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CANCER TREATING DRUG ASSOCIATED WITH OSTEONECROSIS OF THE JAW

(August, 2011) A serious and harmful side effect called osteonecrosis of the jaw (ONJ), commonly called “dead jaw,” has been recently associated with the use of Bevacizumab, trade name Avastin. Avastin, a human monoclonal antibody, belongs to a class of drugs known as antiangiogenic agents used to treat various cancers that blocks the growth of new blood vessels. Other drugs that have previously been associated with ONJ were intravenous bisphosphonates, zoledronic acid (Zometa®) and pamidronate (Aredia®), then the oral bisphosphonates (the Fosamax® family of drugs), then the anti-RANKL drug, denosumab (Prolia®, Xgeva®).

Osteonecrosis is a bone disease that is usually associated with the larger joints like the hips, ankles, knees and shoulders. Approximately 17,500 to 21,500 new cases of osteonecrosis are diagnosed in the United States each year. The development of ONJ is caused by any temporary or permanent blood loss to one's bone tissue, leading to the death of the tissue and an inevitable collapse of the bone structure. Even though ONJ is associated with radiation, infection, steroid use or bisphosphonate therapy, this condition can also just occur on its own.

Recently, an increased incidence of ONJ has been associated with the use of high dosages of bisphosphonates used in some cancer treatment plans, especially when the patient undergoes subsequent dental procedures. The possible risk from lower oral doses of bisphosphonates, taken by patients to prevent or treat osteoporosis, remains uncertain. Prior studies had

ONJ may develop in patients after taking the medication for 1 to 2 years, but most cases occur after prolonged therapy (more than five years). The risk of ONJ in patients taking bisphosphonates depends on the amount of medication and length of time it is taken. As a result, cancer patients taking higher doses of bisphosphonates, particularly by IV, are at higher risk.

There is no diagnostic test to determine if an individual patient is at increased risk for ONJ. The condition itself is diagnosed only by the presence of exposed bone, lasting more than eight weeks. Patients typically complain of pain, which is often related to infection, soft tissue swelling, drainage and exposed bone.

Most patients with osteoporosis who develop ONJ are treated conservatively with rinses, antibiotics and oral analgesics. Severe cases of ONJ require the surgical removal of the affected bone. The best way to lower ONJ risk is through a health program of good oral hygiene and regular dental care. Those not receiving routine dental care should undergo a comprehensive oral exam as soon as possible before beginning bisphosphonate therapy.