NATIONAL CHILD PROTECTION GUIDANCE

APPROVED: October 2023

Title:	**Assessment and Management of Fractures Raising Child Protection Concerns**
Version:	Version 1.1
Review Date:	1st October 2025
Target Audience:	All medical and nursing staff in the Emergency Department, all Paediatric Wards, Orthopaedic Doctors and Child Protection Paediatricians.
Keywords:	
Shared MCN Guidance:	This guidance has been produced with the support of the three managed clinical networks for child protection in Scotland. The guidance represents the key considerations that health boards could reasonably be expected to provide support for. Each guidance document is primarily to support clinical care and is designed to be modified by individual boards or centres with local contact information, investigation sets and/ or clinical systems information.

NATIONAL CHILD PROTECTION GUIDANCE

APPROVED: October 2023

Hospital/Health Board:	
Local Contact Numbers:	**Child protection team:** **Orthopaedics:** **Radiology:**
Local Variation in practice:	**Investigations:** **Clinical Systems:**

NATIONAL CHILD PROTECTION GUIDANCE

APPROVED: October 2023

Introduction:

This guideline is to support the clinical assessment and management of children who present to Hospital with orthopaedic injuries which raise child protection concerns. It is aimed at any clinician that may be involved in these children's care inclusive of Emergency Department doctors, Orthopaedic doctors, paediatricians and child protection paediatricians.

The guidance aims to outline best practice, clarify roles (this may have some local variation) and responsibilities and to act as a practical guide.

Fractures have been recorded in up to one third of children who have suffered from physical abuse. [1] There are some specific types of fractures and risk factors which make abuse more likely, and in these circumstances a Child Protection investigation should always be considered.

Alerting Features for Physical Abuse

Table 1. **The Child**
Children who are not independently mobile
Children under the age of 18 months

Table 2. Types of Fracture/Fracture features[2]
Humeral fractures in child under 18 months
Spiral fracture of Humerus
Rib fractures in the absence of underlying bone disease or major trauma
Femur fractures in children who are not independently mobile
Metaphyseal Fractures
Multiple Fractures
Fractures of differing Ages

Table 3. **History**
NO explanation for the fracture
An explanation which does not fit the mechanism of the fracture
A mechanism that does not fit with the child motor developmental stage
An explanation that changes or varies when described by the same or different carer
A delay in the carer seeking medical assessment or treatment for the child (this may also indicate neglect)
Previous history of concerning injury
Child on the child protection register

Table 4. **Examination**
Multiple injuries or bruises
Other concerning injury e.g. torn frenulum

History and examination are an essential part of medical assessment. Not all aspects of a detailed history/examination are relevant for the doctor initially assessing the child but a history which considers the above aspects (Table 3) and a full examination is best practice prior to a referral for child protection.

More detailed history, examination and investigations are included below and will generally be undertaken as part of the Child Protection investigation. This may be by the paediatrician or the Child Protection Team paediatrician depending on local variance. This specific history, examination and investigation considers possible occult injury in the context of physical abuse AND differential diagnosis of the fractures. Close working between paediatrics, orthopaedics and radiology where possible is recommended.

HISTORY – document who this is taken from

Antenatal History

Gestational age

Birth weight

Mode of delivery, detailed history

Maternal ethnicity, diet, sun exposure and pregnancy health

Neonatal History

Chronic lung disease

Cardiopulmonary resuscitation

Necrotising entercolitis

Drugs – steroids/diuretics

Parental nutrition – duration

Developmental History

Motor milestones

Current developmental stage

Family History

Family history of Osteogenesis imperfecta

Family history of fractures with minor trauma, dislocations, early onset deafness, dentinogenesis imperfect, late walking, eye disease (retinopathy, early blindness)

Rickets, vitamin D deficiency

Explanation of Fracture

Place and time of incident

Witnessed – by whom

Fall height

Surface impact

Anatomical point of impact

How was the child immediately after?

If delay – what interventions did the carer put in place (analgesia, feed); what advice did they seek (phone a relative? Phone health visitor?)

Examination

Thorough examination to record any other injuries.

Considering OI/rickets:
Frontal bossing
Large anterior fontanelle/sutrual diastases
Craniotabes
Thickended wrists
Rosary
Harrisons sulcus
Blue sclera
Short stature
Ligamentous laxity
Bowing deformity of limbs
Dentinogeneis imperfect
Hernia(s)

It is recommended that as part of a formal child protection assessment the **NHS Scotland Child Protection Paediatric Examination Proforma** is used and consent for examination and investigations as part of the Child Protection process should be taken.

Investigations

Bloods

Bone profile – calcium, phosphate, alkaline phosphatase
Serum 25-hydroxyvitamin D
Parathyroid hormone

Radiology

Skeletal Survey according to 2017 RCR radiological guidance and BSPR standards (parent leaflet available)

CT head scan according to RCR radiological guidance

Process

The Child Protection process should be initiated as soon as physical abuse or neglect is suspected, either in the ED or by the orthopaedic team seeing the child.

