Protocol Index

OP NIVOLUMAB (EVERY 14 DAYS)

Types: ONCOLOGY TREATMENT
Synonyms: NEEV, OPDI, NIVO, NON, NSCL, LUNG, NIVOLUMAB , OPDIVO

Dose 1 Repeat 1 time Cycle length: 14 days

Day 1 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: --

☑ **THYROID STIMULATING HORMONE**
Interval: -- Occurrences: --

☑ **T3, FREE**
Interval: -- Occurrences: --

☑ **T4, FREE**
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)
- 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 11

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; AST or ALT > 3 and up to 5x Upper Normal Limit or Total Bilirubin > 1.5 and up to 3x Upper Normal Limit; Creatinine > 1.5 and up to 6x Upper Normal Limit or > 1.5x from baseline.

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

☑ **diphenhydrAMINE (BENADRYL) injection 25 mg**

Dose: 25 mg Route: intravenous once for 1 dose

Start: S

Instructions:

Administer via slow IV push 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) 50 mg in sodium chloride 0.9 % 50 mL IVPB**

Dose: 50 mg Route: intravenous once over 15 Minutes for 1 dose

Start: S End: S 11:45 AM

Instructions:

Administer 30 minutes prior to chemotherapy.

Ingredients:

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

☐ **diphenhydrAMINE (BENADRYL) tablet 25 mg**

Dose: 25 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) tablet 50 mg**

Dose: 50 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) 20 mg/2 mL injection 20 mg**

Dose: 20 mg | Route: intravenous | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) tablet 20 mg**

Dose: 20 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **acetaminophen (TYLENOL) tablet 650 mg**

Dose: 650 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

Chemotherapy

nivolumab (OPDIVO) 3 mg/kg in sodium chloride 0.9% 100 mL IVPB

Dose: 3 mg/kg | Route: intravenous | once over 30 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Administer with low protein binding 0.22 micron in-line filter. Do not shake. Do not mix with other medications. Flush IV line with NS at the end of infusion.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
NIVOLUMAB 40 MG/4 ML INTRAVENOUS SOLUTION	Medications	3 mg/kg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	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.

Dose 2 Repeat 1 time Cycle length: 14 days

Day 1 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: --

☑ **THYROID STIMULATING HORMONE**
Interval: -- Occurrences: --

☑ **T3, FREE**
Interval: -- Occurrences: --

☑ **T4, FREE**
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)

- 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 11

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; AST or ALT > 3 and up to 5x Upper Normal Limit or Total Bilirubin > 1.5 and up to 3x Upper Normal Limit; Creatinine > 1.5 and up to 6x Upper Normal Limit or > 1.5x from baseline.

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

☑ **diphenhydrAMINE (BENADRYL) injection 25 mg**

Dose: 25 mg | Route: intravenous | once for 1 dose

Start: S

Instructions:

Administer via slow IV push 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) 50 mg in sodium chloride 0.9 % 50 mL IVPB**

Dose: 50 mg | Route: intravenous | once over 15 Minutes for 1 dose

Start: S | End: S 11:45 AM

Instructions:

Administer 30 minutes prior to chemotherapy.

Ingredients:

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

☐ **diphenhydrAMINE (BENADRYL) tablet 25 mg**

Dose: 25 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) tablet 50 mg**

Dose: 50 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) 20 mg/2 mL injection 20 mg**

Dose: 20 mg | Route: intravenous | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) tablet 20 mg**

Dose: 20 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☑ **acetaminophen (TYLENOL) tablet 650 mg**

Dose: 650 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

Chemotherapy

nivolumab (OPDIVO) 3 mg/kg in sodium

chloride 0.9% 100 mL IVPB

Dose: 3 mg/kg | Route: intravenous | once over 30 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Administer with low protein binding 0.22 micron in-line filter. Do not shake. Do not mix with other medications. Flush IV line with NS at the end of infusion.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	NIVOLUMAB 40 MG/4 ML INTRAVENOUS SOLUTION	Medications	3 mg/kg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	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.

