|  |  |
| --- | --- |
| **Supplementary Table 1: Definitions of NPDS Codes** | |
| *NPDS Coding Term* | *Definition* |
| Death | The patient died as a result of the exposure or as a direct complication of the exposure where the complication was unlikely to have occurred had the toxic exposure not preceded the complication. |
| Major Effect | The patient has exhibited symptoms as a result of the exposure which were life-threatening or resulted in significant residual disability or disfigurement. |
| Moderate Effect | The patient exhibited symptoms as a result of the exposure which are more pronounced, more prolonged or more of a systemic nature than minor symptom. |
| Acidosis | Accumulation of acid or depletion of alkaline reserve; diagnosis is usually made by an arterial blood gas or electrolytes. |
| Bradycardia | Slowing of the heart rate to less than 60 beats per minute in adults. Apply age-related standards for children. |
| Cardiac Arrest | Sudden cessation of cardiac function with disappearance of arterial blood pressure. |
| Coma | A state of unconsciousness. Include all levels of CNS depression in which the patient cannot be awakened with a stimulus. |
| Conduction Disturbance | Impaired cardiac conduction as evidenced by prolonged ECG intervals or any degree of heart block. |
| Creatinine Increased | Creatinine elevation of > 1.5 mg/dL or 133 μmol/L. |
| Drowsy/lethargic | Fatigue or sleep or minor levels of CNS depression from which the patient can be awakened with a stimulus. Do not code appropriate sleep (e.g., naps) |
| Dysrhythmia (other) | Other cardiac rhythm disturbance (other than ventricular tachycardia, ventricular fibrillation, asystole, bradycardia, and tachycardia). |
| Electrolyte Abnormality | An imbalance in any of the electrolytes. Include sodium, potassium, bicarbonate, chloride, calcium, magnesium and phosphate. |
| Hypoglycemia | Deficiency of glucose in the blood, usually associated with glucose concentrations below 70 mg/dL or 3.9 mmol/L. |
| Hypotension | Abnormally low blood pressure; seen in shock but not necessarily indicative of it. In adults, blood pressure <90 mm Hg systolic or more than 15 mmHg less than the patient’s usual systolic blood pressure. |
| Oliguria | The production of an abnormally small volume of urine or the absence of urine production. |
| Renal Failure | Include acute and chronic renal failure that has produced clinically significant azotemia and loss of renal function. |
| Seizures | Convulsion, a violent involuntary contraction or series of contractions of the voluntary muscles. |

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| --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table 2: Complete list of all substances** | | | | | | |
