

	<b>Nurse practitioner - Emergency Services CLINICAL PRACTICE GUIDELINE Upper Respiratory Tract Infection</b>	<b>JOONDALUP</b> HEALTH CAMPUS
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<b>Scope</b>		<b>Outcomes</b>
<b>Nurse Practitioner</b>	Acute nasal, sinus, ears, pharyngeal and upper airway symptoms in adult and children > 6 months of age.	Identify patients suitable for NP (Emergency) CPG
<b>Medical Practitioner +/- Nurse Practitioner</b>	<ul style="list-style-type: none"> <li>• Underlying medical pathology / complex /immunocompromised patient</li> <li>• Altered conscious state including effects of drugs/ ETOH</li> <li>• History consistent with collapse</li> <li>• Non blanching petechial rash or toxic clinical picture</li> <li>• Severe respiratory distress</li> <li>• Recent travel in High Risk Area (SARS/Avian Flu)</li> </ul>	Identify patients not suitable for NP (Emergency) CPG and redirect to usual ED care +/- NP (Emergency) in team.
<b>Initial Assessment and Interventions</b>		<b>Outcomes</b>
<b>Primary survey assessment</b>	<ul style="list-style-type: none"> <li>• Airway</li> <li>• Breathing</li> <li>• Circulation</li> <li>• Disability</li> <li>• Environment</li> </ul>	Abnormal primary survey identified → exit CPG and notify EP immediately.
<b>History</b>	<ul style="list-style-type: none"> <li>• Time of onset of symptoms</li> <li>• Nature of symptoms- Cough Productive/ non productive, fever, nasal discharge</li> <li>• Ability to function/perform ADL's</li> <li>• Risk factors</li> <li>• Allergies / Immunisation status</li> <li>• Relevant past medical history / medication use particularly asthma, CAL</li> <li>• Prehospital care including GP care, complimentary therapies and pharmacological agents</li> <li>• Travel History</li> <li>• Other family members affected/ contacts</li> </ul>	Identify patients not suitable for NP (Emergency) CPG → exit CPG and refer to EP
<b>Focused clinical assessment</b>	<ul style="list-style-type: none"> <li>• General appearance and vital signs – respiratory distress, toxicity</li> <li>• Airway examination – tonsillar exudate, redness oedema, stridor or drooling</li> <li>• Palpate sinuses – tenderness, oedema, bogginess</li> <li>• Palpate for lymphadenopathy, splenomegaly, hepatomegaly</li> <li>• Assess for signs of meningitis, haemorrhagic spots</li> <li>• Ear examination</li> <li>• Chest auscultation</li> </ul>	Determine problem identify patients for alternative CPG
<b>Pain assessment</b>	<ul style="list-style-type: none"> <li>• Pain scale</li> </ul>	Determine need for and type of analgesia
<b>Analgesia / Initial Management</b>	Administration of analgesia (see medications)	Reduction / relief of pain. Minimise or prevention of

