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LRI Emergency Department

Hip fracture management

Version 65

Use in all adult patients with a suspected hip fracture, starting from the initial assessment

Proforma may serve as sole ED documentation in suitable patients (see algorithm)

Disclaimer:
This is a clinical template; clinicians should always use judgment when managing individual patients

Re-approved by EDGC (chair) on 23/09/22 . Trust Ref: C131/2016
Review due Dec24

Patient details

Full name

DoB

Unit number

(use sticker if available)

HH:MM
Analgesia target (within 20min from arrival)

HH:MM
Imaging target (within 1h from arrival)

HH:MM
Time analgesia offered

HH:MM
Time analgesia given

HH:MM
Pain score review target (30min after analgesia given)

Ambulance Assessment Team
- These patients have disproportionally long ED times: Assign DPS 1
- **NB**: Ensure patient is seen by STAT clinician if role allocated
- Consider transfer to the ER if entry criteria are met

- Record arrival and target times for analgesia & imaging on the left
- Establish IV access and take bloods as listed in box 1
- Record pain score and ensure effective analgesia (see box 2)
- Record time analgesia offered & given on the left (unless declined)
- Record target time for pain re-evaluation on the left
- Obtain 12-lead ECG
- Complete NC Cognitive Assessment Bundle (select 'ED Cognitive Assessment Tool')

Patients with capacity may decline analgesia out of concern about side effects and might be hoping they will be OK if they keep still

Rather than to simply accept this, try to allay any unfounded fears the patient might have

Ensure patients who lack capacity receive optimal analgesia

- Request imaging on ICE and set X-ray task on NerveCentre
  - Hip plain films – state in request if there is a history of cancer known to spread to bone (as this will impact on the views taken)
  - CXR if indicated (see box 3; **NB**: clearly state indication on ICE)
  - Other imaging as determined by any suspected other injuries
- Consider moving patient to Imaging without waiting for X-ray porters (but first check with radiographers on **10118** or **10119**)

Hip fracture confirmed? — N → Manage as appropriate; Y ↓

Radiographers to record 'hip fracture found' in NC 'ED Progress Notes'

HH:MM
Time pain score reviewed

ED doctor / ANP
- Review pain score & record re-evaluation time on the left
- If history of cancer known to spread to bone, ensure that full-length femoral radiographs have been obtained
- Perform fascia iliaca compartment block (FICB - see boxes 6 and 7) unless contraindicated
- If FICB not performed, document your reasons in box 7
- **NB**: Complete the two green decision diamonds below before starting to write your patient documentation: Proforma may be all that is required in many patients

FICB contraindications
- Patient has capacity and declines to give consent
- Anticoagulant therapy or clotting disorders (INR >I.5, platelets <100 or taken DOAC within 24h)
- Local anaesthetic allergy
- Infection at injection site
- Landmarks unidentifiable
- History of femoral vascular surgery

Specialist care needs (see box 4)? — Y →
- Proceed to standard ED 'clerking'
- Manage as appropriate
- Refer to relevant specialist team
- Complete 'ED Referral Orthopaedics' on NC (select 'Review in Department'), stating specialist care needs (from box 4) and which other team is involved

→ Management plan and appropriate destination to be decided jointly by orthopaedic and relevant specialist team

Specialist care needs — N ↓

Correctable comorbidities (see box 5)? — N →
- **NO further ED documentation or workup required, but obtain sign-off from an ED consultant or area lead to confirm:**
  - All required tests (i.e. bloods, imaging & ECG) completed
  - NEWS is 4 or less & no single parameter scoring 3 or more
  - No specialist care needs and no correctable comorbidities
- Complete 'ED Referral Orthopaedics' on NC (select 'Review in Department'); state 'fast-track confirmed by [state name of consultant or EPIC]'; no need to review in ED'
- Prescribe IV fluids, typically NaCl 0.9% 500mL over 4h

→ Fast-track to orthopaedic bed (**Ideally**: within 2h of arrival)

