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"The decision to implement hospitalwide QI initiatives requires a huge practice change in most institutions, particularly in large hospitals." —Horst et al. (p. 291)



The Anatomy of a Hospitalwide Quality Improvement Initiative

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Adverse Events

Addressing In-Hospital "Falls" of Newborn Infants

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During postpartum hospitalization, close physical interactions between mother and newborn facilitate attachment, breastfeeding, and relationship competence. The challenge during this time is to support these important interactions in the hospital while ensuring the safety of the newborn. A literature review indicated that newborn "falls" and drops—referred to collectively as *falls* for the purpose of this article—in the hospital remains largely unaddressed, with the exception of a report by Monson et al. in 2008.¹

A report from the Royal College of Midwives (RCM) in the United Kingdom described a nationwide audit of 100 maternity units in 2004 to identify "bed/sharing incidents."² This work was initiated following the high-profile media report of the death from a fall of a well baby in a British hospital linked to maternal sleeping during bed sharing. A project involving the RCM, the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), and the Baby-Friendly Initiative (http://www.babyfriendlyusa.org/eng) resulted in the development of "guidelines for assessing the level of risk for mothers and babies when they are sharing a bed in the hospital" and a delineation of the levels of supervision required on the basis of risk-assessment results.3 Queries to the Council of Women's and Infants' Specialty Hospitals (http://www.cwish.org) and the Vermont Oxford Network (http://www.vtoxford.org) resulted in little information about newborn falls in the hospital.

Given the limited extent of available information on this topic, it is important to report rates in other hospital systems and to identify possible guidelines for assessing and improving safety of the hospitalized newborn.

This report summarizes the experiences of a seven-hospital system in Oregon and offers a template for understanding how and why infant falls occur in hospitals with the intent of helping others address this issue and work to eliminate the risk of fall-related harm to newborns.

Article-at-a-Glance

Background: During postpartum hospitalization, close physical interactions between mother and newborn facilitate attachment, breastfeeding, and relationship competence. The challenge during this time is to support these important interactions in the hospital while ensuring the safety of the newborn. A literature review indicated that newborn "falls" and drops—collectively referred to as *falls*—remains largely unaddressed. Experience of a sevenhospital system in Oregon offers a template for understanding how and why infant falls occur in hospitals and how to address the issue.

Identifying the Problem: For a two-year period (January 2006–December 2007), a query of a live voluntary event database yielded 9 cases of newborn falls (from 22,866 births), for a rate of 3.94 falls per 10,000 births.

Responding to Newborn Falls: A newborn falls committee made preliminary recommendations for interventions to reduce newborn falls, including (1) expanding the patient safety contract, (2) monitoring mothers more closely, (3) improving equipment safety, and (4) spreading information about newborn falls within the state and throughout the hospital system. For example, staff use the patient safety contract to improve awareness and prevention of falls. The mothers and significant family members are asked to review the safety information and sign the contract.

Conclusion: Newborns experience in-hospital falls at a rate of approximately 1.6–4.14/10,000 live births, resulting in an estimated 600–1,600 falls per year in the United States. Additional reports of rates of newborn falls are urgently needed to determine the true prevalence of this historically underreported event. Standardized evaluation and management guidelines need to be developed to aid the clinician in the appropriate care of newborns experiencing this infrequent event.

Identifying the Problem

Setting

Providence Health & Services, a not-for-profit health system based in Renton, Washington, and active across five states (Alaska, Washington, Montana, Oregon, and California), includes 27 hospitals, more than 35 nonacute facilities, physician clinics, and a health plan, among other health services.

REPORTED EVENTS

Since May 2001, a voluntary event-reporting system has existed in the system's hospitals to capture unusual events in patient care not necessarily rising to the level of harm or death. Previous analyses for the three Portland hospitals of the total of seven in Oregon indicated a count of approximately 30,000 events reported during a two-year period (April 1, 2002–April 30, 2004), 9% of which were categorized as falls. Further analyses showed that cases with reported events were 17% more expensive than case controls and had a length of stay 22% longer.⁴ To increase likelihood of use, all reports were, and continue to be, anonymous.

