Protocol Index

IP CYCLOPHOSPHAMIDE / VINCRISTINE / MERCAPTOPURINE / CYTARABINE / PEGASPARGASE

Types: ONCOLOGY TREATMENT
Synonyms: ALL, ACUTE, LEUK, LYMPH, CYCLO, VINC, ONCOV, MERCAP

Cycle 1 Repeat 1 time Cycle length: 21 days

Day 1 Perform every 1 day x1

Provider Communication

ONC PROVIDER COMMUNICATION 5
Interval: Once Occurrences: --
Comments: Use baseline weight to calculate dose. Adjust dose for weight gains/losses of greater than or equal to 10%.

Labs

☑ **CBC WITH PLATELET AND DIFFERENTIAL**
Interval: Once Occurrences: --

☑ **COMPREHENSIVE METABOLIC PANEL**
Interval: Once Occurrences: --

☑ **MAGNESIUM LEVEL**
Interval: Once Occurrences: --

☐ **LDH**
Interval: Once Occurrences: --

☐ **URIC ACID LEVEL**
Interval: Once Occurrences: --

Labs

☑ **LIPASE LEVEL**
Interval: Once Occurrences: --

☑ **AMYLASE LEVEL**
Interval: Once Occurrences: --

☑ **FIBRINOGEN**
Interval: Once Occurrences: --

Nursing Orders

TREATMENT CONDITIONS 7
Interval: Once Occurrences: --
Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000.

Line Flush

sodium chloride 0.9 % flush 20 mL
Dose: 20 mL Route: intravenous PRN
Start: S

Nursing Orders

sodium chloride 0.9 % infusion 250 mL
Dose: 250 mL Route: intravenous once @ 30 mL/hr for 1 dose
Start: S
Instructions:
To keep vein open.

Nursing Orders

sodium chloride 0.9 % infusion 500 mL

Dose: 500 mL | Route: intravenous | once @ 500 mL/hr for 1 dose
Start: S

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg, dexamethasone (DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB**

Dose: -- | Route: intravenous | once over 15 Minutes for 1 dose
Start: S | End: S 11:30 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Yes	No
DEXAMETHASONE 4 MG/ML INJECTION SOLUTION	Medications	12 mg	Yes	No
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

☐ **ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg | Route: oral | once for 1 dose
Start: S | End: S 11:30 AM

☐ **dexamethasone (DECADRON) tablet 12 mg**

Dose: 12 mg | Route: oral | once for 1 dose
Start: S

☐ **aprepitant (CINVANTI) 130 mg in dextrose (NON-PVC) 5% 130 mL IVPB**

Dose: 130 mg | Route: intravenous | once over 30 Minutes for 1 dose
Start: S | End: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
APREPITANT 7.2 MG/ML INTRAVENOUS EMULSION	Medications	130 mg	Main Ingredient	Yes
DEXTROSE 5 % IN WATER (D5W) IV SOLP (EXCEL; NON-PVC)	Base	130 mL	Yes	Yes
SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	Base	130 mL	No	Yes

Chemotherapy

cyclophosphamide (CYTOXAN) 1,000 mg/m2 in dextrose 5% 250 mL chemo IVPB

Dose: 1,000 mg/m2 | Route: intravenous | once over 60 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
DRUG IS AN IRRITANT. Observe carefully for signs of local irritation or infiltration. Apply

ice if infiltration occurs.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	1,000 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

Post-Hydration

sodium chloride 0.9 % infusion 500 mL

Dose: 500 mL Route: intravenous once @ 500 mL/hr for 1 dose
Start: S

Chemotherapy

cytarabine PF (CYSTOSAR) 75 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 75 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
Offset: 2.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	75 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Chemotherapy

mercaptopurine (PURINETHOL) chemo tablet 60 mg/m2 (Treatment Plan)

Dose: 60 mg/m2 Route: oral daily with dinner for 14 doses
Start: S
Instructions:
Take 1 hour after evening meal.
Avoid milk and citrus products.
Round to nearest 50 mg tablet.

