Protocol Index

OP CYBORDEX

Types: ONCOLOGY TREATMENT
Synonyms: MM, MULT, MYELO, CYCLO, CYTO, BORT, VECL, DEX, DECA, NEOS, CYBO, CYCLOPHOSPHAMIDE , BORTEZOMIB , DEXAMETHASONE , CYBORDEX, CYBORD, MULTIPLE MYELOMA, MYELOMA, MULTIPLE

Take-Home Medications Repeat 1 time Cycle length: 1 day

Day 1 Perform every 1 day x1

Take-Home Medications Prior to Treatment

dexamethasone (DECADRON) 4 MG tablet
Dose: 40 mg Route: oral see admin instructions
Dispense: 30 tablet Refills: 12
Start: S
Instructions:
Take 10 tablets (total dose = 40 mg) by mouth daily on days 1-4, 9-12, and 17-20 in each chemotherapy cycle.

Take-Home Medications Prior to Treatment

acyclovir (ZOVIRAX) 800 MG tablet
Dose: -- Route: oral
Dispense: -- Refills: --
Start: S
Comments:
For infection prevention.
Instructions:
For infection prevention.

Cycle 1 Repeat 1 time Cycle length: 28 days

Day 1 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

☑ **COMPREHENSIVE METABOLIC PANEL**
Interval: -- Occurrences: --

☑ **CBC WITH PLATELET AND DIFFERENTIAL**
Interval: -- Occurrences: --

☑ **MAGNESIUM LEVEL**
Interval: -- Occurrences: --

☑ **LDH**
Interval: -- Occurrences: --

☑ **URIC ACID LEVEL**
Interval: -- Occurrences: --

☑ **PHOSPHORUS 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.

Nursing Orders

ONC NURSING COMMUNICATION 51
Interval: -- Occurrences: --
Comments: HOLD Bortezomib and notify provider if Hgb is LESS than or equal to *** g/dL.

Vitals

ONC NURSING COMMUNICATION 50
Interval: -- Occurrences: --
Comments: 1) Check vital signs (BP, temperature, pulse, and respirations) prior to and 30 minutes after Bortezomib administration.

2) If systolic BP, 30 minutes after Bortezomib infusion, drops more than 30 mmHg, or if systolic BP is less than 90, please contact MD.

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) 4 mg/2 mL injection 8 mg**

Dose: 8 mg | Route: intravenous | once for 1 dose
Start: S | End: S 11:15 AM

○ **ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg | Route: oral | once for 1 dose
Start: S

◉ **ondansetron (ZOFRAN) 4 mg/2 mL 16 mg in dextrose 5% 50 mL IVPB**

Dose: 16 mg | Route: intravenous | once over 15 Minutes for 1 dose
Start: S | End: S 11:00 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Main Ingredient	No
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes

Chemotherapy

○ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB**

Dose: 300 mg/m2 | Route: intravenous | once over 30 Minutes for 1 dose
Offset: 30 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	300 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

◉ **cyclophosphamide (CYTOXAN) chemo capsule 300 mg/m2 (Treatment Plan)**

Dose: 300 mg/m2 | Route: oral | once for 1 dose
Offset: 30 Minutes

Chemotherapy

bortezomib (VelCADE) 1.3 mg/m2 in sodium chloride 0.9 % chemo injection

Dose: 1.3 mg/m2 | Route: subcutaneous | once for 1 dose
Offset: 30 Minutes

Instructions:
DRUG IS AN IRRITANT. Administer drug slowly to prevent burning upon administration.

72 hours between doses is recommended.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	BORTEZOMIB 3.5 MG SOLUTION FOR INJECTION	Medications	1.3 mg/m2	Main Ingredient	No
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	Base		Always	Yes

Hematology & Oncology Hypersensitivity Reaction Standing Order

ONC NURSING COMMUNICATION 82

Interval: -- 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 4

Interval: -- 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 83

Interval: -- 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

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 4 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST

