Assessment of Subconjunctival Haemorrhage (SCH) in Infants

Guidance in the Community Setting

April 2017

1. Introduction

A subconjunctival haemorrhage (SCH) 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 and may occur as a result of:

- Normal birth process
- Non-accidental head injury

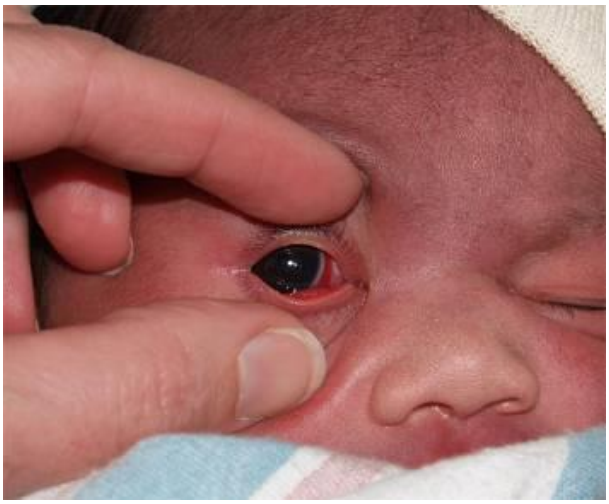
More rarely they may be caused by

- Accidental head injury
- Forceful vomiting or coughing – typically paroxysms of coughing in pertussis like illness which result in increased pressure in the intracranial area
- Bleeding disorders
- Eye infection

Subconjunctival haemorrhages are a frequent finding in otherwise healthy new-born babies and may be caused by rupture of subconjunctival 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 vision and resolve in ten to fourteen days.

All new-born babies will have their eyes examined at the first baby check (NIPE) and the following documented in the red book.

Eyes examined: SCH seen in the right eye YES/NO
SCH seen in the left eye YES/NO



2. Evidence Base

These guidelines are based on review of safeguarding literature and case reports; there is little evidence or reference to natural history of subconjunctival haemorrhage in the literature. The timescale chosen are recognising that babies often do not fully open there eyes until a few days old and therefore subconjunctival haemorrhage may not be noted initially. It is felt reasonable to expect a subconjunctival haemorrhage will be resolved by 14 days, however professional judgement should be used.

3. Purpose

To help professionals differentiate between a physiological subconjunctival haemorrhage and one where there are safeguarding and health concerns and to make appropriate decisions when seeing neonates presenting with subconjunctival haemorrhage; thus avoiding unnecessary social care and hospital referrals and at the same time ensuring that cases with significant health and safeguarding concerns are not overlooked

4. Scope

The guideline aims to establish the assessment and management of subconjunctival haemorrhage in neonates and infants in the community setting and includes the recognition and response to safeguarding concerns which may arise when subconjunctival haemorrhage is identified. Appendix 1 details the process to be followed if the child is admitted to hospital for medical asessments.

5. 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:

- Presentation
- Normal activities
- Existing medical condition
- Age or developmental stage
- Account compared to that given by parent and carers
    - Between parents or carers
    - Between accounts over time.

An explanation based on cultural practice is also unsuitable because this should not justify hurting a child or young person.

Neonate
A baby less than 28 days old
Infant:
A young baby under twelve month's old

6. Risk Management (Indications and Contra-Indications/ Hazards)

Clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual professional. If in doubt contact a senior colleague.

Sub-conjunctival Haemorrhage identified in an infant

Are there any signs of life threatening illness or injury?
e.g. Irritable, lethargic, vomiting, raised fontanelle, prolonged capillary refill time

Yes

- Arrange emergency admission to hospital usually by dialling '999'
- Contact emergency department and Consultant paediatrician to inform of situation
- Do not delay referral to hospital to make social care referral but do ensure you and referral centre are clear about who will do this

No

Ask:

- When first noticed SCH? Did they inform anyone about the SCH? Is it documented in red book? Is there any history of illness or injury? Is there a history of bleeding disorders in the child or family? Social history?
- **Examine:** Fully undress and examine child for other external injuries
- **Check:** Red book / Electronic record for documentation about SCH or known safeguarding risks
- Consider SCIMT check or contacting MASH if unsure whether there are any safeguarding concerns

Red Risk Indicators	Amber Risk Indicators	**Green Risk Indicators**
• More than 14 days old • Parents have not reported and has not been recorded in red book or other medical record	• Less than 14 days old and parents report SCH was previously reported but has not been recorded or red book not available	• SCH noted at new-born check or within first few days of life • Less than 14 days old and SCH recorded by health professional in red book or other medical record
• Child or sibling on a child protection plan	• Child or sibling previously on a child protection plan • Child or sibling 'child in need' or subject to a pre-birth planning meeting	• Not known to children's services
• Household member / contact previously known to be a risk to children • Parental domestic violence, drug and /or alcohol misuse, moderate / significant mental health concerns	• Parental drug or alcohol use, low level mental health concerns with support in place • New or frequently changing household members	• No known concerns
• Other injuries seen on examination which are not clearly documented in red book as part of new born examination • Features giving concern about of child maltreatment (see NICE guidance)	• Parents or health professional concerned child is unwell or not interacting normally	• Child appears well and interacts normally with parents / carers and health professionals • No other features giving concern of child maltreatment (see NICE guidance)

