Table 19.1. Medical Management of Burning Mouth Syndrome

Medications	Examples of Agents	Dosage	Common Prescription
Tricyclic antidepressants	Amitryptyline (Elavil®)	10–150 mg/day	10 mg at bedtime; increase dosage by 10 mg q4–7 days until oral burning is relieved or side effects occur
Benzodiazepines	Clonazepine (Klonopin®)	0.25–2 mg/day	0.25 mg at bedtime, increase dosage by 0.25 mg q4–7 days until oral burning is relieved or side effects occur
Anticonvulsants	Gabapentin (Neurontin®)	300–1600 mg/day	100 mg at bedtime; increase dosage by 100 mg q4–7 days until oral burning is relieved or side effects occur; as dosage increases, medication is taken in three divided doses

Modified from Grushka et al.[31]

Table 19.2. Dental Drug Administration during Pregnancy and Breastfeeding

Drug	FDA Category	During Pregnancy	During Breastfeeding
Local anesthetics[a]			
Lidocaine	B	Yes	Yes
Mepivacaine	C	Use with caution; consult physician	Yes
Prilocaine	B	Yes	Yes
Bupivacaine	C	Use with caution; consult physician	Yes
Etidocaine	B	Yes	Yes
Procaine	C	Use with caution; consult physician	Yes
Analgesics			
Aspirin	C/D 3rd trimester	Caution; avoid in 3rd trimester	Avoid
Acetaminophen	B	Yes	Yes
Ibuprofen	B/D 3rd trimester	Caution; avoid in 3rd trimester	Yes
Codeine[b]	C	Use with caution; consult physician	Yes
Hydrocodone[b]	B	Use with caution; consult physician	Yes
Oxycodone[b]	B	Use with caution; consult physician	Yes
Propoxyphene	C	Use with caution; consult physician	Yes
Antibiotics			
Penicillins	B	Yes	Yes
Erythromycin	B	Yes; avoid estolate form	Yes
Clindamycin	B	Yes	Yes
Cephalosporins	B	Yes	Yes
Tetracycline	D	Avoid	Avoid
Metronidazole	B	Avoid; controversial	Avoid
Sedative hypnotics			
Benzodiazepines	D	Avoid	Avoid
Barbiturates	D	Avoid	Avoid
Nitrous oxide	Not assigned	Avoid in 1st trimester; otherwise, use with caution; consult physician	Yes

[a] Can use vasoconstrictors if necessary.
[b] Avoid prolonged use.
Source: American Dental Association. Women's Oral Health Issues. American Dental Association. Chicago, November 2006.

Table 19.3. Bisphosphonates and other Antiresorptive Agents

Drug	Dosing Interval	Indication
Parenteral drugs		
Pamidronate (Aredia®)	Monthly	Metastatic bone disease, multiple myeloma, hypercalcemia, Paget's disease of the bone
Zolendronic acid (Zometa®)	Monthly	Metastatic bone disease, multiple myeloma, hypercalcemia
Denosumab (Xgeva®)	Monthly	Metastatic bone disease, multiple myeloma, hypercalcemia
Zolendronic acid (Reclast®; Aclasta®[a])	Every 12 months' treatment; every 24 months' prevention	Osteoporosis, Paget's disease of the bone
Ibandronate (Boniva®)	Every 3 months	Osteoporosis
Denosumab (Prolia®)	Every 6 months	Osteoporosis
Clodronate (Bonefos[a])	Daily	Paget's disease of the bone, hypercalcemia from metastatic disease, multiple myeloma and parathyroid carcinoma
Oral drugs		
Alendronate (Fosamax®)	Daily or weekly	Osteoporosis, Paget's disease of the bone
Risedronate (Actonel®; Atelvia®)	Actonel®: daily, weekly, two consecutive days per month or monthly. Atelvia®: weekly	Osteoporosis, also Paget's disease of the bone for Actonel
Ibandronate (Boniva®)	Monthly	Osteoporosis
Etidronate (Didronel®)	Daily	Paget's disease of the bone, treat or prevent hypertrophic ossification after hip replacement, osteoporosis
Tilurdronate (Skelid®)	Daily	Paget's disease of the bone, osteoporosis
Clodronate (Bonefos[a])	Daily	Osteoporosis, hypercalcemia and osteolytic metastatic disease, reduce occurrence of bone metastases in primary breast cancer

[a] Not commercially available in the United States.

