



GUIDELINE

Aminophylline - Infusion

Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

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<http://kidshealthwa.com/about/disclaimer/>

Aminophylline - Infusion

Medication

Aminophylline is a compound of theophylline with ethylenediamine.

Actions

The underlying mechanism of action of aminophylline is not fully understood but it probably causes bronchodilation, anti-inflammatory effects and central nervous system stimulation.

Indications

Severe asthma not responding to repeated inhaled or nebulised bronchodilator therapy in the emergency department.

Contraindications

Precaution: if patient is already on theophylline **omit** the loading dose of the aminophylline and just start the continuous infusion.

Adverse

- Nausea and vomiting (common)
- Abdominal pain
- Cardiac arrhythmias and seizures may result from excessive dosage
- β_2 -agonists and aminophylline lower serum potassium levels, and may result in hypokalaemia

- Multiple drug interactions exist
- Gastrointestinal bleeding
- Hypotension and tachycardia if given too quickly
- Insomnia and/or restlessness

Dosage

Loading dose = 10 mg/kg

Maintenance :

(by this stage the patient should already be in a Paediatric Intensive Care Unit)

- Child 1-35kg = 6 mg/kg 6 hourly by slow IV push over 20 minutes or 1 mg/kg/hr continuous infusion.
- Child 35kg-16 years = 4 mg/kg 6 hourly by slow IV push over 20 minutes or 0.7 mg/kg/hr continuous infusion.

Preparation

To prepare the loading dose:

- Dilute in 100 – 200 mL 0.9% saline
- Do not combine with any other medication
- Do not prepare more than the calculated loading dose

Administration

Administer loading dose intravenously over 1 hour via infusion pump.




Special

- Continuous pulse oximetry
- Continuous cardiac monitoring
- Pulse, respiratory rate and BP every 15 minutes during the infusion, and hourly thereafter

Tags

aminophylline, asthma, infusion, infusions, theophylline, wheeze

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