Hematology & Oncology Hypersensitivity Reaction Standing Order

ONC NURSING COMMUNICATION 82

Interval: Until discontinued Occurrences: --
Comments: Grade 1 - MILD Symptoms (cutaneous and subcutaneous symptoms only – itching, flushing, periorbital edema, rash, or runny nose)
1. Stop the infusion.
2. Place the patient on continuous monitoring.
3. Obtain vital signs.
4. Administer Normal Saline at 50 mL per hour using a new bag and new intravenous tubing.
5. If greater than or equal to 30 minutes since the last dose of Diphenhydramine, administer Diphenhydramine 25 mg intravenous once.

6. If less than 30 minutes since the last dose of Diphenhydramine, administer Fexofenadine 180 mg orally and Famotidine 20 mg intravenous once.
7. Notify the treating physician.
8. If no improvement after 15 minutes, advance level of care to Grade 2 (Moderate) or Grade 3 (Severe).
9. Assess vital signs every 15 minutes until resolution of symptoms or otherwise ordered by covering physician.

ONC NURSING COMMUNICATION 83

Interval: Until discontinued | Occurrences: --

Comments:

Grade 2 – MODERATE Symptoms (cardiovascular, respiratory, or gastrointestinal symptoms – shortness of breath, wheezing, nausea, vomiting, dizziness, diaphoresis, throat or chest tightness, abdominal or back pain)
1. Stop the infusion.
2. Notify the CERT team and treating physician immediately.
3. Place the patient on continuous monitoring.
4. Obtain vital signs.
5. Administer Oxygen at 2 L per minute via nasal cannula. Titrate to maintain O2 saturation of greater than or equal to 92%.
6. Administer Normal Saline at 150 mL per hour using a new bag and new intravenous tubing.
7. Administer Hydrocortisone 100 mg intravenous (if patient has allergy to Hydrocortisone, please administer Dexamethasone 4 mg intravenous), Fexofenadine 180 mg orally and Famotidine 20 mg intravenous once.
8. If no improvement after 15 minutes, advance level of care to Grade 3 (Severe).
9. Assess vital signs every 15 minutes until resolution of symptoms or otherwise ordered by covering physician.

ONC NURSING COMMUNICATION 4

Interval: Until discontinued | Occurrences: --

Comments:

Grade 3 – SEVERE Symptoms (hypoxia, hypotension, or neurologic compromise – cyanosis or O2 saturation less than 92%, hypotension with systolic blood pressure less than 90 mmHg, confusion, collapse, loss of consciousness, or incontinence)
1. Stop the infusion.
2. Notify the CERT team and treating physician immediately.
3. Place the patient on continuous monitoring.
4. Obtain vital signs.
5. If heart rate is less than 50 or greater than 120, or blood pressure is less than 90/50 mmHg, place patient in reclined or flattened position.
6. Administer Oxygen at 2 L per minute via nasal cannula. Titrate to maintain O2 saturation of greater than or equal to 92%.
7. Administer Normal Saline at 1000 mL intravenous bolus using a new bag and new intravenous tubing.
8. Administer Hydrocortisone 100 mg intravenous (if patient has allergy to Hydrocortisone, please administer Dexamethasone 4 mg intravenous) and Famotidine 20 mg intravenous once.
9. Administer Epinephrine (1:1000) 0.3 mg subcutaneous.
10. Assess vital signs every 15 minutes until resolution of symptoms or otherwise ordered by covering physician.

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg | Route: intravenous | PRN

Start: S

fexofenadine (ALLEGRA) tablet 180 mg
Dose: 180 mg | Route: oral | PRN
Start: S

famotidine (PEPCID) 20 mg/2 mL injection 20 mg
Dose: 20 mg | Route: intravenous | PRN
Start: S

hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg
Dose: 100 mg | Route: intravenous | PRN

dexamethasone (DECADRON) injection 4 mg
Dose: 4 mg | Route: intravenous | PRN
Start: S

epINEPHrine (ADRENALIN) 1 mg/10 mL ADULT injection syringe 0.3 mg
Dose: 0.3 mg | Route: subcutaneous | PRN
Start: S

Discharge Nursing Orders

☑ **sodium chloride 0.9 % flush 20 mL**
Dose: 20 mL | Route: intravenous | PRN

☑ **HEParin, porcine (PF) injection 500 Units**
Dose: 500 Units | Route: intra-catheter | once PRN
Start: S
Instructions:
Concentration: 100 units/mL. Heparin flush for Implanted Vascular Access Device maintenance.

