

**Keywords:** Newborn/Baby falls/  
Maternity/Neonatal/Falls prevention

• This article has been double-blind  
peer reviewed

Nursing Practice  
**Innovation**  
Patient safety

Using open curtains and bedside cots, for mothers identified as being more likely to drop their babies, have greatly reduced the number of baby falls

# Reducing the risk of baby falls in maternity units

## In this article...

- › Baby falls and how they occur
- › How to implement a change of practice
- › Guidelines for preventing and managing baby falls

**Author** Helen Janiszewski is midwifery ward sister, Nottingham University Hospitals.

**Abstract** Janiszewski H (2015) Reducing the risk of baby falls in maternity units. *Nursing Times*; 11: 28/29, 21-23.

During a 12-month period there were 17 baby falls on the maternity wards at Nottingham University Hospitals Trust; two of the babies who fell were injured. By collecting information about the baby falls and how they happened, we were able to compile a guideline for both preventing and managing baby falls. This formed part of the trust's patient safety programme. We then piloted and implemented risk-prevention strategies for baby falls. These involved a risk assessment to identify women needing closer observation and the installation of bedside cots. These strategies brought about a marked reduction of baby falls and are now being established across all the maternity units across the trust.

Falls prevention guidance usually focuses on older adults; risk assessments and falls prevention toolkits are readily available to reduce adult falls. Baby falls, however, is an area of nursing where guidance is currently lacking.

While I was working as a deputy ward sister on a mixed antenatal and postnatal ward at Nottingham University Hospitals Trust (NUH), there were two incidents where babies had sustained harm from falls. I attended the resulting Inpatient Falls Committee meeting, where it was decided that a high-level investigation should be carried out. As I had some knowledge of the cases, I offered to be the

midwife on the panel along with a consultant paediatrician.

Staff involved were interviewed and a series of recommendations were made, one of which included writing a guideline for the prevention and management of baby falls on the maternity ward. This guidance has already shown a reduction in baby falls from 17 in the 12 months before the interventions to seven in the 12 months where the interventions were piloted. This has relevance for maternity units nationwide.

The literature around baby falls in the UK is sparse and generally the statistic used to represent the incidence of baby falls is from the US – it is 3.94 per 10,000 births (Helsley et al, 2010). At NUH there are approximately 10,000 births per year. There are two maternity units: one at Queen's Medical Centre (QMC) and one at Nottingham City Hospital.

## Assessing the scale of the problem

After the high-level investigation I spoke to the maternity governance team and discovered there had been 17 falls in the 12 months between November 2012 and October 2013. I developed an audit tool that would help me to find out as much information as possible about the falls retrospectively using the hospital notes.

The notes of all 17 baby falls were audited to collect data on aspects including antenatal haemoglobin, medical complications, pregnancy complications, analgesia, labour complications, blood loss, time of admission, time of birth, side room or bay, curtains around or not, feeding method, postnatal haemoglobin, position of mother when baby fell and whether the mother was asleep. The full set of data requested in the tool are given in Box 1.

## 5 key points

**1** There is a lack of guidance on preventing baby falls in hospitals

**2** Data on baby falls in the UK is limited but approximately four babies in every 10,000 births will be accidentally dropped in maternity units in the US

**3** Baby falls can result in serious injury

**4** Most baby falls occur when the mother has restricted mobility, due to having had a Caesarean section

**5** Simple interventions like open curtains and using bedside cots can reduce baby falls



Most baby falls occurred after the mother fell asleep with her baby in her arms

Alamy

FIG 1. RISK ASSESSMENT CHART

RISK ASSESSMENT CHART FOR WOMEN HAVING THEIR CURTAINS OPEN (except when dressing/feeding baby/other private activities)					
Name:		Hospital number:			
	SCORE 0	SCORE 1	SCORE 2		
Mode of birth	Normal	Instrumental birth Caesarian section after 12hrs	Caesarian section within first 12hrs		
Mobility	Independently mobilises		Bed bound/needs assistance with mobilising Taking medication that affects mobility Condition that may affect mobility, eg epilepsy		
Anaemia	Hb>10.5g/dl	Asymptomatic but Hb<10.5g/dl	Symptomatic of anaemia or Hb<8.5g/dl		
Date					
Score					
Recommended curtains open					
Curtain open					
Score of $\geq 2$ : it should be recommended that women have their curtains open to ensure adequate observation of them and their baby					

When assessing the data, I noticed similarities in many of the circumstances in which the falls occurred. These were that the mother had:

- » Had a Caesarean section;
- » A low haemoglobin level;
- » Restricted mobility, such as epidural or spinal anaesthesia.

The most common scenario was that the mother had restricted mobility, due to having had a Caesarean section, felt sleepy, and fell asleep with the baby in her arms. The baby then fell from her arms and onto the floor.

### Risk assessment

Using this information I devised a curtains risk assessment tool that staff members can use when they are admitting a mother to the postnatal ward to determine whether she has any increased risk factors for dropping her baby. If she was at increased risk, staff would encourage her to keep the curtains around her bed open until she was fully mobile. On postnatal wards, mothers often keep their curtains closed for privacy but this makes observation difficult.

The risk assessment consists of a chart that has scores attached to the mobility of the woman, the mode of birth and her haemoglobin level (Fig 1). There are three

scores for each component: 0, 1 or 2. If the women is completely mobile, had a normal birth and does not have anaemia, she would score 0 for all components. With a score of  $\geq 2$  it would be recommended that the curtains around the bed are left open. The score was not validated and is used as part of a holistic assessment to flag up potential risks.

