SASKATCHEWAN RN ASSOCIATION

SASKATCHEWAN REGISTERED NURSES' ASSOCIATION

RNs WITH ADDITIONAL AUTHORIZED PRACTICE
CLINICAL DECISION TOOL
MAY 2, 2017

CHRONIC RHINOSINUSITIS ADULT & PEDIATRIC

DEFINITION

- Inflammation of the mucosal lining of the paranasal sinuses lasting 12 weeks or more, plus ≥ 2 of the following: mucopurulent discharge, nasal congestion, facial pain-pressure-fullness, or decreased sense of smell.

IMMEDIATE CONSULTATION REQUIRED IN THE FOLLOWING SITUATIONS

If the client has any of the following symptoms:

- Systemic toxicity (systemic inflammatory response syndrome or sepsis)
- Altered mental status
- Severe headache
- Swelling of the orbit or change in visual acuity
- Black, necrotic tissue or discharge
- Infraorbital hypesthesia

CAUSES

- Structural abnormalities
- Most cases (98-99.5%) of infections are viral.
- If bacterial, the most common organisms include: *Haemophilus influenzae, Moraxella catarrhalis, Streptococcus pneumoniae* and *Staphylococcus aureus.*
- Fungal infections
- Sinusitis is very rare in children (< 9 years) due to underdeveloped sinus cavities.

PREDISPOSING AND RISK FACTORS

- Common cold
- Allergies
- Deviated nasal septum
- Smoking
- Adenoidal hypertrophy
- Dental abscess
- Nasal polyps
- Trauma
- Foreign body
- Diving or swimming
- Neoplasms

- Cystic fibrosis
- Immunocompromised clients (e.g., diabetes, HIV)
- Inflammatory disorders such as Wegener's granulomatosis or sarcoidosis
- Sniffing substances that irritate the lining of the nose (e.g., cocaine)
- Pregnancy

HISTORY

- Prolonged nasal congestion (> 12 weeks)
- Nasal discharge, intermittently purulent
- Postnasal drip may be present
- Early morning hoarseness may be present
- Sinus pain or pressure across the middle of the face
- Headache may be present
- Popping of ears
- Eye pain
- Halitosis
- Chronic cough
- Fatigue
- No fever
- Decreased sense of smell
- History of underlying risk factors such as allergic rhinitis, gastroesophageal reflux disease (GERD), cystic fibrosis, immunodeficiency, structural abnormalities, eosinophilic nonallergic rhinitis

PHYSICAL FINDINGS

- Client appears well
- Nasal mucous membranes may appear pale and "boggy"
- Tenderness may be present over sinuses

DIFFERENTIAL DIAGNOSIS

- Allergic rhinitis
- Vasomotor rhinitis
- Nasal polyp
- Infection of upper respiratory tract

- Tumour
- Migraine headache
- Cluster headache
- Dental abscess

COMPLICATIONS

- Contiguous spread of infection to intraorbital or intracranial structures
- Periorbital cellulitis

INVESTIGATIONS AND DIAGNOSTIC TESTS

- None initially

MAKING THE DIAGNOSIS

- Is made clinically based on a thorough history and physical examination

MANAGEMENT AND INTERVENTIONS

Goals of Treatment

- Relieve symptoms
- Identify predisposing or underlying factors

Appropriate Consultation

- Presentation consistent with those identified in the Immediate Consultation Required in the Following Situations area.
- A physician/RN(NP) should be consulted on a non-urgent basis to confirm the diagnosis as symptoms have been present for > 12 weeks.

Non-Pharmacological Interventions

- Warm facial packs
- Saline nasal drops/rinses/irrigations
  - Saline nasal irrigation 150 mL daily
  - Saline nasal spray 1 spray tid to qid prn

Pharmacological Interventions
Children
Analgesics
- Acetaminophen 15 mg/kg/dose orally q4-6h prn (maximum dose mg/kg/day)
  Or
- Ibuprofen 10 mg/kg/dose orally q8h prn (maximum dose 40 mg/kg/day)

Intranasal steroid (only in children > 3 years of age)
- Fluticasone (Flonase) 50 mcg per actuation, 2 sprays in each nostril once daily x 7-10 days
  Or
- Mometasone (Nasonex) 50 mcg per actuation, 2 to 4 sprays each nostril bid x 7-10 days

Adults
Analgesics
- Manage pain and fever with simple analgesics:
  - Acetaminophen (Tylenol), 325 mg, 1-2 tabs orally q4-6h prn
    Or
  - Ibuprofen (Motrin), 200 mg, 1-2 tabs orally q6h prn

Intranasal steroid
- Fluticasone (Flonase) 50 mcg per actuation, 2 sprays in each nostril once daily x 7-10 days
  Or
- Mometasone (Nasonex) 50 mcg per actuation, 2 to 4 sprays each nostril bid x 7-10 days

Client and Caregiver Education
- Counsel client/caregiver about appropriate use of medications (dose, frequency, application, compliance, etc.).
- Client should not use antihistamines because these dry and thicken the secretions.
- Recommend increasing hydration (6-8 glasses of fluid per day).

- Recommend avoidance of irritants (e.g., smoke).

Monitoring and Follow-Up
- Follow-up if symptoms persist or progress despite therapy.

Referral
- Any conditions or symptoms listed in the "Immediate Consultation Required in the Following Situations" section.
- Specialist consult may be necessary if anatomical abnormalities are suspected or symptoms are not resolving.
- Refer to physician/RN(NP) if client has hoarseness as the only symptom for > than 3 weeks' duration.

DOCUMENTATION
- As per agency policy

REFERENCES
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