



ANNUAL REPORT 2010

Victorian **P**oisons **I**nformation **C**entre

13 11 26

**Emergency Department
Austin Hospital
Heidelberg 3084**

www.austin.org.au/poisons

Victorian Poisons Information Centre

Annual Report 2010

Table of Contents

| | |
|---|----|
| Introduction | 3 |
| Hours of Operation | 3 |
| Staff Members | 3 |
| Review of Clinical Guidelines | 4 |
| Poisoning Prevention Activities | 4 |
| Research Activities and Publications | 4 |
| Other Activities | 5 |
| Calls to the Victorian Poisons Information Centre | 5 |
| Call types | 6 |
| Query types | 7 |
| Person exposed | 7 |
| Person calling | 8 |
| Types of exposure | 8 |
| Routes of exposure | 8 |
| Handling calls – neonates | 9 |
| Handling calls – infants | 9 |
| Handling calls – children | 9 |
| Handling calls – adolescents | 9 |
| Handling calls – adults | 10 |
| Handling calls – elderly | 10 |
| Symptom severity at the time of the call | 10 |
| Top ten exposure substances | 10 |
| Exposures to non-medicine, non-drug products | 11 |
| Exposures to medicines and drugs | 19 |

Introduction

The Victorian Poisons Information Centre (VPIC) commenced operation in 1962. It was located at the Royal Children's Hospital, Melbourne from 1976 to 2008. In August 2008, the centre relocated to the Austin Hospital, to integrate with the Austin Hospital Clinical Toxicology Service (AHCTS). VPIC is directed administratively as part of the Austin Hospital Pharmacy Department.

VPIC provides members of the Victorian public with information about:

- first aid in the event of poisoning, suspected poisoning, mistakes with medicines, bites and stings
- the need for medical assessment
- prevention of poisoning
- referral to other information sources as necessary.

VPIC provides health professionals with information about:

- the ingredients in products involved in poisoning or exposure
- assessment of the severity of a poisoning or exposure
- potential toxic effects from a poisoning or exposure
- treatment and management advice.

VPIC aims to prevent unnecessary visits to general practitioners and hospitals and to ensure patients who are poisoned receive the most effective treatment promptly.

The VPIC telephone number is **13 11 26**. This number can be used Australia-wide for the cost of a local call (excluding mobile phones).

Hours of Operation

VPIC operates Monday to Friday (0800 to 2130 hours), and Saturday and Sunday (0800 to 2100 hours). Outside these times, calls are diverted to the New South Wales Poisons Information Centre, which operates on a 24-hour basis. During 2010, VPIC continued to work some overnight shifts (12 midnight to 0600 hours), to assist the three other Australian Poisons Information Centres (PICs) taking calls from across Australia while other state PICs are closed.

Staff Members

Director of Pharmacy and the VPIC

Kent Garrett B. Pharm., Grad. Dip. Hosp. Pharm.

Manager, VPIC

Jeff Robinson B. Pharm., F.S.H.P., Grad. Dip. Hosp. Pharm.

Medical Director of VPIC

Dr Shaun Greene MBChB, MSc (Medical Toxicology), F.A.C.E.M.

Specialists in Poisons Information

Janet Browning B. Pharm., Dip. Hosp. Pharm.

Mark Colbridge B. Sc (Hons)

Dawson MacLeod B. Pharm., Grad. Dip. Biotech., Grad. Cert. Clin. Tox.

Hamish McCracken B. Pharm., Grad. Dip. Psych.

Christine McKenzie B. Pharm., Grad. Cert. E- Health Comm., Grad. Cert. Clin. Tox.
Jeff Robinson B. Pharm., F.S.H.P., Grad. Dip. Hosp. Pharm.

AHCTS is comprised of a toxicology registrar (six month rotation) and five toxicology consultants (Dr. Fergus Kerr, Dr. Shaun Greene, Dr. Zeff Koutsogiannis, Dr. Chris O'Callaghan, Professor Albert Frauman). A clinical toxicology fellow will join AHCTS in 2011. AHCTS clinicians provide a specialised management and advice service for toxicology/toxinology admissions. They provide a 24-hour on-call service for poisoned patients presenting to the Austin ED or transferred to the Austin Hospital for specialist toxicology and critical care services. AHCTS also provide outpatient services for patients with chronic and occupational-related poisonings.

VPIC staff enjoy a close day-to-day working relationship with all AHCTS members. In complicated and/or severe poisoning cases, they have ready access to the toxicology registrar or the on-call AHCTS consultant. In addition, a range of external consultants (clinical pharmacologists, mycologists, botanists and toxinologists) are available to VPIC staff to provide specialist advice in these areas if needed.

Review of Clinical Guidelines

The following VPIC clinical guidelines were reviewed during 2010:

- Ingestion of a Lead-containing Foreign Body; Bites and Stings in Victoria; Rodenticide Ingestion.
- A new VPIC clinical guideline Management of Disc Battery Ingestions was introduced in August.
- A new VPIC clinical guideline Management of Euphorbia Eye Exposures was introduced in November.
- The VPIC Information Sheets for members of the public were reviewed.
- The VPIC/AHCTS position statement on Cyanide Poisoning Antidote Kits was finalised.

Poisoning Prevention Activities

- The Poisoning Prevention section of the City of Casey's Child Safety Kit was reviewed.
- Poisoning prevention documents produced by the Raising Children Network were reviewed.
- Poisoning and bite/sting monographs produced by the Better Health Channel were reviewed.
- In August, Jeff Robinson was interviewed by a Sunday Age newspaper journalist for an article about the availability and toxicology of Miracle Mineral Solution.
- In November, Jeff Robinson was interviewed by a Herald Sun newspaper journalist and several radio stations about snakebite first aid and management.
- Printed material (pamphlets, telephone stickers, posters, information sheets) was supplied to child care centres, kindergartens, local councils, Maternal and Child Health Centres, GP surgeries etc throughout the year.

Research Activities and Publications

- In January, VPIC ceased patient enrolments for the study: Nature and outcomes of chemical eye injuries reported to the Victorian Poisons Information Centre.
- Data was provided to the Victorian Department of Health about exposure calls involving paraquat/diquat.

