

Most primary care diagnostic errors stem from process breakdowns during the clinical encounter

The primary care setting is particularly vulnerable to diagnostic errors (missed, delayed, or wrong diagnosis). Recently, researchers used electronic health record (EHR) triggers to identify diagnostic errors at two primary care sites. They found that most missed diagnoses were for common conditions, such as pneumonia and worsening heart failure. In addition, process breakdowns during the patient-practitioner clinical encounter were responsible for the majority of the errors.

The study was conducted in the primary care clinics of a large urban Veterans Affairs facility and a private health care system. EHR triggers flagged situations when patients had unexpected return visits or unplanned hospitalizations after their initial primary care visit. Detailed medical reviews determined if there was a diagnostic error at the initial visit. A second level review determined the process breakdowns and contributing factors involved.

A total of 190 diagnostic errors were discovered and involved 68 different types of medical conditions. In addition to pneumonia, other commonly missed

diagnoses included worsening congestive heart failure, acute renal failure, cancer, and urinary tract infection.

Nearly 80 percent of breakdowns occurred during the clinical encounter. These included problems with the medical history, physical examination, and the ordering of diagnostic tests. Other process breakdowns outside of the patient-practitioner clinical encounter involved referral processes, patient-related issues, followup of diagnostic test result information, and interpreting test results.

Most of the diagnostic errors identified (86.8 percent) had the potential to produce moderate to severe harm. The researchers suggest that future interventions to address these errors must address common contributory factors across the several types of errors and provide better cognitive support to practitioners to enhance data gathering and synthesis in the clinical encounter. The study was supported in part by AHRQ (HS17244).

See "Types and origins of diagnostic errors in primary care settings," by Hardeep Singh, M.D., M.P.H., Traber Davis Giardina, M.A., M.S.W., Ashley N.D. Meyer, Ph.D., and others in the March 25, 2013 *JAMA Internal Medicine* 173(61), pp. 418-425. KB

