

26 kg

Anaphylaxis



Resuscitation / Arrhythmia

Adrenaline IV (cardiac arrest)	10 micrograms/kg	260 micrograms	of 1:10,000 (large ampoule)	2.6 mL
ETT dose 2.5 mL of 1:1000 (small ampoules), diluted to 10mL				
DC shock	4 J/kg		Use adult/child pads	100 Joules
ATROpine	20 micrograms/kg	520 micrograms	Diluted (600 micrograms in 6 mL)	5.2 mL
AmIODAROne	5 mg/kg	130 mg	Dilute 1 ampoule (150 mg in 3mL) to 25 mL in <u>Glucose 5%</u> Over 3 mins in emergency, otherwise over 20-120 mins	21.7 mL
Adenosine (1st dose)	0.1 mg/kg	2.6 mg		0.9 mL
Adenosine (2nd dose)	0.2 mg/kg	5.2 mg	<u>Undiluted</u> (6 mg in 2 mL); use 1 mL or 3 mL syringe	1.7 mL
Adenosine (3rd dose)	0.3 mg/kg	7.8 mg		2.6 mL
Nebulised Adrenaline for upper airway obstruction / croup: 5 mL of 1:1000 (small ampoule) OR 0.5 mL of 1% solution diluted to 4 mL				

Management of shock

FLUID BOLUS (Isotonic crystalloid)		5 mL/kg = 130 mL	10 mL/kg = 260 mL	20 mL/kg = 520 mL	
PUSH DOSE PRESSORS	Metaraminol	10 micrograms/kg	260 micrograms	10 mg (1 ampoule) in 100 mL bag. Draw up 10 mL. <i>(OR use undiluted 3mg/6mL vial and give 0.52 mL)</i>	2.6 mL
	Adrenaline	1 micrograms/kg	26 micrograms	Dilute 2.6 mL of 1:10,000 Adrenaline (large ampoule) to total volume of 10 mL	1 mL
INFUSIONS <i>Can use either glucose 5% or sodium chloride 0.9%, except peripheral noradrenaline use glucose 5% + sodium chloride 0.9%</i>	Medication	Dilution		1 mL/h =	Starting Dose
	Adrenaline (Central / IO)	3.9 mg made up to 100 mL		0.025 micrograms/kg/min	0.4 – 10 mL/h
	Noradrenaline (Central / IO)	3.9 mg made up to 100 mL		0.025 micrograms/kg/min	0.4 – 20 mL/h
	Adrenaline (Peripheral)	6 mg made up to 1000 mL		<i>mL/h = microgram/kg/min: 13=0.05; 26=0.1; 39=0.15; 52=0.2; 65=0.25; 78=0.3; 104=0.4; 130=0.5; 260=1</i>	13 mL/h
	Noradrenaline (Peripheral)	6 mg made up to 1000 mL			13 mL/h
	Dobutamine	156 mg made up to 50 mL		2 micrograms/kg/min	2.5 – 7.5 mL/h

Intubation

EQUIPMENT <i>(prepare one size above/below)</i>	ET tube size (uncuffed) (Age/4) + 4	6	Depth: 16 cm to lip 19 cm to nose LMA size: 2.5	Laryngoscope: 2 Suction: 10 Fr	
	ET tube size (Microcuff™)	5.5			
	ET tube size (cuffed) (Age/4)+3.5	5.5			
INDUCTION AGENTS	Ketamine	1 - 2 mg/kg	26 - 52 mg	Dilute 200mg in 20 mL OR dilute 100mg in 10mL	2.6 – 5.2 mL
	Propofol	2 - 3 mg/kg	52 - 78 mg	<i>Risk CVS ↓</i>	5.2 – 7.8 mL
	Fentanyl	2-4 micrograms/kg	52-104 micrograms		1.05 – 2.1 mL
	Midazolam	0.1 mg/kg	2.6 mg	Dilute 5 mg to 5 mL	2.6 mL
PARALYTIC AGENTS	Suxamethonium	2 mg/kg	52 mg	Dilute 100 mg to 10 mL	5.2 mL
	Rocuronium	1.2 mg/kg	31.2 mg	Undiluted	3.1 mL
	Vecuronium	0.1 mg/kg	2.6 mg	Reconstitute 10 mg in 10 mL water for injection	2.6 mL
	Pancuronium	0.1 mg/kg	2.6 mg	Dilute 4mg to 4mL	2.6 mL
	Atracurium	0.5 mg/kg	13 mg	Undiluted (10 mg/mL)	1.3 mL
	Cisatracurium	0.1 mg/kg	2.6 mg	Undiluted	1.3 mL
INFUSIONS <i>Can use either glucose 5% or sodium chloride 0.9%</i>	Morphine	26 mg made up to 50 mL		1 mL / h = 20 micrograms/kg/hour	Starting dose: 1 - 4 mL/h
	Midazolam	78 mg made up to 50 mL		1 mL / h = 1 microgram/kg/min	Starting dose: 1 - 4 mL/h
	Fentanyl	1,300 micrograms made up to 50 mL		1 mL / h = 1 microgram/kg/hour	Starting dose: 1 - 5 mL/h

