

Mucositis Management for patients treated with hematopoietic stem cell transplantation (HSCT)



Based on the 2014 MASCC/ISOO* guidelines for the management of mucositis

What is the objective of this information sheet?

This information sheet is aimed at providing patients undergoing hematopoietic stem cell transplantation with evidence-based information about the management of oral (mouth) mucositis.

What is mucositis?

Mucositis is a toxicity of cancer therapy that affects the lining surface of the mouth and the rest of the gastro-intestinal tract.

Who is the population at high risk?

Patients undergoing cytotoxic treatment, particularly hematopoietic stem cell transplantation, high-dose chemotherapy or radiation to the head and neck region.

What are the MASCC/ISOO guidelines for the management of mucositis?

The MASCC/ISOO mucositis guidelines are a set of clinical practice recommendations and suggestions developed by MASCC/ISOO mucositis study group (MSG)**.

What are clinical practice guidelines?

The MSG used the methodology of a systematic review of the medical, dental and health literature of mucositis interventions: reviewing all the published clinical trials, grading the evidences and weighing it all into a conclusion per intervention.¹

What are the types of guidelines?

There are recommendations or suggestions in favor or against various interventions. Recommendations are based on stronger evidence than suggestions.¹ For more details, please visit the MASCC/ISOO website (<http://www.mascc.org/mucositis-guidelines>).

Which interventions are included on this information sheet?

Please note that this Information Sheet is based on a critical assessment of the scientific literature. It is not intended to include, nor exclude, all possible interventions, drugs, and methods of care for mucositis.

What should I discuss with my doctor?

Your doctor may recommend the choices of prevention and treatment of mucositis based on your specific condition, the availability of an intervention, and all of the circumstances involved.

Recommendations in favor

Recombinant human Keratinocyte Growth Factor-1 (palifermin) is recommended to be used to **prevent** oral mucositis in patients receiving autologous HSCT.

Low level laser therapy (at a specific setting: 650nm, 40mW, time required to deliver each cm² energy of 2J/cm²) is recommended to be used to **prevent** oral mucositis in patients treated with high-dose chemotherapy for HSCT.

Patient-controlled pump for the on-demand intravenous infusion of **morphine** is recommended to be used to **treat** pain caused by oral mucositis.



Suggestions in favor

All cancer patients, of any age and under any treatment should use **oral care protocol** to **prevent** and limit oral mucositis,

- Oral care protocol refers to an enhanced daily oral hygiene protocol and may vary between institutes and patients.
- Normal saline (dissolving a quarter teaspoon of salt in a glass of water) or sodium bicarbonate mouthwash (dissolving a quarter teaspoon of baking soda in a glass of water) are examples for bland rinses that can be helpful for oral hygiene maintenance and patient comfort.
- Chlorhexidine mouthwash can be useful as a complementary oral hygiene method, specifically for those individuals with limited access for dental plaque control.
- Pediatric patients may need special adjustments (the taste of the mouthwash may not be well tolerated).
- Visits to a dentist before, during and after radiotherapy will ensure that any dental problems are identified and treated in a timely manner.

Oral cryotherapy (holding ice water in the mouth) is suggested to be used to **prevent** oral mucositis in patients receiving high-dose melphalan as conditioning (chemotherapy) for HSCT.

Fentanyl (opiate analgesic) skin adhesives are suggested to help relieving pain caused by oral mucositis in patients undergoing HSCT.

Mouthwash with **0.5% doxepin** (antidepressant, relieves hives) is suggested to help lessen pain caused by oral mucositis.



Recommendations against

Iseganan (antimicrobial) mouthwash is not recommended for **prevention** of oral mucositis.

Intravenous glutamine (nutrition supplement) is not recommended for **prevention** of oral mucositis.



Suggestions against

Granulocyte macrophage colony-stimulating factor (GM-CSF) (stimulant of white blood cells production) mouthwash is not suggested to **prevent** oral mucositis.

Oral pentoxifylline (anti-inflammatory agent) is not suggested to **prevent** oral mucositis.

Systemic pilocarpine (saliva secretion stimulant) is not suggested to **prevent** oral mucositis.



How these guidelines are combined with the oral care protocol

Basic oral care is a comprehensive protocol that is addressing several objectives, such as prevention of infections and controlling oral pain. Supportive care for oral complications of cancer therapy is one of these objectives. For more details check the MASCC/ISOO Oral Care Study Group website (<http://www.mascc.org/oral-care>).

*MASCC/ISOO – The Multinational Association of Supportive Care in Cancer (MASCC), in partnership with the International Society of Oral Oncology (ISOO), is dedicated to improving the lives of oncology patients, with a focus on prevention and management of the adverse effects of cancer and of cancer therapy.

**The Mucositis Study Group (MSG) of MASCC/ISOO – The MSG is one of the MASCC/ISOO study groups, committed to reducing the burden of mucositis through research, policy, and educational programs.

1 MASCC/ISOO clinical practice guidelines for the management of mucositis secondary to cancer therapy. Lalla et al. Cancer. 2014 May 15;120(10):1453-61.