Correctable comorbidities — Y ↓
- Proceed to standard ED 'clerking'
- Manage comorbidities as per box 8 to ensure that patient is suitable for admission to orthopaedic bed and surgery within 36h
- Complete 'ED Referral Orthopaedics' on NC (select 'Review in Department')
- Orthopaedic team **MAY** choose to review

Still deemed too unstable by orthopaedic team? — Y → Management plan and appropriate destination to be decided jointly by orthopaedic and relevant specialist team; N → Admission to orthopaedic bed

NB: This will not be common

Provide patient with hip fracture patient information leaflet (if cognitive impairment, give it to patient's family)

Ⓐ Managed by Ⓑ Senior sign-off (fast-track only; by a consultant if present or area lead if not)

Ⓐ

Ⓑ

Print name	Signature	Position	Date	Time

① Blood tests

WBC		Na	
Hb		K	
Platelets		Urea	
pH		Crea	
pCO_2		eGFR	
BE		Albumin	
Lactate		Alk Phos	
INR		ALT	
PT		Bili	
APTT		Calcium	

☐ Group & Save sent

② Initial analgesia guidance

If no severe pain (score <7) ➜ within 30min:
- Paracetamol PO (unless taken within last 4h)
- Codeine phosphate 30mg PO

If severe pain (score 7-10) ➜ within 20min:
- Morphine 2-10mg IV titrated
- Metoclopramide 10mg IV only if feeling sick
- Paracetamol PO (unless taken within last 4h)
- Codeine phosphate 30mg PO

③ Clinical CXR indication?

***NB**: Radiographers will do a 'pre-op' CXR without request if hip fracture is found **AND** patient >70 years old **AND** no CXR was done in previous 3 months*

☐ **Yes**, as at least one of the below
(please specify on ICE CXR request)
- Acute lower respiratory tract problem ☐
- Features of chronic active lung disease ☐
- Features of active heart disease ☐
- Clinical evidence of heart failure ☐
- Abnormal ECG ☐
- Chest trauma ☐
- Clinical suspicion of lung malignancy ☐

☐ **No**, as none of the above

④ Specialist care needs?

☐ **Yes** - at least one of the below
- AKI 2-3 or on regular haemodialysis ☐
- Requiring hyperkalaemia treatment ☐
- New stroke requiring admission ☐
- Acute GI haemorrhage ☐
- DKA or HHS ☐
- STEMI or NSTEMI ☐
- Bradycardia requiring active treatment ☐
- Red flag sepsis with persistent hypoperfusion ☐
- Respiratory condition requiring specialist care, e.g. ≥60% O_2 or NIV ☐
- Head injury needing neurosurgery or ITU ☐
- Critical care or ACB need anticipated ☐
- Sustained high NEWS (7 or more) ☐

☐ **No** - none of the above

⑤ Correctable comorbidities?

☐ **Yes**, as at least one of the below
- Sustained NEWS of 5 or more ☐
- Single red (i.e. 3) NEWS parameter ☐
- Hb <100 ☐
- Taking warfarin, LMWH or a DOAC ☐
- AKI I ☐
- New oxygen requirement ☐
- Na <125 or >145 ☐
- K <3.0 or >5.5 ☐
- Hyperglycaemia with CBG >18, vomiting or capillary ketones 1.5-3.0 ☐
- Hypoglycaemia requiring IV glucose ☐
- Acute decompensated heart failure ☐
- New confusion (delirium) ☐
- Chest pain of recent onset ☐
- Tachyarrhythmia (e.g. AF >110bpm) ☐
- Evidence of acute infection ☐
- Worsened chronic respiratory condition ☐
- Other injuries requiring ED attention ☐

