



Ambulance  
Victoria

ARV  
Adult Retrieval Victoria

# ARV Medication Table - Page 1

## Adult Doses

**Key**  
\* Not stocked by ARV  
† based on lean body weight (use MedCalc); if not morbidly obese [BMI<40], LBW ≈ ideal body weight  
‡ based on ideal body weight (use MedCalc, or IBW [kg] [Male] = Height [cm] – 100, IBW [kg] [Female] = Height [cm] – 105)  
§ based on total (actual) body weight

| Medication             | Presentation                                 | Indication  | Preparation & Dose  | Notes   |
|------------------------|--|---|---|---|
| Adrenaline             | 1mg/1ml (1:1,000)                            | Cardiac arrest  | Neat, 1mg IV, repeat q2 <sup>nd</sup> cycle (4min)  |   |
|                        |  | Shock   | Dilute to 1mg in 10ml with NS (1:10,000), take 2ml of this and dilute to 20ml with NS (1:100,000) start 10-20mcg (1-2mL) IV boluses, repeat q2-3min, increase as necessary            | Infusion preferred (see infusions table)  |
|                        |  | Anaphylaxis   | Neat, 0.5mg (0.5ml) IM, repeat q5-10min; or IV as per ‘Shock’ indication  | 0.3mg in elderly/frail/<60kg/MAOI   |
|                        |  | Stridor   | 5mg nebulized, repeat q5-10min  |   |
| Alteplase*             | 50mg/50ml<br>10mg/10ml                       | PE<br>Stroke thrombolysis   | See infusions chart   |   |
| Amiodarone             | 150mg/3ml                                    | VF or pulseless VT refractory to defibrillation                   | Neat, 300mg IV, after 3 <sup>rd</sup> shock, may repeat 150mg after 5 <sup>th</sup> shock; max dose 450mg   | Other indications see infusions table   |
| Atropine               | 1200mcg/1ml                                  | Bradycardia   | Neat, 600mcg IV, if no effect, consider 1200mcg IV x2; max dose 3mg   |   |
|                        |  | Organophosphate poisoning   | Neat, 1.2mg IV, then double dose q3min until drying of secretions, repeat maximum bolus dose as necessary or infusion   | Very large quantities required<br>Pralidoxime also required   |
| Calcium chloride 10%   | 1g/10ml                                      | Hypocalaemia<br>Hyperkalaemia<br>Calcium channel blocker OD       | Neat, or dilute in NS/D5W, 1g, slow push over 10min; repeat q10min as necessary   | Preferably via a central line (if present)<br>Contains 6.8mmol Ca <sup>++</sup> (equivalent 30ml calcium gluconate)                                   |
| Calcium gluconate 10%* | 1g/10ml                                      | Hypocalaemia<br>Hyperkalaemia<br>Calcium channel blocker toxicity | Neat, 1g, slow push over 2-5min, repeat x3 q10min   | Less potent, less irritating to veins than gluconate<br>Contains 2.2mmol Ca <sup>++</sup>   |
| Ceftriaxone            | 1g dry powder                                | Infection   | 10-20ml H <sub>2</sub> O, 1-2g IV, slow push over 3-5min; or IM (dilute 1g in 4ml 1% lignocaine)  |   |
| Dexamethasone*         | 8mg/2ml                                      | Cerebral oedema   | Neat, 8-16mg IV, slow push, then 4-8mg q4hr   |   |
|                        |  | Nausea  | Neat, 4-8mg IV  |   |
|                        |  | Airway oedema   | Neat, 8-16mg IV   |   |
|                        |  | Asthma/COPD   | Neat, 8mg IV  |   |
| Frusemide              | 40mg/4ml                                     | Fluid overload, hyperkalaemia                                     | Neat, 20-80mg IV, slow push over 2-3min   |   |
| Fentanyl               | 100mcg/2ml                                   | RSI   | Dilute to 10ml with NS (10mcg/ml), 2-3mcg/kg <sup>†</sup> IV, in divided doses 2-3 mins pre-induction   | Consider dose reduction in the elderly<br>Omit in haemodynamic compromise   |
|                        |  | Analgesia   | Dilute to 10ml with NS (10mcg/ml), 25-50mcg IV, repeat q5min; or neat, 200mcg IN (100mcg in elderly/frail/weight<60kg), repeat 50mcg q5min  |   |
| Glucose 50%            | 25g/50ml                                     | Hypoglycaemia   | Neat, 50mls IV, slow push, repeat as necessary  | If > 100ml, preferably via CVC  |
| GTN patch              | 50mg<br>0.4mg/hr                             | ACS<br>LVF  | Patch x1 or max 2 to lateral chest wall, or infusion (see infusions table)  |   |
| Hydralazine            | 20mg powder                                  | Hypertension/Afterload reduction                                  | Mix with 1ml H <sub>2</sub> O then dilute to 20ml with NS (1mg/ml), 5-10mg IV, slow push over 3min, then 5mg q15-20min as necessary (usu max 20mg) +/- infusion (see infusions table) | May need over 20mg initially in severe hypertension<br>Infusion usually required if initial dose ≥20mg<br>Max effect after 15-20min                   |
| Hydrocortisone         | 100mg/2ml                                    | Asthma  | Neat, 200mg IV, slow push   |   |
|                        |  | Severe sepsis & most other indications                            | Neat, 50mg IV, slow push, repeat q4hr   |   |
| Insulin*               | Actrapid/NovoRapid<br>300U/3ml<br>1000U/10ml | Hyperkalaemia   | 10U (0.1ml) in 50ml glucose 50%, slow push, repeat q2-4hr   | Monitor glucose and K+<br>May cause hypoglycaemia   |
| Ipratropium            | 500mcg/2ml                                   | Asthma<br>Bronchospasm  | Dilute to 3ml with NS, 500mcg nebulized, via T-piece if necessary, repeat x2 q20min as necessary  | Can give ipratropium & salbutamol concurrently (both undiluted)   |
| Isoprenaline*          | 200mcg/1ml<br>1mg/5ml                        | Bradycardia   | Dilute to 20ml in NS/5%DW (10mcg/ml), 10-50mcg IV, slow push 10mcg/min (1ml/min), whilst infusion being prepared (see infusions table)  |   |
| Ketamine               | 200mg/2ml                                    | RSI   | Dilute to 20ml in NS (10mg/ml), 1.5mg/kg <sup>‡</sup> IV  | Decrease dose to 0.5-1mg/kg if haemodynamic compromise (or less if profoundly shocked/poor reserve)<br>Slow push if delayed sequence intubation (DSI) |
|                        |  | Analgesia   | Dilute to 20ml in NS (10mg/ml), 10-20mg IV, slow push, repeat q5-10min, or infusion (see infusions table)   | Titrate to effect<br>Less psychotropic SEs with infusion  |
|                        |  | Extreme agitation   | Neat, 4mg/kg IM; or 1.5mg/kg <sup>‡</sup> IV (diluted as above), slow push over 2-3min  | = full dissociative dose  |

