia

Expert interviews - assessing current use, barriers, and opportunities for ECBC's future role

Why this work matters

- Currently, there is limited structure or guidance for implementation in BC
- Clinicians are motivated and curious but need support to use AI tools responsibly
- ECBC is seeking to support the safe and effective integration of AI into emergency medicine

What is AI?

- AI refers to computer systems designed to perform tasks that normally require human intelligence
- In emergency medicine, AI can support clinical decision-making, triage, diagnosis, and administrative tasks
- AI systems learn from data to recognize patterns, make predictions, or generate helpful outputs
- Examples include symptom checkers, decision support tools, and AI scribes

General themes in the literature

Clinical Applications & Impact – How AI is being used to improve triage, diagnosis, and decision-making in EDs

Patient perspectives– Ensuring patients are aware and can contribute to the development and implementation

Ethics, Equity & Transparency – The need to ensure fair, explainable, and bias-aware AI systems

Governance & Safety – The importance of oversight, data stewardship, and regulatory clarity

Workforce & Cultural Readiness – Preparing clinicians and systems for the cultural shift AI brings

Interview Results

- 12 Interviewees
- 6 Emergency Physicians
- 1 Ethicist
- PHSA Executive Leadership Team Member
- Regional Director of Data Governance and Privacy, VCH
- Deputy Governance Officer, VCH
- BC Cancer Psychiatrist
- Consulting Advanced Analytics Director, FH

What is the landscape in EDs in BC?

- Limited adoption to date
- Lack of formal regulations or provincial guidance
- Mixed physician attitudes: cautious hesitancy vs. enthusiastic use

Foundational challenges

Data security – Clarity on data storage, privacy, and regulatory standards is lacking

Representative data – Tools must reflect the diversity of real-world patient populations

External infrastructure – Most hospitals lack in-house capacity to run advanced AI models

Implementation challenges

User-friendly interface – Tools must be intuitive and integrate seamlessly into clinician workflows

Patient-centered design – Tools must meet genuine patient needs in accessible ways

Vendor landscape – Market instability raises concerns about long-term viability

Ongoing monitoring – Continuous evaluation is essential to ensure safety and effectiveness

Potential uses of AI in EDs

- Self-triage
- Triage
- Discharge
- Scribes: the most actively adopted and promising application

Opportunities for ECBC

- Develop a vetted catalogue of AI tools for clinical use
- Convene diverse experts and partners to guide implementation
- Represent both health authorities and physicians in AI adoption

Why is this of value?

Physicians are eager but face unclear guidance in BC

Provides a trusted list of AI tools approved for immediate use

Continuously updated to reflect the latest safe and effective options

The Call?

- Seeking diverse experts to join a vetting committee
- ECBC alone lacks all necessary perspectives and expertise
- Interested participants include data scientists, physicians using AI, AI specialists, policy experts, educators, and more

Conclusion

- AI in healthcare is still a largely unregulated space
- Significant challenges remain in development and implementation
- ECBC aims to provide clarity and practical support for physicians

Questions?