

# IP GEMCITABINE / VINORELBINE / DOXORUBICIN LIPOSOMAL

Types: ONCOLOGY TREATMENT

Synonyms: PRIMARY , PROGRESSIVE, RELAPSED, HODG, DOXIL, GEMZA, GEMCIT, VINORE, DOXORB, LIPOS, GEMZA, NAVELB

Cycle 1	Repeat 1 time	Cycle length: 21 days
<b>Day 1</b>		Perform every 1 day x1
<b>Labs</b>		
<input checked="" type="checkbox"/> <b>COMPREHENSIVE METABOLIC PANEL</b>	Interval: Once	Occurrences: --
<input checked="" type="checkbox"/> <b>CBC WITH PLATELET AND DIFFERENTIAL</b>	Interval: Once	Occurrences: --
<input checked="" type="checkbox"/> <b>MAGNESIUM LEVEL</b>	Interval: Once	Occurrences: --
<input checked="" type="checkbox"/> <b>LDH</b>	Interval: Once	Occurrences: --
<input checked="" type="checkbox"/> <b>URIC ACID LEVEL</b>	Interval: Once	Occurrences: --
<input checked="" type="checkbox"/> <b>PHOSPHORUS LEVEL</b>	Interval: Once	Occurrences: --
<b>Provider Communication</b>		
<b>ONC PROVIDER COMMUNICATION 5</b>	Interval: Once	Occurrences: --
Comments:	Use baseline weight to calculate dose. Adjust dose for weight gains/losses of greater than or equal to 10%.	
<b>Provider Communication</b>		
<b>ONC PROVIDER COMMUNICATION</b>	Interval: Until discontinued	Occurrences: --
Comments:	Verify Ejection Fraction prior to Cycle 1. Ejection Fraction: ***% on *** (date).  If patient has not had a recent MUGA or ECHO, order one via order entry. A baseline cardiac evaluation with a MUGA scan or an ECHO is recommended, especially in patients with risk factors for increased cardiac toxicity. Repeated MUGA or ECHO determinations of LVEF should be performed, particularly with higher, cumulative anthracycline doses.	
<b>Nursing Orders</b>		
<b>TREATMENT CONDITIONS 7</b>	Interval: Until discontinued	Occurrences: --
Comments:	HOLD and notify provider if ANC LESS than 1000; Platelets LESS than 100,000.	
<b>Line Flush</b>		
<b>dextrose 5% flush syringe 20 mL</b>		

Dose: 20 mL                      Route: intravenous                      PRN

Start: S

Instructions:

Administer ONLY for Liposomal Doxorubicin.

**sodium chloride 0.9 % flush 20 mL**

Dose: 20 mL                      Route: intravenous                      PRN

Start: S

Instructions:

Do NOT administer with Liposomal Doxorubicin.

**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 Liposomal Doxorubicin.

**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 Liposomal Doxorubicin.

**Pre-Medications**

**ondansetron (ZOFTRAN) injection 8 mg**

Dose: 8 mg                      Route: intravenous                      once for 1 dose

Start: S

**ondansetron (ZOFTRAN) tablet 16 mg**

Dose: 16 mg                      Route: oral                      once for 1 dose

Start: S

**ondansetron (ZOFTRAN) 16 mg in dextrose 5% 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  
SOLUTION

Medications

16 mg

Main  
No  
Ingredient

DEXTROSE 5 % IN  
WATER (D5W)  
INTRAVENOUS  
SOLUTION

Base

50 mL

Always  
Yes

**Chemotherapy**

**vinORElbine (NAVELBINE) 20 mg/m2 in sodium chloride 0.9 % 50 mL chemo IVPB**

Dose: 20 mg/m2                      Route: intravenous                      once over 10 Minutes for 1 dose

Offset: 60 Minutes

Instructions:

Caution-VESICANT; must have CENTRAL line.

**Ingredients:**

**Name**

**Type**

**Dose**

**Selected**

**Adds Vol.**

VINORELBINE 10  
MG/ML  
INTRAVENOUS  
SOLUTION

Medications

20 mg/m2

Main  
Yes  
Ingredient

SODIUM  
CHLORIDE 0.9 %

QS Base

50 mL

Yes  
Yes

**INTRAVENOUS  
SOLUTION**

**Chemotherapy**

**gemcitabine (GEMZAR) 1,000 mg/m<sup>2</sup> in sodium chloride 0.9 % 250 mL chemo IVPB**

Dose: 1,000 mg/m<sup>2</sup>      Route: intravenous      once over 30 Minutes for 1 dose  
Offset: 30 Minutes

<b>Ingredients:</b>	<b>Name</b>	<b>Type</b>	<b>Dose</b>	<b>Selected</b>	<b>Adds Vol.</b>
	GEMCITABINE 200 MG/5.26 ML (38 MG/ML)	Medications	1,000 mg/m <sup>2</sup>	Main Ingredient	Yes
	INTRAVENOUS SOLUTION SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

**Chemotherapy**

**DOXOrubicin liposomal (DOXIL) 15 mg/m<sup>2</sup> in dextrose 5% 250 mL chemo IVPB**

Dose: 15 mg/m<sup>2</sup>      Route: intravenous      once over 30 Minutes for 1 dose  
Offset: 60 Minutes

**Instructions:**

Initial infusion infused at 1 mg/min, but no faster than 1 hour to prevent infusion related reactions. Monitor vital signs 15 minutes, 30 minutes, and one hour into infusion, then hourly for remainder of initial infusion. Stay with patient for the first 15 minutes of the initial infusion. If patient tolerated initial infusion, subsequent infusions to be given over 1 hour.

