

# Synopsis of AAOMS Position Paper on Bisphosphonate-Related Osteonecrosis of the jaws.

## **Indications and Benefits:**

Treatment and management of cancer-related conditions, including hypercalcemia of malignancy, skeletal-related events associated with bone metastases in the context of solid tumors such as breast cancer, prostate cancer, and lung cancer, and management of lytic lesions in the setting of multiple myeloma.

Treatment of osteoporosis and osteopenia.

## **Drugs:**

### **Non-nitrogenous**

Non-*N*-containing bisphosphonates:

- Etidronate (Didronel) - 1 (potency relative to that of etidronate)
- Clodronate (Bonefos, Loron) - 10
- Tiludronate (Skelid) – 10

### **Nitrogenous**

*N*-containing bisphosphonates:

- Pamidronate (APD, Aredia) - 100
- Neridronate - 100
- Olpadronate - 500
- Alendronate (Fosamax) - 500
- Ibandronate (Boniva) - 1000
- Risedronate (Actonel) - 2000
- Zoledronate (Zometa, Aclasta) - 10000

**Definition:**

Patients may be considered to have BRONJ if all of the following 3 characteristics are present:

1. Current or previous treatment with a bisphosphonate
2. Exposed bone in the maxillofacial region that has persisted for more than 8 weeks
3. No history of radiation therapy to the jaws

**Incidence:**

IV Bisphosphonates- 0.8-12%

Oral Bisphosphonates- less than 0.06%

**Risk Factors:**

1. Drug-related factors
  - A. Bisphosphonate potency
  - B. Duration of therapy
2. Local Risk Factors
  - A. Dentoalveolar surgery  
Extractions, Implant placement, Periapical Surgery, Periodontal surgery involving osseous injury
  - B. Local Anatomy  
Tori and mylohyoid ridge
  - C. Concomitant oral disease
3. Demographic and Systemic factors
4. Preventive factors
  - A. Premedication dental evaluation
  - B. Alternate dosing schedules

**Management Strategies****Prevention:**

1. Oral examination prior to starting medication reduces risk.
2. If systemic condition permit, a drug holiday of 3 months prior to dental surgery and 3 months after surgery.
3. Good oral hygiene and dental care is of paramount importance.
4. Avoiding procedures that involve direct osseous injury.

**Staging and Treatment**

At risk	On oral and IV bisphosphonates	Pt. education
Stage 0	No necrosis but nonspecific findings	Pain management and abx

Stage 1	Necrosis without infection	Peridex, consult drug cessation
Stage 2	Necrosis with infection	Peridex, abx, superficial debridement
Stage 3	Major necrosis	Peridex, abx, surgical debridement

More studies and research is needed to really figure this out.