

OP FLUDARABINE / CYCLOPHOSPHAMIDE / RITUXIMAB

Types: ONCOLOGY TREATMENT

Synonyms: CLL, CHRONIC, LYMPHO, LEUKE, CYCLO, CYTOX, RITUX, NEOS, FLUDA, FLUDARA, 28, FCR

Cycle 1	Repeat 1 time	Cycle length: 28 days
Days 1,2	Perform every 1 day x2	
Appointment Requests		
INFUSION APPOINTMENT REQUEST		
Interval: -- Occurrences: --		
Labs		
<input checked="" type="checkbox"/> CBC WITH PLATELET AND DIFFERENTIAL		
Interval: -- Occurrences: --		
<input checked="" type="checkbox"/> COMPREHENSIVE METABOLIC PANEL		
Interval: -- Occurrences: --		
<input checked="" type="checkbox"/> MAGNESIUM LEVEL		
Interval: -- Occurrences: --		
<input type="checkbox"/> LDH		
Interval: -- Occurrences: --		
<input type="checkbox"/> URIC ACID LEVEL		
Interval: -- Occurrences: --		
Outpatient Electrolyte Replacement Protocol		
TREATMENT CONDITIONS 39		
Interval: -- Occurrences: --		
Comments: Potassium (Normal range 3.5 to 5.0mEq/L)		
o Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP		
o Protocol applies only to same day lab value.		
o Serum potassium less than 3.0mEq/L, give 40mEq KCL IV or PO and contact MD/NP		
o Serum potassium 3.0 to 3.2mEq/L, give 40mEq KCL IV or PO		
o Serum potassium 3.3 to 3.4mEq/L, give 20mEq KCL IV or PO		
o Serum potassium 3.5 mEq/L or greater, do not give potassium replacement		
o If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"		
o Sign electrolyte replacement order as Per protocol: cosign required		
TREATMENT CONDITIONS 40		
Interval: -- Occurrences: --		
Comments: Magnesium (Normal range 1.6 to 2.6mEq/L)		
o Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP		
o Protocol applies only to same day lab value.		
o Serum Magnesium less than 1.0mEq/L, give 2 gram magnesium sulfate IV and contact MD/NP		
o Serum Magnesium 1.0 to 1.2mEq/L, give 2 gram magnesium sulfate IV		
o Serum Magnesium 1.3 to 1.5mEq/L, give 1 gram magnesium sulfate IV		
o Serum Magnesium 1.6 mEq/L or areater. do not give		

- magnesium replacement
 - o If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
 - o Sign electrolyte replacement order as Per protocol: cosign required

Nursing Orders

TREATMENT CONDITIONS 7

Interval: -- 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 End: S 11:30 AM

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

ondansetron (ZOFRAN) tablet 16 mg
 Dose: 16 mg Route: oral once for 1 dose
 Start: S End: S 11:30 AM

dexamethasone (DECADRON) tablet 12 mg
 Dose: 12 mg Route: oral once for 1 dose
 Start: S

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

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	APREPITANT 7.2 MG/ML	Medications	130 mg	Main Inredient	Yes

INTRAVENOUS EMULSION
 DEXTROSE 5 % IN Base 130 mL Yes Yes
 WATER (D5W) IV SOLP (EXCEL;
 NON-PVC)
 SODIUM Base 130 mL No Yes
 CHLORIDE 0.9 % IV SOLP
 (EXCEL;NON-PVC)

Chemotherapy

fludarabine (FLUDARA) 25 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 25 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
 Offset: 30 Minutes

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

Chemotherapy

cyclophosphamide (CYTOXAN) 250 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 250 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
 Offset: 60 Minutes

Instructions:
 DRUG IS AN IRRITANT. Rapid infusion may result in dizziness, nasal/sinus congestion, and/or nasal burning.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	250 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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.

Day 3

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: --

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URIC ACID LEVEL

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Comments:

- Potassium (Normal range 3.5 to 5.0mEq/L)
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- o Serum potassium 3.0 to 3.2mEq/L, give 40mEq KCL IV or PO
- o Serum potassium 3.3 to 3.4mEq/L, give 20mEq KCL IV or PO
- o Serum potassium 3.5 mEq/L or greater, do not give potassium replacement
- o If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
- o Sign electrolyte replacement order as Per protocol: cosign required

TREATMENT CONDITIONS 40

Interval: -- Occurrences: --

Comments:

- Magnesium (Normal range 1.6 to 2.6mEq/L)
- o Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP
- o Protocol applies only to same day lab value.
- o Serum Magnesium less than 1.0mEq/L, give 2 gram magnesium sulfate IV and contact MD/NP
- o Serum Magnesium 1.0 to 1.2mEq/L, give 2 gram magnesium sulfate IV
- o Serum Magnesium 1.3 to 1.5mEq/L, give 1 gram magnesium sulfate IV
- o Serum Magnesium 1.6 mEq/L or greater, do not give magnesium replacement

- o If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
- o Sign electrolyte replacement order as Per protocol: cosign required

Nursing Orders

TREATMENT CONDITIONS 7

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

Provider Communication

ONC PROVIDER COMMUNICATION 58

Interval: -- 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 ***.

