

# Child Protection Protocol for the management of unexplained bruising in pre-mobile babies



Title:

## Child Protection Protocol for the management of unexplained bruising in pre-mobile babies

<b>Date effective from:</b>	June 2020	<b>Review date:</b>	June 2023
<b>Approved by:</b>	Public Protection Action Group (PPAG)		
<b>Approval Date:</b>	6 May 2020		
<b>Author/s:</b>	Consultant Paediatricians, Child Community Health Consultant Ophthalmologist, PAEP Consultant Paediatrician, Acute Receiving Unit, RHSC Lead Clinician, Emergency Department, RHSC Consultant Radiologist, Paediatric Radiology, RHSC		
<b>Executive Lead:</b>	Executive Director of Nursing, Midwifery, and Allied Health Professionals		
<b>Target Audience:</b>	All medical and nursing staff in the Emergency Department, all paediatric wards, Community Child Health, and community-based staff working with young infants and babies		
<b>Supersedes:</b>	Child Protection Protocol for the Management of Unexplained Bruising in Non-Mobile Babies 2016		
<b>Keywords (min. 5):</b>	Unexplained Bruising, Pre-mobile babies, Child Protection, Abusive Head Trauma, Inter Agency Referral Discussion		

# Child Protection Protocol for the management of unexplained bruising in pre-mobile babies



## Version Control

Date	Author	Version/Page	Reason for change
28/04/20	Consultant Paediatrician, Child Community Health	1.1/throughout	Update from GP review- includes explanation of acronyms & keywords
06/05/20	Consultant Paediatrician, Child Community Health	Final	Updated from PPAG

## Contents

	Page number
1.0 Purpose	4
2.0 Scope	4
3.0 Definitions	4
4.0 Roles and responsibilities	4
5.0 Main content	5
6.0 Associated materials	7
A. Unexplained Bruising Pathway in a Pre-mobile baby	9
B. Checklist of Investigations for Infants Suspected to be at Risk of NAI	11
7.0 Evidence base	12
8.0 Stakeholder consultation	13
9.0 Monitoring and review	13

## 1.0 Purpose

The purpose of this protocol is to protect babies from significant physical harm.

The medical evidence around inadequately or un-explained bruising in pre-mobile (not crawling, cruising or walking) babies is clear. Although the baby cannot tell us what has happened, we know that bruising is strongly related to mobility; bruising in a baby with no independent mobility is very uncommon<sup>1, 2, 3, 4</sup>

We risk missing more serious later abuse if we fail to act on bruising in pre-mobile babies, which can be a sentinel sign of abuse, with possible fatal consequences.<sup>5, 6</sup> In other words bruises in pre-mobile babies can be a warning sign of future abusive head trauma which can cause brain injury and/or death in the majority of cases.<sup>7</sup>

The pattern of bruising can indicate an increased likelihood of abuse. Abusive bruises are more common on the ear, face, neck, torso and buttocks.<sup>2</sup> Of note, only 5% of accidental bruising is found on the cheeks.<sup>8, 9</sup>

## 2.0 Scope

A protocol for the management of all pre-mobile babies presenting to staff with unexplained bruising.

However if the baby or child is older and mobile, but you still have concerns around the presentation of the bruising, either due to its inadequacy of explanation, pattern, or distribution/quantity, this protocol can still help guide a sensible approach while assessment takes place.

## 3.0 Definitions

Pre-mobile babies are not crawling, cruising (walking holding onto the furniture), or walking.

JPFE: Joint Paediatric Forensic Medical Examination

IRD: Inter Agency Referral Discussion

GIRFEC: Getting it Right for Every Child

## 4.0 Roles and responsibilities

The pre-mobile bruising protocol should be consultant led throughout, although delegation of tasks to other health professionals is appropriate with consultant agreement and supervision.

There are specific tasks outlined in the protocol for any professional raising concerns after initial contact with a baby, and for staff working in the Emergency Department, Acute Receiving Unit, Child Protection Hub and Radiology, as well as guidance for the child protection Inter-agency partners.

