

Development of the Obstetric Falls Risk Assessment System to Improve Patient Safety

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Background

- Pregnancy places the hospitalized woman at risk for falls when attempting to ambulate
- Existing tools focus on geriatric or general Medical-Surgical patients (Myers, 2003)
 - Morse Falls Score
 - Most widely used because well researched
 - Excluded the obstetric patient population (Morse et al., 1989)
- No fall risk assessment tools exist for hospitalized obstetric patients

Purpose

- To develop and implement a falls risk assessment tool for hospitalized obstetric patients, called the ***Obstetric Falls Risk Assessment System (OFRAS)***
- To evaluate the validity and reliability of the OFRAS tool

Methods

- Phase I: Develop and Implement a Guideline of Care for Assessing the Risk of Falls Among Perinatal Patients
- Phase II: Develop, Implement and Evaluate the OFRAS Tool
- Phase III: Determine the Validity and Reliability of the OFRAS Tool

Phase I: Developing a Fall Prevention Guideline

National Patient Safety Goal #9:

Reduce the risk of patient harm resulting from falls

- Appropriate for population, settings and services provided
- Interventions to reduce the patient's fall risk factors
- Educate staff, patients and families
- Evaluate to determine effectiveness

Phase I: Identifying Obstetric Fall Risk Factors

- Post general or regional anesthesia
- Post prolonged bedrest
- Large blood loss or postpartum hemorrhage
- Medication regimen
 - Tocolytics (nifedipine)
 - Anti-hypertensives
 - Narcotic analgesics
 - Sleep aids
- Elimination variances
 - Urination frequency or urgency
- Anemia
- Fatigue
- History of fall during pregnancy
 - Change in center of gravity
 - Gait changes
- Visual Impairment

Phase I: Perinatal Falls Assessment Guideline

- Identify fall risk factors for the obstetric patient
- Guideline relies on nursing judgment to determine fall risk
- Interventions focus on assisting the patient to the bathroom
 - 37% of inpatient falls occur during ambulation for toileting needs (Hitcho et al., 2004)

Phase I: Results

Guideline Implementation



Phase II: Decision to Develop a Obstetric Fall Risk Tool

- Clinical Judgment vs. Fall Risk Tools
 - Vassallo et al., 2008
 - Clinical judgment higher specificity
 - Clinical judgment lower sensitivity
 - Myers et al., 2003
 - Comparable sensitivity for clinical judgment and tools
 - Nurses with less experience had lower accuracy

Phase II: Organization

- Obstetric Falls Task Force
 - Team Included Staff RN, Unit Manager, Assistant Manager
 - Weekly to Bi-weekly meetings
- Obstetric Falls Committee
 - Collaborated with the director UCLA Evidenced Based Practice and researcher from UCLA School of Nursing
 - Monthly to Quarterly meetings

Phase II: Development of the OFRAS Tool

Obstetric risk factors stratified into categories:

1. Cardiovascular
2. Postpartum hemorrhage
3. Medication
4. Motor/activity
5. Neurological function
6. Prior history

Phase II: OFRAS Sample Scoring Table

OB Fall Risk Category	Score
Prior History	
<input type="checkbox"/> Hx of falls in last trimester	(2)
<input type="checkbox"/> Visual Impairment	(3)
Cardiovascular	
<input type="checkbox"/> Pre-eclampsia	(2)
<input type="checkbox"/> Positive Orthostatic vital signs	(3)
Postpartum Hemorrhage	
<input type="checkbox"/> QBL NSVD 1000 to 1500ml	(2)
<input type="checkbox"/> QBL > 1500ml	(3)

OB Fall Risk Category	Score
Medication	
<input type="checkbox"/> IV/IM Narcotics w/in 30 mins	(1)
Neurofunction/Anesthesia	
<input type="checkbox"/> Anesthesia < 3 hours	(3)
<input type="checkbox"/> PP recovery start < 3hours	(3)
Motor/Activity	
<input type="checkbox"/> Unable to bend knee or move one or both LE	(3)
Fall Risk Score (only highest score for each category applies)	0-18

Phase II: Evaluation of the OFRAS Tool

- Applied OFRAS tool retrospectively to 7 obstetric patient falls and 14 near miss falls
- Modifications made to OFRAS tool based upon the retrospective review:
 - Hemorrhage
 - Vulnerable 3 hour post delivery time frame
 - Motor/sensory assessment post anesthesia

Phase II: Implementation of OFRAS

- Implementation of the OFRAS tool into perinatal EMR
 - Flowsheets
 - Patient Education
 - Care Plans
- Update current and educate new staff to improve inter-rater reliability
 - Case studies presented
- Staff feedback
 - Huddle
 - Clinical RN III Quarterly Preceptor Workshop

Phase II: Nursing Guideline Revision

- OFRAS score 0-2: low fall risk
- OFRAS score 3-4: appears sensitive to predict moderate fall risk
 - Assist to bathroom until score is 0-2
- OFRAS score > 5: appears sensitive to predict high fall risk
 - Delay ambulation
 - Consider alternate voiding methods

Phase III: Future Plans

Determine Validity & Reliability for the OFRAS Tool

- Retrospective analysis of 100 epiduralized obstetric patients using OFRAS tool
 - Test for sensitivity in measuring the patient's readiness to ambulate after regional anesthesia
- Prospective data collection using OFRAS tool
 - Test for reliability, validity and sensitivity
 - Expand to multi centers

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