- Isbister GK, Balit CR, MacLeod D, Duffull SB. Amisulpride overdose is frequently associated with QT prolongation and Torsades de Pointes. *J Clin Psychopharmacol* 2010; 30(4): 391–5.
- Wong A, Taylor DMcD, Ashby K, Robinson J. Changing epidemiology of intentional antidepressant drug overdose in Victoria, Australia. *Aust NZ J Psychiatry* 2010; 44: 759–64.
- Greene S, Kerr F, Koutsogiannis Z, Robinson J. Phenytoin in toxin-induced seizures. *Emerg Med Australas* 2010; 22: 354.
- Wood DM, Greene SL, Dargan PI. Clinical pattern of toxicity associated with the novel synthetic cathinone mephedrone. *Emerg Med J* Published Online First: 26 June 2010 doi:10.1136/emj.2010.092288.
- Wood DM, Davies S, Greene SL, Button J, Holt DW, Ramsey J, Dargan PI. Case series of individuals with analytically confirmed acute mephedrone toxicity. *Clin Toxicol* 2010; 48: 924–7.
- Sher L, Taylor DMcD, Robinson J, MacLeod D, Browning J, McKenzie C, Colbridge M, McCracken H. Nature and outcomes of chemical eye injuries reported to the Victorian Poisons Information Centre. FACEM trainee 4.10 project presented at ACEM Spring Conference September 2010.

Other Activities

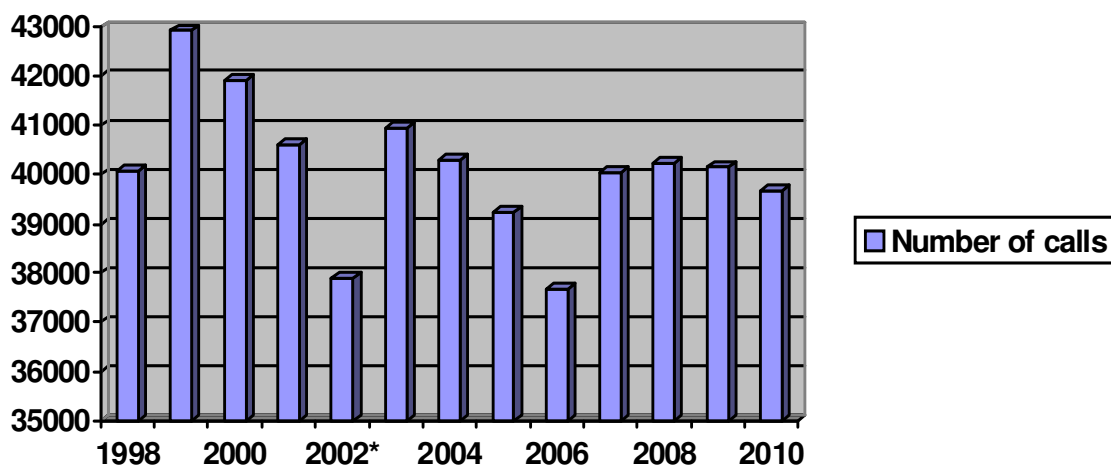
The following additional activities were undertaken during 2010:

- Dr Stuart Lewena (Royal Children’s Hospital, Melbourne) undertook sabbatical leave at VPIC/AHCTS during the first half of 2010.
- In January, a Toxicology Library (Dropbox application) was established. This is a web-based resource containing the WikiTox curriculum, PDF articles, Word/text documents, Power Point presentations etc.
- In March, Dr. Zeff Koutsogiannis commenced the 12 month ‘probationary’ period on the national toxicologist roster.
- In March, a Toxicology Outpatient Clinic commenced at the Austin Hospital.
- In August, the weekly Toxicology Journal Club commenced.
- In August, major enhancements were made to the VPIC call database.
- In the latter half of 2010, preparations were made for the commencement of an accredited Clinical Toxicology Fellowship training program in 2011.
- Four VPIC/AHCTS Clinical Governance meetings were held during the year.
- VPIC staff attended four of the five NSW PIC Clinical Meetings (one videoconferenced).
- Half-day Toxicology Forums were held in June, September and November.
- VPIC operations were demonstrated to visitors from India.

Calls to VPIC

The centre received a total of 39,679 calls during 2010, an average of 109 calls per day. This was very similar to 2009 (40,155 calls, average 110 calls per day) and 2008 (40,230 calls, average 110 calls per day). The 2010 total includes 1,902 calls answered by VPIC overnight. VPIC worked 52 overnight shifts during 2010.

201.



* In 2002, the number of calls received was lower than in previous years due to:

- February and March – reduced hours of operation due to staffing shortages.
- March to August – the telecommunications provider inappropriately diverted some Victorian calls to the New South Wales Poisons Information Centre.

The 2010 total includes 1,902 calls answered by VPIC during 52 overnight shifts (New South Wales 595, Victoria 386, Western Australia 311, Queensland 375, South Australia 149, Northern Territory 23, Tasmania 34, Australian Capital Territory 29)

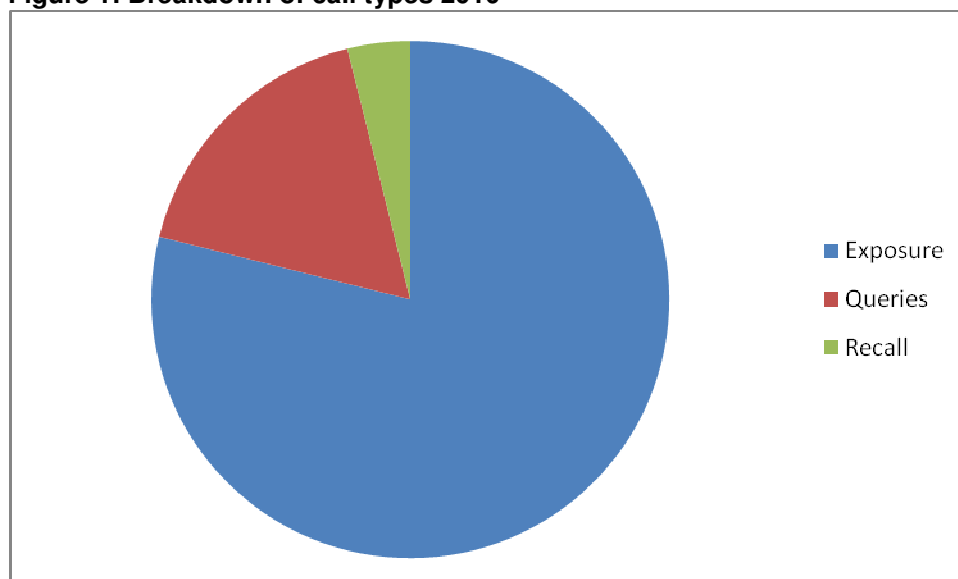
Call types (Figure 1)

