Newborn Falls/Drops in the Hospital Setting

Hospital Association of Southern California

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There are no financial relationships to disclose.
Learning Objectives:

• Recognize there is an undefined & under reported incidence of newborn falls/drops in the hospital.

• Identify 3 inherent factors during hospitalization that increase the risk of a newborn fall/drop.

• Describe 4 potential interventions to prevent newborn falls.

Newborn Falls/Drops

• 2005- identified regular unusual occurrence reports of newborn falls/drops-began tracking incidence & narratives

• Common scenarios identified-many were mothers falling asleep & the newborn falling from the mother’s bed to the floor.

Newborn Falls/Drops

• Partner/other adult fell asleep & dropped the newborn
• Adult carrying the newborn fell, tripped, fainted or had a seizure, dropping the newborn
• Mother/partner awake & newborn fell from mother’s bed
• Newborns falling at the time of birth through providers’ hands
Common themes:

• Regular documentation that families were reluctant to report the fall.

• Nursing staff rarely discussed—providers not aware of the risks of newborn falls.

Case Studies

Joint Commission

• 2010 National Patient Safety Goal # 9: Reduce the risk of patient harm resulting from falls.

• Preventable injury & death—“never” events
Literature Search

- Virtually nothing published in the U.S. until August 2008 - Intermountain Healthcare published newborn fall/drop data
- UK reported term newborn death in January of 2004

Maternal Risk Assessment:

- Individualized risk assessment of maternal clinical status
- A designated level of supervision implemented based on the maternal risk assessment results prior to placing the newborn in the maternal bed

Levels of Supervision:

- Constant supervision for mothers whose clinical condition means that they cannot take any responsibility for their baby.
- Frequent supervision, every 5-10 minutes, check on mothers.
- Intermittent checks to ensure that the mother has not fallen asleep & that no dangers are present for the baby.
Newborn Fall/Drop Queries

- ~2006-Council of Women’s and Infants’ Specialty Hospitals (CWISH)-hospitals that responded were not formally tracking-no formal risk reduction interventions

- Providence Health & Services System-5 states, 24 Perinatal units-reported cases-no formal work on issues

Chartered Newborn Falls Committee

- Multidisciplinary-neonatologist, nursing, materials management, quality management, data analyst, & educators

- Representatives from each hospital

- Public Relations, Risk Management

Newborn Fall/Drop Incidence?
Number of Newborn Falls Across Seven Oregon Hospitals, 2006–2009, by Quarters

Alerts:

- System-wide “Sentinel Event Alert” through PH&S Corporate Office – potential preventable injury & death
- Oregon Women & Children’s Program filed a report with Oregon Patient Safety Commission
- Oregon Patient Safety Commission issued state-wide alert to all acute care facilities in Oregon

All Providence Health & Services Regions
22 Hospitals - 79,681 Live Births
33 Fall Events
Newborn Fall/Drop Incidence

- 1.6-4.14/10,000 Live Births
- 600-1600 Newborn Falls/Year in the U.S.
- PH&S Data-1:2500 births
Initial Interventions:

- Parent Education:
  - Safety Letter for parents on admission
  - Verbal reminders
  - No co-sleeping policy
- Fall risk reduction interventions in newborn safety policy for nursing staff
- Quarterly newborn fall reports posted on our OB/Newborn Dashboard of quality measures

Additional Interventions:

- Modify maternal preprinted order sets
  - Remove PRN hypnotics-order with consideration for newborn safety
- Hourly nursing staff rounding
- Newborn Fall Debrief Form
- Report published in Joint Commission Journal on Quality and Patient Safety-July 2010

Current initiative work:

- Maternal hospital bed/bassinet
- Retrospective newborn fall/drop analysis:
  - Joint Commission- Failure mode, effects, & criticality analysis (FMECA)
  - Cause Mapping-ThinkReliability-Mark Galley
- Post newborn fall diagnostic work-up
- Combined electronic UOR/Debrief
Maternal Hospital Bed/Bassinet

• Historically, maternal 10-day LOS
• Significance of newborn being with parents to facilitate attachment
• Promote rooming-in
• Facilitate successful breastfeeding by unrestricted mother-newborn time together (skin-to-skin)
• Bassinet independent unit in maternal room

U.S. Maternal Hospital Bed Design

• LDRP-patients remain in delivery bed during postpartum phase
• Postpartum bed-lower & wider
Hospital Bed Design

- SMDA Voluntary Report to FDA
- FDA report posted on their website & viewed by U.S. bed manufacturers
- Hospital Bed Safety Work Group-FDA subgroup-established U.S. hospital bed manufacturing standards

Hospital Bed Re-Design

- Collaborate with hospital bed manufacturers for re-design of maternal bed for increased newborn safety
- PH&S contracted with bed manufacturer for formal R & D
Risk Reduction Brainstorming:

- Sling securing newborn to mother
- Padding on floor around the bed
- Netting along sides of bed
- Newborn on mother’s chest under tucked in bath blanket

Retrospective Newborn Fall/Drop Analysis

- Joint Commission- Failure mode, effects, & criticality analysis (FMECA)
- Cause Mapping-ThinkReliability- Mark Galley

Cause Mapping

- ThinkReliability-Mark Galley
- Root cause analysis
- Analyze, document, communicate and solve problems
Diagnostic Work-Up
Post Newborn Fall

- Marked variation-clinical diagnostic work-up
- Subcommittee developed to review literature & develop algorithm:
  - Pediatric ED physician
  - Pediatrics Medical Director/Hospitalist
  - NICU & Newborn Medical Director/Neonatologist
  - Pediatric Radiologist
Dr. Nathan Kuppermann:

- Younger the infant, the greater the risk of traumatic brain injury from a fall
- Fall of ≥ 3 feet increases risk of brain injury
- Skull fracture & scalp hematoma most sensitive indicators of brain injury

Theoretical Estimates of Radiation Exposure

- Head CT scan:
  - 1,000 one-year olds = 1 lethal malignancy
  - Several additional non-lethal malignancies
- Age & size-related radiation reduction efforts ongoing in the U.S.
Electronic UOR/Debrief Process
• Combine UOR & fall debrief into one document
• Electronic entry & data retrieval
• Completed within the shift the fall occurred

Raise Awareness-Drive Reporting
• Actualize transparency in adverse event reporting
• Proactive risk reduction to insure patient safety
• Recognize these events may be underreported by parents because of their feelings of being at fault

National Safety Platform:
• Newborn falls & drops in the hospital setting should be included in the national falls prevention work in the U.S.
• Identify & report true incidence
• Improve safety for newborns in the hospital
References:


