MASCC/ISOO EVIDENCE-BASED CLINICAL PRACTICE GUIDELINES FOR MUCOSITIS SECONDARY TO CANCER THERAPY

SUMMARY
DOCUMENT DATE: 7 NOVEMBER 2014

ORAL MUCOSITIS

RECOMMENDATIONS **IN FAVOR** OF AN INTERVENTION
(i.e., strong evidence supports effectiveness in the treatment setting listed)

1. The panel *recommends* that 30 minutes of oral cryotherapy be used to prevent oral mucositis in patients receiving bolus 5-Fluorouracil chemotherapy (Level of Evidence II).

2. The panel *recommends* that recombinant human Keratinocyte Growth Factor-1 (KGF-1/palifermin) be used to prevent oral mucositis (at a dose of 60 µg/kg per day for 3 days prior to conditioning treatment and for 3 days post-transplant) in patients receiving high-dose chemotherapy and total body irradiation, followed by autologous stem cell transplantation, for a hematological malignancy (Level of Evidence II).

3. The panel *recommends* that low-level laser therapy (wavelength at 650 nm, power of 40 mW, and each square centimeter treated with the required time to a tissue energy dose of 2 J/cm2) be used to prevent oral mucositis in patients receiving hematopoietic stem cell transplantation conditioned with high-dose chemotherapy, with or without total body irradiation (Level of Evidence II).

4. The panel *recommends* that patient-controlled analgesia with morphine be used to treat pain due to oral mucositis in patients undergoing hematopoietic stem cell transplantation (Level of Evidence II).

5. The panel *recommends* that benzydamine mouthwash be used to prevent oral mucositis in patients with head and neck cancer receiving moderate dose radiation therapy (up to 50 Gy), without concomitant chemotherapy (Level of Evidence I).

ORAL MUCOSITIS

SUGGESTIONS **IN FAVOR** OF AN INTERVENTION
(i.e., weaker evidence supports effectiveness in the treatment setting listed)

1. The panel *suggests* that oral care protocols be used to prevent oral mucositis in all age groups and across all cancer treatment modalities (Level of Evidence III).

2. The panel *suggests* that oral cryotherapy be used to prevent oral mucositis in patients receiving high-dose melphalan, with or without total body irradiation, as conditioning for hematopoietic stem cell transplantation (Level of Evidence III).

3. The panel *suggests* that low-level laser therapy (wavelength around 632.8 nm) be used to prevent oral mucositis in patients undergoing radiotherapy, without concomitant chemotherapy, for head and neck cancer (Level of Evidence III).

4. The panel *suggests* that transdermal fentanyl may be effective to treat pain due to oral mucositis in patients receiving conventional or high-dose chemotherapy, with or without total body irradiation (Level of Evidence III).

5. The panel *suggests* that 0.2% morphine mouthwash may be effective to treat pain due to oral mucositis in patients receiving chemoradiation for head and neck cancer (Level of Evidence III).

6. The panel *suggests* that 0.5% doxepin mouthwash may be effective to treat pain due to oral mucositis (Level of Evidence IV).

7. The panel *suggests* that systemic zinc supplements administered orally may be of benefit to prevent oral mucositis in oral cancer patients receiving radiation therapy or chemoradiation (Level of Evidence III).

ORAL MUCOSITIS

RECOMMENDATIONS **AGAINST** AN INTERVENTION
(i.e., strong evidence indicates lack of effectiveness in the treatment setting listed)

1. The panel *recommends* that PTA (polymyxin, tobramycin, amphotericin B) and BCoG (bacitracin, clotrimazole, gentamicin) antimicrobial lozenges and PTA paste not be used to prevent oral mucositis in patients receiving radiation therapy for head and cancer (Level of evidence II).

2. The panel *recommends* that iseganan antimicrobial mouthwash not be used to prevent oral mucositis in patients receiving high dose chemotherapy, with or without total body irradiation, for hematopoietic stem cell transplantation (Level of Evidence II), or in patients receiving radiation therapy or concomitant chemoradiation for head and neck cancer (Level of Evidence II).

3. The panel *recommends* that sucralfate mouthwash not be used to prevent oral mucositis in patients receiving chemotherapy for cancer (Level of Evidence I), or in patients receiving radiation therapy (Level of Evidence I) or concomitant chemoradiation (Level of Evidence II) for head and neck cancer.

4. The panel *recommends* that sucralfate mouthwash not be used to treat oral mucositis in patients receiving chemotherapy for cancer (Level of Evidence I), or in patients receiving radiation therapy (Level of Evidence II) for head and neck cancer.

5. The panel *recommends* that intravenous glutamine not be used to prevent oral mucositis in patients receiving high dose chemotherapy, with or without total body irradiation, for hematopoietic stem cell transplantation (Level of Evidence II).

ORAL MUCOSITIS

SUGGESTIONS **AGAINST** AN INTERVENTION
(i.e., weaker evidence indicates lack of effectiveness in the treatment setting listed)

1. The panel *suggests* that chlorhexidine mouthwash not be used to prevent oral mucositis in patients receiving radiation therapy for head and neck cancer (Level of Evidence III).

