Reducing Falls with Hourly Rounding

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Abstract

**Purpose:** To explore if hourly rounding would help reduce the number of falls in adult hospitalized patients. **Rationale:** Approximately 700,000 to 1,000,000 hospitalized patients fall each year in the United States. A fall could result in lacerations or a fractured hip which has a financial effect on hospitals and increases a patient’s stay and the well-being of the patient.

**Methods:** A literature review was conducted to identify the evidence-based research regarding hourly rounding and reduced number of falls. **Results:** The literature review showed that hourly rounding had a positive effect on the number of falls in patients who are hospitalized which in turn reduced the number of falls. The literature reviews also recommended addressing patient’s needs by asking the four “P’s”: pain, potty, positioning, and possessions. The reviews also suggested that all patients be rounded on for the first 72 hours and reassessed to determine if hourly rounding was still necessary. **Implications:** Skagit Valley Hospital is currently upgrading the charting system to EPIC and switching to Morse Falls Scale Assessment to determine a patient’s fall risk, this is the ideal time to educate staff on hourly rounding, introduce the four “P’s”, and hold staff accountable for rounding on patients who are at the highest risk of falls.
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Introduction

Up to one million people fall in U.S. hospitals each year, often resulting in injury (Ganz et al., 2013) to patients and staff. Reimbursement from Medicare and Medicaid is often affected as well, based on the type of injury incurred while hospitalized. Patient injuries from falls also compound their existing ailment, which may complicate or lengthen their hospital stay. Research indicates that up to one third of falls are preventable (Ganz et al., 2013) and to reduce them, we must be aware of factors that contribute to patient falls. There are numerous—often coexistent—factors that contribute to patient falls in hospitals. Cognitive impairment due to polypharmacy, dementia, or psychiatric issues and a lack of environmental awareness are common contributors to patient falls. Combined with any number of medical or surgical issues ailing a given adult hospitalized patient, the likelihood of a fall while admitted rises. The purpose of this paper is to explore—in adult patients who are hospitalized—if hourly rounding is an effective intervention for reducing falls during a hospital stay.

Methods

To address this query, several previously published scholarly articles and studies were utilized, including quantitative and qualitative methods. The articles chosen exhibited quasi-experimental, pilot, trial, integrative review, retrospective correlational, and systematic review design qualities. A variety of study designs were selected to showcase current evidence, as well as the translation of hourly rounding from evidence into practice. All were found using CINAHL and criteria required the articles to address both hourly rounding and its effect on patient fall rates in an inpatient setting.
Literature Review

Hourly Rounding

The Four P’s. A two-week trial conducted by Lowe and Hodgson (2012) on a 14-bed “high-dependency” critical care-type unit at Leeds Teaching Hospital in the UK to determine if hourly rounding could reduce harm to patients, including falls. A log was developed to address the “four P’s”, a phrase commonly used to describe the needs of patients during hourly rounding (Lowe & Hodgson, 2012). They include: pain, potty, position, and possessions. In addressing these, the goal is to reduce falls and other incidents of patient harm (such as pressure ulcers). Logs were kept at each patient’s bedside and nurses were given informal, verbal training on how to conduct hourly rounding.

Informal audits found that only 25 out of 44 patient logs had been completed fully. Lowe and Hodgson (2012) note that it is unlikely that patients were not rounded on hourly given the critical care nature of the unit, but that there was simply poor compliance with filling out the logs. Staff feedback appears to affirm this, as nurses noted feeling patronized “because they imply that if there is no checklist, then essential care is not carried out” (Lowe & Hodgson, 2012, p. 39). The authors concluded that adding a separate hourly rounding policy may not be appropriate for this unit, but that incorporating elements of the four P’s into existing rounding protocols may benefit patients and reduce harm. It should also be noted that over two months prior to, during the two-week trial, and for two months after the trial, no patients fell. Unfortunately, Lowe and Hodgson (2012) were unable to conclude if their hourly rounding scheme reduced patient falls.