Most calls involved an exposure. Nearly one-fifth of calls were queries.

| Call type | Number of calls | % |
|----------------------|-----------------|-----|
| Exposure to a poison | 31,310 | 79 |
| Queries | 6,816 | 17 |
| Recall* | 1,553 | 4 |
| Total | 39,679 | 100 |

* A recall is a second or subsequent call about a particular exposure.

Figure 1: Breakdown of call types 2010



* A recall is a second or subsequent call about a particular exposure.

Query types

The types of queries received are shown below.

| Query type | Number of calls | % |
|--------------------------------|-----------------|-----|
| Poisons information | 2,848 | 42 |
| Drug information | 2,433 | 36 |
| Prevention of poisoning/safety | 368 | 5 |
| Medicines and pregnancy | 367 | 5 |
| Environmental | 290 | 4 |
| Medical | 270 | 4 |
| Medicines and breastfeeding | 238 | 4 |
| Occupational | 2 | <1 |
| Total | 6,816 | 100 |

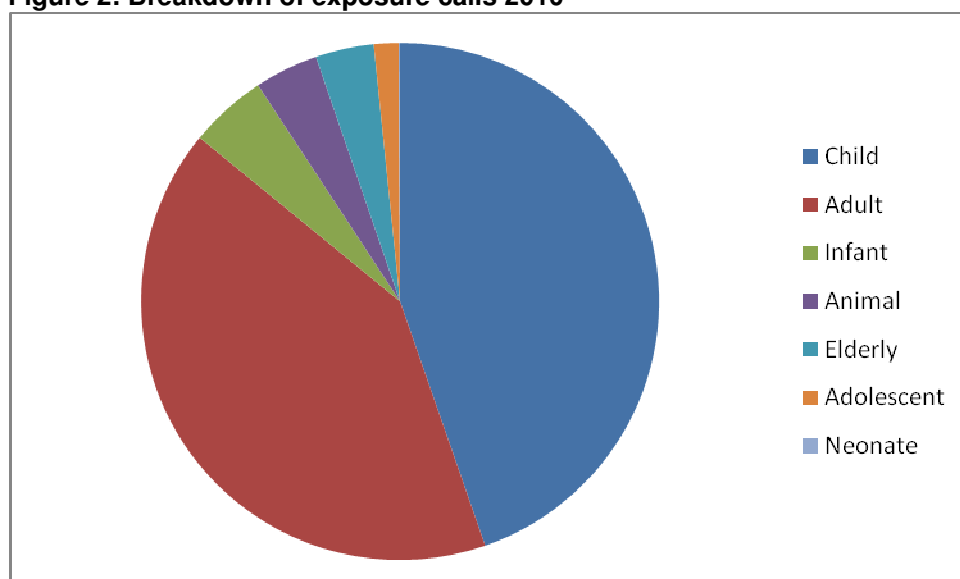
Person exposed (Figure 2)

The majority of calls about exposure to a poison involved children.

| Person exposed | Number of calls | % |
|------------------------------|-----------------|-----|
| Child (1 to <12 years) | 13,985 | 45 |
| Adult (16 to 65 years) | 12,915 | 41 |
| Infant (1 month to <1 year) | 1,515 | 5 |
| Animal* | 1,246 | 4 |
| Elderly (>65 years) | 1,140 | 4 |
| Adolescent (12 to <16 years) | 480 | 1 |
| Neonate (<1 month) | 29 | <1 |
| Total | 31,310 | 100 |

* Callers phoning about an exposure involving an animal were referred to their vet

Figure 2: Breakdown of exposure calls 2010



Person calling (animal exposures excluded)

The majority of calls about exposure to a poison were received from members of the public.

| Person calling | Number of calls | % |
|--|-----------------|-----|
| Family member | 17,843 | 59 |
| Self | 5,482 | 18 |
| Doctor | 2,726 | 9 |
| Nurse | 1,515 | 5 |
| Carer | 993 | 3 |
| Friend | 560 | 2 |
| Ambulance | 474 | 2 |
| Pharmacist | 208 | 1 |
| Counselling service | 168 | 1 |
| Other, eg police, teachers | 49 | <1 |
| Other medical professional, eg psychologist, social worker | 46 | <1 |
| Total | 30,064 | 100 |

Types of exposure (animal exposures excluded)

The majority of calls about exposure to a poison involved accidental exposures.

| Types of exposure | Number of calls | % |
|-------------------|-----------------|-----|
| Accidental | 22,123 | 74 |
| Therapeutic error | 4,174 | 14 |
| Intentional | 3,175 | 10 |
| Workplace acute | 570 | 2 |
| Workplace chronic | 14 | <1 |
| Environmental | 4 | <1 |
| Other | 4 | <1 |
| Total | 30,064 | 100 |

Routes of exposure (animal exposures excluded)

The majority of calls about exposure to a poison involved ingestion.

| Route of exposure | Number of exposures | % |
|-------------------|---------------------|-----|
| Ingestion | 29,170 | 80 |
| Ocular | 2,006 | 6 |
| Dermal | 1,823 | 5 |
| Inhalation/nasal | 1,694 | 5 |
| Bite/sting | 1,207 | 3 |
| Parenteral | 285 | 1 |
| Aural | 31 | <1 |
| Rectal | 13 | <1 |
| Vaginal | 6 | <1 |
| Total | 36,235* | 100 |

* The number of exposures is greater than the person exposed, person calling and types of exposure numbers because a call sometimes has more than one exposure, eg polypharmacy overdoses, household items sprayed into the mouth, face and eyes.

