

Assessment and Management of Babies who are Accidentally Dropped/Fall within Hospital				
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For use by:	Women and Children's Division			
Purpose:	To provide evidence based guidance for staff when caring for babies that are dropped whilst under care within UH Sussex (SRH &WH) Women and Children's division			
This document supports:	National Institute for Health and Care Excellence's (NICE) clinical guideline CG176 'Head injury – assessment and early management'			
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2.0	February 2023	Karen Bennett- Tangmere ward manager	LIVE	3 year review
		Debbie Furniss- Bramber ward manager		

The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt contact a senior colleague or expert.



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# Assessment and management of babies who are accidentally dropped/fall within hospital

#### 1.0 Aim of this document

The aim of this guideline is to provide evidence based guidance for maternity and neonatal services on the prevention and actions to take in the event of a baby being dropped.

### 2.0 Scope

This guideline applies to all staff involved in the care of babies in maternity units and Special Care Baby Units (SCBU) within University Hospitals Sussex (SRH & WH).

#### 3.0 Responsibilities

Healthcare staff:

- To access, read, understand and follow this guidance.
- To use their professional judgement in application of this guideline.

#### Management:

- To ensure the guideline is reviewed as required in line with Trust and National recommendations.
- To ensure the guideline is accessible to all relevant staff and disseminated widely.

#### 4.0 Abbreviations used within this guideline

SCBU Special Care Baby Unit	SCBU Special Care Baby Unit
NICE National Institute for Heath and Care Excellence	WH Worthing Hospital
UNICEF Intermittent Auscultation	SIDS Sudden Infant Death Syndrome
NEWTT Newborn Early Warning Trigger and Track	OFS Occipital Frontal Head Circumference
HI Head injury	SORT Southampton Oxford Retrieval Team
MIS Maternity Information System	



#### 5.0 Introduction

The National Institute for Health and Care Excellence's (NICE) clinical guideline CG176 'Head injury – assessment and early management' describes current best practice in the care of infants under one year who present with suspected or confirmed traumatic head injury with or without other major trauma. NICE guidance (including any updates to it) remains your key reference source for this. This guidance complies with all the requirements (assessments, investigations and observation) of the NICE guideline and includes information on managing a baby who is dropped while being cared for in a hospital setting.

This guidance facilitates the correct action in the context of this rare and unusual event. It is essential that all parents/carers staying on wards and caring for babies are given information and guidance on safety when handling their baby and to minimise standing and walking with a baby in arms, as much as reasonably possible, and that actions are taken when there is a higher predictive risk of a fall/drop.

#### 6.0 Prevention of falls

There are occasional situations in which a baby fall is completely unpredictable and unexpected. While in hospital, to try to limit falls, babies should always be moved around in appropriate cots not carried.

However, it is apparent that there are some factors which may be predictive of a baby fall. In recent fall reviews, the majority of babies which fell:

- Were in their mother/birthing parent's bed between 21:00- 07:00hrs
- Maternal/birthing parent haemoglobin was 105g/L or less.

Reducing the numbers of these falls has been achieved by using:

- A curtain open assessment tool to score risk (see over)
   AND
- 2 hourly check rounds overnight (22:00/00:00/02:00/04:00/06:00hrs) to ensure babies are in their cots whilst mothers/birthing parents are asleep (recorded on checklist sheet attached (as per risks below - high risk delivery or any other concerns).
- Discuss with the woman/person that they are at higher risk of dropping their baby and the reason for the actions in the table below.



Is	sues:	Actions:			
Limited Mobility	<ul> <li>Low haemoglobin (less than105g/l),</li> <li>Effective regional analgesia</li> <li>Severe perineal pain</li> <li>Following caesarean section</li> </ul>	<ul> <li>Encourage to use the call buzzer to call for assistance when wishing to mobilise or transfer the baby out of the cot.</li> <li>Ensure call buzzer should be left within easy access for the mother.</li> </ul>			
Co-Sleeping with babies	<ul> <li>Is actively discouraged on the ward and in accordance to the health promotion recommendations by UNICEF 2013</li> </ul>	<ul> <li>Actively discourage</li> <li>2hrly night rounds to ensure safe sleeping</li> <li>Babies found co-sleeping, wake the parent then with consent, place baby in the cot.</li> </ul>			
Unrestricted View for observations	<ul> <li>To observe mums and their babies more easily</li> <li>Could reduce the risk of baby falls, particularly if safe sleeping recommendations are not being adhered to.</li> <li>Implications for ensuring women/birthing parent's privacy and dignity thus a risk assessment tool helpful to highlight those at highest risk.</li> </ul>	<ul> <li>Use risk assessment tool re appropriate position of the curtains. (See below)</li> <li>If a woman/person scores 2 or more it should be clearly explained that it is recommended that their curtains remain open so that they and their baby can be closely observed.</li> <li>If they declines this and wishes their curtains to be drawn around their bed, then this must be documented.</li> <li>The risk assessment should be scanned into MIS on discharge home.</li> </ul>			
Cot sides	<ul> <li>Not recommended.</li> <li>No evidence of preventing / reducing falls.</li> <li>Potential risk of strangulation</li> </ul>				
Clip-on Bedside cots	Currently not recommended.				



