Recommendations for Optimal Oral Health in patients who take Bisphosphonates for Osteoporosis

A working group of experts in osteoporosis, maxillofacial surgery, oral medicine and pathology, oral and maxillofacial radiology and dentistry has developed the following recommendations to guide physicians and dentists in the care of patients who take bisphosphonates for osteoporosis.
Osteoporosis is a common disease, characterized by reduced bone mass and increased risk for fractures. All osteoporosis-related fractures are associated with serious morbidity, substantial healthcare services utilization and increased mortality rates. Bisphosphonates (such as alendronate, risedronate and zoledronic acid) are the most common pharmacological agents prescribed to patients deemed to be at high risk for fractures. They have been shown, in clinical trials, to reduce the risk of fractures up to 60% compared to calcium and vitamin D alone.

However, clinical reports have linked bisphosphonate treatment with osteonecrosis of the jaw. Bisphosphonate-related osteonecrosis of the jaw (BRONJ) is defined “as an area of exposed bone in the maxillofacial region that does not heal within 8 weeks after identification by a healthcare provider, in a patient who is receiving or has been exposed to a bisphosphonate and has not had radiation therapy to the craniofacial region.” It often follows a trauma to the oral cavity such as a tooth extraction. The incidence of ONJ in individuals who receive bisphosphonates for osteoporosis is very low and has been estimated to be less than 1 case per 100,000 person-years of exposure.

RECOMMENDATIONS*:

1. Patients should be encouraged to maintain optimal oral health with good oral hygiene practices, which include daily flossing and brushing.
2. A complete oral/dental examination is recommended for all patients who will initiate bisphosphonates for osteoporosis.
3. The medical questionnaire used by the dentist should include questions regarding the diagnosis of osteoporosis, the use of bisphosphonate (including duration of use) and/or corticosteroid therapy.
4. Current evidence does not support the interruption of bisphosphonate therapy in osteoporotic patients who require oral surgical procedures.
5. In osteoporotic patients on bisphosphonate therapy who require oral surgical procedures, informed consent should include a discussion of the risk of delayed bone healing and osteonecrosis of the surgical site.
6. All oral surgical procedures should be performed in an atraumatic fashion with adequate follow-up until complete mucosal healing of the surgical site.
7. Despite the lack of scientific evidence we support the following recommendations by the American Academy of Oral and Maxillofacial Surgeons (AAOMS), 2009 (http://www.aaoms.org/docs/position_papers/bronj_update.pdf)
   A. It is not necessary to delay or modify a surgical procedure (tooth extraction, dental implant) in patients who have been taking bisphosphonates for osteoporosis for 3 years or less.
   B. Temporary discontinuation (3 months before a surgical procedure and until healing has occurred) may be considered in patients who have been on bisphosphonate therapy for osteoporosis for more than 3 years, if the condition of the patient permits.
   C. Temporary discontinuation (3 months before a surgical procedure and until healing has occurred) may also be considered in patients who have been concomitantly on bisphosphonate for osteoporosis and corticosteroids, if the condition of the patient permits.
8. There is no evidence that supports the predictive value of the serologic markers of bone remodeling, including C-telopeptides (C-Tx), in determining the risk of bisphosphonate-related osteonecrosis of the jaw. Therefore, it is recommended not to measure them.
9. Prior to discontinuing bisphosphonate therapy for a surgical procedure, interprofessional consultation (dentist and physician) is recommended with the goal of optimizing the therapeutic alliance between the patients and healthcare providers.

*Based on current available information as of May 2010.