

Priority CPGs

Bacterial Pharyngotonsillitis (Adult) & Rheumatic Fever (Pediatric)

Review of the updates/changes

Interprofessional Practice Support (IPS) Team
November 2017

YOUR HEALTH AND SAFETY... OUR PRIORITY.



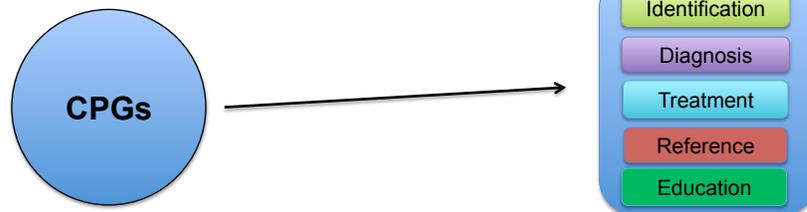
Objectives:

- **Review structure and layout of updated CPGs**
- **Review new content of updated CPGs**
 - Bacterial Pharyngotonsillitis (Adult)
 - Rheumatic Fever (Pediatric)
- **Questions and Discussion**
- **Upcoming CPGs**
- **Related resources and web links**
 - 2017 Priority CPGs Update
 - 2016 Web Update: Bacterial Pharyngotonsillitis (pediatric)

Background & Context

FNIHB Clinical Practice Guidelines (CPGs):

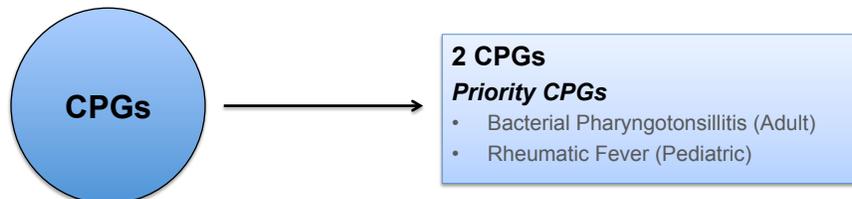
- **Contents:** up-to-date information covering over **370** health conditions
- **365 CPGs** (Adult /Pediatric & Adolescent Care)
- Provide assessment (history/physical examination), diagnostic and management guidelines
- **Evidence-informed** and based on multidisciplinary review



Background & Context

CPG Updates:

- The CPGs are being updated to ensure that the most up-to-date information is available to nurses practicing in remote and isolated First Nations communities



Overview:
Structure & content of the updated CPGs

Changes to the general structure and organization of the CPGs:

Past → Current

2017 Update

- Addition of Appendix at the end of each CPG where supplemental information is included
- *Physical findings section* includes a reference to the **Inspection, Palpation, Percussion and Auscultation (IPPA)** approach
- Addition of notice boxes

Overview:
Structure & content of the updated CPGs

More substantive changes have been made to the content of the CPGs

Past → Current

2017 Update

- As applicable to the CPG, there may be updated assessment, diagnostic, and management information.

Structure and Organization of Updated CPGs

1. Overview
2. Risk Factors
3. History of Present Illness
- 4. Physical findings - *Addition of reference to IPPA Approach***
5. Differential diagnosis
6. Complications
7. Diagnostic Tests
8. Management
 - Goals of treatment
 - Non-pharmacologic interventions
 - Pharmacologic interventions
9. Monitoring and Follow-up
- 10. Appendix**

Structure and Organization of updated CPGs

Notice box additions:

REFERENCE TO PROVINCIAL/TERRITORIAL GUIDELINES

OVERVIEW

Please refer to provincial/territorial guidelines for Bacterial Pharyngotonsillitis where available.

Structure and Organization of updated CPGs

Notice box additions:

ASSESSMENT

ASSESSMENT

Medication review: Review current medications, including over-the-counter, complementary and alternative medicines, as well as any chemical or substance intake that may impact management.

Allergy history: Screen for medication, latex, environmental or other allergies and determine approximately when and what type of reaction occurred.

Structure and Organization of updated CPGs

Notice box additions:

DIFFERENTIAL DIAGNOSIS, MANAGEMENT & MONITORING AND FOLLOW UP

DIFFERENTIAL DIAGNOSIS

Consult physician/nurse practitioner when practice is outside legislated scope and without authorized delegation.

