NSW GOVERNMENT

The Sydney children's Hospitals Network

13 11 26
Poisons
INFORMATION CENTRE

Annual Report 2024

NSW Poisons Information Centre

CONTENTS

OVERVIEW

The New South Wales Poisons Information Centre (NSW PIC) forms part of a national network of Poisons Information Centres (PICs) that provide coverage 24 hours a day, seven days a week, including all holidays. The Poisons Information Centre can be reached on 13 11 26 from anywhere in Australia. Overall, NSW PIC answers approximately 50% of calls to 13 11 26 nationally.

NSW PIC operates a 24-hour service on Wednesday, Thursday, and Saturday from 5:45 am, and operates from 5:45 am to 11:45 pm on Monday, Tuesday, Friday and Sunday. Outside these times calls are diverted from the NSW PIC to one of the other three Australian PICs (Victoria, Queensland, or Western Australia). Only one PIC operates overnight (11:45 pm to 5:45 am), taking all the calls from across Australia while the other three PICs are closed.

NSW PIC is primarily staffed by Specialists in Poisons Information, (SPIs), who have received postgraduate training in toxicology and toxinology. SPIs are mostly pharmacists, but others are science or medical science graduates with pharmacology majors. SPIs manage more than 95% of the phone calls to NSW PIC. SPIs work in collaboration with clinical toxicologists who are medical specialists. Doctors phoning the service about unusual, complicated and/or severe poisonings meeting escalation criteria are referred to clinical toxicologists.

In addition to the 24-hour telephone advice service, the NSW PIC is involved in education, teaching and training both internally and externally to the Sydney Children's Hospitals Network (SCHN). NSW PIC has an active toxicovigilance program, enjoying close relationships with many branches of the NSW and Australian Governments. We link clinical services across NSW and beyond, lead numerous research studies, and translate research into policy and practice through liaison with various stakeholders. NSW PIC engages in a range of clinical governance and standards activities in SCHN, NSW and beyond, to continuously improve the quality, safety, consistency, and reliability of patient care as well as foster professional development for our people.

This service report highlights the professional activities and achievements of the NSW PIC in 2024. Throughout 2024, the NSW PIC has continued to provide an excellent telephone-based service, and has contributed extensively to poisoning prevention, public health activities, and clinical management, as well as clinical research.

STAFF

Operations Director

Nicole Wright (to October 2024)
BSc(Neuroscience&Psych), MPharm, MSHP, FANZCAP(Lead&Mgmt., Toxicol.)
Chamaine Lovett (from November 2024)
BNurs

Medical Director

Conjoint Associate Professor Darren Roberts
BPharm, MBBS, PhD, FRACP, FAChAM
(Co-Clinical Lead, Public Health; Clinical Lead, media and communications)

Deputy Director

Amy Thomson
BPharm, GradCertPharmPrac, MClinPharm, FANZCAP(EmergMed, Toxicol.), MSHP

Senior Specialists in Poisons Information

Research and Audit
Dr Rose Cairns BPharm(Hons 1+Uni Medal), PhD

Standards
Elizabeth Nguyen BPharm

Toxicovigilance
Genevieve Adamo BPharm, FANZCAP(Toxicol.), MPS
Jared Brown FSHP, AdvPracPharm, MPH, BPharm(Hons), GradDipClinEpi(ClinTox), IPPAHC
Kristy Carter BSc, MPharm

Training and Education
Natalie Bailey BMedChem (Adv) Hons, MPharm
Nicola Williams BPharm

Specialists in Poisons Information (SPIs)

Jason Campbell B Pharm, GradDipHospPharm, GradCertDiabetesEducation&Management
Kelvin Cao BPharm, MPH
Katherine Chiew BPharm, FANZCAP(Generalist, Toxicol.)
Alexandra Dey BSc, MPharm
Hailey Doodson BSci(Med Chem), MPharm
Hera Hayat BPharm
Alanna Huynh BPharm(Hons), MPH, GradCertClinPharm
Rachel Khoury-Harb BPharm
Fiona Ku BPharm
Lucy Kuehn BPharm
Olivia Lal BPharm(Hons), GCPH
Man Cho (Joe) Leung BPharm(Hons), MClinPharm, FANZCAP(Toxicol., AddMed)
Andrew McKeon BPharm, MSHP

