OP RAMUCIRUMAB (EVERY 14 DAYS)

Types: ONCOLOGY TREATMENT

Synonyms: CARCINO, ADENOCAR, JUNCTION, SIGH, CYRAMZA, ESOPH, GASTRO, RAMU, RAMI, PSY

| Cycles 1 to 5 | Repeat 5 | |
|---------------|--|---|
| Day 1 | _ | Perform every 1 day x1 |
| Аррс | intment Requests INFUSION APPOINTM Interval: | ENT REQUEST Occurrences: |
| Labs | | |
| | URINALYSIS, AUTOM MICROSCOPY Interval: | ATED WITH Occurrences: |
| | | |
| | Interval: | Occurrences: |
| | | |
| | Interval: | Occurrences: |
| | | |
| | Interval: | Occurrences: |
| Outp | atient Electrolyte Replaceme | |
| | TREATMENT CONDIT | IONS 39 |
| | Interval: Comments: | Occurrences: 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 CONDIT | |
| | Interval: Comments: | Occurrences: 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 | g Orders TREATMENT COND | ITIONS | | | | |
|-------------|--|---|----------------------------|----------------------|---------------------------------------|-----------------|
| | Interval: Comments: | Occurrences: Do NOT administer with surgical wound is fully h | | | | |
| Nursin | g Orders | | | | | |
| T VUI SII I | TREATMENT COND | ITIONS 5 | | | | |
| | Interval: Comments: | Occurrences: HOLD and notify provide | er if PROTEIN | 2+ is dete | ected in UA. | |
| Nursin | g Orders | | | | | |
| | TREATMENT COND Interval: Comments: | ITIONS 7 Occurrences: HOLD and notify provide 100,000. | er if ANC LES | S than 100 | 00; Platelets | EESS than |
| Line Fl | ush | | | | | |
| | sodium chloride 0.9 Dose: 20 mL Start: S | % flush 20 mL Route: intravenous | PRN | | | |
| Nursin | g Orders | | | | | |
| | sodium chloride 0.9 Dose: 250 mL Start: S Instructions: To keep vein open. | Route: intravenous | once @ 30 m | IL/hr for 1 | dose | |
| Pre-Me | edications | | | | | |
| | | BENADRYL) injection 25 | | | | |
| | Dose: 25 mg Start: S Instructions: Administer via slow chemotherapy. | Route: intravenous | once for 1 do | se | | |
| | _ diphenhydrAMINE (| BENADRYL) 50 mg in | | | | |
| | sodium chloride 0.9 Dose: 50 mg Start: S Instructions: | % 50 mL IVPB Route: intravenous End: S 11:45 AM | once over 15 | Minutes f | or 1 dose | |
| | | ites prior to chemotherapy. Name DIPHENHYDRAMIN E 50 MG/ML INJECTION SOLUTION | Type Medications | Dose 50 mg | Selected Main Ingredient | Adds Vol. 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. | | | | |
| | _ | | | | | | |
| | | | , , | | | | |
| | | Dose: 50 mg | Route: oral | once for 1 dose Offset: 0 Hours | | | |
| | | Instructions: | nriar to abamatharany | | | | |
| | | famotidine (PEPCID) 20 | prior to chemotherapy. | | | | |
| | | mg | | | | | |
| | | Dose: 20 mg | Route: intravenous | once for 1 dose Offset: 0 Hours | | | |
| | | Instructions: | | | | | |
| | | Administer 30 minutes | prior to chemotherapy. | | | | |
| | | famotidine (PEPCID) ta | blet 20 mg | | | | |
| | | Dose: 20 mg | Route: oral | once for 1 dose Offset: 0 Hours | | | |
| | | Instructions: | | Cliset. O Hours | | | |
| | | | prior to chemotherapy. | | | | |
| | \checkmark | acetaminophen (TYLE) | NOL) tablet 650 mg | | | | |
| | | Dose: 650 mg | Route: oral | once for 1 dose Offset: 0 Hours | | | |
| | | Instructions: | | | | | |
| | | | prior to chemotherapy. | | | | |
| Chem | nothe | erapy ramucirumab (CYRAM) | ZA) 8 ma/ka in sodium | | | | |
| | | chloride 0.9 % 250 mL | | | | | |
| | | Dose: 8 mg/kg | Route: intravenous | once over 60 Minu Offset: 30 Minutes | | 1 dose | |
| | | Instructions: | | | 5 | | |
| | | Use of a 0.22 micron p recommended. | protein sparing filter is | | | | |
| | | Ingredients: | Name | Type Dos | se S | Selected | Adds Vol. |
| | | 3 | RAMUCIRUMAB 10 | | ng/kg l | Main | |
| | | | MG/ML INTRAVENOUS | | I | ngredient | |
| | | | SOLUTION | | | | |
| | | | SODIUM CHLORIDE 0.9 % | QS Base | Ň | res | Yes |
| | | | INTRAVENOUS | | | | |
| | | | SOLUTION | | | | |
| Hema | atolog | gy & Oncology Hypersens | | Order | | | |
| | | ONC NURSING COMMU | Occurrences: | | | | |
| | | Comments: | Grade 1 - MILD Sympto | | | | |
| | | | only – itching, flushing, p 1. Stop the infusion. | periorbital edema, r | rash, or | runny nos | se) |
| | | | 2. Place the patient on c | ontinuous monitori | ing. | | |
| | | | 3. Obtain vital signs. | | - | | |
| | | | 4. Administer Normal Sa intravenous tubing. | lline at 50 mL per r | nour usi | ng a new l | bag and new |
| | | | 5. If greater than or equa | | | | |
| | | | Diphenhydramine, admi once. | nister Diphenhydra | amine 2 | 5 mg intrav | venous |
| | | | 6. If less than 30 minute | | | | |
| | | | administer Fexofenadine | e 180 mg orally and | d Famo | t <mark>idine 20 n</mark> | ng |
| | | | | | | | |

