Regimen Reference Order – BRST – DCH

ARIA: BRST – [DCH]

Planned Course: **DCH every 21 days for 6 cycles, followed by trastuzumab every 21 days for 12 cycles**

Indication for Use: **Breast Cancer Adjuvant HER2 positive**

CVAD: At Provider's Discretion

Proceed with treatment if:

Cycles 1 to 6

- ***ANC equal to or greater than 1 x 10^9/L AND Platelets equal to or greater than 100 x 10^9/L***

Cycles 7 to 18

- ***Blood work at provider's discretion; not required to proceed with treatment***
  - ❖ **Contact Physician if parameters not met**

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
dexamethasone	8 mg	Orally twice daily the day before DOCEtaxel treatment and one dose the morning of DOCEtaxel treatment **(Self-administered at home)**

Treatment Regimen – BRST – DCH

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
Cycles 1 to 6		
trastuzumab (brand name specific)	**Cycle 1** 8 mg/kg Loading Dose	IV in normal saline 250 mL over 90 minutes **Alert: Ensure brand name on prescription label (indicated in brackets on prescription label) matches prescribed order* **Nursing Alert: DOCEtaxel infusion begins after observation period is complete*
	Cycles 2 to 6 6 mg/kg	IV in normal saline 250 mL over 30 minutes **Alert: Ensure brand name on prescription label (indicated in brackets on prescription label) matches prescribed order*
aprepitant	125 mg	Orally 1 hour pre-chemotherapy
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy
dexamethasone	4 mg	Orally 30 minutes pre-chemotherapy **Nursing Alert: this dose is in addition to the 8 mg self-administered dose taken at home morning of Day 1*
DOCEtaxel	75 mg/m^2	IV in normal saline 250 mL over 1 hour

		Use non-DEHP bags and non-DEHP administration sets
normal saline	100 mL	**ONLY** for patients with a PORT IV over 12 minutes **Nursing Alert: This volume is to be administered after standard flush*
CARBOplatin	AUC 6 mg/mL.min; maximum dose 900 mg (see table below)	IV in D5W 250 mL over 30 minutes
Cycles 7 to 18		
trastuzumab (brand name specific)	6 mg/kg	IV in normal saline 250 mL over 30 minutes **Alert: Ensure brand name on prescription label (indicated in brackets on prescription label) matches prescribed order*
All doses will be automatically rounded that fall within the DSG Approved Dose Bands. See BRST DSG – Dose Banding document for more information		

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

REQUIRED MONITORING

Cardiac monitoring

- Left Ventricular Ejection Fraction (LVEF) at baseline and every 4 cycles

Cycles 1 to 6

- CBC, biochemistry and liver enzymes as per Physician Orders

Cycle 1 Only

- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O_2 saturation) at baseline and as clinically indicated
- Observe patient for 30 minutes after trastuzumab infusion. Full vital signs after observation period is complete. DOCEtaxel infusion begins after observation period is complete
- No observation period required after DOCEtaxel administration. Patient can be discharged from treatment room if stable whether they had a reaction or not

Cycles 2 to 6

- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O_2 saturation) at baseline and as clinically indicated
- No observation period required after trastuzumab or DOCEtaxel administration. Patient can be discharged from treatment room if stable whether they had a reaction or not

Cycle 7 and Onwards

- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O_2 saturation) at baseline and as clinically indicated
- No observation period required after trastuzumab administration. Patient can be discharged from treatment room if stable whether they had a reaction or not

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
Cycles 1 to 6 ONLY (DOCEtaxel + CARBOplatin + trastuzumab)		
aprepitant	80 mg	Orally once daily on Days 2 and 3
dexamethasone	8 mg	Orally once daily on Days 2 and 3
metoclopramide	10 – 20 mg	Orally every 4 hours as needed for nausea and vomiting

DISCHARGE INSTRUCTIONS

All Cycles

- Patients should be instructed to contact their cancer team immediately if symptoms of hypersensitivity reactions occur after discharge

Cycles 1 to 6

- Instruct patient to continue taking anti-emetic(s) at home
- Reinforce applicable safe handling precautions of medications, blood and body fluids for 48 hours after completion of chemotherapy

ADDITIONAL INFORMATION

- Reassess trastuzumab dose with significant weight changes
- trastuzumab is available from more than one manufacturer and uses several different brand names. Brand name will be indicated in brackets after trastuzumab. **Ensure prescription label matches the brand name on prescribed order**
- **Note: At Cycle 6**, an entry called "***Physician Reminder – Order remaining trastuzumab 1 units Insert Miscellaneous Once"*** will appear in the electronic drug order. No action is required. **This prompt is to remind the prescriber to order single agent trastuzumab which begins at Cycle 7**

- CARBOplatin dosing considerations:
  - CCMB Breast DSG uses **actual body weight** to calculate GFR
  - CCMB Breast DSG uses a maximum CARBOplatin dose of 900 mg for this regimen
  - If calculated CARBOplatin differs **more than 10%** from prescribed CARBOplatin dose, contact the prescriber

CARBOplatin Dosing Calculations per CCMB Breast DSG

Calculation of CARBOplatin dose: (maximum 900 mg)

Dose (mg) = target AUC (GFR + 25)

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

N = 1.23 in males
N = 1.04 in females

$$\frac{\text{AUC (mg/mL.min)}}{6} \times \frac{\text{GFR + 25 (mL/min)}}{\_\_\_\_ + 25} = \text{Total Dose (mg)}$$

AUC= Area Under Curve

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