



CLINICAL GUIDELINE

Fracture management, Emergency Department, Glasgow Royal Infirmary

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained. Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Fracture Management Guidelines

Specific Fracture Management in ED / MIU

- Options
- Admit to ward - inform Trauma Co-ordinator /junior doctor page no: 13681. Complete SBAR handover on Trakcare
 - Allow home - inform Trauma Co-ordinator /junior doctor page no: 13681 - to be discussed at 8.00am trauma meeting
 - Discharge with Virtual Clinic follow-up
 - Discharge

Routinely use tubigrip / wool and crepe / splints for support
(POP slab only for unstable injuries / specific indications)

**** Patients being discharged with Lower Limb POP slab / Achilles Rupture consider need for VTE prophylaxis ****

| DIAGNOSIS | INITIAL TREATMENT | MANAGEMENT |
|--|--------------------|--|
| Septic Arthritis – Prosthetic Joint | Bloods | Refer Ortho |
| Septic Arthritis – Native Joint | Bloods | Refer Medicine / Rheumatology |
| Prosthetic Joint – problems requiring urgent clinic review | Bloods | Virtual clinic |
| Post-operative complications | Manage as required | Consider discussion with Ortho Virtual clinic if required |

Lower Limb Trauma

| | | |
|---|--|---|
| # pelvis | treat hypovolaemia if req'd major disruption pelvic splint | Admit |
| # pubic ramus | Analgesia | Admit If nursing home resident - discharge |
| # neck of femur | Analgesia, IV access & fluids, ECG Exclude compounding problems e.g. pneumonia etc | Admit |
| Hip pain after trauma | non-weight bearing with negative x-rays & hip pain | Admit Ortho for MRI (if medical cause e.g. syncope, collapse admit Medicine and inform Ortho) |
| Dislocated THR | Reduce in ED, Check X-ray | Admit |
| # femur shaft | Manage hypovolaemia, Crossmatch, femoral nerve block, IV analgesia, Thomas splint, X-ray in Thomas Splint | Admit |
| Intra articular # distal femur / femoral condyle | Splint | Admit |
| # patella (Be aware of normal variants) | Splint | Undisplaced– Virtual Clinic Record if patient can straight leg raise / consider aspiration haemarthrosis/ local anaesthetic Displaced – Admit |
| intercondylar tibial avulsion # | Splint | Admit |
| # tibial condyle - undisplaced | Splint | Virtual clinic |
| # tibial condyle - displaced | Splint | Admit |
| # tibial plateau | Above knee POP slab | CT scan (if possible) Admit |
| # tibial shaft - closed, undisplaced | Above knee POP backslab | Admit – (for elevation ±fixation) |

Soft Tissue Knee Injury – Haemarthrosis, no fracture seen on X-ray

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| Minor sprains, ACL and other significant ligamentous injuries Meniscal injuries Patellar dislocation PFJ injuries | Splint (Use splint if knee swollen or difficulty WB) | Virtual Clinic |
| Osteoarthritis | Analgesia Splint (if knee swollen or difficulty WB) | D/C to physiotherapy / GP |
| No trauma, acute swollen knee | Bloods, aspirate – if required | Review by Rheumatology / General Medicine |
| Minor trauma with OA on X-Ray | Advice | D/C to physiotherapy / GP |
| Quadriceps / Patella tendon rupture | MSK U/S if possible. Splint | Refer Ortho |

Foot and Ankle Trauma

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|---|--|---|
| Avulsions from tarsal bones | Velcro boot / analgesia / FWB | Virtual clinic |
| Avulsions from malleoli | Velcro boot / Tubigrip / FWB | Discharge with leaflet / Exercise sheet |
| Talus fracture | BK Backslab | CT scan (if possible) Admit |
| Calcaneal fracture | Elevation / analgesia | CT scan (if possible) Admit |
| Displaced / Unstable Ankle Fracture | Reduce / BK backslab then X-ray | Admit |
| Lateral malleolus fracture, no talar shift (document medial findings) | Velcro boot, FWB | Virtual Clinic |
| Isolated Medial Malleolus Fracture (Assess for proximal fibula fracture) | Velcro boot, FWB | Virtual Clinic |
| Achilles Tendon Rupture (calf squeeze test) | MSK U/S if possible EQUINUS BK backslab (or dorsal slab) VTE prophylaxis (1/52 until clinic) | Virtual Clinic |
| Intra-articular distal tibial fracture (Pilon #) | Above Knee Backslab | CT scan (if possible) Admit |
| High energy, multiple fracture / crushed foot | Elevation / Analgesia | Admit for elevation +/- CT scan |
| Multiple metatarsal fractures | Velcro boot | Virtual clinic |
| Isolated metatarsal fractures | Velcro boot / Tubigrip / FWB | Discharge with leaflet |
| Dislocated toes | Reduce +/- buddy strapping | Discharge |
| Big toe phalanx fractures | | Undisplaced - Discharge Intra articular / Displaced – Virtual clinic |
| Lesser toe fractures | | Discharge |

