



**Mater Misericordiae University Hospital
Cardiac Arrest Trolley
Adult Intravenous Medications**



Drug & Presentation	Reconstitution	Administration By	Administration-How to
Adrenaline 1 mg /10 ml 1:10,000 pre filled syringe	Already in solution	Doctor or Nurse once prescribed	IV / IO bolus administer 1 mg every 3 - 5 minutes Flush with 20 ml 0.9%NaCl after each dose
Adrenaline 1 mg in 1 ml 1:1,000 ampoule	Further dilute*	Doctor or Nurse once prescribed	IV / IO Infusion: 3 mg in 47 ml 0.9% NaCl or G5%. Total volume: 50 ml *Anaphylaxis do not dilute - give 0.5 ml (0.5 mg) IM to Adult
Adenosine 6 mg / 2 ml ampoule	Already in solution	Doctor only	IV / IO 1 st dose 6 mg, 2 nd dose 12 mg, 3 rd dose 12 mg Flush with 20 ml 0.9%NaCl immediately following injection of adenosine Reduce dose to 3 mg if patient on dipyridamole or carbamazepine or administration is via a central line or post cardiac transplant. Contraindicated in Asthmatics
Amiodarone 150 mg / 3 ml ampoule	Further dilute	Doctor Slow IV injection in Cardiac Arrest Doctor or Nurse as infusion	IV / IO During Cardiac Arrest - Slow IV Injection 300 mg in 14 ml G5%. Total volume 20 ml IV Infusion: Loading Dose 300 mg in 250ml G5% See Intravenous (IV) Amiodarone Administration Protocol Maternet/Information on Drugs/Drug Protocols & Calculations
Atropine 600 micrograms / 1 ml ampoule	Already in solution	Doctor or Nurse once prescribed	IV / IO - 0.5 mg every 3 - 5 minutes as indicated. Maximum dose 3 mg
Calcium Chloride 10% = 1 g / 10 ml prefilled syringe	Already in solution	Doctor	1 pre-filled syringe IV/ IO over 1 – 3 min
Chlorphenamine 10 mg / 1 ml ampoule	Already in solution	Doctor or Nurse once prescribed	IV / IM 10 mg over 1 min Max 4 doses in 24 hours
Diazepam 10 mg / 2 ml ampoule	Already in solution	Doctor or Nurse once prescribed	IV 10 mg over 2 minutes (0.15 mg / kg)
Dobutamine Hydrochloride 250 mg / 20 ml vial	Further dilute	Doctor or Nurse once prescribed	IV Infusion via syringe pump Withdraw 16 ml (= 200 mg) and dilute in 34 ml G5% or 0.9% NaCl. Total volume 50 ml. Concentration = 4 mg / 1 ml See Dobutamine Administration Protocol Maternet/Information on Drugs/Drug Protocols & Calculations
Ephedrine 30 mg / 1 ml ampoule	Further dilute	Doctor	IV / IO Dilute 1 ml (= 30 mg) with 9 ml of 0.9% NaCl. Concentration = 3 mg / 1 ml. Dose 3mg (1 ml) initially and titrate further doses to response.
Furosemide 20 mg / 2 ml ampoule	Already in solution	Doctor or Nurse once prescribed	IV / IO Administer slow (rate not exceeding 4 mg /min)
Glucose 20% / 100 ml vial	Already in solution	Doctor or Nurse once prescribed	IV / IO Infusion 100 ml of Glucose 20% over 15 minutes
Glucose 50% / 50 ml vial	Already in solution	Doctor or Nurse once prescribed	IV / IO Infusion via syringe pump
Glycerine Trinitrate Spray Aerosol spray 400 microgram metered doses	Already in solution	Doctor or Nurse once prescribed	Administer under tongue 1-2 metered doses & close the mouth, can repeat at 5 minutes intervals for a total of three doses
Hydrocortisone 100 mg vial	Further dilute	Doctor or Nurse once prescribed	IV / IO dilute with 2 ml of WFI. Slow IV over 3 - 5 minutes.
Lidocaine 2% / 5 ml ampoule 100 mg / 5 ml ampoule	Already in solution	Doctor	IV / IO Loading 100 mg over 3 - 5 minutes. If required an additional 0.5 mg – 0.75 mg / kg repeat in 5 - 10 minutes to a maximum 3 mg / kg. See Intravenous (IV) Lidocaine Administration Protocol Maternet/Information on Drugs/Drug Protocols & Calculations
Magnesium Sulphate 50% 4 mmol / 2 ml ampoule 1 g = 4 mmols	Further dilute	Doctor or Nurse once prescribed	IV / IO Infusion 2 g (= 2 X 4 mmol / 2 ml ampoules) in 0.9% NaCl over 15 - 60 minutes. See Intravenous (IV) Magnesium Administration Protocol Maternet/Information on Drugs/Drug Protocols & Calculations
Metropolol 5 mg / 5 ml ampoule	Already in solution	Doctor	IV 5 mg in 5 ml - Rate 1 mg / min
Midazolam 10 mg / 5 ml ampoule	Further dilute	Doctor or Nurse once prescribed	IV / IO Bolus 10 mg diluted with 5 ml 0.9% NaCl (= 1 mg / 1 ml) IV / IO Infusion 50 mg (25 ml) diluted with 25 ml of 0.9% NaCl. Total volume 50 ml (= 1 mg / ml)
Naloxone 400 microgram / 1 ml ampoule	Already in solution	Doctor or Nurse once prescribed Doctor or Nurse once prescribed	IM 400 microgram – 2 mg if no response. Repeat in 2 – 3 minutes IV (preferred route) Dilute 0.4 mg with 3 ml of 0.9% NaCl Total volume 4 ml (= 0.1 mg / 1 ml) See Naloxone Drug Administration Protocol for Opioid Overdose Maternet/Information on Drugs/Drug Protocols & Calculations
Sodium Bicarbonate 8.4 % w/v in 100 ml	Already in solution	Doctor or Nurse once prescribed	IV Infusion over 5 to 10 minutes