Interval: -- Occurrences: --

Labs

☑ **COMPREHENSIVE METABOLIC PANEL**

Interval: -- Occurrences: --

☑ **CBC WITH PLATELET AND DIFFERENTIAL**

Interval: -- Occurrences: --

☑ **MAGNESIUM LEVEL**

Interval: -- Occurrences: --

☑ **LDH**

Interval: -- Occurrences: --

☑ **URIC ACID LEVEL**

Interval: -- Occurrences: --

☑ **PHOSPHORUS LEVEL**

Interval: -- Occurrences: --

Outpatient Electrolyte Replacement Protocol

TREATMENT CONDITIONS 39

Interval: -- Occurrences: --

Comments: Potassium (Normal range 3.5 to 5.0mEq/L)

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

TREATMENT CONDITIONS 40

Interval: -- Occurrences: --

Comments: Magnesium (Normal range 1.6 to 2.6mEq/L)

- Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP
- Protocol applies only to same day lab value.
- Serum Magnesium less than 1.0mEq/L, give 2 gram magnesium sulfate IV and contact MD/NP
- Serum Magnesium 1.0 to 1.2mEq/L, give 2 gram magnesium sulfate IV
- Serum Magnesium 1.3 to 1.5mEq/L, give 1 gram magnesium sulfate IV
- Serum Magnesium 1.6 mEq/L or greater, do not give magnesium replacement
- If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
- 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.

Nursing Orders

ONC NURSING COMMUNICATION 51

Interval: -- Occurrences: --

Comments: HOLD Bortezomib and notify provider if Hgb is LESS than or equal to *** g/dL.

Vitals

ONC NURSING COMMUNICATION 50

Interval: -- Occurrences: --

Comments: 1) Check vital signs (BP, temperature, pulse, and respirations) prior to and 30 minutes after Bortezomib administration.

2) If systolic BP, 30 minutes after Bortezomib infusion, drops more than 30 mmHg, or if systolic BP is less than 90, please contact MD.

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.

Chemotherapy

bortezomib (VelCADE) 1.3 mg/m2 in sodium chloride 0.9 % chemo injection

Dose: 1.3 mg/m2 Route: subcutaneous once for 1 dose

Offset: 30 Minutes

Instructions:

DRUG IS AN IRRITANT. Administer drug slowly to prevent burning upon administration.

72 hours between doses is recommended.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	BORTEZOMIB 3.5 MG SOLUTION FOR INJECTION	Medications	1.3 mg/m2	Main Ingredient	No
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	Base		Always	Yes

Hematology & Oncology Hypersensitivity Reaction Standing Order

ONC NURSING COMMUNICATION 82

Interval: -- 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 4

Interval: --
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 83

Interval: --
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

Day 8 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

☑ **COMPREHENSIVE METABOLIC PANEL**
Interval: -- Occurrences: --

☑ **CBC WITH PLATELET AND DIFFERENTIAL**
Interval: -- Occurrences: --

☑ **MAGNESIUM LEVEL**
Interval: -- Occurrences: --

☑ **LDH**
Interval: -- Occurrences: --

☑ **URIC ACID LEVEL**
Interval: -- Occurrences: --

☑ **PHOSPHORUS LEVEL**
Interval: -- Occurrences: --

Outpatient Electrolyte Replacement Protocol

TREATMENT CONDITIONS 39
Interval: -- Occurrences: --
Comments: Potassium (Normal range 3.5 to 5.0mEq/L)
- Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP
- Protocol applies only to same day lab value.
- Serum potassium less than 3.0mEq/L, give 40mEq KCL IV or PO and contact MD/NP
- Serum potassium 3.0 to 3.2mEq/L, give 40mEq KCL IV or PO
- Serum potassium 3.3 to 3.4mEq/L, give 20mEq KCL IV or PO
- Serum potassium 3.5 mEq/L or greater, do not give potassium replacement
- If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
- Sign electrolyte replacement order as Per protocol: cosign required

TREATMENT CONDITIONS 40
Interval: -- Occurrences: --
Comments: Magnesium (Normal range 1.6 to 2.6mEq/L)
- Protocol applies for SCr less than 1.5. Otherwise, contact

MD/NP
- Protocol applies only to same day lab value.
- Serum Magnesium less than 1.0mEq/L, give 2 gram magnesium sulfate IV and contact MD/NP
- Serum Magnesium 1.0 to 1.2mEq/L, give 2 gram magnesium sulfate IV
- Serum Magnesium 1.3 to 1.5mEq/L, give 1 gram magnesium sulfate IV
- Serum Magnesium 1.6 mEq/L or greater, do not give magnesium replacement
- If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
- 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.