Upper Limb Trauma

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|---|---|---|
| Forearm fracture / Monteggia # dislocation / Galeazzi # dislocation | Above elbow POP slab | Admit |
| Isolated ulna shaft fracture | Above elbow POP slab | Virtual clinic |
| # olecranon | Above Elbow POP slab / Polysling | Admit |
| # head/neck of radius undisplaced/minimally displaced | Polysling | Discharge/leaflet |
| # head/neck of radius - marginal #/comminuted | Polysling | Virtual clinic |
| dislocated elbow | Reduce, Above Elbow POP backslab / sling / X-ray | Virtual clinic |
| supracondylar # humerus (children) undisplaced | above elbow POP backslab | Virtual clinic |
| supracondylar # humerus (children) displaced | backslab in extension | Refer Ortho – RHC |
| # shaft of humerus | Brace, collar and cuff | Virtual clinic |
| | | Virtual clinic No functional use: eg. Dementia, paralysis, spasticity - Discharge / leaflet Consider virtual clinic if clinical concerns |
| # neck of humerus | Polysling – NO BRACE | |
| # humeral head | Polysling | Virtual clinic |
| # greater tuberosity | Polysling | Virtual clinic |
| dislocated shoulder | Reduce, polysling, X-ray | Virtual clinic |
| AC joint subluxation / dislocation | Polysling | Virtual clinic |
| # clavicle - adults | Polysling | Virtual clinic |
| # clavicle - children | Polysling | Discharge / leaflet |

Distal Radius Fractures (MUS only needed in ED if neurovascular compromise / significant displacement)

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|--|-------------------------|---|
| Children - undisplaced/ minimally displaced greenstick #'s | Splint | Virtual clinic |
| Children - "torus/buckle" #'s | Splint | Discharge / leaflet |
| Children (< 16 yrs) with displaced #'s requiring manipulation | Analgesia / POP slab | Refer Ortho – RHC |
| Adult undisplaced /minimally displaced #'s | Splint | Virtual clinic No functional use: eg. Dementia, paralysis, spasticity - Discharge / leaflet Consider virtual clinic if clinical concerns |
| Displaced #'s Without features below | Splint / POP slab | Refer Ortho.(Trauma Co-ordinator) – Patient usually discharged home, presented at next day's 8.00 am trauma meeting and will be contacted by phone re admission (Leaflet) |
| high energy injury open # neurological deficit # off ended grossly unstable # of distal radius and ulna | POP slab | Admit |

Hand and Wrist Trauma (NB Acute Hand Admissions refer Plastics)

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| crush # terminal phalanx | Closed - ? Trephine Open - wound washout ± nail bed repair in ED Non adherent dressing/antibiotic if contaminated | STC 3-4 days then GP |
| mallet finger | Mallet splint | Discharge / leaflet |
| dislocated IP joints | reduce, buddy strap | Virtual clinic |
| undisplaced prox/middle phalangeal #s | buddy strap | Virtual clinic |
| displaced / rotated proximal/ middle phalangeal #s | | Refer hand surgeon on-call |
| # base / shaft 1 st metacarpal | Splint | Virtual clinic |
| # 5th metacarpal neck | Buddy strap | Discharge / leaflet |
| # metacarpal shaft/base – un- displaced/ minimally displaced | Splint | Discharge / leaflet |
| # metacarpal shaft/base - dis- placed | Splint | Refer Hand surgeon on-call |
| MCPJ dislocation | Attempt reduction | Reduced – Splint, VFC Unsuccessful – Refer Hand surgeon on-call |
| Acute Carpal / CMC joint dislocation / fracture dislocation | POP slab | Refer Ortho |
| Scaphoid # | Splint | Virtual clinic |
| ? Scaphoid # | Splint / MRI - protocol | Virtual clinic |