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 PRN Dose: 25 mg Route: intravenous Start: S fexofenadine (ALLEGRA) tablet 180 mg Dose: 180 mg Route: oral PRN Start: S

| | | | | 20 mg/2 mL injection 20 | | |
|-------|------------|--------|---|---|-----------------------|------------------------|
| | | | mg Dose: 20 mg Start: S | Route: intravenous | PRN | |
| | | | hydrocortisone sodiu (Solu-CORTEF) injec Dose: 100 mg | | PRN | |
| | | | dexamethasone (DEC Dose: 4 mg Start: S | CADRON) injection 4 mg Route: intravenous | PRN | |
| | | | epINEPHrine (ADREN injection syringe 0.3 Dose: 0.3 mg Start: S | IALIN) 1 mg/10 mL ADUI mg Route: subcutaneous | -T PRN | |
| | | Antier | netics | | | |
| | | , | | ERGAN) injection 12.5 m | na | |
| | | | Dose: 12.5 mg Start: S | Route: injection | once PRN | |
| | | Disch | arge Nursing Orders ONC NURSING COM Interval: Comments: | MUNICATION 76 Occurrences: Discontinue IV. | | |
| | | | | | | |
| | | Disch | arge Nursing Orders | / fluch 20 ml | | |
| | | | Dose: 20 mL | Route: intravenous | PRN | |
| | | | Dose. 20 IIIL | Houle. Intravenous | FIN | |
| | | | HEParin, porcine (PF |) injection 500 Units | | |
| | | | Dose: 500 Units Start: S Instructions: Concentration: 100 Implanted Vascular maintenance. | Route: intra-catheter units/mL. Heparin flush for Access Device | once PRN | |
| | | Post-I | Vedications | | | |
| | | | O pegfilgrastim (NEUL) kit 6 mg | ASTA) on-body injection | | |
| | | | Dose: 6 mg Start: S Instructions: Apply to intact, nonin the arm or abdomen arm if caregiver is av | | once for 1 dose | |
| 0 | 0 | | On-body injection st | | | |
| Cycle | 6 Day 1 | | Repeat | Itime | Cycle length: 14 days | Perform every 1 day x1 |
| | | | ntment Requests | | | , , |
| | | | Interval: | Occurrences: | | |
| | | Labs | | | | |
| | | | MICROSCOPY | Occurrences: | | |
| | | | | | | |

