

NB: This guideline is **not** intended for use deciding whether to treat a patient with an antidote, what dose to use, or how to administer. This advice can be obtained 24/7 by contacting the National Poisons Centre on-call medical toxicologist: call 0800 764 766.

Group A – Available immediately (e.g. in emergency department or other area with minimal delay)				
Drug	Used for	Example Presentation	Minimum Recommended Stock [#]	
			8h	24h
Acetylcysteine	Paracetamol	Injection, 2g/10mL per ampoule	40g	
Activated charcoal	GI decontamination	Oral liquid, 200mg/mL x 250ml, 50g bottle	200g	
Atropine	Organophosphates, carbamates	Injection, 600mcg/mL per ampoule	100mg ideally if suitable preparation available, otherwise 18mg	
Calcium salts - Ca-Chloride or - Ca-Gluconate (S29)	Calcium channel blockers, hydrofluoric acid systemic toxicity	<i>Ca-Chloride</i> : Injection, 10% (1g/10mL; 6.8mmol/10mL Ca) per vial <i>Ca-Gluconate</i> : Injection, 10% (1g/10mL; 2.2mmol/10mL Ca) per vial	<i>Ca-Chloride</i> : 6g or <i>Ca-Gluconate</i> : 18g	
Calcium gluconate gel 2.5% (S29)	Hydrofluoric acid burn	Topical gel, 2.5% (25mg/g) 50g tube	100g	
Hydroxocobalamin (Cyanokit®) (S29)	Cyanide	<i>Hydroxocobalamin</i> : Injection, (powder for) 5g x 1 vial per pack	<i>Hydroxocobalamin</i> : 10g	
Sodium thiosulfate		<i>Sodium thiosulfate</i> : Injection, 25% (12.5g/50ml) per vial	<i>Sodium thiosulfate</i> : 25g	
Digoxin specific antibody fragments (S29)	Digoxin	Injection, (powder for) 40mg per vial	4 vials	
Flumazenil	Benzodiazepines	Injection, 500mcg/5mL per ampoule	2mg	
Lipid emulsion 20%	Local anaesthetics	Injection, 20% (100g/500mL) per bottle	1.5L	
Methylthionium chloride (methylene blue)	Methaemoglobinaemia	Injection, 0.5% (50mg/10mL) per vial	200mg	
Naloxone	Opioids	Injection, 400mcg/mL per vial	10mg	
Physostigmine (S29)	Anticholinergic toxicity	Injection, 2mg/5mL per vial	4mg	
Sodium bicarbonate 8.4% (S29)	Tricyclic antidepressants and other sodium channel blockers, urinary alkalisation	Injection, 8.4% (4.2g/50mL; 50mmol/50mL or 8.4g/100mL; 100mmol/100mL) per vial	600 mL	

[#]Generally sufficient to treat a 100kg person; for some antidotes this amount may also be sufficient for a full treatment course. S29 denotes Section 29 drug.

[^]Total atropine doses >100mg may be needed to reverse toxicity.

