Protocol Index

IP R-HYPERCVAD A AND B (ALTERNATING)

Types: ONCOLOGY TREATMENT
Synonyms: HYERCVAD, LYMPH, CYCLO, MESNA, DOXO, VINCR, CVAD, DECA, ADRIA, PART A , CYTOX

Pre-Treatment Cycle Repeat 1 time Cycle length: 1 day

Day 1 Perform every 1 day x1

Pre-Medications

dexamethasone (DECADRON) 4 MG tablet
Dose: 40 mg Route: oral daily with breakfast
Dispense: 60 tablet Refills: 3
Start: S End: S+4
Instructions:
As directed by Doctor. Days 1-4 and 11-14.

HyperCVAD Part 1A Repeat 1 time Cycle length: 21 days

Day 1 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: --

Provider Communication

ONC PROVIDER COMMUNICATION
Interval: Once Occurrences: --
Comments: Verify Ejection Fraction prior to Cycle 1. Ejection Fraction: ***% on *** (date).

If patient has not had a recent MUGA or ECHO, order one via order entry. A baseline cardiac evaluation with a MUGA scan or an ECHO is recommended, especially in patients with risk factors for increased cardiac toxicity. Repeated MUGA or ECHO determinations of LVEF should be performed, particularly with higher, cumulative anthracycline doses.

Provider Communication

ONC PROVIDER COMMUNICATION 58
Interval: Once Occurrences: --
Comments: Prior to beginning Rituxan infusion, please check if a Hepatitis B and C serology has been performed within the past 6 months. Hepatitis B and C serologies results: Push F2:11554001 drawn on ***.

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

Hydration

sodium chloride 0.9 % infusion
Dose: 100 mL/hr Route: intravenous continuous
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.

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL
Interval: Once Occurrences: --
Comments: 1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26
Interval: Once Occurrences: --
Comments: 2) Infuse antibody via pump
3) If any of the following occurs: FEVER (T greater than 38.5 degrees C), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and / or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Chemotherapy

RiTUXimab (PF) (RITUXAN) 375 mg/m2 in
☑ **sodium chloride 0.9% INITIAL INFUSION RATE IVPB**
Dose: 375 mg/m2 Route: intravenous once for 1 dose

Offset: 3 Hours

Instructions:
Initiate infusion at rate of 50 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), then increase infusion rate by 50 mg/hour every 30 minutes, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

☐ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

☐ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:
RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,IN TRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg
Dose: 25 mg Route: intravenous once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg
Dose: 25 mg Route: intravenous once PRN
Start: S

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

famotidine (PEPCID) injection 20 mg
Dose: 20 mg Route: intravenous once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg
Dose: 0.3 mg Route: intramuscular once PRN
Start: S

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg in sodium chloride 0.9% 50 mL IVPB**
Dose: 16 mg Route: intravenous once over 15 Minutes for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

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	Medications	12 mg	No	No

INJECTION SOLUTION					
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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Dose: 12 mg Route: oral once for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg Route: oral once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 Route: intravenous once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Supportive Care

allopurinol (ZYLOPRIM) tablet 300 mg

Dose: 300 mg Route: oral 2 times daily
Start: S
Instructions:
Dosing: reduce dose to 100 mg if Acute Renal Failure.

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.

Day 2 — Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**
Dose: -- | Route: intravenous | once over 15 Minutes for 1 dose
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION	Medications	16 mg	Yes	No

SOLUTION					
DEXAMETHASONE 4 MG/ML INJECTION SOLUTION	Medications	12 mg	No	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

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg | Route: oral | once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 | Route: intravenous | every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 | Route: intravenous | once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Intrathecal Injections

methotrexate PF 12 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 12 mg | Route: intrathecal | once over 5 Minutes for 1 dose
Start: S | End: S
Instructions:
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	12 mg	Main Ingredient	Yes

SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	QS Base	4.52 mL	Yes	Yes

Day 3 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**
Dose: -- Route: intravenous once over 15 Minutes for 1 dose
Start: S

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	No	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

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: --
Route: intravenous
continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg
Route: oral
once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2
Route: intravenous
every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2
Route: intravenous
once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
MESNA 100 MG/ML INTRAVENOUS	Medications	600 mg/m2	Main Ingredient	Yes

SOLUTION					
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes	
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes	

Day 4 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**

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

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	No	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

☐ **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	Base	130 mL	No	Yes

	CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

dexamethasone (DECADRON) tablet 40 mg
Dose: 40 mg Route: oral once for 1 dose
Start: S

DOXOrubicin (ADRIAmycin) 50 mg/m2 in sodium chloride 0.9% 50 mL chemo IVPB
Dose: 50 mg/m2 Route: intravenous once over 15 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Protect from light; VESICANT

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DOXORUBICIN 50 MG/25 ML INTRAVENOUS SOLUTION	Medications	50 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	No	Yes

vinCRIStine (ONCOVIN) 1.4 mg/m2 in sodium

chloride 0.9% 50 mL chemo IVPB
Dose: 1.4 mg/m2 Route: intravenous once over 10 Minutes for 1 dose
Offset: 45 Minutes

Instructions:
Protect from light, VESICANT. Maximum Dose = 2 mg.
Rule-Based Template: RULE ONCBCN VINCRISTINE 1.4 MG/M2
Conditions:
BSA < 1.43 m2
BSA >= 1.43 m2
Modifications:
Set dose to 1.4 mg/m2
Set dose to 2 mg

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	1.4 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

Outpatient Day 11 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

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

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

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

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

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

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

ONC NURSING COMMUNICATION
Interval: Once Occurrences: --
Comments: Remind patient to take Dexamethasone on Days 1 through 4, and Days 11 through 14. Some doses may be given in hospital / clinic.

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose

Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**
Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:
RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly

responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL

Interval: Until discontinued — Occurrences: --

Comments:
1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26

Interval: Until discontinued — Occurrences: --

Comments:
2) Infuse antibody via pump
3) If any of the following occurs: FEVER (temperature greater than 38.5 degrees Celsius), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and/or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg

Dose: 25 mg — Route: intravenous — once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg — Route: intravenous — once PRN
Start: S

hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg

Dose: 100 mg — Route: intravenous — once PRN

famotidine (PEPCID) injection 20 mg

Dose: 20 mg — Route: intravenous — once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection

0.3 mg
Dose: 0.3 mg Route: intramuscular once PRN
Start: S

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

Chemotherapy

dexamethasone (DECADRON) tablet 40 mg
Dose: 40 mg | Route: oral | once for 1 dose
Start: S

vinCRIStine (ONCOVIN) 1.4 mg/m2 in sodium chloride 0.9 % 50 mL chemo IVPB
Dose: 1.4 mg/m2 | Route: intravenous | once over 10 Minutes for 1 dose
Start: S
Instructions:
Protect from light, VESICANT. Max dose = 2 mg.
Rule-Based Template: RULE ONCBCN VINCRISTINE 1.4 MG/M2

Conditions:	Modifications:
BSA < 1.43 m2	Set dose to 1.4 mg/m2
BSA >= 1.43 m2	Set dose to 2 mg

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	1.4 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

Appointment Requests

IR LUMBAR PUNCTURE
Interval: -- Occurrences: --

Labs

CSF CELL COUNT WITH DIFFERENTIAL
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

PROTEIN, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

GLUCOSE LEVEL, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

FLOW CYTOMETRY EVALUATION
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

CYTOLOGY (NON-GYNECOLOGICAL) REQUEST
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

Intrathecal Injections

cytarabine PF (CYSTOSAR) 100 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection
Dose: 100 mg Route: intrathecal once over 5 Minutes for 1 dose
Start: S End: S
Instructions:
HAZARDOUS - Handle with care.
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	100 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		Yes	Yes

Discharge Nursing Orders

ONC NURSING COMMUNICATION 76
Interval: -- Occurrences: --
Comments: Discontinue IV.