Elissa Mclean BPharm
Gigi Messina BPharm, GCertTox, FANZCAP(HaemOnc., Toxicol.)
Grace Moujalli BPharm(Industrial Major)
Danh Nguyen BPharm(Hons)
Sarah Patterson BSc(Pharmacology), GradCertDrugDev
Melissa Pirani BMedSc, MPharm
David Quinn BPharm, MClinPharm
Chamani Weerasekara BPharm, FANZCAP(Toxicol.)
Janet West BMedSc

Data manager

Lauren Benger BA, GradCertIntlBus

Administration

Lorraine Lum
Tania Moussa

Clinical Toxicologists

A/Prof Sam Alfred MBBS, FACEM
A/Prof Ingrid Berling BMed, PhD, FACEM (Co-Clinical Lead, Education and Training)
A/Prof Jonathan Brett MBBS, GradDipClinTox, FRACP, FAChAM
Prof Nicholas Buckley MD, FRACP (Deputy Director and Clinical Lead, guidelines)
Dr Bashir Chakar BPharm, MBBS, FACEM
A/Prof Betty Chan MBBS, FACEM, PhD (Clinical Lead, Quality and Safety)
Dr Pramod Chandru, MBBS, FACEM
A/Prof Angela Chiew BSc(Med), MBBS(Hons), FACEM, PhD (Clinical Lead, Research; Co-Clinical Lead, Education and Training)
Dr Lori Coulson MBBS, FACEM
Prof Andrew Dawson MBBS, FRACP, FRCP(Edin) (Co-Clinical Lead Public Health)
Dr Michael Downes MB ChB, FACEM
Dr Dino Druda BMedSc(Hons), MBBS, MRCP(UK), FACEM, GradDipClinTox
A/Prof Naren Gunja MBBS, MSc, FACEM, FACMT (Clinical Lead, Information Technology)
Prof Geoffrey Isbister BSc, MBBS, MD, FACEM
A/Prof Katherine Isoardi BMed, PhD, FACEM, GradDipClinTox
Dr Dushan Jayaweera MBBS(Hons), FACEM, DipTox
Dr Zeff Koutsogiannis MBBS, FACEM
A/Prof Mark Little MBBS, FACEM, MPH&TM, DTM&H
Dr Gopi Mann MBBS, FACEM, MTox
A/Prof Richard McNulty BA, MBBS, PhD, FACEM, CCPU, PGDip(Tox)
Dr Satish Mitter MBBS, FACEM, DipTox
Dr Una Nic Ionmhain MB BCh BAO(Hons), FACEM, MScMedTox
Dr Mark Salter MBBS, FACEM

Postgraduate Fellows in Clinical Toxicology

Dr Jessie Beaulieu MD, FRCPC
Dr Sook Har Ong MD, MEMMED
Dr Emily Sansoni BPsych(Hons1), MBBS, MIPH, FACEM
Dr Emily Symes BSc(Pharm), MBBS, FACEM
Dr Alastair Ward MBBS, FACEM, ClinTox(TAPNA)
Dr Ruth Young BSc, MD, FACEM, PGDipMedTox, ClinTox(TAPNA)

Registrar Advanced Trainee

Dr Peter Chisholm (Public Health Medicine) MBBS, BMedSc, MPH
Dr Ben Tisdell (Emergency Medicine) BSc, MBBS, FACEM

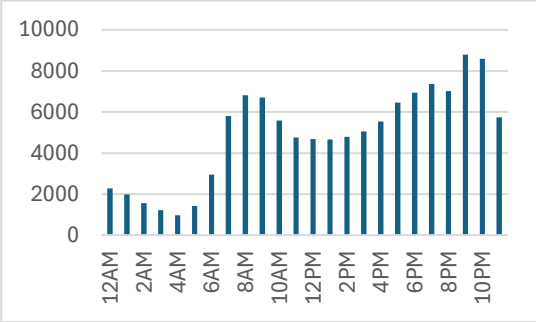
Nicole Wright & Genevieve Messina promoted NSW PIC role in poisoning prevention & management NIFAT 2024, Cairns

TELEPHONE SERVICE PERFORMANCE REPORT

NSW PIC received 117,695 calls in 2024, an average of 322 calls per day. In addition to the 117,695 calls answered (Figures 1 and 2), 5,246 calls were abandoned post greeting message (Figure 2). The abandoned calls may relate to wait times, where call volume exceeded SPI resourcing. It should be highlighted however, that the average speed to answer was 58 seconds (which includes the greeting message), and the average call duration was 4 minutes and 27 seconds.