Days 2,3,4 — Perform every 1 day x3

Nursing Orders

sodium chloride 0.9 % infusion 250 mL
Dose: 250 mL | Route: intravenous | once @ 30 mL/hr for 1 dose
Start: S
Instructions:
To keep vein open.

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg, dexamethasone (DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB**
Dose: -- | Route: intravenous | once over 15 Minutes for 1 dose
Start: S | End: S 11:30 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Yes	No
DEXAMETHASONE 4 MG/ML INJECTION SOLUTION	Medications	12 mg	Yes	No
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS	Base		No	Yes

SOLUTION

☐ **ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg | Route: oral | once for 1 dose
Start: S | End: S 11:30 AM

☐ **dexamethasone (DECADRON) tablet 12 mg**

Dose: 12 mg | Route: oral | once for 1 dose
Start: S

☐ **aprepitant (CINVANTI) 130 mg in dextrose (NON-PVC) 5% 130 mL IVPB**

Dose: 130 mg | Route: intravenous | once over 30 Minutes for 1 dose
Start: S | End: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
APREPITANT 7.2 MG/ML INTRAVENOUS EMULSION	Medications	130 mg	Main Ingredient	Yes
DEXTROSE 5 % IN WATER (D5W) IV SOLP (EXCEL; NON-PVC)	Base	130 mL	Yes	Yes
SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	Base	130 mL	No	Yes

Chemotherapy

cytarabine PF (CYSTOSAR) 75 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 75 mg/m2 | Route: intravenous | once over 30 Minutes for 1 dose

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	75 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Day 8 Perform every 1 day x1

Labs

☑ **CBC WITH PLATELET AND DIFFERENTIAL**

Interval: Once Occurrences: --

☑ **COMPREHENSIVE METABOLIC PANEL**

Interval: Once Occurrences: --

☑ **MAGNESIUM LEVEL**

Interval: Once Occurrences: --

☐ **LDH**

Interval: Once Occurrences: --

☐ **URIC ACID LEVEL**

Interval: Once Occurrences: --

Labs

☑ **LIPASE LEVEL**

Interval: Once Occurrences: --

☑ **AMYLASE LEVEL**

Interval: Once Occurrences: --

☑ **FIBRINOGEN**

Interval: Once Occurrences: --

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

Dose: 250 mL Route: intravenous once @ 30 mL/hr for 1 dose

Start: S

Instructions:

To keep vein open.

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg, dexamethasone (DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB**

Dose: -- Route: intravenous once over 15 Minutes for 1 dose

Start: S End: S 11:30 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Yes	No
DEXAMETHASONE 4 MG/ML INJECTION SOLUTION	Medications	12 mg	Yes	No
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

☐ **ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg Route: oral once for 1 dose

Start: S End: S 11:30 AM

☐ **dexamethasone (DECADRON) tablet 12 mg**

Dose: 12 mg | Route: oral | once for 1 dose
Start: S

☐ **aprepitant (CINVANTI) 130 mg in dextrose (NON-PVC) 5% 130 mL IVPB**
Dose: 130 mg | Route: intravenous | once over 30 Minutes for 1 dose
Start: S | End: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
APREPITANT 7.2 MG/ML INTRAVENOUS EMULSION	Medications	130 mg	Main Ingredient	Yes
DEXTROSE 5 % IN WATER (D5W) IV SOLP (EXCEL; NON-PVC)	Base	130 mL	Yes	Yes
SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	Base	130 mL	No	Yes

Chemotherapy

cytarabine PF (CYSTOSAR) 75 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB
Dose: 75 mg/m2 | Route: intravenous | once over 30 Minutes for 1 dose

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	75 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Days 9,10,11 — Perform every 1 day x3

Nursing Orders

sodium chloride 0.9 % infusion 250 mL
Dose: 250 mL | Route: intravenous | once @ 30 mL/hr for 1 dose
Start: S
Instructions:
To keep vein open.

