

## BC Cancer Protocol Summary for Denosumab for Neoadjuvant Use in Patients with Non-Metastatic Operable Giant Cell Tumour of the Bone

<b>Protocol Code:</b>	<i>SANADENO</i>
<b>Tumour Group:</b>	<i>Sarcoma</i>
<b>Contact Physician:</b>	<i>Dr Christine Simmons</i>

### ELIGIBILITY:

- Large giant cell tumours (GCT) or recurrent GCT – where surgery may not be curative
- Orthopedic surgeon feels that joint function or general functionality can be better maintained with lesser surgery due to response of GCT to denosumab – discussion at multidisciplinary tumour conference

### TESTS

- Baseline: CBC & Diff, sodium, potassium, calcium, phosphate, **total** bilirubin, alkaline phosphatase, ALT, albumin
- Each time seen by the physician: CBC & **Diff**, calcium, phosphate, albumin
- If clinically indicated: **total** bilirubin, ALT, alkaline phosphatase, creatinine

### TREATMENT:

#### Cycle 1:

Drug	Dose	BC Cancer Administration Guideline
denosumab	120 mg on Days 1, 8 and 15	subcutaneous

Start Cycle 2 at Day 28

#### Cycle 2 onwards:

Drug	Dose	BC Cancer Administration Guideline
denosumab	120 mg on Day 1	subcutaneous

Repeat every 28 days as long as patient receives clinical benefits.

## DOSE MODIFICATIONS:

### 1. Hematologic Toxicity: Treatment day counts

ANC* (x 10 <sup>9</sup> /L)		Platelets (x 10 <sup>9</sup> /L)	Dose
greater than or equal to 1.5	or	greater than or equal to 75	100%
1.0 to less than 1.5	or	50 to less than 75	100%
0.5 to less than 1.0	or	25 to less than 50	Delay then 75%
less than 0.5	or	less than 25	Delay then 50%

### 2. Non-hematologic Toxicity:

CTC-Grade	Dose
1 to 2	100%
3 to 4	Delay until less than or equal to Grade 2 then resume at reduced dose

## PRECAUTIONS:

1. **Symptomatic hypocalcemia** (e.g., muscle spasms, irritability) may occur and may require calcium supplement. Avoid concomitant use of other calcium lowering agents such as corticosteroids and loop diuretics. Treatment related hypocalcemia may be prevented by supplementing with at least calcium 500 mg PO daily and vitamin D 400 units PO daily.
2. **Osteonecrosis of the jaw:** patients should have prophylactic assessment and management by a dentist and all later dental work should be undertaken cautiously by dental specialists experienced in the recognition and management of jaw osteonecrosis

**Call Dr. Christine Simmons or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.**

## Reference:

1. Thomas D, Henshaw R, Skubitz K, et al. Denosumab in patients with giant-cell tumour of bone: an open-label, phase 2 study. *Lancet Oncol* 2010;11(3):275-80.
2. Chawla S, Henshaw R, Seeger L, et al. Safety and efficacy of denosumab for adults and skeletally mature adolescents with giant cell tumour of bone: interim analysis of an open-label, parallel-group, phase 2 study. *Lancet Oncol* 2013;14(9):901-8.