NATIONAL INSTITUTES OF HEALTH
CLINICAL CENTER
NURSING and PATIENT CARE SERVICES

Standard of Practice: Care of a Patient Receiving Lipid-Complex Amphotericin (Abelcet®), and Liposomal Amphotericin (AmBisome®)

Essential Information
1. Lipid-complex amphotericin (Abelcet®) and liposomal amphotericin (AmBisome®) are compatible only with D5W. The line must be flushed with D5W BEFORE and AFTER each infusion.
2. Amphotericin is not compatible with any blood products, intravenous drugs, or intravenous fluids other than D5W. 1,2,3
3. Infusion Duration:
   a. Lipid-complex amphotericin (Abelcet®) is infused at 2.5 mg/kg per hour. The bag should be agitated prior to infusion and every 2 hours.2
   b. Liposomal amphotericin (AmBisome®) is infused over 2 hours. This may be decreased to 1 hour if the infusion is well tolerated.3
4. Amphotericin should be separated from white blood cell administration by at least 4 hours. Patients receiving granulocyte transfusions are at increased risk for pulmonary reactions. 1,2,3
5. Amphotericin should be separated from blood products by at least 2 hours.
6. Use caution with concurrent use of antineoplastic agents, which may enhance the potential for renal toxicity, bronchospasm, and hypotension. 2,3
7. Patients receiving nephrotoxic agents including aminoglycoside antibiotics, foscarnet, cyclosporine, and tacrolimus are at increased risk and should have renal function monitored closely.1,3
8. Liposomal amphotericin can result in a triad of acute infusion related reactions (AIRRs) including: (1) chest pain, dyspnea, and hypoxia; (2) severe abdominal pain, flank, or leg pain; and (3) flushing and urticaria. These AIRRs occur within the first 5 minutes of infusion and are managed by interruption of the infusion and administration of medications as per LIP orders. Evidence supports diphenhydramine as first line treatment for AIRRs.4
9. Protect medication from light exposure.

I. Assessment
   A. Assess patient/family understanding of drug, side effects, and potential reactions.5,6
   B. Review lab results: BUN, creatinine, potassium, magnesium, sodium, CBC, and LFT’s. 1 Notify LIP if labs are abnormal.
   C. Assess patient for prior amphotericin B administration and possible reactions5,6 (Fungizone®, Amphotec®, Abelcet®, Ambisome®).7
   D. Review licensed independent practitioner (LIP) orders for any premedication and pre-/post-hydration.
   E. Verify that emergency medications are readily available in the area where patient will receive treatment. 1,4,8
   F. Measure temperature, pulse, respiratory rate, and blood pressure as follows:
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a. Prior to administration of drug
b. During first dose, every 15 minutes x 4, and then every 30 minutes during infusion
c. During subsequent doses, every 2 hours
G. Obtain daily weights and/or intake and output as ordered until treatment course is completed.

II. Interventions
A. Instruct patient to remain on their patient care unit during drug administration, unless accompanied by a nurse.
B. Verify that the following emergency supplies, medications, and relevant equipment are available on the patient care unit:
   1. D5W flush solutions
   2. 0.9% sodium chloride solution and administration set
   3. oxygen
   4. suction
   5. vital signs and pulse oximetry monitor
   6. anaphylaxis treatment medications
C. Prime IV administration set with D5W; attach a 3-way stopcock or “Y-extension” piece
D. Administer pre-medications and pre- and post-hydration, as if ordered.
E. In the event of an adverse infusion-related reaction, e.g., fever, rigors, nausea, vomiting, flank pain, leg pain, flushing, hypotension, rash, or pruritus:
   1. Stop infusion and notify LIP
   2. Maintain patency of IV access
   3. Initiate management strategies, as appropriate
F. In the event of a severe adverse drug reaction, e.g., dyspnea, wheezing, swelling of the tongue or throat:
   1. Stop the infusion
   2. Maintain patency of IV access
   3. STAT page LIP and/or activate Code Blue or Critical Care Medical Consult Service, as appropriate
   4. Initiate emergency management interventions, as appropriate
   5. Initiate oxygen therapy as appropriate

III. Documentation
A. Document in approved electronic medical record and/or on other approved medical record form:
   1. Medication administration
   2. Assessment and interventions
   3. Adverse reactions and interventions
   4. Patient and family/significant other teaching
IV. References:


Approved:

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