Dose 3 Repeat 1 time Cycle length: 14 days

Day 1 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: --

☑ **THYROID STIMULATING HORMONE**
Interval: -- Occurrences: --

☑ **T3, FREE**
Interval: -- Occurrences: --

☑ **T4, FREE**
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 11

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; AST or ALT > 3 and up to 5x Upper Normal Limit or Total Bilirubin > 1.5 and up to 3x Upper Normal Limit; Creatinine > 1.5 and up to 6x Upper Normal Limit or > 1.5x from baseline.

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

☑ **diphenhydrAMINE (BENADRYL) injection 25 mg**

Dose: 25 mg Route: intravenous once for 1 dose

Start: S

Instructions:

Administer via slow IV push 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) 50 mg in sodium chloride 0.9 % 50 mL IVPB**

Dose: 50 mg Route: intravenous once over 15 Minutes for 1 dose

Start: S End: S 11:45 AM

Instructions:

Administer 30 minutes prior to chemotherapy.

Ingredients:

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

☐ **diphenhydrAMINE (BENADRYL) tablet 25 mg**

Dose: 25 mg Route: oral once for 1 dose

Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) tablet 50 mg**

Dose: 50 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) 20 mg/2 mL injection 20 mg**

Dose: 20 mg | Route: intravenous | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) tablet 20 mg**

Dose: 20 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **acetaminophen (TYLENOL) tablet 650 mg**

Dose: 650 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

Chemotherapy

nivolumab (OPDIVO) 3 mg/kg in sodium chloride 0.9% 100 mL IVPB

Dose: 3 mg/kg | Route: intravenous | once over 30 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Administer with low protein binding 0.22 micron in-line filter. Do not shake. Do not mix with other medications. Flush IV line with NS at the end of infusion.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
NIVOLUMAB 40 MG/4 ML INTRAVENOUS SOLUTION	Medications	3 mg/kg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	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.

Dose 4 Repeat 1 time Cycle length: 14 days

Day 1 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: --

☑ **THYROID STIMULATING HORMONE**
Interval: -- Occurrences: --

☑ **T3, FREE**
Interval: -- Occurrences: --

☑ **T4, FREE**
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)

- 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 11

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; AST or ALT > 3 and up to 5x Upper Normal Limit or Total Bilirubin > 1.5 and up to 3x Upper Normal Limit; Creatinine > 1.5 and up to 6x Upper Normal Limit or > 1.5x from baseline.

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

☑ **diphenhydrAMINE (BENADRYL) injection 25 mg**

Dose: 25 mg | Route: intravenous | once for 1 dose

Start: S

Instructions:

Administer via slow IV push 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) 50 mg in sodium chloride 0.9 % 50 mL IVPB**

Dose: 50 mg | Route: intravenous | once over 15 Minutes for 1 dose

Start: S | End: S 11:45 AM

Instructions:

Administer 30 minutes prior to chemotherapy.

Ingredients:

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

☐ **diphenhydrAMINE (BENADRYL) tablet 25 mg**

Dose: 25 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) tablet 50 mg**

Dose: 50 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) 20 mg/2 mL injection 20 mg**

Dose: 20 mg | Route: intravenous | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) tablet 20 mg**

Dose: 20 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☑ **acetaminophen (TYLENOL) tablet 650 mg**

Dose: 650 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

Chemotherapy

nivolumab (OPDIVO) 3 mg/kg in sodium

chloride 0.9% 100 mL IVPB

Dose: 3 mg/kg | Route: intravenous | once over 30 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Administer with low protein binding 0.22 micron in-line filter. Do not shake. Do not mix with other medications. Flush IV line with NS at the end of infusion.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	NIVOLUMAB 40 MG/4 ML INTRAVENOUS SOLUTION	Medications	3 mg/kg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	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.