## 5.0 Main content

**When a pre-mobile baby presents with an inadequate or no explanation for a cause of bruising,** the following protocol (with responsibilities identified at different stages of the pathway) should be followed: (see Flowchart D under item 6.0)

### Initial concern presenting to a professional

1. Initial concern of bruising in pre-mobile baby noted (Health visitor or nurse/GP/Nursery staff/Social worker/other professionals)
2. Professional explains the concern for baby and the need for further assessment by a specialist doctor, using **Bruising in Young Babies** leaflet to help with explanation (item 6.0/C)
3. Ensure support is provided to family (or ambulance is called) to attend Emergency Department
4. Contact NHS Lothian Child Protection Hub to discuss plan (0131 536 0467) or Out Of Hours "Paediatrician on call for child protection" (0131 536 0000)

### Emergency Department (overseen by ED consultant or paediatrician at St John's)

1. Assess baby for any immediate health needs (for example risk of sepsis)
2. Gather presenting history and document bruising on a body chart and any other medical or child protection concerns. On TRAK use canned text **\cpcl THEN space** on Progress note for guidance (Item 6.0/A)
3. Explain the plan to consider medical causes but also that you are raising a child protection concern as "everyone working with children must follow the guidance when they find a bruise or a mark which appears to be a bruise, in a baby".
4. Gather family/carer and other children's details (names, dates of birth, addresses of adults and children) and feed back to CP Hub/consultant
5. Bloods (priority for blood clotting initially but take as much as possible at this initial stage):
  - **NAI screen (incl FBC + Coag scr) RHSC**
  - Other appropriate investigations (NB consider **sepsis** and differential diagnosis)
  - Renal and Liver function
  - Ca, Mg, Phosphate, Alk Phos, Vit D and PTH
  - NAI Copper caeruloplasmin RHSC
6. Arrange medical admission

### ARU team (consultant leading)

1. Admit child taking verbatim history from family and documenting medical assessment (See canned text (6.0/A) if not already done)
2. Admit baby to visible space and discuss with Clinical coordinator or CP consultant regarding level of care required both to facilitate parenting and to ensure baby is safe

3. Discuss and agree with CP consultant around who will give and discuss the **Bruising in Young Babies** and **Skeletal Survey (SS)** leaflets (6.0/C) with the parents/carers, explaining the need for further investigations. Any discussion needs documented on the baby's clinical notes on TRAK.
4. Ensure all investigations completed (6.0/E)
5. Daily top to toe examination on the ward round (to ensure clinical wellbeing and assess if there is an evolving process) and explanation of any normal results and plans for further tests are given to family. Communication from the whole team remains key.
6. A member of the team should attend any discharge planning meeting
7. If any bruises are not fading/resolved by discharge (ensure there is a check done at final ward round), inform CP Hub and discuss a plan for review of bruise(s).

### **Child Protection Hub (usually led/managed by Consultant) (0131 536 0467)**

1. Ensure ED consultant is aware of baby attending if alerted in advance – ask to speak directly to the ED consultant if at all possible
2. Agree plan for initial assessment and blood tests with ED team
3. Ensure there is clarity of communication for baby and his parents/carers, and that they are aware of child protection concern, usually via ED (or ARU) staff explanation. (see ED action 3 above)
4. Raise Interagency Referral Discussion (IRD), either before or after initial ED assessment, including immediate assessment of risk to siblings
5. Ensure baby bruising statement (6.0/B) (or part thereof) is completed on TRAK IRD episode in the **Significant Information box**, with contact details of key professionals for this IRD updated regularly.
6. Discuss with Acute Receiving Unit and Radiology hospital consultants the investigations (6.0/E), sharing of information with parents (see item 7) required and appropriate safety of child in hospital setting
7. Agree with ARU consultant as to who will give and discuss the **Bruising in Young Babies** and **Skeletal Survey (SS)** leaflets (6.0/C) with the parents/carers, explaining the need for further investigations. Any discussion needs documented on the baby's clinical notes on TRAK.
8. At IRD discuss and agree need for Joint Paediatric Forensic Examination (JPFE) and complete this at an appropriate time including consent form.
9. Investigation results are gathered
10. Inform family of child protection results, with support/agreement of other agencies/specialists
11. Opinion should include use of NHS Lothian consensus statement (6.0/B) on baby bruising (if appropriate) on e-IRD to ensure clarity of medical opinion for other agencies
12. Discharge planning with other agencies should include interim safety planning to ensure that the baby and any siblings remain safe.
13. Ensure follow up skeletal survey is requested, put on CP Hub handover sheet, and communicated to other agencies to facilitate attendance

