Sub-conjunctival Haemorrhage Guidelines in Newborn Infants

Reference: 1692v3
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Purpose
This guideline is aimed at healthcare practitioners assessing infants with sub-conjunctival haemorrhages. This guideline aims to assist the practitioner to determine whether or not there is a safeguarding concern, and should the baby be referred for further assessment to Children’s Social Care and/or Paediatrics.

Intended Audience
The process outline in this guideline was developed by Designated Professionals for Safeguarding in Sheffield Clinical Commissioning Group. It is an adapted version of the Nottingham Guideline to be adopted by all Health Trusts and General Practitioners (GPs) in Sheffield.

Within Sheffield Children’s NHS Trust, this guideline is targeted at Health Visitors, Nurses; Paediatricians, Safeguarding Professionals and other Health Care Practitioners.
1. Introduction

A sub-conjunctival haemorrhage is bleeding under the conjunctiva; the transparent layer that covers the sclera (white part of the eye). The bleeding is due to rupture and leaking of blood vessels in the conjunctiva. Sub-conjunctival haemorrhages are a frequent finding in otherwise healthy new-born infants and may be caused by rupture of sub-conjunctival vessels during vaginal delivery. The extent of the bleeding may be large or small but is always confined to the limits of the sclera. They are asymptomatic, do not affect the infant’s vision and usually resolve in ten to fourteen days.

More rarely they may be caused by

- Non-accidental head injury, including shaking.
- Accidental head injury
- Forceful vomiting or coughing – typically paroxysms of coughing in pertussis like illness
- Bleeding disorders
- Eye infection
Sub-conjunctival Haemorrhage Guidelines

2. Guideline Content

This city wide Guideline was developed by Sheffield Designated, Professionals for Safeguarding Children to be adopted by all Health Trusts and GPs

Scope of the Guidelines

This guideline is aimed at healthcare practitioners assessing infants with sub-conjunctival haemorrhages. This guideline aims to assist the practitioner to determine whether or not there is a safeguarding concern, and whether the baby should be referred for further assessment to Children's Social Care and/or Paediatrics.

Target Audience

This guidance is primarily for Midwives, Health Visitors, Safeguarding Leads and GP’s. It also outlines the roles of Children’s Social Care, Paediatricians and other professionals.

Definitions

As per the NICE guidance on Child Maltreatment and Neglect in this guideline:

Consider

For the purposes of this guidance, to consider child maltreatment means that maltreatment is one possible explanation for the alerting feature or is included in the differential diagnosis.

Suspect

For the purposes of this guidance, to suspect child maltreatment means a serious level of concern about the possibility of child maltreatment but is not proof of it.

Unsuitable explanation

For the purposes of this guidance, an unsuitable explanation for an injury or presentation is one that is implausible, inadequate or inconsistent:

- With the child or young person’s
Risk Assessment & Response

Sub-conjunctival haemorrhages are difficult to see however and may not be obvious until the baby starts to open its eyes more.

Health Visitors should check the Midwifery / Health Visitor handover documentation to see if a sub-conjunctival haemorrhage has been seen and documented.

Parents may have noted sub-conjunctival haemorrhages in the first few days that they bring to health professionals attention or they may have photos of their new-born that shows them.

When sub-conjunctival haemorrhages are seen, which were not previously documented by the Midwife or doctor the following pathway should be followed.

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Sub-conjunctival haemorrhage identified in an infant

**Signs of life threatening Injury/illness**
(Think ABC)
- including apnoea, difficulty breathing, prolonged capillary refill, floppiness, seizures, bulging fontanelle, poor feeding vomiting, abnormal cry

☐ Call 999 and arrange immediate transfer to hospital.
☐ If there are features giving concern/suspicion of child maltreatment or neglect, refer to Social Care once child transported to Emergency Department.

**Complete risk assessment as per table (traffic light system)**

- All Green factors: NO amber or red factors
  - Document presence of sub-conjunctival haemorrhage in health record
  - NO further action required

- Amber factors present but NO red factors
  - Discuss with the relevant Safeguarding Team
  - Baby may need to be seen for further assessment at either Child Assessment Unit Tel 2267803, or by Paediatric registrar on call Tel 2717000

- Any Red factors
  - Act urgently.
  - Refer to Children’s Social Care- follow SSCB Child Protection procedures
  - Refer to the Paediatrician on call.
  - Inform the relevant Safeguarding Team

**No signs of life threatening Illness/injury**
- Ask the family about the SCH and when it appeared
- Ask about any other bleeding/bruising
- Ask about coughing and vomiting
- Ask about history of illness/injury
- Check the red book – Parent held record (including new-born eye examination)
- Undress the infant for a visual assessment of any obvious signs of injury
- Enquire about parental factors and family history of bleeding disorders

