

70 kg

Anaphylaxis



Resuscitation / Arrhythmia

Adrenaline IV (cardiac arrest)	Adult dose	1 mg	One 1:10,000 (large ampoule) ETT dose 2.5 mL of 1:1000 (small ampoules), diluted to 10mL	10 mL
DC shock	4 J/kg		Use adult/child pads	200 Joules
ATROpine	Adult dose	600 micrograms	Undiluted (600 micrograms in 1 mL)	1 mL
AmIODAROne	5 mg/kg	300 mg	Dilute 2 ampoule (150 mg in 3mL) to 50 mL in <u>Glucose 5%</u> Over 3 mins in emergency, otherwise over 20-120 mins	50 mL
Adenosine (1st dose)	Adult dose	6 mg		2 mL
Adenosine (2nd dose)	Adult dose	12 mg	<u>Undiluted</u> (6 mg in 2 mL); use 3 mL or 5 mL syringe	4 mL
Adenosine (3rd dose)	Adult dose	12 mg		4 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 = 350 mL	10 mL/kg = 700 mL	20 mL/kg = 1400 mL	
PUSH DOSE PRESSORS	Metaraminol	10 micrograms/kg	500 micrograms (adult dose)	Draw up 10 mg (1 ampoule) into a 20 mL syringe (OR use undiluted 3mg/6mL vial and give 0.5 mL)	0.5 mL
	Adrenaline	1 micrograms/kg	50 micrograms (adult dose)	Dilute 5 mL of 1:10,000 Adrenaline (large ampoule) [or 0.5 mL of 1:1000 (small 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)	6 mg made up to 100 mL	1 microgram/min	0.5 – 20 mL/h	
	Noradrenaline (Central / IO)	6 mg made up to 100 mL	1 microgram/min	0.5 – 20 mL/h	
	Adrenaline (Peripheral)	6 mg made up to 1000 mL	mL/h = microgram/kg/min: 35=0.05; 70=0.1; 105=0.15; 140=0.2; 175=0.25; 210=0.3; 280=0.4; 350=0.5; 700=1	35 mL/h	
	Noradrenaline (Peripheral)	6 mg made up to 1000 mL		35 mL/h	
Dobutamine	500 mg made up to 83 mL	100 micrograms/min		3.5 – 14 mL/h	

Intubation

EQUIPMENT <i>(prepare one size above/below)</i>	ET tube size (uncuffed) (Age/4) + 4	8	Depth: 21 cm to lip 23 cm to nose	Laryngoscope: 3-4 Suction: 12 Fr	
	ET tube size (Microcuff™)	7	LMA size: 4		
	ET tube size (cuffed) (Age/4)+3.5	7.5			
INDUCTION AGENTS	Ketamine	0.5-2 mg/kg	35 - 140 mg	Dilute 200mg in 20 mL OR dilute 100mg in 10mL	3.5 - 14 mL
	Propofol	1.5 – 2.5 mg/kg	105 - 175 mg	Risk CVS ↓ Undiluted	10.5 - 17.5 mL
	Fentanyl	2-4 micrograms/kg	140-280 micrograms	Undiluted (100 micograms / 2 mL)	2.8 – 5.6 mL
	Midazolam	0.1 mg/kg	7 mg	Dilute 5 mg to 5 mL	7 mL
PARALYTIC AGENTS	Suxamethonium	1.5 mg/kg	105 mg	Undiluted (100 mg in 2 mL)	2.1 mL
	Rocuronium	1.2 mg/kg	84 mg	Undiluted	8.4 mL
	Vecuronium	0.1 mg/kg	7 mg	Reconstitute 10 mg in 10 mL water for injection	7 mL
	Pancuronium	0.1 mg/kg	7 mg	Undiluted (4 mg in 2 mL)	3.5 mL
	Atracurium	0.5 mg/kg	35 mg	Undiluted (10 mg/mL)	3.5 mL
	Cisatracurium	0.1 mg/kg	7 mg	Undiluted	3.5 mL
INFUSIONS <i>Can use either glucose 5% or sodium chloride 0.9%</i>	Morphine	50 mg made up to 50 mL (adult dose)	1 mL / h = 1 mg/hour	Starting dose: 1 – 5 mL/h	
	Midazolam	50 mg made up to 50 mL (Adult dose)	1 mL / h = 1 mg/hour	Starting dose: 1 – 5 mL/h	
	Fentanyl	500 micrograms made up to 50 mL (Adult dose)	1 mL / h = 10 micrograms/hour	Starting dose: 1 – 8 mL/h	

