



Is Your Patient Xtreme?

The Xtreme Risk to Fall Program: Reducing Patient Falls in the ICU

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Background

In early 2009, the Medical Intensive Care Unit (MICU) at Denver Health experienced a significant increase in the number of reported falls. While all ICU patients at Denver Health are considered at high risk for fall, some critical care patients demonstrate an even higher risk or tendency to fall: an Xtreme risk. These are patients who experience falls despite the implementation of high fall risk interventions. A literature review revealed a lack of research and assessment tools available for use in a fall prevention program specific to the ICU setting and to the critical care patient population.

Purpose

The creation, testing and analysis of:

- an innovative assessment tool designed to selectively identify ICU patients at increased risk for fall
- specific nursing interventions to decrease the occurrence/rate of falls, or level of harm resulting from a fall for patients meeting this assessment criteria

Setting

- Denver Health Medical Center: a 477 bed urban public safety net hospital (challenging ICU patient population)
- Implemented on three critical care units: Medical Intensive Care (MICU), Surgical Intensive Care (SICU), and Step-down Unit (SDU)
- The medical ICU was selected as the pilot unit for the development of the evidence-based Xtreme fall risk assessment tool because of the staff engagement in fall prevention in their unit.

Project Goals

- Develop, test, and validate a fall risk assessment tool specific to the ICU setting and critical care patient population that can be generalized for use across other institutions to assist with fall prevention in the critical care setting
- Reduce overall number of falls in the ICUs at Denver Health by 50%
- Eliminate falls with serious injury across all ICUs at Denver Health

Methodology / Process

Building the Team

1. Department of Patient Safety, Quality and Regulatory Compliance
2. Nursing Leadership – MICU
3. MICU Nursing frontline staff – charge nurses, staff nurses, certified nursing assistant – not only for engagement, but invaluable in ensuring applicability and effectiveness in real-life practice

Determination of Extreme Risk Criteria / Data Review

1. Extensive review of NDNQI ICU fall related data revealed the need for a fall reduction initiative in the MICU.
3. Detailed drill-down and analysis of Patient Safety Net (PSN) (occurrence reporting system) fall-related report was conducted to determine common characteristics of ICU patients who fell.
5. Assignment of criticality of criteria – stand alone, or only contributory if in combination with other factors.

Extreme Risk to Fall assessment tool: 3rd Revision



Door sign to alert unit and ancillary staff of patient at extreme risk for fall

Nursing interventions for high and Extreme Fall Risk available for staff

Discussion

A need for a fall risk-assessment tool and fall prevention interventions specific to the critical care setting was identified. The development of the Xtreme assessment tool and interventions was based on our ICU patient population characteristics, nursing experience with falls and near falls in the ICU setting, and a literature review. The tool has been selective in our MICU, capturing approximately 35-40% of patients. The tool is capturing patients appropriately with 90% of patients experiencing a near fall having been identified as an Xtreme risk for fall. The interventions have proven effective, as evidenced by prevention of falls in our near fall patients and by reduction in patient harm resulting from falls. Challenges included overcoming staff resistance, timing with other initiatives, and maintaining staff enthusiasm for the program.

Future Directions

As we are expanding the tool to other ICU environments (SICU and SDU) we are continuing to evaluate and revise the Xtreme fall risk assessment tool based on patient outcome and staff feedback in order to improve the sensitivity and specificity of the tool across all ICU settings. It is our hope that this tool will be available for use at other facilities to reduce patient falls and fall-related harm for all ICU patients. We will be conducting a multi-site validation of the tool beginning in 2010.

Methodology / Process (cont.)

Maintaining Relevance – tool sensitivity/specificity

1. Analysis of fall related patient characteristics was performed by MICU nurses and nursing leadership to provide more focus on relation to fall risk.
2. Adaptation of the tool to allow for risk based on individualized patient assessment, rather than diagnosis-based risk.
4. Rather than capturing all ICU patients, this allowed for a tool capable of meaningful discrimination of patient fall risk.

Determination of Nursing Interventions / Precautions

1. Examination of current fall risk tools with adoption and adaptation of some common interventions to the ICU setting
3. Consideration of PSN report data – Why did patient fall? What might have prevented the incident or reduced the likelihood of injury?
5. Evaluation of input from MICU nurses and nursing leadership on true impact of interventions in real-life practice and feasibility of application
7. Maintenance of all current policy/procedure guidelines

The Pilot

1. Staff education
 - Unit-specific education board created including, falls data, background information, and program details
 - Flyers displaying Xtreme sign, staff instructions/responsibilities, and roll-out date were hung in break room and staff restroom, and emailed to all staff
 - Xtreme Team rounded on unit to provide one-on-one and small group education and to answer any questions / anxieties about the program – included a sign-off sheet. This effort was coordinated with staffing schedules to ensure provision of education to all staff.
 - MICU clinical nurse educator and charge nurses provided physician education
2. Communication via email and discussion with all ancillary department staff with a presence in the MICU; notifying them of the program and displaying the Xtreme sign to ensure system wide awareness of the program implementation. All staff were empowered to assist in the prevention of patient falls – “Everyone plays a part.”
3. Roll-out
 - The pilot went live on the MICU in June 2009, and on SICU and SDU in December 2009.
 - Forms were completed on each patient at least once a shift
 - Forms were then reviewed and analyzed by Dept. of Pt safety and Quality
 - Xtreme team members remained accessible to unit staff during roll-out
4. Staff Feedback
 - Feedback has been continuously solicited and encouraged from ICU staff. Revisions to the Xtreme Assessment tool and to the program have been based, in large part, on these comments.
 - Form comments – staff were asked to add comments to the actual Xtreme Form. These were all reviewed by the Department of Patient Safety and Quality and discussed by the Xtreme Project Team.
 - Near Falls – A checkbox to indicate a “near fall” was included on the pilot form. If this area was marked, the Department of Patient Safety and Quality contacted the nurse to discuss the case further and evaluate the effectiveness of the tool in preventing the fall.
 - Patient Fall – All patient falls were critically examined by members of the Xtreme Project team in collaboration with MICU nursing leadership and the involved frontline staff. These episodes were used to critique the program criteria and interventions, as well as compliance with the program.

