ACUTE TONSILLITIS in ADULTS

The CPO Tonsillitis guideline provides support for IV therapy management in primary care following failure of oral antimicrobial therapy, as appropriate. The below information is to be used for guidance only and should not replace clinical judgment.

Maori and Pasifika are at higher risk of developing Rheumatic Fever and should see a GP/NP or nurse if they show any sign of a sore throat. If patients are thought to have Group A Streptococcus (GAS) or are at risk of Rheumatic Fever, commence antibiotics as per New Zealand National Heart Foundation *Group A Streptococcal Sore Throat Management Guideline*s.

Exclusions: (not funded by CPO)

- Tonsillitis suitable for oral antibiotics (See recommendations for oral antibiotics below)
- Sore throats in those aged 15 years and under

Background:

- Most cases of sore throat are viral – only a small number are caused by GAS.
- Viral and bacterial causes of sore throat cannot be reliably differentiated by clinical signs or symptoms, severity, or duration of illness
- In adolescents and young adults, consider infectious mononucleosis
- 3 of these 4 clinical indicators being present indicates a subgroup more likely to have GAS
    - Tonsillar exudates
    - Tender anterior cervical adenopathy
    - History of fever
    - Absence of cough

Assessment:

1. Assess the patient looking for fever, abnormalities on tonsils and pharynx, cervical lymphadenopathy, systemic signs.

2. Look for peritonsillar cellulitis or peritonsillar abscess (quinsy) which can spread into the deep tissues. If there is an increased incidence of both
    - May be caused by other bacterial infections rather than group A streptococcus (GAS).
    - Quinsy is more common in young adults and adults, and less common in children aged < 6 years.

3. Visual appearance alone can make it difficult to differentiate between viral and bacterial causes

Goals of Treatment:

- A slight reduction in the duration and severity of symptoms if begun early
    - Modest reduction, 1 to 2 days fewer symptoms at most
    - Increased risk of recurrence in those given antibiotics early
    - No risk in under treatment with antibiotics
- Prevention of local suppurative complications (peritonsillar abscess)

- Prevention of contagion
    - 35% transmission risk in family or school
    - Minimally contagious after 24 hours penicillin

Management of Tonsillitis:
(NOT CPO funded)

Analgesia, rest, and adequate fluid intake

- Analgesia
    - Prescribe paracetamol and/or NSAIDs.
    - Consider prescribing liquid formulations if the patient is having difficulty swallowing.
    - In high-risk populations for Rheumatic Fever, avoid NSAIDs as they can mask the symptoms and test results, meaning a diagnosis of Rheumatic Fever or a relapse may be missed.

Oral Antibiotic Treatment

- Oral Penicillin V 500mg tds or qid for 10 days
    - 50% relapse if stopped in 3/7, 34% in 6-7/7
    - Untreated, GAS eliminated naturally in 50% in 1/12

- Amoxycillin 500mg tds (or 750mg once daily) for 7/7
    - Amoxycillin / clavulanate should not be used as first-line therapy due to its broad spectrum of activity and expense. However, it may be useful in patients with recurrent GAS infection and when co-pathogens are colonizing the tonsillopharynx in a GAS-infected patient

- Macrolide antibiotic (eg erythromycin 800mg bd for 5/7) in penicillin allergic

If a patient with a sore throat is getting worse after 48 hours, review and assess for quinsy or peritonsillar sepsis. Look for asymmetrical unilateral signs, worsening throat pain, difficulty swallowing, ear pain, and lateral neck swelling. If present, consider IV antibiotics (see IV Management) or admission to hospital.

Consider:

- Take throat swab early (may be negative if already had oral antibiotics)
- WBC
- CRP
- Infectious mononucleosis screen in appropriate age group.

CPO Tonsillitis Pathway for IV Antibiotics (Adult)

Suitable for CPO - funded IV management:

- Hawke's Bay resident
- Completed adequate trial of oral antibiotics (as per above)
- General health especially cognitive capacity is suitable
- Social circumstances are supportive of CPO IV therapy
- Access to a telephone

RED FLAGS

Signs of peritonsillar cellulitis or peritonsillar abscess (quinsy)

Signs of quinsy

- Unilateral tonsillar displacement
- Trismus
- Drooling of saliva and severe unilateral ear and neck pain

Swelling causing acute upper airways obstruction or dehydration due to difficulty swallowing

IV Management

If evidence of bacterial infection AND patient still toxic, the following clinical indicators may indicate a subgroup more likely to have GAS

