Perceptions of Workflow and Information Exchange in an Academic Medical Center in Preparation for EHR Implementation: A Preliminary Field Study

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Abstract
In order to optimize a future EHR implementation, we gathered perceptions of existing workflow from clinical and non-clinical staff of an academic medical center. Document review and interviews were conducted to identify work activities, roles, goals and information needs across the medical center. This included both clinical and non-clinical personnel. Perceptions of workflow, information exchange and the importance of various activities varied across stakeholder groups. A reliance on informal information exchange was cited by the participants.

Introduction
Healthcare workflow involves processes, information flow and practices spanning occupational and departmental stakeholders. However, much of the research documenting workflow focuses on a particular occupational group or department. Understanding workflow and information exchange throughout the organization is important when implementing widespread information technology efforts, such as EMRs. However, often IT is implemented without understanding workflow from various perspectives. This can lead to unintended consequences such as not poor user acceptance and negative workflow impacts. 1,2

Methods
This study was conducted in an urban academic medical center in Upstate New York. IRB approval was obtained by the University and by the academic medical center. Review of policies and procedures, flowsheets and other documentation was conducted. The first author conducted semi-structured interviews with clinical and non-clinical personnel across the organization to compliment the document review. They lasted approximately one hour. These were guided by an interview protocol and were recorded and transcribed for analysis.

Results
Perceptions of overall and departmental workflow varied across occupational groups and departmental affiliation. Participants had little understanding of how their work and documentation impacted others. Formal documentation varied across both departmental and occupational boundaries, which led to varying understanding of formal policies.

Participants consistently cited the value of informal information exchange and relationships with those in other departments as a mechanism for improving workflow. The workflow and information exchange processes outlined by the participants rarely matched the documentation provided by the organization. Rather, there was a reliance on relationships between stakeholders to improve workflow.

Discussion
Providers and administrative staff have different perceptions of the information that is required in order for them to do their jobs and the associated workflow. The importance of good communication was cited by all of the participants. Yet, they have little understanding of how the information they create is used by others or can impact the workflow of others. IT implementations in a hospital setting should take perceptions and workflow implications from each stakeholder into account by asking them.

Looking at documentation of processes in tandem with qualitative data yields a more complete picture than either one alone. Further research is needed to learn more about workflow across departments and occupational groups. Future studies should also focus on informal workflow and information exchange so that this information can be incorporated into IT implementations such as EMRs.

References