14. If any bruises are not fading/resolved by discharge, link to the JPFE or lead CP consultant for the case and discuss next steps at the discharge planning meeting to consider review

## Radiology

1. Discuss appropriate imaging with CP and/or hospital consultant. This should be Skeletal Survey and head imaging. Head imaging will be CT, unless the bruises are likely more than 10 days old where MRI should be performed.
2. Ensure that the TRAK request confirms that the Skeletal Survey leaflet (6.0/C) has been given to family, who assent to imaging
3. Link with CP and hospital teams with opinion and report
4. Ensure follow up Skeletal survey is organised at 11-14 days (if not been done already)
5. Contact CP hub if any bruises noted at time of 2<sup>nd</sup> skeletal survey

## Interagency Referral Discussion priorities (all 3 agencies)

1. Gather background factors to help with initial and ongoing risk assessment
2. Ensure safety of siblings both acutely and ongoing
3. Communicate with all agencies and make plans together at each stage
4. Interim Safety and Discharge planning are key to ensure baby is protected as much as possible while risks are assessed in the early stages of the IRD
5. Ensuring an understanding of all practitioners that the risks may remain regardless of medical tests being normal (such as scans and skeletal surveys)
6. Support family to attend for any further tests including skeletal survey
7. Child Protection Case Conference (CPCC) or GIRFEC planning: The majority will reach the threshold for CPCC (at risk of significant harm). If not, then clearly document on e-IRD the reasons why and ensure GIRFEC (Getting it Right for Every Child) planning is in place.

## 6.0 Associated materials

### A. Canned Text for documenting CP history on TRAK

*In progress note: \cpcl THEN space*

*Child Protection Check List:*

*Is the following documented as part of the child's ELECTRONIC patient record? – if not, please ensure that it is »*

- *Who attends with the child?*
- *A verbatim history of the presenting complaint / circumstances of the injury?*
- *Perinatal History?*
- *Past Medical History?*
- *Family History including coagulation disorder / metabolic bone disease?*

- *Developmental History (particularly gross motor development)?*
- *Social History (include names and dates of birth of parents and who has cared for child recently)?*
- *Any siblings / other children living within the household (include full names and DoB)?*
- *Name of any allocated SW?*
- *If the child is on the child protection register?*
- *Weight / Height / OFC?*
- *General appearance and demeanour?*
- *Full systems Examination?*
- *Top to Toe survey of surface marks and injuries (use body charts from TRAK if required)?*

**And complete:**

- *A clinical impression and plan?*
- *Has the child protection consultant been informed?*
- *Has a child visiting policy been considered?*

## **B NHS Lothian Consensus Statement on pre-mobile baby bruising**

*XX is a pre-mobile baby (i.e. not crawling, cruising or walking). He/she presents with a bruise(s)*

- *Describe (number/multiple, location, size, soft tissue, imprint e.g. grip mark, finger tips, implement)*
- *With/without additional injuries, if known*

*For which in our/my opinion there is an incompatible/ no explanation.*

*Accidental bruising in pre-mobile babies is rare.*

*Bruises in pre-mobile babies are a recognised precursor (can be a warning sign) of future abusive head trauma which causes brain injury and/or death in the majority of cases.*

*These statements are based on researched evidence which is available at <https://www.rcpch.ac.uk/resources/child-protection-evidence-bruising>*

*Therefore based on the information available at this time, our/my opinion is that the injuries to XX are more likely to be non-accidental and XX is at ongoing risk of significant harm. This opinion will be reviewed should further information become available.*

*Please contact Child Protection Hub (20467) or child protection consultant on call via switchboard if new concerns arise during this baby's inpatient stay.*