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## Risk Assessment Tool

<table>
<thead>
<tr>
<th></th>
<th>Green</th>
<th>Amber</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age of Child</strong></td>
<td></td>
<td>&gt;14 days</td>
<td>Child is subject to a child protection plan</td>
</tr>
<tr>
<td><strong>Existing Safeguarding Concerns</strong></td>
<td>No existing or previous safeguarding concerns</td>
<td>Current or previous safeguarding concerns but not on a child protection plan at present</td>
<td></td>
</tr>
<tr>
<td><strong>Parental Factors</strong></td>
<td>No known triggers or concerns</td>
<td>Domestic violence, drug and alcohol use, mental health concerns (including parental interactions with infant, learning disabilities) Household members previously on child protection plan</td>
<td></td>
</tr>
<tr>
<td><strong>Other features of injury</strong></td>
<td>Features giving concern of child maltreatment (see below)</td>
<td>Features giving suspicion of child maltreatment (see NICE Guidance) including bruising, scalp swelling (see below)</td>
<td></td>
</tr>
<tr>
<td><strong>Other features of bleeding disorders</strong></td>
<td>Other evidence of bleeding disorder in infant** Family history of bleeding disorders</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other features of illness</strong></td>
<td>No other features of illness. Baby handles well, observations normal, not irritable. Normal feed and sleep /wake pattern</td>
<td>History of recurrent coughing or forceful vomiting (not possetting) Other features of eye infection (swelling, discharge, erythema, acute red eye, abnormal papillary reflexes, and abnormal eye movements.</td>
<td>Irritable, lethargic, vomiting, raised fontanelle, tachycardia, prolonged capillary refill, reduced conscious level, abnormal tone, seizures.</td>
</tr>
<tr>
<td><strong>Sub-conjunctival haemorrhages noted previously</strong></td>
<td>Noted previously at less than 14 days and recorded in red book.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other features which require a bleeding disorder to be considered in an infant include umbilical cord bleeding or delayed cord separation, prolonged bleeding from the heel prick used to collect blood for the 'new-born bloodspot screening test', significant hematoma formation following neonatal...**
vaccinations or intramuscular vitamin K given after birth, omission of vitamin K after birth, other unusual bleeding/bruising patterns

If sub-conjunctival Haemorrhages are seen at the New Baby review (10-14 day visit or after 14 days) and if not previously documented then the Health Visitor or any other health professional should follow the pathway/risk assessment and undress and visually assess the baby.

NB: An honest explanation for why a visual examination is being done should be given.

When visually assessing the baby take care to do a full head to toe assessment with the baby completely undressed and look specifically for:

- Other signs of injury including bruising, bleeding, swelling, petechial (pinprick) rash including the scalp and fontanelle.
- Other signs of illness causing concerns (e.g. is the baby coughing or vomiting, pale, irritable, cold).
- Is the baby feeding well.

NB: New baby review does include the following if parents wish OR there are professional concerns:

1. An assessment of baby’s growth
2. On-going review and monitoring of the baby’s health
3. Assessment of safeguarding concerns
4. Assessment of attachment
5. Results of new infant physical examinations (NIPE).


Red Flag = Features giving rise to suspicion of child maltreatment in infants with sub-conjunctival haemorrhages

- Other bruises, marks or injuries which are not consistent with birth injury
- Report of maltreatment, or disclosure from other members of the family or third party

What to do?

Any red flag features

If life threatening illness/injury, call 999.
Refer to Children’s Social Care/ Safeguarding Hub in line with Sheffield Thresholds of Need Guidance and SC(NHS)Foundation Trust Policy for Safeguarding Children CP338.
Refer to on-call Paediatrician Tel. 0114 2717000
Inform the relevant Safeguarding Team.
Amber Flag = Features giving rise to consider child maltreatment in infants with sub-conjunctival haemorrhage

- Abnormal interaction between the parent or carer and child.

If there are amber features

If there is a history suggestive of illness, forceful coughing or vomiting, features of eye infection or other concerning features discuss with the Paediatricians to arrange further assessment. Check whether child / family already known to Children’s Social Care.

If there are safeguarding features/concerns (e.g. parental factors or features giving concern regarding child maltreatment) discuss with the relevant Safeguarding Team. Consider further assessment by Paediatricians in the Child Assessment Unit or Paediatrician on call.

If there are only green features

Document the presence of sub-conjunctival haemorrhages in the health records. No further action required.

Remember that whilst sub-conjunctival haemorrhages may rarely be a manifestation of a bleeding disorder the combination of sub-conjunctival haemorrhages and bruising/other bleeding in an infant should initially give rise to concern regarding non-accidental injury. Assessment and investigation for bleeding disorders is a routine part of child protection medical examination.

Remember to:

- Document your findings and record conversations with parents/carers including verbatim description of what was said.
- Record your observations on parent/carer interactions and handling of child as well as child’s general appearance, cleanliness and clothing.
- Review all available health information in records and on electronic systems to ensure current and historical safeguarding information is not overlooked.
- Explain to parents/carers what you have found, your level of concern and what you are going to do and what to expect.

Summary

Remember that whilst sub-conjunctival haemorrhage is a relatively common event which can happen during normal vaginal birth process, in a minority of cases it may also be indicative of child maltreatment. Therefore when sub-conjunctival haemorrhage is observed by professionals it warrants a thorough and systematic assessment of the infant and review
of all available information. The results of this assessment should then inform further action as outlined above – if in doubt discuss with your manager; safeguarding lead or the relevant safeguarding team.

This guideline was adapted from the Nottingham University Hospital Guidelines.

Coordinators:

Anna Ramsbottom, Designated Doctor, Safeguarding Children, Sheffield CCG
Susan Mace, Designated Nurse, Safeguarding, Sheffield CCG

3. References

- NICE guidance on Child Maltreatment and Neglect.
- SC(NHS) Foundation Trust Policy for Safeguarding Children CP338.
- Sheffield Safeguarding Children Board Multi-Agency Thresholds of Need Guidance.
- Sheffield Safeguarding Children Board Safeguarding and Child Protection Procedures.
- https://www.proceduresonline.com/nottinghamshire/scb/user_controlled_lcms_area/uploaded_files/Assessment%20of%20Subconjunctival%20Haemorrhage Accessed 19.06.2019
- Stephen G. Spitzer MD et-al. Isolated Subconjunctival haemorrhages in Non-accidental Trauma; Journal of AAPOS;2005;9;53-56