Hourly rounding compliance. Goldsack, Bergey, Mascioli, and Cunningham (2015) conducted a pilot study over 30 days on two medical units at a 907-bed Delaware hospital: a 35-
bed adult stroke unit and a 40-bed hematology/oncology unit. The authors sought to determine the factors that enhance the implementation of hourly rounding programs and the effect on patient falls. Pre- and post-implementation evaluation showed that the fall rate decreased from 2.5 to 1.3/1,000 patient days during the pilot on the stroke unit and from 2.6 to 2.5/1,000 patient days on the hematology/oncology unit. Self-reported compliance among staff with hourly rounding averaged at 87% across both units. Observed compliance—measured by random patient flow sheet audits—showed 88% compliance with hourly rounding (Goldsack et al., 2015). The authors emphasize that involved staff leaders were a significant component in reducing patient fall rates and that without them, hourly rounding may not be an adequate policy to reduce falls.

**Clinically significant reduction.** A trial study on hourly rounding (Meade, Bursell, & Ketelsen, 2006) was replicated by Olrich, Kalman, and Nigolian (2012) to determine the effect of hourly rounding on fall rates, in addition to call light usage and patient satisfaction. The sample consisted of all patients discharged from two medical-surgical units (one experimental and one control unit) with similar characteristics over a 1-year period (N = 4,418) in a 506-bed teaching hospital in the U.S. Half of the study time was used to collect baseline data prior to the intervention. During the intervention period, data was collected via incident reports, patient satisfaction surveys, and call light logs (nurses recorded patients’ reason for calling). After the intervention, the fall rate fell from 3.37/1,000 patient days to 2.6/1,000 patient days—the authors note that the clinical significance of this result (a 23% reduction in falls) outweighs the statistical insignificance. Olrich et al. (2012) cite the non-randomized nature and small sample size as limitations and recommend a future study on a much larger scale.
Sustainable, creative change. A reimplementation project was undertaken at a 431-bed long-term care center in Manitoba, Canada by Dyck, Thiele, Kebicz, Klassen, and Erenberg (2013). While they had already implemented hourly rounding 5 years prior, the authors felt that the facility could improve further on an already successful change. This initiative took steps to ensure that hourly rounding would become a sustainable policy “embedded in the organizational culture” (p. 154). The authors note that they had the full support of upper management at the facility and relied heavily on staff initiation of the program for patients who may benefit.

Not only were patient rooms marked with the hourly rounding logo (Appendix A) to identify who was in need of hourly rounding, but the policy was also inserted into the facility Falls Protocol Algorithm (Appendix B). Notably, the algorithm initiates hourly rounding on new patients for 72 hours automatically, whether or not a fall risk assessment rates a patient as high or low/medium risk. The intervention was continued based upon the initial 72-hour flow sheets or based on staff input and observations of a patient’s needs.

Dyck et al. (2013) concluded that the creativity utilized in this reimplementation project galvanized staff in a way that they hope will contribute to the sustainability of its success. The early adoption and initiative taken by staff is also credited to the creative approaches taken, such as the production of a unique staff training video (Deer Lodge Centre, 2012) to introduce the change facility-wide. The authors also note that early results from a trial unit indicate a reduction in fall rates—a continuation of their 5-year success in reducing falls with hourly rounding.

Integrative review. To explore current evidence on hourly rounding, Hicks (2015) selected 14 articles to review that centered on hourly rounding and fall reduction in acute care of hospitalized adults. Data reduction revealed themes across the articles, as well as variations such as the type of unit, amount of structure built into hourly rounding, and length of intervention
time. The author notes some of the inconsistent application of the “four P’s” as a limitation, as well as the nature of some of the studies—nonrandomized, small sample size, and short study time were limiting factors for 5 of the selected studies. Despite these limitations, Hicks (2015) concluded that—while further research is indicated—hourly rounding appears to be an effective method to reduce patient fall rates. The author also notes that encouraging nurses to view hourly rounding as a way to increase efficiency and decrease interruptions may make the practice more sustainable for staff.