### Appropriate cots

Following the audit, I explored the possibility of cots that could clip onto the sides of the hospital beds. The usual hospital equipment suppliers did not have these but I found some cots sold by the National Childbirth Trust (NCT) that had a drop-down side so could be pushed up against the side of the bed (Fig 2).

This allowed mothers to safely co-sleep and avoid having to transfer babies in and out of freestanding cots. We felt these cots would reduce the risk of mothers falling asleep while holding their baby and the baby falling from their arms. It would also reduce the risk of babies being dropped when being transferred in and out of the cot by their mother when she was not fully mobile or was in pain as a result of having had a Caesarean section.

I checked with the NCT that the cots would be able to withstand the necessary

cleaning regime used in hospitals and was reassured they would.

The cots were slightly more expensive than the traditional freestanding cots currently used – each one cost £50 more. I applied to Nottingham Hospitals Charity to support the funding of three cots for the postnatal ward. The application was successful.

The women identified as having the greatest risk factor for having their baby fall could be given one of the bedside cots until their risk decreased. The cots proved to be extremely popular with the mothers. After discussion with the matron, it was decided that, as some older cots needed replacing, they should be replaced with the bedside cots. This meant there would be enough for every woman who needed one postnatally to have one across all areas at QMC.

### Instigating the pilot study

The pilot for falls prevention strategies was carried out on the postnatal ward where I am the ward sister. Staff needed some persuasion to use the curtains risk assessment tool as they initially felt it was invasive of women's privacy and dignity, and felt awkward suggesting that curtains were kept open. However, I demonstrated how receptive women were by talking to them and explaining the risks; staff soon

## BOX 1. AUDIT TOOL

The audit tool collects the following data:

### Mother

- Hospital number
- Antenatal haemoglobin (Hb)
- Medical complications
- Time of admission to hospital
- Analgesia
- Pregnancy complications

### Labour and birth

- Labour complications
- Time of birth
- Blood loss

### Ward care

- Time transferred to ward (if applicable)
- Cared for in side room?
- Cared for in bay?
- Curtains around?
- Feeding method
- Postnatal haemoglobin (if known)

### Details of fall

- Age of baby in hours at fall
- Time of fall
- Position of mother when baby fell
- Was the mother asleep?

### Observations

- Last set of maternal observations
- Date and time neonatologist called
- Date and time neonatologist reviewed baby

### Plan:

- Date and time of action

### Further plan:

- Safeguarding involvement
- Date and time discharged home
- Follow up (please specify)

began to see the benefits and it became part of the admission process.

## The guideline

The recommendation to develop guidance was implemented. The guideline aimed to:

- » Advise all staff in maternity on how to prevent baby falls in the maternity unit;
- » Provide guidance for midwives and neonatologists around management of a baby fall if it did occur.

Using the data from the previous baby falls that I had audited, I was able to write the first part of the guideline about how to

## FIG 2. BEDSIDE COT



prevent baby falls. A consultant neonatologist wrote the second part on how to manage babies if they do fall. We found there were inconsistencies in the treatment, care and procedures for the babies who had fallen; this needed to be standardised. Advice was also sought from a radiologist regarding procedures such as CT scans for babies who had fallen. The curtain risk assessment and the audit tool formed part of the guideline.

The guideline, *Prevention and Management of Baby Falls*, was ratified in December 2014 after being approved by the maternity guideline group and neonatal consultants. The Care Quality Commission inspection happened during its development and I was interviewed. I discussed the ongoing work and the interventions put in place while awaiting the completion and ratification of the guideline. The CQC inspector said she was pleased work had been undertaken to address the problem instead of just waiting for the guideline.

## The risk assessment tool

We are using the curtains risk assessment tool across our other maternity units and exploring whether we can gain funding for bedside cots at Nottingham City Hospital.

The audit form I initially developed to collect information retrospectively now forms part of the guideline and must be completed and returned to me when there is a fall. This helps with the investigation surrounding a baby fall and enables me to evaluate how well our interventions are working. I have used it to discuss the baby fall with the mother as part of the investigation and it provides valuable information that would not be gained from the medical records alone.

## Outcomes

Since the implementation of the curtains risk assessment and the bedside cots on

the postnatal ward, the number of reported baby falls has reduced from 17 in the 12 months on the maternity wards before the interventions (from March 2013 to February 2014) to seven in the 12 months where the interventions were being trialled (from February 2014 to January 2015).

The number of baby falls associated with mothers who are tired, anaemic or have had a Caesarean section has decreased. These are the baby falls we can help avoid with our interventions. Of the 17 baby falls between March 2013 and February 2014, 10 were associated with mothers falling asleep with the baby. Since the interventions in February 2014 to Jan 2015, only one fall was associated with a mother falling asleep.

## Disseminating knowledge

Before this work, the significance of baby falls both in quantity and the potential for harm was not fully understood. One fall is one too many. I have recently been asked to give a presentation about baby falls for the mandatory maternity staff training; this will allow me to discuss the risk factors, how we can reduce them and what to do if a baby does fall. New mothers also need to be made aware of the risk – I am writing a patient information leaflet explaining how to prevent baby falls, which can be given to them on admission to the ward.

We hope the interventions we have put in place and increasing knowledge for mothers and staff will help to continue reducing the incidence of baby falls. **NT**

## Reference

Helsley L et al (2010) Addressing in-hospital “falls” of newborn infants. *The Joint Commission Journal on Quality and Patient Safety*; 36: 7, 327-333.

## For more on this topic go online...

- » Do prescribed medicines affect falls risk?
- » [Bit.ly/NTMedicinesFalls](http://bit.ly/NTMedicinesFalls)