Bacterial Pharyngotonsillitis (Adult)

New / Revised Content

- Updated list of **common pathogens**
- New description of incubation and communicable period for **Group A strep (GAS) pharyngitis**

INCUBATION PERIOD

The incubation period for GAS pharyngitis is 1 to 3 days after exposure.⁽⁶⁾

COMMUNICABILITY

- If untreated, a client with GAS pharyngitis is usually infectious during the acute phase of the illness (typically 7 to 10 days), and much less infectious 1 week after the acute phase.
- If antibiotics are used, the infectious period is reduced to 24 hours.⁽⁴⁾
- The bacterium can remain in the body in its carrier state without causing illness in the host for weeks or months and is transmissible in this state.⁽⁴⁾ Treating carriers with penicillin has been shown to reduce the number of people infected during an outbreak of streptococcal sore throat.⁽⁴⁾

- Elimination of **sore throat score** as a diagnostic tool

Bacterial Pharyngotonsillitis (Adult)

New / Revised Content

- New recommendation for **throat swab** for culture & sensitivity in the context of a negative rapid antigen detection test to enhance the sensitivity of diagnosis

Laboratory

- Rapid Antigen Detection Test (RADT) (if available)
 - A Positive RADT is considered definitive for GAS.⁽²⁾
- Throat swab for C+S (if RADT is negative or unavailable) to enhance diagnostic sensitivity.⁽²⁾

Bacterial Pharyngotonsillitis (Adult) New / Revised Content

- New section on **lab testing of close contacts** in high-risk circumstances

Lab Testing of Close Contacts

- Routine testing of, or treatment of asymptomatic close contacts of patients with GAS pharyngitis is not warranted.⁽²⁾
- Lab testing of asymptomatic close contacts should occur under the following high-risk circumstances:⁽¹⁾
 - Client has had 3 or more episodes of GAS pharyngitis in the last year

- Client has a family or household member with rheumatic fever or post-streptococcal glomerulonephritis
- Client has been exposed to an outbreak of rheumatic fever
- Members of the client's family have undergone repeat transmission.
- In an outbreak of GAS pharyngitis in a closed or semi-closed setting (e.g., a classroom or school), consider consultation with public health physician to determine if wider testing is required beyond the family.

Note: Treat all close contacts who test positive for GAS pharyngitis if any of the above high-risk circumstances are present.

Bacterial Pharyngotonsillitis (Adult) New / Revised Content

- Appendix

APPENDIX FOR BACTERIAL PHARYNGOTONSILLITIS

SECTION A: SUPPLEMENTAL CLINICAL MANAGEMENT INFORMATION

General Clinical Findings of non-GAS Bacterial Pharyngotonsillitis by Bacterial Etiology (see Table 3)

TABLE 3
Clinical features of non-GAS Bacterial Pharyngotonsillitis^(3, 11, 18)

N. GONORRHEAE	DIPHTHERIA	M. PNEUMONIAE
<ul style="list-style-type: none"> - Pharyngeal infections caused by <i>N. gonorrhoeae</i> usually occur after orogenital exposure. - Symptoms are mild or absent. - On physical examination, the pharynx may be erythematous or have exudates. - Anterior cervical lymphadenopathy may also be present. - Pharyngeal infections caused by <i>N. gonorrhoeae</i> may be considered in clients who are sexually active. 	<ul style="list-style-type: none"> - A rare, vaccine-preventable cause of life-threatening pharyngotonsillitis. - Presents with cervical lymphadenopathy and a thick, adherent greyish-white nasal and/or pharyngeal membrane. - Membranes may extend into the airway and cause airway compromise. Removal of the membrane results in bleeding. - Notable swelling of the neck area, giving the characteristic bull neck appearance, is characteristic of severe disease. 	<ul style="list-style-type: none"> - Generally manifests as pharyngitis, tracheobronchitis, reactive airway disease/wheezing, or a non-specific upper respiratory syndrome. - Although <i>M. pneumoniae</i> may begin with a sore throat, the most common presenting symptom is a cough. The cough is typically non-productive, but some clients may produce sputum. - Headache, malaise, chills, and fever are also characteristic of <i>M. pneumoniae</i> infection. - Particularly in the absence of lower respiratory tract disease, the role of <i>M. pneumoniae</i> as a cause of acute pharyngitis remains somewhat uncertain.⁽¹⁰⁾

