

## IP CAGT ALLOGENEIC SCT IV BU-FLU-CAM

*Types:* ONCOLOGY TREATMENT

*Synonyms:* BU, FLU, CAM, BUSULFAN, FLUDARABINE, FLUDARA, CAMPATH, ALEMTUZUMAB, ALMETUZUMAB, BMT, CAGT, ALLOGENEIC, SCT

Transplant	Repeat 1 time	Cycle length: 90 days
<b>Day -10 through -1</b>		Perform every 1 day x1
Line Flush		
<p><b>sodium chloride 0.9 % flush 20 mL</b>                      Dose: 20 mL                      Route: intravenous                      PRN                      Start: S</p>		
Additional Orders		
<p><b>ONC NURSING COMMUNICATION 49</b>                      Interval: Until                      Occurrences: --                      discontinued                      Comments:                      Do NOT administer Acetaminophen/Azoles for 48 hours after last busulfan dose.</p>		
Pre-Medications		
<p><b>ondansetron (ZOFRAN) 16 mg, dexamethasone</b>  <input checked="" type="checkbox"/> <b>(DECADRON) 12 mg in sodium chloride 0.9% 50 mL IVPB</b>                      Dose: --                      Route: intravenous                      every 24 hours over 15 Minutes                      Start: S+1                      Instructions:                      Administer 30 minutes prior to treatment on Days -9, -8, -7, -6.</p>		
<b>Ingredients:</b>	<b>Name</b>	<b>Type                      Dose                      Selected                      Adds Vol.</b>
	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
<p><input checked="" type="checkbox"/> <b>aprepitant (CINVANTI) 130 mg in dextrose (NON-PVC) 5% 130 mL IVPB</b>                      Dose: 130 mg                      Route: intravenous                      once over 30 Minutes for 1 dose                      Start: S+1                      Instructions:                      Administer 30 minutes prior to treatment on Day -9.</p>		
<b>Ingredients:</b>	<b>Name</b>	<b>Type                      Dose                      Selected                      Adds Vol.</b>
	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

**ondansetron (ZOFRAN) 16 mg in sodium chloride 0.9% 50 mL IVPB**

Dose: 16 mg      Route: intravenous      every 24 hours over 15 Minutes  
 Start: S+5

Instructions:  
 Administer 30 minutes prior to treatment on Days -5, -4, -3, -2, -1.

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

Antiemetics

**promethazine (PHENERGAN) injection 25 mg**

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

Supportive Care

**acyclovir (ZOVIRAX) 5 mg/kg (Ideal)**

Dose: 5 mg/kg      Route: intravenous      every 8 hours  
 Start: S

**levoFLOXacin (LEVAQUIN) tablet 500 mg**

Dose: 500 mg      Route: oral      daily at 0600 (time critical)  
 Start: S

**fluconazole (DIFLUCAN) tablet 200 mg**

Dose: 200 mg      Route: oral      daily  
 Start: S+8  
 Instructions:  
 Start Day -2

Chemotherapy

**ONC NURSING COMMUNICATION 83**

Interval: Until discontinued

Occurrences: --

Comments:

- During IV Busulfan:
- INFUSE in the WHITE lumen on the TRIPLE lumen catheter
  - LABEL the White lumen: Busulfan
  - Prime tubing and filter with Normal Saline only
  - Do NOT give any Acetaminophen (Tylenol) during Busulfan doses and for 48 hours following the last dose of Busulfan
  - Record START and STOP time of EVERY Busulfan dose
  - FLUSH tubing and filter with 20cc Normal Saline after each dose

**busulfan (BUSULFEX) in sodium chloride 0.9% chemo IVPB**

Dose: -- Route: intravenous every 6 hours over 2 Hours for 16 doses

Start: S+1 8:00 AM

Instructions:

Day -9, -8, -7, -6.

**Ingredients:**

Name	Type	Dose	Selected	Adds Vol.
BUSULFAN 60 MG/10 ML INTRAVENOUS SOLUTION	Medications		Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base		Yes	Yes

**ONC NURSING COMMUNICATION 41**

Interval: Daily

Occurrences: --

Comments:

-NO Acetaminophen.

-Monitor VS (temperature, pulse, respirations, and blood pressure) every 15 minutes during Alemtuzumab infusion and for 1 hour following completion.