Follow NCSCB/NSCB procedures for referral of baby with unexplained bruise

Discuss all details of any concerns **same day** with Safeguarding Lead / Named Doctor Safeguarding or Child Protection Consultant on call

Document assessment and examination in medical record including SCH on body map in red book.
Inform GP/ Health Visitor

Additional Information:

Any red flag features – Thorough clinical examination (fully undress the baby) and take ABC approach to ensure all clinical needs are addressed promptly to ensure stability. Refer to on-call paediatrician if there are red flag features of illness or injury. If life threatening illness/injury, call 999. Make a referral to Children's Social Care.

If there are amber features (no red features) – Thorough clinical examination (fully undress the baby). If there is a history suggestive of illness (forceful coughing or vomiting NB there is no evidence to support that this causes SCH in young babies), other features of eye infection) or other concerning features (head circumference increasing across centiles) consider discussion with Paediatric Consultant on call as to whether further assessment is required and the urgency of any further assessment.

Only green features – document presence of SCH in record. No further action required.

If you require further advice or support at any point please contact your Trust Safeguarding Lead or Specialist Team to seek advice.

Remember that whilst SCH may rarely be a manifestation of a bleeding disorder the combination of SCH 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 a verbatim account of what was said.
- Record your observations on parent/carer interactions and handling of baby as well as his/her 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 (Systm 1, child health record (red book)); complete a Safeguarding Children Information Management Team (SCIMT) check on all adults in the household (0115 876 4730).
- Explain to parents/carers what you have found, your level of concern and what you are going to do.

When examining the baby, take care to do a full head to toe inspection with the baby completely undressed and look specifically for:

- Other signs of injury including bruising, bleeding, swelling, petechial (pinprick) rash.
- Other signs of illness (is the baby coughing or vomiting)

The baby's head circumference should be measured, documented and plotted. Check their scalp and fontanelle.

Features of shock (pallor, prolonged capillary refill and tachycardia), head injury (raised fontanelle, vomiting, irritable, changes in conscious level or muscle tone and seizures) or eye infection (swelling, erythema or discharge, abnormal eye movements/papillary reflexes should all prompt urgent review in hospital. Speak to Consultant Paediatrician and if transport via ambulance Emergency Department.

Features giving rise to suspicion of child maltreatment in infants with subconjunctival haemorrhage

- 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

Features giving rise to consider child maltreatment in infants with subconjunctival haemorrhage

- Abnormal interaction between the parent or carer and child

Appendix 1 details the pathway to be followed when a child is admitted to hospital for further investigations

8. Summary

Remember that whilst subconjunctival 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. It is uncertain whether the risk of subconjunctival haemorrhage is different in instrumental or operative delivery; the mode of delivery (forceps/caesarean section) should therefore not be used as a key determinant of whether to proceed to safeguarding medical. When subconjunctival 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 and the safeguarding team.

9. Interaction with other Policies and Procedures

This policy should be read and used in conjunction with NICE Clinical Guidance (CG89) on When to Suspect Child Maltreatment and the Nottingham and Nottinghamshire Interagency Safeguarding Children Procedures.

10. Monitoring and Review

The implementation and effectiveness of this policy will be monitored by the Nottinghamshire and Nottingham City Safeguarding Children Board in association with the Joint Nottinghamshire Health Community Safeguarding Partnership. This document be reviewed every three years or where changes are required.

11. Further Guidance

If you have any concerns or issues with the contents of this policy or have difficulty understanding how this policy relates to you and/or your role or an individual case, please speak to your safeguarding lead or contact the on-call paediatrician for non-accidental injury at your local hospital.

12. References

Isolated subconjunctival haemorrhage in non-accidental trauma (Spitzer SG, Luorno J, Noel LP) JAAPOS – Feb. 2005 (www.ncbi.nlm.nih.gov/pubmed/15729281)