We sought to identify the newborn events within the falls category. For a more recent 24-month period (January 2006-December 2007), we queried the live voluntary event database for any nonvisitor falls occurring on obstetrics (OB)/maternity units. Because there was no field in the database that specifically identified a fall as involving a newborn, we cast a wide net at the first stage to pick up any falls on units identified as locations where newborns and mothers were admitted. The query output produced key fields from the voluntary event database: fall date and time, location of the fall, observer's narrative, and manager comments. The most important field was the observer's narrative. The narrative explained in detail how the event occurred, what person fell, and why the observer thought it happened. This information was then categorized into one of three types of falls: infant fall, mother fall, or other. "Other" was often a family member who fell on the maternity unit.

The most important aspect of this query was to first determine for every hospital the units where mothers and newborns could possibly be admitted for the study time period. Next most important was review of the descriptive narratives to determine which of the three types of falls had occurred (newborn, mother, or other). After we completed this retrospective procedure, we began to track events in real time. It is not possible to know whether infant falls were underreported in this event registry during the study period.

Sidebar 1. Sample Cases of Newborn Falls

Case 1. A Newborn Dropped from the Arms of an Adult Falling Asleep

Several hours following birth, a mother in the postpartum unit fell asleep in her hospital bed while holding her newborn. She awakened some time later to the sound of crying. She discovered that her newborn had apparently slipped between the rails at the side of the bed and fallen onto the floor.

Case 2. A Fall During Repositioning or Transferring of the Mother or Newborn

A mother had just completed breastfeeding her twins using a circular nursing pillow to support positioning. She placed the pillow on the surface of a counter in her room, and while transferring one of the newborns to a bassinet, the other fell to the floor, incurring a skull fracture.

Case 3. A Fall in Conjunction with Another Person Who Falls or Trips

A mother carrying her newborn tripped on her intravenous line tubing while walking across her room. In the process, she dropped the newborn, who struck its head on a metal portion of the bed, resulting in a skull fracture.

CASE REPORTS OF THE NINE FALLS

For the two-year period, newborn falls and drops were monitored in the seven system hospitals in Oregon. During this period, 22,866 babies were born, and 9 newborn falls were reported, for a rate of 3.94 falls per 10,000 births. This rate was higher than expected on the basis of the sole previously published report of 1.6 falls per 10,000 births.¹ We do not know if these higher rates are due to more incidents, a higher reporting rate, or some other cause. We collected qualitative comments about each event.

Three sample cases illustrating the typical circumstances reported are provided in Sidebar 1 (above). Outcomes for the nine newborns that fell during this time period are shown in Table 1 (page 329). Of the nine falls, two experienced skull fractures (Cases 2 and 3, Sidebar 1), whereas the remainder had bumps, bruises, or no apparent injury. Figure 1 (page 330) shows the distribution of occurrence by time of day; more than half of newborn falls occurred in the early morning hours.

Many of the case narratives reflect parental reluctance to report the newborn fall. One case narrative quoted a mother as saying she was not going to tell anyone about the fall because when she jumped out of bed and picked him up off the floor, she thought he was "just fine" (Table 1, Patient 6). The mother only reported the fall to her nurse when the baby suddenly stopped crying and became very quiet, which increased the mother's anxiety about a potential injury. Family members

Table 1. The Nine Cases of Newborn Falls						
Case	Explanation of Fall	Fall Reported by	Time of Day of Fall	Physical Exam	Diagnostic Workup	
1	Mother fell asleep in her bed with newborn in her arms—fell to the floor	RN after hearing the mother scream	23:00	No apparent injury	None	
2	Mother fell asleep in her bed with newborn in her arms—fell to the floor	Mother reported to nurse she woke up with infant crying on the floor	07:45	No apparent injury	None	
3	Mother fell asleep in her bed with newborn in her arms—fell to the floor	Pediatrician was told on entry to the room by the crying mother	07:30	No apparent injury	Head CT scan— normal	
4	Mother fell asleep breastfeeding and woke up when she heard the newborn crying on the floor	Mother called RN to report fall	23:50	No apparent injury	Head CT scan ordered for behavior change or head trauma- none	
5	Mother had twins on a nursing pillow—turned partially to place one twin back in the bassinet—the other twin rolled off the pillow to the floor	Nurse heard mother gasp and state she had dropped her	17:00	Head trauma	Head CT scan— skull fracture	
6	Mother fell asleep in her bed with newborn in her arms—fell to the floor	Mother told the nurse after a period of time—stated she wasn't going to report it initially	02:35	No apparent injury	None	
7	Father holding newborn on the couch and fell asleep—newborn fell to the floor	Father told the mother that the baby had fallen to the floor— denied it to the nurse initially— then confirmed the fall	06:00	No apparent injury	None	
8	Mother got out of her bed with newborn in her arms and tripped— baby's head hit metal bar on the hospital bed	Mother reported to the RN at the time of the incident	05:00	Quarter-size lump on side of head	Head CT scan— skull fracture	
9	Mother breastfeeding in her bed— while adjusting her pillows the newborn fell to the floor	Mother called RN at time of fall	15:00	No apparent injury	Head CT scan— normal	