-Continuous oxygen saturation monitoring during Alemtuzumab infusion and for 1 hour following completion. Keep oxygen at bedside through Day 0.

-STOP INFUSION and CONTACT MD if any of the following occur: shortness of breath, wheezing, chills, severe myalgia, hypotension, rash, or chest pain.

**alemtuzumab (CAMPATH) 10 mg in sodium chloride 0.9% 100 mL IVPB**

Dose: 10 mg

Route: intravenous

every 24 hours over 2 Hours for 3 doses

Start: S+5

Instructions:

Day -5, -4, -3.

**Ingredients:**

Name	Type	Dose	Selected	Adds Vol.
ALEMTUZUMAB 30 MG/ML INTRAVENOUS SOLUTION	Medications	10 mg	Main Ingredient	Yes
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	100 mL	Yes	Yes
DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	100 mL	No	Yes

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

Dose: 30 mg/m2

Route: intravenous

every 24 hours over 30 Minutes for 4 doses

Start: S+5

Instructions:

Day -5, -4, -3, -2.

**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)	QS Base		No	Yes

INTRAVENOUS  
SOLUTION

Additional Orders

**diphenhydramine (BENADRYL) injection 25 mg**

Dose: 25 mg                      Route: intravenous                      every 24 hours

Start: S+5

Instructions:

PREMED for ALEMTUZUMAB on Days -5, -4, -3.

**hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg**

Dose: 100 mg                      Route: intravenous                      every 24 hours

Start: S+5

Instructions:

PREMED for ALEMTUZUMAB on Days -5, -4, -3.

**meperidine (DEMEROL) injection 12.5 mg**

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

Start: S+5

Instructions:

Days -5, -4, -3.

Line Flush

**sodium chloride 0.9 % flush 20 mL**

Dose: 20 mL                      Route: intravenous                      PRN

Pharmacokinetic Instructions

**ONC NURSING COMMUNICATION 18**

Interval: Until                      Occurrences: --

discontinued

Comments:

1. Infuse Busulfan through the White lumen of the TRIPLE lumen catheter
2. LABEL the White lumen: Busulfan
3. NO other fluids are to be infusing during the Busulfan infusion or the Pharmacokinetics period (Doses #1 and #9)
4. IVF may resume AFTER the last PK is drawn for dose #1 and #9
5. Busulfan infusion must be complete including flush. When infusion is finished, Disconnect & REMOVE Busulfan bag/tubing PRIOR to starting blood draws. (Does not matter if the post level is drawn 5 min after the infusion ends)
6. USE the same CLOCK / WATCH to document start and stop times, AND all blood draw times
7. ALL blood samples for Pharmacokinetics to be drawn from the RED lumen of the triple lumen CVC
8. FLUSH the RED lumen with 30 mL saline flush PRIOR to EVERY blood draw EXCEPT immediately after end of infusion
9. Use a green top, heparinized tube for all PK samples
10. After sample is collected, label and place in a plastic biohazard lab bag (NO pre-labeling of tubes)
11. Put sample on wet ice and place in the medication room refrigerator or in the medication room in a closed basin for pick up / transport to TCH lab
12. DO NOT KEEP MULTIPLE SAMPLE at bedside

Seizure Prophylaxis

**levETIRAcetam (KEPPRA) tablet**

Dose: --                      Route: oral                      2 times daily

Start: S

VOD Prophylaxis

**ursodiol (ACTIGALL) capsule 300 mg**

Dose: 300 mg

Route: oral

3 times daily

Start: S+1

**Acute Graft Versus Host Prophylaxis****tacrolimus (PROGRAF) 0.02 mg/kg in sodium chloride (NON-PVC) 0.9 % 250 mL infusion**

Dose: 0.02 mg/kg

Route: intravenous

every 24 hours over 24 Hours

Start: S+8 4:00 PM

Instructions:

Start Day -2.

**Ingredients:****Name****Type****Dose****Selected****Adds Vol.**TACROLIMUS 5  
MG/ML

Medications

0.02  
mg/kg

Main

No

INTRAVENOUS  
SOLUTIONSODIUM  
CHLORIDE 0.9 % IV  
SOLP

Base

250 mL

Yes

Yes

(EXCEL;NON-PVC)  
DEXTROSE 5 % INWATER (D5W) IV  
SOLP (EXCEL;  
NON-PVC)

Base

250 mL

No

Yes

**Day of Rest****ONC NURSING COMMUNICATION 48**

Interval: Until

Occurrences: --

discontinued

Comments:

Day -1.