Dose 5 Repeat 1 time Cycle length: 14 days

Day 1 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: --

☑ **THYROID STIMULATING HORMONE**
Interval: -- Occurrences: --

☑ **T3, FREE**
Interval: -- Occurrences: --

☑ **T4, FREE**
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 11

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; AST or ALT > 3 and up to 5x Upper Normal Limit or Total Bilirubin > 1.5 and up to 3x Upper Normal Limit; Creatinine > 1.5 and up to 6x Upper Normal Limit or > 1.5x from baseline.

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

☑ **diphenhydrAMINE (BENADRYL) injection 25 mg**

Dose: 25 mg Route: intravenous once for 1 dose

Start: S

Instructions:

Administer via slow IV push 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) 50 mg in sodium chloride 0.9 % 50 mL IVPB**

Dose: 50 mg Route: intravenous once over 15 Minutes for 1 dose

Start: S End: S 11:45 AM

Instructions:

Administer 30 minutes prior to chemotherapy.

Ingredients:

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

☐ **diphenhydrAMINE (BENADRYL) tablet 25 mg**

Dose: 25 mg Route: oral once for 1 dose

Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) tablet 50 mg**

Dose: 50 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) 20 mg/2 mL injection 20 mg**

Dose: 20 mg | Route: intravenous | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) tablet 20 mg**

Dose: 20 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

☑ **acetaminophen (TYLENOL) tablet 650 mg**

Dose: 650 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:
Administer 30 minutes prior to chemotherapy.

Chemotherapy

nivolumab (OPDIVO) 3 mg/kg in sodium chloride 0.9% 100 mL IVPB

Dose: 3 mg/kg | Route: intravenous | once over 30 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Administer with low protein binding 0.22 micron in-line filter. Do not shake. Do not mix with other medications. Flush IV line with NS at the end of infusion.

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
NIVOLUMAB 40 MG/4 ML INTRAVENOUS SOLUTION	Medications	3 mg/kg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	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.

Dose 6 Repeat 1 time Cycle length: 14 days

Day 1 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: --

☑ **THYROID STIMULATING HORMONE**
Interval: -- Occurrences: --

☑ **T3, FREE**
Interval: -- Occurrences: --

☑ **T4, FREE**
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)

- 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 11

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; AST or ALT > 3 and up to 5x Upper Normal Limit or Total Bilirubin > 1.5 and up to 3x Upper Normal Limit; Creatinine > 1.5 and up to 6x Upper Normal Limit or > 1.5x from baseline.

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

☑ **diphenhydrAMINE (BENADRYL) injection 25 mg**

Dose: 25 mg | Route: intravenous | once for 1 dose

Start: S

Instructions:

Administer via slow IV push 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) 50 mg in sodium chloride 0.9 % 50 mL IVPB**

Dose: 50 mg | Route: intravenous | once over 15 Minutes for 1 dose

Start: S | End: S 11:45 AM

Instructions:

Administer 30 minutes prior to chemotherapy.

Ingredients:

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

☐ **diphenhydrAMINE (BENADRYL) tablet 25 mg**

Dose: 25 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **diphenhydrAMINE (BENADRYL) tablet 50 mg**

Dose: 50 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) 20 mg/2 mL injection 20 mg**

Dose: 20 mg | Route: intravenous | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☐ **famotidine (PEPCID) tablet 20 mg**

Dose: 20 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

☑ **acetaminophen (TYLENOL) tablet 650 mg**

Dose: 650 mg | Route: oral | once for 1 dose
Offset: 0 Hours

Instructions:

Administer 30 minutes prior to chemotherapy.

Chemotherapy

nivolumab (OPDIVO) 3 mg/kg in sodium

chloride 0.9% 100 mL IVPB

Dose: 3 mg/kg | Route: intravenous | once over 30 Minutes for 1 dose
Offset: 30 Minutes

Instructions:
Administer with low protein binding 0.22 micron in-line filter. Do not shake. Do not mix with other medications. Flush IV line with NS at the end of infusion.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	NIVOLUMAB 40 MG/4 ML INTRAVENOUS SOLUTION	Medications	3 mg/kg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	100 mL	Yes	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

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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.