# ARV Medication Table - Page 2

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| Medication              | Presentation                 | Indication  | Preparation & Dose  | Notes  |
|-------------------------|------------------------------|---|---|--|
| Labetalol*              | 100mg/20ml                   | Hypertension (incl pregnancy-induced)/aortic dissection/AF/SVT/VT | Neat, 10-20mg (2-4ml) IV, slow push over 1-2min, then 20-80mg q5-10min as necessary, then infusion (see infusions table); max total dose 300mg                            |  |
| Lignocaine/Lidocaine 2% | 100mg/5ml                    | Local/regional anaesthesia  | Dilute 1:1 with NS (1%), or neat, locally; max dose 3mg/kg†   | For lignocaine with adrenaline: Dilute adrenaline 1mg in 10ml with NS (1:10,000), take 2ml of this and dilute to 10ml with NS (1:50,000), mix this 1:1 with 2% lignocaine (to give 1% lignocaine with 1:100,000 adrenaline); max dose 7mg/kg                     |
|                         |                              | Ventricular arrhythmias (VT/VF)                                   | Dilute 1:1 with NS (1%), 1mg/kg‡ (0.1ml/kg) IV, slow push over 2min, then infusion (see infusions table). Further 0.5mg/kg q5-10min if no response; max 3mg/kg bolus dose | Watch for neurological toxicity  |
| Metaraminol             | 10mg/1ml                     | Shock/hypotension   | Dilute to 20ml with NS (0.5mg/ml), 0.5-1mg (1-2ml) IV, repeat q2-3min as necessary  | Short term option<br>Beware reflex bradycardia   |
| Metoclopramide          | 10mg/2ml                     | N&V/prophylaxis   | Neat, 10mg IM; or 10mg IV, slow push  |  |
| Metoprolol              | 5mg/5ml                      | Hypertension/aortic dissection/AF/SVT/VT                          | Neat, 5mg IV, slow push over 1-2min, repeat q5min as necessary; max dose 15mg   | May give 25-50mg PO 15 min after last IV dose  |
| Midazolam               | 15mg/3ml                     | Seizure/status epilepticus  | Neat, 10mg IM; or 5mg IV, repeat q5-10min as necessary; max dose 30mg   |  |
|                         |                              | Agitation   | Dilute to 15ml with NS (1mg/ml), 2.5-5mg IV, repeat q5min; or neat, 5-10mg IM, repeat q10min; max dose 30mg   | Less if elderly/frail/<60kg  |
| Morphine                | 10mg/1ml                     | Analgesia   | Dilute to 10ml with NS (1mg/ml), 2.5-5mg IV, repeat q10min as necessary; or neat, 10mg IM, repeat q15min as necessary   |  |
| Naloxone                | 400mcg/1ml                   | Opioid OD   | Neat, 1.6-2mg IM/IV for full reversal; or dilute to 10ml in NS (40mcg/ml), 40mcg (1ml) IV for partial reversal, repeat q1-2min to effect                                  | Occasionally, up to 10mg required for full reversal<br>Titrate partial reversal to adequate respiration<br>IM reversal will give longer duration of action<br>If recurrence of toxicity, repeat effective dose, consider naloxone infusion (see infusions table) |
| Nifedipine              | 20mg tablet                  | Hypertensive crisis<br>Vasospastic angina                         | PO, crushed or chewed, repeat x1 after 20min  | Onset within 10min if crushed or chewed, duration 3-6h   |
|                         |                              | Tocolysis in pre-term labour                                      | PO, crushed or chewed, 20mg, repeat q3-4hr if necessary   |  |
