

# zidovudine

## 200mg/20mL injection (SAS), 10mg/mL oral mixture

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**Note:**

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

### Synonyms

Azidothymidine, AZT

### Dose and Indications

#### Prevention of vertical transmission of HIV

Only to be used post consultation with Infectious Diseases team

##### Intravenous

1.5mg/kg per dose;

- Term neonate - every 6 hours
- Preterm neonate - every 12 hours

To be used only if neonate unable to tolerate oral feeds.

##### Oral

Gestational age	Dose (mg/kg)	Frequency and Duration
<30 weeks	2	12 hourly for 4 weeks
30 to 34 weeks	2	12 hourly for 2 weeks followed by 8 hourly for 2 weeks
≥ 35 weeks	4	12 hourly for 4 weeks

Commence therapy as soon as possible after birth and within 6 to 12 hours of age

Additional antiretroviral prophylaxis in the form of nevirapine and lamivudine may be necessary for some HIV exposed infants.

See practice points for further details

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### Preparation and Administration

#### Intravenous

Dilute 1mL of the 10mg/mL zidovudine solution with 4mL of 5% glucose (Total volume 5mL).

The resulting solution contains 2mg/mL zidovudine.

Dose	1mg	2mg	3mg	4mg	5mg	6mg
Volume	0.5mL	1mL	1.5mL	2mL	2.5mL	3mL

Infuse over one hour.

Please note this formulation is not marketed in Australian and is only available via the Special Access Scheme (SAS). SAS paperwork and informed parental consent should be organised prior to starting treatment.

#### Oral

The oral mixture contains 10mg/mL zidovudine

Dose	1mg	2mg	3mg	4mg	5mg	6mg	8mg
Volume	0.1mL	0.2mL	0.3mL	0.4mL	0.5mL	0.6mL	0.8mL

### Compatible Fluids

Glucose 5%, sodium chloride 0.9%

### Adverse Effects

#### Common

Anaemia, neutropenia, leucopenia

#### Rare

Nail and skin pigmentation, cardiomyopathy, pancytopenia, red cell aplasia, aplastic anaemia (extremely rare for a 6 week prophylaxis course)

### Monitoring

- > Full blood counts at baseline, 2, 4 and 6 weeks, more frequently in neonates with anaemia at birth.



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### Practice Points

- > Infectious Diseases consultation is essential for maternal HIV infection
- > **If Mother-to-Child-Transmission (MTCT) risk is low** (<2%), i.e. if maternal viral load is undetectable - zidovudine monotherapy is recommended, even if the mother has a previous history of zidovudine resistance.
- > **If MTCT risk is high** (>2%), i.e. if maternal viral load is detectable at  $\geq 36$  weeks, or late presentation and viral load is unknown - additional Antiretroviral Prophylaxis in the form of nevirapine and lamivudine should be added. Follow the drug monographs for each drug.
- > If neonate vomits more than 15 minutes after dose, give next dose at next scheduled time. If infant vomits within 15 minutes of a dose, give another dose if possible
- > Avoid in infants exhibiting abnormally low neutrophil counts (less than  $0.75 \times 10^9/L$ ) or abnormally low haemoglobin levels (less than 75g/L)
- > Concurrent use of fluconazole increases the half-life of zidovudine
- > Zidovudine has been associated with hepatic steatosis. Infectious Diseases consultation is recommended regarding continuation of Zidovudine when infants have evidence of liver disease (cholestasis, abnormal coagulation studies, or transaminase levels above 5 times the upper limit of normal).

### Reference

1. Management of perinatal infections, Australian Society of Infectious diseases 2014

[www.asid.net.au/documents/item/368](http://www.asid.net.au/documents/item/368)



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### Document Ownership & History

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