Calls by hour of the day

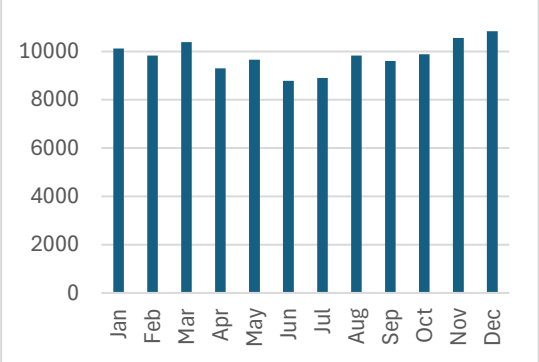
Figure 1: Number of calls answered by hour, 2024



Note: Call numbers from midnight to 6 am represent only 3 days each week.

Calls by month of the year

Figure 2: Calls answered by month, 2024



Note: Increased call numbers in Summer relates to seasonal nature of bites, stings and envenomation.

Calls by geographic location

NSW PIC primarily services residents of New South Wales, the Australian Capital Territory and Tasmania, but receives calls from all states and territories of Australia. A breakdown of geographical distribution of calls received is summarised in Table 1. The calls taken from interstate (other than Tasmania and the Australian Capital Territory), were received outside operating hours the other Australian PICs. NSW PIC also received a small number of international calls from Australian residents from overseas. State unknown is used when the caller location cannot be determined by area code/phone number (such as calls from mobile numbers) and/or the caller terminates the call before their location is obtained.

Table 1. Geographical distribution of calls received by NSW PIC, 2024

State	Number of calls (% of total calls)
New South Wales	76,127 (65%)
Victoria	12,339 (10%)
Queensland	9,368 (8%)
Tasmania	6,521 (6%)
Australian Capital Territory	4,429 (4%)
South Australia	2,841 (2%)
Western Australia	2,791 (2%)
Northern Territory	345 (<0.5%)
International	82 (<0.5%)
Unknown	2,538 (2%)
Other	307 (<0.5%)
Total	**117,695 (100%)**

Call type

Data on the call types answered by NSW PIC are summarised in Figure 3. Most calls (70%, 82,643) are for an exposure to a possible or confirmed poisoning. Queries account for 20% of calls (23,465), with types of queries outlined in Table 3. A recall (8% of calls, 9,665) is a second or subsequent call about a case already consulted with NSW PIC, due to new information, or the complexity or severity of the exposure requiring ongoing clinical advice. Handover refers to calls between PICs relaying information or updates on potentially complicated or unusual cases.

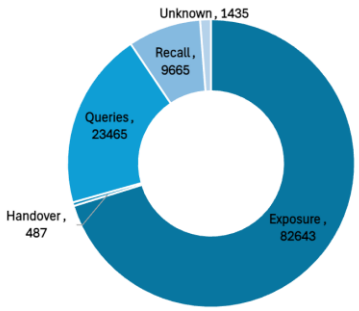


Figure 3: Number of calls by call type, 2024

Type of exposure

The type of exposures that NSW PIC consulted on are shown in Table 2. Most exposures (48%) were accidental, for example children accessing a medicine, plant or chemical. The next most frequent exposures were therapeutic errors (26%), including dosing errors for medicines. Intentional self-poisonings accounted for 15% of cases. Other exposure types were reasonably frequent but accounted for a lower percentage of calls received.

Table 2. Exposure types for calls to NSW PIC, 2024

Exposure Type	Number of calls (% of total calls)
Accidental	39,737 (48%)
Therapeutic error	21,190 (26%)
Intentional-self poisoning	12,522 (15%)
Intentional: other	2,647 (3%)
Adverse reaction	2,036 (2%)
Recreational	1,521 (2%)
Workplace	1,590 (2%)
Unknown	885 (1%)
Food poisoning	380 (<1%)
Pregnancy	77 (<0.5%)
Environmental	24 (<0.5%)
Other	33 (<0.5%)
Total	**82,642 (100%)**

Age of person who is the subject of the call

Over 50% of calls related to adults aged 20 to 74 years, Figure 4. The next most common group were toddlers (21%), followed by cases involving children (10%), adolescents (7%), infants (4%) or older adults (4%).

