Cancer Care Ontario
Action Cancer Ontario

ALGORITHM

Xerostomia in Adults with Cancer: Screening and Assessment

Screen for xerostomia at each visit

↓

Assessment using Acronym O, P, Q, R, S, T, U and V (adapted from BCCA)

Onset	When did the symptom begin? How long have you had it?
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	What is the 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?
Related Symptoms	Do you have any other related or associated symptoms? (e.g., pain)
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	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 associated 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 associated 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? How does this symptom affect your day to day life?
Values	What is an acceptable level of severity for this symptom (0 – 10 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 Table 5 in Oral Care Guide for the basic oral care plan).
- A large variety of medications may cause oral complications. Consultation with a pharmacist is strongly recommended.

Xerostomia in Adults with Cancer: Care Map

Mild Xerostomia | **Moderate Xerostomia** | **Severe Xerostomia**

General Oral Care

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.
- Use prescription strength fluoride toothpaste (e.g., prevident, flouridex, XPur). Spit out the foam but do not rinse mouth.
- Patients should be assessed for the use of daily Fluoride tray.
- Moisturize the mouth with water or artificial saliva products (e.g., Moi-Stir Spray, Biotene products) or other water soluble lubricants for use inside the mouth.
- Avoid glycerin or lemon-glycerin swabs as they dry the mouth and do not moisturize.
- Apply lubricant after each cleaning, at bedtime, and as needed. Water-based lubricant needs to be applied more frequently.
- Frequent rinsing as needed with basic mouth rinse.

Prevention

Non-pharmacological

- Parotid sparing Intensity Modulated Radiation Therapy (IMRT) is recommended in head and neck patients

Management

Non-pharmacological

Nutritional

- Add extra moisture to foods, increase fluid consumption. Oral rinses may improve swallowing and taste problems.
- Soft, mild tasting food is often better tolerated. Moisten food by adding sauces, gravy, butter, dressings, broth or another liquid.
- Food and drinks should be cold or tepid.
- Plain ice cubes, sugar-free popsicles, sugar-free gum, frequent sips of cold water, or sprays may increase fluid consumption and help to cool and moisten mouth.
- Avoid foods, fluids and other items which dry/irritate mouth, including foods and fluids which are highly acidic, high in sugar, caffeine and alcohol.
- To stimulate residual salivary secretion and to ameliorate the condition of the mucosa, use fresh, lightly acidic fruits, cold cucumber slices, tomato or thin slices of cold apples as long as patient is not experiencing mucositis.
- The use of milk, jello, sherbet, applesauce and ice cream is also suggested.
- *Acupuncture* may stimulate gland secretion and alleviate xerostomia.
- *Artificial saliva* products may also be used for a brief course.

Pharmacological

- Oral pilocarpine (sialogogue) 5 mg tid following radiation therapy is recommended in head and neck cancer patients.
- Results for the use of pilocarpine HCl concomitantly with radiation therapy to reduce xerostomia and salivary gland hypofunction are inconsistent, however in some patients a beneficial effect has been shown on xerostomia.
- There is insufficient evidence to recommend for or against the use of amifostine. Amifostine reduces xerostomia after radiation therapy however, the possibility of tumor protection remains a clinical concern.

Follow-Up and Ongoing Monitoring

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

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

July 2012