

30 kg

Anaphylaxis



Resuscitation / Arrhythmia

Adrenaline IV (cardiac arrest)	10 micrograms/kg	300 micrograms	of 1:10,000 (large ampoule)	3 mL
			ETT dose 2.5 mL of 1:1000 (small ampoules), diluted to 10mL	
DC shock	4 J/kg		Use adult/child pads	150 Joules
ATROpine	Adult dose	600 micrograms	Undiluted (600 micrograms in 1 mL)	1 mL
AmlODAROne	5 mg/kg	150 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	25 mL
Adenosine (1st dose)	0.1 mg/kg	3 mg		1 mL
Adenosine (2nd dose)	0.2 mg/kg	6 mg	<u>Undiluted</u> (6 mg in 2 mL); use 1 mL or 3 mL syringe	2 mL
Adenosine (3rd dose)	0.3 mg/kg	9 mg		3 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 = 150 mL	10 mL/kg = 300 mL	20 mL/kg = 600 mL	
PUSH DOSE PRESSORS	Metaraminol	10 micrograms/kg	300 micrograms	10 mg (1 ampoule) in 100 mL bag. Draw up 10 mL. <i>(OR use undiluted 3mg/6mL vial and give 0.6 mL)</i>	3 mL
	Adrenaline	1 micrograms/kg	30 micrograms	Dilute 3 mL of 1:10,000 Adrenaline (<u>large ampoule</u>) 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)	4.5 mg made up to 100 mL		0.025 micrograms/kg/min	0.4 – 10 mL/h
	Noradrenaline (Central / IO)	4.5 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: 15=0.05; 30=0.1;</i>	15 mL/h
	Noradrenaline (Peripheral)	6 mg made up to 1000 mL		<i>45=0.15; 60=0.2; 75=0.25; 90=0.3; 120=0.4;</i> <i>150=0.5; 300=1</i>	15 mL/h
Dobutamine	180 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 (<u>uncuffed</u>) (Age/4) + 4	6	Depth: 17 cm to lip 20 cm to nose LMA size: 2.5 - 3	Laryngoscope: 3 Suction: 10 - 12 Fr		
	ET tube size (<u>Microcuff™</u>)	5.5				
	ET tube size (<u>cuffed</u>) (Age/4)+3.5	6				
INDUCTION AGENTS	Ketamine	1 - 2 mg/kg	30 - 60 mg	Dilute 200mg in 20 mL OR dilute 100mg in 10mL	3 – 6 mL	
	Propofol	1.5 – 2.5 mg/kg	45 - 75 mg	<i>Risk CVS ↓</i>	4.5 – 7.5 mL	
	Fentanyl	2-4 micrograms/kg	60-120 micrograms		Undiluted (100 micograms / 2 mL)	1.2 – 2.4 mL
	Midazolam	0.1 mg/kg	3 mg		Dilute 5 mg to 5 mL	3 mL
PARALYTIC AGENTS	Suxamethonium	2 mg/kg	60 mg	Dilute 100 mg to 10 mL	6 mL	
	Rocuronium	1.2 mg/kg	36 mg	Undiluted	3.6 mL	
	Vecuronium	0.1 mg/kg	3 mg	Reconstitute 10 mg in 10 mL water for injection	3 mL	
	Pancuronium	0.1 mg/kg	3 mg	Undiluted (4 mg in 4 mL)	1.5 mL	
	Atracurium	0.5 mg/kg	15 mg	Undiluted (10 mg/mL)	1.5 mL	
	Cisatracurium	0.1 mg/kg	3 mg	Undiluted	1.5 mL	
INFUSIONS <i>Can use either glucose 5% or sodium chloride 0.9%</i>	Morphine	30 mg made up to 50 mL		1 mL / h = 20 micrograms/kg/hour	Starting dose: 1 - 4 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	1,500 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	Platelets: 1 unit (adult dose)	Cryoprecipitate: Whole blood (10 mL/kg): 9 units Apheresis (5 mL/kg): 3 units	Tranexamic acid Loading dose: 450 mg (15 mg/kg) (Dilute to 10 mg/mL, give 45 mL over 10 minutes) Infusion: 60 mg/hour for 8 hrs (2 mg/kg/hr) (Dilute to 10 mg/ml, give 6 mL/hour)
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 30 mL (6 mmol = 1500 mg) over 20 minutes	Corticosteroids Methylprednisolone: 30 mg IV, 6 hourly Prednisolone: 30 mg daily Hydrocortisone: 100 mg IV, 6 hourly Dexamethasone: <i>Mild/moderate croup</i> (oral): 4.5 mg <i>Mild/moderate asthma</i> (oral) : 9 mg <i>Severe asthma / croup</i> (IV/IM): 16 mg
	Aminophylline 10 mg/kg	300 mg diluted to at least 300 mL. Give over 30 minutes	
	Salbutamol 5 micrograms/kg	150 – 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) = 4.5 mg = 0.9 mL IM Buccal / nasal: (0.3 mg/kg) = 9 mg = 1.8 mL intranasal/buccal	IV MIDazolam (5 mg/ 5 mL – large ampoule) IV: (0.15 mg/kg) = 4.5mg = 4.5 mL IV	IV Clonazepam Child dose 0.5 mg	IV Diazepam (0.3 mg/kg) 9 mg
PhenyTOIN	20 mg/kg	600 mg	Undiluted (preferred). May dilute up 120 mL (max); give over 20 min
Sodium Valproate	40 mg/kg	1200 mg	Dilute 1 x 400 mg vial to 10 mL (will need 3 vials). Give 30 mL over 5 min
Levetiracetam	40 mg/kg	1200 mg	Dilute 1 x 500 mg vial to 10 mL (will need 3 vials). Give 24 mL over 5 min
PHENobarbitone	20 mg/kg	600 mg	Dilute to at least 1:10; give over 20 min
Mannitol 20%	0.5 g/kg (2.5 mL/kg)	75 mL	Over 20-30 minutes for raised ICP
Sodium chloride 3% (“Hypertonic Saline”)	3 mL/kg	90 mL	Over 10-20 minutes for raised ICP