Nursing Orders

ONC NURSING COMMUNICATION 51

Interval: -- Occurrences: --

Comments: HOLD Bortezomib and notify provider if Hgb is LESS than or equal to *** g/dL.

Vitals

ONC NURSING COMMUNICATION 50

Interval: -- Occurrences: --

Comments: 1) Check vital signs (BP, temperature, pulse, and respirations) prior to and 30 minutes after Bortezomib administration.

2) If systolic BP, 30 minutes after Bortezomib infusion, drops more than 30 mmHg, or if systolic BP is less than 90, please contact MD.

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) 4 mg/2 mL injection 8 mg**

Dose: 8 mg Route: intravenous once for 1 dose

Start: S End: S 11:15 AM

○ **ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg Route: oral once for 1 dose

Start: S

◉ **ondansetron (ZOFRAN) 4 mg/2 mL 16 mg in dextrose 5% 50 mL IVPB**

Dose: 16 mg Route: intravenous once over 15 Minutes for 1 dose

Start: S End: S 11:00 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Main Ingredient	No
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes

Chemotherapy

○ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
Offset: 30 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	300 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

◉ **cyclophosphamide (CYTOXAN) chemo capsule 300 mg/m2 (Treatment Plan)**

Dose: 300 mg/m2 Route: oral once for 1 dose
Offset: 30 Minutes

Chemotherapy

bortezomib (VelCADE) 1.3 mg/m2 in sodium chloride 0.9 % chemo injection

Dose: 1.3 mg/m2 Route: subcutaneous once for 1 dose
Offset: 30 Minutes

Instructions:
DRUG IS AN IRRITANT. Administer drug slowly to prevent burning upon administration. 72 hours between doses is recommended.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
BORTEZOMIB 3.5 MG SOLUTION FOR INJECTION	Medications	1.3 mg/m2	Main Ingredient	No
SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	Base		Always	Yes

Hematology & Oncology Hypersensitivity Reaction Standing Order

ONC NURSING COMMUNICATION 82

Interval: -- 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 4

Interval: --
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 83

Interval: --
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

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 11 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- | Occurrences: --

Labs

☑ **COMPREHENSIVE METABOLIC PANEL**
Interval: -- | Occurrences: --

☑ **CBC WITH PLATELET AND DIFFERENTIAL**
Interval: -- | Occurrences: --

☑ **MAGNESIUM LEVEL**
Interval: -- | Occurrences: --

☑ **LDH**
Interval: -- | Occurrences: --

☑ **URIC ACID LEVEL**

Interval: -- Occurrences: --

☑ **PHOSPHORUS LEVEL**

Interval: -- Occurrences: --

Outpatient Electrolyte Replacement Protocol

TREATMENT CONDITIONS 39

Interval: -- Occurrences: --

Comments: Potassium (Normal range 3.5 to 5.0mEq/L)

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

TREATMENT CONDITIONS 40

Interval: -- Occurrences: --

Comments: Magnesium (Normal range 1.6 to 2.6mEq/L)

- Protocol applies for SCr less than 1.5. Otherwise, contact MD/NP
- Protocol applies only to same day lab value.
- Serum Magnesium less than 1.0mEq/L, give 2 gram magnesium sulfate IV and contact MD/NP
- Serum Magnesium 1.0 to 1.2mEq/L, give 2 gram magnesium sulfate IV
- Serum Magnesium 1.3 to 1.5mEq/L, give 1 gram magnesium sulfate IV
- Serum Magnesium 1.6 mEq/L or greater, do not give magnesium replacement
- If patient meets criteria, order SmartSet called "Outpatient Electrolyte Replacement"
- 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.

Nursing Orders

ONC NURSING COMMUNICATION 51

Interval: -- Occurrences: --

Comments: HOLD Bortezomib and notify provider if Hgb is LESS than or equal to *** g/dL.

Vitals

ONC NURSING COMMUNICATION 50

Interval: -- Occurrences: --

Comments: 1) Check vital signs (BP, temperature, pulse, and respirations) prior to and 30 minutes after Bortezomib administration.