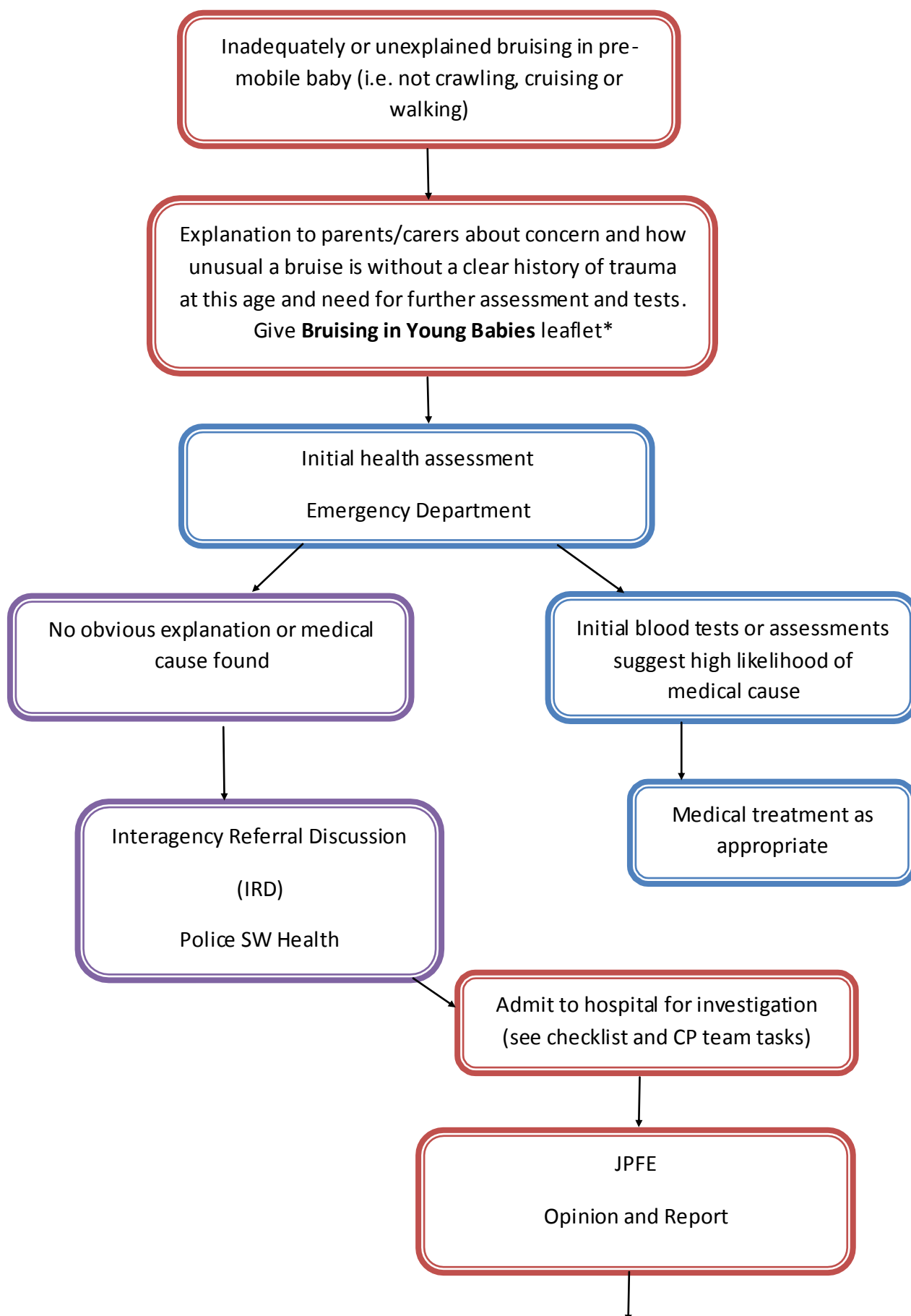
*Other agency contact details are as follows:*

