

## OP NIVOLUMAB (480 MG FLAT DOSE) EVERY 4 WKS

Types: ONCOLOGY TREATMENT

Synonyms: NEEV, OPDI, NIVO, NON, NSCL, LUNG, NIVOLUMAB, OPDIVO, FLAT, 480

<b>Dose 1</b>	Repeat 1 time	Cycle length: 28 days
<b>Day 1</b>	Perform every 1 day x1	
Appointment Requests		
<b>INFUSION APPOINTMENT REQUEST</b>		
Interval: -- Occurrences: --		
Labs		
<input checked="" type="checkbox"/> <b>CBC WITH PLATELET AND DIFFERENTIAL</b>		
Interval: -- Occurrences: --		
<input checked="" type="checkbox"/> <b>COMPREHENSIVE METABOLIC PANEL</b>		
Interval: -- Occurrences: --		
<input checked="" type="checkbox"/> <b>MAGNESIUM LEVEL</b>		
Interval: -- Occurrences: --		
<input checked="" type="checkbox"/> <b>THYROID STIMULATING HORMONE</b>		
Interval: -- Occurrences: --		
<input checked="" type="checkbox"/> <b>T3, FREE</b>		
Interval: -- Occurrences: --		
<input checked="" type="checkbox"/> <b>T4, FREE</b>		
Interval: -- Occurrences: --		
<input type="checkbox"/> <b>LDH</b>		
Interval: -- Occurrences: --		
<input type="checkbox"/> <b>URIC ACID LEVEL</b>		
Interval: -- Occurrences: --		
Outpatient Electrolyte Replacement Protocol		
<b>TREATMENT CONDITIONS 39</b>		
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		
<b>TREATMENT CONDITIONS 40</b>		
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.

**Chemotherapy**

**nivolumab (OPDIVO) 480 mg in sodium chloride 0.9% 100 mL IVPB**

Dose: 480 mg Route: intravenous once over 30 Minutes for 1 dose  
Start: S End: S

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 240 MG/24 ML INTRAVENOUS SOLUTION	Medications	480 mg	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	52 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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 O<sub>2</sub> 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 O<sub>2</sub> 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 O<sub>2</sub> 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: 28 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.

Chemotherapy

**nivolumab (OPDIVO) 480 mg in sodium chloride 0.9% 100 mL IVPB**

Dose: 480 mg      Route: intravenous      once over 30 Minutes for 1 dose  
Start: S      End: S

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 240 MG/24 ML INTRAVENOUS SOLUTION	Medications	480 mg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	52 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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 O<sub>2</sub> 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 O<sub>2</sub> 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 O<sub>2</sub> 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





- 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.

**Chemotherapy**

**nivolumab (OPDIVO) 480 mg in sodium chloride 0.9% 100 mL IVPB**  
 Dose: 480 mg Route: intravenous once over 30 Minutes for 1 dose  
 Start: S End: S

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 240 MG/24 ML	Medications	480 mg	Main	Yes
	INTRAVENOUS			Ingredient	

SOLUTION SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	52 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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: 28 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.

#### Chemotherapy

##### nivolumab (OPDIVO) 480 mg in sodium chloride 0.9% 100 mL IVPB

Dose: 480 mg Route: intravenous once over 30 Minutes for 1 dose  
Start: S End: S

##### 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 240 MG/24 ML INTRAVENOUS SOLUTION	Medications	480 mg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	52 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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 O<sub>2</sub> 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 O<sub>2</sub> 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 O<sub>2</sub> 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: 28 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.

**Chemotherapy**

**nivolumab (OPDIVO) 480 mg in sodium**



**chloride 0.9% 100 mL IVPB**

Dose: 480 mg      Route: intravenous      once over 30 Minutes for 1 dose

Start: S      End: S

**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 240 MG/24 ML INTRAVENOUS SOLUTION	Medications	480 mg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	52 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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.



**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: 28 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.

#### Chemotherapy

##### **nivolumab (OPDIVO) 480 mg in sodium chloride 0.9% 100 mL IVPB**

Dose: 480 mg Route: intravenous once over 30 Minutes for 1 dose  
Start: S End: S

##### 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 240 MG/24 ML INTRAVENOUS SOLUTION	Medications	480 mg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	52 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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 O<sub>2</sub> 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 O<sub>2</sub> 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 O<sub>2</sub> 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.