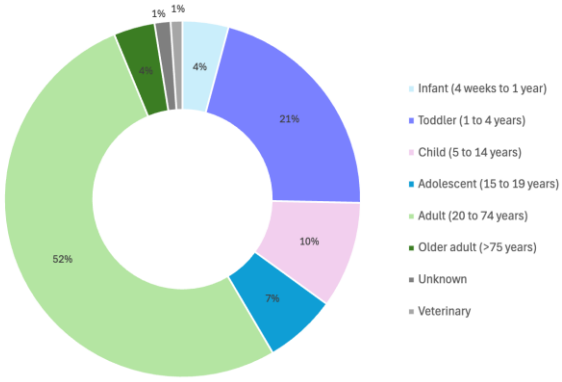


Figure 4: Number of calls by age of person who is subject of call, 2024

Note: Pet owners calling NSW PIC regarding animal exposures may be provided details of product ingredients but are usually referred to the Australian Animal Poisons Centre or a veterinarian.

Enquiries (non-poisonings)

Table 3 summarises the queries answered by NSW PIC. Here, queries relate to questions about poisons or medicines, unrelated to a person who has been potentially poisoned. It is notable that NSW PIC answers more medication-related enquiries than other services which are established to provide this service.

Table 3. Summary of the types of queries answered by NSW PIC, 2024

Query type	Number of calls (% of total calls)
Drug information	18,630 (79%)
Poisons information	2,771 (12%)
Prevention of poisoning/safety	623 (3%)
Inappropriate/refer	498 (2%)
Medical	346 (2%)
Breastfeeding	267 (1%)
Pregnancy	184 (<1%)
Unknown	110 (<1%)
Occupational	27 (<0.5%)
Environmental	9 (<0.5%)
Total	**23,465 (100%)**

Person calling

Table 4 outlines the person who called NSW PIC for advice. The most common caller was a family member of the person of interest (34%). These calls are frequently about accidental poisoning and therapeutic errors (Table 2), or drug information (Table 3). The next largest group of callers were healthcare professionals (25%), of whom 60% were doctors and more than 85% were healthcare professionals working in acute care environments. Callers from group homes, for example carers asking about medication errors or substance use, comprised 15% of calls, representing the group of callers with the most rapid increase in recent years. In the period from 2015 to 2024 there was an ~500% increase in calls originating from group homes or in-home carers.

Table 4. Summary of the background of the person who calls NSW PIC, 2024.

Person Calling	Number of calls (% of total calls)
Family member	39,528 (34%)
Self	24,754 (21%)
Group home	17,267 (15%)
ED doctor	14,515 (12%)
Nurse	5,714 (5%)
Ambulance	5,282 (4%)
Other doctors	2,039 (2%)
Carer	1,823 (2%)
Friend	1,318 (1%)
GP	970 (<1%)
ICU doctor	495 (<0.5%)
Pharmacist	557 (<0.5%)
Counselling service	270 (<0.5%)
Other Medical Professional	104 (<0.5%)
Subtotal Healthcare Professionals	<0.5 29,946 (25%)
Other	1,200 (1%)
Vet	64 (<0.5%)
Unknown	1,795 (2%)
Total	**117,695 (100%)**

Route of exposure

Most calls about exposures (Table 1) were due to oral exposures, Table 5.

Table 5. Route of exposure for calls received by NSW PIC, 2024.

Route of Exposure	Number of calls (% of total calls)
Ingestion	90,778 (80%)
Inhalation/nasal	6,185 (5%)
Dermal	4,410 (4%)
Ocular	4,287 (4%)
Bite/Sting	3,639 (3%)
Buccal/sublingual	2,287 (2%)
Parenteral	1,681 (1%)
Unknown	610 (<1%)
Aural	99 (<0.05%)
Vaginal	82 (<0.05%)
Rectal	77 (<0.05%)
Total	**114,157 (100%)**

Note: Multiple routes of exposure are possible for each substance within the one call.

Calls by sex or gender of the patient

Figure 5 notes approximately equal numbers of calls based on the sex or gender of the patient, with a slight preponderance of female callers (51%) which is consistent with previous years.