Handling calls – neonates (<1 month)

The majority of neonates exposed to a poison could be managed at home.

| Handling calls - neonates | Number of calls | % |
|---------------------------|-----------------|-----|
| Stay at home | 24 | 80 |
| Hospital refer | 2 | 8 |
| GP refer | 2 | 8 |
| Other | 1 | 4 |
| In hospital | 0 | 0 |
| At GP surgery | 0 | 0 |
| Total | 29 | 100 |

Handling calls – infants (1 month to <1 year)

The majority of infants exposed to a poison could be managed at home.

| Handling calls – infants | Number of calls | % |
|--------------------------|-----------------|-----|
| Stay at home | 1,371 | 91 |
| In hospital | 51 | 3 |
| At GP surgery | 33 | 2 |
| GP refer | 24 | 2 |
| Hospital refer | 18 | 1 |
| Other | 18 | 1 |
| Total | 1,515 | 100 |

Handling calls – children (1 to <12 years)

The majority of children exposed to a poison could be managed at home.

| Handling calls - children | Number of calls | % |
|---------------------------|-----------------|-----|
| Stay at home | 12,249 | 87 |
| In hospital | 728 | 6 |
| Hospital refer | 552 | 4 |
| Other | 193 | 1 |
| At GP surgery | 136 | 1 |
| GP refer | 127 | 1 |
| Total | 13,985 | 100 |

Handling calls – adolescents (12 to <16 years)

The majority of adolescents exposed to a poison could be managed at home.

| Handling calls – adolescents | Number of calls | % |
|------------------------------|-----------------|-----|
| Stay at home | 215 | 45 |
| In hospital | 148 | 32 |
| Hospital refer | 54 | 11 |
| GP refer | 33 | 7 |
| At GP surgery | 18 | 3 |
| Other | 12 | 2 |
| Total | 480 | 100 |

Handling calls – adults (16 to 65 years)

The majority of adults exposed to a poison could be managed at home.

| Handling calls – adults | Number of calls | % |
|-------------------------|-----------------|-----|
| Stay at home | 6,762 | 53 |
| In hospital | 2,660 | 20 |
| Hospital refer | 1,717 | 13 |
| GP refer | 857 | 7 |
| Other | 498 | 4 |
| At GP surgery | 421 | 3 |
| Total | 12,915 | 100 |

Handling calls – elderly (>65 years)

The majority of elderly people exposed to a poison could be managed at home.

| Handling calls - elderly | Number of calls | % |
|--------------------------|-----------------|-----|
| Stay at home | 840 | 74 |
| In hospital | 106 | 9 |
| Hospital refer | 86 | 7 |
| GP refer | 55 | 5 |
| Other | 33 | 3 |
| At GP surgery | 20 | 2 |
| Total | 1,140 | 100 |

Symptom severity at the time of the call (animal exposures excluded)

The majority of human exposures were asymptomatic at the time of the call to VPIC.

| Poisoning severity score* | Number of calls | % |
|---------------------------|-----------------|-----|
| None | 21,646 | 72 |
| Minor | 8,117 | 27 |
| Moderate | 338 | 1 |
| Severe | 49 | <1 |
| Fatal | 0 | <1 |
| Total | 30,064 | 100 |

* Symptom severity scoring is based on the Poisoning Severity Score. Persson HE, Sjoberg GK, Haines JA, Pronczuk de Garbino J. Poisoning severity score. Clin Tox 1998; 36(3): 205-13.

Top ten exposure substances

VPIC's top ten exposure substances during 2010 are shown below.*

| Substance | Number of exposures |
|--|---------------------|
| Paracetamol | 1,810 |
| Benzodiazepines | 1,080 |
| Ibuprofen | 726 |
| Topical antiseptics, handsanitiser | 677 |
| Silica gel | 641 |
| Bleach (hypochlorite based) | 617 |
| Selective serotonin re-uptake inhibitor antidepressants | 615 |
| Paracetamol/narcotic combination analgesic | 540 |
| Toilet bowl cleaner/deodoriser: cage/disc type | 513 |
| Cough and cold preparations without paracetamol or aspirin | 489 |

*These are not necessarily the most toxic, but rather may be the most accessible.

Exposures to non-medicine, non-drug products

| Substance/product | Number of exposures |
|---|---------------------|
| HOME PRODUCTS | |
| Adhesives, glues, cements, pastes | |
| Cyanoacrylates | 176 |
| Epoxy resins | 17 |
| Model glues, cements | 17 |
| Non-toxic glues, pastes | 50 |
| Adhesive, glue, cement, paste: other/unknown | 41 |
| Art, craft, hobby, writing products | |
| Chalk | 26 |
| Correction fluid | 30 |
| Crayon | 22 |
| Paint: artists' paints, non-water colour | 7 |
| Paints: artists' paints, water colours | 10 |
| Paper/cardboard | 31 |
| Pencil | 18 |
| Pens/ink (including stamp pad ink, textas) | 207 |
| Printer ink/cartridge | 16 |
| Art, craft, writing products: other/unknown | 41 |
| Batteries | |
| Automotive | 18 |
| Disc/button battery | 54 |
| Penlight/dry cell | 92 |
| Cleaners, bleaches, detergents etc | |
| Bleach (hypochlorite based) | 617 |
| Bleach: other/unknown | 13 |
| CD/DVD cleaner | 2 |
| Cleaner: all purpose/hard surface | 487 |
| Cleaner: ammonia based | 23 |
| Cleaner: baby bottle | 16 |
| Cleaner: bathroom/shower/tile | 173 |
| Cleaner: carpet | 63 |
| Cleaner: drain | 81 |
| Cleaner: floor | 72 |
| Cleaner: glass/window | 95 |
| Cleaner: industrial | 133 |
| Cleaner: leather/vinyl/upholstery | 16 |
| Cleaner: nappy | 15 |
| Cleaner: oven | 190 |
| Cleaner: other/unknown | 152 |
| Detergent: anionic/non-ionic (not hand dish type) | 6 |

