

IP R-EPOCH

Types: ONCOLOGY TREATMENT

Synonyms: DOXO, ADRIA, EPOCH, CYTARABINE, ARAC, ARA-C, LYMPHOMA, NON-HODGKINS, NHL, RITUXIMAB, RITUX, RITUXAN

Cycle 1	Repeat 1 time	Cycle length: 21 days
Day 1 Perform every 1 day x1		
Provider Communication		
ONC PROVIDER COMMUNICATION 5 Interval: Once Occurrences: -- Comments: Use baseline weight to calculate dose. Adjust dose for weight gains/losses of greater than or equal to 10%.		
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.		
Labs		
<input checked="" type="checkbox"/> COMPREHENSIVE METABOLIC PANEL Interval: Once Occurrences: --		
<input checked="" type="checkbox"/> CBC WITH PLATELET AND DIFFERENTIAL Interval: Once Occurrences: --		
<input checked="" type="checkbox"/> MAGNESIUM LEVEL Interval: Once Occurrences: --		
<input type="checkbox"/> LDH Interval: Once Occurrences: --		
<input type="checkbox"/> URIC ACID LEVEL Interval: Once Occurrences: --		
<input type="checkbox"/> ECHOCARDIOGRAM COMPLETE W CONTRAST AND 3D IF NEEDED Interval: 1 time imaging Occurrences: --		
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.

Hydration

sodium chloride 0.9 % infusion 1,000 mL

Dose: 1,000 mL Route: intravenous once @ 100 mL/hr for 1 dose
Start: S

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) injection 25 mg

Dose: 25 mg Route: intravenous once for 1 dose
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

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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: 30 Minutes

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/m ²	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: 30 Minutes

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: 30 Minutes

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

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 (ZOFTRAN) 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	Medications	12 mg	No	No

SOLUTION
SODIUM Chloride 0.9 %
INTRAVENOUS SOLUTION
DEXTROSE 5 % IN WATER (D5W)
INTRAVENOUS SOLUTION

Base	50 mL	Always	Yes
Base		No	Yes

ondansetron (ZOFTRAN) 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

DOXOrubicin (ADRIAmycin) 10 mg/m2, vinCRISTine (ONCOVIN) 0.4 mg/m2 in sodium chloride 0.9% 250 mL chemo IVPB

Dose: -- Route: intravenous once over 22 Hours for 1 dose
Offset: 30 Minutes

Instructions:
VESICANT; Protect from light

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DOXORUBICIN 50 MG/25 ML INTRAVENOUS SOLUTION	Medications	10 mg/m2	Always	Yes
	VINCRIStINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	0.4 mg/m2	Always	Yes
	SODIUM Chloride 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

etoposide (TOPOSAR) 50 mg/m2 in sodium chloride (NON-PVC) 0.9 % 500 mL chemo IVPB

Dose: 50 mg/m2 Route: intravenous once over 22 Hours for 1 dose
Offset: 30 Minutes

Instructions:
Administer through a 0.22 micron filter and non-PVC tubing set

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	ETOPOSIDE 20 MG/ML INTRAVENOUS SOLUTION	Medications	50 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

predniSONE (DELTASONE) tablet 100 mg

Dose: 100 mg Route: oral daily
Start: S

Hematology & Oncology Hypersensitivity Reaction Standing Order

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Interval: Until discontinued Occurrences: --

Comments: Grade 1 - MILD Symptoms (cutaneous and subcutaneous symptoms only – itching, flushing, periorbital edema, rash, or runny nose)

1. Stop the infusion.
2. Place the patient on continuous monitoring.
3. Obtain vital signs.
4. Administer Normal Saline at 50 mL per hour using a new bag and new intravenous tubing.
5. If greater than or equal to 30 minutes since the last dose of Diphenhydramine, administer Diphenhydramine 25 mg intravenous once.
6. If less than 30 minutes since the last dose of Diphenhydramine, administer Fexofenadine 180 mg orally and Famotidine 20 mg intravenous once.
7. Notify the treating physician.
8. If no improvement after 15 minutes, advance level of care to Grade 2 (Moderate) or Grade 3 (Severe).
9. Assess vital signs every 15 minutes until resolution of symptoms or otherwise ordered by covering physician.

