Virtual Fracture Pathway

Galway University Hospital & Saolta Group

Trauma & Orthopaedic Dept

ED/ VFC Treatment Guidelines

Principles of VFC

Use splints and boots were possible (as opposed to casts).
Good documentation and legible writing essential.
Always attempt a provisional diagnosis/ differential diagnosis.
Not a substitute for senior opinion. Please ask if unsure

Shoulder

All shoulder injuries require shoulder **'Trauma series'** radiographs.
This includes three views: True **AP in internal rotation**, true **AP in external rotation** and **axillary lateral**

Injury Region/Classification		ED Assessment & Treatment	ED Outcome	VFC Outcome
Clavicle				
Lateral	Un-displaced	Sling for 4/52 Commence Elbow, Wrist, Hand ROM & Scapular setting	Refer VFC	Consider D/C
	Displaced	Immobilise in Sling	Refer VFC	Next shoulder clinic (**Mr Kaar / Mr Galbraith / Mr Shannon alt weeks)**
Mid-shaft	Un-displaced	Sling for 4/52 Commence Elbow, Wrist, Hand ROM and scapular setting	Refer VFC	Consider D/C
	Displaced	Immobilise in Sling	Refer VFC	Next shoulder clinic (**Mr Kaar / Mr Galbraith / Mr Shannon alt weeks)** XOA
Proximal Humerus				
Greater Tuberosity	(Un-displaced)	Immobilise in Sling x3 weeks	Refer VFC	Generic fracture clinic XOA
	(Displaced>5mm)	Immobilise in Sling	Refer VFC	Next shoulder clinic (**Mr Kaar / Mr Galbraith / Mr Shannon alt weeks)** XOA
Grossly displaced – suspected surgical management		Refer on call Ortho	**Refer on call Ortho**	
Minimally displaced		Immobilise in Sling	Refer VFC	Generic fracture clinic XOA
Fracture Dislocation (still dislocated)		Refer on call Ortho	**Refer on call Ortho**	
Very elderly Low functional demand Dementia		Immobilise in Sling	Refer VFC	Treatment in sling for 4/52 Mobilise with pendular and active assisted exercise sheet at 4/52 Review Generic Clinic as appropriate

Shoulder			
1st Time Dislocation	Post reduction imaging- Shoulder Trauma Series Immobilise in Sling	Refer VFC	Option for them to refer to Mr Shannon, Mr Galbraith or Mr Kaar if concerns for significant RC Injury or other concerns
Recurrent Dislocation (Younger Patients)	Post reduction X-Ray- Shoulder Trauma Series (Axillary Lateral) Immobilise in Sling	Refer VFC	Option for them to refer to Mr Shannon, Mr Galbraith or Mr Kaar if recurrent. Request imaging (MRI Arthrogram Shoulder) if referring onwards
ACJ Subluxation/Dislocation			
Grade 1-2	Immobilise in Sling	Refer VFC	Discharge, as long as no indication of rotator cuff tear from referral Mobilise as able out of sling Pendular & active assisted exercises commence immediately
Grade 3+	Immobilise in Sling	Refer VFC	Next shoulder clinic (**Mr Kaar / Mr Galbraith / Mr Shannon alt weeks)** XOA

Elbow

Injury Region/Classification		ED Assessment & Treatment	ED Outcome	VFC Outcome
Humeral shaft #	Radial Nerve Deficit	Examine & document radial nerve function. Humeral brace (U-slab if no brace) and **re-x-ray**	**Ortho On-call**	
	Radial Nerve Intact	Examine & document radial nerve function. Humeral brace (U-slab if no brace) and **re-x-ray**	Refer VFC	If position acceptable and radial nerve intact - Generic Clinic 2 week, adjust brace and x-ray
Dislocated Elbow		Reduce ED + wool/crepe / sling	Refer VFC	Generic fracture clinic at 2 weeks Assess for stability, need for surgery and /or Physio
Head/neck of radius #	Un-displaced/ min displaced	Wool and crepe /sling	Refer VFC	Consider D/C **or** generic clinic
	Widely Displaced – suspected surgical management	Wool and crepe /sling	**Ortho On Call to review** Arrange CT If operation required contact Mr Galbraith's team	
# Olecranon	Un-displaced	Wool and crepe /sling	Refer VFC	Next generic fracture clinic
	Displaced	Wool and crepe /sling	**Ortho On Call** Admit for ORIF	