| | |
|---|-----|
| Detergent: automatic dishwasher liquids | 18 |
| Detergent: automatic dishwasher powders/tablets | 327 |
| Detergent: automatic dishwasher rinse agents | 62 |
| Detergent: cationic (not disinfectants) | 3 |
| Detergent: hand dish | 440 |
| Detergent: laundry | 318 |
| Disinfectant | 340 |
| Dry cleaning agent | 1 |
| Fabric softener | 26 |
| Ironing aid/starch | 7 |
| Laundry additive | 36 |
| Pre-wash stain remover | 129 |
| Rust remover: other/unknown | 10 |
| Sugar soap (sodium carbonate) | 15 |
| Tape head cleaner | 1 |
| Toilet bowl cleaner/deodoriser: cage type | 513 |
| Toilet bowl cleaner: powder/liquid | 82 |
| Vaporiser cleaning tablet | 17 |
| Fire extinguishers | |
| BCF/Halon | 1 |
| Dry powder | 28 |
| Foam | 2 |
| Food products, food poisoning | |
| Artificial sweeteners | 1 |
| Food additives | 138 |
| Food allergy | 24 |
| Food poisoning | 76 |
| Food recall/scare | 5 |
| Food spoilage | 207 |
| MSG (Chinese restaurant syndrome) | 1 |
| Garden products | |
| Fertiliser: household plant food | 18 |
| Fertiliser: outdoor | 69 |
| Soil/potting mix | 45 |
| Miscellaneous home products | |
| Air fresheners | 141 |
| Blu-tack | 18 |
| Bubble blowing solution | 149 |
| Charcoal | 5 |
| Christmas decorations | 3 |
| Cigarettes and tobacco products | 100 |
| Coins | 23 |

| | |
|---|-----|
| Cyalume light sticks/glow necklaces | 201 |
| Desiccants: other/unknown (not silica gel) | 68 |
| Dyes: fabric | 22 |
| Dyes: food | 5 |
| Dyes: other/unknown | 15 |
| Fire starters | 67 |
| Foreign body | 142 |
| Fragrant oil/pot pourri oil | 93 |
| Freezer/cold packs | 73 |
| Glass | 7 |
| Incense | 3 |
| Massage oil | 29 |
| Matches | 14 |
| Pet food | 29 |
| Plastic/polystyrene | 78 |
| Room deodoriser | 80 |
| Silica gel | 641 |
| Thermometer: mercury | 101 |
| Thermometer: non-mercury | 23 |
| Toys | 70 |
| Household products: other/unknown | 222 |
| Photographic products | |
| Photographic chemicals | 7 |
| Polishes and waxes | |
| Polish/wax: car | 3 |
| Polish/wax: floor (including sealers) | 2 |
| Polish/wax: furniture | 47 |
| Polish/wax: metal | 7 |
| Polish/wax: shoe/boot | 9 |
| Polish/wax: other/unknown | 1 |
| Swimming pool and aquarium products | |
| Aquarium products | 40 |
| Pool chlorine | 68 |
| Pool products: other/unknown | 31 |
| BUILDING/HANDYMAN PRODUCTS | |
| Building products | |
| Asbestos | 7 |
| Asphalt/bitumen | 5 |
| Caulking compounds and construction putties | 18 |
| Cement/concrete/lime | 46 |
| Clay | 1 |
| Fibreglass | 4 |
| Insulation | 8 |
| Methyl ethyl ketone peroxide | 11 |

| | |
|---|-----|
| Soldering flux | 2 |
| Building/handyman products: other/unknown | 114 |
| Paints and paint strippers | |
| Copper chrome arsenate (wood preservative) | 11 |
| Creosote (wood preservative) | 4 |
| Paints: oil-based | 49 |
| Paints: water-based house type | 66 |
| Paint strippers: methylene chloride based | 1 |
| Paint strippers: other/unknown | 8 |
| Paint thinner | 34 |
| Paints: other/unknown | 88 |
| Varnishes and lacquers | 25 |
| Wood stains | 18 |
| CAR/BOAT PRODUCTS | |
| Car products: antifreeze | 14 |
| Car products: brake fluid, transmission fluid etc | 24 |
| Car products: other/unknown | 65 |
| CHEMICALS | |
| Alcohols | |
| Alcohol ethanol (beverage) | 300 |
| Alcohol ethanol (non-beverage) | 132 |
| Alcohol: higher (butanol, propanol etc) | 1 |
| Alcohol: other/unknown | 1 |
| Isopropanol | 14 |
| Methanol | 8 |
| Essential oils | |
| Camphor | 11 |
| Clove oil | 19 |
| Eucalyptus oil | 239 |
| Tea tree oil | 63 |
| Essential oil: other/unknown | 138 |
| Fumes, gases, vapours | |
| Carbon dioxide | 2 |
| Carbon monoxide | 40 |
| Chlorine | 11 |
| Chlorine/chloramine gas (mixing household cleaning agents) | 33 |
| Helium | 7 |
| Hydrogen sulphide | 3 |
| Lacrimators (Mace spray, tear gas etc -not fumigants) | 3 |
| Methane and natural gas | 80 |

| | |
|---|-----|
| Polymer fume fever | 1 |
| Propane and other simple asphyxiants | 6 |
| Smoke/toxic products of combustion | 71 |
| Fume/gas/vapour: other/unknown | 40 |
| General chemicals | |
| Acetone (not nail polish removers) | 16 |
| Acids: other/unknown | 29 |
| Alkalis (not cleaners) | 33 |
| Ammonia (not cleaners) | 12 |
| Borates (not insecticides) | 9 |
| Copper sulphate | 16 |
| Corrosives: other/unknown | 14 |
| Cyanide | 2 |
| Ethylene glycol and other glycols | 38 |
| Formaldehyde/formalin | 14 |
| Hydrochloric acid | 59 |
| Hydrofluoric acid | 15 |
| Hydrogen peroxide (non-medical) | 29 |
| Iodine (non-medical) | 4 |
| Isothiazolones (acticide, biocide, kathon, octhilinone etc) | 2 |
| Methylene chloride (not paint strippers) | 1 |
| Nitrates and nitrites | 31 |
| Phenol and other phenolics | 8 |
| Phosphorus | 1 |
| Polychlorinated/polybrominated biphenyls | 1 |
| Potassium permanganate | 11 |
| Strychnine | 1 |
| Sulphur | 4 |
| Toluene diisocyanate | 12 |
| Chemicals: other/unknown | 183 |
| Heavy metals | |
| Aluminium | 6 |
| Chromium salts | 2 |
| Copper | 7 |
| Lead | 41 |
| Manganese | 1 |
| Mercury (not thermometers) | 33 |
| Metal fume fever | 11 |
| Selenium | 2 |
| Heavy metals: other/unknown | 11 |
| Hydrocarbons | |
| Hydrocarbons: aliphatic | 31 |
| Hydrocarbons: aromatic | 5 |
| Hydrocarbons: halogenated | 19 |

