

IP R-CHOP

Types: ONCOLOGY TREATMENT

Synonyms: CHOP, LYMPH, LYMPHOMA, CYCLO, CYCLOPHOSPHAMIDE, VINC, VINCRISTINE, DOXO, DOXORUBICIN, NON, PRED, PREDNISONE

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 ***.		
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 10 Interval: Once Occurrences: --		

Comments: Please order Growth Factor to begin on Day 2, if indicated.

If patient will be discharged, consider using Neulasta Therapy Plan for Outpatient use.

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

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

End: S 10:30 AM

Ingredients:

Name

Type

Dose

Selected

Adds Vol.

ONDANSETRON

Medications

16 mg

Yes

No

HCL (PF) 4 MG/2

ML INJECTION

SOLUTION

DEXAMETHASONE Medications

20 mg

No

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

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

Medications

130 mg

Main

Yes

MG/ML

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

predniSONE (DELTASONE) tablet 100 mg

Dose: 100 mg Route: oral daily for 5 doses
 Offset: 0 Hours

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

Dose: 1.4 mg/m2 Route: intravenous once over 15 Minutes for 1 dose
 Offset: 30 Minutes

Instructions:

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

Rule-Based Template: RULE ONCBCN

VINCRIStINE 1.4 MG/M2

Conditions:

BSA < 1.43 m2
 BSA >= 1.43 m2

Modifications:

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

Ingredients:

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

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

Dose: 50 mg/m2 Route: intravenous once over 15 Minutes for 1 dose
 Offset: 60 Minutes

Instructions:

Protect from light; VESICANT

Ingredients:

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

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: 1.5 Hours

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION	Medications	750 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 %	QS Base	250 mL	Yes	Yes

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

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) 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.
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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 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, INTRAVENOUS	Medications	375 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

Rituximab Infusion Reaction Orders

meperidine (DEMEROL) injection 25 mg Dose: 25 mg 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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Discharge Nursing Orders

<input checked="" type="checkbox"/> sodium chloride 0.9 % flush 20 mL Dose: 20 mL	Route: intravenous	PRN
<input checked="" type="checkbox"/> HEParin, porcine (PF) injection 500 Units Dose: 500 Units Start: S Instructions: Concentration: 100 units/mL. Heparin flush for Implanted Vascular Access Device maintenance.	Route: intra-catheter	once PRN

Cycles 2 to 6

Repeat 5 times

Cycle length: 21 days

Day 1

Perform every 1 day x1

Labs

<input checked="" type="checkbox"/> COMPREHENSIVE METABOLIC PANEL Interval: Once Occurrences: --
<input checked="" type="checkbox"/> 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 10

Interval: Once Occurrences: --

Comments: Please order Growth Factor to begin on Day 2, if indicated.

If patient will be discharged, consider using Neulasta Therapy Plan for Outpatient use.

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

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 End: S 10:30 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	20 mg	No	No
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

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

predniSONE (DELTASONE) tablet 100 mg

Dose: 100 mg Route: oral daily for 5 doses
Offset: 0 Hours

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

Dose: 1.4 mg/m2 Route: intravenous once over 15 Minutes for 1 dose
Offset: 30 Minutes

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

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

Conditions:
BSA < 1.43 m2
BSA >= 1.43 m2

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

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	VINCRIStINE 1 MG/ML INTRAVENOUS	Medications	1.4 mg/m2	Main Ingredient	Yes

SOLUTION
SODIUM
CHLORIDE 0.9 %
INTRAVENOUS
SOLUTION

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

Dose: 50 mg/m2 Route: intravenous once over 15 Minutes for 1 dose
Offset: 60 Minutes

Instructions:
Protect from light; VESICANT

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

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: 1.5 Hours

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

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: 2.5 Hours

Instructions:

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

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

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

Dose: 375 mg/m2 Route: intravenous once over 90 Minutes for 1 dose
 Offset: 2.5 Hours

Instructions:

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

Reaction grades:

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

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

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

Rituximab Infusion Reaction Orders

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

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

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

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

Rituximab Additional Orders

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

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.