SASKATCHEWAN RN ASSOCIATION

SASKATCHEWAN REGISTERED NURSES' ASSOCIATION

RNs WITH ADDITIONAL AUTHORIZED PRACTICE
CLINICAL DECISION TOOL
DECEMBER 1, 2016

APHTHOUS STOMATITIS ADULT & PEDIATRIC

DEFINITION

Aphthous stomatitis or canker sores are described as ulcers and inflammation of the tissues of the mouth, including the lips, buccal mucosa, tongue, gingiva, and posterior pharyngeal wall. These lesions are recurrent and painful and are among the most common oral mucosal lesions observed.

IMMEDIATE CONSULTATION REQUIRED IN THE FOLLOWING SITUATIONS

- None

CAUSES

- Herpes simplex virus
- Coxsackievirus
- Oral candida
- Unknown

PREDISPOSING AND RISK FACTORS

- Immunocompromised states
- Autoimmune disease (e.g., Crohn's)
- Celiac disease

HISTORY

Recurrent aphthous ulcers consist of one or multiple round-ovoid, shallow, punched out appearing, painful ulcers that recur at intervals of a few days to a few months. (Adapted from Casiglia & Mirowski, 2014)

To evaluate oral ulcers, gather the following information:

- Onset and duration of symptoms
- Age of the client at onset
- Previous history of the same and treatment
- Cutaneous or mucosal changes
- Fever
- Burning or tingling before ulceration
- Pain
- Drooling

- Difficulty swallowing
- Decreased nutritional intake
- Associated respiratory or gastrointestinal symptoms
- Associated skin rash
- Nutritional deficiencies, stressors, allergies, recent mouth trauma, infections, risk factors for sexually transmitted infections (STIs)
- Medications
- Weight loss (if severe ulcers) - especially in children
- Systemic diseases
- Recent dental treatment
- Smoking or alcohol use (Adapted from Health Canada, 2011)

PHYSICAL FINDINGS

- Lesions appear as ulcers with exudate on the buccal mucosa and/or lateral tongue
- Pain can be present but usually no fever
- Usually only one or two lesions
- Minor lesion is < 10 mm; major lesion is > 10 mm

DIFFERENTIAL DIAGNOSIS

- Hand, foot and mouth disease
- Cancers of the oral mucosa (suspect if lesions present more than 3-6 weeks and are unresponsive to treatment)
- Contact dermatitis (allergic or irritant)
- Dermatologic manifestations of gastrointestinal disease (e.g., celiac)
- Herpes simplex
- Primary HIV/AIDS infection
- Syphilis
- Vincent's stomatitis
- Denture stomatitis (red palate under denture)
- Pemphigus
- Lichen planus
- Reactive arthritis
- Chronic illness

COMPLICATIONS

- Dehydration
- Secondary infection (e.g., gangrenous stomatitis)
- Ludwig's angina

INVESTIGATIONS AND DIAGNOSTIC TESTS

- Usually none
- Vitamin B6 and B12, folate and iron, ferritin if nutritional deficiencies are suspected
- CBC to rule out anemias
- Viral culture if suspect herpetic stomatitis

MAKING THE DIAGNOSIS

Table 1

Features of common forms of stomatitis

Disease	Cause	Type of Lesion	Site	Diameter	Other Features
Herpangina or hand-foot-mouth disease	Coxsackievirus, echovirus, enterovirus 71	Vesicles with ulcers with erythema	Anterior pillars, posterior palate, pharynx, and buccal mucosa	1-3 mm	Dysphagia, vesicles on palms of hands and soles of feet and in mouth.
Herpes stomatitis	Herpes simplex virus	Vesicles and shallow ulcers (round or oval) which may be confluent	Gingiva, buccal mucosa, tongue, lip	> 5 mm	Drooling, coalescence of lesions. Duration about 10 days.
Aphthous stomatitis	Unknown	Ulcers with exudate	Buccal mucosa, lateral tongue	Minor: < 10 mm Major: > 10 mm	Pain, no fever. Usually only one or two lesions.
Candidiasis	Fungal infection	Pseudomembranous: adherent white plaques that may be wiped off. Erythematous: red macular lesions, often with a burning sensation.	Tongue and/or buccal mucosa. Occasionally spreads to palate, gums, tonsils, or posterior pharynx.	Varies	Some clients may present with angular cheilitis: erythematous, scaling fissures at the corners of the mouth.

