

Scope		Outcomes
<b>Nurse Practitioner</b>	<ul style="list-style-type: none"> <li>Isolated single elbow injury</li> </ul>	Identify patients suitable for NP (Emergency) CPG
<b>Medical Practitioner ± Nurse Practitioner</b>	<ul style="list-style-type: none"> <li>Compound # / obvious fracture or dislocation</li> <li>Neurovascular compromise</li> <li>Altered conscious state including effects of drugs / alcohol</li> <li>History consistent with collapse</li> </ul>	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
<b>History</b>	<ul style="list-style-type: none"> <li>Mechanism of injuries sustained</li> <li>Time of injury</li> <li>Treatment given pre hospital</li> <li>Range of movement</li> <li>Deformity</li> <li>Past medical history / medications</li> <li>Allergies / immunisations</li> <li>Last food / fluids</li> </ul>	Exclusion criteria identified → exit CPG. Immediate referral to EP.
<b>Focused Clinical Assessment</b>	<ul style="list-style-type: none"> <li>Elbow Assessment</li> <li>Examine wrist, scaphoid and shoulder</li> </ul>	Determine need for wrist/scaphoid/shoulder xray.
<b>Neurovascular Assessment</b>	<ul style="list-style-type: none"> <li>Colour</li> <li>Warmth</li> <li>Movement</li> <li>Sensation</li> <li>Capillary refill</li> <li>Peripheral pulses</li> </ul>	Neurovascular compromise → exit CPG. Referral to EP.
<b>Pain Assessment</b>	<ul style="list-style-type: none"> <li>Pain Scale</li> </ul>	Determine need for and type of analgesia
<b>Analgesia</b>	<ul style="list-style-type: none"> <li>Rest</li> <li>Ice / immobilisation</li> <li>Compression</li> <li>Elevation</li> <li>Administration of analgesia - see medications</li> </ul>	Reduction / relief of pain Minimise / prevent swelling
Working Diagnosis and Investigations		Outcomes
<b>Imaging</b>	<ul style="list-style-type: none"> <li>Imaging may not be required if               <ul style="list-style-type: none"> <li>Trivial injury</li> <li>Patient has full range of motion</li> <li>No bony tenderness</li> </ul> </li> <li>X-ray of wrist and shoulder if indicated by decreased range of motion and/or bony tenderness</li> <li>Any difficulties in interpreting radiographs consult EP. May consider having films taken of the other side.</li> </ul>	Identify specific injury and determine management. Direct comparison to determine fracture.

<b>Pathology</b>	Not routinely indicated but consider; <ul style="list-style-type: none"> <li>Pre operative investigations may include FBP, U&amp;E, Group and Hold and INR as discussed with admitting medical officer.</li> </ul>	
<b>Interpretation of results (Diagnostic Features) and management decisions</b>		<b>Outcomes</b>
<p><b>PAEDIATRIC CAVEATS</b></p> <p>All patients under the age of 15 presenting with injury to elbow with localised pain, <b>require x-ray whether bony tenderness is present or not.</b> Fracture may be present without bony tenderness.</p> <p><b>Growth Plate tenderness</b> 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.</p>		
<b>No fracture seen but suspected fracture/ligamentous injury</b>	NP (Emergency) review with view to discharge <ul style="list-style-type: none"> <li>Broad arm sling <sup>[1]</sup></li> <li>Follow-up appointment with Fracture Clinic 1/52</li> <li>Analgesia as required</li> <li>GP review as advised</li> <li>Patient education / health promotion</li> </ul>	Patient discharged safely with follow up in Trauma Clinic
<b>Fracture or dislocation identified</b>	NP (Emergency) referral to EP / Orthopaedic review with view to refer to Orthopaedic Unit <sup>[2]</sup> <ul style="list-style-type: none"> <li>Consider application POP backslab</li> <li>Broad Arm Sling <sup>[1, 2]</sup></li> <li>Analgesia as appropriate</li> <li>If admission advised, commence pre-operative preparation</li> <li>Monitor for complications</li> <li>Maintain Rest Ice Elevation</li> <li>Maintain Nil by Mouth</li> <li>Patient education / health promotion</li> <li>IV fluids if appropriate – see medications</li> <li>Follow-up appointment with Fracture Clinic 1/52</li> </ul>	Assessment by Orthopaedic Registrar
<b>Pulled Elbow</b> (History of axial traction forearm pronated and elbow extended)	<ul style="list-style-type: none"> <li>X-ray before manipulation, if history of fall or unclear mechanism to exclude supracondylar fracture</li> <li>If clear history of axial traction, consider manipulation</li> </ul>	Patient discharged home as appropriate.