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.

HyperCVAD Part 1B Repeat 1 time Cycle length: 21 days

Day 1 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

PH, URINALYSIS
Interval: Conditional Occurrences: --
Frequency
Comments: Draw prior to starting methotrexate and PRN until pH GREATER than 7. Then draw urine pH every 8 hours until MTX is LESS than 0.05

Provider Communication

ONC PROVIDER COMMUNICATION 58
Interval: Once Occurrences: --
Comments: Prior to beginning Rituxan infusion, please check if a Hepatitis B and C serology has been performed within the past 6 months. Hepatitis B and C serologies results: Push F2:11554001 drawn on ***.

Nursing Orders

ONC NURSING COMMUNICATION 64
Interval: Until discontinued Occurrences: --
Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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.

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

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

☐ **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

Hydration

dextrose 5% 1,000 mL with sodium bicarbonate 150 mEq infusion
Dose: 150 mL/hr | Route: intravenous | continuous

Start: S
Instructions:
Hydrate patient for 4 hours PRIOR to checking urine pH.

Run until methotrexate level is LESS than 0.05 micromol/L.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	Yes	Yes

Provider Communication

ONC PROVIDER COMMUNICATION 13
Interval: Once Occurrences: --
Comments: Provider to confirm dose for patients over 60 years of age for Cytarabine.

Supportive Care

prednisoLONE acetate (PRED FORTE) 1 % ophthalmic suspension 2 drop
Dose: 2 drop Route: Both Eyes every 4 hours while awake
Start: S

Supportive Care

allopurinol (ZYLOPRIM) tablet 300 mg
Dose: 300 mg Route: oral 2 times daily
Start: S
Instructions:
Dosing: reduce dose to 100 mg if Acute Renal Failure.

Chemotherapy

methotrexate PF 200 mg/m2 in sodium chloride 0.9% 250 mL chemo IVPB
Dose: 200 mg/m2 Route: intravenous once over 120 Minutes for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25	Medications	200 mg/m2	Main Ingredient	Yes

MG/ML INJECTION SOLUTION					
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes	
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes	

methotrexate PF 800 mg/m2 in sodium chloride 0.9% 500 mL chemo IVPB

Dose: 800 mg/m2 Route: intravenous once over 22 Hours for 1 dose
Offset: 2.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	800 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg

Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg

Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL

Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION

Interval: -- Occurrences: --

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.

RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:

RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL

Interval: Until discontinued Occurrences: --

Comments: 1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120,

temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26
Interval: Until discontinued | Occurrences: --
Comments:
2) Infuse antibody via pump
3) If any of the following occurs: FEVER (temperature greater than 38.5 degrees Celsius), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and/or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg
Dose: 25 mg | Route: intravenous | once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg
Dose: 25 mg | Route: intravenous | once PRN
Start: S

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

famotidine (PEPCID) injection 20 mg
Dose: 20 mg | Route: intravenous | once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg
Dose: 0.3 mg | Route: intramuscular | once PRN
Start: S

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.

Day 2 Perform every 1 day x1

Labs

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

☑ **PH, URINALYSIS**
Interval: Conditional Frequency Occurrences: --
Comments: Draw prior to starting Methotrexate and PRN until pH GREATER than 7. Then draw urine pH every day until MTX is LESS than 0.05

Nursing Orders

ONC NURSING COMMUNICATION 64
Interval: Until discontinued Occurrences: --
Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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

Instructions:
Administer 30 minutes prior to chemotherapy.

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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Dose: 12 mg Route: oral once for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **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
Instructions:
Administer 30 minutes prior to chemotherapy.

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) 3,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 3,000 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Instructions:
Cytarabine dosing:
if serum creatinine GREATER than 1.5 =
Cytarabine 1 gm.
If age GREATER than 60 years old =
Cytarabine 1.5 gm.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 2 GRAM/20 ML (100 MG/ML) INJECTION SOLUTION	Medications	3,000 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Chemotherapy

leucovorin IV 50 mg

Dose: 50 mg Route: intravenous every 6 hours over 30 Minutes

Instructions:
Begin 12 hours AFTER COMPLETION of methotrexate infusion, and then Give every 6 hours.

Continue every 6 hours until Methotrexate levels are LESS than 0.05 micromol/L.

Intrathecal Injections

methotrexate PF 12 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 12 mg Route: intrathecal once over 5 Minutes for 1 dose
Start: S End: S
Instructions:
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	12 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	QS Base	4.52 mL	Yes	Yes

Day 3 Perform every 1 day x1

Labs

☑ **METHOTREXATE LEVEL**

Interval: Once Occurrences: --

☑ **PH, URINALYSIS**

Interval: Conditional Frequency Occurrences: --
Comments: Draw prior to starting Methotrexate and PRN until pH GREATER than 7. Then draw urine pH every day until MTX is LESS than 0.05

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued Occurrences: --
Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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

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

☐ **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	Base	130 mL	No	Yes

CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)

Chemotherapy

cytarabine PF (CYSTOSAR) 3,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 3,000 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Instructions:
Cytarabine dosing:
if serum creatinine GREATER than 1.5 =
Cytarabine 1 gm.
If age GREATER than 60 years old =
Cytarabine 1.5 gm.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 2 GRAM/20 ML (100 MG/ML) INJECTION SOLUTION	Medications	3,000 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Outpatient Day 11 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

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

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

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

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

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

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.

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg

Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:
RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL

Interval: Until discontinued — Occurrences: --

Comments:
1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26

Interval: Until discontinued — Occurrences: --

Comments:
2) Infuse antibody via pump
3) If any of the following occurs: FEVER (temperature greater than 38.5 degrees Celsius), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and/or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg

Dose: 25 mg — Route: intravenous — once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg — Route: intravenous — once PRN
Start: S

hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg

Dose: 100 mg — Route: intravenous — once PRN

famotidine (PEPCID) injection 20 mg

Dose: 20 mg — Route: intravenous — once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection
0.3 mg
Dose: 0.3 mg Route: intramuscular once PRN
Start: S

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

Appointment Requests

IR LUMBAR PUNCTURE
Interval: -- Occurrences: --

Labs

CSF CELL COUNT WITH DIFFERENTIAL
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

PROTEIN, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

GLUCOSE LEVEL, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

FLOW CYTOMETRY EVALUATION
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

CYTOLOGY (NON-GYNECOLOGICAL) REQUEST
Interval: -- Occurrences: --

Comments: Specimen to be drawn in Interventional Radiology area.