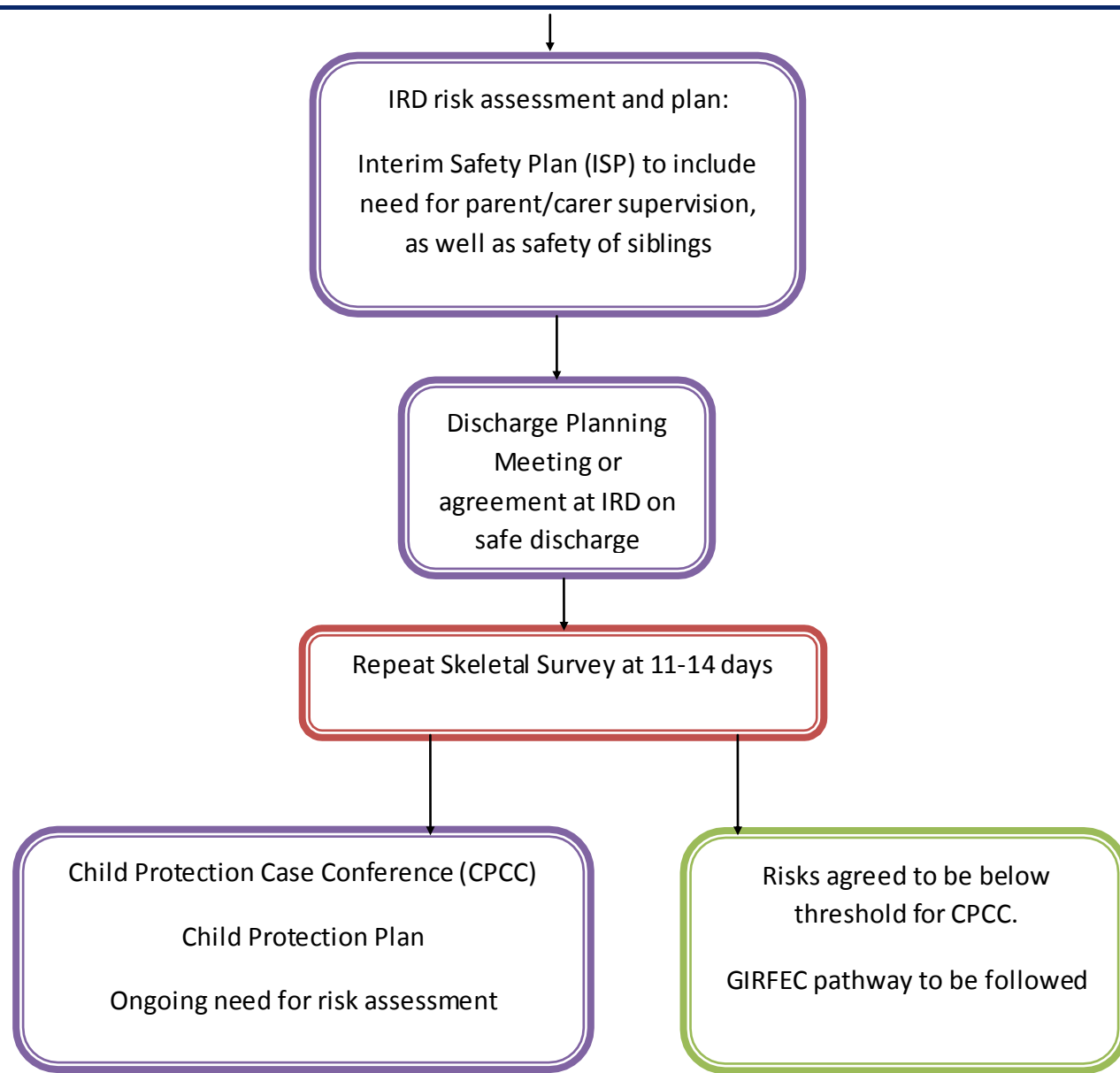
## **C. Resources:**

- [Bruising in Young Babies – Information for parents and carers leaflet \(MCN CP\)](#)
- [Handle with Care – How to keep your baby safe leaflet \(NSPCC Need-to-know guides\)](#)
- [Skeletal Survey – Information leaflet for parents and carers \(MCN CP\)](#)



## A. Unexplained Bruising Pathway in a Pre-mobile baby



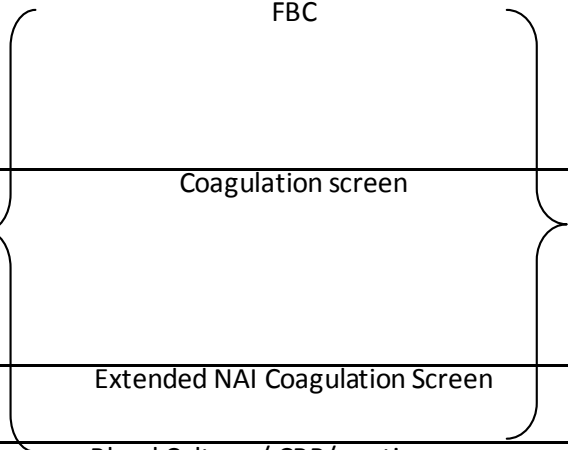


\* The following resources are available:

