

AMINOPHYLLINE

INDICATION Severe reversible airway obstruction unresponsive to conventional therapies, **ONLY after consultation with senior medical staff.**

PRESENTATION 250mg / 10mL ampoules

IS THE PATIENT OBESE (BMI >30)?

If YES use **IDEAL BODY WEIGHT** (see calculation below)

LOADING DOSE	<i>NOT to be given if patient already taking oral aminophylline or theophylline and had a dose in last 24 hours</i>	IV: 5mg / kg (MAX 500mg)
MAINTENANCE DOSE	Elderly or heart failure	IV: 0.3mg / kg / hour
	Non-smoker	IV: 0.5mg / kg / hour
	Smoker	IV: 0.8mg / kg / hour

IDEAL BODY WEIGHT CALCULATION (kg) **MEN:** 50 + (2.3 x height in inches > 5 ft)
WOMEN: 45 + (2.3 x height in inches > 5 ft)

RECONSTITUTION & ADMINISTRATION The loading dose should be added to 100ml of sodium chloride 0.9% and administered over 20 minutes.

For the maintenance doses, add 500mg of aminophylline to 500mg of sodium chloride 0.9% or glucose 5% to create a 1mg/mL solution.

See administration chart overleaf

MONITORING Serum theophylline levels **must** be taken:

- 6 hours after starting the infusion
- then at least every 24 hours whilst on the infusion
- or at any point if toxicity suspected

The therapeutic range is usually 10–20 mg/L.
In **asthma** therapeutic benefit is seen between **5-15mg/L** and is associated with fewer side effects.
Infusion rates should be adjusted accordingly. For advice regarding levels, contact your ward pharmacist or Medicines Information department.

OTHER COMMENTS Theophylline is the active constituent of aminophylline, and this is measured in the serum.
Theophylline interacts with many other drugs (eg: ciprofloxacin, clarithromycin, erythromycin, carbamazepine) which can lead to theophylline toxicity – consult BNF for full details.
Signs of toxicity include: nausea, tachycardia, irritability, arrhythmias and convulsions.

AMINOPHYLLINE
Intravenous Infusion
Administration Record

Patient weight:	kg
Ideal body weight:	kg

It is mandatory to complete this section	
ALLERGY STATUS:	Reaction
Medicine / Substance	
Sign (NAME)	Date

First name:		Surname:	
Hospital No:	NHS No:	DOB:	
Consultant:	Ward:	Hosp:	
<i>Use addressograph label</i>			

See overleaf for prescribing guidelines

LOADING DOSE: 5mg/kg over 20 minutes										No loading dose if already taking theophylline or aminophylline										ADMINISTRATION RECORD									
Date:	Aminophyllinemg in 100mL sodium chloride 0.9% over 20minutes										Sign	Pharm		Batch		Start		Sign	Volume		Stop								
MAINTENANCE DOSE																													
		Patient		Dose		40kg	50kg	60kg	70kg	80kg	90kg	Initial maintenance infusion rate in mL/hour.																	
		Elderly or Heart Failure		0.3mg/kg/hour		12	15	18	21	24	27																		
		Non-Smoking Adult		0.5mg/kg/hour		20	25	30	35	40	45																		
		Smoking Adult		0.8mg/kg/hour		32	40	48	56	64	72	Use ideal body weight for obese patients																	
Date:	Aminophylline 500mg in 500mL sodium chloride 0.9% * or glucose 5%*										Dose mg/kg/hr	Rate mL/hour		Sign	Pharm		Batch		Start		Sign	Volume		Time completed					
<i>Check theophylline level 6 hours after loading dose. THEOPHYLLINE LEVEL</i>																								Date and time taken:				Level:	
Date:	Aminophylline 500mg in 500mL sodium chloride 0.9% * or glucose 5%*										Dose mg/kg/hr	Rate mL/hour		Sign	Pharm		Batch		Start		Sign	Volume		Time completed					
THEOPHYLLINE LEVEL																								Date and time taken:				Level:	
THEOPHYLLINE LEVEL																								Date and time taken:				Level:	
Date:	Aminophylline 500mg in 500mL sodium chloride 0.9% * or glucose 5%*										Dose mg/kg/hr	Rate mL/hour		Sign	Pharm		Batch		Start		Sign	Volume		Time completed					
THEOPHYLLINE LEVEL																								Date and time taken:				Level:	

*Delete as required

INFUSION BAGS SHOULD BE CHANGED AT LEAST EVERY 24 HOURS AS PER TRUST POLICY

WPH549

Expiry date: 05/09/2017

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