Blood products – use WARMED fluids

Packed red cells: 1 unit (adult dose)	Fresh frozen plasma (FFP): (10-20 mL/kg) 3 – 5 units	Platelets: 1 unit (adult dose)	Cryoprecipitate: Whole blood (10 mL/kg): 10 units Apheresis (5 mL/kg): 4 units	Tranexamic acid Loading dose: 1000 mg (15 mg/kg) <i>(Dilute to 10 mg/mL, give 100 mL over 10 minutes)</i> Infusion: 140 mg/hour for 8 hrs (2 mg/kg/hr) <i>(Dilute to 10 mg/mL, give 14 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	Dilute 5 mL (10 mmol) of 50% MgSO ₄ to 50 mL. Adult dose Give 50 mL (10 mmol = 2500 mg) over 20 minutes	Corticosteroids Methylprednisolone: 60 mg IV, 6 hourly Prednisolone: 50 mg daily Hydrocortisone: 100 mg IV, 6 hourly Dexamethasone: <i>Mild/moderate croup (oral): 10.5 mg</i> <i>Mild/moderate asthma (oral) : 16 mg</i> <i>Severe asthma / croup (IV/IM): 16 mg</i>
	Aminophylline	500 mg diluted to at least 500 mL. Adult dose Give over 30 minutes	
	Salbutamol	300 micrograms , diluted to at least 10 mL. 5 micrograms/kg 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) = 10 mg = 2 mL IM Buccal / nasal: (0.3 mg/kg) = 10 mg = 2 mL intranasal/buccal	IV MIDazolam (5 mg/ 5 mL – large ampoule) IV: (0.15 mg/kg) = 10 mg = 10 mL IV	IV Clonazepam Adult dose 1 mg	IV Diazepam (0.3 mg/kg) 10 mg
PhenyTOIN	Adult dose 1000 mg	Undiluted (preferred). May dilute up 200 mL (max); give over 20 min	
Sodium Valproate	40 mg/kg 2800 mg	Dilute 1 x 400 mg vial to 10 mL (will need 7 vials). Give 70 mL over 5 min	
Levetiracetam	40 mg/kg 2800 mg	Dilute 1 x 500 mg vial to 10 mL (will need 6 vials). Give 56 mL over 5 min	
PHENobarbitone	Adult dose 1000 mg	Dilute to at least 1:10; give over 20 min	
Mannitol 20%	0.5 g/kg (2.5 mL/kg)	175 mL	Over 20-30 minutes for raised ICP
Sodium chloride 3% (“Hypertonic Saline”)	3 mL/kg	210 mL	Over 10-20 minutes for raised ICP

Electrolyte abnormalities

HYPOglycaemia: 140 mL of Glucose 10% (2 mL/kg) – consider need for critical blood tests	
HYPERkalaemia - Calcium gluconate 10% 20 mL slow IV (peripheral / central) OR Calcium chloride 10% 7 – 10 mL (central) - Salbutamol 5 mg nebulised - Glucose 10% 350 mL bolus with Actrapid 7 units bolus followed by Actrapid 7 units/hour + Glucose 10% + NaCl 0.9% maintenance (110 mL/h) - Sodium bicarbonate 8.4% 70 - 100 mL (if acidosis) over 5 minutes <i>Calcium and bicarbonate should be given using different lines</i> Critical HYPOnatraemia with seizures (Do NOT correct >8 mmol/L/day) 210 mL of Sodium Chloride 3% over 15-30 minutes	Critical HYPOcalcaemia Calcium gluconate 10% 20 mL slow IV (peripheral / central) HYPOmagnesaemia Dilute 5 mL (10 mmol) of 50% MgSO ₄ to 50 mL. Give 40 mL (8 mmol = 2000 mg) over 2-4 hours Severe HYPOkalaemia needing urgent treatment Use pre-mixed 100mL bag [isotonic]: 21 mmol (210 mL) (Potassium Chloride 10 mmol in Sodium Chloride 0.29%) Give at 100 mL/hour using infusion pump

