Ethical considerations around the use of artificial intelligence in health care

As artificial intelligence (AI) becomes increasingly integrated into health care, it is essential for clinicians to remain vigilant regarding its ethical use. Without appropriate oversight, AI can inadvertently perpetuate or amplify health disparities, including racial inequities.[1] A recent policy statement from Doctors of BC emphasizes the importance of examining the ethical dimensions of AI tools.[2]

Clinicians who are well informed about AI and use it in an evidence-based manner can help reduce the associated ethical risks. The quality of an AI system depends on the quality of the data it is trained on. Data sets may suffer from availability bias, often mirroring present-day health care inequities. One study found that AI chest X-ray prediction models consistently underdiagnosed Hispanic women and other underserved populations.[3] This shows how structural bias can become hidden in AI algorithms over time.

To build more equitable systems, it is important to involve equity-deserving populations in both the design and validation of AI tools. With Indigenous communities, data sovereignty should be respected, and partnerships should be established to explore how to implement AI in culturally appropriate ways. Similarly, rural communities, older adults, and people with disabilities may face distinct barriers in accessing AI tools. Including perspectives from people in these groups in AI model development ensures that models are shaped by the populations they are meant to serve. It is also crucial to recognize that some patients may be uncomfortable with or not have access to AI systems. Therefore, providers should proactively develop alternative care plans to ensure equitable access for all patients, respecting individual preferences and needs.

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AI serves as a valuable adjunct to providers' decision making. Like other established diagnostic tools, AI should be employed with a clear understanding of its strengths and limitations. Investment in AI literacy is also essential to ensure fair access to care. Clinicians are encouraged to pursue continuing education on AI in health care, including accredited online courses from providers such as Coursera (www.coursera.org/search?query=artificial%20intelligence), to remain current with evolving technologies. Health care organizations should prioritize training for providers unfamiliar with these tools with an emphasis on ethical considerations. This will help bridge the digital divide, as AI uptake is currently concentrated in younger, more experienced individuals living in urban centres.[4]

When using AI-driven platforms, providers should:

- Rely on evidence-based sources such as OpenEvidence (www.openevidence.com) for clinical information.
- Double-check references and validate outputs from AI platforms.
- Formulate prompts that specify the health care provider's role, the patient population, and pertinent clinical details to improve the relevance of AI-generated responses.

Here is an example of an effective prompt: "I am a family physician in Vancouver. What is the best antihypertensive medication for my 55-year-old Indigenous patient with comorbidities including heart failure and chronic kidney disease? Search PubMed for relevant publications and provide references for your answer. Select medications covered by non-insured health benefits."

Finally, we must advocate for greater accountability among AI companies, which share responsibility for the impact of their tools. The key issue is transparency, specifically around how data is sourced, processed, and stored. Not only is transparency the cornerstone of more inclusive AI models, but it also fosters trust in how one's information will be used.

As AI continues to evolve, its potential should be recognized but also matched with a commitment to ethical integration. By prioritizing education, accountability, and community involvement, we can leverage AI to provide quality patient-centred care across all BC communities. ■

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youth for the management of depression and anxiety and were commonly involved in self-harm calls. Youth who are at greater risk of suicide and self-harm are more likely to have access to these medications than the public. Several of the top culprit medications, such as acetaminophen, ibuprofen, and diphenhydramine, are available over the counter and can be accessed in large quantities by the Canadian public.

These findings highlight opportunities for prescribers, policymakers, and the public to reduce the risk of youth self-harm and suicide. Potential actions include incorporating safety considerations into prescribing guidelines, modifying prescribing practices for higher-risk patients, and providing education to patients and families on safe medication storage and disposal. Means-prevention interventions for over-the-counter medications in other jurisdictions can inform local approaches. For example, the United Kingdom introduced legislation in 1998 to limit over-the-counter acetaminophen package sizes, resulting in a 43% reduction in suicide deaths due to acetaminophen over 11 years.[4]

Limiting access to a lethal supply of medications is an evidence-based approach to prevention of youth suicide and self-harm. Greater awareness of the epidemiology of medication self-harm can inform strategies to reduce youth self-harm. ■

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