Blood products – use WARMED fluids

Packed red cells: 1 unit (adult dose)	Fresh frozen plasma (FFP): (10-20 mL/kg) 1 – 2 units 260 – 520 mL	Platelets: 1 unit (adult dose)	Cryoprecipitate: Whole blood (10 mL/kg): 7 units Apheresis (5 mL/kg): 2 units	Tranexamic acid Loading dose: 390 mg (15 mg/kg) <i>(Dilute to 10 mg/mL, give 39 mL over 10 minutes)</i> Infusion: 52 mg/hour for 8 hrs (2 mg/kg/hr) <i>(Dilute to 10 mg/mL, give 5.2 mL/hour)</i>
Massive transfusion: 1:1 ratio of packed red cells and FFP (e.g. alternate units of red cells / FFP)				

Acute respiratory illness (NB –all need to be given as separate infusions)

ASTHMA INFUSIONS	Magnesium 50 mg/kg (0.2 mmol/kg)	Dilute 5 mL (10 mmol) of 50% MgSO ₄ to 50 mL. Give 26 mL (5.2 mmol = 1300 mg) over 20 minutes	Corticosteroids Methylprednisolone: 26 mg IV, 6 hourly Prednisolone: 26 mg daily Hydrocortisone: 100 mg IV, 6 hourly Dexamethasone: <i>Mild/moderate croup (oral): 3.9 mg</i> <i>Mild/moderate asthma (oral) : 7.8 mg</i> <i>Severe asthma / croup (IV/IM): 15.6 mg</i>
	Aminophylline 10 mg/kg	260 mg diluted to at least 260 mL Give over 30 minutes	
	Salbutamol 5 micrograms/kg	130 – 300 micrograms , diluted to at least 10 mL. Give over 10 minutes	
Life-threatening asthma: Adrenaline IM or “push dose” or infusion		Life-threatening croup: Nebulised Adrenaline	

Seizures / Neurology (see seizure flowchart)

MIDazolam (5 mg/ 1 mL – small ampoule) Intramuscular: (0.15 mg/kg) = 3.9 mg = 0.78 mL IM Buccal / nasal: (0.3 mg/kg) = 7.8 mg = 1.56 mL intranasal/buccal	IV MIDazolam (5 mg/ 5 mL – large ampoule) IV: (0.15 mg/kg) = 3.9 mg = 3.9 mL IV	IV Clonazepam Child dose 0.5 mg	IV Diazepam (0.3 mg/kg) 7.8 mg
PhenyTOIN	20 mg/kg	520 mg	Undiluted (preferred). May dilute up 104 mL (max); give over 20 min
Sodium Valproate	40 mg/kg	1040 mg	Dilute 1 x 400 mg vial to 10 mL (will need 3 vials). Give 26 mL over 5 min
Levetiracetam	40 mg/kg	1040 mg	Dilute 1 x 500 mg vial to 10 mL (will need 3 vials). Give 20.8 mL over 5 min
PHENobarbitone	20 mg/kg	520 mg	Dilute to at least 1:10; give over 20 min
Mannitol 20%	0.5 g/kg (2.5 mL/kg)	65 mL	Over 20-30 minutes for raised ICP
Sodium chloride 3% (“Hypertonic Saline”)	3 mL/kg	78 mL	Over 10-20 minutes for raised ICP

Electrolyte abnormalities

HYPOglycaemia: 52 mL of Glucose 10% (2 mL/kg) – consider need for critical blood tests	
<p>HYPERkalaemia</p> <ul style="list-style-type: none"> - Calcium gluconate 10% 13 mL slow IV (peripheral / central) OR Calcium chloride 10% 2.6 – 5.2 mL (central) - Salbutamol 5 mg nebulised - Glucose 10% 130 mL bolus with Actrapid 2.6 units bolus followed by Actrapid 2.6 units/hour + Glucose 10% + NaCl 0.9% maintenance (66 mL/h) - Sodium bicarbonate 8.4% 26 - 78 mL (if acidosis) over 5 minutes <p><i>Calcium and bicarbonate should be given using different lines</i></p> <p>Critical HYPOnatraemia with seizures (Do NOT correct >8 mmol/L/day) 78 mL of Sodium Chloride 3% over 20 minutes</p>	<p>Critical HYPOcalcaemia Calcium gluconate 10% 13 mL slow IV (peripheral / central)</p> <p>HYPOmagnesaemia Dilute 5 mL (10 mmol) of 50% MgSO₄ to 50 mL. Give 26 mL (5.2 mmol = 1300 mg) up to 40 mL (8 mmol = 2000 mg) over 2-4 hours</p> <p>Severe HYPOkalaemia needing urgent treatment Use pre-mixed 100mL bag [isotonic]: 7.8 mmol (78 mL) (Potassium Chloride 10 mmol in Sodium Chloride 0.29%) Give over 1 hour using infusion pump</p>

