

IP FLUDARABINE / CYCLOPHOSPHAMIDE / RITUXIMAB

Types: ONCOLOGY TREATMENT

Synonyms: CLL, CHRONIC, LYMPHO, LEUKE, CYCLO, CYTOX, RITUX, FCR, FLUDARA, FLUDARABINE

Cycle 1	Repeat 1 time	Cycle length: 28 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"/> CBC WITH PLATELET AND DIFFERENTIAL		
Interval: Once	Occurrences: --	
<input checked="" type="checkbox"/> COMPREHENSIVE METABOLIC PANEL		
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: --	
Nursing Orders		
TREATMENT CONDITIONS 7		
Interval: Once	Occurrences: --	
Comments:	HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000.	
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 ***.	
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		
Dose: 100 mL/hr	Route: intravenous	continuous
Start: S		

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

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	Medications	375	Main	Yes

consequences; urgent intervention indicated (e.g., vasopressors or ventilator support).

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	RITUXIMAB 10 MG/ML CONCENTRATE, INTRAVENOUS SOLUTION	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

Discharge Nursing Orders

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

HEParin, porcine (PF) injection 500 Units

Dose: 500 Units Route: intra-catheter once PRN
Start: S
Instructions:
Concentration: 100 units/mL. Heparin flush for
Implanted Vascular Access Device
maintenance.

Day 2

Perform every 1 day x1

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Pre-Medications

ondansetron (ZOFRAN) 16 mg, 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

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

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

Day 3

Perform every 1 day x1

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Start: S

Instructions:

To keep vein open.

Pre-Medications

ondansetron (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	Medications	12 mg	Yes	No

4 MG/ML
INJECTION
SOLUTION
SODIUM Base 50 mL Always Yes
CHLORIDE 0.9 %
INTRAVENOUS
SOLUTION
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

dexamethasone (DECADRON) tablet 12 mg

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

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

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

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

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

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