| | |
|--|-----|
| Hydrocarbons: other/unknown | 11 |
| Kerosene | 16 |
| Lamp oil | 14 |
| Lighter fluid | 8 |
| Oils: lubricating/engine/machine | 81 |
| Petrol | 189 |
| Shellite | 2 |
| Toluene/xylene | 20 |
| Turpentine, mineral | 164 |
| BITES AND STINGS | |
| Insects | |
| Ant | 32 |
| Bee | 48 |
| Caterpillar | 10 |
| Centipede/millipede | 30 |
| Mosquito | 2 |
| Scorpion | 38 |
| Tick | 11 |
| Wasp/hornet | 107 |
| Insect bites: other/unknown | 115 |
| Mammals | |
| Animal bite: dog/cat | 2 |
| Animal bite: other/unknown | 11 |
| Marine | |
| Blue-ringed octopus | 2 |
| Fish stings: other/unknown | 38 |
| Jellyfish and other <i>Coelenterate</i> stings | 25 |
| Stingray | 4 |
| Marine bites/stings: other/unknown | 10 |
| Reptiles and amphibians | |
| Snake | 65 |
| Spiders | |
| Redback spider | 241 |
| White-tailed spider | 77 |
| Spider bite: other/unknown | 411 |
| COSMETICS AND PERSONAL CARE PRODUCTS | |
| Cosmetics | |
| Antiperspirants | 39 |
| Baby oil | 52 |
| Baby wipes | 24 |
| Bath oil/bubble bath/bath preparations | 134 |
| Creams/lotions/make-up | 195 |
| Deodorants | 69 |

| | |
|--|-----|
| Depilatories | 58 |
| Lipstick/lip balms | 32 |
| Perfume/cologne/aftershave | 197 |
| Soap | 144 |
| Sunscreen/suntan products | 80 |
| Talc and other external powders | 62 |
| Cosmetics: other/unknown | 29 |
| Dental/oral care products | |
| Denture cleaning agents | 35 |
| Mouthwash: ethanol containing | 58 |
| Mouthwash: non-ethanol containing | 56 |
| Mouthwash: other/unknown | 3 |
| Teething gels | 93 |
| Toothache drops | 8 |
| Toothpaste with fluoride | 87 |
| Toothpaste without fluoride | 7 |
| Dental care products: other/unknown | 6 |
| Hair care products | |
| Hair colours (not peroxide) | 54 |
| Hair colours (peroxide) | 75 |
| Hair conditioner | 18 |
| Hair gel/mousse | 15 |
| Hair rinses/perms | 5 |
| Hair spray | 22 |
| Shampoo antidandruff: selenium based | 5 |
| Shampoo antidandruff: zinc pyrithione | 8 |
| Shampoo antidandruff: other | 4 |
| Shampoo non-medicated | 109 |
| Hair care: other | 33 |
| Nail products | |
| Nail hardeners | 7 |
| Nail polish | 125 |
| Nail polish remover | 175 |
| Nail primer | 10 |
| Nail products: other/unknown | 30 |
| VETERINARY PRODUCTS | |
| Veterinary: animal vaccines | 63 |
| Veterinary: external medicines | 97 |
| Veterinary: flea collars/insecticidal washes | 20 |
| Veterinary: heart worm preparations | 12 |
| Veterinary: internal medicines | 235 |
| PESTICIDES/HERBICIDES/FUNGICIDES | |
| Baits | |
| 1080/monofluoroacetate | 3 |

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|---|-----|
| Rodenticides: anticoagulant (warfarin type) | 36 |
| Rodenticides: anticoagulant (long-acting) | 296 |
| Rodenticides: other/unknown | 106 |
| Baits: other/unknown | 19 |
| Carbamates | |
| Carbamates | 10 |
| Carbamates in combination with other pesticides | 12 |
| Chlorinated hydrocarbons | |
| Chlorinated hydrocarbons | 6 |
| Fumigants | |
| Bromides | 3 |
| Chloropicrin | 1 |
| Phosphine | 3 |
| Fumigants: other | 1 |
| Fungicides | |
| Carbamate type | 5 |
| Copper type | 8 |
| Fungicides: other/unknown (non-medical) | 8 |
| Herbicides | |
| Glyphosate | 331 |
| Herbicides: chlorphenoxy type (2, 4 D; MCPA etc.) | 50 |
| Herbicides: triazine type | 12 |
| Paraquat/diquat | 15 |
| Herbicides: other/unknown | 83 |
| Insecticides/pesticides | |
| Arsenic pesticides | 4 |
| Borates/boric acid pesticides | 95 |
| Insect coils | 1 |
| Insect repellants containing DEET | 119 |
| Insect repellants not containing DEET | 36 |
| Pyrethrins/pyrethroids | 453 |
| Rotenone | 3 |
| Snail/slug bait: iron edetate | 5 |
| Snail/slug bait: metaldehyde | 41 |
| Snail/slug bait: methiocarb | 9 |
| Pesticides: other/unknown | 91 |
| Moth repellents | |
| Naphthalene moth repellants | 46 |
| | |

| Organophosphates | |
|---|-----|
| Organophosphates | 75 |
| PLANTS AND MUSHROOMS | |
| Mushrooms | 257 |
| Plants: amaryllidaceae | 16 |
| Plants: amygdalin/cyanogenic glycosides | 28 |
| Plants: anticholinergic | 10 |
| Plants: cactus | 5 |
| Plants: capsaicin | 30 |
| Plants: cardiac glycosides | 31 |
| Plants: daphne | 4 |
| Plants: dermatitis | 32 |
| Plants: dieffenbachia | 1 |
| Plants: euphorbiaceae | 47 |
| Plants: gastrointestinal irritants | 34 |
| Plants: grayanotoxins | 2 |
| Plants: hallucinogenic | 9 |
| Plants: lantana | 2 |
| Plants: non-toxic | 84 |
| Plants: oxalate | 150 |
| Plants: philodendron | 5 |
| Plants: solanine | 46 |
| Plants: stimulants | 1 |
| Plants: toxicodendrol | 2 |
| Plants: other/unknown | 165 |
| MISCELLANEOUS NON-MEDICINE, NON-DRUG EXPOSURES | |
| Blue-green algae | 8 |
| Faeces/urine | 48 |
| Radioactive materials | 2 |
| Snail/slug | 9 |

