Protocol Index

OP MFOLFOX6 / CETUXIMAB (EVERY 7 DAYS)

Types: ONCOLOGY TREATMENT
Synonyms: FOLFOX, OXALIPLATIN, LEUCOVORIN, 5FU, 5-FLUOROURACIL, FLUOROURACIL, OXAL, LEUCO, ELOX, ELOXATIN, COLORECTAL

Cycle 1 — Repeat 1 time — Cycle length: 14 days

Day 1 — Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

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

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

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

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

Provider Communication

ONC PROVIDER COMMUNICATION 2

Interval: -- Occurrences: --

Comments: Tumor KRAS gene status should be determined prior to initiation of therapy. KRAS type: Please Push F2:115540219.

Nursing Orders

TREATMENT CONDITIONS 4

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; Total Bilirubin GREATER than 1.5; ALT/AST GREATER than 3 times upper normal limit; or Serum Creatinine GREATER than 1.2

Line Flush

dextrose 5% flush syringe 20 mL

Dose: 20 mL Route: intravenous PRN

Start: S

Instructions:

Administer ONLY for Oxaliplatin.

sodium chloride 0.9 % flush 20 mL

Dose: 20 mL Route: intravenous PRN

Start: S

Instructions:

Do NOT administer with Oxaliplatin.

Nursing Orders

dextrose 5% infusion 250 mL
Dose: 250 mL Route: intravenous once @ 30 mL/hr for 1 dose
Start: S
Instructions:
To keep vein open for Oxaliplatin.

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. Do NOT administer with Oxaliplatin.

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg, dexamethasone (DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB**
Dose: -- Route: intravenous once over 15 Minutes for 1 dose
Start: S End: S 11:30 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Yes	No
DEXAMETHASONE 4 MG/ML INJECTION SOLUTION	Medications	12 mg	Yes	No
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

☐ **ondansetron (ZOFRAN) tablet 16 mg**
Dose: 16 mg Route: oral once for 1 dose
Start: S End: S 11:30 AM

☐ **dexamethasone (DECADRON) tablet 12 mg**
Dose: 12 mg Route: oral once for 1 dose
Start: S

☐ **palonosetron (ALOXI) injection 0.25 mg**
Dose: 250 mcg Route: intravenous once for 1 dose
Start: S End: S 3:00 PM
Instructions:
For OUTPATIENT use only.

☐ **aprepitant (CINVANTI) 130 mg in dextrose (NON-PVC) 5% 130 mL IVPB**
Dose: 130 mg Route: intravenous once over 30 Minutes for 1 dose
Start: S End: S

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
APREPITANT 7.2 MG/ML INTRAVENOUS EMULSION	Medications	130 mg	Main Ingredient	Yes
DEXTROSE 5 % IN	Base	130 mL	Yes	Yes

WATER (D5W) IV SOLP (EXCEL; NON-PVC)					
SODIUM CHLORIDE 0.9 % IV SOLP (EXCEL;NON-PVC)	Base	130 mL	No	Yes	

Pre-Medications

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg | Route: intravenous | once for 1 dose
Start: S
Instructions:
Give 30 minutes prior to cetuximab.

Supportive Care

○ **LORAZepam (ATIVAN) injection 1 mg**

Dose: 1 mg | Route: intravenous | once PRN
Start: S

○ **LORAZepam (ATIVAN) tablet 1 mg**

Dose: 1 mg | Route: oral | once PRN
Start: S

Chemotherapy

cetuximab (ERBITUX) 400 mg/m2 in 0 mL

Dose: 400 mg/m2 | Route: intravenous | once over 120 Minutes for 1 dose
Offset: 30 Minutes

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

1st infusion: Infuse first 10 mL over 10 minutes and observe patient for 30 minutes for allergic reactions if infusion tolerated, infuse loading dose over 120 minutes.

