Standard Operating Procedure: GP-Referred Patients With Suspected Fractures

Purpose

Describes the pathway for X ray imaging and reporting of patients referred from general practice (GP) with suspected fractures within Radiology Department at Hillingdon Hospital . It aims to deliver a consistent, safe service with efficient use of limited reporting resources and sets realistic expectations for referrers and patients.

Scope

This SOP applies to:

- All adult and paediatric patients referred by GPs to Hillingdon Hospital for plain radiography where the referrer's indication includes possible fracture or recent trauma (< 2 weeks).
- Radiographers (Band 5–7), reporting radiographers, the duty radiologists.
- Out-patient radiology sessions. It does not cover patients arriving via the emergency department, urgent treatment centre or major trauma pathways (complex fractures should follow the major trauma/complex fracture guidelines).

Definitions

- Hot reporting – Immediate review and reporting of imaging, typically while the patient is still in the department.
- Acute reporting list – A queue on the radiology information system for expedited reporting (target 24 hours).
- Red Dot system – A visual flag added by radiographers to indicate a suspected abnormality requiring urgent attention.
- Appendicular skeleton – Bones of the limbs (including hands and feet).
- Axial skeleton – Skull, spine, ribs and pelvis.

Responsibilities

- Radiographer (Band 5–7): Perform imaging; assess images for obvious fracture; apply Red Dot where appropriate; provide first-look communication and advise patient on next steps; record details on the radiology system of patient's notes; seek help from a senior radiographer when unsure; inform the duty radiologist only when there is a high-risk fracture or uncertainty after senior review.
- Senior Radiographers / Reporting Radiographer: Support junior staff; supervise Red Dot decisions; add examinations to the acute reporting list; report simple appendicular fractures; liaise with the duty radiologist on complex cases.
- Duty Radiologist: Provide interpretation for high-risk cases; report cases on the acute reporting list within the agreed timeframe; arrange onward referral when additional imaging (e.g. CT) or orthopaedic input is needed.
- Modality Lead: Maintain this SOP, monitor compliance, turnaround times and complaints; coordinate communication with GP practices; support training and staffing solutions.

Procedure

1. Referral validation and triage

1. Check referral details – In addition to ID check verify date of injury and clinical history. If the injury occurred more than two weeks previously is not acute and can wait for routine reporting.
2. Assess for red flags – On arrival, ask about pain severity, weight-bearing ability and any disability secondary to it. If the patient is unable to stand, has severe pain despite analgesia, numbness, tingling or obvious deformity, direct them to the emergency department. Similarly, GP referrals indicating hip fracture, femoral fracture, pelvic/acetabular injury, serious head or chest trauma or suspected spinal fracture should be redirected to A&E for assessment. These high-risk injuries are covered by separate NICE guidance and require multidisciplinary management .

2. Imaging and immediate actions

1. Perform the X-ray using appropriate projections and exposure parameters. If sub-optimal views due to patient limiting factors, document.
2. Review the images after acquisition for adequacy

    - Clearly positive high-risk fractures (e.g. displaced hip, femur or pelvis fracture; obvious vertebral collapse; displaced ankle fracture) – Apply Red Dot. Inform patient and advise to attend A&E, assist if needed. Contact the duty radiologist for urgent review and report.
    - Obvious but low-risk appendicular fractures (e.g. non-displaced toe, finger or simple distal radius fracture) – Apply Red Dot. Inform patient that the images will be formally reported within 24 hours. Advise to attend A&E/GP depending on severity. SafetyNet to attend A&E if symptoms worsen or new symptoms appear.
    - Uncertain findings or inexperienced radiographer – If the radiographer is unsure, ask a senior radiographer to review. Only contact the duty radiologist when there is a suspected acute fracture that could change immediate management.

3. Reporting

1. Hot reporting – For cases flagged as high-risk (hip/femur/pelvis/spine) or where the patient has been sent to A&E, the duty radiologist should review the images immediately and issue a preliminary report. This ensures timely surgical or medical intervention and aligns with NICE recommendations for early management.
2. Acute reporting list – All other GP fracture referrals should be added to the acute reporting list. The duty radiologist or reporting radiographer must aim to complete these reports within 48 hours. This timeframe balances patient safety with limited staffing levels.
3. Documentation – If patient send to A&E document within the notes, Images should be completed immediately to facilitate review. Report to be made available to GP as per protocol.

4. Communication with GPs and patients

1. GP communication – The SOP to be shared with local GP practices. Only high-risk fractures are hot reported. GPs should advise patients with suspected hip, femoral, pelvic or spinal fractures to attend A&E directly rather than Radiology. GPs must use Ottawa rules when deciding whether to request imaging. When a fracture is confirmed on the formal report, it is GP's responsibility for arranging orthopaedic follow-up or fracture clinic review; radiology staff cannot book fracture clinic appointments for GP referrals.
2. Patient communication and safety netting – After imaging, radiographers must explain the next steps using plain language. This includes:
    - Highlighting warning signs (increasing pain, swelling, numbness, inability to move digits) and instructing the patient to attend A&E if these develop.
    - Encouraging patients to contact their GP for the result if they have not been contacted within 48 hours.

5. Audit and quality assurance

1. Training – Provide annual training for radiographers on fracture recognition, the Red Dot system. Ensure all staff understand that only high-risk cases warrant hot reporting and that non-urgent cases should not be allowed to delay complex acute reporting.
2. Guideline updates – Monitor updates to NICE guidance (non-complex and complex fractures) and integrate changes into practice.