Joint Practice Guideline: Radiological imaging in suspected child abuse.

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- Children <2yrs with suspicion of NAI need a full Skeletal Survey (SS). 23% of infants <6months investigated for isolated bruising had occult fractures identified on SS [(1)] parent leaflet.
- Written consent should be obtained from individual with parental responsibility consent form– if refused court order may be required.
- Children <1yrs with suspicion of NAI need a CT head. Children >1yr with external evidence of head trauma or abnormal neurology also need CT[(2)].
- Children with suspected abusive abdominal injury, contrast CT scan is the investigation of choice. Ultrasound is not sensitive enough to adequately exclude significant injury.
- The child should not be discharged until the skeletal survey results are formally reported. If sibling of index case is <2yrs should also have SS - odds ratio of 20.1 for identifying a fracture in a twin of an abused child [(3).]
- In children >1yr with rib or spinal fracture consider CT head if not already performed.
- SS follow up minimum at 11-14 day post SS:
  1. CXR *(AP with left/right oblique views)*
  2. + any other areas of concern highlighted by radiologist.

  This improves detection rates of rib/metaphyseal fractures by up to 27%.
- Radiology will book f/ups & will send *f/up proforma* to the ward after initial SS. It is the ward doctors responsibility, that prior to discharge, the **date of the f/up Xray** and **place of discharge details are completed** on the *f/up proforma*. This information must be included in the child protection report & e-oasis discharge summary.
- At the strategy meeting the child's discharge arrangements should take into consideration the professionals' level of perceived risk to the child. F/up CXR date should be available to the paediatrician and social worker present.
- The follow up Xray is the responsibility of the COW under whom the child was initially admitted. Once they receive the (presumably normal) result they should dictate a brief letter to carer/GP/social worker to inform of this result. ***See example below***.
- If the requesting Paediatrician is due to go on annual leave, it is their responsibility to handover the case to the appropriate COW, whose name should be made available at the strategy meeting and added to the *f/up proforma*.

Reporting

- Ideally skeletal survey and follow-up images should be formally reported by the end of that session, or at least by the end of next session. Radiologists should not be pushed for a verbal report. *Double-reporting is quality control for radiology department and may take several days;* **clinicians should act according to the results of the first formal report.** Formal reports, rather than verbal reports, should guide strategy meetings. It may be helpful to let Xray know when the strategy meeting is occurring.

- The paediatric radiologist who reports the initial skeletal survey takes clinical responsibility for the case e.g if opinion needed for court.

- On f/u imaging if an ABNORMALITY is detected by the radiologist, which was **not** present on the initial skeletal survey, *e.g- healing rib fracture* - this is to be **urgently** conveyed to the requesting paediatrician (email/telephone). If not available, then please bleep the COW on 8636.
  - Paediatrician - consider immediate safety/placement of child. Speak to geographical social services team OR safeguarding team (2363) who will liaise to arrange strategy meeting.
  - If abnormal result is made available out of hours consider immediate safety of the child, discuss with duty social services.

Follow-up Xrays

- *What if equivocal findings remain?*
  Consultant paediatrician and consultant radiologist to discuss will need consideration of other imaging modalities.