- New table describing **neisseria gonorrhoea, diphtheria and mycoplasma pneumonia** as causes of bacterial pharyngitis

Rheumatic Fever (Carditis) (Pediatric) New / Revised Content

- Expanded description of **major manifestations** of rheumatic fever

Major Manifestations

Carditis

- Carditis may be clinical or subclinical.⁽¹⁾
- New or changing heart murmurs. For more information on heart murmurs, see *Heart Murmurs* in *Appendix, Section A* of this guide.
- Rubs may be audible with inspiration and expiration if disease is associated with pericarditis.⁽¹⁾
- Muffled heart sounds (consistent with pericardial effusion).⁽⁶⁾
- Tachycardia at rest:⁽¹⁾ may be out of proportion to fever⁽⁶⁾

Arthritis

- Large joints are usually affected, especially the knees and ankles.⁽¹⁾
- Classified as swelling of the joint in the presence of 2 or more of the following:⁽¹⁾
 - Limitation of movement
 - Hot joint
 - Pain in the joint and/or tenderness

Rheumatic Fever (Carditis) (Pediatric) New / Revised Content

- Expanded description of **major manifestations** of rheumatic fever (cont.)

Sydenham's Chorea

- Jerky, uncoordinated movements of the extremities that disappear during sleep.⁽¹⁾ dysphonia and possible emotional lability⁽⁶⁾
- Female predominance⁽⁷⁾
- Can be a standalone criterion for the diagnosis of acute rheumatic fever without additional manifestations⁽¹⁾

Subcutaneous Nodules

- Usually located over a bony prominence or near tendons⁽¹⁾
- 0.5 to 2 cm in diameter, round, firm, occasionally painful protuberances found on extensor surfaces at specific joints including

Erythema Marginatum

- Rare and difficult to detect (especially on dark-skinned people)⁽¹⁾
- An evanescent, pink rash with a pale center and rounded or serpiginous margins⁽⁷⁾
- The rash is usually present on the trunk and proximal extremities; it is almost never on the face⁽⁷⁾
- Blanches with pressure⁽⁷⁾
- Not affected by anti-inflammatory medication⁽¹⁾
- Rarely seen as the sole major criterion for acute rheumatic fever and should be accompanied by additional major criteria in order to make the diagnosis⁽¹⁾

Rheumatic Fever (Carditis) (Pediatric) New / Revised Content

TABLE 1

Differential Diagnoses of Arthritis, Carditis and Chorea

ARTHRITIS	CARDITIS	CHOREA
<ul style="list-style-type: none"> - Septic arthritis - Connective tissue and other autoimmune diseases such as juvenile idiopathic arthritis - Lyme disease - Infective endocarditis 	<ul style="list-style-type: none"> - Physiological mitral regurgitation - Mitral valve prolapse - Congenital valve disease - Infective endocarditis - Myocarditis, viral or idiopathic - Kawasaki disease 	<ul style="list-style-type: none"> - Drug intoxication - Tic disorder - Intracranial tumor - Lyme disease - Autoimmune: Systemic lupus erythematosus, systemic vasculitis

The diagnosis is based on a collection of signs known as Jones' criteria; see Table 2, *Revised Jones' Criteria*.

Rheumatic Fever (Carditis) (Pediatric) New / Revised Content

TABLE 2

Revised Jones' Criteria^(*)

MAJOR CRITERIA		MINOR CRITERIA	
Low-risk populations ^{**}	High-risk populations	Low-risk populations ^{**}	High-risk populations
<ul style="list-style-type: none"> - Carditis (clinical and/or subclinical) - Polyarthritis - Chorea - Erythema marginatum - Subcutaneous nodules 	<ul style="list-style-type: none"> - Carditis (clinical and/or subclinical) - Arthritis (monoarthritis or polyarthritis, polyarthralgia) - Chorea - Erythema marginatum - Subcutaneous nodules 	<ul style="list-style-type: none"> - Polyarthralgia - Fever ($\geq 38.5^{\circ}\text{C}$) - ESR ≥ 60 mm in the first hour and/or CRP ≥ 30 mg/L - Prolonged PR interval, after accounting for age variability (unless carditis is a major criterion) 	<ul style="list-style-type: none"> - Monoarthralgia - Fever ($\geq 38^{\circ}\text{C}$) - ESR ≥ 30 mm/h and/or CRP ≥ 30 mg/L - Prolonged PR interval, after accounting for age variability (unless carditis is a major criterion)

