Guideline

Emergency management and discharge follow up for minor fractures

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Purpose

The purpose of this guideline is to create a guide for medical officers (MO) and nurse practitioners (NP) in relation to the management of simple fractures in paediatrics. Its aim is to guide MO and NP's to appropriate treatment and follow up arrangements with the aim of reducing unnecessary attendances at fracture clinic.

Scope

This guideline applies to medical officers and nurse practitioners who are directly involved in the assessment, investigation and management of paediatric fractures.

Guideline

Many fractures sustained by children are simple in nature and often require no follow up with a specialist orthopaedic team.

The following instructions are a management guide relating to common fractures sustained by children.

This table also includes the recommended ongoing management once discharged from the hospital.

If in doubt, or for any clarification, discussion with the emergency senior medical officer (ED SMO) or the orthopaedic team should occur.

Fractured Clavicle

Fracture Type	ED Management	Follow-up
Middle third (most common)	Broad arm sling to support limb for 4-6 weeks. Child needs to refrain from contact sports for 10 weeks due to risk of refracture If age *>12 years and significant overlapping then discussion with orthopaedic registrar* **Give parent Caring for a collarbone fracture** advice sheet: http://qheps.health.qld.gov.au/childrenshealth/docs/chifs/chifs-frac-collarbone.pdf	If <11 years and undisplaced, follow-up by a GP or fracture clinic is not usually required. Repeat x-rays are not usually required If displaced or ≥11 years General Practitioner (GP) follow up in 1 week
Lateral third	Broad arm sling to support limb for 4 weeks or until comfortable. If displaced, refer to the nearest orthopaedic service on call Give parent **Caring for a collarbone fracture** advice sheet.	Fracture clinic in 5-7 days with x-ray if fracture displaced
Medial third	If displaced, urgent referral to the nearest orthopaedic on call service	To be arranged by orthopaedic

Occult supracondylar fracture – Evidence of elevated fat pads with no obvious fracture

ALERT

It is critical to ensure that a condyle fracture is not present. An undisplaced condyle fracture requires immobilisation in above elbow cast and fracture clinic referral. If a condyle fracture is displaced then consultation with a paediatric orthopaedic registrar should occur.

Fracture type	ED management	Follow-up
Occult supracondylar fracture of elbow – (Lateral condyle fracture excluded). Raised anterior and posterior fat pad sign with no obvious fracture	If pain controlled with simple analgesia a collar and cuff should be applied with arm underneath child's clothing (easier when changing clothes) and with elbow flexed at 90-100 degrees for 3 weeks. No contact sports or rough activities for further 3 weeks after removal of collar and cuff. (6 weeks in total) Advise to give regular analgesia for first few days and then as required. Give parent **Caring for minor elbow fracture** advice sheet: http://qheps.health.qld.gov.au/childrenshealth/docs/chifs/chifs-frac-elbow.pdf	No follow up required unless continues to be sore at 3 weeks. No further x-rays required if no new injury and pain free at 3 weeks.

Radial head buckle fracture

Fracture type	ED management	Follow-up
Buckle fracture of radial neck	If pain controlled with simple analgesia a collar and cuff should be applied with arm underneath child's clothing (easier when changing clothes) and with elbow flexed at 90-100 degrees for 3 weeks. No contact sports or rough activities for further 3 weeks (6 in total) Advise to give regular analgesia for first few days and then as required. Give parent **Caring for minor elbow fracture** fact sheet: http://qheps.health.qld.gov.au/childrenshealth/docs/chifs/chifs-frac-elbow.pdf	No follow up required unless continues to be sore at 3 weeks. No further x-rays required if no new injury and pain free at 3 weeks.

Buckle fracture of distal radius +/- ulna

Fracture type	ED management	Follow-up
Buckle fracture of distal radius +/- ulna	For children greater than 3 years of age with <15 degrees angulation of fracture and if pain controlled with simple analgesia an appropriate sized buckle wrist splint should be applied. This should be worn at times, other than bathing/showering, for 4 weeks. Contact sports or rough activities should be avoided for a further 4 weeks (8 weeks in total). Children under 3 years of age will often require a plaster of paris backslab (will remove splint) and fracture clinic follow up. Advise to give regular analgesia for first few days and then as required. Give parent **Buckle fracture** fact sheet: https://qheps.health.qld.gov.au/__data/assets/pdf_file/0025/731761/buckle20fracture.pdf	No follow up required unless continues to be sore at 4 weeks. If still sore then should seek review with GP. No further x-rays required if no new injury and pain free at 4 weeks.

