BRIEF ADMINISTRATION GUIDE

For detailed information refer to The Australasian Neonatal Medicines Formulary **amphotericin B conventional** guideline

Critical Note: there are minor variations between the ANMF and Waikato DHB best practice within this drug guideline – see yellow shaded text

Indications: Invasive fungal infection, particularly renal & CNS infection caused by susceptible species
Amphotericin is active against Candida, Aspergillus, Cryptococcus neoformans, Histoplasma capsulatum, Blastomyces dermatitidis, Coccidioides immitis, Rhodotorula, Sporothrix schenckii, and Mucor mucedo species

Route: Intravenous

Dose: 0.5 - 1 mg/kg once daily
Maximum dose 1.5 mg/kg daily

- Supplied as Amphotericin B, 50 mg vial, powder for reconstitution
  Amphotericin B deoxycholate (conventional) is an unregistered medicine available under section 29. Names of the patient and prescriber must be sent to Pharmacy when ordering

Note: Amphotericin is available in two forms in New Zealand, amphotericin B liposomal and conventional amphotericin B. Lipid based and conventional amphotericin formulations are not interchangeable and have different dosing recommendations. Medication errors have occurred with incorrect selection of amphotericin products and have resulted in fatal overdoses, and sub-therapeutic dosing. Please ensure you have selected the correct product and are using the correct guideline.

Refer to drug guideline 2901 for amphotericin B liposomal.

Preparation and administration

Compatible fluids: glucose 5%, glucose 10%
Note: also flush with glucose (as incompatible with sodium chloride 0.9%)

Intravenous Infusion

- Reconstitute the 50 mg vial with 10 mL water for injection to make a concentration of 5 mg/mL.
- Shake the vial immediately until the solution is clear.
- For **peripheral administration**: dilute 1 mL of the reconstituted solution with 49 mL of glucose 5% to make a final volume of 50 mL and concentration of **0.1 mg/mL**.
- If **central administration and fluid restricted**: dilute 1 mL of the reconstituted solution with 11.5 mL of glucose 5% to make a final volume of 12.5 mL and concentration of **0.4 mg/mL**.
- **Do not administer medication though the NICU clear fluid filter** – at 0.2 micron this filter is very fine and will filter out the active drug.
- Draw up prescribed dose and visually inspect for particulate matter, do not administer if present.
- Flush the line with glucose 5% before and after the infusion
- Administer amphotericin dose by intravenous infusion over 2 to 6 hours (initial doses over longer timeframes with subsequent infusions over a shorter time if tolerated).

Monitoring

- Fluid balance. Ensure adequate hydration and consider sodium repletion to prevent or reduce the risk of nephrotoxicity
- Renal function, liver function, full blood count, potassium, magnesium at baseline and at least every other day during treatment
- Blood pressure, heart rate, respiratory rate and temperature periodically during treatment
- Observe IV site for irritation, or phlebitis
- Assess for signs of anaphylaxis or adverse reactions

Storage and Stability

- Vials should be refrigerated between 2 to 8 °C
- Protect from light
- Reconstituted vials are stable at room temperature (below 25 °C) for 24 hours, or refrigerated (2 to 8 °C) for 3 days
- Diluted solution is stable for 24 hours at or below 25 °C

Competency for Administration

This procedure is carried out by, or under, the direct supervision of a registered nurse/registered midwife who holds current Waikato DHB Generic Medicine Management and IV certification plus Guardrails competency (if administering IV) as well as Neonatal specific competency NCV/NAC (if administering via CVAD).

Guardrails

Amphotericin is Guardrail profiled on the CC pump for NICU. Following are the guardrail limits:

Guardrails Drug Name	Amphotericin*
Concentration (mg/mL)	
Minimum	0.1
Maximum	0.4
Dose rate (mg/kg/h)	
Default	0.17
Soft minimum	0.16
Soft maximum	0.25
Hard max	0.25

Associated Documents

- Waikato DHB NICU guideline Candida Infection and anti-fungal use in the newborn unit
- Waikato DHB NICU guideline #2901 Amphotericin B Liposomal for neonates Drug Guideline

References

- Australian Neonatal Medicines Formulary. Amphotericin B conventional Drug Guideline 2020, available from: https://www.seslhd.health.nsw.gov.au/royal-hospital-for-women/australasian-neonatal-medicines-formulary-anmf
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