



NEONATAL Medication Monograph

# AMPHOTERICIN LIPOSOMAL (Ambisome®)

This document should be read in conjunction with this [DISCLAIMER](#)

**Restricted:** Requires Microbiologist review within 24 hours of initiation





**⚠ HIGH RISK Medication**

Confusion between the formulations of amphotericin deoxycholate (Fungizone®) and liposomal amphotericin (Ambisome®) may result in errors, both of prescribing and administration. These medications are **NOT** interchangeable

<b>Presentation</b>	Vial: 50mg Infusion solution from Pharmacy
<b>Description</b>	Polyene antifungal
<b>Indications</b>	Treatment of invasive fungal infections by susceptible fungi including Candida spp., Aspergillus spp. and Cryptococcus species. Candida lusitaniae and A. terreus are resistant.
<b>Dosage</b>	<b>IV:</b> Initial dose – 1mg/ kg/ dose  <b>Maximum dose:</b> 5mg/ kg/ dose
<b>Interactions</b>	Increased risk of nephrotoxicity if used concurrently with other nephrotoxic drugs e.g. aminoglycosides, vancomycin. Flucytosine toxicity may be enhanced  Corticosteroids and diuretics may enhance the hypokalaemic effect of amphotericin B
<b>Compatible Fluids</b>	Glucose 5%

<b>Preparation</b>	<p><b>IV:</b> Available from CIVAS (KEMH &amp; PCH)</p> <p><b>Step 1 - Reconstitution</b> Add 12mL of Water for Injection to 50mg vial. Shake for at least 30 seconds. Concentration =4mg/mL</p> <p>Filter reconstituted solution using supplied filter, prior to dilution.</p> <p><b>Step 2 - Dilution</b> Take 5mL (20mg) of above filtered solution and make up to 10mL with Glucose 5%.</p> <p><u>Final concentration is 2mg/mL</u></p>
<b>Administration</b>	<p><b>IV Infusion:</b> Infuse over 60-120 minutes</p> <p>IV line must be flushed with 5% glucose before and after the dose</p>
<b>Monitoring</b>	<p>Urine output. Full blood count (FBC) for anaemia and thrombocytopenia</p> <p>Renal function (for elevated creatinine), electrolytes (for hypokalaemia) and liver function (for derangements of liver enzymes).</p> <p>Monitor serum concentrations of concomitant nephrotoxic drugs.</p>
<b>Adverse Reactions</b>	<p><b>Common:</b> nausea, vomiting, rash, fever, rigors</p> <p><b>Serious:</b> hypokalaemia, hypomagnesaemia, hypocalcaemia, nephrotoxicity, anaemia, thrombocytopenia</p>
<b>Storage</b>	<p><b>Vial:</b> Store at room temperature, below 25°C</p> <p><b>Reconstituted solution:</b> Stable for 24 hours at 2–8°C. Discard unused portion after 24 hours.</p> <p>Do not use the reconstituted solution or infusion if cloudy or a precipitate is present. Protect from light.</p>
<b>Notes</b>	<p>If infusion-related immediate reactions occur (e.g. fever, hypotension), duration of infusion may be increased to 3–4 hours.</p> <p>Liposomal amphotericin B is considered to be at a lower risk of causing harm if extravasated (as compared to amphotericin B – conventional).</p> <p>If total parenteral nutrition (TPN) or IV fluids are turned off during the infusion, consider monitoring of blood glucose.</p> <p>Cerebrospinal fluid (CSF) penetration of lipid formulations of amphotericin B is poor.</p> <p>Ensure adequate hydration</p>

<b>References</b>	<p>Ainsworth SB. Neonatal formulary 7: drug use in pregnancy and the first year of life. Seventh ed. Chichester (West Sussex): John Wiley &amp; Sons Inc.; 2015. p140</p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric &amp; neonatal dosage handbook with international trade names index: a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2401. 2, p141-142.</p> <p>Truven Health Analytics. Amphotericin Liposomal. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 Sept10]. Available from: <a href="https://neofax.micromedexsolutions.com/">https://neofax.micromedexsolutions.com/</a></p> <p>Society of Hospital Pharmacists of Australia. Amphotericin Liposomal. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2019 Sept10]. Available from: <a href="http://aidh.hcn.com.au">http://aidh.hcn.com.au</a></p> <p>Lilley L, Legge D. Paediatric injectable guidelines. 5th ed. Melbourne (Victoria): The Royal Children's Hospital; 2019.</p> <p>Paediatric Formulary Committee. BNF for Children: 2017. London: BMJ Group Pharmaceutical Press; 2017</p>
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