

## Understanding and Managing Bisphosphonate Drugs and Oral Health

- ◇ Bisphosphonate drugs is a class of drugs use to treat certain disease states. The drug is administered orally or intravenously. The IV route medications (Zometa and Aredia) are used to treat primarily metastatic cancer and multiple myeloma. The oral medications are (Fosamax, Actonel, and Boniva) used primarily in the treatment of osteoporosis.
- ◇ Bisphosphonate drugs work by inhibiting osteoclasts. This results in increased bone density. It also results in a gradual reduction in the bone turnover rate or ability to make new bone.
- ◇ Osteoporosis is diagnosed by a DEXA Scan. It is a disease state where bone has lost mineral, mass and structure making them weaker and at increased risk for fracture. Osteoporosis occurs in 20-30% of post-menopausal women, it occurs in 13% of men over 50 and 50% in women over 60 years old. It also occurs earlier and more severely in women of Northern European descent.
- ◇ Bisphosphonate associated osteonecrosis of the jaw (BONJ) is dead bone associated with taking bisphosphonate drugs. When associated with IV bisphosphonates the dead bone can be expected to never resolve. To date no effective treatment has been discovered. No surgery has been found to be curative. BONJ can occur with in 5-6 doses but usually is associated with invasive dental procedures.
- ◇ BONJ when associated with oral medications has shown to be less severe and with cessation of the medication to resolve spontaneously 60% of the time. The greatest risk factors appear to be length of time on the medications and simultaneous use of steroids. Persons on the oral bisphosphonates less than 3 years and otherwise healthy have minimal to no risk of BONJ with procedures such as extraction of teeth.
- ◇ Does everyone on the bisphosphonates get BONJ? The answer is no. The incidence is certainly low but the number of cases reported is increasing. The longer people are on the medication the greater the risk when invasive dental procedures are done.

- ◇ How do we prevent BONJ? The best course is to have ALL invasive dental work done prior to starting either IV or oral bisphosphonates. Once dental health is established then your risk of BONJ is dramatically reduced. Keeping your dental health is obviously very important when you are taking these drugs.
  
- ◇ If an invasive procedure is needed when on IV bisphosphonates try to avoid the procedure. If procedure is needed while on oral bisphosphonates and on for more than 3 years then a consultation with dentist and physician is indicated to establish a time frame for taking a “drug holiday” and evaluating the bone’s ability for turnover utilizing a blood bone marker test. Alternative treatments may be indicated such as Evista, Forteo, and Miacalcin.
  
- ◇ If you have an area of exposed bone then consultation with the treating dentist/oral surgeon is indicated.