| Ondansetron             | 8mg/4ml IV<br>4mg wafer      | N&V/prophylaxis   | 4mg SL, repeat x1 after 5-10min if necessary; or neat, 8mg IV, slow push  |  |
| Propofol                | 200mg/20ml                   | RSI   | Neat, 1.5-2mg/kg‡ IV  | When ketamine contraindicated, or in hypertensive emergencies (e.g. SAH, ICH)<br>Decrease dose to 0.5mg/kg if haemodynamic compromise (or less if profoundly shocked/poor reserve)   |
| Rocuronium              | 50mg/5ml                     | RSI   | Neat, 1.2 - 1.5 mg/kg‡ IV, max 150mg  | 1.5mg/kg if haemodynamic compromise  |
|                         |                              | Ongoing paralysis   | Neat, 0.2mg/kg‡ IV, repeat as necessary, or infusion (see infusions table)  | Duration of action ~25min at this dose   |
| Salbutamol              | 5mg/2.5ml<br>MDI 100mcg/puff | Asthma<br>Bronchospasm  | Neat, 5-10mg solution, or 10 puffs, q10min as necessary   | Can give salbutamol & ipratropium concurrently (both undiluted)  |
| Sodium Bicarbonate      | 8.4%/100ml<br>(=1mmol/ml)    | TCA OD  | Neat, 100mmol (100ml) IV, over 3min, repeat q5min, titrated to effect, then infusion (see infusions table)  | Aim for reversal of wide QRS, ventricular arrhythmias and hypotension, with pH 7.5-7.55 and Na+ ~150mmol/l   |
|                         |                              | Salicylate OD   | Neat, 100mmol (100ml) IV, over 3min if features of intoxication, then infusion (see infusions table)  | Aim urinary pH 7.5-8   |
|                         |                              | Hyperkalaemia   | Neat, 50-100mmol (50-100ml) IV, over 10-15min (esp if metabolic acidosis)   | Can dilute in 5% dextrose if fluid resuscitation required (e.g. 150ml in 850ml 5% dextrose = 1.3% [isotonic])  |
| Sugammadex*             | 200mg/2ml<br>500mg/5ml       | Rescue reversal of Rocuronium                                     | Neat, 16 mg/kg§, bolus (= 1280mg = 12.8ml in an 80kg patient)   | Reversal of 1.2mg/kg rocuronium takes mean 4.5min<br>Also effective for vecuronium reversal  |
| Suxamethonium           | 100mg/2ml                    | RSI   | Neat, 1.5mg/kg§ IV  | Only when rocuronium contraindicated   |
| Syntocinon              | 10U/ml                       | Post-partum haemorrhage   | Neat, 5U IV, slow push, followed by infusion (see infusions table), may repeat IV dose x1   | May also be given IM, and may be combined with ergometrine<br>No bolus if syntocin already given at delivery   |
| Tenecteplase*           | 50mg/10ml<br>(=10000U/10ml)  | STEMI   | Neat, <60kg 30mg/6000U/6ml, 60-69kg 35mg/7000U/7ml, 70-79kg 40mg/8000U/8ml, 80-89kg 45mg/9000U/9ml, ≥90kg 50mg/10000U/10ml  | Half dose in patients ≥75yrs   |
| Tranexamic acid         | 1g/10ml                      | Trauma at risk of significant haemorrhage                         | See infusions table   | Should be commenced within 3hr of haemorrhage  |
|                         |                              | Post-partum haemorrhage   | See infusions table   | PPH due to any cause including genital tract trauma<br>Should be commenced within 3hr of haemorrhage   |
| Verapamil               | 5mg/2ml                      | SVT<br>Rate control in AF   | Dilute 10mg to 20ml in NS (0.5mg/mL), 5-10mg IV, slow push over 2min, repeat x1 after 15-30min as necessary, max dose 20mg, or infusion (see infusions table)             |  |

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