*For all client populations with evidence of preceding group A *Streptococcal* pharyngitis infection:

- Diagnosis of initial acute rheumatic fever is:
 - 2 major manifestations
 - or
 - 1 major plus 2 minor manifestations
- Diagnosis of recurrent acute rheumatic fever is:
 - 2 major
 - or
 - 1 major and 2 minor
 - or
 - 3 minor manifestations

**Low-risk populations are those with acute rheumatic fever ≤ 2 per 100,000 school-aged children or all-age rheumatic heart disease prevalence of ≤ 1 per 1,000 population per year.

Rheumatic Fever (Carditis) (Pediatric) New / Revised Content

- Antibiotic treatment and prophylaxis
 - Reference to Pediatric Bacterial Pharyngotonsillitis CPG

Antibiotic Therapy

- Antibiotics should be initiated to eradicate residual GAS infection in all cases while the diagnosis of ARF is being established.⁽¹⁾
- A full course of antibiotics should be given.⁽¹⁾
- Oral therapy such as penicillin, amoxicillin, cephalexin or clindamycin may be considered.

For specific dosing recommendations, see *FNIHB Pediatric and Adolescent Care Clinical Practice Guidelines – Chapter 9 – Ears, Nose, Throat and Mouth – Bacterial Pharyngotonsillitis – Antibiotic Therapy*.

Rheumatic Fever (Carditis) (Pediatric) New / Revised Content

- Appendix
 - More substantial description of murmurs heard with rheumatic fever

APPENDIX

SECTION A: SUPPLEMENTAL CLINICAL MANAGEMENT INFORMATION

Heart Murmurs

- Those most commonly heard during acute rheumatic fever are:⁽⁶⁾
 - Apical pansystolic murmur is a high-pitched, blowing-quality murmur of mitral regurgitation that radiates to the left axilla. The murmur is unaffected by respiration or position.
 - Apical diastolic murmur (known as Carey-Coombs murmur) is heard with active carditis and accompanies severe mitral insufficiency.
 - Basal diastolic murmur is an early diastolic murmur of aortic regurgitation and is a high-pitched, blowing, decrescendo heard best along the right upper and mid-left sternal border after deep expiration while the client is leaning forward.

Questions?

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Upcoming CPG Updates

Current →

128 CPGs
Content review

- **Communicable Disease Chapter**
- **Skin Chapter**
- Respiratory Chapter
- Genitourinary Chapter
- Hematology, Metabolism & Endocrinology Chapter
- Mental Health Chapter
- Adolescent Health Chapter

2018 Web Posting

**Communicable Disease Chapter
(23 CPGs)**

- 11 Adult CPGs
- 12 Pediatric CPGs

↓

**Skin Chapter
(25 CPGs)**

- 9 Adult CPGs
- 16 Pediatric CPGs

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Resources

2017 Updates (Web URLs)

Bacterial Pharyngotonsillitis (Adult):

<https://www.canada.ca/en/health-canada/services/first-nations-inuit-health/health-care-services/nursing/clinical-practice-guidelines-nurses-primary-care/adult-care/chapter-2-ears-nose-throat-mouth.html>

Rheumatic Fever (Pediatric):

<https://www.canada.ca/en/health-canada/services/first-nations-inuit-health/health-care-services/nursing/clinical-practice-guidelines-nurses-primary-care/pediatric-adolescent-care/chapter-11-cardiovascular-system.html>

2016 Updates (Web URLs)

Bacterial Pharyngotonsillitis (Pediatric):

<https://www.canada.ca/en/health-canada/services/first-nations-inuit-health/health-care-services/nursing/clinical-practice-guidelines-nurses-primary-care/pediatric-adolescent-care/chapter-9-ears-nose-throat-mouth.html>

Resources

Presentation on Group A Strep (GAS) Pharyngitis by infectious disease specialist, Dr. Yoko Schreiber:

<https://www2.onehealth.ca/Portals/4/Ontario/Nursing/Education/RNE%20Present/GAS%20PharyngitisYSchreiberJan21%202016%20Final%20Eng.pdf>