PAEDIATRIC ACUTE CARE GUIDELINE	
Tonsillitis	
Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

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Tonsillitis

Tonsillitis is inflammation of the tonsils due to infection

Background

- The majority of tonsillitis and pharyngitis is viral and only requires symptomatic treatment
- In bacterial tonsillitis (15-30%) an important pathogen is Group A β-Haemolytic Streptococcus
- Viruses implicated in tonsillitis and pharyngitis include rhinovirus, coronavirus, respiratory syncytial virus, adenovirus, parainfluenza, influenza, herpes simplex virus, enteroviruses and cytomegalovirus
- Both viruses and bacteria can cause an exudative tonsillitis
- Epstein-Barr Virus (EBV) is a common cause of exudative tonsillitis and pharyngitis
- Diphtheria, caused by *Cornebacterium diphtheriae* is rare in the developed world where immunisation against this disease is routine.
- *Mycoplasma pneumoniae* can be another causative bacteria. Other bacterial causes of tonsillitis are rare.
- Both viruses and bacteria can cause a high temperature
- Streptococcal tonsillitis is most common in school-age children, and is uncommon in children less than 3 years old
- Rapid onset of sore throat and high fever associated with an exudative tonsillitis is more suggestive of a Streptococcal tonsillitis, especially in the absence of typical viral features

Risk factors

- Low socio-economic status
- Aboriginal and Torres Strait Islander

Assessment

- It can be difficult to distinguish clinically between viral tonsillitis (majority) and bacterial tonsillitis (15-30%)
- Viral tonsillitis is highly likely where there are other symptoms of a viral upper respiratory tract infection

History

- Sore throat
- Difficulty swallowing
- Cervical lymphadenopathy
- Fever
- Headaches
- Abdominal pain
- Worsening sleep apnoea
- Ear aches – referred pain
- Symptoms of a viral upper respiratory tract infection: rhinorrhoea, cough, hoarseness, watery red eyes

Examination

- Fever
- Normal observations
- Erythematous tonsils and pharynx with/without exudate
- Enlarged and tender cervical lymph nodes
- When severe there may be upper airway obstruction – stridor, drooling, signs of respiratory distress

With Epstein-Barr Virus (EBV) there is exudative tonsillitis and there may be significant malaise, hepato-splenomegaly and submandibular (and generalised) lymphadenopathy.

Clinical features that are more suggestive of GABHS include:

- Scarlantiniform rash
- Soft palate petechiae – “doughnut lesions”
- Exudate on pharynx and/or tonsils
- Vomiting
- Tender cervical lymphadenopathy
- High fever

- Absence of viral upper respiratory tract symptoms

Investigations

- Bacterial **throat swab** for culture is usually not indicated. Results take 24 to 48 hours.
    - Do not delay antibiotic treatment while awaiting results

Differential diagnoses

- Epstein-Barr Virus (Glandular Fever)
- Croup
- Epiglottitis
- Peri-tonsillar abscess (Quinsy)
- Retro-pharyngeal abscess
- Oral thrush (Candidiasis)
- Herpes stomatitis
- Hand foot and mouth disease

Management

- The vast majority of children only need symptomatic treatment
- Supportive care includes adequate hydration and simple analgesia

Resuscitation

- Airway: If there is airway compromise (eg: stridor) intravenous **Dexamethasone** (dose: 0.15mg/kg) can be used

Initial management

- Definitive prescription should be made empirically on clinical presentation
- Antibiotic treatment of Streptococcal tonsillitis probably only reduces the duration of symptoms by 12-24 hours
- The main benefits of antibiotics are the prevention of suppurative complications and the prevention of post-infectious immune-mediated acute rheumatic fever
- Antibiotics administered within 7-9 days of the illness is almost 100% successful in preventing acute rheumatic fever. Delaying antibiotics pending the throat swab result will not reduce their efficacy in preventing acute rheumatic fever.
- Aboriginal and Torres Strait Islander children have a higher rate of complications with rheumatic heart disease and post-streptococcal glomerulonephritis. Therefore there is a lower threshold for prescription of antibiotics for these children.
- There is no evidence that antibiotic treatment will prevent post-streptococcal glomerulonephritis
- Steroids can have a role in acute pain management. Studies have shown that 1-3 doses of Dexamethasone (dose: 0.15mg/kg) will improve pain faster and allow return to

normal activities faster.
- Analgesia must be used. Paracetamol is usually sufficient. Ibuprofen is an alternative.
- Avoid aspirin in children because of the risk of Reye syndrome
- Children older than 12 years may use aspirin gargles
- Other symptomatic treatments such as salt water gargles, throat lozenges and sprays have varying anecdotal results and have not been proven to be of benefit in clinical trials
- Supportive care also includes encouraging oral fluids and encouraging oral hygiene (brushing teeth and rinsing with an antiseptic mouthwash)
- Intravenous fluids may be considered if dehydrated

Further management

Complications

Suppurative Complications:

- Peritonsillar abscess
- Retro-pharyngeal abscess
- Cervical lymphadenitis
- Sinusitis
- Mastoiditis
- Otitis media

Complications of GABHS:

- Acute rheumatic fever
- Post-Streptococcal glomerulonephritis

Other Complications:

- Sepsis

Medications

- **Antibiotics** – Penicillin V for 10 days BD
- If penicillin allergic, use Azithromycin once daily for 3 days

Refer to the ChAMP antibiotic guidelines or Therapeutic Goods Administraion (TGA) recommendations for dose

Admission criteria

- Upper airway obstruction
- Severe dysphagia and inadequate oral hydration (require intravenous fluids)

- Fever with significant signs of sepsis
- Suppurative complications
- Pain not controlled with oral analgesia

Referrals and follow-up

- GP follow up regarding clinical status +/- swab results within 48 hours
- Indications for referral to a Paediatric Ear, Nose and Throat surgeon to consider an elective tonsillectomy:
    - recurrent tonsillitis
    - episodes of severe tonsillitis requiring hospital admission
    - peritonsillar abscess
    - obstructive sleep apnoea
- Referral to a Paediatric Respiratory Physician for further investigations should be considered where there is a history or obstructive sleep apnoea

Nursing

- Routine nursing care

References

• Pichichero ME (2012) Treatment and prevention of streptococcal tonsillopharyngitis. *UpToDate*. Accessed at www.uptodate.com on 31/05/13.//
• Wald ER (2012) Approach to diagnosis of acute infectious pharyngitis in children and adolescents. *UpToDate*. Accessed at www.uptodate.com on 31/05/13.

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