Note. Adapted from *First Nations & Inuit health: Clinical practice guidelines for nurses in primary care,* by Health Canada, 2011, Ottawa, ON: Author. Retrieved from http://www.hc-sc.gc.ca

MANAGEMENT AND INTERVENTIONS

There are as yet no specific treatments for any of these conditions except for herpes stomatitis which is treated with an antiviral. Herpes stomatitis usually lasts 10 days. Herpangina lasts for only a few days and has few complications. Aphthous stomatitis requires no treatment.

Goals of Treatment

- Relieve symptoms
- Prevent complications

Appropriate Consultation

- The disease is self-limiting, so consultation is usually unnecessary unless there are complications such as pain and relief is needed.
- Consult a physician/RN(NP) if the lesions are herpetic as oral or topical antiviral treatment may be considered.
- If lesions are large (> 1 cm), persistent and painful, interfere with nutrition, and where there is no possibility of infection, consult a physician/RN(NP) who may consider a short course of prednisone therapy. (Adapted from Health Canada, 2011)

Non-Pharmacological Interventions

- An elimination diet may help control outbreaks by revealing suspected allergic stimuli that initiate oral lesions. If food is thought to be the culprit, a food diary can be helpful.
- A gluten-free diet will help those with celiac disease control outbreaks of ulcers.
- Clients with ulcers should avoid hard or sharp foods that may gouge existing ulcers or create new ones.
- Advise avoidance of salt and hot spices to prevent pain from unnecessary ulcer irritation. (Adapted from Casiglia & Mirowski, 2014)
- Keep the lesions clean.

Pharmacological Interventions

- Antipyretic and analgesic for fever and pain:
  - Adult: Acetaminophen 325-650 mg orally q4-6h prn (maximum 4 g/day)
  - Children

    - Acetaminophen (Tylenol) 15 mg/kg/dose orally q6h prn (maximum dose 75 mg/kg/day)
      Or
    - Ibuprofen (Motrin) 10mg/kg/dose orally q6-8h prn (maximum dose 40 mg/kg/day)
- A topical anesthetic containing benzocaine (e.g., Anbesol)
- A topical steroid such as triamcinolone acetonide 0.1% (Oracort dental), apply a thin film to affected area bid to qid
- Gels, ointments and pastes can be applied directly to the ulcer using a cotton-tipped swab, such as a Q-Tip, qid before meals and at bedtime, for up to 1 week. To maximize effectiveness, remind clients to dry the affected mucosa prior to drug application and avoid eating, drinking and speaking for 30 minutes after each application. Do not treat this condition with antibiotics as they are not indicated and are not helpful. (Adapted from Health Canada, 2011)
- Oral Candidiasis
  - Mild disease
    - Adults and pediatrics > 1 year of age
      - Nystatin oral suspension 5 mL (100,000 units/mL) swish and swallow qid for 7 days
    - Infant
      - Nystatin oral suspension 1-2 mL (100,000 units/mL) apply with swab qid for 7 days
  - Moderate to severe disease – referral required to a physician/RN(NP)

Client and Caregiver Education

- Counsel client/caregiver about the expected duration of this illness and signs and symptoms of dehydration. Pediatric clients are at risk of dehydration and caregivers should be instructed to monitor intake and output.
- Counsel client/caregiver about the appropriate use of medications (dose, frequency, compliance, etc.).
- Recommend dietary adjustments: bland non-acidic fluids (e.g., milk and water); popsicles; ice cream; and similar food items.
- Avoid citrus food such as orange juice.

- Recommend local mouthwashes (1:1 hydrogen peroxide and water) especially after eating.
- Warm saline rinses qid for traumatic or viral ulcers.
- To prevent spread of infection, recommend avoidance of direct contact with infected individuals (e.g., kissing, sharing glasses and utensils, hand contact).
- Educate clients that the herpes virus can spread even when sores are not present. (Health Canada, 2011)
- Mothers of breastfed clients diagnosed with candidiasis require concurrent treatment. Consider topical nystatin, clotrimazole or miconazole to nipples after each feeding.

Monitoring and Follow-Up

- If lesions are severe:
  - Adult clients should follow-up in 2-3 days
  - Pediatric clients should follow-up in 24 hours
- For lesions of unknown origin, follow-up in 7 days

Referral

- Refer to a physician/RN(NP) for lesions that do not resolve within a week.
- If the client is not eating, drinking, or is losing weight, immediate referral is required.

DOCUMENTATION

- As per employer policy

REFERENCES

Casiglia, J. M. & Mirowski, G. W. (2014). *Aphthous stomatitis treatment and management.* Retrieved from http://emedicine.medscape.com/article/1075570-treatment%23a1130

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