## ORAL AND IV BISPHOSPHONATE DRUGS, ANTIRESORPTIVE DRUGS, OR ANTIANGIOGENIC DRUGS PATIENT EDUCATION

## For patients who have taken or are currently taking

- Oral Bisphosphonate Drugs
- IV Bisphosphonate Drugs (Zometa/Aredia)
- Antiresorptive Drugs (Denosumab)
- Antiangiogenic Drugs

Research shows that there is a small risk of developing osteonecrosis (bone cell death) of the jaw or other complications after dental treatment. The jaw bones usually heal completely, but in some patients taking these drugs, the ability of the bone to heal may be altered. This risk is increased in procedures like tooth extraction, tissue surgery, implant placement or other invasive procedures that cause damage to the bone. Therefore, it is important to understand these risks before proceeding with any invasive procedure.

After your dental procedure, long-term care with your medical doctor, dentist and/or oral and maxillofacial surgeon may be required to check your condition. Even if there are no immediate complications from the proposed dental treatment, the area is always subject to infection and breakdown at any time due to the unstable condition of the bone. Even the smallest trauma from a toothbrush, chewing hard food, or denture sores may set off a complication. There may be delayed healing, osteonecrosis of the jaw, loss of bone and soft tissues, infection, jaw fracture, oral-cutaneous fistula (open draining wounds), or other significant complications. The risk of osteonecrosis can be increased by certain medical conditions including diabetes, immune suppression, cancer, as well as social habits like tobacco and alcohol use.

If osteonecrosis should occur, treatment may be long and difficult. Ongoing intensive therapy that could include hospitalization, taking antibiotics for a long time, and removal of dead bone. Reconstructive surgery may be needed, including bone grafting, metal plates and screws, and/or skin flaps and grafts. The risk is higher the longer these drug therapies have been taken.

The decision to stop this drug therapy before dental treatment will not lessen the risk of developing osteonecrosis and should only be made after talking with the medical doctor who prescribed the drug(s) and the treating oral and maxillofacial surgeon. If you are taking anti-angiogenic medications, stopping these medications prior to dental treatment may improve healing and should be reviewed with your treating doctors.

My signature below acknowledges I have read and understand the information provided to me and my questions have been answered.

_