Exposures to medicines and drugs

| Medicine/drug | Number of exposures |
|--|----------------------------|
| ANAESTHETICS | |
| Anaesthetics: inhalation | 1 |
| Anaesthetics: topical/local | 17 |
| Anaesthetics: other/unknown | 1 |
| Nitrous oxide | 2 |
| ANALGESICS | |
| Aspirin/narcotic combination analgesic | 5 |
| Aspirin/salicylates | 188 |
| Codeine | 11 |
| Dextropropoxyphene | 1 |
| Fentanyl | 6 |

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|---|-------|
| Morphine | 36 |
| Oxycodone | 179 |
| Paracetamol | 1,810 |
| Paracetamol/narcotic combination | 540 |
| Tramadol | 115 |
| Analgesics: narcotic other/unknown | 5 |
| ANTICHOLINERGICS | |
| Atropine | 2 |
| Benztropine | 22 |
| Anticholinergic drugs: other/unknown | 62 |
| ANTICOAGULANTS and BLOOD PRODUCTS | |
| Heparin | 3 |
| Warfarin | 115 |
| Anticoagulants: other/unknown | 2 |
| ANTIHISTAMINES | |
| Cetirizine | 60 |
| Dexchlorpheniramine | 29 |
| Fexofenadine | 59 |
| Loratadine | 82 |
| Pheniramine | 8 |
| Promethazine | 91 |
| Antihistamines: other/unknown | 31 |
| ANTIMICROBIALS | |
| Antibiotics | |
| Aminoglycosides | 2 |
| Antibiotic combinations (Augmentin, Bactrim etc.) | 59 |
| Cephalosporins | 146 |
| Macrolides | 95 |
| Penicillins | 290 |
| Quinolones | 11 |
| Tetracyclines | 44 |
| Antibiotics: other/unknown | 22 |
| Antifungals | |
| Antifungal drugs (ketoconazole, fluconazole etc) | 21 |
| Antiparasitics/Anthelmintics | |
| Anthelmintics | 67 |
| Antianaerobes (metronidazole, tinidazole etc) | 25 |
| Antimalarials (not quinine, chloroquine) | 1 |

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| Antituberculars | |
| Antitubercular drugs | 3 |
| Antivirals | |
| Antiviral drugs | 36 |
| ANTIMIGRAINE DRUGS | |
| Ergot alkaloids | 2 |
| Triptans (naratriptan, sumatriptan etc) | 8 |
| Migraine preparations: other/unknown | 24 |
| ASTHMA/RESPIRATORY DRUGS | |
| Bronchodilators | 65 |
| Leukotriene receptor antagonists (montelukast, zafirlukast etc) | 31 |
| Preventors | 78 |
| Theophylline and other xanthines | 1 |
| Asthma drugs: other/unknown | 1 |
| Respiratory drugs: other/unknown | 31 |
| CARDIOVASCULAR DRUGS | |
| ACE inhibitor/diuretic combinations | 31 |
| ACE inhibitors | 176 |
| Adrenaline | 39 |
| Alpha blockers | 9 |
| Angina preparations | 14 |
| Angiotensin II antagonist/diuretic combinations | 71 |
| Angiotensin II antagonists | 136 |
| Antiarrhythmic agents | 24 |
| Antihypertensives: other (not diuretics) | 32 |
| Antiplatelet agents: other (clopidogrel, dipyridamole etc) | 50 |
| Beta blockers | 268 |
| Calcium antagonists | 146 |
| Cardiac glycosides | 54 |
| Diuretics: other | 85 |
| Diuretics: potassium sparing | 16 |
| HMG CoA reductase inhibitors (statins) | 122 |
| Lipid lowering agents: fibrates (gemfibrozil, fenofibrate etc) | 2 |
| Lipid lowering agents: other | 3 |
| Vasodilators | 11 |
| Cardiovascular drugs: other/unknown | 4 |
| CENTRAL NERVOUS SYSTEM DRUGS | |
| Antidepressants | |
| Duloxetine | 95 |
| Mianserin | 7 |

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|--|-------|
| Mirtazapine | 107 |
| Monoamine oxidase inhibitors | 19 |
| Selective serotonin reuptake inhibitors (citalopram, escitalopram, fluoxetine etc.) | 615 |
| Tricyclic antidepressants | 124 |
| Venlafaxine/desvenlafaxine | 113 |
| Antidepressants: other/unknown | 17 |
| Antiepileptics | |
| Carbamazepine | 132 |
| Gabapentin | 11 |
| Phenytoin | 40 |
| Pregabalin | 32 |
| Sodium valproate | 251 |
| Antiepileptics: other/unknown | 136 |
| Antipsychotics | |
| Amisulpride | 18 |
| Aripiprazole | 22 |
| Clozapine | 29 |
| Olanzapine | 145 |
| Phenothiazines (chlorpromazine, trifluoperazine etc) | 103 |
| Quetiapine | 349 |
| Risperidone | 95 |
| Ziprasidone | 12 |
| Antipsychotics: other/unknown | 26 |
| CNS depressants | |
| Barbiturates | 8 |
| Benzodiazepines | 1,080 |
| Chloral hydrate | 2 |
| Doxylamine | 55 |
| Sleep aids over-the-counter: other | 7 |
| Zolpidem | 55 |
| Zopiclone | 23 |
| Sedative/hypnotic: other/unknown | 45 |
| CNS stimulants | |
| Amphetamines (for ADHD, not street drugs) | 131 |
| Caffeine | 48 |
| CNS – miscellaneous | |
| Antidementia agents (donepezil, galantamine, rivastigmine) | 24 |
| Antiparkinsonian agents | 42 |
| Clonidine | 63 |
| Lithium | 79 |

