South Australian Neonatal Medication Guidelines

amphotericin (liposomal)

50mg injection

Dose and Indications

Treatment of severe systemic fungal infections

Intravenous Infusion

2mg/kg every 24 hours

Doses up to 5mg/kg have been used in neonates with severe infections

Preparation and Administration

Intravenous Infusion

A double dilution will be required.

STEP ONE: Add 12mL of water for injection to 50mg amphotericin (liposomal) vial. Shake vigorously for 30 seconds to completely disperse the drug. The resulting solution contains 4mg/mL amphotericin (liposomal).

STEP TWO: Dilute 2mL of amphotericin (liposomal) 4mg/mL with 14mL of 5% glucose (total of 16mL). The resulting solution contains 0.5mg/mL amphotericin (liposomal).

The 5 micron filter (supplied by manufacturer) should be used to add the amphotericin solution to the glucose.

Amphotericin (liposomal) is usually reconstituted and repacked by the sterile pharmacy department.

Dose	1mg	2mg	3mg	4mg	5mg	6mg	7mg
Volume	2mL	4mL	6mL	8mL	10mL	12mL	14mL

Infuse intravenously for the first time over TWO hours; subsequent infusions may be given over 1 hour if no adverse effects seen.

If an in-line membrane filter is used for the intravenous infusion, the mean pore size should not be **less than 1 micron in diameter**.

Flush IV lines with glucose 5% before and after the infusion. If this is not possible use a separate line**.**

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SA Health

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50mg injection

Compatible Fluids

Glucose 5%, glucose 10% only

Adverse Effects

Common

Infusion reactions, thrombophlebitis, anaemia, nephrotoxicity, hypoxia, increased serum bilirubin, increased ALP, hyperglycaemia, tachycardia, hyponatraemia

Nephrotoxicity: Increased serum creatinine, hypokalaemia and hypomagnesaemia are frequent; anuria or oliguria may occur. However most of this information comes from the use of conventional amphotericin which is now discontinued.

Infusion reactions include fever, hypotension, vomiting, and pain; usually lessen with continued treatment.

Infrequent

Hypotension, hypertension, arrhythmias, blood dyscrasias, gastrointestinal bleeding, hepatotoxicity, rash, neurologic effects (eg seizure, hearing loss) hypernatraemia

Rare

Anaphylactoid reactions, hyperkalaemia (especially in renal impairment)

Monitoring

- At start of therapy: renal function
- At least three times a week: renal function, electrolytes (particularly potassium and magnesium)
- Twice a week during treatment and after treatment stops until stable: complete blood picture and hepatic function

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Practice Points

- Infectious Disease consultation is usually required prior to commencing therapy refer to local anti-microbial policy
- It is important that amphotericin (liposomal) does not come into contact with any product other than 5% or 10% glucose. For this reason, the line will need to be flushed with 5% glucose
- Ensure adequate hydration
- Do not infuse through an in-line filter
- Concomitant aminoglycosides will increase the risk of nephrotoxicity
- Concomitant diuretics & corticosteroids may cause excessive loss of serum potassium.
- It is not necessary to protect from light if used within 24 hours

Version control and change history

PDS reference: OCE use only

Version	Date from	Date to	Amendment
1.0	November 2012	current	Original version

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