Intrathecal Injections

cytarabine PF (CYSTOSAR) 100 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 100 mg Route: intrathecal once over 5 Minutes for 1 dose
Start: S End: S
Instructions:
HAZARDOUS - Handle with care.
Preserved free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	100 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		Yes	Yes

HyperCVAD Part 2A Repeat 1 time Cycle length: 21 days

Day 1 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: --

Provider Communication

ONC PROVIDER COMMUNICATION
Interval: Once Occurrences: --
Comments: Verify Ejection Fraction prior to Cycle 1. Ejection Fraction: ***% on *** (date).

If patient has not had a recent MUGA or ECHO, order one via order entry. A baseline cardiac evaluation with a MUGA scan or an ECHO is recommended, especially in patients with risk factors for increased cardiac toxicity. Repeated MUGA or ECHO determinations of LVEF should be performed, particularly with higher, cumulative anthracycline doses.

Provider Communication

ONC PROVIDER COMMUNICATION 58
Interval: Once Occurrences: --
Comments: Prior to beginning Rituxan infusion, please check if a Hepatitis B and C serology has been performed within the past 6 months. Hepatitis B and C serologies results: Push F2:11554001 drawn on ***.

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.

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL
Interval: Once Occurrences: --
Comments: 1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26
Interval: Once Occurrences: --
Comments: 2) Infuse antibody via pump
3) If any of the following occurs: FEVER (T greater than 38.5 degrees C), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and / or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**
Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours
Instructions:

Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:

RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg
Dose: 25 mg | Route: intravenous | once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg
Dose: 25 mg | Route: intravenous | once PRN
Start: S

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

famotidine (PEPCID) injection 20 mg
Dose: 20 mg | Route: intravenous | once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg
Dose: 0.3 mg | Route: intramuscular | once PRN
Start: S

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg in sodium chloride 0.9% 50 mL IVPB**
Dose: 16 mg | Route: intravenous | once over 15 Minutes for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

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	No	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
Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **dexamethasone (DECADRON) tablet 12 mg**
Dose: 12 mg | Route: oral | once for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **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
Instructions:

Administer 30 minutes prior to chemotherapy.

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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg Route: oral once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS	Medications	300 mg/m2	Main Ingredient	Yes

SOLUTION					
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes	
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes	

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 Route: intravenous once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Supportive Care

allopurinol (ZYLOPRIM) tablet 300 mg

Dose: 300 mg Route: oral 2 times daily
Start: S
Instructions:
Dosing: reduce dose to 100 mg if Acute Renal Failure.

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.

Day 2 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**
Dose: -- Route: intravenous once over 15 Minutes for 1 dose
Start: S

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	No	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

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg Route: oral once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
SODIUM	QS Base	250 mL	Yes	Yes

CHLORIDE 0.9 % INTRAVENOUS SOLUTION					
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes	

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 Route: intravenous once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Intrathecal Injections

methotrexate PF 12 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 12 mg Route: intrathecal once over 5 Minutes for 1 dose
Start: S End: S
Instructions:
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	12 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	QS Base	4.52 mL	Yes	Yes

Day 3 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**

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

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	No	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

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg | Route: oral | once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 | Route: intravenous | every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 | Route: intravenous | once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Day 4 — Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**

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

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	No	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

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

dexamethasone (DECADRON) tablet 40 mg

Dose: 40 mg | Route: oral | once for 1 dose

Start: S

DOXOrubicin (ADRIAmycin) 50 mg/m2 in sodium chloride 0.9% 50 mL chemo IVPB

Dose: 50 mg/m2 | Route: intravenous | once over 15 Minutes for 1 dose

Offset: 30 Minutes

Instructions:

Protect from light; VESICANT

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DOXORUBICIN 50 MG/25 ML INTRAVENOUS SOLUTION	Medications	50 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	No	Yes

vinCRIStine (ONCOVIN) 1.4 mg/m2 in sodium chloride 0.9% 50 mL chemo IVPB

Dose: 1.4 mg/m2 | Route: intravenous | once over 10 Minutes for 1 dose

Offset: 45 Minutes

Instructions:

Protect from light, VESICANT. Maximum Dose = 2 mg.

Rule-Based Template: RULE ONCBCN VINCRISTINE 1.4 MG/M2

Conditions:	Modifications:
BSA < 1.43 m2	Set dose to 1.4 mg/m2
BSA >= 1.43 m2	Set dose to 2 mg

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	1.4 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

Outpatient Day 11 — Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST

Interval: -- | Occurrences: --

Labs

☑ **CBC WITH PLATELET AND DIFFERENTIAL**

Interval: -- Occurrences: --

☑ **COMPREHENSIVE METABOLIC PANEL**

Interval: -- Occurrences: --

☑ **MAGNESIUM LEVEL**

Interval: -- Occurrences: --

☐ **LDH**

Interval: -- Occurrences: --

☐ **URIC ACID LEVEL**

Interval: -- Occurrences: --

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

ONC NURSING COMMUNICATION
Interval: Once Occurrences: --
Comments: Remind patient to take Dexamethasone on Days 1 through 4, and Days 11 through 14. Some doses may be given in hospital / clinic.

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour

increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,IN TRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:

RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,IN TRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL

Interval: Until discontinued Occurrences: --

Comments: 1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN

-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26
Interval: Until discontinued
Occurrences: --
Comments:
2) Infuse antibody via pump
3) If any of the following occurs: FEVER (temperature greater than 38.5 degrees Celsius), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and/or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg
Dose: 25 mg | Route: intravenous | once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg
Dose: 25 mg | Route: intravenous | once PRN
Start: S

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

famotidine (PEPCID) injection 20 mg
Dose: 20 mg | Route: intravenous | once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg
Dose: 0.3 mg | Route: intramuscular | once PRN
Start: S

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

Chemotherapy

dexamethasone (DECADRON) tablet 40 mg
Dose: 40 mg Route: oral once for 1 dose
Start: S

vinCRIStine (ONCOVIN) 1.4 mg/m2 in sodium chloride 0.9 % 50 mL chemo IVPB
Dose: 1.4 mg/m2 Route: intravenous once over 10 Minutes for 1 dose
Start: S
Instructions:
Protect from light, VESICANT. Max dose = 2 mg.
Rule-Based Template: RULE ONCBCN VINCRISTINE 1.4 MG/M2

Conditions:	Modifications:
BSA < 1.43 m2	Set dose to 1.4 mg/m2
BSA >= 1.43 m2	Set dose to 2 mg

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	1.4 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

Appointment Requests

IR LUMBAR PUNCTURE
Interval: -- Occurrences: --

Labs

CSF CELL COUNT WITH DIFFERENTIAL
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

PROTEIN, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

GLUCOSE LEVEL, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

FLOW CYTOMETRY EVALUATION
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

CYTOLOGY (NON-GYNECOLOGICAL) REQUEST
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

Intrathecal Injections

cytarabine PF (CYSTOSAR) 100 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 100 mg | Route: intrathecal | once over 5 Minutes for 1 dose
Start: S | End: S
Instructions:
HAZARDOUS - Handle with care.
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	100 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		Yes	Yes

Discharge Nursing Orders

ONC NURSING COMMUNICATION 76
Interval: -- | Occurrences: --
Comments: Discontinue IV.

