

OP CAGT CYCLOPHOSPHAMIDE / FLUDARABINE / TISAGENLECLEUCEL - ACUTE LYMPHOCYTIC LEUKEMIA (ALL)

Types: ONCOLOGY TREATMENT

Synonyms: CAGT, CYCLOPHOSHAMIDE, CYTOXAN, MESNA, FLUDARABINE, FLUDARA, MESNEX, FLU, KYMRIAH, TISAGENLECLEUCEL, CAR T CELL, ALL, ACUTE LYMPHOCYTIC LEUKEMIA

| Cycle 1 | Repeat 1 time | Cycle length: 7 days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----------------------|--------------|------------|-----------|------|----------|-----------|--|-----------------|-------------|-----------|------|-----|--|----------------------|--|--|------------|--|--|--|---------|--------|-----|-----|--|---|---------|--|----|-----|
| Days 1,2 | Perform every 1 day x2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Line Flush | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>sodium chloride 0.9 % flush 20 mL Dose: 20 mL Route: intravenous PRN Start: S</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nursing Orders | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>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.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>sodium chloride 0.9 % infusion Dose: 150 mL/hr Route: intravenous once over 6 Hours for 1 dose Instructions: Start 1 hour prior to chemotherapy.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Medications | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ondansetron (ZOFRAN) tablet 16 mg Dose: 16 mg Route: oral once for 1 dose Offset: 30 Minutes Instructions: Administer 30 minutes before chemotherapy.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Medications | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>LORAZepam (ATIVAN) tablet 0.5 mg Dose: 0.5 mg Route: oral once for 1 dose Offset: 30 Minutes Instructions: Administer 30 minutes before chemotherapy.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chemotherapy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>mesna (MESNEX) 250 mg/m2 in sodium chloride 0.9 % 100 mL IVPB Dose: 250 mg/m2 Route: intravenous once over 30 Minutes for 1 dose Offset: 1 Hours Instructions: Administer before Mesna/Cyclophosphamide infusion.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Ingredients:</th> <th style="text-align: left;">Name</th> <th style="text-align: left;">Type</th> <th style="text-align: left;">Dose</th> <th style="text-align: left;">Selected</th> <th style="text-align: left;">Adds Vol.</th> </tr> </thead> <tbody> <tr> <td></td> <td>MESNA 100 MG/ML</td> <td>Medications</td> <td>250 mg/m2</td> <td>Main</td> <td>Yes</td> </tr> <tr> <td></td> <td>INTRAVENOUS SOLUTION</td> <td></td> <td></td> <td>Ingredient</td> <td></td> </tr> <tr> <td></td> <td>SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION</td> <td>QS Base</td> <td>100 mL</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td></td> <td>DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS</td> <td>QS Base</td> <td></td> <td>No</td> <td>Yes</td> </tr> </tbody> </table> | | | Ingredients: | Name | Type | Dose | Selected | Adds Vol. | | MESNA 100 MG/ML | Medications | 250 mg/m2 | Main | Yes | | INTRAVENOUS SOLUTION | | | Ingredient | | | SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION | QS Base | 100 mL | Yes | Yes | | DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS | QS Base | | No | Yes |
| Ingredients: | Name | Type | Dose | Selected | Adds Vol. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MESNA 100 MG/ML | Medications | 250 mg/m2 | Main | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | INTRAVENOUS SOLUTION | | | Ingredient | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION | QS Base | 100 mL | Yes | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS | QS Base | | No | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SOLUTION

**cyclophosphamide (CYTOXAN) 500 mg/m²,
mesna (MESNEX) 500 mg/m² in dextrose 5%
500 mL chemo IVPB**

Dose: 500 mg/m² Route: intravenous once over 2 Hours for 1 dose
Offset: 1.5 Hours

| Ingredients: | Name | Type | Dose | Selected | Adds Vol. |
|--------------|--|-------------|-----------------------|-----------------|-----------|
| | CYCLOPHOSPHAMIDE 1 GRAM INTRAVENOUS SOLUTION | Medications | 500 mg/m ² | Main Ingredient | Yes |
| | MESNA 100 MG/ML INTRAVENOUS SOLUTION | Medications | 500 mg/m ² | Yes | Yes |
| | DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION | Base | 500 mL | Yes | Yes |

fludarabine (FLUDARA) 30 mg/m² in sodium chloride 0.9 % 100 mL chemo IVPB

Dose: 30 mg/m² Route: intravenous once over 30 Minutes for 1 dose
Offset: 3.5 Hours

Instructions:
Use within 8 hours of preparation.

| Ingredients: | Name | Type | Dose | Selected | Adds Vol. |
|--------------|--|-------------|----------------------|-----------------|-----------|
| | FLUDARABINE 50 MG INTRAVENOUS SOLUTION | Medications | 30 mg/m ² | Main Ingredient | Yes |
| | SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION | QS Base | 100 mL | Yes | Yes |
| | DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION | QS Base | 100 mL | No | Yes |

**mesna (MESNEX) oral solution 500 mg/m²
(Treatment Plan)**

Dose: 500 mg/m² Route: oral once for 1 dose
Offset: 5.5 Hours

Instructions:
Administer TWO hours AFTER
Mesna/Cyclophosphamide infusion completed.