Electrolyte abnormalities

HYPOglycaemia: 60 mL of Glucose 10% (2 mL/kg) – consider need for critical blood tests	
HYPERkalaemia - Calcium gluconate 10% 15 mL slow IV (peripheral / central) OR Calcium chloride 10% 3 - 6 mL (central) - Salbutamol 5 mg nebulised - Glucose 10% 150 mL bolus with Actrapid 3 units bolus followed by Actrapid 3 units/hour + Glucose 10% + NaCl 0.9% maintenance (70 mL/h) - Sodium bicarbonate 8.4% 30 – 90 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) 90 mL of Sodium Chloride 3% over 20 minutes	Critical HYPOcalcaemia Calcium gluconate 10% 15 mL slow IV (peripheral / central) HYPOmagnesaemia Dilute 5 mL (10 mmol) of 50% MgSO ₄ to 50 mL. Give 30 mL (6 mmol = 1500 mg) up to 40 mL (8 mmol = 2000 mg) over 2-4 hours Severe HYPOkalaemia needing urgent treatment Use pre-mixed 100mL bag [isotonic]: 9 mmol (90 mL) (Potassium Chloride 10 mmol in Sodium Chloride 0.29%) Give over 1 hour using infusion pump

SEVERE Infection NB – 1st dose only

Aciclovir	450 mg if 5-12 years 300 mg if > 12 years
Ampicillin, Amoxicillin, Cefotaxime, Ceftriaxone*, Flucloxacillin	1500 mg
Gentamicin	225 mg if <10 years 180 mg if >10 years
Clindamycin or Lincomycin	450 mg
Metronidazole	450 mg
Vancomycin	450 mg
Piperacillin / Tazobactam	3000 mg

Antidotes

Sugammadex 16 mg/kg	480 mg	Undiluted (100 mg/mL)	4.8 mL
Naloxone (low dose) 2 micrograms/kg	60 micrograms	Dilute 400 micrograms (1mL ampoule) to 10 mL	1.5 mL <i>repeat PRN</i>
Naloxone (emergency) 10 micrograms/kg	300 micrograms	Undiluted (400 micrograms in 1 mL)	0.75 mL <i>repeat PRN</i>
N-Acetylcysteine (1st bag)	6000 mg	in 250 mL of glucose 5%	Over 4 hours
N-Acetylcysteine (2nd bag)	3000 mg	in 500 mL of glucose 5%.	Over 16 hours

* If serious bacterial infection, can give ceftriaxone

50 mg/kg (1500 mg) OR 100 mg/kg (3000 mg)

If treating meningitis, also give dexamethasone 4.5 mg IV (0.15 mg/kg)

30 kg

Gastrointestinal bleeding	
Pantoprazole <i>Dilute 40 mg in 10 mL</i>	Intermittent dose: 30 mg (7.5 mL) Bolus (pre-infusion) : 54 mg (13.5 mL)
Pantoprazole infusion <i>Dilute 80 mg in 100 mL</i>	5.4 mg/hour (6.75 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 225 mL (75 mg) every 5 minutes Maximum of 300 mg (4 doses)
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Other infusions	Dilution	Usual rate
Vasopressin	20 units in 20 mL Glucose 5%	0.6 – 1.8 mL/hour
Ketamine	200 mg in 50 mL	3 – 18 mL/hour
Propofol	Undiluted	3 – 12 mL/hour
Milrinone	10 mg in 50 mL	1.2 – 6.6 mL/hour
Glyceryl Trinitrate	90 mg in 100 mL Glucose 5%	1 – 10 mL/hour
Sodium nitroprusside	30 mg in 50 mL Glucose 5%	1 – 30 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	

Sedation for procedures / treatment
Midazolam (5 mg/mL – small ampoule – undiluted) - *Oral: 15 mg (3 mL) - Intranasal: 9 mg (1.8 mL)
Ketamine (Undiluted – 200 mg in 2 mL) - Intramuscular: 90-120 mg (0.9-1.2 mL) - *Oral: 150-300 mg (1.5-3 mL)
Ketamine (IV) Dilute 200 mg in 20 mL Usual dose: 30 – 45 mg (3-4.5 mL) Consider 2 mL (20 mg) initial, then 1 mL (10 mg) increments; +/- adding 1 mL (10 mg) increments of propofol
Dexmedetomidine 200 micrograms / 2 mL (Undiluted) Intranasal: 60 – 120 micrograms 0.6 – 1.2 mL
Clonidine 150 micrograms/mL (Undiluted) - *Oral: 120 micrograms (0.8 mL) - Intranasal: 60 micrograms (0.4 mL)

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