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.

HyperCVAD Part 2B | Repeat 1 time | Cycle length: 21 days

Day 1 | 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

PH, URINALYSIS
Interval: Conditional Frequency | Occurrences: --
Comments: Draw prior to starting methotrexate and PRN until pH GREATER than 7. Then draw urine pH every 8 hours until MTX is LESS than 0.05

Provider Communication

ONC PROVIDER COMMUNICATION 58

Interval: Once | Occurrences: --

Comments: Prior to beginning Rituxan infusion, please check if a Hepatitis B and C serology has been performed within the past 6 months. Hepatitis B and C serologies results: Push F2:11554001 drawn on ***.

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued | Occurrences: --

Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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.

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

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	Base	50 mL	Always	Yes

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

☐ **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

Hydration

dextrose 5% 1,000 mL with sodium bicarbonate 150 mEq infusion

Dose: 150 mL/hr Route: intravenous continuous
Start: S
Instructions:
Hydrate patient for 4 hours PRIOR to checking urine pH.

Run until methotrexate level is LESS than 0.05 micromol/L.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	Yes	Yes

Provider Communication

ONC PROVIDER COMMUNICATION 13

Interval: Once | Occurrences: --

Comments: Provider to confirm dose for patients over 60 years of age for Cytarabine.

Supportive Care

prednisoLONE acetate (PRED FORTE) 1 % ophthalmic suspension 2 drop

Dose: 2 drop | Route: Both Eyes | every 4 hours while awake

Start: S

Supportive Care

allopurinol (ZYLOPRIM) tablet 300 mg

Dose: 300 mg | Route: oral | 2 times daily

Start: S

Instructions:

Dosing: reduce dose to 100 mg if Acute Renal Failure.

Chemotherapy

methotrexate PF 200 mg/m2 in sodium chloride 0.9% 250 mL chemo IVPB

Dose: 200 mg/m2 | Route: intravenous | once over 120 Minutes for 1 dose

Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	200 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

methotrexate PF 800 mg/m2 in sodium chloride 0.9% 500 mL chemo IVPB

Dose: 800 mg/m2 | Route: intravenous | once over 22 Hours for 1 dose

Offset: 2.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	800 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:
RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL

Interval: Until discontinued — Occurrences: --

Comments:
1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26

Interval: Until discontinued — Occurrences: --

Comments:
2) Infuse antibody via pump
3) If any of the following occurs: FEVER (temperature greater than 38.5 degrees Celsius), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and/or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg

Dose: 25 mg — Route: intravenous — once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg — Route: intravenous — once PRN
Start: S

hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg

Dose: 100 mg — Route: intravenous — once PRN

famotidine (PEPCID) injection 20 mg

Dose: 20 mg — Route: intravenous — once PRN

Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg

Dose: 0.3 mg Route: intramuscular once PRN
Start: S

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.

Day 2 Perform every 1 day x1

Labs

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

☑ **PH, URINALYSIS**
Interval: Conditional Occurrences: --

Frequency
Comments: Draw prior to starting Methotrexate and PRN until pH GREATER than 7. Then draw urine pH every day until MTX is LESS than 0.05

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued | Occurrences: --

Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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
Instructions:
Administer 30 minutes prior to chemotherapy.

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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Dose: 12 mg | Route: oral | once for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **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
Instructions:
Administer 30 minutes prior to chemotherapy.

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) 3,000 mg/m2 in dextrose 5% 500 mL chemo IVPB
Dose: 3,000 mg/m2 | Route: intravenous | every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Instructions:
Cytarabine dosing:
if serum creatinine GREATER than 1.5 = Cytarabine 1 gm.
If age GREATER than 60 years old = Cytarabine 1.5 gm.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 2 GRAM/20 ML (100 MG/ML) INJECTION SOLUTION	Medications	3,000 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Chemotherapy

leucovorin IV 50 mg
Dose: 50 mg | Route: intravenous | every 6 hours over 30 Minutes

Instructions:
Begin 12 hours AFTER COMPLETION of methotrexate infusion, and then Give every 6 hours.

Continue every 6 hours until Methotrexate levels are LESS than 0.05 micromol/L.

Intrathecal Injections

methotrexate PF 12 mg in sodium chloride

0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 12 mg | Route: intrathecal | once over 5 Minutes for 1 dose
Start: S | End: S
Instructions:
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	12 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	QS Base	4.52 mL	Yes	Yes

Day 3 — Perform every 1 day x1

Labs

☑ **METHOTREXATE LEVEL**

Interval: Once | Occurrences: --

☑ **PH, URINALYSIS**

Interval: Conditional Frequency | Occurrences: --
Comments: Draw prior to starting Methotrexate and PRN until pH GREATER than 7. Then draw urine pH every day until MTX is LESS than 0.05

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued | Occurrences: --
Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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

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

☐ **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) 3,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 3,000 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Instructions:
Cytarabine dosing:
if serum creatinine GREATER than 1.5 =
Cytarabine 1 gm.
If age GREATER than 60 years old =
Cytarabine 1.5 gm.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 2 GRAM/20 ML (100 MG/ML) INJECTION SOLUTION	Medications	3,000 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Outpatient Day 11 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

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

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

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

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

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

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.

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**
Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours
Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no

symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:

RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL

Interval: Until discontinued Occurrences: --

Comments: 1) During Rituximab infusion:

-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26
Interval: Until discontinued
Occurrences: --
Comments:
2) Infuse antibody via pump
3) If any of the following occurs: FEVER (temperature greater than 38.5 degrees Celsius), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and/or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg
Dose: 25 mg | Route: intravenous | once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg
Dose: 25 mg | Route: intravenous | once PRN
Start: S

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

famotidine (PEPCID) injection 20 mg
Dose: 20 mg | Route: intravenous | once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg
Dose: 0.3 mg | Route: intramuscular | once PRN
Start: S

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

Appointment Requests

IR LUMBAR PUNCTURE
Interval: -- Occurrences: --

Labs

CSF CELL COUNT WITH DIFFERENTIAL
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

PROTEIN, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

GLUCOSE LEVEL, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

FLOW CYTOMETRY EVALUATION
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

CYTOLOGY (NON-GYNECOLOGICAL) REQUEST
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

Intrathecal Injections

cytarabine PF (CYSTOSAR) 100 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection
Dose: 100 mg Route: intrathecal once over 5 Minutes for 1 dose
Start: S End: S
Instructions:
HAZARDOUS - Handle with care.
Preserve free for intrathecal use.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	100 mg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		Yes	Yes

HyperCVAD Part 3A Repeat 1 time Cycle length: 21 days

Day 1 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: --

Provider Communication

ONC PROVIDER COMMUNICATION
Interval: Once Occurrences: --
Comments: Verify Ejection Fraction prior to Cycle 1. Ejection Fraction: ***% on *** (date).

If patient has not had a recent MUGA or ECHO, order one via order entry. A baseline cardiac evaluation with a MUGA scan or an ECHO is recommended, especially in patients with risk factors for increased cardiac toxicity. Repeated MUGA or ECHO determinations of LVEF should be performed, particularly with higher, cumulative anthracycline doses.

