

# ***PROCEDURE***

---

ORIGINAL DATE: 12/93

Revised Date: 09/04

**SUBJECT: AMPHOTERICIN B, ADMINISTRATION OF**

**PURPOSE:** To safely administer Amphotericin B in the home.

## **GENERAL INFORMATION**

Amphotericin B is an antifungal agent indicated in the treatment of systemic fungal infections. The lipid based formulations (AmBisone, Abelcet, Amphotec) are used in patients who cannot tolerate conventional Amphotericin B therapy. The drug should be reconstituted with Sterile Water USP (without preservatives) and should be further diluted for infusion in Dextrose 5% in water to obtain the prescribed dose. Amphotericin B should be light protected. It is stable for 30 days after reconstitution if light protected and refrigerated. Amphotericin B is stable for 8 hours in room light.

➤ **NOTE: AMPHOTERICIN B PREPARATIONS ARE NOT INTERCHANGEABLE AND DOSAGES WILL VARY WIDELY.**

## **LABORATORY MONITORING:**

**Obtain a physician's order for the following labs to be drawn weekly.**

1. Serum creatinine
2. Serum electrolytes
3. Complete Blood Count (CBC)
4. Liver Function Tests
5. Serum Magnesium

➤ *Abnormal results should be immediately reported to the patient's physician.*

## **SIDE EFFECTS/TOXICITIES:**

1. Nephrotoxicity occurs most frequently with Amphotericin B therapy. The patient's renal status should be monitored closely.
2. Cardiovascular collapse may occur with too rapid infusion of Amphotericin B.
3. Side effects which may occur during intravenous infusion include fever, chills, headache, anorexia, nausea and vomiting. Marked hyperthermia may also occur.
4. Hematological side-effects produce a normochromic, normocytic anemia which is reversible upon cessation of the drug. Blood dyscrasias have been reported.

## **CONSIDERATIONS:**

1. Patients must have 3 doses in a controlled setting before being accepted for home therapy. Pediatric patients will be accepted for Amphotericin B therapy on a case by case basis. Central line administration is required, due to a high incidence of phlebitis when administered peripherally.
2. Premedication with the following drugs has been shown to lessen the febrile reactions commonly associated with Amphotericin B.

- Diphenhydramine (Benadryl) 25mg po/IV
  - Acetaminophen with Codeine (30 mg) (Tylenol #3)
  - An antiemetic (compazine, reglan, meclizine,)
  - Hydrocortizone 25mg/ IV push.
- **NOTE: Physician orders supercede the above.**
3. The addition of Hydrocortisone 10 mg to each infusion of Amphotericin B has been employed to prevent the phlebotic reaction that is commonly associated with Amphotericin B therapy.
  4. Should a patient develop the following reactions, the Amphotericin B should be discontinued and the patient's physician immediately contacted.
    - Severe febrile reaction
    - Severe chills
    - Severe nausea and vomiting
    - Loss of consciousness
  5. For patients new to amphotericin therapy (< 30 days) the following requirements must be met prior to admission:
    - Working telephone in the home.
    - Another person in the home for the entire infusion.
    - The nurse must stay with the patient for the entire infusion.

For patients who have been on long-term amphotericin therapy, the nurse may leave after 1 hour if the patient's vital signs are stable and the following requirements are met:

    - Physician's order to allow nurse to leave after 1 hour.
    - Working telephone in the home.
    - Access to EMS/Advanced life support in the community they live.
    - Contact person available to stay w/ patient should a reaction occur.
    - Document Amphotericin teaching to include patient's ability to discontinue and flush IV line, signs/symptoms to report, how to access EMS.
  6. The drug must be infused via an infusion pump, with a filter and anti-siphon valve attached to the tubing.

<i>Necessary Equipment</i>	
Alcohol prep pads	Gloves
2-5cc syringes preservative free sterile water	Infusion pump with tubing, filter and anti-siphon valve
1-5cc syringe heparin lock flush	

### **PROCEDURE**

1. Explain procedure to patient.
2. Wash hands, don gloves
3. Premedicate patient as ordered.
4. Compare Amphotericin Bag label with MD's orders, if different do not infuse-call MD to verify order.
5. Inspect bag for leaks, particulate matter. If noted, discard bag
6. Spike bag, attach filter and anti-siphon valve and prime tubing.
7. Load tubing into pump.
8. Set rate according to MD's orders

9. Flush line with sterile water, verify blood return, attach tubing and start pump.  
**\*\*If no blood return, do not infuse-call MD for instructions.**
10. Obtain vital signs every 30 minutes.
11. After infusion is complete, flush line with sterile water and heparin flush.
12. Document drug, diluent, length of infusion, vital signs, patient's response to treatment.

---

**Reference:**

Gahart, B., Nazareno, A., 2005 Intravenous Medications, Mosby: St. Louis, pp. 92-99