Manitoba
Health, Healthy Living and Seniors

Manitoba Health, Healthy Living & Seniors (MHHLS) supports reporting and learning from patient safety events. The focus of a patient safety review is to closely look at the health care system that surrounds and interacts with those giving and receiving care. The goal is to identify risks to patient safety and recommend the most effective ways to minimize risk and improve the delivery of healthcare.

Patient Safety Learning Advisory

The Role of Automatic Doors in Patient Fall

Summary:

A patient, with chronic illness, experiencing issues with mobility and stability fell when they made contact with an electrical door in the facility. The patient fractured their hip and required surgery.

The patient was still able to continue their medical treatment while recovering and receiving physiotherapy.

Keywords: Falls, Automatic Doors, Door Sensors

Device Name *(if applicable)*:

Drug/Name/Fluid Name: (*if applicable*):

Type of Analysis: single event

Topic: Falls

Findings of the Review:

This is how the incident occurred:

- The patient got out of the wheelchair using their cane, grabbing it with the right hand and walked straight ahead.
- The patient turned and walked toward the door exit with her four legged cane placed right next to the door structure.
- The patient walked toward the doors along side the door structure until the doors opened.
- The patient turned to exit the facility when the interior doors opened.
- The doors remained open for four seconds.
- The doors began to close, catching the patient from just behind the elbow of the extended right arm and armpit.
- The patient lost balance and fell to the floor, landing on their left hip and side.

As a result of the tight angle path the patient took to exit the facility, the interior door pulse sensors did not respond appropriately to the wide peripheral view of people entering and or exiting the interior set of doors.

System Learning:

The current automatic door sensor controller that received signals from the sensor to open the door was replaced with a newer model.

In addition, the interior door sensors were replaced by a sensor with a wider array to increase the area for the sensors to recognize movement.

Observations of the doors functionality post sensor and controller replacement was carried out. The interior doors were still not functioning properly. The interior door sensors were then replaced with a different type and new sensor. A noticeable improvement to the door function has been observed and is being monitored.

It was discovered that patients were exiting the facility along the wall parallel to the doors. This was making it difficult for the sensors to pick up movement. Planters have been placed in those areas to direct traffic flow away from the wall towards the center of the sensor array.

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