Sore Throat in Kids

Background

Sore throat may be caused by Strep A, an infection which can lead to Acute Rheumatic Fever (ARF) as well as other conditions including Acute Post Streptococcal Glomerulonephritis (APSGN). Many cases of ARF can be prevented by timely and effective antibiotic treatment for sore throat. Other names for Strep A include Streptococcus pyogenes, Group A Strep, or GAS.

COVID-19
For all patients presenting with a sore throat, follow the current advice regarding testing and management for COVID-19 AS WELL AS following this guideline.

Assessment

Assessment of the child with a sore throat

1. Initial assessment as described in the Kimberley Sick Kids Guideline.
2. Full history and examination, including features listed in Table 1.
3. Check for the serious illnesses listed in Table 2.
4. Assess the level of risk of developing ARF.
   a. *All Aboriginal and Torres Strait Islander peoples living in the Kimberley are at high risk of developing ARF.*
   b. For non-Aboriginal people, refer to the Australian ARF/RHD Guideline[1] page 62 for guidance on risk assessment and management.

Table 1. Symptoms and signs of a sore throat/ tonsillitis

Symptoms	Signs
Throat pain / sore throat Difficulty swallowing Not eating as much Not drinking as much Croaky voice Feeling hot	Fever (>38C) Swollen, enlarged tonsils Erythematous tonsils with exudate Enlarged, tender cervical lymph nodes Absence of cough

Table 2. Serious illness presenting with sore throat.

Condition	Clinical Features	Action
Quinsy / Peritonsillar Abscess	Fever Pain Unilateral tonsillar swelling	Admit to hospital. Paediatric & ENT consultation.
Retropharyngeal Abscess	Increasing pain Neck/jaw stiffness Noisy breathing (stridor) Breathing difficulty Fever	Urgent admission to hospital. Paediatric & ENT consultation.
Acute epiglottitis	Fever Pain Noisy breathing (stridor) Breathing difficulty Drooling	Urgent admission to hospital. Paediatric consultation.

Education

Ensure that family/carers and patients understand the risk of ARF and the importance of appropriate antibiotic treatment.

Discussion should include the following key points:

1. Aboriginal people in the Kimberley are at high risk of ARF.
2. Even a mild sore throat can lead to ARF.
3. Antibiotics can prevent ARF.
4. ARF may develop within a few weeks of a sore throat, with one of the following signs:
   a. Joint pain
   b. Weakness
   c. Abnormal movements
   d. Fever
5. APSGN ("kidney swelling") is another condition that can develop within a few weeks of a sore throat, with one of the following signs:
   a. Puffy face
   b. Dark ("coke colour") urine
   c. Headaches

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6. Anyone with signs of ARF or APSGN should go straight to the clinic or hospital.

Management
All Aboriginal children in the Kimberley who have a sore throat should receive:

1. Throat swab for microscopy, culture and sensitivities.
2. Immediate antibiotic therapy as listed in Table 3. Do not wait for swab result.

Table 3. Recommended antibiotic therapy for Strep A sore throat / tonsillitis[1]

Drug	Dose		Route	Duration
All cases				
Benzathine Penicillin G (BPG)	**Child:** Weight (kg) <10 10 to <20 >20 **Adult:** >20kg	 Dose in IU (mL) 450,000 units (0.9mL) 600,000 units (1.2mL) 1,200,000 units (2.3mL) 1,200,000 units (2.3mL)	Deep IM injection	Once
If IM injection not possible:				
Phenoxymethylpenicillin	**Child:** 15mg/kg (up to 500mg) bd **Adult:** 500mg bd		Oral	For 10 days
For patients with documented hypersensitivity to penicillin eg rash				
Cefalexin	**Child:** 25 mg/kg (up to 1g) bd **Adult:** 1g bd		Oral	For 10 days
For patients anaphylactic to penicillin				
Azithromycin	**Child:** 12 mg/kg (up to 500mg) daily **Adult:** 500mg daily		Oral	For 5 days

Resources

Table 1 and Table 3 Source: RHDAustralia (ARF/RHD writing group). *The 2020 Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (3rd edition)*; 2020.