- [Bruising in Young Babies – Information for parents and carers leaflet \(MCN CP\)](#)
- [Handle with Care – How to keep your baby safe leaflet \(NSPCC Need-to-know guides\)](#)
- [Skeletal Survey – Information leaflet for parents and carers \(MCN CP\)](#)

## B. Checklist of Investigations for Infants Suspected to be at Risk of NAI

Child Protection Paediatrician to advise which are relevant

	<b>Investigation</b>	<b>Date Requested</b>	<b>Result</b>
<b>Radiology</b>	CT Head		
	Skeletal Survey		Name of Radiologist
	MRI Brain and spine		
	Follow up skeletal survey views (11-14 days later)		
<b>Other</b>	Retinal Examination if:  1. Radiological and or clinical evidence of neurological injury (subdural haematoma, brain swelling, brain contusion, etc.) 2. There are rib fractures and /or metaphyseal bone fractures that are typically associated with neurological injury		Name of Ophthalmologist
	Consider Abdominal CT if serious history of trauma and/or abnormal LFTs		
<b>Bloods</b>  On TRAK request:	 <p>FBC</p> <p>Coagulation screen</p> <p>Extended NAI Coagulation Screen</p> <p>Blood Culture / CRP/ septic screen</p>		
<b>NAI Screen</b> (incl FBC + Coag scr) <b>RHSC</b>			
	Renal and liver function		
	Ca, Mg, Phosphate,  Alk Phos, zinc		

	Vitamin D and PTH		
NAI RHSC	NAI Copper, caeruloplasmin RHSC		
<b>Urine</b>	Urine toxicology		
	Further metabolic tests if indicated (OA if large head for instance)		

## 7.0 Evidence base

1. Carpenter RF. The prevalence and distribution of bruising in babies. Archives of Disease in Childhood. 1999;80(4):363-366
2. Dunstan FD, Guildea ZE, Kontos K, Kemp AM, Sibert JR. A scoring system for bruise patterns: a tool for identifying abuse. Archives of Disease in Childhood. 2002;86(5):330-333
3. Pierce M, Kaczor K, Aldridge S, O'Flynn J, Lorenz D. Bruising characteristics discriminating physical child abuse from accidental trauma [published erratum appears in Pediatrics 2010;125(4):861]. Pediatrics. 2010;125(1):67-74
4. Sugar NH, Taylor JA, Feldman KW. Bruises in infants and toddlers; those who don't bruise rarely bruise. Puget Sound Pediatric Research Network. Archives of Pediatrics and Adolescent Medicine. 1999;153(4):399-403
5. Petska HW, Sheets LK, Knox BL. Facial bruising as a precursor to abusive head trauma. Clinical Pediatrics. 2013;52(1):86-8
6. Pierce M, Smith S, Kaczor K. Bruising in infants: those with a bruise may be abused. Pediatric Emergency Care. 2009;25(12):845-847
7. <https://www.rcpch.ac.uk/resources/child-protection-evidence-bruising>
8. Chang L-T, Tsai M-C. Craniofacial injuries from slip, trip, and fall accidents of children. Journal of Trauma - Injury, Infection, and Critical Care. 2007;63(1):70-74
9. Kemp AM, Maguire SA, Nuttall D, Collins P, Dunstan F. Bruising in children who are assessed for suspected physical abuse. Archives of Disease in Childhood 2014;99:108-113.
10. Edinburgh and the Lothians Inter-agency Child Protection Procedures 2015  
<http://intranet.lothian.scot.nhs.uk/Directory/PublicProtection/ChildProtection/Interagency%20Child%20Protection%20Procedures%20Edinburgh/Inter-agency%20Child%20Protection%20Procedures%20Edinburgh%20and%20the%20Lothians%202015.pdf>

## 8.0 Stakeholder consultation

Community Child Health paediatricians

Emergency Department clinicians

ARU paediatricians

Radiology

Ophthalmology

Midwives, Health Visitors and Family Nurses

General Practitioners

Inter-agency Partners

## 9.0 Monitoring and review

Annual Baby Bruising audit and report to Child Protection MCN

Review in 3 years