Rate of infusion not to exceed 10 mg/minute (5 mL/minute)

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CETUXIMAB 100 MG/50 ML INTRAVENOUS SOLUTION	Medications	400 mg/m2	Main Ingredient	Yes

leucovorin 400 mg/m2 in dextrose 5% 250 mL chemo IVPB

Dose: 400 mg/m2 | Route: intravenous | once over 120 Minutes for 1 dose
Offset: 2.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	LEUCOVORIN CALCIUM 350 MG SOLUTION FOR INJECTION	Medications	400 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	SODIUM CHLORIDE 0.9 %	QS Base	250 mL	No	Yes

	INTRAVENOUS SOLUTION	

OXALIplatin (ELOXATIN) 85 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 85 mg/m2 Route: intravenous once over 120 Minutes for 1 dose
Offset: 2.5 Hours

Instructions:
Irritant - avoid extravasation. Flush line with D5W before and after oxaliplatin infusion.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	OXALIPLATIN 100 MG/20 ML INTRAVENOUS SOLUTION	Medications	85 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

fluorouracil (ADRUCIL) 400 mg/m2 in sodium chloride 0.9 % 50 mL chemo IVPB

Dose: 400 mg/m2 Route: intravenous once over 15 Minutes for 1 dose
Offset: 4.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	FLUOROURACIL 500 MG/10 ML INTRAVENOUS SOLUTION	Medications	400 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	No	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

fluorouracil (ADRUCIL) 2,400 mg/m2 in sodium chloride 0.9 % 100 mL chemo infusion - AMBULATORY PUMP

Dose: 2,400 mg/m2 Route: intravenous once over 46 Hours for 1 dose
Offset: 4.75 Hours

Instructions:
Nurses to chart as GIVEN on the MAR.
Administer via CADD pump.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	FLUOROURACIL 5 GRAM/100 ML INTRAVENOUS SOLUTION	Medications	2,400 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	100 mL	No	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

Nursing Orders

ONC NURSING COMMUNICATION 11
Interval: -- Occurrences: --
Comments: Exposure to cold may exacerbate oxaliplatin-induced neuropathy (including pharyngolaryngeal dysesthesia). Encourage patient to keep blanket on their chest and/or throat during oxaliplatin infusion. Educate patient to avoid cold drinks/foods, ice chips or exposure to cold water or air for 7 days after oxaliplatin infusion.

ONC NURSING COMMUNICATION 12
Interval: -- Occurrences: --
Comments: Assess and notify provider for persistent neuropathy (Grade 2).

Nursing Orders

ONC NURSING COMMUNICATION 14
Interval: -- Occurrences: --
Comments: Contact Provider if drug-induced acneiform rash develops and covers more than 25 per cent of the body.

Discharge Nursing Orders

ONC NURSING COMMUNICATION 76
Interval: -- Occurrences: --
Comments: Discontinue IV.

Discharge Nursing Orders

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

☑ **HEParin, porcine (PF) injection 500 Units**
Dose: 500 Units Route: intra-catheter once PRN
Start: S
Instructions:

Concentration: 100 units/mL. Heparin flush for Implanted Vascular Access Device maintenance.

Day 3 — Perform every 1 day x1

Appointment Requests

ONC PUMP DISCONNECT APPOINTMENT REQUEST
Interval: -- Occurrences: --

Discharge Nursing Orders

DISCONNECT CONTINUOUS INFUSION PUMP
Interval: -- Occurrences: --
Comments: Disconnect patient from continuous infusion pump.

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.

Post-Medications

○ **pegfilgrastim (NEULASTA) on-body injection kit 6 mg**
Dose: 6 mg Route: subcutaneous once for 1 dose
Start: S End: S
Instructions:
Apply to intact, nonirritated skin on the back of the arm or abdomen (only use the back of the arm if caregiver is available to monitor On-body injection status).

Day 8 — Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

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

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

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

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 4
Interval: -- Occurrences: --
Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; Total Bilirubin GREATER than 1.5; ALT/AST GREATER than 3 times upper normal limit; or Serum Creatinine GREATER than 1.2

Line Flush

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

Pre-Medications

diphenhydrAMINE (BENADRYL) injection 25 mg
Dose: 25 mg Route: intravenous once for 1 dose
Start: S
Instructions:
Give 30 minutes prior to cetuximab.

Supportive Care

○ **LORAZepam (ATIVAN) injection 1 mg**
Dose: 1 mg Route: intravenous once PRN
Start: S

○ **LORAZepam (ATIVAN) tablet 1 mg**
Dose: 1 mg Route: oral once PRN
Start: S

Chemotherapy

cetuximab (ERBITUX) 250 mg/m2 in 0 mL
Dose: 250 mg/m2 Route: intravenous once over 60 Minutes for 1 dose
Offset: 30 Minutes

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

Rate of infusion not to exceed 10 mg/minute (5 mL/minute)

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CETUXIMAB 100 MG/50 ML INTRAVENOUS SOLUTION	Medications	250 mg/m2	Main Ingredient	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

Nursing Orders

ONC NURSING COMMUNICATION 14
Interval: -- Occurrences: --
Comments: Contact Provider if drug-induced acneiform rash develops and covers more than 25 per cent of the body.

