

AMPHOTERICIN B (amphotericin) LIPOSOMAL

Indication	<ul style="list-style-type: none"> • Treatment of systemic fungal infections including candida, aspergillus and cryptococcus^{1,2} 	
INTRAVENOUS	Presentation	<ul style="list-style-type: none"> • Vial: 50 mg
	Dosage	<ul style="list-style-type: none"> • Empirical treatment (presumed fungal infection) <ul style="list-style-type: none"> ○ 1–3 mg/kg once per day² • Systemic infection <ul style="list-style-type: none"> ○ 1–5 mg/kg once per day^{2,3}
	Preparation (Step 1)	<ul style="list-style-type: none"> • Add 12 mL water for injection to vial^{1,4} <ul style="list-style-type: none"> ○ Shake vigorously for 30 seconds^{1,4} ○ <i>Concentration now equal to 4 mg/mL</i>
	Preparation (Step 2)	<ul style="list-style-type: none"> • Calculate the required dose in mg <ul style="list-style-type: none"> ○ Example: for a 2 kg baby prescribed 3 mg/kg the required dose is 6 mg • Use the 5-micrometre filter provided⁴, and draw up <u>double</u> the required dose from the 4 mg/mL solution (prepared at Step 1) <ul style="list-style-type: none"> ○ Example: for a 2 kg baby prescribed 3 mg/kg, <u>double</u> the required dose is 12 mg. Draw up 3 mL from the 4 mg/mL solution (prepared at Step 1) • Follow preparation Step 3 according to <u>required dose</u>
	Preparation (Step 3)	<ul style="list-style-type: none"> • Required dose 10 mg or less <ul style="list-style-type: none"> ○ Make up to 10 mL total volume with 5% glucose ○ Attach infusion line and reduce syringe volume to 5 mL ○ <i>Required dose is in final volume of 5 mL</i>
		<ul style="list-style-type: none"> • Required dose more than 10 mg up to 20 mg <ul style="list-style-type: none"> ○ Make up to 20 mL total volume with 5% glucose ○ Attach infusion line and reduce syringe volume to 10 mL ○ <i>Required dose is in final volume of 10 mL</i>
<ul style="list-style-type: none"> • Required dose more than 20 mg up to 25 mg <ul style="list-style-type: none"> ○ Make up to 25 mL total volume with 5% glucose ○ Attach infusion line and reduce syringe volume to 12.5 mL ○ <i>Required dose is in final volume of 12.5 mL</i> 		
Administration	<ul style="list-style-type: none"> • IV infusion via syringe driver pump <ul style="list-style-type: none"> ○ Flush IV line before commencement with 5% glucose ○ First dose over 2 hours⁵ ○ If first dose well tolerated, subsequent doses over 60 minutes^{4,5} • On completion, disconnect syringe and infusion line • Flush access port at same rate as infusion with 5% glucose 	
Special considerations	<ul style="list-style-type: none"> • Three non-interchangeable formulations available <ul style="list-style-type: none"> ○ Verify product selection before use^{2,4} ○ AmBisome® is an amphotericin-liposomal brand name • Use in-line filter membrane if the pore diameter is at least 1 micrometre⁴ • Final concentration range 0.2–2 mg/mL acceptable for administration⁴ 	
Monitoring	<ul style="list-style-type: none"> • Resuscitation facilities available as anaphylactic reaction may occur^{2,4} • Renal function/urine output¹ • Electrolytes (particularly potassium)¹ 	
Compatibility	<ul style="list-style-type: none"> • Fluids <ul style="list-style-type: none"> ○ 5% glucose⁴ • Drugs <ul style="list-style-type: none"> ○ Do not mix with other drugs⁴ 	
Incompatibility	<ul style="list-style-type: none"> • Fluids <ul style="list-style-type: none"> ○ 0.9% sodium chloride⁴ • Drugs <ul style="list-style-type: none"> ○ Do not mix with other drugs⁴ 	



Interactions	<ul style="list-style-type: none"> Care with concurrent use of medications that can cause nephrotoxicity and hypokalaemia
Stability	<ul style="list-style-type: none"> Vial <ul style="list-style-type: none"> Store below 25 °C⁴ Single use then discard Reconstituted solution⁴ <ul style="list-style-type: none"> Stable for up to 24 hours at 2–8°C Reconstituted solution is translucent and yellow⁴ <ul style="list-style-type: none"> Do not use if evidence of precipitation or foreign matter
Side effects	<ul style="list-style-type: none"> Blood pathology: electrolyte imbalance², hypokalaemia and hypomagnesaemia², anaemia², leucopaenia², thrombocytopaenia² Circulatory: tachycardia⁶, oedema⁶, hypotension¹ Digestive: vomiting², diarrhoea² jaundice⁶ Nervous: fever, rigors¹, flushing² Respiratory: dyspnoea⁶ Urinary: nephrotoxicity⁶, renal impairment²
Actions	<ul style="list-style-type: none"> Fungistatic or fungicidal agent, depending on the degree of drug concentration obtained in the body fluids, and fungal susceptibility⁶ Binds to the membrane of the sensitive fungi resulting in a change in membrane permeability and allowing leakage of cell components⁷
Abbreviations	IV: intravenous; CVL: central venous line
Keywords	Amphotericin B–Liposomal, AmBisome®, amphotericin, antifungal

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

References

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Document history

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