



## Research project summary

# Development and implementation of a reporting guideline for systematic reviews and meta-analyses of diagnostic accuracy studies: The PRISMA-DTA initiative

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- Awarded \$100,000 from the Canadian Institutes of Health Research (CIHR) in May 2017

Diagnostic tests are used throughout medicine to detect disease and guide treatment; these include laboratory, imaging and physical examination tests. The 2015 report "Improving Diagnosis in Healthcare", by the Institute of Medicine identified that better understanding of diagnostics is the next imperative for patient safety. Systematic reviews of diagnostic test accuracy (DTA) synthesize data from studies to provide insight into the utility of tests. Clinicians and authors of guidelines commonly rely on these systematic reviews. Methods for executing DTA reviews are more challenging than other types of systematic reviews, yet, standards for conducting and reporting DTA reviews have not been established. Published DTA reviews often do not report sufficient information to evaluate the quality of the evidence. The lack of standards for the conduct and reporting of DTA reviews leaves policy-makers and clinicians to make patient care decisions with evidence of unknown quality. Decisions made based on inaccurate evidence can negatively impact patient care by underestimating the rate of false negative (missed diagnoses = sub-optimal outcomes from lack of treatment) or false positive (over-diagnosis = consumption of resources and morbidity related to unnecessary treatment) tests. This problem can impact the viability of screening programs that implement the use of diagnostic tests in large populations. We aim to: (1) To perform a systematic review to identify existing guidance for conduct and reporting of DTA systematic reviews (2) To apply knowledge from the systematic review to develop, disseminate and implement a reporting guideline for systematic reviews and meta-analyses of diagnostic accuracy studies: the Preferred Reporting Items for Systematic Reviews and Meta-Analyses - DTA (PRISMA-DTA) Statement.

[Back to summary of all grants awarded to The Ottawa Hospital in this competition \(May 2017\)](#)