

IP R-ICE

Types: ONCOLOGY TREATMENT

Synonyms: ETOPOSIDE, VP16, CARBOPLATIN, CARBO, PARAPLATIN, MESNA, LYMPHOMA, NON-HODGKINS, NHL, IFEX, IFOS, IFOSFAMIDE, RITUX, RITUXIMAB, 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%.		
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 ***.		
Pharmacy Consult		
PHARMACY CONSULT TO SCREEN FOR RAPID RITUXIMAB INFUSION Interval: -- Occurrences: --		
Nursing Orders		
TREATMENT CONDITIONS 7 Interval: Once Occurrences: -- Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000.		
Line Flush		
sodium chloride 0.9 % flush 20 mL Dose: 20 mL Route: intravenous PRN Start: S		
Nursing Orders		
sodium chloride 0.9 % infusion 250 mL		

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

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

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: 60 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/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: 60 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	Medications		Main	Yes

MG/ML CONCENTRATE, IN TRAVENOUS 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: 60 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 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)

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

Dose: --

Route: intravenous

once over 15 Minutes for 1 dose

Offset: 4 Hours

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

Offset: 4 Hours

 dexamethasone (DECADRON) tablet 12 mg

Dose: 12 mg

Route: oral

once for 1 dose

Offset: 4 Hours

Chemotherapy

etoposide (TOPOSAR) 100 mg/m² in sodium chloride (NON-PVC) 0.9 % 500 mL chemo IVPB

Dose: 100 mg/m² Route: intravenous once over 2 Hours for 1 dose
Offset: 4.5 Hours

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	100 mg/m ²	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

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

BASIC METABOLIC PANEL

Interval: Once Occurrences: --

Labs

URINALYSIS, AUTOMATED WITH MICROSCOPY

Interval: Once Occurrences: --

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Start: S

Instructions:

To keep vein open.

Pre-Medications

ondansetron (ZOFRAN) 16 mg, dexamethasone

- (DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB**

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

Start: S

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

**CARBOplatin (PARAplatin) in sodium chloride
 0.9 % 250 mL chemo IVPB**

AUC: 5 Use AUC Route: intravenous once over 2 Hours for 1 dose
 Offset: 45 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CARBOPLATIN 10 MG/ML INTRAVENOUS SOLUTION	Medications		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

Chemotherapy

**etoposide (TOPOSAR) 100 mg/m2 in sodium
 chloride (NON-PVC) 0.9 % 500 mL chemo IVPB**

Dose: 100 mg/m2 Route: intravenous once over 2 Hours for 1 dose
 Offset: 2.75 Hours

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	100 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

Chemotherapy

**ifosfamide (IFEX) 5,000 mg/m2, mesna
 (MESNEX) 5,000 mg/m2 in dextrose 5% 500 mL
 chemo IVPB**

Dose: 5,000 mg/m2 Route: intravenous once over 24 Hours for 1 dose
 Offset: 4.75 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	IFOSFAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	5,000 mg/m2	Main Ingredient	Yes
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	5,000 mg/m2	Yes	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		No	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS	QS Base	500 mL	Yes	Yes

SOLUTION

Day 3

Perform every 1 day x1

Labs

BASIC METABOLIC PANEL

Interval: Once Occurrences: --

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Start: S

Instructions:

To keep vein open.

Pre-Medications

ondansetron (ZOFRAN) 16 mg, dexamethasone

- (DECADRON) 12 mg in sodium chloride 0.9 % 50 mL IVPB**

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

Start: S

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

Chemotherapy

etoposide (TOPOSAR) 100 mg/m2 in sodium chloride (NON-PVC) 0.9 % 500 mL chemo IVPB

Dose: 100 mg/m2 Route: intravenous once over 2 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	100 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

Chemotherapy

**mesna (MESNEX) 2,000 mg/m2 in dextrose 5%
500 mL chemo IVPB**

Dose: 2,000 mg/m2 Route: intravenous once over 12 Hours for 1 dose
Offset: 3 Hours

Instructions:
Administer Mesna 24 hours from the START of
Ifosfamide infusion.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	2,000 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

**Cycles 2 to 4
Day 1**

Repeat 3 times

Cycle length: 21 days

Perform every 1 day x1

Provider Communication

ONC PROVIDER COMMUNICATION 5

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

Labs

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 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 ***.