Group B – Available within 1 hour (e.g. within the hospital or nearby facility)				
Drug	Used for	Example Presentation	Minimum Recommended Stock[#]	
			8h	24h
Anticoagulant antidotes* -Idarucizumab	Dabigatran	<i>Idarucizumab</i> : Injection 2.5g/50mL per vial	<i>Idarucizumab</i> : 5g	
-Protamine	Heparin	<i>Protamine</i> : Injection, 1% (50mg/5mL) p	<i>Protamine</i> : 500mg	
-Phytomenadione (vit K1)	Warfarin, brodifacoum	<i>Vitamin K1</i> : Injection, 10mg/mL per ampoule	<i>Vitamin K1</i> : 50mg	
Benzatropine mesylate	Dystonic reactions	Injection, 2mg/2mL per vial	4mg	
Dantrolene [^]	Malignant hyperthermia, Neuroleptic malignant syndrome	Injection, (powder for) 20mg per vial	1000mg	
Desferrioxamine	Iron	Injection, (powder for) 500mg per vial	12g	36g
Folinic acid (calcium folinate)	Oral methotrexate overdose (not applicable to IV exposures)	Injection, 50mg/5mL per vial and Oral tablet, 15mg	150mg and 4 x 15mg tablets	450mg and 12 x 15mg tablets
Fomepizole (not on HML) (fomepizole is preferred first line)	Toxic alcohols (methanol, ethylene glycol, diethylene glycol)	Injection, 100% (1.5g/1.5mL) per vial and Injection, 96% v/v (9.6mL/10mL) per vial Oral liquid 40%	<i>Fomepizole</i> : 1.5g and <i>IV Ethanol 96%</i> : 400mL <i>Oral Ethanol 40%</i> : 900mL	<i>Fomepizole</i> : 3g and <i>IV Ethanol 96%</i> : 800mL <i>Oral Ethanol 40%</i> : 1800mL
Ethanol (S29)				
Levocarnitine (S29)	Sodium valproate	Injection, 1g/5mL per vial and Oral tablet, 500mg	9g and 18 x 500mg tablets	15g and 30 x 500mg tablets
Macrogol 3350 with electrolytes (polyethylene glycol)	Whole bowel irrigation	Oral liquid, any isoosmotic preparation formulated for colonic lavage (e.g. Klean- Prep, Glycoprep, etc)	Quantity sufficient to prepare 10L of lavage fluid	
Octreotide	Sulfonylureas	Injection, 100mcg/mL per vial	200mcg	600mcg
Pyridoxine (S29)	Isoniazid	Injection, 3g/30mL per vial	5g	

[#]Generally sufficient to treat a 100kg person; for some antidotes this amount may also be sufficient for a full treatment course. S29 denotes Section 29 drug.

*Prothrombin complex concentrates are useful in anticoagulation reversal, however stock is managed by and accessible through the NZ Blood Service. Stocking for trauma considerations should supercede antidote considerations; the recommended stock only considers antidote usage.

[^]Stocking for surgical theatre considerations should supercede antidote considerations; the recommended stock only considers antidote usage.

Group C – Available within 8-12h (e.g. available from regional store)			
Drug	Used for	Presentation	Minimum Recommended Stock to treat one 100kg person
Botulinum antitoxin heptavalent (S29)	Botulism	Injection, 20mL or 50mL vial	1 vial
Dimercaprol (BAL) (S29)	Mercury, arsenic	Injection, 100mg/2mL per ampoule	9.6g <ul style="list-style-type: none"> - 600mg for 8h, 1800mg for 24h - Typical dosing 1800mg/day for 2 days, then 600mg/day for up to 10 days
Polyvalent snake antivenom (S29)	Snake envenomation	Injection, 50mL vial	1 vial
Pralidoxime iodide (S29)	Organophosphates	Injection, 2.5% (500mg/20mL) per ampoule	35g <ul style="list-style-type: none"> - 3g first 8h, 7g for 24h - Optimal treatment duration unknown, may require several days of treatment
Sodium calcium edetate	Lead	Injection, 50mg/mL ampoule, 200mg/mL ampoule	15g <ul style="list-style-type: none"> - 1g for 8h, 3g for 24h - Treatment course up to 5 days
Succimer (DMSA) (S29)	Lead, mercury, arsenic	Oral capsule, 200mg	43g for 19d course <ul style="list-style-type: none"> - 3g/day first 5 days, then 2g/d for 14d

Group D – drugs that are <u>not</u> essential for routine stocking as antidotes
Andexanet alpha, Amyl nitrite, Bromocriptine, Cyproheptadine, Dicobalt edetate, Fuller's earth, Glucagon, Methionine, Penicillamine, Pentetate calcium trisodium (DTPA), Phentolamine, Potassium iodide, Prussian blue, Redback spider antivenom, Silibinin, Sodium nitrite

NB: Antidotes for parenteral chemotherapeutic agents are not covered by this guideline.

This guideline is endorsed by:

**New Zealand faculty of the Australasian College for Emergency Medicine
New Zealand Hospital Pharmacists' Association
College of Intensive Care Medicine (Aotearoa and Australia)**