

Regimen Reference Order – BRST – AC + PACLitaxel + trastuzumab

ARIA: BRST – [AC + q 7 days PACLitaxel + tras]

Planned Course: AC every 21 days for 4 cycles, followed by PACLitaxel and trastuzumab every week for 12 weeks (1 cycle = 21 days), followed by trastuzumab every 21 days for 14 doses

Indication for Use: Breast Cancer Adjuvant or Neo-Adjuvant; HER2 positive

CVAD: Preferred (VESICANT INVOLVED)

Proceed with treatment if:

- *ANC equal to or greater than $1 \times 10^9/L$ AND Platelets equal to or greater than $100 \times 10^9/L$*
- Cycles 1 - 4**
- *Creatinine clearance greater than 10 mL/min*
 - *Bilirubin less than upper limit of normal*
 - *AST/ALT less than 2 times upper limit of normal*
- Cycles 5 - 8**
- *Bilirubin less than 1.25 times upper limit of normal*
 - *AST/ALT less than 10 times upper limit of normal*
- Cycle 9 (trastuzumab)**
- *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
Cycles 1 to 4 – AC		
Instruct patient to start vigorous oral pre-hydration (600-900 mL) the morning of cyclophosphamide treatment (Self-administered at home)		

Treatment Regimen – BRST – AC + PACLitaxel + trastuzumab

Establish primary solution 500 mL of: normal saline		
Drug	Dose	CCMB Administration Guideline
Cycles 1 to 4 – AC		
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
DOXOrubicin	60 mg/m ²	IV Push over 10 to 15 minutes
cyclophosphamide	600 mg/m ²	IV in normal saline 250 mL over 1 hour
Cycle 5 – PACLitaxel + trastuzumab		
trastuzumab (brand name specific)	4 mg/kg Loading Dose	IV in normal saline 250 mL over 90 minutes on Day 1 <i>*Alert: Ensure brand name on prescription label (indicated in brackets on prescription label) matches prescribed order</i> <i>*Nursing Alert: PACLitaxel infusion begins after observation period is complete</i>
	2 mg/kg	IV in normal saline 250 mL over 30 minutes on Days 8 and 15
famotidine	40 mg	Orally 1 hour prior to PACLitaxel on Days 1, 8 and 15
cetirizine	10 mg	Orally 1 hour prior to PACLitaxel on Days 1, 8 and 15
dexamethasone	20 mg	IV in normal saline 50 mL over 15 minutes on Days 1, 8 and 15
Wait 30 minutes after completion of IV pre-medication(s) before starting PACLitaxel		
PACLitaxel	80 mg/m ²	IV in normal saline 250 mL over 1 hour on Days 1, 8 and 15 <i>Use non-DEHP bags and non-DEHP administration sets with 0.2 or 0.22 micron filter</i>
Cycle 6 to 8 – PACLitaxel + trastuzumab		
trastuzumab (brand name specific)	2 mg/kg	IV in normal saline 250 mL over 30 minutes on Days 1, 8 and 15 <i>*Alert: Ensure brand name on prescription label (indicated in brackets on prescription label) matches prescribed order</i> <i>*Nursing Alert: PACLitaxel infusion begins after observation period is complete</i>
famotidine	40 mg	Orally 1 hour prior to PACLitaxel on Days 1, 8 and 15
cetirizine	10 mg	Orally 1 hour prior to PACLitaxel on Days 1, 8 and 15
dexamethasone	20 mg	IV in normal saline 50 mL over 15 minutes on Days 1, 8 and 15
Wait 30 minutes after completion of IV pre-medication(s) before starting PACLitaxel		
PACLitaxel	80 mg/m ²	IV in normal saline 250 mL over 1 hour on Days 1, 8 and 15 <i>Use non-DEHP bags and non-DEHP administration sets with 0.2 or 0.22 micron filter</i>

Cycle 9 – trastuzumab

trastuzumab (brand name specific)

6 mg/kg

IV in normal saline 250 mL over 30 minutes every 21 days for 14 doses

Alert: Ensure brand name on prescription label (indicated in brackets on prescription label) matches prescribed order*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) monitoring recommended
 - During AC treatment: At baseline and after Cycle 4 as per Physician Orders
 - During trastuzumab treatment : Every 4 doses (i.e. 12 weeks) for up to 2 years as per Physician Orders

Cycles 1 to 4 (AC)

- CBC and biochemistry as per Physician Orders

Cycles 5 to 8 (PACLitaxel + trastuzumab)

Day 1

- CBC and liver enzymes as per Physician Orders
- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O₂ saturation) at baseline and as clinically indicated
- Observe patient for 30 minutes after administration of trastuzumab. Full vital signs after observation period is complete. PACLitaxel infusion begins after observation period is complete
- No observation period required after PACLitaxel administration. Patient can be discharged from treatment room if stable whether they had a reaction or not

Days 8 and 15

- CBC
- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O₂ saturation) at baseline and as clinically indicated
- No observation period required after PACLitaxel or trastuzumab administration. Patient can be discharged from treatment room if stable whether they had a reaction or not

Cycle 9 (trastuzumab)

- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O₂ 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 4 – AC		
aprepitant	80 mg	Orally on Days 2 and 3
dexamethasone	8 mg	Orally once daily on Days 2, 3 and 4
OLANzapine	2.5 mg	Orally the evening of Day 1 then twice daily on Days 2, 3 and 4. Also use OLANzapine 2.5 to 5 mg AS NEEDED for breakthrough nausea and vomiting (including Days 1 to 4) up to maximum of 10 mg per day. Contact clinic if nausea/vomiting is not adequately controlled
Cycles 5 to 8 – PACLitaxel		
metoclopramide	10 – 20 mg	Orally every 4 hours as needed for nausea and vomiting
Cycle 9 – trastuzumab		
None required		

DISCHARGE INSTRUCTIONS

Phase 1

Cycles 1 to 4 (AC)

- Instruct patient to:
 - Continue taking anti-emetic(s) at home. Patients should be instructed not to use olanzapine and metoclopramide concurrently due to drug interactions
 - Maintain oral intake of 2000 mL (8 glasses) of fluid daily at home
 - Empty bladder every 2 hours while awake and at bedtime for 24 hours
 - Obtain immediate assistance as per your clinic's contact instructions if:
 - Symptoms of hemorrhagic cystitis (e.g. dysuria, hematuria)
 - Unable to drink recommended amount of fluid
- Reinforce applicable safe handling precautions of medications, blood and body fluids for 48 hours after completion of chemotherapy

Cycle 5 to 8 (PACLitaxel)

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

Cycle 9 (trastuzumab)

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

ADDITIONAL INFORMATION

- PACLitaxel may cause progressive, irreversible neuropathy
- Cumulative DOXOrubicin dose should be calculated and should not exceed 360 mg/m². If exceeding 360 mg/m², consideration to adding dexrazoxane should be given if patient is benefiting from DOXOrubicin therapy
- 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 8**, 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 9**