SEVERE Infection NB – 1st dose only

Aciclovir	520 mg if <5 years 390 mg if 5-12 years
Ampicillin, Amoxicillin, Cefotaxime, Ceftriaxone*, Flucloxacillin	1300 mg
Gentamicin	195 mg if <10 years 156 mg if >10 years
Clindamycin or Lincomycin	390 mg
Metronidazole	390 mg
Vancomycin	390 mg
Piperacillin / Tazobactam	2600 mg

Antidotes

Sugammadex 16 mg/kg	416 mg	Undiluted (100 mg/mL)	4.2 mL
Naloxone (low dose) 2 micrograms/kg	52 micrograms	Dilute 400 micrograms (1mL ampoule) to 10 mL	1.3 mL <i>repeat PRN</i>
Naloxone (emergency) 10 micrograms/kg	260 micrograms	Undiluted (400 micrograms in 1 mL)	0.65 mL <i>repeat PRN</i>
N-Acetylcysteine (1st bag)	5200 mg	in 250 mL of glucose 5%	Over 4 hours
N-Acetylcysteine (2nd bag)	2600 mg	in 500 mL of glucose 5%.	Over 16 hours

* **If serious bacterial infection**, can give ceftriaxone
50 mg/kg (1300 mg) **OR** 100 mg/kg (2600 mg)

If treating meningitis, also give **dexamethasone 3.9 mg IV** (0.15 mg/kg)

26 kg

Gastrointestinal bleeding	
Pantoprazole <i>Dilute 40 mg in 10 mL</i>	Intermittent dose: 26 mg (6.5 mL) Bolus (pre-infusion): 46.8 mg (11.7 mL)
Pantoprazole infusion <i>Dilute 80 mg in 100 mL</i>	4.63 mg/hour (5.85 mL/hour)
Octreotide <i>Dilute 500 micrograms in 100 mL</i>	Loading: 50 micrograms (5 mL) Infusion: start at 5 mL/hour ↑ by 5 mL/hour every 8 hours PRN
Dantrolene for malignant hyperthermia	Dilute 4 x 20 mg ampoule in 240 mL sterile H ₂ O Give 195 mL (65 mg) every 5 minutes <i>Maximum of 260 mg (4 doses)</i>

Sedation for procedures / treatment
Midazolam (5 mg/mL – small ampoule – undiluted) - *Oral: 13 mg (2.6 mL) - Intranasal: 7.8 mg (1.56 mL)
Ketamine (Undiluted – 200 mg in 2 mL) - Intramuscular: 78-104 mg (0.78-1.04 mL) - *Oral: 130-260 mg (1.3-2.6 mL)
Ketamine (IV) Dilute 200 mg in 20 mL Usual dose: 26 – 39 mg (2.6-3.9 mL) <i>Consider 2 mL (20 mg) initial, then 1 mL (10 mg) increments; +/- adding 1 mL (10 mg) increments of propofol</i>

Other infusions	Dilution	Usual rate
Vasopressin	20 units in 50 mL Glucose 5%	2.3 – 3.9 mL/hour
Ketamine	200 mg in 50 mL	2.6 – 15.6 mL/hour
Propofol	Undiluted	2.6 – 10.4 mL/hour
Milrinone	10 mg in 50 mL	1 – 5.7 mL/hour
Glyceryl Trinitrate	78 mg in 100 mL Glucose 5%	1 - 10 mL/hour
Sodium nitroprusside	30 mg in 50 mL Glucose 5%	1 – 26 mL/hour
Heparin (arterial line transducer)	250 units in 50 mL	1 – 2 mL/hour
Heparin (central line transducer)	50 units in 50 mL	1 – 2 mL/hour

Dexmedetomidine 200 micrograms / 2 mL (Undiluted) Intranasal: 52 – 104 micrograms 0.52 – 1.04 mL
Clonidine 150 micrograms/mL (Undiluted) - *Oral: 104 micrograms (0.69 mL) - Intranasal: 52 micrograms (0.35 mL)

*Unpleasant taste! Consider mixing with 2-3 mL of sucrose, a dose of paracetamol and/or a few mL of juice.