# 6.1 Curtains/door open risk assessment tool

# **Curtains/Door Open Risk Assessment Tool**

Scoring suggested at:

- Time of birth prior to transfer to postnatal ward
- 12 hrs post birth
- 24 hrs post birth

If scores are 2 or more, it should be recommended that curtains/door remain open for adequate observation of both mum/birthing parent and baby to reduce baby fall risk.

There may be times when:

- a) Despite recommendations, mothers/birthing parents do not wish to comply. This should be documented on the score sheet below and on MIS.
- b) There are barrier nursing reasons necessitating a side room door to be kept closed. This should be documented as exclusion under 'barrier'.

		Score 0		Score 1			Score 2
Mode of birth	Spon	taneous vaginal	Instrumental or Caesarean more than 12hours ago		C-Section (first 12hours)		
Mobility	Indep	pendently Mobile				<ul> <li>Bed bound</li> <li>Needs assistance mobilising.</li> <li>Taking meds which affect mobility/conscious level eg prescribed medication or illicit drugs</li> <li>Medical condition affecting mobility e.g. MS.</li> <li>Social concerns or learning difficulties.</li> <li>Medical condition affecting conscious level.</li> </ul>	
Anaemia	Hb m	ore than 105 g/L	Asymptor			Hb	less than 85 g/L Or more than 85g/L + symptoms of anaemia
Date and t	time	Score	Recom Yes	mended cu (tick) No	rtains ope Barrier		Agreement from patient for curtains/door open?
Risk assessi	ment co	       ompleted / no longer					
			Sca	n into MIS o	once comp	olete	d



#### 7.0 Post fall guidance

Falls may occur on the Maternity Unit or on SCBU.

On initial presentation following a baby fall:

- Check ABC, if the baby is stable, the midwife or nurse should perform a set of NEWTT observations and then inform the Neonatal team after determining that the baby is safe and stable.
- 2. If the baby requires resuscitation and is deemed safe to move, the midwife should take the baby to the resuscitaire and call the neonatal crash team on 2222.
- 3. Inform the parents/carer as soon as possible if not present during the fall.
- 4. Follow the baby falls summary flow sheet in section 10.1.

#### Paediatric response to a stable baby:

- Contact the paediatrician to discuss timeframe for review based on the clinical situation. If significant head injury is suspected, assessment should be within 15 minutes (NICE 2019)
- 2. NEWTT observations taken by the nurse/midwife should be documented available for the doctor to review.
- 3. The Paediatric doctor should take a detailed history on the Baby Fall Proforma (See <u>section 10.2</u>) from the midwife/neonatal nurse caring for the baby and from the parents or people present at time of fall. This should include:
  - Who was caring for the baby at the time of the fall.
  - If the baby was being held at the time of the fall, who was holding the baby.
  - Time of fall.
  - Time of reporting.
  - The position to which the baby fell.
  - An estimate of the height of the fall and type of surface onto which the baby fell.
  - The circumstances surrounding the fall.
  - Any witnesses to the fall.
  - The last time a professional saw the baby prior to the fall.
- 4. The Paediatric doctor should carefully document neurological examination and any bruises or skin markings, documenting these on a Body Map (see <u>section 10.3</u>). Occipital frontal head circumference (OFC) should be measured and documented.
- 5. The paediatrician doctor should note mode of birth and any bruising ascribed to delivery on the body map to differentiate these from any other bruising.
- 6. The paediatrician should ensure that vitamin K was given at birth.
- 7. The on call paediatric consultant should be informed of the event as appropriate to ensure there is an adequate care plan in place including any further treatment and



- investigations required e.g. discussion with neurology team, appropriate duration of baby fall NEWTT observations, need for any x-rays and/or CT scan.
- 8. All aspects of safeguarding the patient should be considered, parents should be informed of this.
- 9. Prescribe and administer analgesia as appropriate.

#### 8.0 On-going midwife/ nurse responsibility

The midwife/nurse caring for the baby should inform the safeguarding midwife of the fall to ensure that there are no previously known safeguarding concerns, unless the fall was witnessed by a healthcare professional and assessed as non-suspicious.

