

Regimen Reference Order – BRST – DOCetaxel + CARBOplatin

ARIA: - BRST – [DOCetaxel + CARBOplatin]

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

Indication for Use: Breast Cancer Metastatic or Recurrent

CVAD: At Provider’s Discretion

Proceed with treatment if:

ANC equal to or greater than $1.5 \times 10^9/L$ AND Platelets equal to or greater than $100 \times 10^9/L$

❖ **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) <i>*Nursing Alert: Notify physician if patient has not taken dexamethasone. dexamethasone is prescribed to prevent infusion reactions</i>

Treatment Regimen – BRST – DOCetaxel + CARBOplatin

Establish primary solution 500 mL of: normal saline		
Drug	Dose	CCMB Administration Guideline
Day 1		
aprepitant	125 mg	Orally 1 hour pre-chemotherapy
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy
dexamethasone	4 mg	Orally 30 minutes pre-chemotherapy <i>*Nursing Alert: this dose is in addition to the 8 mg self-administered dose taken at home morning of Day 1</i>
DOCetaxel	75 mg/m ²	IV in normal saline 250 mL over 1 hour, following the administration rates below: <ul style="list-style-type: none"> • Administer at 100 mL/hour for 15 minutes, then • Administer remaining volume over 45 minutes Use non-DEHP bags and non-DEHP administration sets OR For 500 mL bags (when Pharmacy must prepare DOCetaxel in 500 mL normal saline for concentration-dependent stability):

		IV in normal saline 500 mL over 1 hour, following the administration rates below: <ul style="list-style-type: none"> Administer at 200 mL/hour for 15 minutes, then Administer remaining volume over 45 minutes <i>Use non-DEHP bags and non-DEHP administration sets</i>
normal saline	100 mL	ONLY for patients with a PORT IV over 12 minutes <i>*Nursing Alert: This volume is to be administered after standard flush</i>
CARBOplatin	AUC 6 mg/mL.min; maximum dose 900 mg (see table below)	IV in D5W 250 mL over 30 minutes

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

REQUIRED MONITORING

All Cycles

- CBC, serum creatinine, urea, liver enzymes, total bilirubin and electrolytes as per Physician Orders
- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O₂ saturation) at baseline and as clinically indicated
- No observation period is required after DOCEtaxel 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
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

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

- 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)												
$\text{GFR} = \frac{N \times (140 - \text{age in years}) \times \text{Actual Body Weight (kg)}}{\text{serum creatinine in } \mu\text{mol/L}} = \text{___ mL/min}$												
N = 1.23 in males N = 1.04 in females												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;"> AUC (mg/mL.min) </td> </tr> <tr> <td style="text-align: center; padding: 5px;"> <hr style="width: 80%; margin: 0 auto;"/> </td> </tr> <tr> <td style="text-align: center; padding: 5px;"> 6 </td> </tr> </table>	AUC (mg/mL.min)	<hr style="width: 80%; margin: 0 auto;"/>	6	X	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;"> GFR + 25 (mL/min) </td> </tr> <tr> <td style="text-align: center; padding: 5px;"> <hr style="width: 80%; margin: 0 auto;"/> </td> </tr> <tr> <td style="text-align: center; padding: 5px;"> ___ + 25 </td> </tr> </table>	GFR + 25 (mL/min)	<hr style="width: 80%; margin: 0 auto;"/>	___ + 25	=	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;"> Total Dose (mg) </td> </tr> <tr> <td style="text-align: center; padding: 5px;"> <hr style="width: 80%; margin: 0 auto;"/> </td> </tr> </table>	Total Dose (mg)	<hr style="width: 80%; margin: 0 auto;"/>
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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).