**Intentional rounding.** Forde-Johnston (2014) also compiled a literature review published in the UK similar to that of Hicks (2015). Consisting of 22 articles, the criteria focused on hourly rounding studies that considered clinical outcomes and patient experiences. The author notes that hourly rounding is a fairly new concept in the U.K. and that most literature comes from the U.S. Three main themes arose from this literature review: clinical outcomes and patient experience, as well as the implementation of hourly rounding (Forde-Johnston, 2014). Two of the studies showed a reduction in falls of 36% and 50% each. The author also notes that every-2-hour rounds did not have the same effect as every-1-hour rounds on fall rates. Forde-Johnston (2014) found in Harrington et al. that patient acuity levels had a significant impact on compliance with hourly rounds—the more acute care a patient requires the less time a nurse has to make rounds on other patients. Also noted from Harrington et al. (Forde-Johnston, 2014) is that the average round takes 5 to 10 minutes and may not be sufficient for patients requiring more assistance. While this may seem obvious, it is important to consider fall risk and patient acuity when generating staffing matrices. Ultimately, Forde-Johnston (2014) concludes that while current evidence appears supportive of hourly rounding as it relates to patient outcomes,
research on hourly rounding in the U.K. is found wanting for more quantitative, large-scale and experimental designs.

**Translation to practice.** As a recent orthopedic surgery is a common contributing factor to patient falls, Tucker, Bieber, Attlesey-Pries, Olson, & Dierkhising (2012) explored the translation of hourly rounding from evidence to practice on two inpatient orthopedic units at a Midwest U.S. academic hospital. Baseline data were collected prior to the 12-week implementation period. A 1-year evaluation also took place to measure sustainability of hourly rounding. Initial results suggested that hourly rounding was effective in lowering fall rates, but this effect was not sustained over time. Incomplete documentation resulted in the association between documented hourly rounds and patient fall rate being statistically insignificant. This study is limited by a lack of a control group and may have uncontrolled variables affecting the fall rate. Despite the inconclusive results, Tucker et al. (2012) note that the study provided valuable lessons regarding “fidelity” or nurse compliance with hourly rounding—once external monitoring of hourly rounding ended, fidelity decreased. The authors propose further research into documentation and health information technology methods that may ease the “documentation burden” while ensuring that hourly rounding is completed.

**Systematic review of hourly rounding.** Mitchell, Lavenberg, Trotta, and Umscheid (2014) conducted a systematic review and GRADE analysis of 16 published studies on hourly rounding and nurse responsiveness. The authors noted that 9 of the reviewed studies measured patient falls, with a median fall reduction of 57% and a range from 24 to 80%. However, of these 9, Mitchell et al. (2014) points out that only 2 studies reported a statistically significant decrease in patient falls. Despite the limitations of the individual studies, the authors concluded that there was consistent evidence across all 16 studies to support the implementation of hourly rounding.
and that nurse managers should adopt similar policies tailored to their unit. The authors note that hourly rounding by registered nurses may place a substantial burden on staffing resources, but they are hesitant to recommend that nursing assistants fulfill hourly rounding. The systematic review focused on overall patient perception of nurse responsiveness, so the authors are uncertain patients would be as satisfied as opposed to being rounded on by registered nurses.

**Discussion**

Throughout the literature reviewed, consistent themes of leadership and barriers arise. In fact, many of the studies found that frontline staff leadership or “staff champions” of hourly rounding were often an effective motivator for the adoption and fidelity to hourly rounding. So much so that Goldsack et al. (2015) believe that without them, hourly rounding would not have been as effective at reducing fall rates in their study. The authors also posed that either nurses or nursing assistants could perform hourly rounds, while Mitchell et al. (2014) seemed to err on the side of having solely nurses perform hourly rounding based on patient satisfaction. Regardless, it is worth noting that “staff champions” can be a powerful force to motivate colleagues without the added pressure of management doing so.

Olrich et al. (2012) suggests expanding hourly rounding hospital-wide upon implementation, as they found that float nurses in their study had a difficult time adhering to hourly rounding which resulted in broken trust with patients. Embedding hourly rounding into the organizational culture as Dyck et al. (2013) did in their facility-wide adoption of the policy seems most effective in garnering popular staff support.

