Waikato District Health Board	Type: Drug Guideline	Document reference: 2901	Manual Classification: Waikato DHB Drug Guidelines
Title: **Amphotericin B liposomal for neonates**			Effective date: **14 February 2022**
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BRIEF ADMINISTRATION GUIDE

For detailed information refer to The Australasian Neonatal Medicines Formulary **amphotericin B liposomal** 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 (Candida, Aspergillus, Cryptococcus spp.)
Note: used in preference to the conventional amphotericin B formulation following an adverse drug reaction or renal impairment

Route: Intravenous

Dose: 3 mg/kg once daily, increased if necessary to 5 mg/kg once daily

- Supplied as Amphotericin B Liposomal injection 50 mg vial, powder for reconstitution
  Reconstituted solution has a pH of 5 to 6

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 0570 for conventional amphotericin B.

Preparation and administration

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

Intravenous Infusion

- Reconstitute each vial with 12 mL water for injection (concentration 4 mg/mL).
- Shake vigorously for at least 30 seconds to disperse contents completely.
- Withdraw the prescribed dose from the vial using the 5 micron filter provided and add to an equal volume of glucose 5%, to make a final concentration of **2 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.
- Flush the line with glucose 5% before and after the infusion
- Administer by intravenous infusion, **over one hour**. The infusion time may be increased if non-anaphylactic infusion related reactions occur.

Monitoring

- Ensure adequate hydration to reduce the risk of nephrotoxicity
- Monitor renal function, liver function, full blood count, potassium, magnesium at baseline and periodically during treatment
- Assess for signs of anaphylaxis or infusion related reactions
- Monitor blood pressure, heart rate, and respiratory rate every 30 minutes during treatment, for up to 4 hours after infusion complete

Storage and Stability

- Reconstituted and diluted solution may be refrigerated between 2 to 8 °C and used within 24 hours

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

Guardrails Drug Name	Amphotericin Liposm*
Concentration (mg/mL)	
Minimum	1
Maximum	2
Dose rate (mg/kg/h)	
Default	3
Soft minimum	1
Soft maximum	5
Hard max	7

Associated Documents

- Waikato DHB NICU guideline Candida Infection and anti-fungal use in the newborn unit
- Waikato DHB NICU guideline #0570 Amphotericin B conventional Drug Guideline

References

- Australian Neonatal Medicines Formulary. Amphotericin B liposomal 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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