Table 19.4. Prevention Strategies for Patients Receiving Antiresorptive Therapy for Prevention and Treatment of Osteoporosis

Duration of Therapy	Oral Health Management Considerations
Before start	• Establish lifetime oral health awareness. • Remove unsalvageable teeth and perform invasive dentoalveolar procedures (more important for cancer patients receiving antiresorptive therapy). • Assess caries and periodontal risk, patient dental compliance and motivation to establish treatment plan in consultation with physician.
<2 years	• Continue as above. • ARONJ risk is very low. • Serum C-terminal telopeptide level testing is not recommended as it has no predictive reliability for ARONJ. • Chlorhexidine rinses are advised whenever periosteal or medullary bone exposure is anticipated or observed. • Dentoalveolar procedures involving periosteal penetration or intramedullary bone exposure (extractions, apicoectomies, periodontal surgery, implants or biopsies) carry minimal risk. • If multiple surgical needs, a trial segmental/sextant approach may help assess the patient's risk and reduce the risk of developing multifocal ARONJ.
≥2 years	• Continue as above. • Advise patient and physician who prescribe antiresorptive agents that the risk of ARONJ increases with extended drug use.
Any length of therapy	• Good oral health and routine dental care are always recommended. • The dentist should discuss antiresorptive therapy with the patient's physician as it relates to the patient's oral health with any decision to discontinue antiresorptive therapy based primarily on risk of fracture, not on risk of ARONJ. • No oral or maxillofacial surgery is strictly contraindicated, but plans that minimize periosteal and/or intrabony exposure and disruption are preferred. • All extractions or dentoalveolar surgery based on medical or dental emergencies are appropriate.

ARONJ, antiresorptive agent-induced osteonecrosis of the jaw.
Adapted from Hellstein et al.[27]

Table 19.5. American Association of Oral and Maxillofacial Surgeons Recommendations for Management of Bisphosphonate Osteonecrosis of the Jaw

Bisphosphonate Osteonecrois of the Jaw Stage[a]	Treatment Strategies[b]
At risk: No apparent necrotic bone in asymptomatic patients who have been treated with intravenous or oral bisphosphonates. ***Stage 0***: No clinical evidence of necrotic bone, but nonspecific symptoms or clinical and radiographic findings: *Symptoms* • Odontalgia not explained by an odontogenic cause • Dull, aching bone pain in the body of the mandible, which may radiate to the temporomandibular joint region • Sinus pain, which may be associated with inflammation and thickening of the maxillary sinus wall • Altered neurosensory function *Clinical findings* • Loosening of teeth not explained by chronic periodontal disease • Periapical/periodontal fistula that is not associated with pulpal necrosis due to caries *Radiographic findings* • Alveolar bone loss or resorption not attributable to chronic periodontal disease • Changes to trabecular pattern—dense woven bone and persistence of unremodeled bone in extraction sockets • Thickening/obscuring of periodontal ligament (thickening of the lamina dura and decreased size of the periodontal ligament space) • Inferior alveolar canal narrowing	No treatment indicated; patient education Systemic management, including antibiotics and pain medication

Table 19.5. (*Continued*)

Bisphosphonate Osteonecrois of the Jaw Stage[a]	Treatment Strategies[b]
Stage 1: Exposed and necrotic bone in patients who are asymptomatic and have no evidence of infection.	Antibacterial mouth rinse; clinical follow-up on a quarterly basis; patient education and review of indications for continued bisphosphonate therapy
Stage 2: Exposed and necrotic bone in patients with pain and clinical evidence of infection.	Symptomatic treatment with oral antibiotics; oral antibacterial mouth rinse; pain control; superficial debridement to relieve soft tissue irritation
Stage 3: Exposed and necrotic bone in patients with pain, infection, and one or more of the following: • Exposed necrotic bone extending beyond the region of alveolar bone, that is inferior border and ramus in the mandible, maxillary sinus, and zygoma in the maxilla • Pathological fracture • Extraoral fistula • Oral antral/oral nasal communication • Osteolysis extending to the inferior border of the mandible or sinus floor	Antibacterial mouth rinse; antibiotic therapy and pain control; surgical debridement/ resection for longer-term palliation of infection and pain

[a] Exposed bone in the maxillofacial region without resolution in 8–12 weeks in person treated with bisphosphonate, but not radiation therapy.
[b] Regardless of stage, mobile segments of bony sequestrum should be removed without exposing uninvolved bone. Symptomatic teeth in exposed bone should be extracted. If systemic conditions permit, modification or cessation of bisphosphonates should be done only in consultation with the treating physician and patient. There is limited benefit unless discontinuation exceeds 6 months. Adapted from Ruggiero et al.[37]