Organization: University of Maryland Medical Center
Solution Title: Jack's Crown and Jill's Hip….Revisited and Armed with Alarms!

Program/Project Description: What was the problem to be solved? How was it identified? What baseline data existed? What were the goals—how would you know if you were successful?
The Cardiac Surgery Step Down units have a population of nearly 100% high risk fall patients. Despite the unit's high compliance with bed exit alarms, the falls related to patients getting up from chairs have continued to keep the unit's fall rate above the NSQI IMC benchmark, with the last time below the benchmark being FY 10 Qtr 1. Falls with injury have remained below the benchmark.

Process: What methodology or process was used to develop the Solution?
In 2009, an algorithm was developed at UMMC and presented at MPSC. It directs interventions based on specific indicators of the Morse Fall Risk tool. For instance, patients who did not use the call light even once were indicated to need bed alarm protection. Any patient who was stronger/faster than the nurse could respond to the bed alarm was indicated to need a low bed. Chair alarms were not yet available. Once they were available in Summer 2011, the algorithm directed high risk forgetful or overestimating patients to also have chair alarm protection.

Solution: What Solution was developed? How was it implemented?
During FY 12 Qtr 1, chair alarms became available and one was purchased for each bed on the two cardiac surgery step down units (23 beds). Implementation included:
1) each alarm was labeled and had a designated space in its assigned room
2) each alarm's presence was checked each shift by the PCTs using a checklist
3) staff were educated to apply the chair alarm for all high/critical risk patients as scored by Morse; nurses were asked NOT to guesstimate which patients really needed it
4) compliance was enhanced by rounding audits, with on-the-spot education and implementation if the chair alarm was not in use
5) medication side effect flashcard sets were provided to patients, with reminders to 'call for help'
6) patient education hallway bulletin boards focus on 'call, don't fall' message (late Oct)
7) a yearly calendar organized in quarters was posted near each huddle leader
8) change of shift huddles include stating 'our last fall was ___' and 'let's set our intention that NO patient will fall on our watch in the next 12 hours' (late Oct)
9) bedside handoff includes reminder to 'call, don't fall'
10) reiterating that caring means protecting our patients from injury

Measurable Outcomes: What are the results of implementing the Solution? Provide qualitative and/or quantitative results to data. (Please include graphs, charts, or tools as attachments.)
Fall rates continue above the benchmark for the Step Down unit. The unit continues to build a culture expecting EACH high risk patient to have the bed and chair alarm 'on'. Results for Qtr 2 are below benchmark so far. The data will continue to be followed.
The hopeful intention is that fall rates will improve by:
(a) partnering more regularly with patients/families,
(b) integrating fall prevention priorities EACH shift with EACH RN and PCT, and
(c) implementing the exit alarms from an evidence standpoint as opposed to feelings.

**Sustainability:** *What measures are being taken to ensure that results can be sustained and spread?*
Educational auditing of chair alarm compliance will continue. Monitoring of huddles and handoffs will continue until integrated into unit culture....although anecdotal reports indicate attention to falls must remain on the radar forever!

**Role of Collaboration and Leadership:** *What role did teamwork and collaboration play in the Solution? What partners and participants were involved? Was the organization’s leadership engaged and did they share the vision for success? How was leadership support demonstrated?*
Despite the leader of this initiative being the UMMC Fall Prevention Chair, there have been no other units to date who have designated a chair alarm for each high risk patient. There continues to be education to focus on Morse tool evidence and for nurses not to rely on their judgment as to whether a patient will take their first 'go it alone' trip to the bathroom. Hospital-wide, adoption of chair alarms continues to be slow.

**Innovation:** *What makes this Solution innovative? What are its unique attributes?*
Nurses often initiate a bed and chair alarm for confused or recently fallen patients. However, this practice does not factor in those cognitively intact patients who may have walked in the hall with help, who may have been 'cleared' by PT, who may have already made it to the bathroom just fine, but who cannot be counted on to be steady and safe enough for subsequent trips alone. This solution removes the anticipatory guesswork from the plan, ie relying on the nurse to anticipate each shift which patient will make the move to 'go it alone' and perhaps fall. Instead, it promotes an evidence-based system of relying on the Morse scoring and exit alarms interventions to help protect the patient from that potentially fatal FIRST fall.

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JACK’S CROWN AND JILL’S HIP: FALL INJURY PREVENTION ALGORITHM

1 Does JACK or JILL’s MORSE SCORE include:
   - MORSE CRITICAL RISK
   - MORSE HIGH – WEAK GAIT
   - MORSE HIGH – IMPAIRED GAIT
   - RECENT FALL

2 Is JACK TOO WEAK to get up even if tries to?
   - YES

2 Is JILL STRONG ENOUGH to get up if she tries?
   - YES…or I’m NOT SURE

3 OBSERVE JACK for increased strength and more confidence as he recovers-- risk changes!

3a ORIENTED TO ABILITY (0)
   - RN & Jill agree that Jill should not get up by herself

3b FORGETS LIMITATIONS (15)
   - Jill forgets that she is too weak or unsteady to get up

3c OVERESTIMATES ABILITY (15)
   - Jill now believes she is strong enough to get up by self

4a BED ALARM
   - optional if has history of always calling for help

4b BED and CHAIR ALARM

5 LOW BED

OOPS....BED ALARMED or YOU FOUND JILL UP! She did not wait for help -- luckily no fall!

4b BED and CHAIR ALARM

JILL GETS UP FASTER than staff can respond to bed or chair alarm

5 LOW BED

JILL is strong enough to get up from low bed!

5 LOW BED

NO SITTER

REHAB CANDIDATE?
   - JILL MUST BE SITTER-FREE & RESTRAINT-FREE
   - 24 HOURS PRIOR TO TRANSFER

6 CONSIDER LEAST RESTRICTIVE RESTRAINT (requires order & restraint documentation; discuss with family)
   - ENCLOSURE BED
   - Lap belt fastened in back
   - Roll belt

7 NO ENCLOSURE BED
   - CONSIDER OBSERVATION ASSISTANT (sitter)

MAXIMIZE RESTRAINT ALTERNATIVES
   - PARTNER with Jill’s family for bedside comfort
   - Lap belt fastened in front
   - Tray table unsecured
   - Diversionary activities (puzzles, folding, art, etc)
   - Pain and anxiety management
   - Complementary care (i.e., Healing Touch, Reiki, music)

WHAT IS JILL’S MENTAL STATUS SCORE — 0 or 15?

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