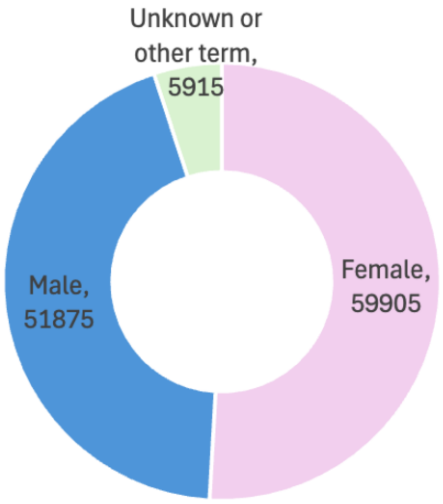


Figure 5. Sex or gender distribution of the patient in calls received by NSW PIC

Call handling

Call handing relates to the patient disposition, and this decision-making relates to the actual or potential severity of the exposure. The handling of exposure calls received by NSW PIC is summarised in Table 6 and Figure 6, where the age of the patient was recorded. Marked differences in handling is seen between age groups, reflecting the differences in reasons for the call and potential severity (Table 2 and Figure 4). Overall, 62% of cases could be managed at home (Table 6), thereby avoiding inconvenience and the cost of seeking a medical review. For example, medication errors and accidental poisonings predominate in children, and are frequently lower risk which can allow for cases to be monitored at home. In contrast, all intentional self-poisonings would be referred to hospital.

Overall, 18% of cases were already in hospital at the time of the call, reflecting the actual or potential severity of poisoning. In 14% of cases, the potential risk or current severity of poisoning prompted the SPIs to refer the patient to hospital for medical assessment and/or monitoring (Table 6).

Table 6. Summary of call handling for exposure calls (including recalls), based on the age of the patient, 2024.

Call handling	Total
Stay at home	50,721 (62%)
In hospital	14,841 (18%)
Refer to hospital	11,401 (14%)
Other	2,299 (3%)
Refer to GP	2,209 (3%)
At GP surgery	641 (<1%)
Unknown	188 (<0.5%)

Top 10 exposures by substance

The top 10 exposures ranked by substance are listed in Table 7. A range of non-prescription, prescription and household chemicals are noted, in addition to ethanol. Overall, these top 10 substances relate to a relatively small proportion of calls to NSW PIC in 2024, reflecting the large number of other substances NSW PIC were also consulted on.

Table 7. Top 10 exposures ranked by substance, 2024

Substance	Number of Calls*
Paracetamol	7,452
Ibuprofen (systemic)	3,506
Ethanol (Beverage)	2,725
Quetiapine	2,089
Diazepam	1,534
Bleach: Hypochlorite based	1,282
Melatonin	1,279
Sertraline	1,267
Clonidine	1,211
Pyrethrins/pyrethroids	1,156

*Number includes exposure calls only

The top 25 substances involved in calls for 2024 by age group is available: https://www.poisonsinfo.nsw.gov.au/site/files/ul/data_text12/6871196-Top_25_data_2024.pdf

Calls referred to a clinical toxicologist

NSW PIC referred 3,722 calls (3.2% of all calls to NSW PIC) to a clinical toxicologist in 2024.

Calls to clinical toxicologists relate to symptomatic patients, often critically ill, due to poisoning from unusual or multiple substances. Paracetamol remains the substance most frequently ingested in calls referred to a clinical toxicologist (Table 8), although this is a common co-ingestant and so it is not necessarily the key reason for the referral. Overall, these top 10 substances relate to a relatively small proportion of calls referred to clinical toxicologists in 2024, reflecting the large number of other substances NSW PIC were also consulted on.

Table 8. Top 10 calls (including recalls) referred to a clinical toxicologist, 2024

Substance	Number of calls
Paracetamol	450
Ethanol (Beverage)	383
Quetiapine	285
Snake	284
Clonidine	168
Diazepam	165
Amitriptyline	147
Lithium	145
Snake bite suspected	133
Unknown/unidentified medicine	133