2) If systolic BP, 30 minutes after Bortezomib infusion, drops more than 30 mmHg, or if systolic BP is less than 90, please contact MD.

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.

Chemotherapy

bortezomib (VelCADE) 1.3 mg/m2 in sodium chloride 0.9 % chemo injection

Dose: 1.3 mg/m2 | Route: subcutaneous | once for 1 dose

Offset: 30 Minutes

Instructions:

DRUG IS AN IRRITANT. Administer drug slowly to prevent burning upon administration.

72 hours between doses is recommended.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	BORTEZOMIB 3.5 MG SOLUTION FOR INJECTION	Medications	1.3 mg/m2	Main Ingredient	No
	SODIUM CHLORIDE 0.9 % INJECTION SOLUTION	Base		Always	Yes

Hematology & Oncology Hypersensitivity Reaction Standing Order

ONC NURSING COMMUNICATION 82

Interval: -- | 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 4

Interval: -- | 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 83
Interval: --
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

Day 15 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

☑ **COMPREHENSIVE METABOLIC PANEL**
Interval: -- Occurrences: --

☑ **CBC WITH PLATELET AND DIFFERENTIAL**
Interval: -- Occurrences: --

☑ **MAGNESIUM LEVEL**
Interval: -- Occurrences: --

☑ **LDH**
Interval: -- Occurrences: --

☑ **URIC ACID LEVEL**
Interval: -- Occurrences: --

☑ **PHOSPHORUS 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 (ZOFRAN) 4 mg/2 mL injection 8 mg**

Dose: 8 mg Route: intravenous once for 1 dose

Start: S End: S 11:15 AM

○ **ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg Route: oral once for 1 dose

Start: S

◉ **ondansetron (ZOFRAN) 4 mg/2 mL 16 mg in dextrose 5% 50 mL IVPB**

Dose: 16 mg Route: intravenous once over 15 Minutes for 1 dose

Start: S End: S 11:00 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Main Ingredient	No
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes

Chemotherapy

○ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous once over 30 Minutes for 1 dose

Offset: 30 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	300 mg/m2	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	Yes
DEXTROSE 5 % IN	QS Base	100 mL	No	Yes

WATER (D5W)
INTRAVENOUS
SOLUTION

◉ **cyclophosphamide (CYTOXAN) chemo capsule 300 mg/m2 (Treatment Plan)**

Dose: 300 mg/m2 Route: oral once for 1 dose
Offset: 30 Minutes

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 22 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

☑ **COMPREHENSIVE METABOLIC PANEL**

Interval: -- Occurrences: --

☑ **CBC WITH PLATELET AND DIFFERENTIAL**

Interval: -- Occurrences: --

☑ **MAGNESIUM LEVEL**

Interval: -- Occurrences: --

☑ **LDH**

Interval: -- Occurrences: --

☑ **URIC ACID LEVEL**

Interval: -- Occurrences: --

☑ **PHOSPHORUS LEVEL**

Interval: -- Occurrences: --

Outpatient Electrolyte Replacement Protocol

TREATMENT CONDITIONS 39
Interval: -- Occurrences: --
Comments: Potassium (Normal range 3.5 to 5.0mEq/L)
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- 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 (ZOFRAN) 4 mg/2 mL injection 8 mg**
Dose: 8 mg Route: intravenous once for 1 dose
Start: S End: S 11:15 AM

○ **ondansetron (ZOFRAN) tablet 16 mg**
Dose: 16 mg Route: oral once for 1 dose
Start: S

◉ **ondansetron (ZOFRAN) 4 mg/2 mL 16 mg in dextrose 5% 50 mL IVPB**
Dose: 16 mg Route: intravenous once over 15 Minutes for 1 dose
Start: S End: S 11:00 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2	Medications	16 mg	Main Ingredient	No

ML INJECTION SOLUTION					
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes	

Chemotherapy

○ **cyclophosphamide (CYTOXAN) 300 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB**

Dose: 300 mg/m2 Route: intravenous once over 30 Minutes for 1 dose
Offset: 30 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	300 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

◉ **cyclophosphamide (CYTOXAN) chemo capsule 300 mg/m2 (Treatment Plan)**

Dose: 300 mg/m2 Route: oral once for 1 dose
Offset: 30 Minutes

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.