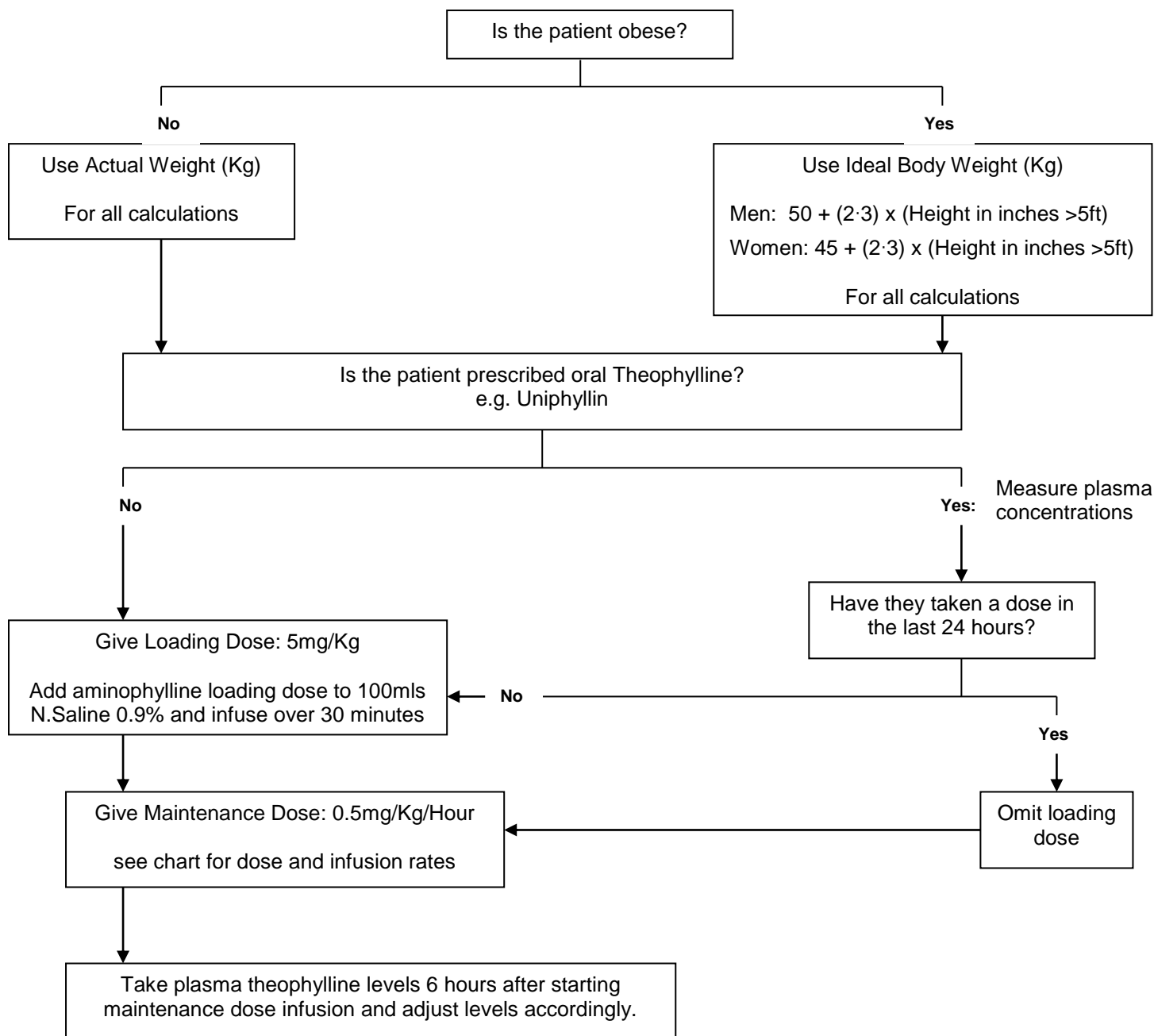


INTRAVENOUS AMINOPHYLLINE TREATMENT (DBTH Formulary Guidance)

Therapeutic Range: 55 – 110 µmol/L



Signs of Toxicity:

- Nausea, vomiting, diarrhoea, tremor, epigastric pain, headache, insomnia, hypotension, cardiac arrhythmias and convulsions

Plasma Clearance:

- Theophylline clearance is *reduced* in patients with severe congestive heart failure, cor pulmonale, pulmonary oedema, severe liver disease and hypoxaemic state. The dose may need to be *lowered* in these patients
- Theophylline clearance is *increased* in smokers
- Plasma Theophylline levels may be *increased* by
 - macrolide antibiotics
 - calcium channel blockers
 - quinolone antibiotics
 - cimetidine (see current BNF for complete listing)
- Plasma Theophylline levels may be *reduced* by
 - rifampicin
 - lithium
 - phenytoin
 - carbamazepine (see current BNF for complete listing)

Approved by Trust Drug and Therapeutics Committee: November 2025

Review Date: November 2028

AMINOPHYLLINE – MAINTENANCE DOSE

Presentation: 25mg/ml 10ml ampoule
Recommended infusion fluid: Sodium Chloride 0.9%

Dose & Rate of 1mg/ml infusion required for a 500micrograms/kg/hr infusion

Patient Weight (Kg)	Dose (mg/hour)	Infusion Rate (ml/hour)
40	20	20
45	22.5	22.5
50	25	25
55	27.5	27.5
60	30	30
65	32.5	32.5
70	35	35
75	37.5	37.5
80	40	40
85	42.5	42.5
90	45	45
95	47.5	47.5
100	50	50
105	52.5	52.5
110	55	55
115	57.5	57.5
120	60	60
125	62.5	62.5
130	65	65
135	67.5	67.5
140	70	70
145	72.5	72.5
150	75	75