Guiding principles for the optimal use of data analytics by physicians at the point of care

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Guiding Principles for the Optimal Use of Data Analytics by Physicians at the Point of Care

Executive Summary

Electronic health records are being used more widely in research and clinical care. A majority of physicians in Canada have electronic health records (EHRs). Use of EHRs is often facilitated by clinical decision support systems (CDSS). A CDSS is a computer-based system that provides real-time, evidence-based, and context-specific advice for clinical decision making. EHRs and CDSSs can both be used to support decision making, decision support, and data analytics, which provides an opportunity to facilitate clinical practice.

By data analytics, we mean any method or process for summarizing clinical data in 100,000 data elements in meaningful ways to assist physicians in their clinical practice. The goals of data analytics can be categorized into at least four types: (1) improving the health status of patients, (2) improving the efficiency of healthcare delivery, (3) improving the research status of healthcare delivery, and (4) improving the reimbursement status of healthcare delivery. By providing timely and meaningful data analytics, physicians can make more informed decisions.

Optimal data use involves both of these processes: meaningful data analytics in healthcare and data analytics in research and medicine. In practice, this means that data analytics should be used in both clinical and research settings. This can be achieved by using data analytics to answer clinical questions, such as the impact of a new medication on patient outcomes.

The following principles should be considered when using data analytics to support clinical and research practice:

1. Data analytics should be used to support clinical practice.
2. Data analytics should be used to support research.
3. Data analytics should be used to support patient education.
4. Data analytics should be used to support public health.
5. Data analytics should be used to support healthcare delivery.

These principles should be applied in a manner that respects patient confidentiality, privacy, and security. This can be achieved by using data analytics to support clinical practice.

CMA POLICY

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