		complications.
<b>Working diagnosis and Investigations</b>		<b>Outcomes</b>
<b>Imaging</b>	Imaging not usually required. Consider CXR if focal signs on chest examination, fever with productive cough or prolonged symptoms of URTI.	
<b>Pathology</b> <sup>(1)</sup>	<ul style="list-style-type: none"> <li>• Pathology not routinely required unless suspicion of Mononucleosis - monospot</li> <li>• If treating Pertussis consider need for serology.</li> <li>• Consider Nasopharyngeal Aspirate</li> </ul>	Detect underlying pathology Identify degree of systemic involvement
<b>Interpretation of results (diagnostic features) and management decisions</b>		<b>Outcomes</b>
<b>Pharyngitis and / or tonsillitis</b>	NP (Emergency) review with view to discharge <ul style="list-style-type: none"> <li>• Antibiotic therapy recommended in             <ul style="list-style-type: none"> <li>• Tonsillitis displaying the 4 diagnostic features suggestive of <i>Streptococcus pyogenes</i> infection:                 <ul style="list-style-type: none"> <li>○ Fever &gt; 38 C,</li> <li>○ tender cervical lymphadenopathy,</li> <li>○ tonsillar exudate, and</li> <li>○ No cough.</li> </ul> </li> </ul> </li> <li>• Existing rheumatic fever at any age</li> <li>• Scarlet fever</li> <li>• Peritonsillar cellulitis or quinsy</li> <li>• Medications as per formulary</li> <li>• Pt education /health promotion – symptom relief</li> <li>• Follow up appointment with GP</li> </ul>	Ensure patient understands problem, treatment, follow up and is safe for discharge home.
<b>Rhinosinusitis</b>	NP (Emergency) review with view to discharge <ul style="list-style-type: none"> <li>• Consider antibiotics only in severe cases displaying at least 3 of the following;             <ul style="list-style-type: none"> <li>○ persistent mucopurulent nasal discharge ( &gt; 7 to 10 days).</li> <li>○ Facial pain</li> <li>○ Poor response to decongestants</li> <li>○ Tenderness over the sinuses, especially unilateral maxillary tenderness</li> <li>○ Tenderness on percussion of maxillary molar and premolar teeth that cannot be attributed to a single tooth.</li> </ul> </li> <li>• Medications as per formulary</li> <li>• Pt education /health promotion – symptom relief</li> <li>• Follow up appointment with GP</li> </ul>	Ensure patient understands problem, treatment, follow up and is safe for discharge home
<b>Acute Bronchitis</b>	NP (Emergency) review with view for discharge <ul style="list-style-type: none"> <li>• Most often viral and usually does not require antibiotic therapy.</li> <li>• Pertussis should be considered in patients with persistent paroxysmal cough &gt; 2 weeks. Consult EP. May require PNA and Antibiotics as per formulary.</li> </ul>	Ensure patient understands problem, treatment, follow up and is safe for discharge home  Pertussis is a notifiable

	<ul style="list-style-type: none"> <li>Pneumonia should be considered in patients with more severe illness</li> <li>Pt education /health promotion</li> <li>Follow up appointment with GP</li> </ul>	disease
<b>Non specific infection ( all symptoms frequently present but not prominent)</b>	NP (Emergency) review with view for discharge <ul style="list-style-type: none"> <li>Pt education /health promotion – symptom relief</li> <li>Consider antibiotics only if symptoms have persisted for &gt;7 days and purulent sputum associated with cough, or nasal discharge</li> <li>Follow up appointment with GP</li> </ul>	Ensure patient understands problem, treatment, follow up and is safe for discharge home
<b>Associated Care</b>	<ul style="list-style-type: none"> <li>Consider IV fluids if patient dependent on hydration status or in need of antibiotic therapy</li> </ul>	
<b>Acute Referral</b>	Referral to <ul style="list-style-type: none"> <li>Interpreter</li> <li>Allied health</li> </ul>	
<b>Patient discharge education</b>		<b>Outcomes</b>
<b>When to return</b>	<ul style="list-style-type: none"> <li>Increasingly febrile</li> <li>Not tolerating fluids</li> <li>Symptoms persist for greater than 7 days</li> </ul>	Ensure patient understands problem, treatment, follow up and is safe for discharge home
<b>Follow up appointments</b>	<ul style="list-style-type: none"> <li>Appointment with GP</li> </ul>	
<b>Medication instructions</b>	<ul style="list-style-type: none"> <li>Verbal instructions from NP ( Emergency)</li> <li>Contact ED Pharmacist to provide medication education for patient when available.</li> </ul>	Ensure patient understands problem, treatment, follow up and is safe for discharge home
<b>Certificates</b>	<ul style="list-style-type: none"> <li>Absence from work certificate</li> </ul>	
<b>Letters</b>	<ul style="list-style-type: none"> <li>GP letter</li> </ul>	Ensures continuity of care and referral to health care team
<b>Medications</b>		<b>Outcomes</b>
All medication will be stored, labeled and dispensed in accordance with hospital policy and relevant legislation <sup>(3)</sup>		
<b>Simple analgesia</b> <sup>(4)</sup>  Mild pain	<b>Paracetamol 500mg:</b> 1 or 2 tablets 4-6/24, not to exceed 8 tablets in 24 hrs. <b>Children:</b> 15 mg/kg 4 hourly up to 4 times a day. Not to exceed 4 doses in 24 hours  <b>Painstop Day:</b> 0.6 - 0.8 mls/kg	Patients given analgesia appropriate to allergies, current medications and past medical history  Analgesia requirements determined by ongoing assessment of pain and

