## **ALGORITHM**

## Mucositis in Adults with Cancer: Screening and Assessment

Screen for mucositis at each visit	
<b>→</b>	
Assessment using Acronym O, P, Q, R, S, T, U and V (adapted from Fraser Health)	
Onset	When did the symptoms begin? How often do they occur? How long do they last?
Provoking / Palliating	What makes it better? What makes it worse? What do you think may be causing the symptom? What are the aggravating or alleviating factors (e.g., medications, active treatment, dietary changes)?
Quality	Do you have a dry mouth? (e.g., decrease in amount or consistency of saliva). Do you have any redness, blisters, ulcers, cracks, or white patchy areas? If so, are they isolated, generalized, clustered or patchy?
Region / Radiation	Where are your symptoms? (e.g., on lips, tongue, mouth). Does your pain radiate anywhere? Do you have any other related or associated symptoms?
Severity	What is the intensity of this symptom (On a scale of 0 to 10 with 0 being none and 10 being worst possible)? Right Now? At Best? At Worst? On Average?
Treatment	If dry mouth: Fluid intake? Are you using any oral rinses? What type? Are they effective? Are you using any saliva substitutes or stimulants? What type? Are they effective?  If pain in mouth: Are you using any pain medications? What type – topical/local, oral/injection? Are they effective? Are there any other treatments that you are using to help with pain? Alteration in diet texture?  If bleeding from mouth: Does it occur spontaneously? Where is it located? What aggravates it? What treatments have been recommended and have been used?  What is your current oral care routine? How effective is it? Have you had oral infections? What treatments have you used? How effective have they been?  Do you have any side effects from the medications/treatments you have used for any of the above? What tests have you had for your oral symptoms, if any?
Understanding / Impact on You	How bothered are you by this symptom? Is your ability to eat or drink affected? By how much? Are you having difficulty swallowing or chewing? Is it for solids and/or liquids? Do you have any weight loss? How much? Over what time frame? Do you have taste changes (dysgeusia)? Do you have difficulty speaking? Are you able to wear dentures? Do any of your symptoms interfere with other normal daily activities? How does this symptom affect your day to day life?
Values	What is an acceptable level of severity for this symptom $(0-10 \text{ scale})$ ? What does this symptom mean to you? How has it affected you and your family and/or caregiver?

Note: Where a patient is not able to complete an assessment by self-reporting, then the health professional and/or the caregiver may act as a surrogate. Physical assessment should include vital signs and an oral examination including a dental assessment.



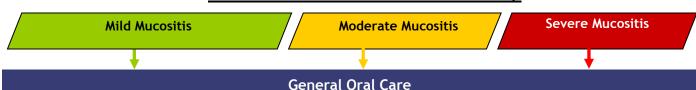
## Considerations for all patients

- Significant risk factors for the development of oral complications include the type of cancer, type of cancer treatments, cumulative doses of chemotherapy or radiation treatment, method of delivery and duration of treatment.
- Predisposing medical, dental, and lifestyle factors may increase the severity of the complications.
- Oral complications can significantly affect the patient's morbidity, ability to tolerate treatment, and overall quality of life.
- Rigorous assessment, diagnosis and early intervention are important in preventing and decreasing oral complications; this includes the
  assessment of nutritional status and adequacy of oral intake.
- Good oral care is important to prevent and decrease oral complications, to maintain normal function of the oral tissues, to maintain comfort, and to reduce the risk of local and systemic infection. (See <u>Table 5 in Oral Care Guide</u> for the basic oral care plan).
- A large variety of medications may cause oral complications. Consultation with a pharmacist is strongly recommended.

For full references and more information please refer to CCO's Symptom Management Guide-to-Practice: Oral Care

**Disclaimer:** Care has been taken in the preparation of the information contained in this Algorithm. Nonetheless, any person seeking to apply or consult this document is expected to use independent clinical judgment and skills in the context of individual clinical circumstances or seek out the supervision of a qualified specialist clinician. Cancer Care Ontario makes no representation or warranties of any kind whatsoever regarding their content or use or application and disclaims any responsibility for their application or use in any way.