Provider Communication

ONC PROVIDER COMMUNICATION 58
Interval: Once Occurrences: --
Comments: Prior to beginning Rituxan infusion, please check if a Hepatitis B and C serology has been performed within the past 6 months. Hepatitis B and C serologies results: Push F2:11554001 drawn on ***.

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.

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:

Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL
Interval: Once Occurrences: --
Comments: 1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26
Interval: Once Occurrences: --
Comments: 2) Infuse antibody via pump
3) If any of the following occurs: FEVER (T greater than 38.5 degrees C), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and / or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**
Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**
Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:

RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg
Dose: 25 mg Route: intravenous once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg
Dose: 25 mg Route: intravenous once PRN
Start: S

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

famotidine (PEPCID) injection 20 mg
Dose: 20 mg Route: intravenous once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg
Dose: 0.3 mg Route: intramuscular once PRN
Start: S

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg in sodium chloride 0.9% 50 mL IVPB**
Dose: 16 mg Route: intravenous once over 15 Minutes for 1 dose
Start: S
Instructions:

Administer 30 minutes prior to chemotherapy.

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	No	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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Dose: 12 mg Route: oral once for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg | Route: oral | once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 | Route: intravenous | every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 | Route: intravenous | once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Supportive Care

allopurinol (ZYLOPRIM) tablet 300 mg
Dose: 300 mg Route: oral 2 times daily
Start: S
Instructions:
Dosing: reduce dose to 100 mg if Acute Renal Failure.

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.

Day 2 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**

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

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	No	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

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg | Route: oral | once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 | Route: intravenous | every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 | Route: intravenous | once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Intrathecal Injections

methotrexate PF 12 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 12 mg | Route: intrathecal | once over 5 Minutes for 1 dose

Start: S End: S
Instructions:
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	12 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	QS Base	4.52 mL	Yes	Yes

Day 3 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**
Dose: -- Route: intravenous once over 15 Minutes for 1 dose
Start: S

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	No	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

☐ **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	Base	130 mL	Yes	Yes

SOLP (EXCEL; NON-PVC)					
SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	Base	130 mL	No	Yes	

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg Route: oral once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 Route: intravenous once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Day 4 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**

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

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	No	No
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
	DEXTROSE 5 % IN WATER (D5W)	Base		No	Yes

INTRAVENOUS SOLUTION

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

Dose: 16 mg | Route: oral | once for 1 dose
Start: S

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: -- | Route: intravenous | continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

dexamethasone (DECADRON) tablet 40 mg
Dose: 40 mg | Route: oral | once for 1 dose
Start: S

DOXOrubicin (ADRIAmycin) 50 mg/m2 in sodium chloride 0.9% 50 mL chemo IVPB
Dose: 50 mg/m2 | Route: intravenous | once over 15 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Protect from light; VESICANT

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DOXORUBICIN 50 MG/25 ML INTRAVENOUS SOLUTION	Medications	50 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	No	Yes

vinCRIStine (ONCOVIN) 1.4 mg/m2 in sodium chloride 0.9% 50 mL chemo IVPB
Dose: 1.4 mg/m2 | Route: intravenous | once over 10 Minutes for 1 dose
Offset: 45 Minutes

Instructions:
Protect from light, VESICANT. Maximum Dose = 2 mg.
Rule-Based Template: RULE ONCBCN VINCRISTINE 1.4 MG/M2

Conditions:	Modifications:
BSA < 1.43 m2	Set dose to 1.4 mg/m2
BSA >= 1.43 m2	Set dose to 2 mg

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	1.4 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

Outpatient Day 11 — Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- | Occurrences: --

Labs

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

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

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

☐ **LDH**

Interval: -- Occurrences: --

☐ **URIC ACID LEVEL**

Interval: -- Occurrences: --

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

ONC NURSING COMMUNICATION

Interval: Once Occurrences: --

Comments: Remind patient to take Dexamethasone on Days 1 through 4, and Days 11 through 14. Some doses may be given in hospital / clinic.

Chemotherapy

dexamethasone (DECADRON) tablet 40 mg

Dose: 40 mg Route: oral once for 1 dose

Start: S

vinCRIStine (ONCOVIN) 1.4 mg/m2 in sodium chloride 0.9 % 50 mL chemo IVPB

Dose: 1.4 mg/m2 Route: intravenous once over 10 Minutes for 1 dose

Start: S

Instructions:

Protect from light, VESICANT. Max dose = 2 mg.

Rule-Based Template: RULE ONCBCN VINCRISTINE 1.4 MG/M2

Conditions:	Modifications:
BSA < 1.43 m2	Set dose to 1.4 mg/m2
BSA >= 1.43 m2	Set dose to 2 mg

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	1.4 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

Appointment Requests

IR LUMBAR PUNCTURE

Interval: -- Occurrences: --

Labs

CSF CELL COUNT WITH DIFFERENTIAL

Interval: -- Occurrences: --

Comments: Specimen to be drawn in Interventional Radiology area.

PROTEIN, CSF

Interval: -- Occurrences: --

Comments: Specimen to be drawn in Interventional Radiology area.

GLUCOSE LEVEL, CSF

Interval: -- Occurrences: --

Comments: Specimen to be drawn in Interventional Radiology area.

FLOW CYTOMETRY EVALUATION
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

CYTOLOGY (NON-GYNECOLOGICAL) REQUEST
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

Intrathecal Injections

cytarabine PF (CYSTOSAR) 100 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection
Dose: 100 mg Route: intrathecal once over 5 Minutes for 1 dose
Start: S End: S
Instructions:
HAZARDOUS - Handle with care.
Preserve free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	100 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		Yes	Yes

Discharge Nursing Orders

ONC NURSING COMMUNICATION 76
Interval: -- Occurrences: --
Comments: Discontinue IV.

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.

HyperCVAD Part 3B Repeat 1 time Cycle length: 21 days

Day 1 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

PH, URINALYSIS

Interval: Conditional Occurrences: --
Frequency

Comments: Draw prior to starting methotrexate and PRN until pH GREATER than 7. Then draw urine pH every 8 hours until MTX is LESS than 0.05

Provider Communication

ONC PROVIDER COMMUNICATION 58

Interval: Once Occurrences: --

Comments: Prior to beginning Rituxan infusion, please check if a Hepatitis B and C serology has been performed within the past 6 months. Hepatitis B and C serologies results: Push F2:11554001 drawn on ***.

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued Occurrences: --

Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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.

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

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

☐ **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

Hydration

dextrose 5% 1,000 mL with sodium bicarbonate 150 mEq infusion

Dose: 150 mL/hr Route: intravenous continuous
Start: S
Instructions:
Hydrate patient for 4 hours PRIOR to checking urine pH.

Run until methotrexate level is LESS than 0.05 micromol/L.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	Yes	Yes

Provider Communication

ONC PROVIDER COMMUNICATION 13

Interval: Once | Occurrences: --

Comments: Provider to confirm dose for patients over 60 years of age for Cytarabine.