If the history and examination are compatible with an accidental injury and the baby is stable enough to remain on the postnatal ward, then the baby should have a minimum of 24 hours of observations, charted on the Baby Fall Neonatal Observation Chart and NEWTT including documentation of concerns regarding irritability, lethargy and vomiting. All babies who are considered to have had a possible head injury should also be assessed and documented as to whether the GCS is normal i.e. 15 or less. If there are any symptoms of altered neurological behaviour / falling GCS, an urgent review should be requested from the neonatal team.

# 9.0 On-going neonatal medical team responsibility

The neonatal team should respond promptly to any concerns from the midwives/nurse regarding altered neurological behaviour. These should be escalated and discussed with the consultant paediatrician regarding the need for radiological investigation and further management.

A second examination should be performed within 2hrs reviewing the observations, including a thorough neurological examination and examination for any new bruising particularly on the head. A repeat OFC should be performed and GCS documented. If all well observations continue and next review would be at 24hrs unless the baby is unwell prior to this.

If during any examination there are findings consistent with skull injury including bruising unaccountable for by birth history / depressed skull bones/ boggy swellings/reduced GCS/abnormal neurology /fluid leak from nose or ears, the baby should be admitted immediately to the SCBU/paediatric ward the consultant informed and the need for computerised tomography scan assessed by the consultant paediatrician on call.

#### 10.0 Administration

All medical notes and observation charts for the baby should be filed in the baby's notes and documented on MIS.

Complete DATIX form (midwifery staff or neonatal nurses according to location of fall).



Complete baby falls proforma and body map to record/investigate the fall.

Any communication with the safeguarding team and ongoing plans should be recorded

The appropriate community midwife/nurse should be informed by the discharging midwife on the Badger Discharge Summary. Inform the GP by EDN. The 'Red Book' must be completed for parents, health visitors and GP.

Follow up should be arranged and documented and a head injury (HI) card given for all head injuries.



# 10.1 Baby fall documentation and audit proforma

Baby fall documentation and audit proforma								
Name sticker mum	Name st	icker bab	у					
Date initiated								
Maternal history (to be completed	by MV	V)						
Significant antenatal details:								
Medical								
Pregnancy								
Scans								
Time of admission to hospital								
Maternal Analgesia								
Labour / Acute Medical Complications								
Maternal Blood loss								
Latest Maternal Hb								
Type of birth (circle)	SVB			Breec	h	Vent	ouse	
	Forceps			Caesa	arean			
Date and Time of birth / Birth weight / OFC	Date:	Time:		B\	N (kg)		OFC (	cm)
Feeding method (circle)	Breast n	nilk		Formula	a Milk	Mix	ed	
Vitamin K given	No			IM		РО		
The Fall (MW and SCBU team to com	nplete)							
Where (circle)	Recover	y/HDU	LW		MLU		PNW	
Type of bed space (circle)	Bay		I.		Side room			
Curtain / door position at time of fall	Open				Closed			
Curtain / door tool used prior to fall	N	Y			Recommend	ded open	Υ	N
If fell from mother, last maternal obs	Date			Time			ı	
	Temp			Pulse		BP		
Last rounds by professional	Date:				Time:			
Baby fall	Date:				Time			
Persons present and their position at time of fall								
Person awake or asleep								
Witnesses to fall + comments								



Description of	Include:			
fall	Circumstances			
	Height of fall description			
	Impact surface			
	Position baby fell in / point of	of impact		
Condition of	Stable		Unstable	
baby	Routine neonatal paging		Resuscitaire / Resuscitat	ion
A -4: 4-1	Time:		Crash call 2222 Time:	
Action taken (circle, enter	Care given:		Resus details:	
times) include	· ·		rtosus details.	
MW / nursing	Ohai			
interventions	Obs:			
Baby Review	(to be completed by nee	onatal team)		
Gestation +	Gestation:	Weeks	Age: D	lays Hours
age at time of			o .	•
fall	<b>N</b> 1 (19)			
Time of notification /	Notification time:		Arrival time:	
arrival at scene				
Staff present				
(names /				
grades)				
Ongoing Resuscitation /				
stabilisation on				
arrival?				
1 <sup>st</sup> Review	Findings: OFC =	cm	GCS (see reverse o	f Fallen Baby NEWTT) =
Date :				
Time:				
Examination				
Complete body map attachment				
Document initial actions taken				
dollorio taltori				
		D. D. W. (1		
Plan 1 Date:	Planned place of stay (circle)	PNW (low risk)		SCBU/Beeding ward ALL GCS <15
Date.				
Timo	Investigations including radiology			
Time:		1 hourly for 2hrs unt	il re-examined at 2 hours	for ongoing care
	Insert Frequency of baby fall NEWTT observations		O CAGITITION OF 2 HOURS	(medium – high risk )
		Review in: 2 hours		Imaging
	Neonatal Review Time			Imaging