ONC NURSING COMMUNICATION 83

Interval: Until discontinued Occurrences: --

Comments: Grade 2 – MODERATE Symptoms (cardiovascular, respiratory, or gastrointestinal symptoms – shortness of breath, wheezing, nausea, vomiting, dizziness, diaphoresis, throat or chest tightness, abdominal or back pain)

1. Stop the infusion.
2. Notify the CERT team and treating physician immediately.
3. Place the patient on continuous monitoring.
4. Obtain vital signs.
5. Administer Oxygen at 2 L per minute via nasal cannula. Titrate to maintain O2 saturation of greater than or equal to 92%.
6. Administer Normal Saline at 150 mL per hour using a new bag and new intravenous tubing.
7. Administer Hydrocortisone 100 mg intravenous (if patient has allergy to Hydrocortisone, please administer Dexamethasone 4 mg intravenous), Fexofenadine 180 mg orally and Famotidine 20 mg intravenous once.

8. If no improvement after 15 minutes, advance level of care to Grade 3 (Severe).
9. Assess vital signs every 15 minutes until resolution of symptoms or otherwise ordered by covering physician.

ONC NURSING COMMUNICATION 4

Interval: Until discontinued

Occurrences: --

Comments:

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

diphenhydramine (BENADRYL) injection 25 mg

Dose: 25 mg Route: intravenous PRN
Start: S

fexofenadine (ALLEGRA) tablet 180 mg

Dose: 180 mg Route: oral PRN
Start: S

famotidine (PEPCID) 20 mg/2 mL injection 20 mg

Dose: 20 mg Route: intravenous PRN
Start: S

hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg

Dose: 100 mg Route: intravenous PRN

dexamethasone (DECADRON) injection 4 mg

Dose: 4 mg Route: intravenous PRN
Start: S

epinephrine (ADRENALIN) 1 mg/10 mL ADULT injection syringe 0.3 mg

Dose: 0.3 mg Route: subcutaneous PRN
Start: S

Discharge Nursing Orders

- sodium chloride 0.9 % flush 20 mL**

Dose: 20 mL Route: intravenous PRN

- HEParin, porcine (PF) injection 500 Units**

Dose: 500 Units Route: intra-catheter once PRN
Start: S

Instructions:
 Concentration: 100 units/mL. Heparin flush for
 Implanted Vascular Access Device
 maintenance.

Days 2,3,4
 Labs

Perform every 1 day x3

COMPREHENSIVE METABOLIC PANEL

Interval: Once Occurrences: --

CBC WITH PLATELET AND DIFFERENTIAL

Interval: Once Occurrences: --

MAGNESIUM LEVEL

Interval: Once Occurrences: --

LDH

Interval: Once Occurrences: --

URIC ACID LEVEL

Interval: Once Occurrences: --

**ECHOCARDIOGRAM COMPLETE W
 CONTRAST AND 3D IF NEEDED**

Interval: 1 time imaging Occurrences: --

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Start: S

Instructions:
 To keep vein open.

