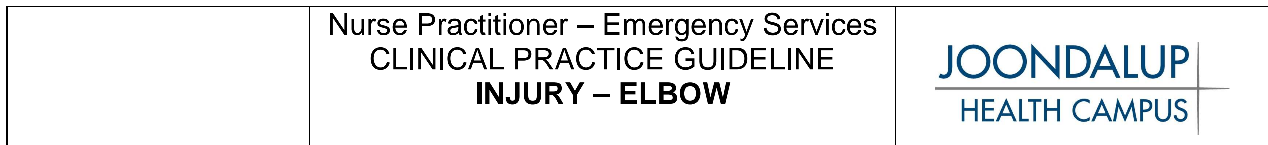

Nurse Practitioner – Emergency Services
CLINICAL PRACTICE GUIDELINE
INJURY – ELBOW

Scope		Outcomes
Nurse Practitioner	• Isolated single elbow injury +/- pain, swelling or deformity	Identify patients suitable for NP (Emergency) CPG
Medical Practitioner ± Nurse Practitioner	• Compound # / obvious fracture dislocation/ dislocation • Neurovascular compromise • Multiple injuries • Altered conscious state including effects of drugs / alcohol • History consistent with collapse	Identify patients not suitable for NP (Emergency) CPG and redirect NP Mx to usual ED care with NP (Emergency) part of the ED team.
Initial Assessment and Interventions		**Outcomes**
History	• Mechanism of injuries sustained • Time of injury • Treatment given pre hospital • Range of movement • Deformity • Past medical history / medications • Allergies / immunisations • Last food / fluids	Exclusion criteria identified → exit CPG. Immediate referral to EP.
Focused Clinical Assessment	• Elbow Assessment • Examine wrist, scaphoid and shoulder	Determine need for wrist/scaphoid/shoulder x-ray.
Neurovascular Assessment	• Colour • Warmth • Movement • Sensation • Capillary refill • Peripheral pulses	Neurovascular compromise → exit CPG. Referral to EP.
Pain Assessment	• Pain Scale	Determine need for and type of analgesia
Working Diagnosis and Investigations		**Outcomes**
Imaging	• Imaging may not be required if - Trivial injury - Patient has full range of motion - No bony tenderness • X-ray of wrist and shoulder if indicated in decreased range of motion and/or bony tenderness • Any difficulties in interpreting radiographs, consult EP who may consider the need to have films taken of the other side.	Identify specific injury and determine management. Direct comparison to determine fracture.
Pathology	• Not routinely indicated but consider; • Pre operative investigations may include FBP, U&E, Group and Hold and INR as discussed with admitting medical officer	

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Interpretation of results (Diagnostic Features) and management decisions | **Outcomes**

PAEDIATRIC CAVEATS

All patients under the age of 15 presenting with injury to elbow with localised pain, **require x-ray whether bony tenderness is present or not**. Fracture may be present without bony tenderness.

Growth Plate tenderness
If no fracture/dislocation seen but open growth plate on x-ray and tenderness over growth plate, manage as fracture with immobilisation and follow up at GP or trauma clinic in 10 days for clinical reassessment ± further immobilisation.

Interpretation of results (Diagnostic Features)	Management decisions	Outcomes
No fracture seen, no tenderness and full function	NP (Emergency) review with view to discharge • Patient education / health promotion • follow-up appointment with GP if required	Patient discharged safely with appropriate GP review
No fracture seen but suspect fracture/ ligamentous injury	NP (Emergency) review with view to discharge • broad arm sling [1] • follow-up appointment with Fracture Clinic 7-10 days [1] • GP review prn • patient education / health promotion	Patient discharged safely with follow up in Trauma Clinic
Undisplaced, non comminuted, Not intra-articular Fracture	NP (Emergency) review with view to discharge • Broad Arm Sling [1, 2] • follow-up appointment with Fracture Clinic 7 – 10 days • Continuing analgesia for the patient to take following discharge from the ED until required or review • Patient education/health promotion	Patient discharged safely with follow up in Trauma Clinic
Fracture or dislocation identified- Comminuted / Angulated / Intra-articular / Displaced	NP (Emergency) review with view to refer to Orthopaedic Unit [2] • Maintain Rest Ice Elevation • Review and maintain analgesia • Maintain Nil by Mouth • Consider application POP backslab • Patient education / health promotion • IV fluids if appropriate – see medications • Monitor neurovascular status	Assessment by Orthopaedic Registrar
Pulled Elbow - History of axial traction as mechanism of injury - holding forearm pronated and extended elbow **History of fall as mechanism of injury**	NP (Emergency) review with view to discharge. • Consider manipulation • X- ray **BEFORE** manipulation to exclude supracondylar # or joint effusion	Patient discharged safely with appropriate GP review