2 <sup>nd</sup> Review	Findings:	OFC = cm	GCS =			
At e.g. 2 hr						
Date:						
Time:						
	Planned place of stay (circle)	PNW	SCBU/Beeding for			
Plan 2	Inpart Fraguency of baby fall	NEWTT Obs : hrly	ongoing care			
	Insert Frequency of baby fall NEWTT observations	NEWTT Obs: hrly				
	NEW TY OBSCITATION					
	Investigations including					
	radiology					
	Neonatal Review Time					
3 <sup>rd</sup> Review	Findings:	OFC = cm	GCS =			
E.g. 24 hr						
Date:						
Time:						
	Planned place of stay (circle)	PNW	SCBU/Beeding for			
Plan 3	Insert Frequency of baby fall	NEWTT Obs : hrly	ongoing care			
	NEWTT observations	,				
	Investigations including radiology					
	radiology					
	Neonatal Review Time					
Safeguarding involvement:	Y/N contact:					
involvement:						
Date and		Head injury leaflet given and discussed:				
time of discharge:						
Follow up:	Y N	Details:				
Datix Comp	leted:					
	***Scan form into Badgernet once completed***					

NB: The following symptoms following head injury have significant correlation with abnormal CT findings				
Pallor	100%			
Irritability with agitation	54%			
Irritability + drowsiness	38%			
Bulging AF	35%			
	23%			
Vomiting 19%				
Seizures				



#### 10.2 Baby Body Map

#### OFC=

# Assess and document

• Exact site of injury on the body, e.g. upper outer arm/left cheek and size of injury – in centimetres

DATE: -STN. REF. NO: -

- · Approximate shape of injury, e.g. round/square or straight line and colour
- Is the skin broken/ Is the injury clean/ Is there a scab/ blistering / bleeding
- Is there any swelling at the site of the injury, or elsewhere? Is mobility restricted?
- Does the site of the injury feel hot? Does the child feel hot? Does the child feel pain?

Form 53631



## 10.3 New baby falls NEWTT chart

A GCS of 15 means the baby is:  Appropriately alert and awake and is responsive  Eyes are opening spontaneously  Baby moves spontaneously and purposefully						
Best verbal response	Best eye response	Best motor response	Point	Total GCS Score Guide: Remember even a teddy bear can have GCS of 3		
No response	No eye opening	No motor response	1	even a today scar can have eee er e		
Inconsolable, agitated, moans/ grunts in response to pain	Open to pain only	Abnormal Extension to pain(decorticate posturing)	2	15 = NORMAL / minor injury  If NEWTT also normal then Baby fall NEWTT obs continue 1 for 2 hours.		
Inconsistently inconsolable, cries in response to pain / screams	Open to voice	Abnormal flexion to pain (decorticate posturing)	3	NEWTT obs should then be continued 4hry until 24hrs (minimum)		
Cries but consolable	Open spontaneously	Withdraws from pain	4	Any baby with a confirmed GCS < 15 needs to be admitted to NICU (1.34		
Appropriately awake and alert. Responsive.	n/a	Withdraws from touch	5	nice) and Needs 1/2hrly obs until GCS 15 then as above		
n/a	n/a	Moves spontaneously and purposefully	6	13-14 = mild injury 9- 12 = moderate injury 8 = Intubate and Ventilate immediately 3-8 severe injury		

#### 11.0 SCBU/Beeding admission and Head/C-Spine imaging summary

#### Automatic discussion for admission to SCBU for:

- Babies with GCS <15 even with previous normal CT (? 24 hr repeat CT +/- ? MRI)
- Ongoing symptoms and signs
- · Multiple injuries
- Automatic discussion with SORT/Neurosurgical unit for regional Neurosurgical Unit for ALL babies with GCS < 8 and evidence of intracranial injury. (NICE1.7) (Call SORT).

Remember there is a radiation lifetime safe limit due to high radiation risks (2 CTs) so it is not in every baby's interest to have a CT scan without fulfilling certain criteria. (NICE 1.46) The paediatric consultant must be informed of the baby and they therefor make the CT scan decision. (CT not MRI – NICE 1.41).