Pre-Medications

**ondansetron (ZOFRAN) 16 mg 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

Chemotherapy

DOXOrubicin (ADRIAmycin) 10 mg/m2, vinCRISine (ONCOVIN) 0.4 mg/m2 in sodium chloride 0.9% 250 mL chemo IVPB

Dose: -- Route: intravenous once over 22 Hours for 1 dose
 Offset: 30 Minutes

Instructions:
 VESICANT; Protect from light

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DOXORUBICIN 50 MG/25 ML INTRAVENOUS SOLUTION	Medications	10 mg/m2	Always	Yes
	VINCRIStINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	0.4 mg/m2	Always	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

etoposide (TOPOSAR) 50 mg/m2 in sodium chloride (NON-PVC) 0.9 % 500 mL chemo IVPB

Dose: 50 mg/m2 Route: intravenous once over 22 Hours for 1 dose
 Offset: 30 Minutes

Instructions:
 Administer through a 0.22 micron filter and non-PVC tubing set

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	ETOPOSIDE 20 MG/ML INTRAVENOUS SOLUTION	Medications	50 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

Day 5

Perform every 1 day x1

Labs

COMPREHENSIVE METABOLIC PANEL

Interval: Once Occurrences: --

CBC WITH PLATELET AND DIFFERENTIAL

Interval: Once Occurrences: --

MAGNESIUM LEVEL

Interval: Once Occurrences: --

LDH

Interval: Once Occurrences: --

URIC ACID LEVEL

Interval: Once Occurrences: --

**ECHOCARDIOGRAM COMPLETE W
CONTRAST AND 3D IF NEEDED**

Interval: 1 time imaging Occurrences: --

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Start: S

Instructions:

To keep vein open.

Pre-Medications

**ondansetron (ZOFRAN) 16 mg 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

Chemotherapy

cyclophosphamide (CYTOXAN) 750 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB

Dose: 750 mg/m2 Route: intravenous once over 60 Minutes for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	750 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

Cycles 2 to 4

Repeat 3 times

Cycle length: 21 days

Day 1

Perform every 1 day x1

Labs

COMPREHENSIVE METABOLIC PANEL

Interval: Once Occurrences: --

CBC WITH PLATELET AND DIFFERENTIAL

Interval: Once Occurrences: --

MAGNESIUM LEVEL

Interval: Once Occurrences: --

LDH

Interval: Once Occurrences: --

URIC ACID LEVEL

Interval: Once Occurrences: --

ECHOCARDIOGRAM COMPLETE W CONTRAST AND 3D IF NEEDED

Interval: 1 time imaging Occurrences: --

Provider Communication

ONC PROVIDER COMMUNICATION 5

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

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.

Hydration

sodium chloride 0.9 % infusion 1,000 mL

Dose: 1,000 mL

Route: intravenous

once @ 100 mL/hr for 1 dose

Start: S

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) injection 25 mg

Dose: 25 mg

Route: intravenous

once for 1 dose

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: 30 Minutes

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: 30 Minutes

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 Start: S	Route: intravenous	once PRN
diphenhydrAMINE (BENADRYL) injection 25 mg Dose: 25 mg Start: S	Route: intravenous	once PRN
hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg Dose: 100 mg	Route: intravenous	once PRN
famotidine (PEPCID) injection 20 mg Dose: 20 mg Start: S	Route: intravenous	once PRN

Rituximab Additional Orders

epINEPhrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg Dose: 0.3 mg Start: S	Route: intramuscular	once PRN
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Pre-Medications

- ondansetron (ZOFTRAN) 16 mg in sodium chloride 0.9% 50 mL IVPB**
Dose: 16 mg
Start: S
Route: intravenous
once over 15 Minutes for 1 dose
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 Base No Yes
 WATER (D5W)
 INTRAVENOUS
 SOLUTION

ondansetron (ZOFTRAN) 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

Nursing Orders

ONC NURSING COMMUNICATION 101

Interval: Once Occurrences: --
 Comments: Administer chemotherapy in listed order unless otherwise indicated.