However, on units that already have low nurse-to-patient ratios and are not typical medical-surgical floors may require more staff input before the implementation of such a protocol. This was found to be a significant barrier by Lowe & Hodgson (2012), where critical-
care staff nearly took offense by the added documentation requirements for what they considered to be “basic care”.

Other barriers to practice found by Tucker et al. (2012) echoed these sentiments of condescension, though on behalf of patients. One nurse noted that asking an orthopedic patient who was otherwise alert and oriented if they needed to toilet every hour seemed “silly” or “out of place” (Tucker et al., 2012, p.25). Regarding documentation, a lack of fidelity followed a domino effect—when one nurse discovered her colleagues were not filling out the logs, she also gave up on documenting hourly rounds. This reflects both a need for good staff champions, but also effective documentation that does not add significantly to a nurse’s workload. And above all else, the nurses in this study noted that the change to hourly rounds was competing with several other organizational changes on their unit—all significant and time-intensive. Perhaps the staff would have been more receptive to hourly rounding had they been consulted beforehand and been offered the opportunity to provide input.

Overall, a slight majority of the articles reviewed support hourly rounding as an intervention to reduce falls in hospitalized adult patients. However, while supportive of hourly rounding across all studies reviewed, Mitchell et al. (2014) found significant issues with individual studies, which is reflected in the discussion of barriers of articles we reviewed. It should also be noted that while only 2 of the studies reviewed by Mitchell et al. (2014) showed a significantly statistical decrease in fall rates, Olrich et al. (2012) found that the statistical insignificance in their study was outweighed by the clinical significance of the decrease in fall rate. Clinical significance over statistical significance could play a part in the recommendation made by Mitchell et al. (2014).
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Recommendations and Evaluation

Structure and documentation. Regarding the structure of hourly rounding programs, there is a clear victor: the four P’s. This moniker was used throughout the articles reviewed and has become a standard for implementing hourly rounding on inpatient units. Given this, it is our recommendation that the four P’s be adopted by Skagit Valley Hospital as they implement their new EPIC documentation system. As many of the studies used paper logs to document compliance with hourly rounding, embedding hourly rounding documentation in EPIC may decrease perceived documentation burden. This would also allow nursing management to audit hourly rounding in a manner similar to pain assessment and reassessment documentation.

Staff champions. Many of the studies reviewed made it clear that staff input and initiative were vital to the success of hourly rounding adoption and sustainability. Emulating the creative approach implemented by Dyck et al. (2013) may garner popular support among staff, which will increase the likelihood of sustaining this change. The pool from which to draw staff champions will depend upon the type of staff utilized to complete hourly rounds—nurses only or a combination of nurses and nursing assistants.

Tailoring to the patient and unit. As noted previously, tailoring these interventions to the patient and type of unit is imperative to avoid feelings of condescension or “silliness” among both staff and patients. Having contextual awareness of unit changes, nurse-to-patient ratios and the amount of direct contact nurses have with patients throughout a shift, as well as patient acuity and needs should all be considered when implementing hourly rounding. While the four P’s is an excellent model, it may be altered depending upon a patient’s fall risk and other needs. Hourly rounding may also be implemented on a trial basis for high fall-risk patients only, if the sole concern is reducing fall rates. However, it was noted by Meade et al. (2006) that hourly rounds
decreased overall call light usage and resulted in fewer interruptions for nurses. This “give and take” should be discussed with staff prior to implementing hourly rounding. But often hourly rounding can be easily incorporated into care already given (such as medication passes, treatments, and assessments).

**Evaluation.** Methods similar to those utilized in the reviewed studies could be used to evaluate the effectiveness of hourly rounding. Baseline data should be gathered (averages from the reviewed studies range from 3 to 6 months) on fall rates in each unit prior to implementation. Assuming Skagit Valley Hospital has already collected baseline data on fall rates of adult patients, evaluation would consist of documentation audits similar to pain assessment and reassessment audits. The use of whiteboards in patient rooms is a common method of communicating hourly rounds to patients, but may not be audited as effectively. Interviewing or having focus groups of nurses and nursing assistants could reveal if they perceive fewer interruptions or less call light usage post-implementation, as well.