#### Once the decision is made to CT, arrangements must then be made for:

- Urgent CT scan slot (contact radiology)
- Updating of parents/guardians
- · Safe accompanied transfer of the baby to and from CT
- Appropriate monitoring during CT scan
- Urgent reporting of the scan
- Review of potential need for CT to be reviewed by Southampton Neurosurgical team. For an unwell baby this would be achieved via discussion with the Southampton and Oxford Retrieval Service (SORT), or direct referral to the neurosurgical team at Southampton for a stable baby (NICE neurosurgeons 1.3-1.13).



# Babies with any of the following would qualify automatically for head CT scan within 1 hour (NICE 1.49 / 1.41):

- Suspected NAI
- · Post trauma seizure
- GCS < 15 in baby
- Suspected open/depressed
- Tense fontanelle
- Signs of base of skull ~ (panda eyes/CSF or blood leak nose/ears)
- Focal deficit
- Bruising /swelling/laceration > 5cm on head
- LOC > 5mins
- 3 or more vomits
- Abnormal or increasing drowsiness
- Fall > 3m height

#### Babies with any of the following would also qualify for C-Spine CT scan (NICE 1.5):

- First GCS <13
- Intubated
- Signs of external neck injury / Abnormal neck / skull x-rays
- Multi-region trauma
- · Focal peripheral neurological signs

## 12.0 Audit

To be audited through incident review.

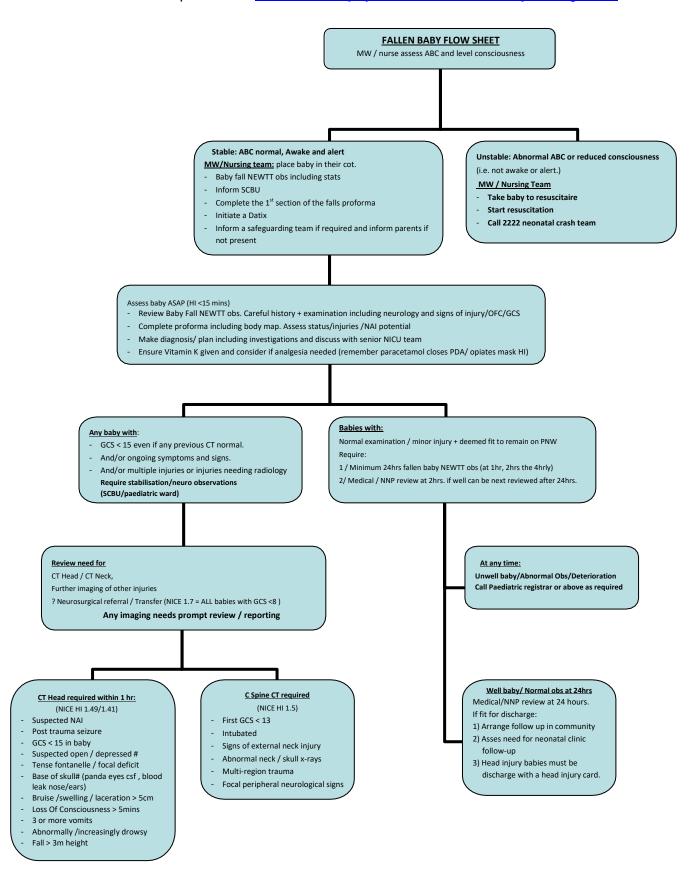
#### References

National Institute for Health and Care Excellence. <u>CG176 Head injury: assessment and early management</u> (2019)



# Appendix 1: Flowchart for management of babies who are accidentally dropped in hospital

For further information please see NICE: Head injury - assessment and early management





## Appendix 2: Head Injury Card – Parental information

# Following your baby's head injury we now feel that your baby is fit for discharge home with you.

When you get them home it is very unlikely that they will have any further problems, but we recommend you check your baby regularly for the following symptoms and signs. If any these do occur /return, we suggest you bring your baby back to their nearest hospital emergency department as soon as possible for review:

- Any significant changes to their feeding pattern (going off their feeds). Check they have wet nappies.
- Any unusual vomiting (other than your baby's usual possets).
- Becoming excessively sleepy or difficult to wake.
- Excessive crying / high pitched cries / unusually quiet.
- Any increase in swelling on baby's head or any other injured areas.
- Unusually floppy or stiff.
- Seizures (also known as convulsions or fits).
- · Clear fluid or blood coming out of their ear or nose.

#### Things that will help your baby recover

- Ensure baby has plenty of rest and avoid stressful, bright and noisy situations.
- Don't pass baby around family and friends for cuddles until they have recovered fully.
- Do not give painkillers e.g. paracetamol or ibuprofen unless they are prescribed by a doctor.