| **Substances** | **Total Survivors N** | **Total Fatalities N** | **Adult Survivors N** | **Adult Fatalities N** | **Pediatric Survivors N** | **Pediatric Fatalities N** |
| **Alpha-2 agonist** | **4** | **4** | **4** | **4** | **-** | **-** |
| Clonidine | 3 | 3 | 3 | 3 | - | - |
| Tizanidine | 1 | 1 | 1 | 1 | - | - |
| **Antiarrhythmic** | **22** | **7** | **15** | **3** | **7** | **4** |
| Cardiac glycoside NOS | 1 | 3 | 1 | 1 | - | 2 |
| Digoxin | 1 | - | 1 | - | - | - |
| Flecainide | 16 | 3 | 9 | 2 | 7 | 1 |
| Lidocaine | 1 | 1 | 1 | - | - | 1 |
| Potassium | 1 | - | 1 | - | - | - |
| Quinidine | 1 | - | 1 | - | - | - |
| Ranolazine | 1 | - | 1 | - | - | - |
| **Anticoagulant** | **4** | **4** | **3** | **3** | **1** | **1** |
| Bivalirudin | 1 | - | 1 | - | - | - |
| Protamine sulfate | - | 1 | - | - | - | 1 |
| Warfarin and related agents | 3 | 3 | 2 | 3 | 1 | - |
| **Anticonvulsant/mood stabilizer** | **11** | **10** | **8** | **10** | **3** | **-** |
| Carbamazepine | 1 | - | - | - | 1 | - |
| Divalproex sodium | 2 | 1 | 1 | 1 | 1 | - |
| Lacosamide | 1 | 1 | 1 | 1 | - | - |
| Lamotrigine | 3 | 1 | 3 | 1 | - | - |
| Levetiracetam | - | 1 | - | 1 | - | - |
| Lithium | 2 | 2 | 2 | 2 | - | - |
| Oxcarbazepine | - | 1 | - | 1 | - | - |
| Pentobarbital | - | 1 | - | 1 | - | - |
| Phenytoin and related agents | 1 | 1 | - | 1 | 1 | - |
| Topiramate | 1 | 1 | 1 | 1 | - | - |
| **Antidepressant** | **72** | **31** | **70** | **30** | **2** | **1** |
| Amitriptyline | 5 | 3 | 5 | 3 | - | - |
| Bupropion | 17 | 10 | 16 | 9 | 1 | 1 |
| Citalopram | 8 | 1 | 7 | 1 | 1 | - |
| Clomipramine | 1 | - | 1 | - | - | - |
| Desipramine | 1 | - | 1 | - | - | - |
| Desvenlafaxine | 1 | - | 1 | - | - | - |
| Doxepin | 3 | - | 3 | - | - | - |
| Duloxetine | 2 | 1 | 2 | 1 | - | - |
| Escitalopram | 4 | 2 | 4 | 2 | - | - |
| Fluoxetine | 2 | 5 | 2 | 5 | - | - |
| Mirtazapine | 4 | 1 | 4 | 1 | - | - |
| Nortriptyline | 4 | 1 | 4 | 1 | - | - |
| Other NOS | 1 | - | 1 | - | - | - |
| Paroxetine | 1 | 1 | 1 | 1 | - | - |
| Sertraline | 4 | 2 | 4 | 2 | - | - |
| Trazodone | 8 | 2 | 8 | 2 | - | - |
| Venlafaxine | 5 | 2 | 5 | 2 | - | - |
| Tricyclic antidepressant NOS | 1 | - | 1 | - | - | - |
| **Antiemetic** | **3** | **-** | **3** | **-** | **-** | **-** |
| Ondansetron | 3 | - | 3 | - | - | - |
| **Antigout** | **2** | **-** | **2** | **-** | **-** | **-** |
| Allopurinol | 2 | - | 2 | - | - | - |
| **Antihistamine** | **32** | **11** | **28** | **9** | **4** | **2** |
| Benztropine | 2 | - | 2 | - | - | - |
| Cetirizine | 1 | - | 1 | - | - | - |
| Chlorpheniramine | 1 | - | 1 | - | - | - |