Note: Store drug in their original packaging. Do not mix opened boxes

WFI: Water for Injection

0.9%NaCl: Sodium Chloride 0.9%

G5%: Glucose 5%

IV: Intravenous

IO: Intraosseous

ABC: Airway, Breathing, Circulation

Prepared by: Resuscitation Dept. Approved By: Drugs & Therapeutics Committee & Dr T. Breslin, Consultant in Emergency Medicine

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Drug	Indication	Monitoring/ Side Effects/Comment
Adrenaline 1 mg in 10 ml 1:10,000 pre filled syringe 1 mg in 1 ml 1:1,000 ampoule	All pulseless cardiac arrests Infusions to increase BP & / or HR Anaphylaxis (0.5 mg IM)	Cardiac monitoring, vital signs, ABC's Arrhythmias, tremor, anxiety, Pulmonary oedema, myocardial ischaemia, peripheral necrosis
Adenosine 6 mg / 2 ml ampoule NOTE: Extreme short half-life: < 10 seconds	SVT (Supraventricular Tachycardia)	Cardiac monitoring , vital signs, ABC's Counsel patient prior to administration: Feeling of impending doom, faint Contraindicated in Asthmatics
Amiodarone 150 mg / 3 ml ampoule NOTE: Exceptionally long half-life - 40 days approximately	Antiarrhythmic :decrease cardiac workload	Cardiac monitoring , vital signs, observe for arrhythmias, Monitor: Electrolytes, Thyroid function, Liver enzymes. Significant interactions with digoxin and warfarin.
Atropine 600 micrograms / 1 ml ampoule	Increases cardiac output- increases HR &/ or BP	Cardiac monitoring , vital signs, ABC's Caution: Type II second degree AV block (2:1, 3:1)
Calcium Chloride 10% = 1 g in 10 ml prefilled syringe	Electrolyte Calcium channel blocker toxicity Hyperkalaemia	Vital signs Recommended: Central line administration.
Chlorphenamine 10 mg / 1 ml ampoule	Antihistamine First line treatment of anaphylaxis	Vital signs, ABC's Drowsiness may affect performance of skilled tasks
Diazepam 10 mg / 2 ml ampoule	Status epilepticus Febrile Convulsions Conscious sedation	Vital signs, ABC's
Dobutamine Hydrochloride 250 mg / 20 mg vial	Increases cardiac output: increases BP with little effect on HR	Vital signs, ABC's Observe for phlebitis/extravasation
Ephedrine 30 mg / 1 ml ampoule	Reversal of hypotension	Vital signs, ABC's
Furosemide 20 mg / 2 ml ampoule	Diuretic	Vital signs, ABC's
Glucose 20% / 100ml vial	Treatment of hypoglycaemia	Close monitoring of serum glucose. MMUH Hypoglycaemia Protocol for in patient
Glucose 50% / 50 ml vial	Beta Blocker over dose, Calcium channel blocker over dose, Hyperkalemia (Glucose + Actrapid infusion)	Close monitoring of serum glucose.
Glycerine Trinitrate Spray Aersol spray 400 microgram metered doses	Vasodilator: Reduces blood pressure Treatment or prophylaxis of angina	Vital signs, Caution: in patient with Systolic BP less than 100 mmHg
Hydrocortisone 100 mg vial	Steroid Anaphylaxis	Monitor Blood glucose when administered in large doses
Lidocaine 2% / 5 ml 100 mg in 5 ml ampoule	Antiarrhythmic: Decrease cardiac workload Recommended for use in Cardiac Arrest only if Torsades de Pointes or suspected (Baseline QT prolonged) Hypomagnesaemia. Life threatening ventricular arrhythmias ventricular arrhythmias due to digoxin toxicity	Vital signs, ABC's Caution: Renal failure
Magnesium Sulphate 50% 4 mmol / 2 ml ampoule 1 g = 4 mmols	Electrolyte Antiarrhythmic: Decrease cardiac workload (Torsades de Pointes)	Vital signs, ABC's
Metoprolol 5 mg / 5 ml ampoule	Decreases BP &/or HR	Vital signs, ABC's
Midazolam 10 mg / 5 ml ampoule	Conscious sedation Sedation in anaesthesia Status epilepticus (can be given intramuscularly)	Vital signs, airway management
Naloxone 400 microgram / 1 ml ampoule	Respiratory and neurological depression due to opiate toxicity, repeated doses may be required.	ABC's For chronic opiate tolerant patients use smaller dose and titrate slowly
Sodium Bicarbonate 8.4% w/v in 100 ml	Known pre existing hyperkalemia, acidosis e.g. diabetic ketoacidosis, overdose tricyclic antidepressants, aspirin, cocaine, diphenhydramine. Prolonged resuscitation with effective ventilation	Arterial blood gas analysis

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