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 (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 End: S 11:30 AM

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

- ondansetron (ZOFTRAN) tablet 16 mg**

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

- dexamethasone (DECADRON) tablet 12 mg**

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

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

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

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

Chemotherapy

fludarabine (FLUDARA) 25 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 25 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
 Offset: 30 Minutes

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

Chemotherapy

cyclophosphamide (CYTOXAN) 250 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 250 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
 Offset: 60 Minutes

Instructions:

DRUG IS AN IRRITANT. Rapid infusion may result in dizziness, nasal/sinus congestion, and/or nasal burning.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	250 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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) 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: --

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: 2 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: 2 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	Base		Yes	Yes

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

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: 2 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: -- 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: -- 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

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.

Post-Medications

pegfilgrastim (NEULASTA) on-body injection kit 6 mg

Dose: 6 mg Route: subcutaneous once for 1 dose
Start: S End: S

Instructions:

Apply to intact, nonirritated skin on the back of the arm or abdomen (only use the back of the arm if caregiver is available to monitor On-body injection status).

Cycles 2 to 6
Days 1.2

Repeat 5 times

Cycle length: 28 days

Perform every 1 day x2

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: --

Outpatient Electrolyte Replacement Protocol

TREATMENT CONDITIONS 39

Interval: -- Occurrences: --

Comments:

- Potassium (Normal range 3.5 to 5.0mEq/L)
 - o Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP
 - o Protocol applies only to same day lab value.
 - o Serum potassium less than 3.0mEq/L, give 40mEq KCL IV or PO and contact MD/NP
 - o Serum potassium 3.0 to 3.2mEq/L, give 40mEq KCL IV or PO
 - o Serum potassium 3.3 to 3.4mEq/L, give 20mEq KCL IV or PO
 - o Serum potassium 3.5 mEq/L or greater, do not give potassium replacement
 - o If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
 - o Sign electrolyte replacement order as Per protocol: cosign required

TREATMENT CONDITIONS 40

Interval: -- Occurrences: --

Comments:

- Magnesium (Normal range 1.6 to 2.6mEq/L)
 - o Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP
 - o Protocol applies only to same day lab value.
 - o Serum Magnesium less than 1.0mEq/L, give 2 gram magnesium sulfate IV and contact MD/NP
 - o Serum Magnesium 1.0 to 1.2mEq/L, give 2 gram magnesium sulfate IV
 - o Serum Magnesium 1.3 to 1.5mEq/L, give 1 gram magnesium sulfate IV
 - o Serum Magnesium 1.6 mEq/L or greater, do not give magnesium replacement
 - o If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
 - o Sign electrolyte replacement order as Per protocol: cosign required

Nursing Orders

TREATMENT CONDITIONS 7

Interval: -- 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 (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 End: S 11:30 AM

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

- ondansetron (ZOFTRAN) tablet 16 mg**

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

- dexamethasone (DECADRON) tablet 12 mg**

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

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

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

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

Chemotherapy

fludarabine (FLUDARA) 25 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 25 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
Offset: 30 Minutes

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

Chemotherapy

cyclophosphamide (CYTOXAN) 250 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 250 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
Offset: 60 Minutes

Instructions:
DRUG IS AN IRRITANT. Rapid infusion may result in dizziness, nasal/sinus congestion, and/or nasal burning.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	250 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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.

Day 3

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: --

Outpatient Electrolyte Replacement Protocol

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 - o Serum potassium 3.5 mEq/L or greater, do not give potassium replacement
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TREATMENT CONDITIONS 40

Interval: -- Occurrences: --

Comments:

- Magnesium (Normal range 1.6 to 2.6mEq/L)
- o Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP
 - o Protocol applies only to same day lab value.
 - o Serum Magnesium less than 1.0mEq/L, give 2 gram magnesium sulfate IV and contact MD/NP
 - o Serum Magnesium 1.0 to 1.2mEq/L, give 2 gram magnesium sulfate IV
 - o Serum Magnesium 1.3 to 1.5mEq/L, give 1 gram magnesium sulfate IV
 - o Serum Magnesium 1.6 mEq/L or greater, do not give magnesium replacement
 - o If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
 - o Sign electrolyte replacement order as Per protocol: cosign required

Nursing Orders

TREATMENT CONDITIONS 7

Interval: -- Occurrences: --

Comments:

- HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000.

Provider Communication

ONC PROVIDER COMMUNICATION 58

Interval: -- 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 ***.

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 (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 End: S 11:30 AM

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
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	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
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- ondansetron (ZOFTRAN) tablet 16 mg**

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

- dexamethasone (DECADRON) tablet 12 mg**

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

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

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

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	APREPITANT 7.2 MG/ML INTRAVENOUS EMULSION	Medications	130 mg	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) IV SOLP (EXCEL:	Base	130 mL	Yes	Yes

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

Chemotherapy

fludarabine (FLUDARA) 25 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 25 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
 Offset: 30 Minutes

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

Chemotherapy

cyclophosphamide (CYTOXAN) 250 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 250 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
 Offset: 60 Minutes

Instructions:
 DRUG IS AN IRRITANT. Rapid infusion may result in dizziness, nasal/sinus congestion, and/or nasal burning.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	250 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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) 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: --

Chemotherapy

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

Dose: -- Route: intravenous once for 1 dose
Offset: 2 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: 2 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	Medications	375 mg/m2	Main Ingredient	Yes

TRAVENOUS 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: --	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: --	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

Discharge Nursing Orders

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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.

Post-Medications

**pegfilgrastim (NEULASTA) on-body injection
kit 6 mg**

Dose: 6 mg Route: subcutaneous once for 1 dose

Start: S

End: S

Instructions:

Apply to intact, nonirritated skin on the back of
the arm or abdomen (only use the back of the
arm if caregiver is available to monitor
On-body injection status).