



Workflow Associated With the Collection of Clinical Lab Data at the Point of Care

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Abstract:

It is important for health clinics to capture clinical laboratory results such as point-of-care testing (POCT) data in order to meet personal health information needs while increasing patient throughput and improving clinical and economical outcomes. Personal health information needs should be exchanged at three levels: among patients and providers, across a community, and across the country. Health information technology is an important tool in addressing such a need while providing efficiency, safety, and quality. Electronically stored clinical data are necessary to attain the benefit of health information technology, so that the provider can achieve greater patient safety and efficiency through provider order entry, disease management, and clinical decision support. In any field of health care and medicine it is important to carefully document all forms of data. The purpose of this study was to examine the workflow associated with the collection of clinical lab data at the point of care. Staff members at an ambulatory, multi-specialty primary care clinic in Indianapolis, Indiana, were observed via a continuous time-motion study. Flowcharts were created for the step-by-step workflow process of a general POCT, lab, and for each role observed. Analysis of the subjects' interview responses revealed the content of the pros and cons of possible data transfer modes from an electronic medical record (EMR) to a health information exchange (HIE). The tables derived from the time-motion study table were then analyzed, resulting in the creation of tables summarizing the approximate total time and percentage involved for each category of tasks observed. It was found that the majority of the time spent throughout the workflow process is on behalf of the nurse vs.

the medical records clerk, who is involved, the least amount of time. The nurse plays the role of directing the entire workflow process of point of care testing and clinical laboratory tests. It was observed that the POCT results are recorded directly into a patient's chart, resulting in no electronic documentation, while clinical laboratory test results are stored electronically in an EMR and printed out for chart storage. The processing task category takes the most amount of time throughout the duration of workflow process for POCT, clinical laboratory test, and the observed subject. Changes in the workflow process would most likely affect the phlebotomist; least likely affect the primary care provider, while the nurse, check-out clerk, and medical records clerk would be minimally affected. Overall, a change in the workflow process for a provider such as the medical facility observed in the study would create a higher patient intake and faster result turnaround, resulting in quality patient care. The use of data transfer of POCT and the clinical laboratory from an EMR to a HIE would create a broader depth of content that would be available for healthcare providers locally, regionally, nationally, and ultimately internationally.

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