| Cyproheptadine | 1 | - | 1 | - | - | - |
| Dicyclomine | 1 | - | 1 | - | - | - |
| Diphenhydramine | 11 | 6 | 8 | 4 | 3 | 2 |
| Doxylamine | 2 | 1 | 2 | 1 | - | - |
| Fexofenadine | 1 | - | 1 | - | - | - |
| Glycopyrrolate | - | 1 | - | 1 | - | - |
| Hydroxyzine | 6 | 2 | 6 | 2 | - | - |
| Loratadine | 2 | - | 2 | - | - | - |
| Meclizine | - | 1 | - | 1 | - | - |
| Orphenadrine | 1 | - | 1 | - | - | - |
| Other NOS | 2 | - | 1 | - | 1 | - |
| Promethazine | 1 | - | 1 | - | - | - |
| **Antihyperlipidemic** | **3** | **3** | **3** | **3** | **-** | **-** |
| Lovastatin | - | 1 | - | 1 | - | - |
| Other NOS | 2 | - | 2 | - | - | - |
| Pravastatin | - | 1 | - | 1 | - | - |
| Simvastatin | 1 | 1 | 1 | 1 | - | - |
| **Antihypertensive** | **19** | **7** | **19** | **7** | **-** | **-** |
| Alpha-adrenergic blockers | 1 | - | 1 | - | - | - |
| Angiotensin II antagonists | 1 | - | 1 | - | - | - |
| Benazepril | 1 | 2 | 1 | 2 | - | - |
| Hydralazine | 1 | - | 1 | - | - | - |
| Lisinopril | 5 | 4 | 5 | 4 | - | - |
| Losartan | 5 | - | 5 | - | - | - |
| Nitroglycerin | 1 | - | 1 | - | - | - |
| Olmesartan | 1 | 1 | 1 | 1 | - | - |
| Prazosin | 1 | - | 1 | - | - | - |
| Ramipril | 1 | - | 1 | - | - | - |
| Sildenafil | 1 | - | 1 | - | - | - |
| **Antimicrobial** | **6** | **4** | **6** | **3** | **-** | **1** |
| Acyclovir and related agents | 1 | - | 1 | - | - | - |
| Ciprofloxacin | - | 1 | - | 1 | - | - |
| Clindamycin | 1 | - | 1 | - | - | - |
| Doxycycline | 1 | - | 1 | - | - | - |
| Hydroxychloroquine | 3 | 2 | 3 | 2 | - | - |
| Penicillin | - | 1 | - | - | - | 1 |
| **Antineoplastic** | **2** | **2** | **2** | **2** | **-** | **-** |
| Cisplatin | 1 | - | 1 | - | - | - |
| Doxorubicin | 1 | - | 1 | - | - | - |
| Levamisole | - | 1 | - | 1 | - | - |
| Other NOS | - | 1 | - | 1 | - | - |
| **Antiplatelet** | **1** | **1** | **1** | **1** | **-** | **-** |
| Clopidogrel | - | 1 | - | 1 | - | - |
| Ticagrelor | 1 | - | 1 | - | - | - |
| **Antipsychotic** | **14** | **5** | **13** | **5** | **1** | **-** |
| Aripiprazole | 1 | 1 | 1 | 1 | - | - |
| Asenapine | 1 | - | 1 | - | - | - |
| Lurasidone | 1 | - | 1 | - | - | - |
| Olanzapine | 2 | 1 | 2 | 1 | - | - |
| Other NOS | 1 | - | 1 | - | - | - |
| Quetiapine | 6 | 3 | 5 | 3 | 1 | - |
| Risperidone | 2 | - | 2 | - | - | - |
| **Acetaminophen** | **33** | **14** | **31** | **14** | **2** | **-** |
| Acetaminophen | 33 | 14 | 31 | 14 | 2 | - |
| **Beta-adrenergic blockers** | **27** | **9** | **27** | **9** | **-** | **-** |
| Atenolol | 5 | 2 | 5 | 2 | - | - |
| Beta-blocking agents NOS | 2 | 1 | 2 | 1 | - | - |
| Carvedilol | 5 | - | 5 | - | - | - |
| Metoprolol | 5 | 1 | 5 | 1 | - | - |