<b>Associated Care</b>	<ul style="list-style-type: none"> <li>Consider pre –operative preparation for patients who require surgical intervention as discussed with admitting team, which may include             <ul style="list-style-type: none"> <li>- ECG</li> <li>- Chest x-ray</li> <li>- FBP, U&amp;Es, G&amp;H, INR</li> </ul> </li> <li>Consider IV fluids for patients who require fasting for surgical intervention</li> <li>IV fluids for patients who require fasting for surgical intervention</li> </ul>	
<b>Acute Referral</b>	Referral to <ul style="list-style-type: none"> <li>+/- interpreter</li> <li>+/- Allied health etc</li> </ul>	
<b>Patient Discharge Education</b>		<b>Outcomes</b>
<b>When to return to ED</b>	<ul style="list-style-type: none"> <li>Verbal instructions from NP (Emergency)</li> <li>ED written patient information</li> </ul>	Patient understands problem, treatment, and follow-up and is safe for discharge.
<b>Follow up appointments</b>	<ul style="list-style-type: none"> <li>Verbal instructions from NP (Emergency)</li> <li>Written instructions for ED review (if applicable)</li> <li>Trauma Clinic appointment</li> </ul>	
<b>Medication Instructions</b>	<ul style="list-style-type: none"> <li>Verbal instructions from ED NP</li> <li>Written information as per the Hospital Pharmacy on medications dispensed if available</li> </ul>	
<b>POP care</b>	<ul style="list-style-type: none"> <li>Verbal instructions from NP (Emergency)</li> <li>Plaster check 24 – 48 hours by GP if appropriate</li> <li>ED written patient information</li> </ul>	
<b>Safety</b>	<ul style="list-style-type: none"> <li>Appropriate assessment of ability to perform ADL's</li> <li>Patients &gt; 60 yrs of age, consider referrals</li> </ul>	
<b>Discharge Referrals</b>	<ul style="list-style-type: none"> <li>Referrals may be made for specific patient problems or as required to             <ul style="list-style-type: none"> <li>- social work</li> <li>- physiotherapy</li> <li>- drug and alcohol counsellor</li> <li>- aboriginal liaison officer</li> </ul> </li> </ul>	
<b>Certificates</b>	<ul style="list-style-type: none"> <li>Absence from work certificates</li> <li>WC certificate</li> </ul>	

Medications		Outcomes
All medications will be stored, labelled and dispensed in accordance with hospital policy and relevant legislation [5]		
<b>Analgesia</b>	See separate Analgesia Clinical Protocol	<p>Patients given analgesia appropriate to allergies, current medications and past medical history.</p> <p>Analgesia requirements determined by ongoing assessment of pain and adequate analgesia Provided.</p>
<b>Intravenous Fluids</b>	<b>0.9% Sodium Chloride Intravenous Solution:</b> 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		
<b>Missed problem</b>	Emergency Department x-ray review	
<b>Unexpected representation</b>	Emergency Department attendance register and NP (Emergency)clinical log	
References		
<ol style="list-style-type: none"> <li>1. Corbay, D. and D. Rotenberg. <i>Fractures, Elbow</i>. 2004 15/02/2006 [cited; Available from: <a href="http://www.emedicine.com/emerg/topic191.htm">www.emedicine.com/emerg/topic191.htm</a>.</li> <li>2. <i>Elbow (acute &amp; chronic)</i>. [National Guidelines Clearinghouse] c 2006 2005 [cited 2006 Feb 17]; Available from: <a href="http://www.guidelines.gov">http://www.guidelines.gov</a>.</li> <li>3. McRae, R. and M. Esser, <i>Practical Fracture Treatment. 4th Ed.</i> 2002, Sydney: Churchill Livingstone.</li> <li>4. Foye, P. <i>Olecranon Bursitis</i>. [eMedicine] c2005 2005 Oct 13 [cited 2006 Feb 15]; Available from: <a href="http://www.emedicine.com/pmr/topic91.htm">http://www.emedicine.com/pmr/topic91.htm</a>.</li> <li>5. <i>JHC Hospital Medication Storage and Administration Policy</i>. Available via Hospital Intranet</li> <li>6. <i>eMIMS</i>. [eMIMS] [cited 2006 Mar 16]; Available from: <a href="http://www.use.hcn.com.au/html/wah/godirect.html">http://www.use.hcn.com.au/html/wah/godirect.html</a>.</li> </ol>		
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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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