*RN, registered nurse; CT, computerized tomography.

speak of being extremely upset at the event and ashamed that it happened. Only in the face of increasing concern about inflicted injury reflected by their newborn's behavior do they tend to report the event. This was true for mothers and fathers.

Reluctance to report is a major challenge in determining the true incidence of these events, which are commonly not observed by members of the health care team.

Responding to Newborn Falls

The newborn falls committee was established [co-chairs, J.V.McD. & L.H.], consisting of members from all of the system's hospitals in the state—including a neonatologist, a quality/safety nurse, a hospital educator, perinatal unit registered nurse (R.N.) representatives, a material services member, a lactation consultant, and a computer services member. The committee's charter was to evaluate previous events, come to a greater understanding of the problem, and make preliminary recommendations for interventions to reduce newborn falls. The committee's initial approach to intervention has entailed (1) expanding the patient safety contract, (2) monitoring mothers more closely, (3) improving equipment safety, and (4) spreading information about newborn falls within the state and throughout the system. These interventions are described in detail, along with their respective challenges, in the following section.

INITIAL INTERVENTIONS

Safety Contract. To improve awareness and prevention of

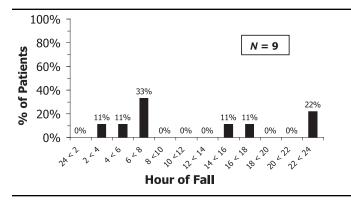
falls, staff use a "safety contract" on admission—referred to as the Newborn Safety Information for Parents (Appendix 1, available in online article). The contract outlines the risk factors that appear to increase the risk of a newborn fall during the postpartum period. These risk factors include marked maternal fatigue from the labor and delivery process, postpartum administration of pain medications, and the characteristics of hospital beds compared to beds at home. The mothers and significant family members are asked to review the safety information and sign the contract.

Challenges with the patient safety contract have to do with the sheer amount of information presented to patients on their arrival—at an emotionally exciting time. Although a signature is obtained, it does not ensure that the information has been processed or understood. During hospitalization, the nurses are asked to remind the patient and family members about the risks of newborn falls, but our approach is not standardized across staff and we do not know whether new parents understand the significance of the information provided to them. We currently are assessing the effectiveness of the communication of this information during the admission process and subsequent hospitalization.

Monitoring. The nursing staff was educated about the need for vigilance when newborns are placed in the maternal bed. This content was incorporated into the nursing practice guidelines for newborn care. A "no co-sleeping" policy was introduced to help ensure that the newborn was moved back to the bassinet by the mother, family members in the room, or nursing staff when the mother was preparing for sleep, was becoming drowsy, or had fallen asleep.

There are challenges associated with closer monitoring of the mother. Nursing staff are asked to separate mother and infant when mother is sleeping. When checked, a mother may seem alert and then drift off to sleep shortly after the observation. Staff and families often voice concern that separating the mother from her newborn may reduce success in establishing breastfeeding. We are developing individualized newborn fallprevention plans by adjusting the amount of nurse observation time as deemed necessary given results from a maternal clinical assessment tool of risk of newborn fall. A recommendation that an awake adult monitor the newborn while he or she is in the maternal hospital bed with its mother may depend on the mother's risk status.