2. The panel *suggests* that granulocyte macrophage colony-stimulating factor (GM-CSF) mouthwash not be used to prevent oral mucositis in patients receiving high-dose chemotherapy, for autologous or allogeneic stem cell transplantation (Level of Evidence II).

3. The panel *suggests* that misoprostol mouthwash not be used to prevent oral mucositis in patients receiving radiation therapy for head and neck cancer (Level of Evidence III).

4. The panel *suggests* that systemic pentoxifylline, administered orally, not be used to prevent oral mucositis in patients undergoing bone marrow transplantation (Level of Evidence III).

5. The panel *suggests* that systemic pilocarpine, administered orally, not be used to prevent oral mucositis in patients receiving radiation therapy for head and neck cancer (Level of evidence III), or in patients receiving high dose chemotherapy, with or without total body irradiation, for hematopoietic stem cell transplantation (Level of Evidence II).

GASTROINTESTINAL MUCOSITIS (other than the oral cavity)

RECOMMENDATIONS **IN FAVOR** OF AN INTERVENTION
(i.e. strong evidence supports effectiveness in the treatment setting listed)

1. The panel *recommends* that intravenous amifostine be used, at a dose of ≥340 mg/m2, to prevent radiation proctitis in patients receiving radiation therapy (Level of evidence II).

2. The panel *recommends* that octreotide, at a dose of ≥100 µg subcutaneously twice daily, be used to treat diarrhea induced by standard- or high-dose chemotherapy associated with hematopoietic stem cell transplant, if loperamide is ineffective (Level of evidence II).

GASTROINTESTINAL MUCOSITIS (other than the oral cavity)

SUGGESTIONS **IN FAVOR** OF AN INTERVENTION
(i.e., weaker evidence supports effectiveness in the treatment setting listed)

1. The panel *suggests* that intravenous amifostine be used to prevent esophagitis induced by concomitant chemotherapy and radiation therapy in patients with non-small-cell lung carcinoma (Level of evidence III).

2. The panel *suggests* that sucralfate enemas be used to treat chronic radiation-induced proctitis in patients with rectal bleeding (Level of evidence III).

3. The panel *suggests* that systemic sulfasalazine, at a dose of 500 mg administered orally twice a day, be used to prevent radiation-induced enteropathy in patients receiving radiation therapy to the pelvis (Level of evidence II).

4. The panel *suggests* that probiotics containing Lactobacillus species be used to prevent diarrhea in patients receiving chemotherapy and/or radiation therapy for a pelvic malignancy (Level of evidence III).

5. The panel *suggests* that hyperbaric oxygen be used to treat radiation-induced proctitis in patients receiving radiation therapy for a solid tumor (Level of evidence IV).

GASTROINTESTINAL MUCOSITIS (other than the oral cavity)

RECOMMENDATIONS **AGAINST** AN INTERVENTION
(i.e. strong evidence indicates lack of effectiveness in the treatment setting listed)

1. The panel *recommends* that systemic sucralfate, administered orally, not be used to treat gastrointestinal mucositis in patients receiving radiation therapy for a solid tumor (Level of evidence I).

2. The panel *recommends* that 5-acetyl salicylic acid (ASA), and the related compounds mesalazine and olsalazine, administered orally, not be used to prevent acute radiation-induced diarrhea in patients receiving radiation therapy for a pelvic malignancy (Level of evidence I).

3. The panel *recommends* that misoprostol suppositories not be used to prevent acute radiation-induced proctitis in patients receiving radiation therapy for prostate cancer (Level of evidence I).

GASTROINTESTINAL MUCOSITIS (other than the oral cavity)

SUGGESTIONS **AGAINST** AN INTERVENTION
(i.e., weaker evidence indicates lack of effectiveness in the treatment setting listed)

None.

References for Methodology of the Guidelines Development Process

1. Bowen J, Elad S, Hutchins R, Lalla RV, for the Mucositis Study Group of MASCC/ISOO. Methodology for the MASCC/ISOO Mucositis Guidelines Update. Supportive Care in Cancer. 21(1):303-8, 2013.

2. Elad S, Bowen J, Zadik Y, Lalla RV, for the Mucositis Study Group of MASCC/ISOO. Development of the MASCC/ISOO Mucositis Guidelines: Considerations Underlying the Process. Supportive Care in Cancer. 21(1):309-12, 2013.

Note

These guidelines refer to the use of the listed agents for the specific indication listed, i.e. the prevention or treatment of mucositis, or related symptoms. These guidelines do not apply to the use of the listed agents for other indications. For example, while it is suggested that chlorhexidine mouthwash not be used to prevent oral mucositis in patients receiving radiation therapy for head and neck cancer, clinicians may choose to use this agent for other indications in this or other populations.

Disclaimer

The MASCC/ISOO Mucositis Guidelines are developed to facilitate evidence-based management of mucositis. However, clinicians should also use their own judgment in making treatment decisions for individual patients. The guideline authors and MASCC/ISOO do not guarantee or take responsibility for clinical outcomes in individual patients.