**Day 0**

Perform every 1 day x1

**Line Flush****sodium chloride 0.9 % flush 20 mL**

Dose: 20 mL

Route: intravenous

PRN

Start: S

**Antiemetics****ondansetron (ZOFRAN) 16 mg in sodium chloride 0.9 % 50 mL IVPB**

Dose: 16 mg

Route: intravenous

once over 15 Minutes for 1 dose

Start: S

**Ingredients:****Name****Type****Dose****Selected****Adds Vol.**ONDANSETRON  
HCL (PF) 4 MG/2  
ML INJECTION

Medications

16 mg

Main

No

SOLUTION

DEXTROSE 5 % IN  
WATER (D5W)

Base

50 mL

No

Yes

INTRAVENOUS  
SOLUTIONSODIUM  
CHLORIDE 0.9 %  
INTRAVENOUS  
SOLUTION

Base

50 mL

Yes

Yes

**Pre-Medications****acetaminophen (TYLENOL) tablet 650 mg**

Dose: 650 mg

Route: oral

once for 1 dose

Start: S

Instructions:

Premed for TRANSPLANT

**diphenhydramine (BENADRYL) injection 25**

mg

Dose: 25 mg                      Route: intravenous                      once for 1 dose

Start: S

Instructions:

    Premed for TRANSPLANT

**hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg**

Dose: 100 mg                      Route: intravenous                      once for 1 dose

Instructions:

    Premed for TRANSPLANT

Transplant Orders

**ONC NURSING COMMUNICATION 55**

Interval: Once                      Occurrences: --

Comments:                      -Oxygen at bedside during transplantation  
   -Anaphylaxis precautions at bedside during transplant:

**meperidine (DEMEROL) injection 12.5 mg**

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

Start: S

Instructions:

    Administer every 15 minutes x 3 doses PRN  
    for each episode of rigors (if rigors persist, call MD).

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

Dose: 0.3 mg                      Route: subcutaneous                      PRN

Start: S                      End: S+1

**diphenhydramINE (BENADRYL) injection 25 mg**

Dose: 25 mg                      Route: intravenous                      PRN

Start: S                      End: S+1

**hydrocortisone sodium succinate (Solu-CORTEF) injection 100 mg**

Dose: 100 mg                      Route: intravenous                      PRN

Day 1

Perform every 1 day x1

Line Flush

**sodium chloride 0.9 % flush 20 mL**

Dose: 20 mL                      Route: intravenous                      PRN

Start: S

Antiemetics

**ondansetron (ZOFTRAN) 16 mg in sodium chloride 0.9% 50 mL IVPB**

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

Start: S

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	No	No
SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes

DEXTROSE 5 % IN Base  
WATER (D5W)  
INTRAVENOUS  
SOLUTION

No Yes

Antiemetics

**ondansetron ODT (ZOFTRAN-ODT)  
disintegrating tablet 8 mg**

Dose: 8 mg                      Route: oral                      every 8 hours PRN  
Start: S+1  
Instructions:  
Start Day +2

Post-Transplant Orders

**ONC NURSING COMMUNICATION 56**

Interval: Once                      Occurrences: --  
Comments:                      -Oxygen at bedside 24 hours after transplantation  
   -Anaphylaxis precautions at bedside 24 hours after transplant:

**meperidine (DEMEROL) injection 12.5 mg**

Dose: 12.5 mg                      Route: intravenous                      every 15 min PRN for 3 doses  
Start: S  
Instructions:  
Administer every 15 minutes x 3 doses PRN  
for each episode of rigors (if rigors persist, call  
MD).

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

Dose: 0.3 mg                      Route: subcutaneous                      PRN  
Start: S                      End: S+1

**diphenhydrAMINE (BENADRYL) injection 25  
mg**

Dose: 25 mg                      Route: intravenous                      PRN  
Start: S                      End: S+1

**hydrocortisone sodium succinate  
(Solu-CORTEF) injection 100 mg**

Dose: 100 mg                      Route: intravenous                      PRN