M-Safety P1: Improving Awareness of Catheters and Skin Wounds to Reduce Hospital-Acquired Infection

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Introduction

Catheters are often necessary for patients with prostate problems, following surgery, or needing medicines over a long period. However, prolonged catheter placement poses risks that must be managed.

Unfortunately, the literature shows that physicians are often unaware of the presence of catheters in their patients.

Communication between nurses and physicians is often reduced due to lack of physical interaction and dependence on the electronic medical record.

Solution Approach

We propose a bedside display to improve provider awareness of risks due to catheter placement and pressure wounds.

Impact & Results

Our team has collected 317 pre-intervention surveys to assess provider awareness of catheters and pressure injuries.

We have completed 16 dates of pre-intervention surveys to assess provider awareness of catheters and pressure injuries.

We have collected similar post-intervention surveys and are in the process of comparing the results. Below is an example of the display.

Future Work

• Fully analyze physician and nurse post-intervention about display in 8DNS unit
• Implement the display in more clinical units and continue improving display according to feedback

Acknowledgement

We would like to thank the full M-Safety Project 1 research team, M-Safety Lab and CHEPS for their support of this project. Special thanks to Dr. Jennifer Meddings and Jessica Ameling.

Human Components: Communication & Teamwork
Decision-Making
Meta-Cognition & Mindfulness
Networking

Technical Components:
Wireless Sensors
Artificial Intelligence
Risk Profiles
Information Systems

Healthcare Engineering & Systems Redesign

Impact & Results

Our team has collected 317 pre-intervention surveys to assess provider awareness of catheters and pressure injuries.

Provider Data

• Physicians and PAs complete a paper survey after rounding on their patients

MiChart Data

• Our team records EMR data on the presence of catheters and pressure injuries

Nursing Data

• We also record the same data from the Daily Management System, which is maintained by the unit’s charge nurse

We have completed 16 dates of pre-intervention surveys of Medical providers and have started the same process for Surgical providers.

We have collected similar post-intervention surveys and are in the process of comparing the results. Below is an example of the display.

Future Work

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