Equipment Safety. The fact that for a number of the cases of newborn falls, the mother fell asleep in the maternal hospital bed while holding the newborn in her arms, only to wake up to the newborn crying on the floor next to the bed, led to an eval-



Time of Fall for the Nine Cases

Figure 1. The figure shows the distribution of occurrence by time of day; more than half of the newborn falls occurred in the early-morning hours.

uation of the bed's design. Most manufactured hospital beds seem to have similar upper and lower side rails; a space between the two sets of side rails allows the head of the bed to be elevated. When the head of the bed is elevated by 45 degrees, which is frequently the case, an opening on each side of the bed is thereby created at the mother's hip level which is more than ample for the newborn to fall through. Many of the bed models also have openings within the side rails which are large enough for the newborn to accidently fall through. As the mother falls asleep and her arms relax, the newborn falls to the floor through the openings.

In the United States, the bassinet is designed as a separate and independent unit frequently placed some distance from the mother's bed, which discourages the mother from using it. In contrast, in the United Kingdom the bassinet is integrated into the design of the maternal hospital bed and attached parallel to one side of the bed.⁵

The newborn's location in a hospital room creates potential for engineering design with greater attention to newborn safety considerations, including guardrail construction that eliminates all gaps, attention to the space between the mattress and the rails, and integration of a newborn crib with the mother's bed. We are initiating a safe medical device reporting process to bring focused attention to the bed design relative to newborn safety issues. We are also working with our system's leadership and manufacturing partners to develop safer mother/baby beds.

Spreading Our Learnings. To educate clinicians, the rates of newborn falls and the analyses and summaries of cases are now regularly reported to nursing and medical staff. We are developing our collection tools to improve our understanding of these events. A newborn fall debrief form (Figure 2, page 331; full-size version available in online article) was designed to capture

Newborn Fall Unusual Occurrence Report (UOR) Debrief Form Postevent

	O Mediard			Type of Newborn Fall involving partner,	family or visitor (Choose one)
ime (24-Hour)	O Milwaukie O Newberg O Portland O Seaside		O Ambulation	Family memberivisitor walking with newborn & fell/tripped with newborn	Pactors in ambulation fall/drops: Equipment (IV lines, phone cond, call light cord, etc) Room conditions (Fluids on floor, furniture in the way, bedding on the floor, etc)
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to was involved in the newbo	orn fail? Mother Partner/family/visitor		or drop of the newborn		
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Figure 2. A newborn fall debrief form, reported online, was designed to capture additional details for continued evaluation of factors involved in the event. PSVMC, Providence St. Vincent Medical Center; NICU, neonatal intensive care unit; L&D, labor and delivery; MD, physician.

additional details for continued evaluation of factors involved in the event. A newborn fall must now be reported using an online version of this form, which ensures that additional objective information will be captured above and beyond qualitative observations. Analysis of data from the form is pending.

The Oregon Patient Safety Commission collects voluntary information about all sentinel events that occur in participating hospitals within the state. Because Providence Health & Services–Oregon is a participating member, we supported a statewide alert to all hospitals about the risk of newborn falls in perinatal units.⁶ Moreover, the seven Oregon hospitals alerted the five-state system about the possibility of newborn falls via a systemwide safety alert so that all hospitals affiliated with our organization could take action to reduce the risk of newborn falls.

STANDARDIZING WORKUP FOR NEWBORN FALLS

As the committee reviewed all newborn fall reports, it dis-

covered a significant variability in the diagnostic workup among pediatric providers. For example, in Case 8 (Table 1), a provider was not inclined to order diagnostic testing in the face of a normal physical examination. When pressed by nursing staff concerns, he ordered a head computerized tomography (CT) scan, which led to identification of a skull fracture. Because of the lack of literature on in-hospital newborn falls, there is little guidance on the evaluation and management of the newborn who falls.