**Implications for Nursing**

With the implementation of hourly rounding and all that it entails (documentation, audits, education, etc.), staff may become hesitant to be early adopters or staff champions if they perceive their workload increasing. While the initial change may present a learning curve, evidence does support hourly rounding as an effective fall reduction intervention in adult hospitalized patients. And many of the care already given to patients can easily incorporate hourly rounding, as hospitalized inpatient adults are often seen by nurses at least every 2 hours, if not more. Hourly rounding also decreases patient anxiety, subsequently reducing call light usage and interruptions to nurses. Patients build a trusting relationship with their nurse knowing that they will return within a set amount of time, which in turn positively affects patient care.
Beyond individual patient care, hourly rounding initiatives can save nurses valuable time from documenting incident reports after patient falls. It may also reduce the number of work-related injuries nurses and/or nursing assistants incur as a result of patient falls. Organizations will also be eligible for Medicare reimbursement they would have otherwise lost due to patient falls while hospitalized.

Conclusion

Falls continue to be a major issue in hospitals due to the implications and cost associated with the injuries related to falls. All falls cannot be prevented due to intrinsic and extrinsic factors, but hourly rounding addressing the four "P's" (potty, pain, position, and personal items) appears to be most effective in reducing fall rates. Institutional policy and procedure regarding hourly rounding should be a hospital-wide standard. Formal training of all registered nurses and other unlicensed staff who are directly involved in providing patient care is a must to attain complete compliance with hourly rounding. A feasible documentation method within Epic would be most effective in ensuring staff perform hourly rounding, as well as provide data for units to correlate with fall rate data. Adoption of a fall protocol algorithm similar to the one from Deer Lodge Centre (Appendix B) could be beneficial in the implementation of hourly rounding. The initial 72-hour automatic hourly rounding period could be shortened to reflect average hospital stays. Further research is still needed, but current evidence supports the use of hourly rounding to reduce fall rates in adult hospitalized patients.
References


Outcomes and Challenges in Implementing Hourly Rounds to Reduce Falls in Orthopedic Units. *Worldviews on Evidence-Based Nursing, 9*(1), 18–29.

Appendix A

Deer Lodge Centre Hourly Rounding Logo
Appendix B

Deer Lodge Centre: Falls Protocol Algorithm

**DEER LODGE CENTRE: FALLS PROTOCOL ALGORITHM**

1. **Patient / Resident admitted to DLC (Rehab / Chronic Care / PCH / Day Hospital)**
   - Initiate Routine Practice for Falls Prevention
     - Family to provide fall history
     - Assessment of needs and abilities
     - Look at environment / hazards
     - Lying / standing BP
     - How surroundings and orientate

2. **Initiate Hourly Rounding on admission for 72 hours**

3. **Falls Risk Assessment Tool (FRAT) is administered (On admission)**

   - **High Risk** (Note as Focus problem)
   - **Low / Medium Risk**

   - If resident falls after admission = High Risk (Re-do FRAT)

4. **Provide High Risk Decal**

5. **Consult**:  
   - Physician – prior & new medical problems, medications, orthostatic hypotension  
   - Physiotherapy – mobility / gait aids / transfers  
   - Occupational Therapy – equipment / wheelchair  
   - Pharmacy – medication review  
   - Nutrition services – nutrition / hydration  

6. **Consider**:  
   - Falls Equipment (refer to Falls Equipment Selection Algorithm – Form # CL0262-W)

7. **Refer to Falls Assessment and Management Regional Clinical Practice Guidelines.**
   - Interventions / Care Plan should address Risk Factors identified on FRAT Tool
   - Reassess need for Hourly Rounding after 72 hours

8. **Review Interventions / Care Plan regularly: after a fall; at Post Admission Conference; at Inter-Disciplinary Quarterly Team meetings.**

(Hint – optional: Regardless of fall risk, re-doing the FRAT prn or quarterly may be helpful)