| Metoprolol succinate | 2 | 1 | 2 | 1 | - | - |
| Other NOS | 2 | - | 2 | - | - | - |
| Propranolol | 5 | 4 | 5 | 4 | - | - |
| Sotalol | 1 | - | 1 | - | - | - |
| **Caffeine** | **2** | **-** | **2** | **-** | **-** | **-** |
| Caffeine | 2 | - | 2 | - | - | - |
| **Calcium channel blockers** | **58** | **20** | **57** | **20** | **1** | **-** |
| Amlodipine | 30 | 8 | 29 | 8 | 1 | - |
| Diltiazem | 8 | 5 | 8 | 5 | - | - |
| Diltiazem long-acting | 1 | 2 | 1 | 2 | - | - |
| Nifedipine | 1 | - | 1 | - | - | - |
| Other NOS | 2 | - | 2 | - | - | - |
| Verapamil | 16 | 5 | 16 | 5 | - | - |
| **Cellular toxin - mitochondrial** | **11** | **5** | **9** | **4** | **2** | **1** |
| Aluminum phosphide | 1 | 1 | 1 | - | - | 1 |
| Bromethalin | 1 | - | 1 | - | - | - |
| Carbon monoxide | 5 | 1 | 3 | 1 | 2 | - |
| Cyanide | 1 | 1 | 1 | 1 | - | - |
| Hydrogen sulfide | 2 | - | 2 | - | - | - |
| Phosphorous, white | 1 | - | 1 | - | - | - |
| Sodium azide | - | 2 | - | 2 | - | - |
| **Cellular toxin - mitotic** | **-** | **5** | **-** | **5** | **-** | **-** |
| Colchicine | - | 5 | - | 5 | - | - |
| **CNS depressant** | **74** | **26** | **74** | **24** | **-** | **2** |
| Alprazolam | 3 | 3 | 3 | 3 | - | - |
| Benzodiazepine | 4 | 1 | 4 | 1 | - | - |
| Buspirone | 2 | 1 | 2 | 1 | - | - |
| Butalbital | 1 | - | 1 | - | - | - |
| Clonazepam | 8 | 2 | 8 | 2 | - | - |
| Clorazepate | 1 | - | 1 | - | - | - |
| Diazepam | 2 | - | 2 | - | - | - |
| Dichloralphenazone | 1 | - | 1 | - | - | - |
| Eszopiclone | - | 1 | - | 1 | - | - |
| Ethanol | 32 | 9 | 32 | 9 | - | - |
| Gabapentin | 6 | 1 | 6 | 1 | - | - |
| Isopropyl alcohol | 1 | 2 | 1 | 1 | - | 1 |
| Ketamine | 1 | - | 1 | - | - | - |
| Lorazepam | 5 | 1 | 5 | - | - | 1 |
| Midazolam | - | 2 | - | 2 | - | - |
| Other NOS | 1 | - | 1 | - | - | - |
| Phenibut | 1 | - | 1 | - | - | - |
| Pregabalin | 1 | 1 | 1 | 1 | - | - |
| Propofol | 2 | 1 | 2 | 1 | - | - |
| Temazepam | 1 | - | 1 | - | - | - |
| Zaleplon | 1 | - | 1 | - | - | - |
| Zolpidem | - | 1 | - | 1 | - | - |
| **Corticosteroids** | **1** | **2** | **1** | **2** | **-** | **-** |
| Prednisolone | - | 1 | - | 1 | - | - |
| Prednisone | 1 | 1 | 1 | 1 | - | - |
| **Diabetic** | **6** | **7** | **6** | **7** | **-** | **-** |
| Glibenclamide | 1 | - | 1 | - | - | - |
| Insulin NOS | - | 1 | - | 1 | - | - |
| Insulin glargine | 1 | - | 1 | - | - | - |
| Metformin and related agents | 4 | 5 | 4 | 5 | - | - |
| Sulfonylureas and related agents | - | 1 | - | 1 | - | - |
| **Diuretic** | **5** | **1** | **5** | **1** | **-** | **-** |
| Chlorthalidone | 1 | - | 1 | - | - | - |
| Hydrochlorothiazide | 3 | 1 | 3 | 1 | - | - |
