ABSTRACT

Patient Safety Concern

Medication preparation and administration are complex processes that require full attention and use of resources to perform appropriately. Due to a number of errors on an inpatient unit at a large hospital in Alberta, a human factors evaluation was requested in order to reduce errors and improve patient safety.

Project Details

A human factors specialist performed observations and semi-structured interviews with nurses working on the unit in order to understand current practice and identify risks. Nurses were observed preparing medications, with a particular interest in how the process was impacted by interruptions and how and when medication checks are performed and documented. Storage and preparation areas were also evaluated.

A number of suggestions were put forth to reduce medication errors on the unit including:

- Standardizing medication preparation processes, including physically separating prepared medications at workstations, using calculators, and the use of independent double checks.
- Reducing interruptions by providing visual cues to others and providing education to staff about the consequences.
- Improving storage of medications through standardized labelling, use of patient-specific medication bins, and managing overstock.
- Positioning of computers near storage areas so staff can use them to verify orders prior to selecting a medication.
- Standardizing the handover process when nurses go on a break or there is a shift change.

Contact humanfactors@ahs.ca for more information about this project.