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg, dexamethasone (DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB**
Dose: -- | Route: intravenous | once over 15 Minutes for 1 dose
Start: S | End: S 11:30 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Yes	No
DEXAMETHASONE 4 MG/ML INJECTION SOLUTION	Medications	12 mg	Yes	No
SODIUM	Base	50 mL	Always	Yes

CHLORIDE 0.9 % INTRAVENOUS SOLUTION					
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes	

☐ **ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg Route: oral once for 1 dose
Start: S End: S 11:30 AM

☐ **dexamethasone (DECADRON) tablet 12 mg**

Dose: 12 mg Route: oral once for 1 dose
Start: S

☐ **aprepitant (CINVANTI) 130 mg in dextrose (NON-PVC) 5% 130 mL IVPB**

Dose: 130 mg Route: intravenous once over 30 Minutes for 1 dose
Start: S End: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
APREPITANT 7.2 MG/ML INTRAVENOUS EMULSION	Medications	130 mg	Main Ingredient	Yes
DEXTROSE 5 % IN WATER (D5W) IV SOLP (EXCEL; NON-PVC)	Base	130 mL	Yes	Yes
SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	Base	130 mL	No	Yes

Chemotherapy

cytarabine PF (CYSTOSAR) 75 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 75 mg/m2 Route: intravenous once over 30 Minutes for 1 dose

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	75 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Day 15 Perform every 1 day x1

Labs

☑ **CBC WITH PLATELET AND DIFFERENTIAL**

Interval: Once Occurrences: --

☑ **COMPREHENSIVE METABOLIC PANEL**

Interval: Once Occurrences: --

☑ **MAGNESIUM LEVEL**

Interval: Once Occurrences: --

☐ **LDH**

Interval: Once Occurrences: --

☐ **URIC ACID LEVEL**

Interval: Once Occurrences: --

Labs

☑ **LIPASE LEVEL**

Interval: Once Occurrences: --

☑ **AMYLASE LEVEL**

Interval: Once Occurrences: --

☑ **FIBRINOGEN**

Interval: Once Occurrences: --

Nursing Orders

TREATMENT CONDITIONS 28

Interval: -- Occurrences: --

Comments: MD must review results of amylase, lipase, and fibrinogen prior to patient receiving peg-asparaginase.

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

Dose: 250 mL Route: intravenous once @ 30 mL/hr for 1 dose

Start: S

Instructions:

To keep vein open.

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg, dexamethasone (DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB**

Dose: -- Route: intravenous once over 15 Minutes for 1 dose

Start: S End: S 11:30 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Yes	No
DEXAMETHASONE 4 MG/ML INJECTION SOLUTION	Medications	12 mg	Yes	No
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

☐ **ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg Route: oral once for 1 dose

Start: S End: S 11:30 AM

☐ **dexamethasone (DECADRON) tablet 12 mg**

Dose: 12 mg Route: oral once for 1 dose
Start: S

☐ **aprepitant (CINVANTI) 130 mg in dextrose (NON-PVC) 5% 130 mL IVPB**
Dose: 130 mg Route: intravenous once over 30 Minutes for 1 dose
Start: S End: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
APREPITANT 7.2 MG/ML INTRAVENOUS EMULSION	Medications	130 mg	Main Ingredient	Yes
DEXTROSE 5 % IN WATER (D5W) IV SOLP (EXCEL; NON-PVC)	Base	130 mL	Yes	Yes
SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	Base	130 mL	No	Yes

Chemotherapy

pegaspargase (ONCASPAR) 2,000 Units/m2 in dextrose 5% 100 mL chemo IVPB
Dose: 2,000 Units/m2 Route: intravenous once over 2 Hours for 1 dose
Offset: 30 Minutes

Instructions:
Infuse into a flowing IV line. Observe for 1 hour post infusion

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
PEGASPARGASE 750 UNIT/ML INJECTION SOLUTION	Medications	2,000 Units/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	100 mL	No	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	100 mL	Yes	Yes

Chemotherapy

vinCRIStine (ONCOVIN) 2 mg in sodium chloride 0.9 % 50 mL chemo IVPB
Dose: 2 mg Route: intravenous once over 15 Minutes for 1 dose
Offset: 150 Minutes

Instructions:
DRUG IS A VESICANT. FATAL IF GIVEN INTRATHECALLY. Maximum dose = 2 mg (independent of BSA calculation).

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	2 mg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	48 mL	Yes	Yes