| | Interval: | Occurrences: |
|----------|---|---|
| V | COMPREHENSIVE M | IETABOLIC PANEL |
| | Interval: | Occurrences: |
| | | |
| ×. | Interval: | Occurrences: |
| utnatio | nt Electrolyte Replacem | |
| ulpallel | TREATMENT CONDI | |
| | Interval: Comments: | Occurrences: 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 Serum potassium 3.0 to 3.2mEq/L, give 40mEq KCL IV or PO o Serum potassium 3.0 to 3.4mEq/L, give 20mEq KCL IV or PO o 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 CONDI Interval: Comments: | TIONS 40 Occurrences: 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 magnesiur 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 |
| ursing (| | |
| | TREATMENT CONDI Interval: Comments: | TIONS Occurrences: Do NOT administer within 28 days of surgery/procedure and until the surgical wound is fully healed or within 14 days of port placement. |
| ursing (| Orders | |
| | TREATMENT CONDI | |
| | Interval: Comments: | Occurrences: HOLD and notify provider if PROTEIN 2+ is detected in UA. |
| | | |
| ursing (| Orders | |

| | Comments: | HOLD and notify provide 100,000. | er if ANC LES | S than 100 | 00; Platelets | LESS than |
|--------|--|---|--------------------------------|----------------------|---------------------------------------|-----------------|
| Line F | Flush | | | | | |
| | sodium chloride 0.9 % Dose: 20 mL Start: S | 6 flush 20 mL Route: intravenous | PRN | | | |
| Nursin | ng Orders | | | | | |
| | sodium chloride 0.9 % Dose: 250 mL Start: S Instructions: To keep vein open. | 6 infusion 250 mL Route: intravenous | once @ 30 m | IL/hr for 1 | dose | |
| Pre-N | ledications | | | | | |
| | | ENADRYL) injection 25 | | | | |
| | Dose: 25 mg Start: S Instructions: | Route: intravenous V push 30 minutes prior to | once for 1 do | se | | |
| | diphenhydrAMINE (BI | ENADRYL) 50 mg in | | | | |
| | └ sodium chloride 0.9 % Dose: 50 mg Start: S Instructions: | | once over 15 | Minutes f | or 1 dose | |
| | | s prior to chemotherapy. | | | | |
| | Ingredients: | Name DIPHENHYDRAMIN E 50 MG/ML INJECTION SOLUTION | Type I Medications | Dose 50 mg | Selected Main Ingredient | Adds Vol. 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 (Bl | ENADRYL) tablet 25 mg | | | | |
| | Dose: 25 mg | Route: oral | once for 1 do Offset: 0 Hou | | | |
| | Instructions: Administer 30 minute | es prior to chemotherapy. | | | | |
| | | | | | | |
| | Dose: 50 mg | ENADRYL) tablet 50 mg Route: oral | once for 1 do | | | |
| | Instructions: | Houle. orai | Offset: 0 Hou | | | |
| | | s prior to chemotherapy. | | | | |
| | famotidine (PEPCID) 2 mg Dose: 20 mg | 20 mg/2 mL injection 20 Route: intravenous | once for 1 do | se | | |
| | | | Offset: 0 Hou | | | |
| | Instructions: | | Olisel. U Hou | 15 | | |
| | | es prior to chemotherapy. | Olisel. U Hou | 15 | | |

| | Dose: 20 mg | Route: oral | once for 1 dos | se | | |
|------|---|--|--|---|--|---|
| | Instructions: | | Offset: 0 Hour | rs | | |
| | | es prior to chemotherapy. | | | | |
| | 🔽 acetaminophen (TYL | ENOL) tablet 650 mg | | | | |
| | Dose: 650 mg | Route: oral | once for 1 dos Offset: 0 Hour | | | |
| | Instructions: Administer 30 minute | es prior to chemotherapy. | | | | |
| Chem | otherapy | | | | | |
| | ramucirumab (CYRA chloride 0.9 % 250 m | MZA) 8 mg/kg in sodium | | | | |
| | Dose: 8 mg/kg | Route: intravenous | once over 60 Offset: 30 Mir | | r 1 dose | |
| | Instructions: Use of a 0.22 micror | n protein sparing filter is | | | | |
| | recommended. Ingredients: | Name RAMUCIRUMAB 10 MG/ML INTRAVENOUS SOLUTION | Type Medications | Dose 8 mg/kg | Selected Main Ingredient | Adds Vol. Yes |
| | | SOLUTION SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION | QS Base | | Yes | Yes |
| | tology & Oncology Hyperse ONC NURSING COMI Interval: Comments: ONC NURSING COMI | MUNICATION 82 Occurrences: Grade 1 - MILD Sympto only – itching, flushing, p 1. Stop the infusion. 2. Place the patient on c 3. Obtain vital signs. 4. Administer Normal Sa intravenous tubing. 5. If greater than or equa Diphenhydramine, admi once. 6. If less than 30 minute administer Fexofenading intravenous once. 7. Notify the treating phy 8. If no improvement aft (Moderate) or Grade 3 (9. Assess vital signs eve otherwise ordered by co | ms (cutaneous periorbital eder continuous mor aline at 50 mL al to 30 minute nister Diphenh s since the las e 180 mg orally vsician. er 15 minutes, Severe). ery 15 minutes | ma, rash, c nitoring. per hour us s since the ydramine s t dose of E y and Fam advance le until resol | or runny no sing a new e last dose 25 mg intra Diphenhydra otidine 20 r evel of care | bag and new of venous amine, ng e to Grade 2 |
| | Interval: Comments: | Occurrences: Grade 2 – MODERATE gastrointestinal symptor vomiting, dizziness, diap back pain) 1. Stop the infusion. 2. Notify the CERT team 3. Place the patient on c 4. Obtain vital signs. 5. Administer Oxygen at | ns – shortness bhoresis, throa n and treating p continuous more | of breath, t or chest t bhysician in hitoring. | wheezing, ightness, a mmediately | nausea, bdominal or 7. |