Supportive Care

prednisoLONE acetate (PRED FORTE) 1 % ophthalmic suspension 2 drop

Dose: 2 drop | Route: Both Eyes | every 4 hours while awake

Start: S

Supportive Care

allopurinol (ZYLOPRIM) tablet 300 mg

Dose: 300 mg | Route: oral | 2 times daily

Start: S

Instructions:

Dosing: reduce dose to 100 mg if Acute Renal Failure.

Chemotherapy

methotrexate PF 200 mg/m2 in sodium chloride 0.9% 250 mL chemo IVPB

Dose: 200 mg/m2 | Route: intravenous | once over 120 Minutes for 1 dose

Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	200 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

methotrexate PF 800 mg/m2 in sodium chloride 0.9% 500 mL chemo IVPB

Dose: 800 mg/m2 | Route: intravenous | once over 22 Hours for 1 dose

Offset: 2.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.

METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	800 mg/m2	Main Ingredient	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:
RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL
Interval: Until discontinued Occurrences: --
Comments: 1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26
Interval: Until discontinued Occurrences: --
Comments: 2) Infuse antibody via pump
3) If any of the following occurs: FEVER (temperature greater than 38.5 degrees Celsius), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and/or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg

Dose: 25 mg Route: intravenous once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg
Dose: 25 mg Route: intravenous once PRN
Start: S

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

famotidine (PEPCID) injection 20 mg
Dose: 20 mg Route: intravenous once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg
Dose: 0.3 mg Route: intramuscular once PRN
Start: S

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.

Day 2 Perform every 1 day x1

Labs

☑ **METHOTREXATE LEVEL**

Interval: Once Occurrences: --

☑ **PH, URINALYSIS**

Interval: Conditional Frequency Occurrences: --

Comments: Draw prior to starting Methotrexate and PRN until pH GREATER than 7. Then draw urine pH every day until MTX is LESS than 0.05

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued Occurrences: --

Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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

Instructions:
Administer 30 minutes prior to chemotherapy.

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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Dose: 12 mg Route: oral once for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **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
Instructions:
Administer 30 minutes prior to chemotherapy.

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) 3,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 3,000 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Instructions:
Cytarabine dosing:
if serum creatinine GREATER than 1.5 =
Cytarabine 1 gm.
If age GREATER than 60 years old =
Cytarabine 1.5 gm.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 2 GRAM/20 ML (100 MG/ML) INJECTION SOLUTION	Medications	3,000 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Chemotherapy

leucovorin IV 50 mg
Dose: 50 mg | Route: intravenous | every 6 hours over 30 Minutes

Instructions:
Begin 12 hours AFTER COMPLETION of methotrexate infusion, and then Give every 6 hours.

Continue every 6 hours until Methotrexate levels are LESS than 0.05 micromol/L.

Intrathecal Injections

methotrexate PF 12 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection
Dose: 12 mg | Route: intrathecal | once over 5 Minutes for 1 dose
Start: S | End: S
Instructions:
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	12 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	QS Base	4.52 mL	Yes	Yes

Day 3 Perform every 1 day x1

Labs

☑ **METHOTREXATE LEVEL**
Interval: Once | Occurrences: --

☑ **PH, URINALYSIS**
Interval: Conditional Frequency | Occurrences: --
Comments: Draw prior to starting Methotrexate and PRN until pH GREATER than 7. Then draw urine pH every day until MTX is LESS than 0.05

Nursing Orders

ONC NURSING COMMUNICATION 64
Interval: Until discontinued | Occurrences: --
Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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

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

☐ **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) 3,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 3,000 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Instructions:
Cytarabine dosing:
if serum creatinine GREATER than 1.5 =
Cytarabine 1 gm.
If age GREATER than 60 years old =
Cytarabine 1.5 gm.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 2 GRAM/20 ML (100 MG/ML) INJECTION SOLUTION	Medications	3,000 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Outpatient Day 11 — Perform every 1 day x1

Appointment Requests

IR LUMBAR PUNCTURE
Interval: -- Occurrences: --

Labs

CSF CELL COUNT WITH DIFFERENTIAL
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

PROTEIN, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

GLUCOSE LEVEL, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

FLOW CYTOMETRY EVALUATION
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

CYTOLOGY (NON-GYNECOLOGICAL) REQUEST
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

Intrathecal Injections

cytarabine PF (CYSTOSAR) 100 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection
Dose: 100 mg Route: intrathecal once over 5 Minutes for 1 dose
Start: S End: S
Instructions:
HAZARDOUS - Handle with care.
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	100 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		Yes	Yes

HyperCVAD Part 4A Repeat 1 time Cycle length: 21 days

Day 1 — 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: --

Provider Communication

ONC PROVIDER COMMUNICATION

Interval: Once Occurrences: --

Comments: Verify Ejection Fraction prior to Cycle 1. Ejection Fraction: ***% on *** (date).

If patient has not had a recent MUGA or ECHO, order one via order entry. A baseline cardiac evaluation with a MUGA scan or an ECHO is recommended, especially in patients with risk factors for increased cardiac toxicity. Repeated MUGA or ECHO determinations of LVEF should be performed, particularly with higher, cumulative anthracycline doses.

Provider Communication

ONC PROVIDER COMMUNICATION 58

Interval: Once Occurrences: --

Comments: Prior to beginning Rituxan infusion, please check if a Hepatitis B and C serology has been performed within the past 6 months. Hepatitis B and C serologies results: Push F2:11554001 drawn on ***.

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.

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg

Dose: 650 mg Route: oral once for 1 dose

Start: S

Instructions:

Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL
Interval: Once Occurrences: --
Comments: 1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26
Interval: Once Occurrences: --
Comments: 2) Infuse antibody via pump
3) If any of the following occurs: FEVER (T greater than 38.5 degrees C), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and / or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION**

RATE IVPB

Dose: 375 mg/m2 | Route: intravenous | once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:

RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg

Dose: 25 mg | Route: intravenous | once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg | Route: intravenous | once PRN
Start: S

hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg

Dose: 100 mg | Route: intravenous | once PRN

famotidine (PEPCID) injection 20 mg

Dose: 20 mg | Route: intravenous | once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg

Dose: 0.3 mg | Route: intramuscular | once PRN
Start: S

Pre-Medications

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

Dose: 16 mg | Route: intravenous | once over 15 Minutes for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

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	No	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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Dose: 12 mg | Route: oral | once for 1 dose
Start: S
Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **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
Instructions:
Administer 30 minutes prior to chemotherapy.

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

Hydration

○ **(No Medication Selected)**

Dose: -- | Route: intravenous | continuous
Start: S

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DEXTROSE 5 % IN	Base	1,000 mL	No	Yes

WATER (D5W) INTRAVENOUS SOLUTION					

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg Route: oral once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	**Name**	**Type**	**Dose**	**Selected**	**Adds Vol.**
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 Route: intravenous once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	**Name**	**Type**	**Dose**	**Selected**	**Adds Vol.**
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN	QS Base	500 mL	No	Yes

WATER (D5W)
INTRAVENOUS
SOLUTION

Supportive Care

allopurinol (ZYLOPRIM) tablet 300 mg

Dose: 300 mg | Route: oral | 2 times daily

Start: S

Instructions:

Dosing: reduce dose to 100 mg if Acute Renal Failure.

