Improving Access to Clinical Information in an Emergency Department:  
a Qualitative Study  
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Abstract  
We studied the information flow in an emergency department (ED) to understand how patient information flows between providers and how information from an ambulatory system, which was not well integrated with the hospital information systems at the time, could be used. The study aimed to identify possible methods that could push information from an ambulatory EHR system to providers with minimal interference with the ED’s current workflow. The ED’s information flow was mapped and a strategy for making ambulatory encounter information available was identified.

Introduction  
This study focused on understanding the various sources of patient information that are used for patient care in the target hospital ED and how the information is collected and used by providers. This knowledge was used to determine if information gaps exist in the ED, and how information from an existing ambulatory system could be made available during an ED visit. The ultimate goal is to find opportunities to better utilize available information to enhance patient care, with minimal disruption of the current workflow.

Methods  
We conducted approximately 54 person-hours of semi-structured ED observations and interviews in the target hospital ED. The patient care process and the information flow starting from the registration and triage through discharge were carefully observed. These qualitative observations were translated into the flow diagram above.

ED Information and Activity Flow Diagram

Observations  
- Significant variation in how physicians and other providers used the available systems.
- Providers mostly relied primarily on information from patient or family interviews.
- Information from sources other than self-report was infrequently utilized in the ED’s care process.

Recommendations  
- Clerk flags paper chart if patient already in system.
- Simplify provider access to the ambulatory system.

Observations  
- Information in the hospital's clinical information system was occasionally consulted if the patient was hospitalized previously.
- Ambulatory encounter information from the ambulatory EHR system was rarely consulted.
- Many physicians believed that they did not have access to the ambulatory system, even though it was available.