The local NHS Paediatric / Child Protection Team (as per local procedures), should be involved early as possible.

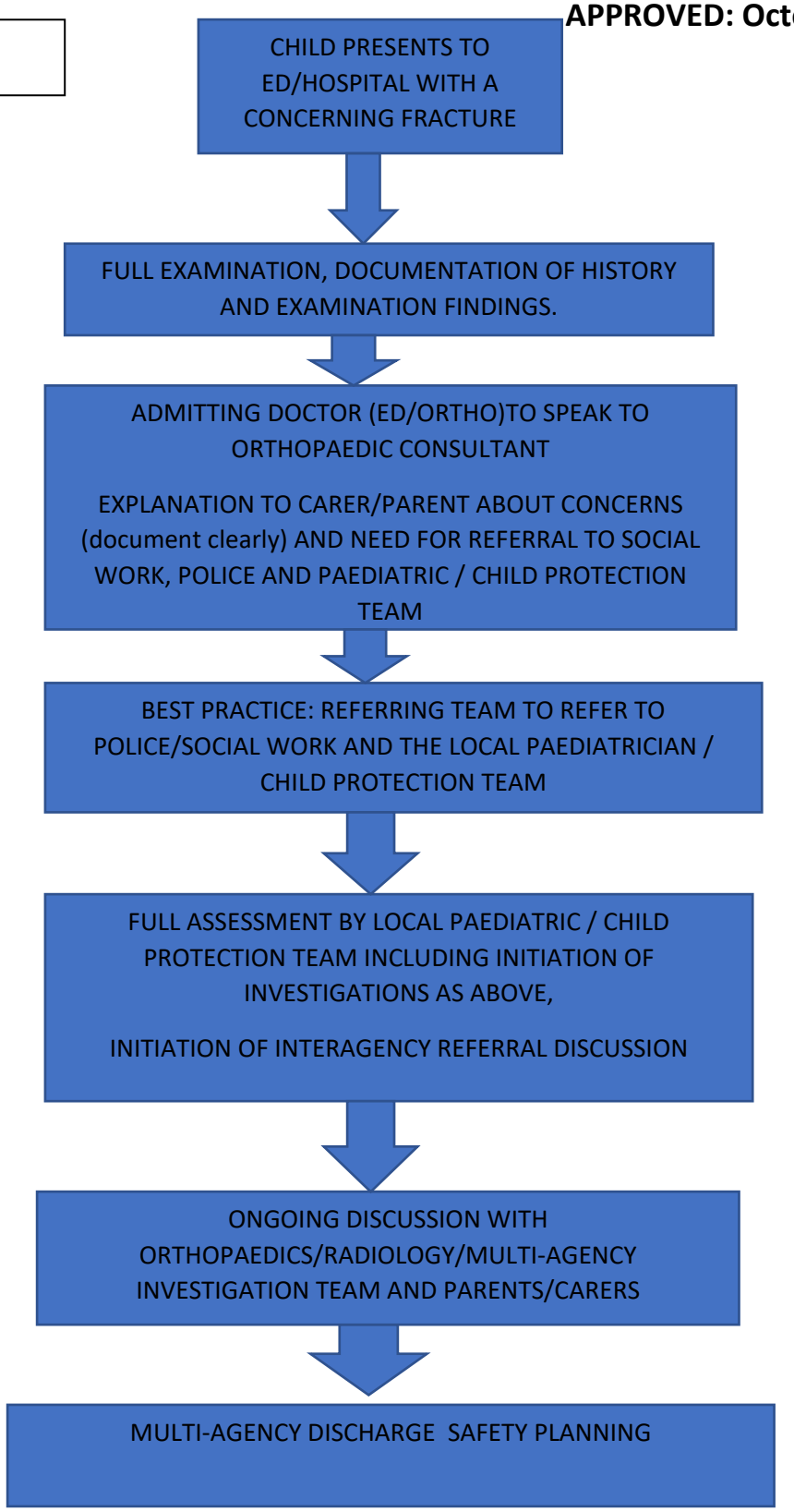
INSERT LOCAL CONTACT NUMBERS

Consultant to consultant discussion is best practice. The following flow chart illustrates the process (APPENDIX1).

NATIONAL CHILD PROTECTION GUIDANCE

APPROVED: October 2023

Appendix 1



REFERENCES

1.RCPCH Child Protection Companion Chapter 9: Recognition of Physical Abuse

2.RCPCH Child Protection Companion Chapter 9.5 Fractures

3.RCPCH Child Protection Evidence Systematic Review on Fractures September 2020

4.Children with orthopaedic injuries raising child protection concerns, a best practice guide. Clinical Guidelines NHSGGC