| Thiazide NOS | 1 | - | 1 | - | - | - |
| **Foreign body** | **1** | **-** | **-** | **-** | **1** | **-** |
| Disc battery | 1 | - | - | - | 1 | - |
| **Fungus** | **1** | **2** | **1** | **1** | **-** | **1** |
| Mushroom-cyclopeptide | - | 1 | - | - | - | 1 |
| Mushroom-unknown | 1 | 1 | 1 | 1 | - | - |
| **Hydrocarbon** | **26** | **10** | **4** | **4** | **22** | **6** |
| Automotive products hydrocarbons | 1 | - | - | - | 1 | - |
| Baby oil | 1 | - | - | - | 1 | - |
| Cigarette lighter fluid | - | 1 | - | - | - | 1 |
| Diesel fuel | 1 | 1 | - | 1 | 1 | - |
| Fluorinated hydrocarbons | 2 | 1 | 2 | 1 | - | - |
| Freon and other propellants | - | 1 | - | 1 | - | - |
| Fuel injector cleaner | 1 | - | - | - | 1 | - |
| Furniture polish | 4 | - | - | - | 4 | - |
| Gasoline | 1 | - | - | - | 1 | - |
| Hair oil | 1 | - | - | - | 1 | - |
| Lamp oil | 5 | 3 | 1 | - | 4 | 3 |
| Lighter fluid | 1 | - | - | - | 1 | - |
| Other types of hydrocarbon | 1 | 1 | - | 1 | 1 | - |
| Other types of pain, varnish, lacquer | 1 | - | 1 | - | - | - |
| Paint thinner | 1 | - | - | - | 1 | - |
| Torch fuel | 3 | 2 | - | - | 3 | 2 |
| Transmission oil | 1 | - | - | - | 1 | - |
| Xylene | 1 | - | - | - | 1 | - |
| **Insect** | **1** | **1** | **-** | **1** | **1** | **-** |
| Brown recluse | - | 1 | - | 1 | - | - |
| Hymenoptera | 1 | - | - | - | 1 | - |
| **Irritant gases and caustics** | **19** | **4** | **17** | **3** | **2** | **1** |
| Ammonia | 1 | - | 1 | - | - | - |
| Anionic or non-ionics | - | 1 | - | - | - | 1 |
| Bleach | 1 | 1 | 1 | 1 | - | - |
| Chlorine gas | 2 | - | 2 | - | - | - |
| Chlorine shock treatments | 1 | - | 1 | - | - | - |
| Chloropicrin | 1 | - | 1 | - | - | - |
| Heavy duty oven cleaner | 1 | - | 1 | - | - | - |
| Hydrochloric acid | 1 | - | 1 | - | - | - |
| Hydrogen peroxide | 1 | - | 1 | - | - | - |
| Nitric acid | 1 | - | 1 | - | - | - |
| Nitrous oxide | 1 | - | 1 | - | - | - |
| Other drain cleaner alkali | 1 | - | - | - | 1 | - |
| Other oven cleaner alkali | 2 | - | 2 | - | - | - |
| Other industrial cleaners acids | 1 | - | 1 | - | - | - |
| Phosgene | 1 | - | 1 | - | - | - |
| Potassium hydroxide | 1 | - | - | - | 1 | - |
| Sulfur dioxide | - | 1 | - | 1 | - | - |
| Sulfuric acid | 1 | - | 1 | - | - | - |
| Triethanolamine | - | 1 | - | 1 | - | - |
| Welding fumes | 1 | - | 1 | - | - | - |
| **Metal** | **14** | **8** | **14** | **6** | **-** | **2** |
| Aluminum | 1 | - | 1 | - | - | - |
| Antimony | 1 | - | 1 | - | - | - |
| Arsenic | 1 | - | 1 | - | - | - |
| Cadmium | 2 | - | 2 | - | - | - |
| Chromium | 3 | 1 | 3 | 1 | - | - |
| Cobalt | 2 | 1 | 2 | 1 | - | - |
| Iron | 2 | 3 | 2 | 1 | - | 2 |