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.

Cycles 2 to 6 Repeat 5 times Cycle length: 14 days

Day 1 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

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

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

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

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 4

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; Total Bilirubin GREATER than 1.5; ALT/AST GREATER than 3 times upper normal limit; or Serum Creatinine GREATER than 1.2

Line Flush

dextrose 5% flush syringe 20 mL

Dose: 20 mL Route: intravenous PRN

Start: S

Instructions:

Administer ONLY for Oxaliplatin.

sodium chloride 0.9 % flush 20 mL

Dose: 20 mL Route: intravenous PRN

Start: S

Instructions:

Do NOT administer with Oxaliplatin.

Nursing Orders

dextrose 5% infusion 250 mL

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

Start: S

Instructions:

To keep vein open for Oxaliplatin.

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. Do NOT administer with Oxaliplatin.

Pre-Medications

☑ **ondansetron (ZOFRAN) 16 mg, dexamethasone (DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB**

Dose: -- Route: intravenous once over 15 Minutes for 1 dose

Start: S End: S 11:30 AM

Ingredients:

Name	Type	Dose	Selected	Adds Vol.
ONDANSETRON HCL (PF) 4 MG/2 ML INJECTION SOLUTION	Medications	16 mg	Yes	No
DEXAMETHASONE 4 MG/ML INJECTION SOLUTION	Medications	12 mg	Yes	No
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base		No	Yes

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

Dose: 16 mg Route: oral once for 1 dose

Start: S End: S 11:30 AM

☐ **dexamethasone (DECADRON) tablet 12 mg**

Dose: 12 mg Route: oral once for 1 dose

Start: S

☐ **palonosetron (ALOXI) injection 0.25 mg**

Dose: 250 mcg | Route: intravenous | once for 1 dose
Start: S | End: S 3:00 PM
Instructions:
For OUTPATIENT use only.

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

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

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

Pre-Medications

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg | Route: intravenous | once for 1 dose
Start: S
Instructions:
Give 30 minutes prior to cetuximab.

Supportive Care

○ **LORAZepam (ATIVAN) injection 1 mg**

Dose: 1 mg | Route: intravenous | once PRN
Start: S

○ **LORAZepam (ATIVAN) tablet 1 mg**

Dose: 1 mg | Route: oral | once PRN
Start: S

Chemotherapy

cetuximab (ERBITUX) 250 mg/m2 in 0 mL

Dose: 250 mg/m2 | Route: intravenous | once over 60 Minutes for 1 dose
Offset: 30 Minutes

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

Rate of infusion not to exceed 10 mg/minute (5 mL/minute)

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CETUXIMAB 100 MG/50 ML INTRAVENOUS SOLUTION	Medications	250 mg/m2	Main Ingredient	Yes

leucovorin 400 mg/m2 in dextrose 5% 250 mL chemo IVPB

Dose: 400 mg/m2 Route: intravenous once over 1 Hours for 1 dose
Offset: 1.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	LEUCOVORIN CALCIUM 350 MG SOLUTION FOR INJECTION	Medications	400 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	No	Yes

OXALIplatin (ELOXATIN) 85 mg/m2 in dextrose 5% 500 mL chemo IVPB

Dose: 85 mg/m2 Route: intravenous once over 120 Minutes for 1 dose
Offset: 2.5 Hours

Instructions:
Irritant - avoid extravasation. Flush line with D5W before and after oxaliplatin infusion.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	OXALIPLATIN 100 MG/20 ML INTRAVENOUS SOLUTION	Medications	85 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	500 mL	Yes	Yes

fluorouracil (ADRUCIL) 400 mg/m2 in sodium chloride 0.9 % 50 mL chemo IVPB

Dose: 400 mg/m2 Route: intravenous once over 15 Minutes for 1 dose
Offset: 4.5 Hours