| COUGH/COLD PREPARATIONS | |
|--|-----|
| Antitussives | 29 |
| Cough/cold preparations with paracetamol | 169 |
| Cough/cold preparations without paracetamol/aspirin | 489 |
| Dextromethorphan | 31 |
| Pseudoephedrine | 20 |
| Throat lozenges with local anaesthetic | 3 |
| Throat lozenges without local anaesthetic | 17 |
| DRUGS USED IN ADDICTIVE DISORDERS | |
| Buprenorphine | 22 |
| Bupropion | 10 |
| Disulfiram | 4 |
| Methadone | 24 |
| Naltrexone | 9 |
| Antismoking products: other (nicotine patches, gum etc) | 71 |
| EAR PREPARATIONS | |
| Ear drops | 63 |
| Ear ointments | 9 |
| EYE PREPARATIONS | |
| Contact lens preparations | 14 |
| Eye drops: imidazoline-based | 12 |
| Eye drops: other/unknown | 44 |
| Eye ointment | 5 |
| GASTROINTESTINAL PREPARATIONS | |
| Antacids | 88 |
| Antidiarrhoeals: diphenoxylate/atropine | 5 |
| Antidiarrhoeals: loperamide | 27 |
| Antidiarrhoeals: other | 1 |
| Antiemetics | 109 |
| Antispasmodics | 19 |
| Histamine ₂ - antagonists (cimetidine, ranitidine etc.) | 26 |
| Laxatives | 127 |
| Proton pump inhibitors (omeprazole, pantoprazole, esomeprazole etc.) | 164 |
| Gastrointestinal preparations: other/unknown | 75 |
| METABOLISM | |
| Electrolytes/minerals | |
| Calcium salts | 41 |
| Fluoride | 1 |

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|--|-----|
| Iron (not multivitamins) | 100 |
| Potassium salts | 27 |
| | |
| Vitamins | |
| Folic acid | 56 |
| Vitamin A | 1 |
| Vitamin B group | 20 |
| Vitamin C | 46 |
| Vitamin D | 93 |
| Vitamins compound with iron | 246 |
| Vitamins compound without iron | 50 |
| Vitamins: other | 64 |
| | |
| Other metabolic | |
| Androgenic and anabolic agents | 3 |
| Antihormones (tamoxifen, cyproterone, flutamide etc.) | 12 |
| Antithyroid preparations | 6 |
| Bisphosphonates | 20 |
| Corticosteroids | 217 |
| Diet aids/anorectics – over-the-counter | 10 |
| Diet aids/anorectics – prescription | 36 |
| Hypoglycaemics, oral: alpha glucosidase inhibitors (acarbose etc) | 3 |
| Hypoglycaemics, oral: biguanides (metformin) | 98 |
| Hypoglycaemics, oral: combination products (metformin/glibenclamide, metformin/rosiglitazone, metformin/sitagliptin etc) | 1 |
| Hypoglycaemics, oral: DPP-4 inhibitors (sitagliptin, vildagliptin etc) | 1 |
| Hypoglycaemics, oral: glitazones | 13 |
| Hypoglycaemics, oral: sulphonylureas (glibenclamide, gliclazide, glipizide etc) | 18 |
| Insulin | 49 |
| Oestrogens/progestogens (not oral contraceptives) | 14 |
| Oral contraceptives: oestrogen and progestogen | 378 |
| Oral contraceptives: progestogen only | 43 |
| Thyroxine | 101 |
| Thyroid preparations: other/unknown | 11 |
| Hormones: other/unknown | 22 |
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| NONSTEROIDAL ANTI-INFLAMMATORY DRUGS AND GOUT MEDICATIONS | |
| Allopurinol | 21 |
| Celecoxib | 27 |

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|---|-----|
| Colchicine | 22 |
| Diclofenac | 164 |
| Ibuprofen | 726 |
| Ibuprofen plus codeine | 114 |
| Indomethacin | 22 |
| Mefenamic acid | 11 |
| Naproxen | 41 |
| NSAIDs: other/unknown | 48 |
| NOSE PREPARATIONS | |
| Nose drops/sprays: imidazoline-based | 13 |
| Nose drops/sprays: other/unknown | 10 |
| Nasal preparations: other/unknown | 14 |
| STREET DRUGS | |
| Amphetamine and related drugs | 60 |
| Amyl nitrite and other volatile nitrites | 8 |
| Cocaine | 3 |
| Ecstasy and other hallucinogenic amphetamines | 17 |
| Gamma hydroxybutyrate | 14 |
| Heroin | 10 |
| Inhalant abuse (chroming) | 7 |
| LSD | 5 |
| Marijuana | 27 |
| Street drugs: other/unknown | 31 |
| TOPICAL PREPARATIONS | |
| Acne preparations | 17 |
| Antipruritics (calamine lotion etc) | 33 |
| Capsaicin | 26 |
| Chest rubs | 120 |
| Hydrogen peroxide | 7 |
| Lice/scabies preparations | 101 |
| Liniments | 125 |
| Lotions/creams/ointments: other/unknown | 3 |
| Nappy rash products | 422 |
| Topical antibiotics | 18 |
| Topical antifungals | 150 |
| Topical antiseptics | 677 |
| Topical antivirals | 10 |
| Topical corticosteroids | 173 |
| Wart/corn preparations | 28 |
| Topical preparations: other/unknown | 70 |
| MISCELLANEOUS MEDICINE/DRUG EXPOSURES | |
| Antineoplastics | 11 |
| Chloroquine/hydroxychloroquine | 4 |

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|----------------------------------|-----|
| Herbal preparations | 99 |
| Homeopathic preparations | 65 |
| Immunosuppressants | 20 |
| Methotrexate | 34 |
| Muscle relaxants | 29 |
| Quinine | 2 |
| Unknown tablets/capsules | 41 |
| Urinary alkalinisers/antiseptics | 3 |
| Vaccines/toxoids/antivenoms | 28 |
| Vaporiser fluids and inhalants | 220 |
| Other over-the-counter-medicines | 95 |
| Other prescription medicines | 93 |