| Nickel carbonyl | - | 1 | - | 1 | - | - |
| Other heavy metal | 1 | 1 | 1 | 1 | - | - |
| Rare earth metals | 1 | - | 1 | - | - | - |
| Tungsten carbide | - | 1 | - | 1 | - | - |
| **Muscle relaxant** | **5** | **1** | **5** | **1** | **-** | **-** |
| Baclofen | 1 | 1 | 1 | 1 | - | - |
| Cyclobenzaprine | 4 | - | 4 | - | - | - |
| **Neuromuscular blocker** | **2** | **-** | **1** | **-** | **1** | **-** |
| Curare and related agents | 1 | - | - | - | 1 | - |
| Other neuromuscular blocker | 1 | - | 1 | - | - | - |
| **NSAID** | **11** | **7** | **11** | **7** | **-** | **-** |
| Ibuprofen | 7 | 2 | 7 | 2 | - | - |
| Meloxicam | - | 2 | - | 2 | - | - |
| Naproxen | 3 | 3 | 3 | 3 | - | - |
| Sulindac | 1 | - | 1 | - | - | - |
| **Opioid** | **53** | **17** | **52** | **17** | **1** | **-** |
| Buprenorphine | 2 | - | 2 | - | - | - |
| Carfentanil | 1 | - | 1 | - | - | - |
| Codeine | 2 | 1 | 2 | 1 | - | - |
| Diphenoxylate | - | 1 | - | 1 | - | - |
| Fentanyl | 5 | 2 | 5 | 2 | - | - |
| Heroin | 13 | 1 | 13 | 1 | - | - |
| Hydrocodone | 7 | 1 | 7 | 1 | - | - |
| Hydromorphone | 3 | - | 3 | - | - | - |
| Loperamide | 3 | 2 | 3 | 2 | - | - |
| Methadone | 3 | 1 | 3 | 1 | - | - |
| Morphine | 1 | - | 1 | - | - | - |
| Nalbuphine | 1 | - | 1 | - | - | - |
| Naloxone | 1 | - | 1 | - | - | - |
| Other opioid narcotics | 2 | 2 | 2 | 2 | - | - |
| Oxycodone | 6 | 5 | 6 | 5 | - | - |
| Propoxyphene | 1 | - | 1 | - | - | - |
| Tramadol | 2 | 1 | 1 | 1 | 1 | - |
| **OTC cold/cough** | **8** | **-** | **7** | **-** | **1** | **-** |
| Dextromethorphan | 6 | - | 5 | - | 1 | - |
| Pseudoephedrine | 2 | - | 2 | - | - | - |
| **Other chemical** | **13** | **4** | **12** | **3** | **1** | **1** |
| Activated charcoal | 1 | 1 | 1 | - | - | 1 |
| Adhesive cartridge | 1 | - | 1 | - | - | - |
| Cement | 1 | - | 1 | - | - | - |
| Chloroxylenol | - | 1 | - | 1 | - | - |
| Other chemicals | 1 | - | - | - | 1 | - |
| Phosphorous, red | 1 | - | 1 | - | - | - |
| Propane | - | 1 | - | 1 | - | - |
| Propylene glycol | 2 | - | 2 | - | - | - |
| Rubber | 1 | - | 1 | - | - | - |
| Silicone | 2 | - | 2 | - | - | - |
| Unknown substance non-powder | - | 1 | - | 1 | - | - |
| Unknown chemicals | 2 | - | 2 | - | - | - |
| Water | 1 | - | 1 | - | - | - |
| **Other drugs of abuse** | **2** | **-** | **2** | **-** | **-** | **-** |
| Synthetic cannabinoids | 1 | - | 1 | - | - | - |
| Synthetic marijuana | 1 | - | 1 | - | - | - |
| **Other OTC** | **7** | **3** | **5** | **2** | **2** | **1** |
| Creams, lotions and make-up | 1 | - | - | - | 1 | - |
| Hair rinses, conditioners, relaxers | 1 | 1 | - | - | 1 | 1 |
| Mineral/herb/vitamin | 2 | 1 | 2 | 1 | - | - |
| Omeprazole | 3 | - | 3 | - | - | - |
