Regimen Reference Order – BRST – zoledronic acid (Adjuvant)

ARIA: BRST - [zoledronic acid (ADJ)]

Planned Course: **Every 3 months for 2 years (8 doses)**
OR
Every 6 months for 3* years (6 doses) (*see Additional Information)

Indication for Use: **Breast Cancer Adjuvant**

CVAD: At Provider's Discretion

Proceed with treatment if:

- ***Creatinine clearance equal to or greater than 30 mL/minute***
- ***Corrected calcium equal to or greater than 2.1 mmol/L***
  - ❖ **Contact Physician if parameters not met**

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
Not Applicable		

Treatment Regimen – BRST – zoledronic acid (Adjuvant)

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
zoledronic acid	4 mg (see table below for dose adjustments)	IV in normal saline 100 mL over 15 minutes **Alert: Dose adjustments for renal dysfunction should be applied according to the **Recommended Dose Adjustments for zoledronic acid** table on Page 2*

In the event of an infusion-related hypersensitivity reaction, refer to the **'Hypersensitivity Reaction Standing Order'**

REQUIRED MONITORING

- Serum creatinine, calcium and albumin within 21 days prior to each zoledronic acid dose as per Physician Orders
- Recent patient weight (no more than 3 months prior to zoledronic acid dose)

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
calcium carbonate*	1250 mg** (500 mg elemental calcium)	Orally twice daily at physician's discretion (providing 1000 mg elemental calcium per day)
cholecalciferol (vitamin D3)*	1000 International Units**	Orally once daily at physician's discretion

* May not be recommended in the presence of hypercalcemia
** Daily calcium and vitamin D requirements should account for both dietary sources and supplements

DISCHARGE INSTRUCTIONS

- Patient should advise dentist/hygienist that they are receiving zoledronic acid
- Patients should be instructed to notify clinic if they experience symptoms such as ocular pain or loss of vision
- Ensure patient is given appointment for next dose

ADDITIONAL INFORMATION

- zoledronic acid can cause osteonecrosis of the jaw
- All **new patients** will start on zoledronic acid every 3 months for 2 years total duration.
- For patients receiving zoledronic acid every 6 months, the optimal duration is 3 years as per the Breast DSG. Treatment up to 5 years is permitted after agreement between patient and prescriber
- Support protocol is available for zoledronic acid under **zoledronic acid ADJ** in the "Breast Cancer" folder

Recommended Dose Adjustments for zoledronic acid

Creatinine clearance (mL/minute)	zoledronic acid dose
Greater than or equal to 60	4 mg
50 to 59.9	3.5 mg
40 to 49.9	3.3 mg
30 to 39.9	3 mg
Less than 30	Not recommended

Creatinine clearance should be calculated based on actual body weight (ABW)
Patient's dose should be adjusted based on recommended doses above.
Contact physician if:

a) Corrected calcium is less than 2.1 mmol/L **OR**
b) Creatinine clearance is less than 30 mL/minute

Consideration should be given to discontinuing zoledronic acid in the presence of persistent renal deterioration, defined as greater than 90 micromol/L increase in baseline serum creatinine from the time of zoledronic acid initiation.

Creatinine Clearance (Cockcroft-Gault Formula)

$$GFR = \frac{N \times (140 - \text{age in years}) \times ABW\ (kg)}{\text{serum creatinine in micromol/L}} = \_\_\_\_\_\ mL/min$$

N = 1.04 in females

N = 1.23 in males

The estimated creatinine clearance is based on limited evidence. Sound clinical judgment and interpretation of the estimation are required, because this equation may not be appropriate for some patient populations (for example, acute renal failure).