Pharmacy Consult

**PHARMACY CONSULT TO SCREEN FOR
RAPID RITUXIMAB INFUSION**

Interval: -- Occurrences: --

Nursing Orders

TREATMENT CONDITIONS 7

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

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) 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

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 SOLUTION	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 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)

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 mgDose: 20 mg Route: intravenous once PRN
Start: S

Rituximab Additional Orders

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

Pre-Medications

ondansetron (ZOFTRAN) 16 mg, dexamethasone

-
- (DECADRON) 12 mg in sodium chloride 0.9 % 50 mL IVPB**

Dose: -- Route: intravenous once over 15 Minutes for 1 dose
Offset: 4 Hours

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 (ZOFTRAN) tablet 16 mg**

Dose: 16 mg Route: oral once for 1 dose
Offset: 4 Hours

-
- dexamethasone (DECADRON) tablet 12 mg**

Dose: 12 mg Route: oral once for 1 dose
Offset: 4 Hours

Chemotherapy

etoposide (TOPOSAR) 100 mg/m2 in sodium chloride (NON-PVC) 0.9 % 500 mL chemo IVPBDose: 100 mg/m2 Route: intravenous once over 2 Hours for 1 dose
Offset: 4.5 Hours

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	100 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

ONC NURSING COMMUNICATION 82

Interval: Until discontinued
Comments:

Occurrences: --

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
Comments:

Occurrences: --

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
Comments:

Occurrences: --

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

BASIC METABOLIC PANEL

Interval: Once Occurrences: --

Labs

URINALYSIS, AUTOMATED WITH MICROSCOPY

Interval: Once Occurrences: --

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Instructions:

To keep vein open.

Pre-Medications

ondansetron (ZOFTRAN) 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 (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

CARBOplatin (PARAplatin) in sodium chloride 0.9 % 250 mL chemo IVPB

AUC: 5 Use AUC Route: intravenous once over 2 Hours for 1 dose
Offset: 45 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CARBOPLATIN 10 MG/ML INTRAVENOUS SOLUTION	Medications		Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

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

Chemotherapy

etoposide (TOPOSAR) 100 mg/m2 in sodium chloride (NON-PVC) 0.9 % 500 mL chemo IVPB

Dose: 100 mg/m2 Route: intravenous once over 2 Hours for 1 dose
 Offset: 2.75 Hours

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	100 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

Chemotherapy

ifosfamide (IFEX) 5,000 mg/m2, mesna (MESNEX) 5,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 5,000 mg/m2 Route: intravenous once over 24 Hours for 1 dose
 Offset: 4.75 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	IFOSFAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	5,000 mg/m2	Main Ingredient	Yes
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	5,000 mg/m2	Yes	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base		No	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

Day 3

Perform every 1 day x1

Labs

BASIC METABOLIC PANEL

Interval: Once Occurrences: --

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Instructions:
 To keep vein open.

Pre-Medications

ondansetron (ZOFTRAN) 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 (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

Chemotherapy

etoposide (TOPOSAR) 100 mg/m2 in sodium chloride (NON-PVC) 0.9 % 500 mL chemo IVPB

Dose: 100 mg/m2 Route: intravenous once over 2 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	100 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	QS Base	500 mL	Yes	Yes

Chemotherapy

mesna (MESNEX) 2,000 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 2,000 mg/m2 Route: intravenous once over 12 Hours for 1 dose
Offset: 3 Hours

Instructions:
Administer Mesna 24 hours from the START of Ifosfamide infusion.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	MESNA 100 MG/ML INTRAVENOUS SOLUTION	Medications	2,000 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