Hand

Injury Region/Classification		ED Ass & Treatment	ED Outcome	VFC Outcome
Wrist				
Distal Radius	Un-displaced	**Document Scaphoid Palpation** Futura Splint where possible	Refer VFC	Consider D/C if managing well in-splint If required consider Soft Cast/Cast +/- Generic Fracture Clinic 3/52
	Satisfactory Position- Potentially Unstable	**Document Scaphoid Palpation** Futura Splint where possible	Refer VFC	Splint/Cast (Patient Preference) Generic Clinic 1-2 weeks with XOA
	Obvious Deformity	Immobilise in Back-slab	**Ortho On Call**	
	Complex Fracture	Consider CT	**Ortho On Call** +/- Discussion Hand Surgeon	
Scaphoid	Fracture	Scaphoid POP/splint	Refer to VFC	Scaphoid POP x 6/52 If fixation required book to next Mr Galbraith Clinic
	Clinical Scaphoid	Wrist splint	ED clinic 10-14 days If still symptomatic and x-ray inconclusive- Refer CT CT Clear: D/C CT positive: next available Refer VFC	Generic fracture clinic
Arthritic flare/soft tissues injury (no #)		Injury in Presence of Arthritic Changes	2/52 wrist splint D/C to GP	
Metacarpals				
# 5th metacarpal neck Other Stable MC neck#		**NB** Evaluate Rotational Deformity Buddy strap & tubigrip bandage to help with swelling	**If Rotational deficit:** Refer VFC **If no rotational deficit: D/C** with advice / leaflet	**If Rotational deficit:** Next generic clinic for assessment
# 5th metacarpal base		Volar or dorsal slab **wrist splint** as required	**ADMIT** if displaced – **CT if doubt** otherwise **D/C** with advice/ leaflet	

Thumb				
1st MCPJ dislocation / UCL injury		Reduce and apply thumb Spica splint Document UCL Stability	**Ortho On Call** to review If operation required contact Mr Galbraith's team	UCL stability uncertain – next generic clinic UCL unstable – Next hand clinic
1st Metacarpal- # Base		POP slab w/ thumb	Refer to VFC	**Generic Clinic** 3-4/52 POP
Bennett's articular #		POP slab w/ thumb	**Ortho On Call** **ADMIT** refer for fixation	
Finger				
Open Fingertip injuries		Refer plastic	Discharged**(D/C)** **D/C** ROS by GP **Admit** on call hand team	
Tuft Fractures (Closed)		**Must** document if nail bed injury Consider mallet splint/ zimmer splint	Refer VFC	Mallet Splint for comfort. Early ROM
Volar Plate injuries		Document flexor tendon function	Large fragment/ significant intraarticular extension **On Call Ortho**	
			Smaller avulsion- Neighbour strapping. Refer Hand OT/Physio as available	Neighbour strapping/Splint as appropriate Refer Physio/ OT and advise on ROM
Mallet finger		Well-fitting mallet splint or Zimmer Alu Foam Splint in extension If Extensor tendon rupture: 8/52 all day + 2/52 Night time If Avulsion fracture: 6/52	Refer Hand OT & provide advice leaflet	Refer Hand OT & provide advice leaflet
Hand Infections		**Refer plastics**	**Refer plastics**	
Prox Phalynx Middle Phalynx Metacarpal #s	Un-displaced stable	Buddy strap 1-2/52	Refer VFC	D/C with advice / leaflet
	Displaced/Unstable		**Ortho On Call** to review x-ray	
Dislocated IP joint		Reduce, apply buddy strap	Refer to VFC	Generic fracture clinic to Check stability and ensure FROM. Discharge with advice and leaflet