- Tonsillar exudates
- Tender anterior cervical adenopathy
- History of fever
- Absence of cough

IV Management

- Rehydration with IV saline
- Use IV Cephalosporins as first line IV antibiotics.
  - Give Cefazolin 2g IV od with Probenecid 500mg bd for 3 days
  - Cefazolin given as a slow IV push 5-10mins, diluted in 20mls water
  - Discontinue oral antibiotics when IV cefazolin commenced
- Consider discussion with clinician on call possibility of clindamycin or other antibiotic use
- A single IV injection of Dexamethasone 8-12mg (available on PSO) should be given if IV antibiotics are administered, particularly if peri-tonsillar oedema causes difficulty swallowing. *Note IV Saline as above also strongly indicated in this situation*
- Consider admission if particularly unwell or any suggestion of airway compromise.

- Emphasise the importance of rest, fluids and not going to work while receiving treatment

- Refer to Community IV Therapy Service if patient unable to access practice for IV therapy. Refer through CPO IV Referral in Outbox document
- Transport available through Hastings Taxis if patient requires transport to general practice for IV therapy- provide CPO number to Taxi company

Cefazolin Dosage

	eGFR	
Weight	**>50mL/min**	**30-50mL/min**
Not obese (Weight <120kg or BMI<40)	• Cefazolin: 2g ONCE daily • Probenecid: 500mg TWICE daily	• Cefazolin: 2g ONCE daily • Probenecid: 500mg ONCE daily
Obese (Weight >120kg or BMI>40)	• Cefazolin: 3g ONCE daily • Probenecid: 500mg TWICE daily	• Cefazolin: 2g ONCE daily • Probenecid: 500mg TWICE daily

If the patient has a contra-indication to probenecid give:

	eGFR	
Weight	**>50mL/min**	**30-50mL/min**
Not obese (Weight <120kg or BMI<40)	• Cefazolin: 2g TWICE daily	• Cefazolin: 2g TWICE daily
Obese (Weight >120kg or BMI>40)	• Cefazolin: 3g TWICE daily	• Cefazolin: 2g TWICE daily

Non- response to IV Antibiotics

Three days is the standard length of antibiotic administration for Tonsillitis in the CPO guideline.
If patient not responding:

- Consider extending IV therapy for a further 3 days if not responding.
- Consider blood tests for FBC and creatinine to help guide management, particularly for elderly or high-risk patients.
- Do not exceed more than six days without consultation with Infectious Diseases Physician at HBDHB
- Consider alternative diagnoses.

Medications

1. CPO will fund the prescription fee for patients for the specified medications prescribed under this pathway. These are cefazolin and probenecid.
2. Dexamethasone is available through PSO.
3. All prescriptions MUST include the CPO reference number.

Probenecid Guide

Contra-indications:

- History of blood dyscasias
- Uric acid kidney stones
- Acute gout attack
- Chronic kidney disease (eGFR<30ml/min)
- Pregnancy/breastfeeding

Caution:

- History of peptic ulcer disease

Interactions: (not a complete list, consult a pharmacist if concerned)
Methotrexate: Do not use probenecid for patients on methotrexate. (Probenecid increases methotrexate levels in the body.)

Zidovudine: Do not use probenecid for patients on zidovudine. (Probenecid increases zidovudine levels in the body.)

Mycophenolate: Do not use probenecid for patients on mycophenolate. (Probenecid may increase mycophenolate levels in the body.)

NSAIDs: Use the lowest dose necessary. (Probenecid may increase the levels of NSAIDs in the body)

Aspirin: There is no significant interaction with low dose aspirin for cardiovascular prevention, however patient should be advised to not use aspirin at doses used for pain relief.
Paracetamol: Use the lowest dose necessary. (Probenecid may increase the formation of toxic metabolites of paracetamol)

Lorazepam: A 50% dose reduction of lorazepam should be considered when concurrent therapy is employed. Be alert for increases in lorazepam effects like sedation and antegrade amnesia. (Probenecid increases the levels of lorazepam in the body.)

Nitrazepam: Be alert for increases in nitrazepam effects (sedation, antegrade amnesia) and adjust the nitrazepam dose if necessary. Probenecid may increase the levels of nitrazepam in the body)

Advice

- Ensure adequate fluid intake (about 2–3 litres daily)
    - Probenecid is prohibited at all times by the World Anti-Doping Agency and should not be prescribed to elite athletes