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Five things to know about diagnostic error

Darya Yermak¹, Peter Cram^{1,2}, and Janice L. Kwan^{1,2}

¹Department of Medicine, University of Toronto, Toronto, Canada

²Division of General Internal Medicine and Geriatrics, Sinai Health System and University Health Network, Toronto, Canada

Abstract

Diagnostic error represents an important patient safety issue. Herein, we summarize five important things to know about this topic. 1) At least 1 in 20 adults are affected by diagnostic errors annually. 2) The root causes for diagnostic errors are typically multifactorial. 3) Cognitive errors are found in the majority of cases. 4) Most missed diagnoses involve common conditions. 5) Advancements in policy, education, and health information technologies hold promise for improving diagnostic safety.

Keywords

diagnostic errors; patient safety; quality improvement

Introduction

In September 2015, the Institute of Medicine released a pivotal report highlighting diagnostic error as an important patient safety issue.¹ Herein, we summarize five important things to know about this topic.

Five Things to Know About Diagnostic Error

At least 1 in 20 adults are affected by diagnostic errors annually²

Diagnostic error is the failure to (a) establish an accurate and timely explanation of the patient's health problem(s) or (b) communicate that explanation to the patient.¹ It can result in patient harm by preventing or delaying appropriate therapy, leading to unnecessary or harmful treatment, or causing psychological or financial repercussions.¹

Corresponding author: Janice L. Kwan, MD MPH, Department of Medicine, Mount Sinai Hospital, 427-600 University Avenue, Toronto, Ontario, M5G 1X5, Canada; Phone: 416-586-4800; Fax: 416-586-8350, janice.kwan@utoronto.ca.

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The root causes for diagnostic errors are typically multifactorial

The diagnostic process involves a complex interplay between provider-, patient-, and system-related factors (Figure 1). Most diagnostic errors involve an average of nearly 6 process failures, including faulty data gathering and synthesis, as well as problems with policies and procedures.³

Cognitive errors are found in the majority of cases

Cognitive errors arise from flawed thinking patterns. Common examples include premature closure, confirmation bias, and anchoring. A study of 100 cases of diagnostic error using record reviews and provider interviews found that cognitive factors contributed to almost 3 in 4 cases. However, cognitive and system-related factors were often found to co-occur.³

Most missed diagnoses involve common conditions

A retrospective analysis of 190 primary care diagnostic errors identified using an electronic trigger tool, found that pneumonia, congestive heart failure, acute renal failure, and cancer were amongst the most common missed diagnoses.⁴

Advancements in policy, education, and health information technologies (IT) hold promise for improving diagnostic safety

The Institute of Medicine calls for enhanced approaches to identifying, learning from, and reducing diagnostic errors and near misses in clinical practice. It highlights patients and their families as critical partners in the diagnostic process. It emphasizes the need for improved training in diagnostic competencies and feedback on diagnostic performance. It also calls for better alignment between health IT vendors and users to support the diagnostic process.¹

Conclusions

Diagnostic error represents a critical, but understudied field of quality improvement and patient safety. Improving the diagnostic process will likely require a multipronged and collaborative approach.

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Figure 1. Where failures in the diagnostic process occur

Source: http://www.nationalacademies.org/hmd/~/media/Images/Resource-Page-Images/Improving-Diagnosis/NAM_diagnosis_graphics_FNL_for%20scrolling%20toolkit-03.png?la=en