| Ranitidine | - | 1 | - | 1 | - | - |
| **Pesticide/insecticide** | **1** | **2** | **1** | **2** | **-** | **-** |
| Pyrethroid | 1 | 1 | 1 | 1 | - | - |
| Unknown pesticide | - | 1 | - | 1 | - | - |
| **Plants** | **6** | **4** | **4** | **4** | **2** | **-** |
| Cannabis sativa | 1 | - | 1 | - | - | - |
| Cassia acutifolia | 1 | - | 1 | - | - | - |
| Cymbopogon winterianus | 2 | - | - | - | 2 | - |
| Other toxic plants | - | 1 | - | 1 | - | - |
| Plants - marijuana | - | 2 | - | 2 | - | - |
| Plants - mitragyna | 1 | 1 | 1 | 1 | - | - |
| THC | 1 | - | 1 | - | - | - |
| **Salicylate** | **4** | **3** | **1** | **2** | **3** | **1** |
| Acetylsalicylic acid | 2 | 2 | 1 | 1 | 1 | 1 |
| Bismuth subsalicylate | - | 1 | - | 1 | - | - |
| Methyl salicylate | 1 | - | - | - | 1 | - |
| Salicylates | 1 | - | - | - | 1 | - |
| **Stimulant** | **19** | **11** | **18** | **11** | **1** | **-** |
| Amphetamine | 5 | 1 | 5 | 1 | - | - |
| Cocaine | 4 | 4 | 4 | 4 | - | - |
| Ecstasy | 1 | - | 1 | - | - | - |
| Isometheptene mucate | 1 | - | 1 | - | - | - |
| Lisdexamfetamine | 1 | 1 | 1 | 1 | - | - |
| Methamphetamine | 6 | 5 | 5 | 5 | 1 | - |
| Trifluoromethylphenylpiperazine | 1 | - | 1 | - | - | - |
| **Thyroid** | **3** | **-** | **3** | **-** | **-** | **-** |
| Levothyroxine | 3 | - | 3 | - | - | - |
| **Toxic alcohol** | **3** | **3** | **3** | **3** | **-** | **-** |
| Ethylene glycol | 2 | 1 | 2 | 1 | - | - |
| Ethylene glycol ether | 1 | 1 | 1 | 1 | - | - |
| Methanol | - | 1 | - | 1 | - | - |
| **Unknown** | **23** | **10** | **20** | **9** | **3** | **1** |
| Drugs NOS | 23 | 10 | 20 | 9 | 3 | 1 |
| **Unknown non drug** | **1** | **2** | **1** | **-** | **-** | **2** |
| Unknown substances unlikely to be drug products | 1 | 2 | 1 | - | - | 2 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Supplementary Table 3: Related clinical effects** | | | |
| Clinical effect | Entire cohort (n=407) | Patients age > 12 (n=332) | Patients age </= 12 (n=75) |
| Acidosis | 164 (40.3%) | 144 (43.4%) | 20 (26.7%) |
| Alkalosis | 3 (0.7%) | 2 (0.6%) | 1 (1.3%) |
| Asystole | 62 (15.2%) | 54 (16.3%) | 8 (10.7%) |
| AST, ALT >100, ≤1000 | 37 (9.1%) | 33 (9.9%) | 4 (5.3%) |
| AST, ALT > 1000 | 22 (5.4%) | 21 (6.3%) | 1 (1.3%) |
| Bleeding (other) | 18 (4.4%) | 14 (4.2%) | 4 (5.3%) |
| Bradycardia | 80 (19.7%) | 72 (21.7%) | 8 (10.7%) |
| Bronchospasm | 7 (1.7%) | 6 (1.8%) | 1 (1.3%) |
| Cardiac arrest | 111 (27.3%) | 90 (27.1%) | 21 (28%) |
| Coma | 140 (34.4%) | 129 (38.9%) | 11 (14.7%) |
| Conduction disturbance | 90 (22.1%) | 81 (24.4%) | 9 (12%) |
| CPK elevated | 53 (13%) | 51 (15.4%) | 2 (2.7%) |
| Creatinine increased | 84 (20.6%) | 80 (24.1%) | 4 (5.3%) |