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Associated Care	• Consider ECG/CXR for patients who require surgical intervention • Consider IV fluids for patients who require fasting for surgical intervention	
Acute Referral	Referral to • +/- physiotherapy • +/- interpreter • +/- Allied health etc	
Patient Discharge Education		**Outcomes**
When to return to ED	• Verbal instructions from NP (Emergency) • ED written patient information	Patient understands problem, treatment, and follow-up and is safe for discharge.
Follow up appointments	• Verbal instructions from NP (Emergency) • Written instructions for ED review (if applicable) • Trauma Clinic appointment	
Medication Instructions	• Verbal instructions from ED NP • Written information as per the Hospital Pharmacy on medications dispensed if available	
POP care	• Verbal instructions from NP (Emergency) • ED written patient information	
Safety	• Appropriate assessment of ability to perform ADL's • Patients > 60 yrs of age, consider referrals	
Discharge Referrals	• Referrals may be made for specific patient problems or as required to - social work - physiotherapy - drug and alcohol counsellor - aboriginal liaison officer	
Certificates	• Absence from work certificates • WC certificate	
Medications		**Outcomes**
All medications will be stored, labelled and dispensed in accordance with hospital policy and relevant		

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legislation [5]		
Simple analgesia [6] **S2** **Mild pain**	**Paracetamol 500mg**: 1 or 2 tablets 4-6/24, not to exceed 8 tablets in 24 hrs. **Children:** 15 mg/kg 4 hourly up to 4 times a day. Not to exceed 4 doses in 24 hours **Painstop Day:** 0.6 – 0.8 mls/kg (6)	Patients given analgesia appropriate to allergies, current medications and past medical history. Analgesia requirements determined by ongoing assessment of pain and adequate analgesia provided.
S4 [8] **Moderate**	**ADD to paracetamol if still in pain** **Naproxen** 500 mg initially then 250 mg 6 – 8 hourly OR Instead of Paracetamol, **Panadeine Forte:** 1 -2 tablets 4–6/24, not to exceed 8 tablets in 24 hrs. **Children;** **Ibuprofen:** 10 mg/kg 3-4 times daily to maximum of 600 mg in 24 hours (7) **If NSAIDS contraindicated,** **Tramadol** **Adults and Children > 12 years** **Contraindicated in epilepsy, SSRI use** **Caution in the Elderly – Maximum 300 mg daily** Oral: 50-100mg QID, maximum 400mg over 24 hours OR Intravenous: 50-100mg QID, maximum 600mg over 24 hours	Patients with excessive pain or pain unrelieved by analgesia need review by EP
Narcotic Analgesia [8] **S8** **Severe** **Reassess**	**ADD to paracetamol + NSAID if still in pain** Currently NPs require Medical Prescription for Schedule 8 medication **Oxycodone: Adults only;** Oral: 5mg every 4 hours OR **Morphine** **Adults;** Intramuscular/intravenous: 2.5mg then incremental doses to a maximum total dose of 10mg (given over period of 30 minutes) **Children;** IM **–** 0.2 mg/kg IV: 0.1- 0.2 mg/kg/dose given in titrated doses: **IF PAIN NOT CONTROLLED WITH ALL 3 AGENTS, REFER TO ED CONSULTANT**	
Anti-emetic [8] S4	**Metaclopramide hydrochloride:** Oral/IM/IV:10-20mg 8/24 **Prochlorperazine:** Oral 5-10mg 8-12/24, initial 20mg po if acute IM deep 12.5 mg 8/24	

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Intravenous Fluids	**0.9% Sodium Chloride Intravenous Solution:** IV: 5-10mls 0.9% Sodium Chloride flush 6/24 and prn post cannulation. IV Infusion: 0.9% Sodium Chloride 1000ml 6-12/24 titrated to patient requirements	
Evaluative Strategies		
Missed problem	Emergency Department x-ray review	
Unexpected representation	Emergency Department attendance register and NP (Emergency)clinical log	

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Authorship and Endorsement

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Key to Terms

CPG- Clinical Practice Guideline
DVA- Department of Veteran Affairs
EP- Emergency Physician
PS- Pain Score
S1-S4- Schedule of the drug administration act
LMO- Local Medical Officer
MVIT – Motor Vehicle Insurance Trust
NP (Emergency)- Nurse Practitioner – Emergency Services
OP- Outpatients
WC- Work cover

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