Moderate pain	<p><b>ADD to Paracetamol if still in pain</b>  <b>Naproxen</b> 500 mg initially then 250 mg 6 – 8 hourly          OR          Instead of Paracetamol, <b>Panadeine Forte:</b> 1 -2 tablets 4–6/24, not to exceed 8 tablets in 24 hrs.</p> <p><b>Children;</b>  <b>Ibuprofen:</b> 10 mg/kg 3-4 times daily to maximum of 600 mg in 24 hours</p> <p><b>If NSAIDS contraindicated</b>  <b>Tramadol</b> Oral:50-100mg 4-8/24, maximum 400mg /24          OR  <b>Tramadol</b> IV:50-100mg 4-6/24, maximum 600mg/24</p>	<p>adequate analgesia provided.</p> <p>Patients with excessive pain or pain unrelieved by analgesia need review by EP</p>
<b>Antiemetics</b>	<p><b>Metoclopramide hydrochloride:</b> Oral/IM/IV: 10mg 8/24  <b>Prochlorperazine:</b> Oral 5-10mg 8-12/24, initial 10mg po if acute nausea. Deep IM 12.5 mg 8/24</p>	
<b>IV Fluids</b>	<p><b>0.9% Sodium Chloride Intravenous fluid:</b> 5-10ml flush of Intravenous cannulae 6/24 or Infusion at 8-12hrly titrated to patients requirements</p>	
<b>Antibiotics</b> <sup>(2)</sup>  <b>Pharyngitis / Tonsillitis</b>	<p><b>Phenoxymethylpenicillin:</b> 500 mg (child: 10 mg/kg up to 500 mg) orally, 12 hourly for 10 days.</p> <p>Hypersensitive to Penicillin use  <b>Roxithromycin:</b> 300 mg orally, daily (child: 4 mg/kg up to 150 mg orally, 12 hourly) for 10 days.</p>	
<b>Bacterial Sinusitis</b>	<p><b>Amoxicillin:</b> 500 mg (child: 15 mg/kg up to 500 mg) orally, 8 hourly for 5 to 7 days.</p> <p>Hypersensitive to Penicillin use  <b>Cefaclor:</b> 375 mg orally, 12 hourly ( child: 10 mg/kg up to 250 mg orally, 8 hourly) for 5 to 7 days          OR  <b>Doxycycline:</b> 100mg (child &gt; 8 yrs: 7.5 mg/kg up to 100mg) orally, daily for 5 to 7 days.</p>	

<b>Pertussis</b>	<b>Azithromycin:</b> 500 mg (child 6 months or older: 10 mg/kg up to 500 mg) orally on Day 1, then 250 mg (child 6 months or older: 5 mg/kg up to 250 mg) orally, daily for a further 4 days. Child less than 6 months: 10 mg/kg orally, daily for 5 days.  OR  <b>Erythromycin:</b> 250mg (child > 1 month: 10 mg/kg up to 250 mg) orally, 6 hourly for 7 days	
<b>Non prescription</b>	<b>Steam Inhalation</b> <b>Antihistamines</b> <b>Gargles – Aspalgin/Aspirin</b> <b>Pseudoephedrine</b>	
<b>Clinical audit evaluation strategies</b>		
<b>Unexpected representation</b>	Emergency Department attendance register and NP (Emergency) clinical log	
<b>References</b>		
1. The Royal College of Pathologists Australia, RCPA Manual, 2004, <a href="http://www.rcpamanual.edu.au">www.rcpamanual.edu.au</a> . 2. <i>eTG complete</i> Oct 2006. Respiratory Tract Infections [cited 2007 Jan 29]; Available via Emergency Department desktop. 3. JHC Medication Storage and Administration Policy. Available from JHC Intranet 4. eMIMS 2006 [cited 2006 Mar 16]; Available from Emergency Department Desktop.		
<b>Authorship and endorsement</b>		
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<b>Key to terms</b>		
<b>NP-</b> Nurse Practitioner <b>EP-</b> Emergency Physician <b>S1-S4-</b> Schedule of the drug administration act <b>GP</b> – General Practitioner <b>OP-</b> Outpatients <b>CPG-</b> Clinical Practice Guideline		
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