Appendix 1

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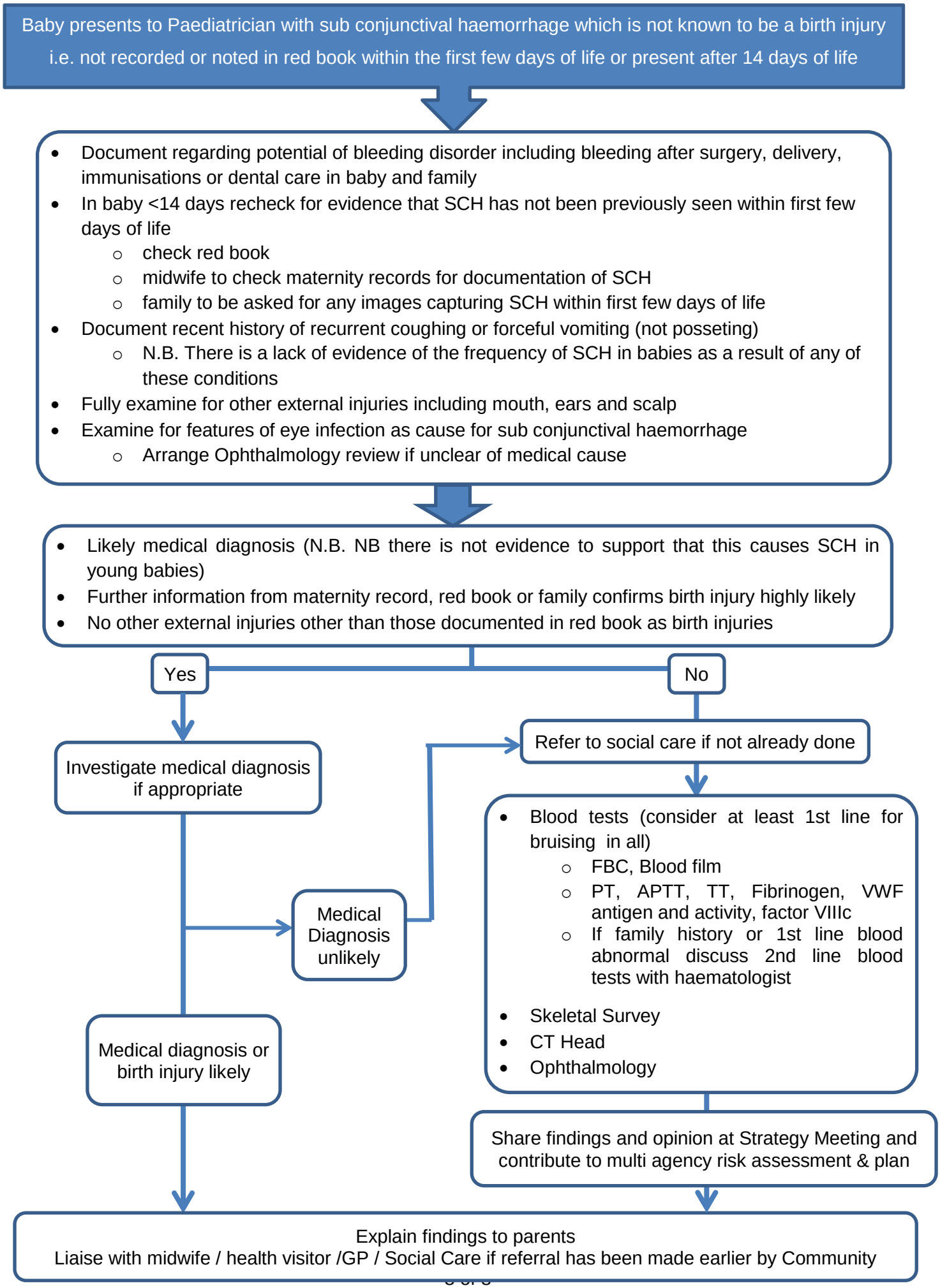
Guidance in the Hospital Setting - flowchart


Baby presents to Paediatrician with sub conjunctival haemorrhage which is not known to be a birth injury i.e. not recorded or noted in red book within the first few days of life or present after 14 days of life
Document regarding potential of bleeding disorder including bleeding after surgery, delivery, immunisations or dental care in baby and family
In baby <14 days recheck for evidence that SCH has not been previously seen within first few days of life
check red book
midwife to check maternity records for documentation of SCH
family to be asked for any images capturing SCH within first few days of life
Document recent history of recurrent coughing or forceful vomiting (not posseting)
N.B. There is a lack of evidence of the frequency of SCH in babies as a result of any of these conditions
Fully examine for other external injuries including mouth, ears and scalp
Examine for features of eye infection as cause for sub conjunctival haemorrhage
Arrange Ophthalmology review if unclear of medical cause
Likely medical diagnosis (N.B. NB there is not evidence to support that this causes SCH in young babies)
Further information from maternity record, red book or family confirms birth injury highly likely
No other external injuries other than those documented in red book as birth injuries
Yes
No
Investigate medical diagnosis if appropriate
Refer to social care if not already done
Blood tests (consider at least 1st line for bruising in all)
FBC, Blood film
PT, APTT, TT, Fibrinogen, VWF antigen and activity, factor VIIIc
If family history or 1st line blood abnormal discuss 2nd line blood tests with haematologist
Skeletal Survey
CT Head
Ophthalmology
Medical Diagnosis unlikely
Medical diagnosis or birth injury likely
Share findings and opinion at Strategy Meeting and contribute to multi agency risk assessment & plan
Explain findings to parents
Liaise with midwife / health visitor /GP / Social Care if referral has been made earlier by Community