<b>Ingredients:</b>	<b>Name</b>	<b>Type</b>	<b>Dose</b>	<b>Selected</b>	<b>Adds Vol.</b>
	DOXORUBICIN, PEGYLATED LIPOSOMAL 2 MG/ML	Medications	15 mg/m <sup>2</sup>	Main Ingredient	Yes
	INTRAVENOUS SUSPENSION DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes

**Hematology & Oncology Hypersensitivity Reaction Standing Order**

**ONC NURSING COMMUNICATION 82**

Interval: Until discontinued

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 83**

Interval: Until discontinued

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 4**

Interval: Until discontinued

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  
Start: S

Route: intravenous PRN

**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

 **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 8**

Perform every 1 day x1

## Nursing Orders

**TREATMENT CONDITIONS 18**Interval: Until      Occurrences: --  
discontinued

Comments:

Day 8: If ANC 500-1199, or Platelets 75-99, 25% dose reduction in Gemzar and Navelbine.

If ANC LESS than 500 or Platelets LESS than 75, delay treatment until ANC GREATER than or EQUAL to 500 and Platelets GREATER than or EQUAL to 75.

If platelet nadir is LESS than 20, apply 25% dose reduction to Gemzar and Navelbine on all subsequent cycles.

For patients with prior autotransplant, dosing is:

800 mg/m<sup>2</sup> Gemzar15 mg/m<sup>2</sup> Navelbine10 mg/m<sup>2</sup> Doxil

If patient does not meet treatment parameters, contact physician.

## Line Flush

**dextrose 5% flush syringe 20 mL**

Dose: 20 mL      Route: intravenous      PRN

Start: S

Instructions:

Administer ONLY for Liposomal Doxorubicin.

**sodium chloride 0.9 % flush 20 mL**

Dose: 20 mL                      Route: intravenous                      PRN  
 Start: S  
 Instructions:  
 Do NOT administer with Liposomal Doxorubicin.

**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 Liposomal Doxorubicin.

**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 Liposomal Doxorubicin.

**Pre-Medications**

**ondansetron (ZOFRAN) injection 8 mg**

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

**ondansetron (ZOFRAN) tablet 16 mg**

Dose: 16 mg                      Route: oral                      once for 1 dose  
 Start: S

**ondansetron (ZOFRAN) 16 mg in dextrose 5% 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 SOLUTION	Medications	16 mg	Main Ingredient	No
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	Base	50 mL	Always	Yes

**Chemotherapy**

**vinORElbine (NAVELBINE) 20 mg/m2 in sodium chloride 0.9 % 50 mL chemo IVPB**

Dose: 20 mg/m2                      Route: intravenous                      once over 10 Minutes for 1 dose  
 Offset: 60 Minutes

Instructions:  
 Caution-VESICANT; must have CENTRAL line.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	VINORELBINE 10 MG/ML INTRAVENOUS SOLUTION	Medications	20 mg/m2	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	50 mL	Yes	Yes

**Chemotherapy**

**gemcitabine (GEMZAR) 1,000 mg/m2 in sodium**

**chloride 0.9 % 250 mL chemo IVPB**

Dose: 1,000 mg/m<sup>2</sup>      Route: intravenous      once over 30 Minutes for 1 dose  
 Offset: 30 Minutes

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	GEMCITABINE 200 MG/5.26 ML (38 MG/ML) INTRAVENOUS SOLUTION	Medications	1,000 mg/m <sup>2</sup>	Main Ingredient	Yes
	SODIUM CHLORIDE 0.9 % INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base		No	Yes

## Chemotherapy

**DOXOrubicin liposomal (DOXIL) 15 mg/m<sup>2</sup> in dextrose 5% 250 mL chemo IVPB**

Dose: 15 mg/m<sup>2</sup>      Route: intravenous      once over 30 Minutes for 1 dose  
 Offset: 60 Minutes

## Instructions:

Initial infusion infused at 1 mg/min, but no faster than 1 hour to prevent infusion related reactions. Monitor vital signs 15 minutes, 30 minutes, and one hour into infusion, then hourly for remainder of initial infusion. Stay with patient for the first 15 minutes of the initial infusion. If patient tolerated initial infusion, subsequent infusions to be given over 1 hour.

Ingredients:	Name	Type	Dose	Selected	Adds Vol.
	DOXORUBICIN, PEGYLATED LIPOSOMAL 2 MG/ML INTRAVENOUS SUSPENSION	Medications	15 mg/m <sup>2</sup>	Main Ingredient	Yes
	DEXTROSE 5 % IN WATER (D5W) INTRAVENOUS SOLUTION	QS Base	250 mL	Yes	Yes