Knee

Region		ED Assessment & Treatment	ED Outcome	VFC Outcome
Knee Dislocation			**Ortho on call** (reduce & splint, document NV status, vascular consult & CT angio)	
Fracture			**Ortho on call**	
Rupture extensor mechanism			**Ortho on call**	
No trauma / OA			Discharge **with** referral to GP	
Trauma **but** no fracture on X-Ray (? Ligamentous injury)		Must document stability and extensor mechanism intact Suspect ligamentous instability- Consider brace	Definite minor sprain without instability– ED review clinic (or ED physio) 7-14 days. VFC	Review x-ray. Review generic clinic 1week
Patellar Dislocation	No bony deficit	Knee splint (preferably hinged knee brace)	Refer to VFC	Look for OC defect on plain radiograph Refer Physiotherapy Management as per physiotherapy protocol (Extension brace for 3 weeks)
	Bony Defect	Knee splint (preferably hinged knee brace)	Refer to VFC	Arrange CT and book urgent MRI Book to Mr Shannon's next clinic
Recurrent Patellar Dislocation (without bony defect)		Knee splint (preferably hinged knee brace)	Refer to VFC	Physiotherapy referral For specialist review dictate letter to Mr Shannon Book CT Knee with TT/TG measurements
Patellar Fracture			**Ortho on-Call**	
Locked Knee		X-ray Knee	**Ortho on Call**	
<18 yrs: Fracture			**Ortho on Call**	
<18 yrs: Trauma, but no evidence of fracture			Document intact extensor mechanism Refer to VFC	Review x-ray. Review generic clinic 1week
<18 yrs: Knee pain/ swelling / limp			GUH – Follow GUH ED pathway. Other EDs – Sepsis workup by ED**.** If positive **refer ortho & paeds.** If negative refer GP. **Consider SCFE**	

Foot and Ankle

Injury Region/Classification		ED Assessment & Treatment	ED Outcome	VFC Outcome
Fibula # (Proximal to syndesmosis)		Documentation must include – Ankle Examination Swelling/tenderness/ Bruising Weight bearing Ankle to evaluate for Masionneuve injury	Suspected syndesmosis injury- **Ortho on Call** Normal WB ankle Xray- refer VFC	 Boot WBAT
Ankle				
Soft tissue ankle injury (Ankle Sprain)		RICE advice Brace or boot only if significant symptoms Early FWB mobilisation	Refer to physiotherapy for rehab. Contact VFC helpline for review if persistent symptoms beyond 3 months	
Isolated tip of Fibula or medial malleolus avulsion #s		Treat as ankle sprain RICE advice Brace or boot as pain dictates Early FWB mobilisation	Discharge to GP. Refer to physiotherapy for rehab. Contact helpline for review if persistent symptoms beyond 3 months	
Isolated Weber A distal fibula #s		Treat as ankle sprain RICE advice Brace or boot as pain dictates Early FWB mobilisation	Discharge to GP. Refer to physiotherapy for rehab. Contact VFC helpline for review if persistent symptoms beyond 3 months	
Isolated Weber B fibula #		Boot or back-slab, analgesia, WB as comfort allows **Documentation must include –** Medial swelling Medial tenderness Medial bruising	See Below for plan	See Below for plan
	Is there Talar Shift on Xray??	Yes	**Ortho on Call** Admit for ORIF	
		Equivocal/unclear	Refer to VFC	Review at # clinic 1 week to 10 days Weight bearing ankle Xray Check for medial swelling, bruising or tenderness FWB in boot for 6wks. Advice and discharge with physiotherapy

				referral
		No	Refer to VFC	FWB in boot for 6wks. Consider advice and discharge with physiotherapy referral
Isolated Weber C fibula #		Unstable	**Ortho on Call** Admit for ORIF	
Bimalleolar/ Trimalleolar #		Unstable	**Ortho on Call** Admit for ORIF	
Achilles Tendon Injuries		Treat with an equinus back-slab NWB.	Refer to VFC	Review at generic clinic
Foot				
Small avulsions **without** disruption of tarsal alignment		Treat as sprain-tubigrip or boot, analgesia, FWB as comfort allows **If** unsure	Discharge with advice Refer to VFC	 If unsure-Review at # clinic
Tarsal or cuneiform #		Boot, analgesia, WBAT	Refer to VFC	Review at **1st** Foot &Ankle #clinic
Lisfranc Injury		Boot or back-slab, NWB and analgesia	**Ortho on-call** CT	
Intra-articular basal #s Suspected Lisfranc injury		Boot, analgesia, WBAT	Refer to VFC	Review at **1st** Foot &Ankle #clinic
Metatarsal neck and shaft #s		*Minimally Displaced* Treat with Velcro boot FWB	Discharge with advice	Discharge with advice
		Displaced/ multiple Velcro boot, analgesia	Refer to VFC	Review at **1st** Foot &Ankle #clinic
Isolated 5th metatarsal #s		Treat with Velcro boot FWB	Discharge with advice and leaflet	Discharge with advice and leaflet
Calcaneal #s		NWB	**Ortho on call** Admit for CT	