

## Regimen Reference Order

### BRST – pembrolizumab + gemcitabine + CISplatin

ARIA: BRST – [pembro + gem + CIS]

**Planned Course:** Every 21 days until disease progression or unacceptable toxicity

**Indication for Use:** Breast Cancer, Metastatic, Triple-negative

**CVAD:** At Provider's Discretion

**Proceed with treatment if:**

**Day 1**

- ANC equal to or greater than  $1.5 \times 10^9/L$  AND Platelets equal to or greater than  $100 \times 10^9/L$
- AST/ALT equal to or less than 3 times the upper limit of normal
- Total bilirubin equal to or less than 1.5 times the upper limit of normal
- Creatinine clearance is equal to or greater than 45 mL/minute

**Day 8**

- ANC equal to or greater than  $1 \times 10^9/L$  AND Platelets equal to or greater than  $100 \times 10^9/L$
- Creatinine clearance is equal to or greater than 45 mL/minute
- ❖ Contact Physician if parameters are not met

### SEQUENCE OF MEDICATION ADMINISTRATION

#### Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
Not Applicable		

#### Treatment Regimen – BRST – pembrolizumab + gemcitabine + CISplatin

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
<b>Day 1</b>		
pembrolizumab	2 mg/kg	IV in normal saline 50 mL over 30 minutes
magnesium sulfate	1 g	IV in normal saline in 500 mL over 1 hour (Pre hydration)
aprepitant	125 mg	Orally 1 hour pre-chemotherapy
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy
dexamethasone	12 mg	Orally 30 minutes pre-chemotherapy
OLANZapine	2.5 mg	Orally 30 minutes pre-chemotherapy
gemcitabine	$1000 \text{ mg/m}^2$	IV in normal saline 250 mL over 30 minutes
CISplatin	$30 \text{ mg/m}^2$	IV in normal saline 500 mL over 1 hour

<b>Day 8</b>		
magnesium sulfate	1 g	IV in normal saline in 500 mL over 1 hour (Pre hydration)
aprepitant	125 mg	Orally 1 hour pre-chemotherapy
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy
dexamethasone	12 mg	Orally 30 minutes pre-chemotherapy
OLANZapine	2.5 mg	Orally 30 minutes pre-chemotherapy
gemcitabine	1000 mg/m <sup>2</sup>	IV in normal saline 250 mL over 30 minutes
CISplatin	30 mg/m <sup>2</sup>	IV in normal saline 500 mL over 1 hour
<p><b>Maximum pembrolizumab dose is 200 mg</b>            All doses will be automatically rounded that fall within CCMB Approved Dose Bands. See Dose Banding document for more information</p>		

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

## REQUIRED MONITORING

All Cycles

Days 1 and 8

- CBC, biochemistry, serum creatinine, urea, liver enzymes, total bilirubin, electrolytes as per Physician Orders (serum creatinine required prior to each CISplatin treatment)
- Baseline blood pressure prior to magnesium infusion and repeat 15 minutes after start of magnesium infusion

## Recommended Support Medications

<b>Drug</b>	<b>Dose</b>	<b>CCMB Administration Guideline</b>
aprepitant	80 mg	Orally once daily on Days 2, 3, 9 and 10
dexamethasone	8 mg	Orally once daily on Days 2, 3, 4, 9, 10 and 11
OLANZapine	2.5 mg	Orally the evening of Days 1 and 8 then twice daily on Days 2, 3, 4, 9, 10 and 11. Also use OLANZapine 2.5 to 5 mg AS NEEDED for breakthrough nausea and vomiting (including Days 1 to 4 and 8 to 11) up to a maximum of 10 mg per day. Contact clinic if nausea/vomiting is not adequately controlled

## DISCHARGE INSTRUCTIONS

- Instruct patient to continue taking anti-emetic(s) at home
- Instruct patient to notify clinic if having significant diarrhea or vomiting
- Maintain oral intake of 2000 mL (8 glasses) of fluid daily at home
- Reinforce applicable safe handling precautions of medications, blood and body fluids for 48 hours after completion of chemotherapy

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**ADDITIONAL INFORMATION**

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- pembrolizumab is an Immune Checkpoint Inhibitor. Consult with medical oncologist for immune-mediated adverse reactions; corticosteroids are often indicated
- CISplatin is ototoxic and nephrotoxic
- CISplatin can cause hypomagnesemia