As a result, in February 2010 we convened a work group of physicians (emergency department pediatric provider, pediatric hospitalist/medical director, pediatric radiologist, and neonatologist) from the largest Oregon hospital with an NICU to develop a standardized algorithm for evaluation and management of the newborn who falls. The workup being developed focuses on a physical examination by the provider; a 12-hour observation period with neurologic checks; and, if criteria for clinical symptoms are present, a CT scan of the head.⁷ Criteria

Number of Newborn Falls Across Seven Oregon Hospitals, 2006–2009, by Quarters

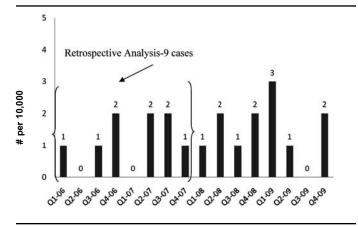


Figure 3. Data from the seven hospitals in Oregon yields a rate of 3.94 falls/10,000 live births.

for the CT scan will likely include loss of consciousness of any time duration, abnormal behavior per parental opinion, and vomiting.

Trends in Rates of Newborn Falls

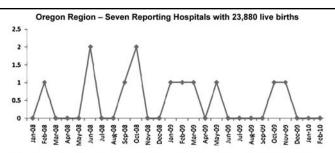
We have engaged our system in looking more widely at the problem of newborn falls. With recent reporting from 22 of these hospitals, we have observed a rate of 4.14 falls/10,000 live births (Figure 4, right), which is remarkably similar to our initial data from our 7 hospitals in Oregon—3.94 falls/10,000 live births (Figure 3, above). Extrapolating a range of 1.6^{1} –4.1 falls/10,000 births across the United States would suggest that 600 to 1,600 newborns are experiencing an in-hospital fall every year.

Discussion

After implementing the interventions and spreading information about newborn falls, we have continued to document incidents. We have recently begun to use a new analytical database to store the post-falls debrief information, including results of the standardized workup. Fortunately, these events are very rare, which however makes comparative statistical analyses impossible for several years unless large geographical data sets are used (which may be a possibility in the future). On the basis of observations of what has happened since we educated staff, we have decided to adopt reporting practices from quality improvement studies of rare events.⁸

We plan to begin reporting for each hospital in Providence Health & Services–Oregon the "number of days since last new-

Five States' Hospitals Event Frequency per 10,000 Live Births per Month, January 2008–February 2010 (26 Months)



Washington-Montana Region – Nine Reporting Hospitals with 25,617 live births

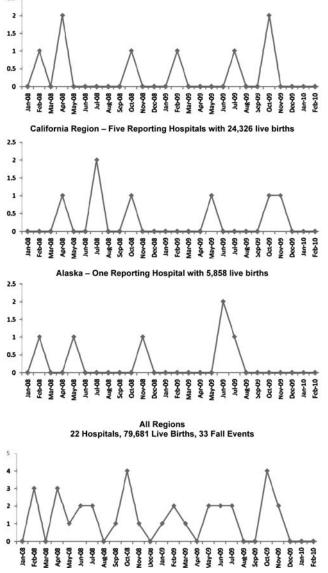


Figure 4. Reporting from 22 hospitals in five states yields a rate of 4.14 falls/10,000 live births.

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Table 2. Fandle Worde and Events Finalysis, with Erfor Events in Order of Orticarty					
Error Event	Criticality Score				
Newborn fell from side of maternal hospital bed while being breast fed; fell between upper and lower railings	378				
Mother physically tired after delivery	360				
Mother sleeping in bed with newborn at her side at night	336				
Mother turns while sleeping and knocks infant to the floor	336				
Mother in rocking chair and falls asleep holding newborn, who falls to the floor	324				
Mother has urgent need to use restroom and abruptly leaves newborn in the bed	288				
Mother using pillows for breastfeeding and as support for neonate	270				
Mother does not place newborn in bassinet while sleeping	270				
Father swaddling neonate on the end of the maternal hospital bed; father misjudges the end of the bed					
due to bedding and the newborn falls to the floor	240				

Table 2. Failure Mode and Events Analysis, with Error Events in Order of Criticality

born fall." We also plan to begin analysis of events using geometric distributions, or g-charts, in consultation with computing experts who can advise on mining our large databases over time on a regular basis. For example, we may be able to learn whether factors such as the number of deliveries affect the probability of falls.