| Dysrhythmias (other) | 36 (8.8%) | 32 (9.6) | 4 (5.3%) |
| ECG change (other) | 32 (7.9%) | 28 (8.4%) | 4 (5.3%) |
| Fever/hyperthermia | 64 (15.7%) | 46 (13.9%) | 18 (24%) |
| Hematemesis/UGI bleed | 10 (2.5%) | 10 (3%) | 0 (0%) |
| Hypertension | 35 (8.6%) | 27 (8.1%) | 8 (10.7%) |
| Hypotension | 236 (58%) | 211 (63.6%) | 25 (33.3%) |
| Hypothermia | 17 (4.2%) | 14 (4.2%) | 3 (4%) |
| Intracranial bleed | 2 (0.5%) | 1 (0.3%) | 1 (1.3%) |
| Oliguria/anuria | 38 (9.3%) | 34 (10.2%) | 4 (5.3%) |
| Renal failure | 47 (11.5%) | 42 (12.7%) | 5 (6.7%) |
| Respiratory arrest | 69 (17%) | 56 (16.9%) | 13 (17.3%) |
| Respiratory depression | 94 (23.1%) | 80 (24.1%) | 14 (18.7%) |
| Seizure (single) | 23 (5.7%) | 18 (5.4%) | 5 (6.7%) |
| Seizure (multi/discrete) | 33 (8.1%) | 29 (8.7%) | 4 (5.3%) |
| Seizure (status) | 8 (2%) | 6 (1.8%) | 2 (2.7%) |
| Tachycardia | 159 (39.1%) | 130 (39.2%) | 29 (38.7%) |

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| --- | --- | --- | --- |
| **Supplementary Table 4: Therapies performed** | | | |
| Therapy | Entire cohort (n=407) | Patients age > 12 (n=332) | Patients age </= 12 (n=75) |
| Alkalinization | 159 (39.1%) | 138 (41.6%) | 21 (28%) |
| Antiarrhythmic | 44 (10.8%) | 41 (12.3%) | 3 (4%) |
| Anticonvulsants | 30 (7.4%) | 27 (8.1%) | 3 (4%) |
| Antihypertensives | 30 (7.4%) | 22 (6.6%) | 8 (10.7%) |
| Calcium | 129 (31.7%) | 114 (34.3%) | 15 (20%) |
| Cardioversion | 24 (5.9%) | 22 (6.6%) | 2 (2.7%) |
| Charcoal, multiple doses | 2 (0.5%) | 1 (0.3%) | 1 (1.3%) |
| Charcoal, single doses | 41 (10.3%) | 38 (11.4%) | 4 (5.3%) |
| CPR | 117 (28.7%) | 95 (28.6%) | 22 (29.3%) |
| ECMO | 407 (100%) | 332 (100%) | 75 (100%) |
| Fluids IV | 326 (80.1%) | 270 (81.3%) | 56 (74.7%) |
| Fomepizole | 10 (2.5%) | 9 (2.7%) | 1 (1.3%) |
| Glucagon | 57 (14%) | 56 (16.9%) | 1 (1.3%) |
| Hemodialysis | 104 (25.6%) | 89 (26.8%) | 15 (20%) |
| Hyperbaric oxygen | 1 (0.2%) | 1 (0.3%) | 0 (0%) |
| Insulin | 100 (24.6%) | 94 (28.3%) | 6 (8%) |
| Intubation | 369 (90.7%) | 304 (91.6%) | 65 (86.7%) |
| Lavage | 11 (2.7%) | 11 (3.3%) | 0 (0%) |
| Methylene blue | 21 (5.2%) | 20 (6%) | 1 (1.3%) |
| N-acetylcysteine (IV) | 40 (9.8%) | 39 (11.7%) | 1 (1.3%) |
| N-acetylcysteine (oral) | 4 (1%) | 4 (1.2%) | 0 (0%) |
| Oxygen | 352 (86.5%) | 287 (86.4%) | 65 (86.7%) |
| Pacemaker | 34 (8.4%) | 31 (9.3%) | 3 (4%) |
| Sedation (other) | 256 (62.9%) | 208 (62.7%) | 48 (64%) |
| Steroids | 44 (10.8%) | 31 (9.3%) | 13 (17.3%) |
| Vasopressors | 298 (73.2%) | 257 (77.4%) | 41 (54.7%) |
| Ventilator | 357 (87.7%) | 295 (88.9%) | 62 (82.7%) |
| Whole bowel irrigation | 10 (2.5%) | 9 (2.7%) | 1 (1.3%) |