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.

Day 2 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**

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

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	No	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

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg | Route: oral | once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 | Route: intravenous | every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 | Route: intravenous | once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Intrathecal Injections

methotrexate PF 12 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 12 mg | Route: intrathecal | once over 5 Minutes for 1 dose
Start: S | End: S
Instructions:
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	12 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	QS Base	4.52 mL	Yes	Yes

Day 3 — Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**

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

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	No	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

☐ **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	Medications	130 mg	Main Ingredient	Yes

INTRAVENOUS EMULSION					
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	

Hydration

○ **(No Medication Selected)**

Dose: -- Route: intravenous continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

☑ **dexamethasone (DECADRON) tablet 40 mg**

Dose: 40 mg Route: oral once for 1 dose
Start: S

☑ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	300 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS	QS Base	250 mL	Yes	Yes

SOLUTION					
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes	

☑ **mesna (MESNEX) 600 mg/m2 in sodium chloride 0.9 % 500 mL chemo IVPB**

Dose: 600 mg/m2 Route: intravenous once over 24 Hours for 1 dose
Offset: 30 Minutes

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	600 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes

Day 4 Perform every 1 day x1

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 in sodium chloride 0.9% 50 mL IVPB**

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

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	No	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

☐ **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

Hydration

○ **(No Medication Selected)**

Dose: -- | Route: intravenous | continuous
Start: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	No	Yes

Chemotherapy

dexamethasone (DECADRON) tablet 40 mg
Dose: 40 mg | Route: oral | once for 1 dose
Start: S

DOXOrubicin (ADRIAmycin) 50 mg/m2 in sodium chloride 0.9% 50 mL chemo IVPB
Dose: 50 mg/m2 | Route: intravenous | once over 15 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Protect from light; VESICANT

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DOXORUBICIN 50	Medications	50 mg/m2	Main	Yes

MG/25 ML INTRAVENOUS SOLUTION			Ingredient	
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	No	Yes

vinCRIStine (ONCOVIN) 1.4 mg/m2 in sodium chloride 0.9% 50 mL chemo IVPB

Dose: 1.4 mg/m2 Route: intravenous once over 10 Minutes for 1 dose
Offset: 45 Minutes

Instructions:
Protect from light, VESICANT. Maximum Dose = 2 mg.

Rule-Based Template: RULE ONCBCN VINCRISTINE 1.4 MG/M2

Conditions:
BSA < 1.43 m2
BSA >= 1.43 m2

Modifications:
Set dose to 1.4 mg/m2
Set dose to 2 mg

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	1.4 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

Outpatient Day 11 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

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

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

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

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

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

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

ONC NURSING COMMUNICATION
Interval: Once Occurrences: --
Comments: Remind patient to take Dexamethasone on Days 1 through 4, and Days 11 through 14. Some doses may be given in hospital / clinic.

Chemotherapy

dexamethasone (DECADRON) tablet 40 mg
Dose: 40 mg Route: oral once for 1 dose
Start: S

vinCRIStine (ONCOVIN) 1.4 mg/m2 in sodium chloride 0.9 % 50 mL chemo IVPB
Dose: 1.4 mg/m2 Route: intravenous once over 10 Minutes for 1 dose
Start: S
Instructions:
Protect from light, VESICANT. Max dose = 2 mg.
Rule-Based Template: RULE ONCBCN VINCRISTINE 1.4 MG/M2

Conditions:	Modifications:
BSA < 1.43 m2	Set dose to 1.4 mg/m2
BSA >= 1.43 m2	Set dose to 2 mg

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	VINCRISTINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	1.4 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

Appointment Requests

IR LUMBAR PUNCTURE
Interval: -- Occurrences: --

Labs

CSF CELL COUNT WITH DIFFERENTIAL
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

PROTEIN, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

GLUCOSE LEVEL, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

FLOW CYTOMETRY EVALUATION
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

CYTOLOGY (NON-GYNECOLOGICAL) REQUEST
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

Intrathecal Injections

cytarabine PF (CYSTOSAR) 100 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 100 mg | Route: intrathecal | once over 5 Minutes for 1 dose
Start: S | End: S
Instructions:
HAZARDOUS - Handle with care.
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	100 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		Yes	Yes

Discharge Nursing Orders

ONC NURSING COMMUNICATION 76
Interval: -- | Occurrences: --
Comments: Discontinue IV.

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.

HyperCVAD Part 4B | Repeat 1 time | Cycle length: 21 days

Day 1 | 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

PH, URINALYSIS
Interval: Conditional Frequency | Occurrences: --
Comments: Draw prior to starting methotrexate and PRN until pH GREATER than 7. Then draw urine pH every 8 hours until MTX is LESS than 0.05

Provider Communication

ONC PROVIDER COMMUNICATION 58

Interval: Once | Occurrences: --

Comments: Prior to beginning Rituxan infusion, please check if a Hepatitis B and C serology has been performed within the past 6 months. Hepatitis B and C serologies results: Push F2:11554001 drawn on ***.

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued | Occurrences: --

Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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.

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

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	Base		No	Yes

	WATER (D5W) INTRAVENOUS SOLUTION	

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

Dose: 16 mg | Route: oral | once for 1 dose
Start: S

☐ **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

Hydration

dextrose 5% 1,000 mL with sodium bicarbonate 150 mEq infusion

Dose: 150 mL/hr | Route: intravenous | continuous
Start: S

Instructions:
Hydrate patient for 4 hours PRIOR to checking urine pH.

Run until methotrexate level is LESS than 0.05 micromol/L.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	1,000 mL	Yes	Yes

Provider Communication

ONC PROVIDER COMMUNICATION 13

Interval: Once | Occurrences: --

Comments: Provider to confirm dose for patients over 60 years of age for Cytarabine.

Supportive Care

prednisoLONE acetate (PRED FORTE) 1 % ophthalmic suspension 2 drop

Dose: 2 drop | Route: Both Eyes | every 4 hours while awake

Start: S

Supportive Care

allopurinol (ZYLOPRIM) tablet 300 mg

Dose: 300 mg | Route: oral | 2 times daily

Start: S

Instructions:

Dosing: reduce dose to 100 mg if Acute Renal Failure.