Fingers and toes

Injury type	ED management	Follow-up
Metatarsal fractures	If undisplaced and already weight bearing then can often be treated in a firm fitting pair of shoes. Minimally displaced or angulated – If comfort allows then can be weight bearing in moonboot or walking cast depending on availability. Give parent **Foot fracture** advice sheet: http://qheps.health.qld.gov.au/childrenshealth/docs/chifs/chifs-	No follow up required. GP Follow up

	frac-foot.pdf No contact sports or rough activities for 4-6 weeks. Metatarsal fractures with significant displacement, >than 50%, should be discussed with the orthopaedic registrar on call.	
Undisplaced NON-intrarticular fractures to fingers or toes	Buddy strapping to affected digit, splinted against unaffected digit for 3 weeks, ensuring IP joints are free to move as tolerated. No contact sports / rough activities for a further 4 weeks (7 in total) Give parent **Minor finger or Toe fracture** advice sheet: http://qheps.health.qld.gov.au/childrenshealth/docs/chifs/chifs-frac-finger-toe.pdf	No follow up required unless continues to be sore at 3 weeks. No further x-rays required if no new injury and pain free at 3 weeks.
Sprains to fingers or toes	Buddy strapping to affected digit, splinted against unaffected digit for 7 days or until pain subsides. Ensure IP joints are free to move. Advice regular analgesia for first few days then as required	Follow up with OPSC if any required. No fracture clinic input required. No further x-rays required.

Sprains/Strains and non-fractures which remain painful

Injury type	ED management	Follow-up
Sprained ankle ligaments	With no evidence of fracture on x-ray but remains sore after analgesia these patients should be treated as a sprain. Double tubigrip or wear firm fitting shoes with support at ankles. Non weight bearing initially and then, with analgesia, gently mobilisation. Often do not need immobilisation in backslab or moonboot. Advice regular analgesia for first few days then as required. Give parent **Caring for lateral ankle sprain** advice sheet: http://qheps.health.qld.gov.au/childrenshealth/docs/chifs/chifs-ankle-sprain.pdf	Follow up with STIC (soft tissue injury clinic). No fracture clinic follow up required. No further x-rays required if no new injury and pain free at 3 weeks.
Patella Dislocations	Relocate patella and post reduction x-ray to confirm enlocation and ensure no fractures present. Straight leg removable splint to be worn at all times if there is a fracture. Straight leg removable splint does not need to be worn all times if a fracture is not present. Advice regular analgesia for first few days then as required	Follow up with STIC (Soft tissue injury clinic) if first time patella dislocation and no fractures found. A fracture seen on x-ray - refer to fracture clinic Recurrent dislocations should be referred to fracture clinic No fracture seen on x-ray refer to OPSC No further x-rays required.
Shoulder dislocations	Relocation of shoulder and post reduction x-rays to confirm	Follow up with STIC if first

	enlocation and ensure no fractures present. Shoulder immobiliser under clothing. Advice regular analgesia for first few days then as required	time shoulder dislocation and no fractures found and no neuropraxias. No fracture clinic follow up required, unless recurrent dislocations.

Consultation

Key stakeholders who reviewed this version:

- Medical Director of Orthopaedics, LCCH
- Director of Emergency, LCCH
- Deputy Director Emergency, LCCH

Definition of terms

Term	Definition	Source
OPSC	Orthopaedic Physiotherapy Screening Clinic	This is a service offered by the physiotherapy department working closely alongside the orthopaedic medical teams. All referrals are screened and triaged and this service helps to alleviate some of the workload on fracture clinic.

Guideline revision and approval history

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1.0	Mark Moore, NP Emergency & Therese Oates, Nurse Manager Clinical Redesign	Dr David Bade, Director Orthopaedics, Dr Ross Walker, Divisional Director, Surgery	Dr Andrew Hallahan, Executive Director Medical Services

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