Chemotherapy

**DOXOrubicin (ADRIAmycin) 10 mg/m²,
vinCRIStine (ONCOVIN) 0.4 mg/m² in sodium
chloride 0.9% 250 mL chemo IVPB**

Dose: -- Route: intravenous once over 22 Hours for 1 dose
Offset: 30 Minutes

Instructions:
VESICANT; Protect from light

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DOXORUBICIN 50 MG/25 ML INTRAVENOUS SOLUTION	Medications	10 mg/m ²	Always	Yes
	VINCRIStINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	0.4 mg/m ²	Always	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

**etoposide (TOPOSAR) 50 mg/m² in sodium
chloride (NON-PVC) 0.9 % 500 mL chemo IVPB**

Dose: 50 mg/m² Route: intravenous once over 22 Hours for 1 dose
Offset: 30 Minutes

Instructions:
Administer through a 0.22 micron filter and non-PVC tubing set

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	ETOPOSIDE 20 MG/ML INTRAVENOUS SOLUTION	Medications	50 mg/m ²	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

predniSONE (DELTASONE) tablet 100 mg

Dose: 100 mg Route: oral daily
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
Start: S

Route: intravenous PRN

fexofenadine (ALLEGRA) tablet 180 mg

Dose: 180 mg
Start: S

Route: oral PRN

famotidine (PEPCID) 20 mg/2 mL injection 20 mg

Dose: 20 mg
Start: S

Route: intravenous PRN

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

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

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

Discharge Nursing Orders

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

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

Days 2,3,4
Labs

Perform every 1 day x3

COMPREHENSIVE METABOLIC PANEL
Interval: Once Occurrences: --

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

MAGNESIUM LEVEL
Interval: Once Occurrences: --

LDH
Interval: Once Occurrences: --

URIC ACID LEVEL
Interval: Once Occurrences: --

ECHOCARDIOGRAM COMPLETE W CONTRAST AND 3D IF NEEDED
Interval: 1 time imaging Occurrences: --

Nursing Orders

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

Pre-Medications

ondansetron (ZOFTRAN) 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 Medications	12 mg	No	No
4 MG/ML INJECTION SOLUTION			
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base 50 mL	Always	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	No	Yes

ondansetron (ZOFTRAN) 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

DOXOrubicin (ADRIAmycin) 10 mg/m2, vinCRIStine (ONCOVIN) 0.4 mg/m2 in sodium chloride 0.9% 250 mL chemo IVPB

Dose: -- Route: intravenous once over 22 Hours for 1 dose
Offset: 30 Minutes

Instructions:
VESICANT; Protect from light

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DOXORUBICIN 50 MG/25 ML INTRAVENOUS SOLUTION	Medications	10 mg/m2	Always	Yes
	VINCRIStINE 1 MG/ML INTRAVENOUS SOLUTION	Medications	0.4 mg/m2	Always	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

etoposide (TOPOSAR) 50 mg/m2 in sodium chloride (NON-PVC) 0.9 % 500 mL chemo IVPB

Dose: 50 ma/m2 Route: intravenous once over 22 Hours for 1 dose

Offset: 30 Minutes

Instructions:

Administer through a 0.22 micron filter and non-PVC tubing set

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ETOPOSIDE 20 MG/ML INTRAVENOUS SOLUTION	Medications	50 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

Day 5

Perform every 1 day x1

Labs

COMPREHENSIVE METABOLIC PANEL

Interval: Once Occurrences: --

CBC WITH PLATELET AND DIFFERENTIAL

Interval: Once Occurrences: --

MAGNESIUM LEVEL

Interval: Once Occurrences: --

LDH

Interval: Once Occurrences: --

URIC ACID LEVEL

Interval: Once Occurrences: --

ECHOCARDIOGRAM COMPLETE W CONTRAST AND 3D IF NEEDED

Interval: 1 time imaging Occurrences: --

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Start: S

Instructions:

To keep vein open.

Pre-Medications

ondansetron (ZOFTRAN) 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	Base		No	Yes

SOLUTION

ondansetron (ZOFTRAN) 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

cyclophosphamide (CYTOXAN) 750 mg/m2 in sodium chloride 0.9 % 250 mL chemo IVPB

Dose: 750 mg/m2 Route: intravenous once over 60 Minutes for 1 dose
Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	750 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