We have recently performed a Failure Mode and Effects Analysis, in which we considered 68 possible events along three dimensions—(1) frequency of occurrence, (2) ability to detect these situations, and (3) severity of outcome. A team of risk and nurse specialists rated these 68 events as a group, scoring them for each dimension on a scale of 0 to 10. Multiplication of all three values yielded a possible range of 0 to 1,000. Events with the highest criticality for attention were revealed by using a cutoff score of over 240 points from all three dimensions. Table 2 (above) shows the nine situations that result in the highest risk of infant falls. We are also using cause mapping^o to design effective and targeted actions to this problem.

Conclusion

Newborns experience in-hospital falls at a rate of approximately 1.6–4.14/10,000 live births, resulting in an estimated 600–1600 falls per year in the United States. Additional reports of rates of newborn falls are urgently needed to determine the true prevalence of this historically underreported event. We are implementing several strategies in our attempt to eliminate the risk of harm to newborns during their initial hospitalization and will continue to measure the rates of falls to see if we have been able to decrease their incidence. Standardized evaluation and management guidelines need to be developed to aid the clinician in the appropriate care of newborns experiencing this infrequent event. We call on others to measure their rate of newborn falls and work with us to call for the development of safer mother/baby beds in our hospitals. Linda Helsley, R.N., C.N.S., is Regional Director, Newborn Services–Oregon, Women & Children's Program, Providence Health & Services-Oregon, Portland, Oregon. John V. McDonald, M.D., is Medical Director, Newborn Services–Oregon, Women & Children's Program. Valerie T. Stewart, Ph.D., is Senior Scientist, Women and Children's Program. Please address requests for reprints to Linda Helsley, Linda.Helsley@providence.org.

Online-Only Content

See the online version of this article for

Appendix 1. Newborn Safety Information for Parents Form

Figure 2. Newborn Fall Unusual Occurrence Report (UOR) Debrief Form Postevent

References

1. Monson S.A., et al.: In-hospital falls of newborn infants: Data from a multi-hospital health care system. *Pediatrics* 122:e277–e280, Aug. 2008.

2. Paeglis C.: A Report of the Findings of the Royal College of Midwives (RCM) United Kingdom (UK) National Bed Sharing Audit. London: RCM, 2005.

3. UNICEF UK Baby-Friendly Initiative: *Babies Sharing Their Mother's Bed While in Hospital: A Sample Policy.* 2004. http://www.babyfriendly.org.uk/ pdfs/bedsharingpolicy.pdf (last accessed Dec. 9, 2008).

4. Paradis A.R., et al.: Excess cost and length of stay associated with voluntary patient safety event reports in hospitals. *Am J Med Qual* 24:53–60, Jan./Feb. 2009.

5. Bristol Maid: BA/8 *Bed Clamping Crib.* http://www.BristolMaid.com/ prodtype.asp?PT_ID=b812 (last accessed May 28, 2010).

6. Oregon Patient Safety Commission: Dropped babies—when is a fall not a fall? *Case Notes*, Aug. 2008. http://www.oregon.gov/OPSC/docs/BulletinsCase Studies/Case-Notes-Newborn-Drops.pdf (last accessed May 28, 2010).

7. Kuppermann N., et al.: Identification of children at very low risk of clinically important brain injuries after head trauma: A prospective cohort study. *Lancet* 374(9696):1160–1170, Oct. 3, 2009. Epub Sep. 14, 2009.

8. Benneyan J.C.: Performance of number-between g-type statistical control charts for monitoring adverse events. *Health Care Manag Sc* 4:319–336, Dec. 2001.

9. ThinkReliability: Home Page. http://www.thinkreliability.com (last accessed May 28, 2010).





NEWBORN SAFETY INFORMATION FOR PARENTS Providence Perinatal

PATIENT IMPRINT

For your Baby's Safety:

We want this to be a safe environment for you and your baby. Parents, staff, and visitors all play an important part in helping us reach this goal. To help ensure you and your baby have a safe and enjoyable stay with us, here is a list of some of the security measures we use on our unit:

- · Specialized training for staff in maintaining a secure and safe environment
- Security doors and video cameras throughout the Family Maternity Center
- Cards with a sample of your baby's cord blood which contains your baby's DNA
 - We do not keep a copy of this card; you have the only one
 - Store this card in a cool, dark safe place and in the provided glassine envelope
 - DNA samples are more reliable than foot or finger printing for identification purposes and in case of your child's disappearance, this safety precaution will help with identification
- Bracelets with matching numbers for you, your baby, and your primary support person
 - You and your baby's band numbers will be checked whenever your baby is separated from you and again when your baby is returned
- Do not sleep with your baby in your bed or while relaxing on the couch or chair
 - When you feel sleepy or plan on sleeping, place the baby in the bassinet
 - If you should fall asleep with your baby in your bed or arms, your nurse will move the baby to the bassinet
 - Accidental infant falls happen because of unfamiliar surroundings, the effects of medication and design of the hospital bed, couch, or chair
 - Obtain information regarding co-bedding at home from your newborn's care provider.
- Babies are moved to and from the nursery or any other procedure area in their bassinet and may not be carried in the hallways
 - Only staff, you or your primary support person may have your baby outside your room
- · Babies must remain in the Family Maternity Center at all times
- We will teach you steps you can take to keep your baby safe
 - Do not give your baby to anyone who is not wearing a Providence photo name badge and additional Family Maternity bright pink identification. Be sure the photo matches the person wearing the badge
 - Do not leave your baby alone in the room while you shower or go for a walk. A family member may
 watch the baby or you may discuss options with your nurse
 - If in doubt about anyone in your room, immediately call for your nurse
 - We encourage you to accompany your baby to and from any procedure

I have read and understand the above information.

Parent

Date

Family Maternity RN

156110 9/07

Time

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or drop of the newborn	newborn fall Documented maternal history of substance abuse Other adults in the room at the time Other adults awake? Estimated time between newborn b Estimated time out of line of vision Type of Newborn Fall Involving O From Maternal Hospital Bed Mother in Rocking Chair or Room Chair, fell asleep & newborn fell to floor O Other event leading to fall	e of the fall? eing placed in eing placed in (i.e. behind p Mother of N Mother of N Mothe the flo Mothe fell/trip Rock Room	Yes No Yes No Yes No Yes No n the maternal bed a rivacy screens, etc.; lewborn (Choose one r fell asleep, newborr or r awake, newborn fell or r ambulating with new pred with newborn ing Chair n Chair	Ind nursing staff ind the fall/drop? (PSVMC NICU O) fell off bed onto off bed onto	tory Positive UDS tory Positive UDS coming back in the room on rounds? In Minutes	
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	Type of Newborn Fall involving partner, fa	mily or visitor (Choose one)
O Ambulation	□ Family member/visitor walking with newborn & fell/tripped with newborn	Factors in ambulation fall/drops: Equipment (IV lines, phone cord, call light cord, etc) Room conditions (Fluids on floor, furniture in the way, bedding on the floor, etc)
 Partner, family member, visitor in Rocking Chair or Room Chair, fell asleep & newborn fell to floor 	Cot Rocking Chair Room Chair	
 Other event leading to fall or drop of the newborn 		Comments:
Complete the following sections for	all newborn fall types	
Identification that newborn had fallen:	Mother awake or woke up when newbo Nursing staff came in the room and ide Other identification of newborn fall	entified the newborn had fallen
Did fall occur from isolette or warmer? Immediate parental report to nursing s		
Newborn injuries identified?	🗌 Yes 🗌 No Ifyes, 🗌 Describe inju	Jry:
Estimated distance newborn fell:	Inches: OR Feet:	Date (MM/DD/YY)
Newborn provider notified? Newborn on frequent observation?	Yes No Care Provider Name Yes No	/ /
Newborn moved to Nursery/NICU?	Yes No	
Were there any diagnostic tests compl	eted? Yes No List tests:	
Newborn safety contract reviewed and signed on admission??		
No co-sleeping policy verbally reinforced by nursing staff to mother and family members?	🗆 Yes 🗆 No	
Visual reminders of no co-sleeping policy in the maternal hospital room	🗆 Yes 🗆 No	
Fall appropriately documented in the medical record (event, physical exam, interventions, MD notification, no reference to a UOR)	🗆 Yes 🗆 No	
Bedside RN (Please Pr	int) Charg	ge RN (Please Print)