MASCC/ISOO/ASCO Guideline: Medication-Related Osteonecrosis of the Jaw

BONE & MUSCULOSKELETAL STUDY GROUP

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Citation

- Yarom, N., Shapiro, C.L., Peterson, D.E. et al. Medication-Related Osteonecrosis of the Jaw: MASCC/ISOO/ASCO Clinical Practice Guideline. J Clin Oncol. 37(25):2270-2290. (2019). doi: 10.1200/JCO.19.01186.

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Recommendations: Definition

Recommendation 1.1. It is recommended that the term medication-related osteonecrosis of the jaw be used when referring to bone necrosis associated with pharmacologic therapies.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: weak

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Recommendations: Definition

Recommendation 1.2. Clinicians should confirm the presence of all three of the following criteria to establish a diagnosis of MRONJ: (1) current or previous treatment with a BMA or angiogenic inhibitor, (2) exposed bone or bone that can be probed through an intraoral or extraoral fistula in the maxillofacial region and that has persisted for longer than 8 weeks, and (3) no history of radiation therapy to the jaws or metastatic disease to the jaws.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: weak

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Recommendations: Prevention

Recommendation 2.1. Coordination of care: for patients with cancer who are scheduled to receive a BMA in a nonurgent setting, oral care assessment (including a comprehensive dental, periodontal, and oral radiographic exam when feasible to do so) should be undertaken before initiating therapy. Based on the assessment, a dental care plan should be developed and implemented. The care plan should be co-ordinated between the dentist and the oncologist to ensure that medically necessary dental procedures are undertaken before the initiation of the BMA. Follow-up by the dentist should then be performed on a routine schedule, for example every 6 months once therapy with a BMA has commenced.

- Type: evidence based
- Evidence quality: low/intermediate
- Strength of recommendation: moderate

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Recommendations: Prevention

Recommendation 2.2. Modifiable risk factors: members of the multidisciplinary team should address modifiable risk factors for MRONJ with the patient as early as possible. These risk factors include poor oral health, invasive dental procedures, ill-fitting dentures, uncontrolled diabetes mellitus, and tobacco use.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: moderate

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Recommendations: Prevention

Recommendation 2.3. Elective dentoalveolar surgery: elective dentoalveolar surgical procedures (eg, non-medically necessary extractions, alveoloplasties, and implants) should not be performed during active therapy with a BMA at an oncologic dose. Exceptions may be considered when a dental specialist with expertise in the prevention and treatment of MRONJ has reviewed the benefits and risks of the proposed invasive procedure with the patient and the oncology team.

- Type: evidence based
- Evidence quality: intermediate
- Strength of recommendation: moderate

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Recommendations: Prevention

Recommendation 2.4. Dentoalveolar surgery follow-up: if dentoalveolar surgery is performed, patients should be evaluated by the dental specialist on a systematic and frequently scheduled basis (eg, every 6 to 8 weeks) until full mucosal coverage of the surgical site has occurred. Communication with the oncologist regarding the status of healing is encouraged, particularly when considering future use of BMA.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: moderate

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Recommendations: Prevention

Recommendation 2.5. Temporary discontinuation of BMAs before dentoalveolar surgery: for patients with cancer who are receiving a BMA at an oncologic dose, there is insufficient evidence to support or refute the need for discontinuation of the BMA before dentoalveolar surgery. Administration of the BMA may be deferred at the discretion of the treating physician, in conjunction with discussion with the patient and the oral health provider.

- Type: informal consensus
- Evidence quality: insufficient
- Strength of recommendation: weak

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Recommendations: Staging

Recommendation 3.1. A well-established staging system should be used to quantify the severity and extent of MRONJ and to guide management decisions. Options include the 2014 American Association of Oral and Maxillofacial Surgeons staging system, the Common Terminology Criteria for Adverse Events version 5.0, and the 2017 International Task Force on Osteonecrosis of the Jaw staging system for MRONJ. The same system should be used throughout the patient's MRONJ course of care. Diagnostic imaging may be used as an adjunct to these staging systems.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: weak

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Recommendations: Staging

Recommendation 3.2. Optimally, staging should be performed by a clinician who is experienced with the management of MRONJ.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: weak

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Recommendations: Management

Recommendation 4.1. Initial treatment of MRONJ: conservative measures comprise the initial approach to treatment of MRONJ. Conservative measures may include antimicrobial mouth rinses, antibiotics if clinically indicated, effective oral hygiene, and conservative surgical interventions, for example, removal of a superficial bone spicule.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: moderate

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Recommendations: Management

Recommendation 4.2. Treatment of refractory MRONJ: aggressive surgical interventions (eg, mucosal flap elevation, block resection of necrotic bone, or soft tissue closure) may be used if MRONJ results in persistent symptoms or affects function despite initial conservative treatment. Aggressive surgical intervention is not recommended for asymptomatic bone exposure. In advance of the aggressive surgical intervention, the multidisciplinary care team and patient should thoroughly discuss the risks and benefits of the proposed intervention.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: weak

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Recommendations: BMA Discontinuation

Recommendation 5. For patients who are diagnosed with MRONJ while being treated with BMAs, there is insufficient evidence to support or refute the discontinuation of the BMAs. Administration of the BMA may be deferred at the discretion of the treating physician, in conjunction with discussion with the patient and the oral health provider.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: weak

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Recommendations: Outcome Measures

Recommendation 6. During the course of MRONJ treatment, the dentist/dental specialist should communicate with the medical oncologist the objective and subjective status of the lesion–resolved, improving, stable, or progressive. The clinical course of MRONJ may affect local and/or systemic treatment decisions with respect to cessation or recommencement of BMAs.

- Type: formal consensus
- Evidence quality: insufficient
- Strength of recommendation: weak

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