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

| | ONC NORSING COMMONICATION 85 | | | | | | |
|-----------|---|---|--|--|--|--|--|
| | Interval: Comments: | compromise – cyanosis with systolic blood pres loss of consciousness, 1. Stop the infusion. 2. Notify the CERT tear 3. Place the patient on 4. Obtain vital signs. 5. If heart rate is less th less than 90/50 mmHg, 6. Administer Oxygen a maintain O2 saturation 7. Administer Normal S bag and new intravenou 8. Administer Hydrocorr to Hydrocortisone, plea and Famotidine 20 mg 9. Administer Epinephri | n and treating physician immediately. continuous monitoring. aan 50 or greater than 120, or blood pressure is place patient in reclined or flattened position. at 2 L per minute via nasal cannula. Titrate to of greater than or equal to 92%. aline at 1000 mL intravenous bolus using a new us tubing. tisone 100 mg intravenous (if patient has allergy se administer Dexamethasone 4 mg intravenous) intravenous once. ine (1:1000) 0.3 mg subcutaneous. every 15 minutes until resolution of symptoms or | | | | |
| | diphenhydrAMINE (BE mg Dose: 25 mg Start: S | ENADRYL) injection 25 Route: intravenous | PRN | | | | |
| | | | | | | | |
| | fexofenadine (ALLEG Dose: 180 mg Start: S | RA) tablet 180 mg Route: oral | PRN | | | | |
| | | 20 mg/2 mL injection 20 | | | | | |
| | mg Dose: 20 mg Start: S | Route: intravenous | PRN | | | | |
| | hydrocortisone sodiu (Solu-CORTEF) injecti Dose: 100 mg | | PRN | | | | |
| | dexamethasone (DEC Dose: 4 mg Start: S | ADRON) injection 4 mg Route: intravenous | PRN | | | | |
| | epINEPHrine (ADREN injection syringe 0.3 m Dose: 0.3 mg Start: S | ALIN) 1 mg/10 mL ADU ng Route: subcutaneous | PRN | | | | |
| Antiemeti | | | | | | | |
| Antiemeti | 63 | | | | | | |

○ promethazine (PHENERGAN) injection 12.5 mg

| | Dose: 12.5 mg Start: S | Route: injection | once PRN |
|-------|--|---|-----------------|
| Disch | arge Nursing Orders ONC NURSING COI Interval: Comments: | MUNICATION 76 Occurrences: Discontinue IV. | |
| Disch | arge Nursing Orders | | |
| | ✓ sodium chloride 0.9 | % flush 20 mL | |
| | Dose: 20 mL | Route: intravenous | PRN |
| | ☑ HEParin, porcine (P | F) injection 500 Units | |
| | Implanted Vascula | Route: intra-catheter) units/mL. Heparin flush for r Access Device | once PRN |
| Deet | maintenance. Medications | | |
| Post- | | LASTA) on-body injection | |
| | the arm or abdome | Route: subcutaneous End: S nirritated skin on the back of en (only use the back of the available to monitor status). | once for 1 dose |