

## Human Factors Evaluation of Abnormal Lab Follow Up Electronic Solutions

Claire Munro & Katherine Bubic, Human Factors Safety Specialists  
AHS Patient Safety Department

### ABSTRACT

#### Patient Safety Concern

Upon discharge from hospital, pending lab results may not be followed up in a standardized manner across the province. Due to this lack of standardization, communication of results patients may be delayed, which can result in improper and/or delayed treatment. The goal of this project was to evaluate the usability of two different electronic systems which were being pilot tested for managing abnormal lab results to inform a provincial committee decision on standardization options.

#### Project Details

Two human factors specialists facilitated a staff and physician evaluation of two existing electronic solutions for communicating abnormal lab results. The human factors team conducted semi-structured interviews and sent usability surveys to physicians and nurses who had varying experience with each of the two electronic systems.

Both systems scored generally positively on usability. However, opportunities to improve the usability of both designs were identified. Recommendations included:

- Streamlining the removal of patients from the pending lists when the tasks were complete and results had been communicated.
- Reducing the number of clicks to complete key tasks.
- Reducing screen clutter by removing information that was not required to complete the task of lab result follow up.

Recommendations were sent to the designers of the electronic systems for feasibility review and implementation.

The committee determined that to provide flexibility, multiple options would be presented for implementation throughout the province; including updated versions of both existing electronic solutions.

Contact [humanfactors@ahs.ca](mailto:humanfactors@ahs.ca) for more information about this project