

Management of Chest and Upper Limb Injuries

Chest

| Condition | Management | Disposal |
|-----------|---|---|
| Sternum | Follow ATLS guidelines Sternal x-ray, ECG Assess for shortness of breath, haemoptosis, low saturation | Discharge if minimal symptoms, young, fit with normal observations and otherwise well |
| Ribs | CXR only if: Severe mechanism, shortness of breath, haemoptosis (or cough with sputum) or abnormal clinical/vital signs. Adequate analgesia and advice | Admit if significant mechanism, multiple rib fractures or need chest drain or has underlying chest problems (e.g COPD) See Chest Injuries Protocol |

Shoulder

| Condition | Management | Disposal |
|---------------------|---|--|
| Adult Clavicle | Clavicle X-ray. Check for critical skin. Broad arm sling and analgesia | Fracture clinic followup |
| Paediatric Clavicle | Usually significant mechanism Collar and cuff and analgesia | Virtual Fracture Clinic Advice leaflet |
| Scapula wing | Usually significant mechanism Collar and cuff and analgesia | Consider Orthopaedic referral |
| Glenoid Neck | Usually significant mechanism Collar and cuff and analgesia | Refer acutely to Orthopaedics |
| Dislocated shoulder | Immediate IV morphine before x-ray Check distal neurovascular MUA unless fracture/dislocation Then collar and cuff and analgesia | Fracture clinic follow up successful reductions Refer acutely to Orthopaedics if unsuccessful or fracture/dislocation |

| Condition | Management | Disposal |
|------------------------------------|--|-------------------------------|
| Rotator cuff injury | Collar and cuff Analgesia | Fracture clinic followup |
| Acromioclavicular joint disruption | Broad arm sling Analgesia | Fracture clinic followup |
| Neck of humerus | Ensure Humeral head in joint Collar and cuff Analgesia | Fracture clinic followup |
| Mid - Shaft of humerus | Collar and cuff Analgesia | Refer acutely to Orthopaedics |

Elbow

| Condition | Management | Disposal |
|---|---|--|
| Supracondylar fracture | Undisplaced: Collar and cuff Analgesia | Fracture clinic followup |
| | Displaced: IV morphine Check radial pulse/nerve function Back slab (in extension if needed) | Refer acutely to Orthopaedics |
| Undisplaced epicondyle fracture | Collar and cuff Analgesia | Fracture clinic followup Refer if displaced |
| Paediatric Positive fat pad sign with no visible fracture | Collar and cuff Analgesia | Fracture clinic followup |
| Adult Positive Fat pad sign with no visible fracture | Collar and cuff Analgesia | Virtual Fracture Clinic Advice leaflet |
| Dislocated elbow | IV morphine Check distal neurovascular X-ray then MUA Above elbow backslab | If reduced - Fracture Clinic If not - Refer acutely to Orthopaedics |

| Condition | Management | Disposal |
|---------------------------------|---------------------------------------|--|
| Undisplaced olecranon fractures | Back slab above elbow Analgesia | Fracture clinic followup |
| Displaced olecranon fractures | IV Analgesia Back slab above elbow | Refer acutely to Orthopaedics |
| Radial head fractures | Collar and cuff Analgesia | If undisplaced or minimal displaced - Virtual Clinic Advice Leaflet If displaced - Fracture clinic followup |

Wrist and Forearm

| Condition | Management | Disposal |
|--|--|----------------------------------|
| Radius/ulna shaft fractures | IV Analgesia Include x-rays of elbow and wrist Back slab above elbow | Refer acutely to Orthopaedics |
| Isolated Undisplaced Ulna Fracture | Above Elbow Backslab Analgesia | Fracture Clinic Follow up |
| Distal Radial Fractures | MUA only rarely needed in ED | |
| Paediatric Torus # (Buckle # with no cortical break) | Wrist Brace | Virtual Clinic Advice leaflet |
| Paediatric undisplaced or minimally displaced Green stick fracture (Buckle # with cortical break) | Wrist brace | Fracture Clinic Follow up |
| Paediatric displaced # requiring manipulation | Analgesia Below Elbow Backslap | Refer acutely to Orthopaedics |
| Adult undisplaced or minimally displaced # | Wrist brace or POP Backslab | Fracture Clinic Follow up |

| Condition | Management | Disposal |
|--|---|--|
| Adult Displaced #s with any of High Energy Injury Open # Off ended # Grossly Unstable # of Radius & Ulna | Analgesia Below Elbow Backslab | Refer acutely to Orthopaedics for ORIF |
| Adult Displaced #s with any Neurological or Vascular compromise | Analgesia | Consider ED Sedation for Orthopaedic reduction |
| Displaced # with none of above features | Analgesia Below Elbow Backslab | Refer acutely to Orthopaedics Likely discharged & contacted following next day's Trauma Meeting |
| Definite Scaphoid fracture | Scaphoid plaster | Fracture clinic followup |
| Suspected scaphoid fractures | Scaphoid plaster or Futuro splint with thumb extension | Fracture clinic followup |
| Lunate/peri-lunate dislocations | Analgesia | Refer acutely to Orthopaedics |

Hand and Digits

| Condition | Management | Disposal |
|---|--|--|
| Bennetts Fracture (Intra-articular base of 1st MC #) | Bennetts plaster | Refer acutely to Orthopaedics |
| Thumb metacarpal fractures (NOT Bennetts) | Bennetts plaster | Fracture clinic followup |
| Boxers fracture (5th MC #) | Accept up to 40 degrees angulation Check for rotation Neighbour strap / High arm sling Analgesia | If over 40 degrees or rotated - Fracture Clinic Followup If not Discharge to Virtual Clinic with advice leaflet |
| Isolated undisplaced Metacarpal fractures | Wool and crepe Analgesia | Fracture clinic followup |
| Displaced/complex or rotated metacarpal fractures | May need MUA (MC block) | Refer acutely to orthopaedics |

| Condition | Management | Disposal |
|---|--|---|
| Fight bites (tooth injuries over MCP joints) | Analgesia X-ray for FB Tetanus/Hep B booster, (consider PEP if appropriate) | Refer acutely to Orthopaedics for wash out and antibiotics |
| Hand incised wounds with any visible tendons or reduced sensation | Wash out Oral antibiotics Check tetanus status | Refer acutely to Orthopaedics if extensors Refer Plastics at Wythenshawe for flexors/ nerve injuries |
| Dislocated finger MCP/ IP joints | Reduce under MC or digital nerve block Neighbour strap | Hand therapy followup |
| Displaced or rotated # proximal or middle phalanges | Analgesia | Refer acutely to Orthopaedics |
| Undisplaced # proximal or middle phalanges | Neighbour strap Analgesia | Hand therapy followup |
| Small avulsion injuries to fingers and hand | Neighbour strap Analgesia | Hand therapy followup |
| Tuft fractures, closed | Analgesia Consider Trephining nail | No followup |
| Tuft fractures, open | Analgesia Antibiotics Dressings | Hand therapy followup |
| Mallet finger | Mallet splint | Hand therapy followup |