Mucositis (Mouth Sores) & Oral Care Tip Sheet

Mucositis may also be called mouth sores, oral mucositis, or esophagitis. It can range in severity from a red, sore mouth and/or gums to very painful open sores, causing a patient to be unable to eat. Patients receiving radiation therapy to the head and neck area or those receiving certain types of chemotherapy are at risk to develop mucositis. Other causes of mucositis include infection, dehydration, poor mouth care, oxygen therapy, excessive use of alcohol and/or tobacco, and lack of protein in the diet.

Oral mucositis leads to several problems including pain, nutritional problems related to the inability to eat, and increased risk of infection due to open sores in the oral and throat mucosa (lining). It has a significant effect on the patient's quality of life and can be dose limiting (requiring a reduction in subsequent chemotherapy doses).

Signs and symptoms of mucositis include:

- Red, shiny or swollen mouth and gums
- Blood in the mouth
- Sores in the mouth or on the gums or tongue
- Soreness or pain in the mouth or throat
- Difficulty swallowing or talking
- Feeling of dryness, mild burning, or pain when eating food
- Soft, white-ish patches or pus in the mouth or on the tongue
- Increased mucus or thicker saliva in the mouth

Talk to your healthcare team about your risk for developing mucositis. Patients at risk for mucositis should perform oral/mouth care to help prevent mucositis and special care to help the mouth and throat heal if it does develop. Oral cryotherapy, the practice of eating ice chips and ice water during the infusion of some types of chemotherapy to prevent mucositis, is currently being studied. Ask your provider if this is right for you and the type of therapy you are receiving.

Suggestions for an oral care plan:

- Check the entire mouth twice a day using a small flashlight and tongue blade (tongue depressor). If you wear dentures, remove them and look under the plates. Report any changes to your provider.
- Rinse your mouth (swish, lightly gargle and spit) before and after meals and at bedtime with either:
  - Salt water (1 tsp of table salt to 1 quart (32 oz.) of water) or
  - Salt and Soda rinse (1 tsp of salt and 1 tsp of baking soda in 1 quart (32 ounces) of warm water)
- Use a soft-bristle toothbrush after meals and at bedtime. Soaking in hot water can make the brush bristles softer. If the brush causes pain, toothettes may be used (but these are not as effective as a soft or super soft brush).
- Use non-abrasive toothpaste (or mix 1 tsp baking soda in 2 cups water). Avoid toothpastes with whiteners or other additives.
- Keep lips moist with moisturizers (like Chap stick® or Blistex®).
- Avoid products that irritate the mouth and gums:
  - Avoid commercial mouthwashes and those with alcohol.
  - Limit use of dental floss, DO NOT use floss with platelets below 40,000.
  - Do not use lemon or glycerin swabs or toothbrushes without soft bristles.
- Make dietary changes to decrease pain and discomfort, and promote healing of mouth sores.
  - Increase your fluid intake. Try to drink 3 quarts of fluid per day, unless your provider tells you not to do so.
Include foods high in protein such as dried beans, poultry, eggs, peanut butter, meat, fish, and dairy products, such as milk, cheese and yogurt (Greek yogurt is higher in protein than others). Nutritional supplement shakes like Ensure®, Boost® can also provide calories and protein.

- Avoid hot, spicy, greasy or fried foods.
- Avoid alcohol.
- Avoid citrus fruits and juices such as oranges, lemons, limes and tomatoes as these may be too acidic. Try apricots, pears or peaches instead.
- Avoid hard or coarse foods such as crusty breads, crackers, raw vegetables, potato chips, tortilla chips and pretzels.
- Avoid carbonated beverages.
- Try soft foods like puddings, jello, soups, etc.
- Cold treats like popsicles and water ice can be soothing to mouth sores.
- Eat whenever you are hungry, even if it's not a mealtime.
- Eat smaller, more frequent meals throughout the day, rather than three large meals. Create a nice environment when eating to stimulate your appetite.

If you wear dentures:
- Clean dentures daily.
- Remove at night and whenever possible to expose gums to air.
- Loose fitting dentures can irritate the mouth and gums and should not be worn.
- Do not wear dentures if mouth sores are severe.

- Do not smoke cigarettes, cigars or pipes. Do not use smokeless tobacco (chewing tobacco, snuff).

When should I call my provider?

Mouth sores should not be ignored, since they can cause a decrease in your food and fluid intake, can be a source of infection, and can cause pain and discomfort. Call your provider immediately if you have any one or more of the following:

- Redness or shininess in the mouth that lasts for more than 48 hours.
- When you first notice any type of cut or sore in the mouth.
- Bleeding gums.
- Difficulty or pain with eating or swallowing.
- Oral temperature above 100.4°F (38.0°C), chills or sweats.
- Weight loss of 5 pounds or more since the mouth sores began.

How are mouth sores treated?

Mouth sores generally must heal on their own. Continuing to perform good mouth care can help speed the healing process along. If mouth pain is interfering with eating and swallowing, your provider may prescribe a mouth rinse, which temporarily numbs the mouth or an oral pain medication. In addition, if weight loss from poor intake of food and fluids is a concern, you may be referred to a nutritionist. If necessary, your oncologist may decide to delay further treatments until the mouth sores have healed.

If you have any questions about mouth sores, or need additional information and direction, ask your provider.