# Mucositis in Adults with Cancer: Care Map



## Non-pharmacological

- The recommended rinsing solution is a bland rinse (1 teaspoon salt, 1 teaspoon baking soda in 1 liter/4 cups of water) prepared at least once daily and not refrigerated.
- Following emesis, rinse with bland rinse immediately to neutralize the mouth.
- Patients may chew xylitol gum or suck on xylitol lozenges, up to 6 grams a day.
- While there is no evidence to recommend either for or against the use of club soda, the Oral Care SMG suggests it should be avoided due to the acidic pH, a result of the carbonic acid content found in carbonated soft drinks.

## Pharmacological

- Consider topical anesthetics (e.g., viscous lidocaine 2% or viscous xylocaine 2%, 2-5 ml) before brushing and before eating to minimize pain and the use of a non-flavoured, non-alcoholic chlorhexidine gluconate 0.12% rinse to aid in plaque control.
- If allergic to lidocaine, dyclonine 0.5 or 1% rinse (5 ml q6-8 hours, swish and swallow) may be used as needed for pain.
- With continuous pain, a regularly prescribed oral analgesic allows for more thorough tooth brushing.
- For excessive salivary secretions, tricyclic antidepressants (e.g., nortriptyline starting at a low dose and scopolamine transdermal 1.5 mg patch every 72 hours) may be considered.

#### Prevention

## Non-pharmacological

- Ice chips may be used, especially in patients receiving high-dose melphalan as part of a conditioning regimen for stem cell transplant.
- IMRT is currently the treatment of choice for head and neck patients.
- Low energy laser application.
- See Table 5 in Oral Care Guide.

### Pharmacological

• There is no evidence of benefit for the use of chlorhexidine.

## Management

### Non-pharmacological

## Nutrition

- Start with soft, moist, smooth foods and, if not tolerated, trial extra soft/pureed foods.
- Choose foods high in calories and protein, 6-8 small meals/snacks daily.
- Cook solid foods until tender, use moist sauces, choose soft, bland foods.
- Avoid foods that irritate the mouth or throat.
- Avoid foods which are abrasive, rough, tart, salty, spicy, acidic, very hot or very cold.
- Oral commercial nutritional supplements may be necessary.
- A multivitamin may be considered.
- There is insufficient evidence to support the use of vitamin B12, beta-carotene calcium, chamomile, glutamine, or curcumin.

## Pharmacological

 If topical anaesthetics are not effective for pain relief, non-opioid or opioids analgesics may be required.

## Prevention

## Non-pharmacological

• See mild mucositis.

### Pharmacological

- See mild mucositis.
- See <u>Table 5 in Oral</u> <u>Care Guide.</u>

#### Management

Non-pharmacological
See mild mucositis

## Pharmacological

 Patient-controlled analgesia with opioids is the treatment of choice for oral mucositis pain.

### Prevention

## Non-pharmacological

- See mild mucositis.
- See Table 5 in Oral Care Guide.

## Pharmacological

- In patients with hematological malignancies receiving high dose chemotherapy and total body radiation with stem cell transplant, Keratinocyte Growth Factor (KGF) (palifermin) in a dose of 60 mcg/kg/d for 3 days prior to commencing treatment and for 3 days post-transplant is recommended.
- KGF (palifermin) is not commonly used in Ontario due to high costs and limited.

## Management

#### Non-pharmacological

#### Nutrition

- Consider extra soft/pureed diet.
- If only liquids are tolerated, choose high calorie, high protein fluids every 2 hours.
- Oral commercial nutrition supplements are recommended.
- A liquid regular strength multivitamin may be recommended.
- Severe oral mucositis during cancer treatment (grade 3 or 4) may be managed with an appropriately placed feeding tube or total parenteral nutrition depending on the patient's goals of care.
- Consult Dietitian if possible.

## Pharmacological

• Patient-controlled analgesia with opioids is the treatment of choice for oral mucositis pain.

## Follow-Up and Ongoing Monitoring

If mucositis remains unrelieved despite the approaches outlined above, request the assistance of specialists within the oncology consultation team.