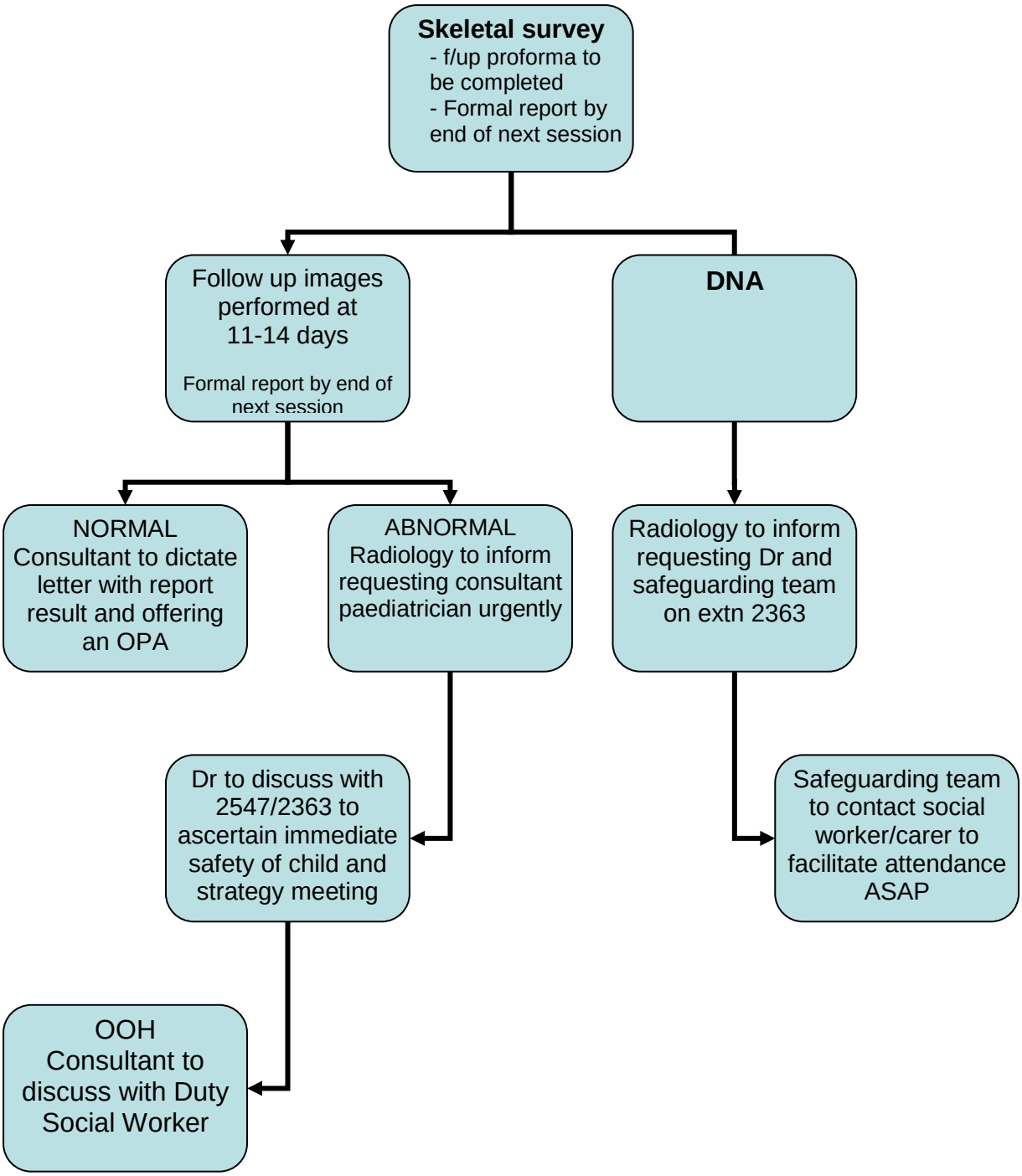
- *What if patient fails to attend for follow-up appointment?*
  Senior radiographer must contact requesting paediatrician (via email) AND hospital safeguarding team 2363- who will liaise with allocated social worker. Child must be rebooked ASAP.

- *What if after initial SS subsequent medical diagnosis is made?*
  In a small proportion of cases a subsequent "medical" diagnosis made. If NAI is no longer being considered, **follow up Xray should be cancelled by paediatric consultant (with the reasoning provided to Xray who should document this)**. The reasoning behind cancellation should also be clearly documented in the medical notes.

Example letter - investigations for occult NAI normal and no active safeguarding concerns remain:

Dear Carer
I am pleased to inform you that the follow-up xray performed was normal.
Thank you for cooperating with the necessary safeguarding investigations, which must have proved a stressful experience. Some parents have expressed a wish to be seen in clinic in order to discuss matters further.
Should you wish to take up this offer, please email Emma.Windham@bsuh.nhs.uk or contact extn 2337.
(Copy to GP, CPT, Social Worker)

Skeletal Survey Flowchart.



For advice re imaging following abnormal head CT please refer to AHT guidelines AHT guidance

References:
1. *https://www.rcpch.ac.uk/sites/default/files/2018-07/child_protection_evidence_-_bruising.pdf*
2. *https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr174_suspected_physical_abuse.pdf*
3. https://www.rcpch.ac.uk/resources/child-protection-evidence-fractures