SEVERE Infection NB – 1st dose only

Aciclovir	1050 mg if 5-12 years 700 mg if >12 years
Ampicillin, Amoxicillin, Cefotaxime, Ceftriaxone*, Flucloxacillin	2000 mg
Gentamicin	420 mg
Clindamycin or Lincomycin	600 mg
Metronidazole	1000 mg
Vancomycin	500 mg
Piperacillin / Tazobactam	4000 mg

Antidotes

Sugammadex	1120 mg	Undiluted (100 mg/mL)	11.2 mL
Naloxone (low dose)	140 micrograms	Dilute 400 micrograms (1mL ampoule) to 10 mL	3.5 mL <i>repeat PRN</i>
Naloxone (emergency)	700 micrograms	Undiluted (400 micrograms in 1 mL)	1.75 mL <i>repeat PRN</i>
N-Acetylcysteine (1st bag)	14000 mg in 500 mL of glucose 5%	Over 4 hours	
N-Acetylcysteine (2nd bag)	7000 mg in 1000 mL of glucose 5%	Over 16 hours	

* **If serious bacterial infection**, can give ceftriaxone

50 mg/kg (3500 mg) **OR** 100 mg/kg (4000 mg)

If treating meningitis, also give **dexamethasone 10 mg IV** (0.15 mg/kg)

70 kg

Gastrointestinal bleeding	
Pantoprazole <i>Dilute 40 mg in 10 mL</i>	Intermittent dose: 40 mg (10 mL) Bolus (pre-infusion): 80 mg (20 mL)
Pantoprazole infusion <i>Dilute 80 mg in 100 mL</i>	8 mg/hour (10 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 9 x 20 mg ampoule in 540 mL sterile H ₂ O Give 525 mL (175 mg) every 5 minutes <i>Maximum of 700 mg (4 doses)</i>
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Sedation for procedures / treatment
Midazolam (5 mg/mL – small ampoule - undiluted) - *Oral: 20 mg (4 mL) - Intranasal: 10 mg (2 mL)
Ketamine (Undiluted – 200 mg in 2 mL) - Intramuscular: 210-280 mg (2.1-2.8 mL) - *Oral: 350-700 mg (3.5-7 mL)
Ketamine (IV) Dilute 200 mg in 20 mL Usual dose: 70 – 105 mg (7-10.5 mL) <i>Consider 2 mL (20 mg) initial, then 1-2 mL (10-20 mg) increments +/- adding 1-2 mL (10-20 mg) increments of propofol</i>

Other infusions	Dilution	Usual rate
Vasopressin	20 units in 20 mL Glucose 5%	1.4 – 2.4 mL/hour
Ketamine	400 mg in 50 mL	3.5 - 21 mL/hour
Propofol	Undiluted	7 – 20 mL/hour
Milrinone	10 mg in 50 mL	2.8 – 15.4 mL/hour
Glyceryl Trinitrate	30 mg in 50 mL Glucose 5%	2 - 20 mL/hour
Sodium nitroprusside	30 mg in 50 mL Glucose 5%	1 – 20 mL/hour
Transducer set-up for arterial or central line	500 mL or 1000 mL 0.9% sodium chloride with appropriately sized (500 mL or 1000 mL) pressure bag	

Dexmedetomidine 200 micrograms / 2 mL (Undiluted) Intranasal: 140 – 200 micrograms 1.4 – 2 mL
Clonidine 150 micrograms/mL (Undiluted) - *Oral: 280 micrograms (1.87 mL) - Intranasal: 140 micrograms (0.93 mL)

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