☐ **No**, as none of the above

⑥ FICB procedure

- Obtain verbal consent after informing patient of potential risks (all very rare): failure, soft tissue infection, vascular puncture and nerve damage
- Find FICB pack (Red Majors stack cupboard), one lidocaine 1% vial and the required number of levobupivacaine 0.25% 10mL vials
- Draw up levobupivacaine (see box 7 for volume) in the 20mL syringes; assemble one of them with the short IV extension set and a blunt fill needle
- Draw up the lidocaine 1% in the 1mL syringe and assemble it with the orange needle
- Draw inguinal ligament & femoral artery on skin
- Circle entry point: 1cm lateral to arterial pulse and 1-2cm distal to inguinal ligament
- Paint area with chlorhexidine skin preparation
- Raise intradermal lidocaine bleb at entry point
- Pre-puncture skin with the grey (16G) cannula
- Advance blunt needle assembly 45° cranially until two 'pops' (1. fascia lata 2. fascia iliaca) felt
- Apply pressure to thigh 2-4cm distal to needle to encourage upward spread of levobupivacaine
- Ask assistant to inject levobupivacaine slowly (aspirating before start and after every 5mL)
- Maintain pressure for 30sec after completion
- Withdraw needle & cover site with small plaster
- Document procedure details in box 7

⑦ Fascia iliaca compartment block (FICB) record

☐ Verbal consent obtained

☐ Skin prepared with chlorhexidine 2% with sterile technique maintained

Affected limb

☐ LEFT ☐ RIGHT

☐ 0.25% levobupivacaine injected into compartment (**NB**: maximum 60mL) — 0.6 mL x ___ kg = ___ mL

☐ Vital signs recorded at 5, 10, 15 & 30min post procedure

☐ **EITHER** No immediate complications

☐ **OR** Complications observed/ reason why no FICB given

Print name	Signature	Role	Time (24h clock)

⑧ Notes on ED treatment of correctable comorbidities

Hb <100	Involve ED senior if evidence of acute haemorrhage. Request and prescribe cross-matched packed red cells, aiming for a preoperative haemoglobin of 100 but leaving actual transfusion to ward unless Hb less than 70.
Taking anticoagulant	Hold any further doses. If on Warfarin **AND** INR >1.5, give Vitamin K 5mg IV in ED.
AKI	Ask patient's nurse to start fluid balance monitoring. Correct any dehydration or intravascular fluid deficit. This will usually involve prescribing one IV crystalloid bolus or more depending on response. **NB**: Check patient not in urinary retention.
Na abnormality	• For hypernatraemia, correct water deficit & follow UHL hypernatraemia guideline • For hyponatraemia, discuss management with ED senior
K abnormality	Follow UHL hypokalaemia guideline and UHL hyperkalaemia guideline
Hyperglycaemia & CBG >18, vomiting or ketones 1.5-3.0	Follow Management of Hyperglycaemia Diabetes Decision Support Tool
Hypoglycaemia requiring IV glucose	• For hypoglycaemia in diabetics – follow UHL hypoglycaemia guideline • For hypoglycaemic patients without diabetes, seek ED senior advice
Pulmonary oedema	Seek ED senior advice first. ED senior might involve 'medical in-reach team'. If not resolved, orthopaedic and medical team to jointly decide destination for admission.
New confusion (delirium)	Consider red-flag sepsis and other reversible causes. Code delirium diagnosis on NC.
Chest pain of recent onset	Establish if investigation for non-traumatic (the 'big four' are NSTEMI, PE, aortic dissection and oesophageal rupture) or traumatic cause is required. Seek ED senior advice. If significant acute condition identified, orthopaedic and relevant specialist team to jointly decide destination for admission.
Tachyarrhythmia	This will most commonly be fast AF or atrial flutter. Seek ED senior advice first. Options include rate control with PO bisoprolol, IV amiodarone or digoxin, or (rarely) DC cardioversion. ED senior may involve medical in-reach or FES team.
Acute infection	Identify source. Complete Nervecentre Red Flag Sepsis (RFS) assessment and provide timely care for RFS if identified. If evidence of persistent hypoperfusion, orthopaedic and relevant specialist team to jointly decide destination for admission.
Worsened chronic respiratory condition	If NEWS remains 5 of more or single NEWS parameter 'red' (= 3) after treatment, orthopaedic and relevant specialist team to jointly decide destination for admission.
Additional injuries	Hip fracture patients may have other significant injuries (e.g. of head or chest). Clinical features suggesting such injuries must be sought systematically and investigations must be completed before ED departure to avoid complications. If significant additional injuries are found, seek ED senior advice. Orthopaedic and relevant specialist team to jointly decide destination for admission.