**mesna (MESNEX) oral solution 500 mg/m²
(Treatment Plan)**

Dose: 500 mg/m² Route: oral once for 1 dose
Offset: 9.5 Hours

Instructions:
Administer SIX hours AFTER
Mesna/Cyclophosphamide infusion completed.

Supportive Care

promethazine (PHENERGAN) injection 25 mg

Dose: 25 mg Route: intravenous every 4 hours 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.

Days 3,4

Perform every 1 day x2

Line Flush

sodium chloride 0.9 % flush 20 mL

Dose: 20 mL Route: intravenous PRN
Start: S

Nursing Orders

sodium chloride 0.9 % infusion 250 mL

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

Start: S

Instructions:

To keep vein open.

Pre-Medications

ondansetron (ZOFTRAN) tablet 8 mg

Dose: 8 mg Route: oral once for 1 dose
Start: S

Chemotherapy

fludarabine (FLUDARA) 30 mg/m2 in sodium chloride 0.9 % 100 mL chemo IVPB

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

Instructions:

Use within 8 hours of preparation

Ingredients:

| Name | Type | Dose | Selected | Adds Vol. |
|--|-------------|-------------|-----------------|------------------|
| FLUDARABINE 50 MG INTRAVENOUS SOLUTION | Medications | 30 mg/m2 | Main Ingredient | Yes |
| SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION | QS Base | 100 mL | Yes | Yes |
| DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION | QS Base | 100 mL | No | Yes |

Supportive Care

promethazine (PHENERGAN) injection 25 mg

Dose: 25 mg Route: intravenous every 4 hours PRN
Start: S

Discharge Nursing Orders

ONC NURSING COMMUNICATION 76

Interval: -- Occurrences: --
Comments: Discontinue IV.

Discharge Nursing Orders

sodium chloride 0.9 % flush 20 mL

Dose: 20 mL Route: intravenous PRN

HEParin, porcine (PF) injection 500 Units

Dose: 500 Units Route: intra-catheter once PRN

Start: S

Instructions:

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

Day 7

Perform every 1 day x1

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.

Nursing Orders

ONC NURSING COMMUNICATION 2

Interval: --

Occurrences: --

Comments:

Prior to infusion, verify with pharmacy that 2 doses of tocilizumab are available and set aside for this patient.

Pre-Medications

acetaminophen (TYLENOL) tablet 650 mg

Dose: 650 mg Route: oral once for 1 dose

Start: S

Instructions:

Premed for CAR-T Infusion

diphenhydrAMINE (BENADRYL) injection 25 mg

Dose: 25 mg Route: intravenous once for 1 dose

Start: S

Instructions:

Premed for CAR-T Infusion

CAR-T Infusion

tisagenlecleucel (KYMRIA)

infusion-ALL(RESTRICTED) 1 bag(s)

Dose: 1 bag(s) Route: intravenous once for 1 dose
Offset: 30 Minutes

Instructions:

Administer as an IV infusion at a rate of 10 mL to 20 mL per minute until infusion bag is empty; adjust this rate as appropriate for smaller children and smaller volumes. Do not use a leukocyte-depleting filter. Rinse the infusion bag with 10 mL to 30 mL of normal saline; maintain a closed tubing system to assure as many cells as possible are infused into the patient.

Ensure that cell product infusion paper order is available, properly completed, and scanned into Epic

CAR-T Infusion Additional Orders

ONC NURSING COMMUNICATION 31

Interval: -- Occurrences: --
Comments: -Oxygen at bedside during CAR-T infusion and until discharged.
 -Anaphylaxis precautions at bedside during CAR-T infusion and until discharged.

ONC NURSING COMMUNICATION 75

Interval: -- Occurrences: --
Comments: - Obtain baseline vital signs (T, P, R, BP, Oxygen saturation +/- breath sounds)
 - Vital signs every 15 minutes during infusion (T, P, R, BP)
 - Vital signs (T, P, R, BP, +/- breath sounds) at completion of infusion, then at 30 minutes post & 60 minutes post infusion

PULSE OXIMETRY CONTINUOUS

Interval: -- Occurrences: --
Comments: Continuous pulse oximetry monitoring during infusion and for 30 minutes post infusion

ONC NURSING COMMUNICATION 80

Interval: -- Occurrences: --
Comments: RECORD START & STOP TIMES on component infusion form AND in EPIC

meperidine (DEMEROL) injection 12.5 mg

Dose: 12.5 mg Route: intravenous every 15 min PRN for 3 doses
Start: S

epINEPHrine (ADRENALIN) 1 mg/1 mL injection 0.3 mg

Dose: 0.3 mg Route: subcutaneous PRN
Start: S

diphenhydRAMINE (BENADRYL) injection 25 mg

Dose: 25 mg Route: intravenous 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.