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	FLUOROURACIL 500 MG/10 ML INTRAVENOUS SOLUTION	Medications	400 mg/m2	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	No	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Yes	Yes

fluorouracil (ADRUCIL) 2,400 mg/m2 in sodium chloride 0.9 % 100 mL chemo infusion - AMBULATORY PUMP

Dose: 2,400 mg/m2 Route: intravenous once over 46 Hours for 1 dose
Offset: 4.75 Hours

Instructions:
Nurses to chart as GIVEN on the MAR.
Administer via CADD pump.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	FLUOROURACIL 5 GRAM/100 ML INTRAVENOUS SOLUTION	Medications	2,400 mg/m2	Main Ingredient	Yes

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

Nursing Orders

ONC NURSING COMMUNICATION 11
Interval: -- Occurrences: --
Comments: Exposure to cold may exacerbate oxaliplatin-induced neuropathy (including pharyngolaryngeal dysesthesia). Encourage patient to keep blanket on their chest and/or throat during oxaliplatin infusion. Educate patient to avoid cold drinks/foods, ice chips or exposure to cold water or air for 7 days after oxaliplatin infusion.

ONC NURSING COMMUNICATION 12
Interval: -- Occurrences: --
Comments: Assess and notify provider for persistent neuropathy (Grade 2).

Nursing Orders

ONC NURSING COMMUNICATION 14
Interval: -- Occurrences: --
Comments: Contact Provider if drug-induced acneiform rash develops and covers more than 25 per cent of the body.

Discharge Nursing Orders

ONC NURSING COMMUNICATION 76
Interval: -- Occurrences: --

Comments: Discontinue IV.

Discharge Nursing Orders

☑ **sodium chloride 0.9 % flush 20 mL**

Dose: 20 mL Route: intravenous PRN

☑ **HEParin, porcine (PF) injection 500 Units**

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

Day 3 Perform every 1 day x1

Appointment Requests

ONC PUMP DISCONNECT APPOINTMENT REQUEST
Interval: -- Occurrences: --

Discharge Nursing Orders

DISCONNECT CONTINUOUS INFUSION PUMP
Interval: -- Occurrences: --
Comments: Disconnect patient from continuous infusion pump.

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.

Post-Medications

○ **pegfilgrastim (NEULASTA) on-body injection kit 6 mg**

Dose: 6 mg Route: subcutaneous once for 1 dose
Start: S End: S
Instructions:
Apply to intact, nonirritated skin on the back of the arm or abdomen (only use the back of the arm if caregiver is available to monitor On-body injection status).

Day 8 Perform every 1 day x1

Appointment Requests

INFUSION APPOINTMENT REQUEST
Interval: -- Occurrences: --

Labs

☑ **COMPREHENSIVE METABOLIC PANEL**

Interval: -- Occurrences: --

☑ **CBC WITH PLATELET AND DIFFERENTIAL**

Interval: -- Occurrences: --

☑ **MAGNESIUM LEVEL**

Interval: -- Occurrences: --

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 4

Interval: -- Occurrences: --

Comments: HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000; Total Bilirubin GREATER than 1.5; ALT/AST GREATER than 3 times upper normal limit; or Serum Creatinine GREATER than 1.2

Line Flush

sodium chloride 0.9 % flush 20 mL

Dose: 20 mL Route: intravenous PRN

Start: S

Pre-Medications

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg Route: intravenous once for 1 dose

Start: S

Instructions:

Give 30 minutes prior to cetuximab.

Supportive Care

○ **LORAZepam (ATIVAN) injection 1 mg**

Dose: 1 mg Route: intravenous once PRN
Start: S

○ **LORAZepam (ATIVAN) tablet 1 mg**

Dose: 1 mg Route: oral once PRN
Start: S

Chemotherapy

cetuximab (ERBITUX) 250 mg/m2 in 0 mL

Dose: 250 mg/m2 Route: intravenous once over 60 Minutes for 1 dose
Offset: 30 Minutes

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

Rate of infusion not to exceed 10 mg/minute (5 mL/minute)

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	CETUXIMAB 100 MG/50 ML INTRAVENOUS SOLUTION	Medications	250 mg/m2	Main Ingredient	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

Nursing Orders

ONC NURSING COMMUNICATION 14
Interval: --
Occurrences: --
Comments:
Contact Provider if drug-induced acneiform rash develops and covers more than 25 per cent of the body.

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.