Chemotherapy

methotrexate PF 200 mg/m2 in sodium chloride 0.9% 250 mL chemo IVPB

Dose: 200 mg/m2 | Route: intravenous | once over 120 Minutes for 1 dose

Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	200 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

methotrexate PF 800 mg/m2 in sodium chloride 0.9% 500 mL chemo IVPB

Dose: 800 mg/m2 | Route: intravenous | once over 22 Hours for 1 dose

Offset: 2.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	800 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Rituximab Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg
Dose: 650 mg Route: oral once for 1 dose
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

diphenhydrAMINE (BENADRYL) tablet 25 mg
Dose: 25 mg Route: oral
Start: S
Instructions:
Give 30 minutes before rituximab infusion.

sodium chloride 0.9 % infusion 500 mL
Dose: 500 mL Route: intravenous continuous
Start: S

Pharmacy Consult

PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION
Interval: -- Occurrences: --

Chemotherapy

◉ **RiTUXimab (PF) (RITUXAN) in sodium chloride 0.9% NON-INITIAL INFUSION IVPB**

Dose: -- Route: intravenous once for 1 dose
Offset: 3 Hours

Instructions:
Initiate infusion rate at a 100 mg/hour. In the absence of infusion toxicity (SBP within 20 mmHG of baseline, PULSE between 60 and 120 and TEMP less than 38 degrees C, and no symptoms), increase rate by 100 mg/hour increments at 30 minute intervals, to a maximum rate of 400 mg/hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

○ **RiTUXimab (PF) (RITUXAN) 375 mg/m2 in sodium chloride 0.9% 250 mL RAPID INFUSION RATE IVPB**
Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
Offset: 3 Hours

Instructions:
RAPID INFUSION RATE: Initiate infusion at a rate of 100mL/hour. After 30 minutes, in the absence of infusion reactions (SBP within 20 mmHg of baseline, PULSE between 60 and 120 and Temp less than 38 degrees C, and no symptoms), increase the infusion rate to 200mL/hour. This infusion should take 90 minutes to administer.

Reaction grades:

Grade 3 Reaction: Prolonged (e.g., not rapidly responsive to symptomatic medication and/or brief interruption of infusion); recurrence of symptoms following initial improvement; hospitalization indicated for clinical sequelae (e.g., renal impairment, pulmonary infiltrates).

Grade 4 Reaction: Life-threatening consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE,INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Instructions

VITAL SIGNS - T/P/R/BP PER UNIT PROTOCOL

Interval: Until discontinued — Occurrences: --

Comments:
1) During Rituximab infusion:
-Vitals every 15 minutes during 1st hour of infusion, THEN
-Every 30 minutes for 1 hour, THEN
-Every hour until end of infusion
-Call MD if SBP less than 90, pulse less than 60 or greater than 120, temperature greater than 38.5 degrees C

ONC NURSING COMMUNICATION 26

Interval: Until discontinued — Occurrences: --

Comments:
2) Infuse antibody via pump
3) If any of the following occurs: FEVER (temperature greater than 38.5 degrees Celsius), RIGORS, HYPOTENSION (30mm Hg decrease from baseline), and/or MUCOSAL CONGESTION / EDEMA, HOLD infusion until improvement of symptoms (When symptoms improve, resume infusion at HALF the previous rate)

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg

Dose: 25 mg — Route: intravenous — once PRN
Start: S

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg — Route: intravenous — once PRN
Start: S

hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg

Dose: 100 mg — Route: intravenous — once PRN

famotidine (PEPCID) injection 20 mg

Dose: 20 mg — Route: intravenous — once PRN
Start: S

Rituximab Additional Orders

epINEPHrine (ADRENALIN) 1 mg/1 mL injection
0.3 mg
Dose: 0.3 mg Route: intramuscular once PRN
Start: S

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.

Day 2 Perform every 1 day x1

Labs

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

☑ **PH, URINALYSIS**
Interval: Conditional Occurrences: --
Frequency
Comments: Draw prior to starting Methotrexate and PRN until pH GREATER than 7.

Then draw urine pH every day until MTX is LESS than 0.05

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued | Occurrences: --

Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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

Instructions:

Administer 30 minutes prior to chemotherapy.

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

Instructions:

Administer 30 minutes prior to chemotherapy.

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

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

Start: S

Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **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

Instructions:
Administer 30 minutes prior to chemotherapy.

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) 3,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 3,000 mg/m2 | Route: intravenous | every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Instructions:
Cytarabine dosing:
if serum creatinine GREATER than 1.5 = Cytarabine 1 gm.
If age GREATER than 60 years old = Cytarabine 1.5 gm.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 2 GRAM/20 ML (100 MG/ML) INJECTION SOLUTION	Medications	3,000 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Chemotherapy

leucovorin IV 50 mg

Dose: 50 mg | Route: intravenous | every 6 hours over 30 Minutes

Instructions:
Begin 12 hours AFTER COMPLETION of methotrexate infusion, and then Give every 6 hours.

Continue every 6 hours until Methotrexate levels are LESS than 0.05 micromol/L.

Intrathecal Injections

methotrexate PF 12 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection

Dose: 12 mg | Route: intrathecal | once over 5 Minutes for 1 dose

Start: S End: S
Instructions:
Preservative free for intrathecal use.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	METHOTREXATE SODIUM (PF) 25 MG/ML INJECTION SOLUTION	Medications	12 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	QS Base	4.52 mL	Yes	Yes

Day 3 Perform every 1 day x1

Labs

☑ **METHOTREXATE LEVEL**

Interval: Once Occurrences: --

☑ **PH, URINALYSIS**

Interval: Conditional Frequency Occurrences: --
Comments: Draw prior to starting Methotrexate and PRN until pH GREATER than 7. Then draw urine pH every day until MTX is LESS than 0.05

Nursing Orders

ONC NURSING COMMUNICATION 64

Interval: Until discontinued Occurrences: --
Comments: Draw methotrexate level 24 hours, 48 hours and 72 hours AFTER COMPLETION of Methotrexate infusion and send STAT. Continue to obtain Methotrexate level every 24 hours until methotrexate level is less than 0.05.

Check stat urine pH prior to starting methotrexate and then every 8 hours. If urine ph is LESS than 7, administer 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, repeat 50 mEq sodium bicarbonate and recheck in 1 hour. If still LESS than 7, call provider.

The syringe that the blood is sent to lab in needs to be COVERED (brown bag/paper towel) going to the lab.

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

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	Medications	12 mg	Yes	No

INJECTION SOLUTION					
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

☐ **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) 3,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 3,000 mg/m2 Route: intravenous every 12 hours over 120 Minutes for 2 doses
Offset: 30 Minutes

Instructions:
Cytarabine dosing:
if serum creatinine GREATER than 1.5 =
Cytarabine 1 gm.
If age GREATER than 60 years old =
Cytarabine 1.5 gm.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 2 GRAM/20 ML (100 MG/ML) INJECTION SOLUTION	Medications	3,000 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	500 mL	No	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Outpatient Day 11 Perform every 1 day x1

Appointment Requests

IR LUMBAR PUNCTURE
Interval: -- Occurrences: --

Labs

CSF CELL COUNT WITH DIFFERENTIAL
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

PROTEIN, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

GLUCOSE LEVEL, CSF
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

FLOW CYTOMETRY EVALUATION
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

CYTOLOGY (NON-GYNECOLOGICAL) REQUEST
Interval: -- Occurrences: --
Comments: Specimen to be drawn in Interventional Radiology area.

Intrathecal Injections

cytarabine PF (CYSTOSAR) 100 mg in sodium chloride 0.9% 5 mL chemo PF INTRATHECAL injection
Dose: 100 mg Route: intrathecal once over 5 Minutes for 1 dose
Start: S End: S
Instructions:
HAZARDOUS - Handle with care.
Preservative free for intrathecal use.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYTARABINE (PF) 100 MG/5 ML (20 MG/ML) INJECTION SOLUTION	Medications	100 mg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		Yes	Yes