Regimen Reference Order

BRST – AC + PACLitaxel (Dose Dense) + trastuzumab

ARIA: BRST – [dose dense AC-PACL+tras (Phase 1)]
BRST – [dose dense AC-PACL+tras (Phase 2)]

Planned Course: **AC every 14 days for 4 cycles, followed by PACLitaxel and trastuzumab every 14 days for 4 cycles, followed by trastuzumab every 21 days for 16 doses (to complete one year total of trastuzumab)**

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

CVAD: Preferred (VESICANT INVOLVED)

Proceed with treatment if:

Phase 1 (AC + PACLitaxel (Dose Dense) + trastuzumab)

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

Cycles 1 to 4 (AC)

- ***Creatinine clearance greater than 10 mL/minute***
- ***Bilirubin less than upper limit of normal***
- ***AST/ALT less than 2 times upper limit of normal***

Cycles 5 to 8 (PACLitaxel + trastuzumab)

- ***Bilirubin less than 1.25 times upper limit of normal***
- ***AST/ALT less than 10 times upper limit of normal***

Phase 2 (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 (Dose Dense) + trastuzumab

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
Phase 1 AC + PACLitaxel (Dose Dense) + trastuzumab		
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)	6 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: PACLitaxel infusion begins after observation period is complete*
famotidine	40 mg	Orally 1 hour prior to PACLitaxel
cetirizine	10 mg	Orally 1 hour prior to PACLitaxel
dexamethasone	20 mg	IV in normal saline 50 mL over 15 minutes
Wait 30 minutes after completion of IV pre-medication(s) before starting PACLitaxel		
PACLitaxel	175 mg/m^2	IV in normal saline 500 mL over 3 hours *Use non-DEHP bags and non-DEHP administration sets with 0.2 or 0.22 micron filter*
Cycles 6 to 8 – PACLitaxel + trastuzumab		
trastuzumab (brand name specific)	4 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*
famotidine	40 mg	Orally 1 hour prior to PACLitaxel

cetirizine	10 mg	Orally 1 hour prior to PACLitaxel
dexamethasone	20 mg	IV in normal saline 50 mL over 15 minutes
diphenhydrAMINE	50 mg	IV in normal saline 50 mL over 15 minutes
Wait 30 minutes after completion of IV pre-medication(s) before starting PACLitaxel		
PACLitaxel	175 mg/m^2	IV in normal saline 500 mL over 3 hours *Use non-DEHP bags and non-DEHP administration sets with 0.2 or 0.22 micron filter*
Phase 2 trastuzumab **(Note*: Phase 2 starts 14 days after Cycle 8 of Phase 1*)**		
trastuzumab (brand name specific)	6 mg/kg	IV in normal saline 250 mL over 30 minutes every 21 days for 16 doses **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) 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

Phase 1

Cycles 1 to 4 (AC)

- CBC, biochemistry and liver enzymes as per Physician Orders

Cycle 5 (PACLitaxel + trastuzumab)

- CBC, biochemistry and liver enzymes as per Physician Orders
- 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 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

Cycles 6 to 8 (PACLitaxel + trastuzumab)

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

Phase 2 trastuzumab

- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O_2 saturation) at baseline and as clinically indicated
- No observation period is 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
Phase 1 – Cycles 1 to 4 – AC		
pegfilgrastim (brand name specific) *(See Filgrastim Clinical Guide)*	6 mg	Subcutaneously once on Day 2 **Alert: pegfilgrastim to be given as a single dose once per chemotherapy cycle no sooner than 24 hours after chemotherapy*
aprepitant	80 mg	Orally once daily 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 a maximum of 10 mg per day. Contact clinic if nausea/vomiting is not adequately controlled
Phase 1 – Cycles 5 to 8 – PACLitaxel + trastuzumab		
pegfilgrastim (brand name specific) *(See Filgrastim Clinical Guide)*	6 mg	Subcutaneously once on Day 2 **Alert: pegfilgrastim to be given as a single dose once per chemotherapy cycle no sooner than 24 hours after chemotherapy*
metoclopramide	10 – 20 mg	Orally every 4 hours as needed for nausea and vomiting
Phase 2 – 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 after each dose of cyclophosphamide
  - 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

Cycles 5 to 8 (PACLitaxel + trastuzumab)

- Patients 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

Phase 2 (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/m^2. If exceeding 360 mg/m^2, 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:** Upon completion of 8 cycles of **BRST – [dose dense AC-PACL+tras (Phase 1)]**, patients should be started on maintenance treatment with **BRST – [dose dense AC-PACL+tras (Phase 2)]** to complete 1 year of trastuzumab.
    - **Phase 2** should begin 14 days after completion of Phase 1