paediatric Watch
Lessons from the frontline
Edition 2/2023

Red flags for non-accidental injuries in children – Is this a child at risk?

A mother presented to an Emergency Department with her 4-week-old baby who had blood inside her mouth. On review, the baby was well, however had a torn upper frenulum. The mother explained that the injury occurred when the baby's face bumped on the grandfathers' shoulder. The clinicians accepted the explanation, and no further referrals or Suspected Risk of Significant Harm Report were made.

Two weeks later the mother brought the baby into the Emergency Department again for management of respiratory symptoms and fever. She was diagnosed with mild bronchiolitis. On this visit the junior doctor noticed three small bruises on the baby's face. The mother explained the bruises were thought to have occurred when she was holding the baby and the father walked by carrying a case of beer which accidently made contact with the baby's face.

The junior doctor escalated concern to their senior doctor and a decision was made to consult with a specialist child protection paediatrician via the Child Abuse Sexual Assault Clinical Advice Line (CASACAL).

Further assessment revealed a clinically well baby with unexplained facial bruising. Medical investigations included a skeletal survey which showed several posterior rib fractures that were healing and a CT Head showing a small chronic subdural haematoma.

A Suspected Risk of Significant Harm Report was made, and the matter was accepted by the Joint Child Protection Response Program (JCPRP), a tri-agency response by the Department of Communities and Justice (DCJ), NSW Police Force and NSW Health. Following further investigation by JCPRP, the baby's sibling was also identified as having multiple non-accidental injuries and both children were assumed into care.

Child abuse is common and can be missed and misdiagnosed. Diagnosis requires a high index of suspicion together with careful investigation and careful interpretation of injuries. Child abuse includes neglect, and sexual, physical, and emotional abuse. Non-accidental injury is a significant cause of harm, even death, especially in infants and young children. Some patterns of injury are highly suggestive of a non-accidental cause. It is crucial for all clinicians to be skilled in recognising and responding to possible non-accidental injuries.

A 2021 report by the NSW Ombudsman on deaths of children in New South Wales (2018 and 2019), revealed 19 infants and children died as a result of abuse or neglect, or in suspicious circumstances. Very young children were most vulnerable to fatal abuse and neglect, with children under five years accounting for over half of the deaths. The proportion of children with a child protection history among abuse and neglect-related deaths has more than doubled over the past 10 years. Over the 10-year period between 2010 to 2019, the deaths of 107 infants and children in NSW were abuse and neglect-related, representing two percent of all child deaths during the period. Of the 107 deaths, 72 children died as a result of abuse. Approximately one in five children were Aboriginal or Torres Strait Islander.

Looking for Red Flags

The most common site of non-accidental injury is the skin. The most frequently observed injuries are bruises and abrasions. These can also happen accidentally, so it's important to know which ones might raise concern for inflicted injuries.

The TEN-4-FACESp is a clinical decision tool designed to keep non-accidental trauma at the forefront of our minds when evaluating and treating children.

Scan the QR code to view the TEN-4-FACESp tool

TEN-4-FACESp Clinical Decisions Rule

- Any bruising on the Torso, Ears or Neck in a child under 4 years of age
- Any bruising in an infant under 4-6 months of age
- Injury to the Frenulum, Angle of Jaw, Cheek or Eyelid or Subconjunctival haemorrhage in a child of any age (after the neonatal period)

Bruising

Bruising is the most common sentinel injury. Examples include:

- Patterned or clustered bruising in a child of any age
- Bruises over relatively protected parts of the body such as behind the ears, neck, trunk, and buttocks should raise concern
- Any bruising in a child who is not mobile (under 6 months)
- Bruising to an infant's abdominal wall should raise concern about underlying damage to intra-abdominal contents
- It is important to note childhood accidents commonly cause bruising on the front of the body over bony prominences like their knees and shins.

Fractures

Fractures are common injuries in childhood both accidental and inflicted. Some fracture patterns should raise concern of physical abuse. Red flags include:

- Any fractures in an infant who is not yet walking
- Unexplained long bone fractures in children under three years
- Corner or bucket-handle fracture of long bones
- Rib fractures, especially posterior
- Scapular or sternal fractures
- Complex or multiple skull fractures (single linear parietal fractures are common)
- Radiological evidence of old or healing fractures.

Head injury

Less common but the most serious and potentially fatal forms of child abuse include intracranial injury caused by shaking and/or impact. Red flags include:

- Unexplained head injury (particularly in children under 2 years)
- Unexplained drowsiness, apnoea, vomiting, irritability in infants under 12-months should generate concern about possible intracranial injury, particularly from shaking
- Facial bruising in infants
- Subconjunctival haemorrhage (after the neonatal period)
- Frenulum laceration.

Circumstances that may suggest an injury was inflicted include:

- History of child protection concerns and or domestic and family violence about this child, their siblings or family
- Presence of multiple, unexplained injuries
- Unexplained delays in seeking medical care e.g., fractures presenting after several days
- Inconsistencies in the explanation of the cause of injury, including between caregivers or over time
- The explanation offered does not match with the child's developmental skills or the mechanism of injury that was described
- When an injury has occurred without a clear cause, the possibility of an inflicted injury must be considered and investigated
- Possible impairments to caregivers' capacity to supervise and protect the child.

If non-accidental injury is suspected, a clinician must:

- Manage the child's immediate injuries
- Complete a top-to-toe examination of any child with injury or suspected abuse
- Escalate concerns about possible non-accidental injury to a senior clinician as soon as possible
- Consult with the hospital child protection team if available. If not contact the state-wide Child Abuse Sexual Assault Clinical Advice Line (CASACAL) 1800 244 531 (1800 CHILD1) urgently to assist in clinical assessment. Suspected inflicted head injury, recent sexual assault (<72 hours) and poisoning often require time-critical investigations
- Assess the child's (and their siblings) immediate safety
- Review the eMR for previous child protection concerns for previous injury presentations
- Consider contacting the NSW Health Child Wellbeing Unit to identify any existing or past child protection or wellbeing concerns already reported to DCJ
- Use the NSW Mandatory Reporting Guide and report all suspected cases in accordance with mandatory reporting obligations.

For more information on child abuse visit the Paediatric Improvement Collaborative Clinical Practice Guideline on Child Abuse and the Prevention and response to violence, abuse and neglect (PARVAN) web pages.

This article contains content that may be distressing. If you would like support, speak to your manager or the Employee Assistance Program. People experiencing violence or abuse can also contact 1800RESPECT.

The above is a summary of lessons and learnings from PARVAN Serious Incident Reviews. Consumer details have been changed. We value your feedback. If you have any questions or comments about this information, please email CEC-PatientSafety@health.nsw.gov.au.

References

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