HealthCare TRAINING SERVICE

Emergency Drug Summary - Paediatric Resuscitation

Emergency Drug & Action		Clinical Indication	Dosage & administration	Major side effects	Implications for administration
Adrenaline *Stimulates alpha adrenergic receptors.* *Potent vasoconstrictor*		First line drug in cardiac arrest. Asystole, Severe bradycardia, VT/VF, PEA	IV/IO 10mcg/kg Repeat every 2nd cycle of 2 minutes CPR Can be given via ETT at 100 mcg/kg	Tachydysrhythmia Hypertension	Peripheral infiltration can cause ulceration. Monitor haemodynamic response
Amiodarone *↑Refractory period of atrial, nodal, ventricular tissues.* *↓frequency of stimuli reaching ventricle.* *Slows conduction.*		Severe cases of tachyarrhythmia. Pulseless VT, VF (after defibrillation & adrenaline have been tried)	IV/IO 5mg/kg diluted in 5% Dextrose May be repeated	Hypotension Bradycardia Heart block	Monitor response Absorbed into PVC infusion bags & sets. Protect from light
Atropine *Parasympathetic blockade.* *Enhances SA automaticity, AV conduction*		Treating symptomatic bradycardia caused by vagal stimulation Cholinergic drug toxicity	IV/IO 20 mcg/kg ETT 30 mcg/kg	Tachydysrhythmias ↓ UO	Monitor haemodynamic response
Lignocaine *↓ automaticity & conduction of ectopic impulses.* *Raises fibrillation threshold*		Pulseless VT/VF (after defibrillation & adrenaline have been tried, only if amiodarone unavailable)	IV/IO 1 mg/kg ETT 2 – 3 mg/kg	Bradycardia Hypotension CNS effects	Monitor haemodynamic response. Monitor CNS status
NaHCO3 *Alkalinising solution.* *Reverses metabolic acidosis*		Treatment of severe metabolic acidosis, pH < 7.1 Protracted arrest	IV/IO 0.5 - 1 mmol/kg	Alkalosis Worsening intracellular acidosis Hyperosmolality Hypernatraemia	Monitor pH Ensure adequate ventilation & chest compression
Electrolytes *Essential for normal muscle & nerve activity*	K^+	Hypokalaemia	IV/IO 0.03 -0.07 mmol/kg	Hyperkalaemia Bradycardia, ↓ BP	Extravasation causes tissue necrosis (caution advised)
	Mg^+	Ventricular tachyarrhythmias Torsade de pointes Hypomagnesaemia	IV/IO 0.1 – 0.2 mmol/kg Followed by an infusion 0.3 mmol/kg over 4 hrs	Hypotension Muscle weakness Paralysis	Observe for adverse effects
	Ca^+	Hyperkalaemia Hypocalcaemia Calcium channel blocker overdose	IV/IO 0.2 mL/kg 10% Calcium Chloride or IV/IO 0.7mL/kg 10% Calcium Gluconate	↑ myocardial & cerebral injury	Peripheral infiltration can cause ulceration Not considered routinely in cardiac arrest