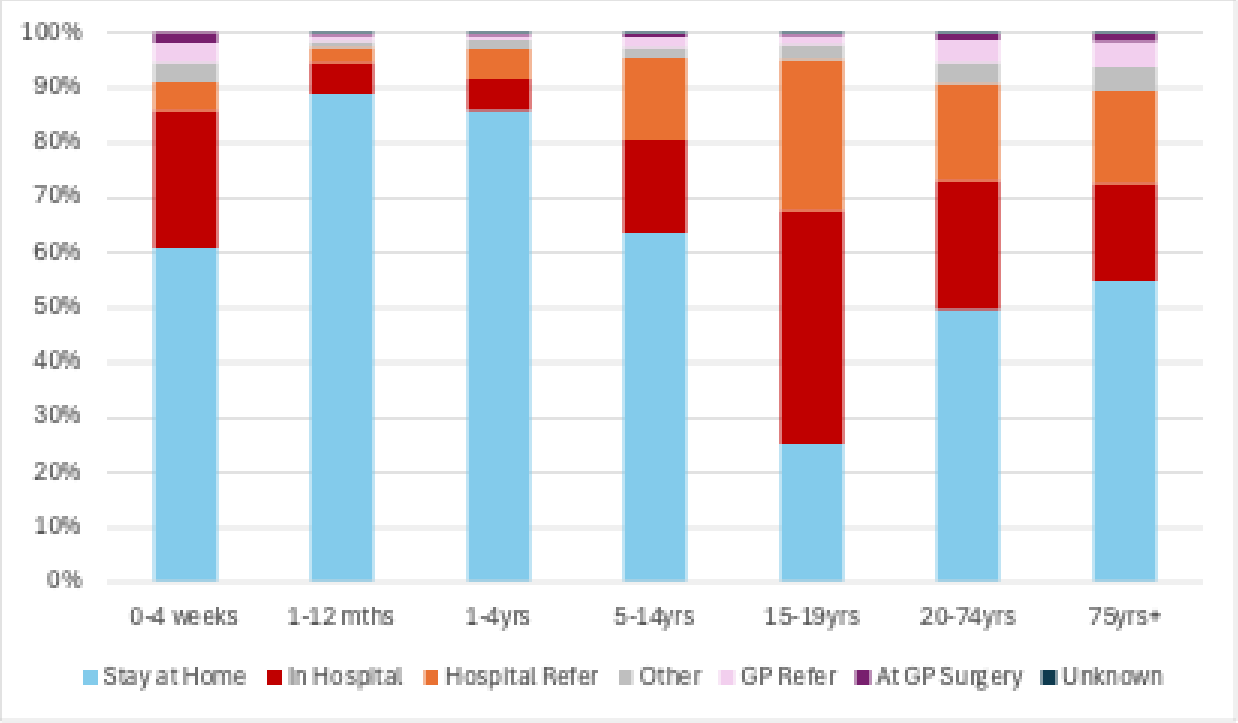


Figure 6. Call handling by age group

CLINICAL GOVERNANCE AND STANDARDS

Clinical governance activities

Clinical governance has been defined as the framework through which health care organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish.

The following clinical governance activities were undertaken during 2024:

- Internal review of all NSW PIC calls managed by SPIs and clinical toxicologists by a second staff member with the same qualifications.
- Inclusion of selected identifiers into the secure NSW PIC electronic medical record to enable improved clinical follow-up.
- Ongoing documentation of the poisoning severity score (PSS) into the NSW PIC database.
- Frequent updating of macros which provide basic and standard advice for key poisonings.
- Enhanced responsibility of postgraduate fellows in clinical toxicology for following up complicated, uncommon and critically ill patients referred to a clinical toxicologist.
- Clinical toxicologist reports of each case consulted shared with all NSW PIC staff for handover and to facilitate peer review. Follow-up reports are appended to the initial report.
- Ongoing review of NSW PIC policies, procedures, protocols, clinical guidelines, and position statements where indicated.
- NSW PIC SPI continuing education and training days every 2 months, with presentations from SPIs, clinical toxicologists and fellows, and invited experts.
- Internal fellow education including masterclasses and case-based discussions.
- Quarterly clinical meetings organised by NSW PIC and clinical toxicology services within the NSW Toxicology group, a community of practice for all professionals working in areas related to the broader field of clinical toxicology, including medical, other hospital- and PIC-based healthcare professionals, NSW Ministry of Health, chemical pathology and forensic toxicology.
- Biannual meetings between NSW PIC, Fire and Rescue, Ambulance and Ministry of Health to explore processes for responding to events involving hazardous materials.
- Contribution to NSW-wide peak committees including:
  - NSW Health Standing Panel on Toxicity Risk (SPaToR)
  - Mortality for People with Alcohol and Other Drug (AoD) Issues Research and Evaluation Implementation Group
  - Cancer Institute NSW Anti-Vaping Campaign
  - Prescription, Recreational and Illicit Substance Evaluation (PRISE) Program
  - Lead in Broken Hill - Expert Advisory Panel
  - Expert Panel on Monitored Medicines
  - Medication Safety Expert Advisory Committees
  - CBRNe preparedness
  - E-cigarettes and young people
  - Biannual meetings with NSW Fire and Rescue (HAZMAT), NSW Ambulance Service and NSW Ministry of Health
  - Lifesaving drug register (LSDR) Expert Advisory Group
  - Pre-Hospital Guideline: Illicit Substance-Induced Hyperthermia
  - Contribution to other committees and programs
  - RePOST Expert Advisory Committee (Medically Supervised Injecting Centre, Uniting)
  - National E-cigarette Monitoring and Evidence Consortium (Australian National University)
  - Multijurisdictional Outbreak Investigation – baby spinach contamination (Department of Health and Aged Care)
  - Tasmania Acute Lifesaving Drug Register
  - Tasmania Drug Alert System
  - ACT Drug checking Advisory Committee
  - Input to NSW Health guidelines, policies and procedures, including the Prescription, Recreational and Illicit Substance Evaluation (PRISE) Program, Pathology Forensic and Analytical Science Service (FASS) reporting of urine drug screens, Illicit Drug Policy.
- Ongoing broader staff education via attendance and presentations at national and international clinical meetings and conferences
- Staff compliance with NSW Health mandatory training.
- Staff registration with AHPRA and compliance with continuing professional development requirements according to their profession.
- Annual SCHN Appraisal and Development for all NSW PIC staff.
- Expert opinions for state Coroners in New South Wales, Queensland and Victoria.

NSW PIC postgraduate fellow contributions

NSW PIC postgraduate fellows contributed to several key governance activities, including active follow up of selected cases referred to clinical toxicologists

(which resulted in a change in clinical management). Other contributions include a lead role in morbidity and mortality meetings, protocol and guideline development, teaching and training of SPIs and other employees in NSW Health and beyond, performance of audits and ad hoc contributions to external requests for toxicological input, including from NSW Ministry of Health.

Standards activities

Standards refer to documents that set out protocols, procedures and guidelines that aim to ensure that the service provided is safe, consistent, and reliable.

To support high standards in poisons information, NSW PIC works closely with our clinical toxicologists to develop and update guidelines. In addition, NSW PIC is asked to review toxicology clinical guidelines for many external organisations, and NSW PIC staff are contributors to national guidelines including Therapeutic Guidelines, TOXINZ and guidelines in NSW and interstate.

NSW PIC policies and/or guidelines relating to the following were developed:

- NSW PIC scope of practice
- Management of complaints, abusive callers and veterinary calls
- Clinical management of exposures involving solvent abuse and elevated blood concentration of heavy metals

The following internal NSW PIC clinical guidelines were revised:

- Anticoagulants (warfarin, direct oral anticoagulants and long-acting rodenticides)
- Aspirin
- Clove oil
- Hypoglycaemics (including therapeutic errors with GLP-1 analogues)
- Paediatric exposures to ACE inhibitors, angiotensin receptor blockers and nicotine
- Snake bite
- Vaccines
- Water expanding beads.

Guidelines relating to quality assurance, disaster management and local toxicology services were also reviewed and updated.

The following external guidelines were reviewed:

- NSW Health snakebite and spider bite guidelines
- Tasmania: Life-saving drug register and high-dose insulin euglycaemia treatment
- The Sydney Children's Hospitals Network Organophosphates/Carbamate Exposure Management Practice Guidelines
- The Sydney Children's Hospitals Network Paracetamol Overdose – Assessment and Management Practice Guidelines

ILP Honours students

An honours student (UNSW) performed a retrospective study to explore the patterns of clinical toxicologist referrals in New South Wales Poisons Information Centre from 2017-2022.

An honours student (UNSW, supervisor A/Prof A Chiew) conducted a retrospective study to investigate the impact of updated management guidelines on modified-release paracetamol poisoning, using calls managed by the NSW PIC from 2017 to 2023.

RESEARCH PUBLICATIONS, PRESENTATIONS AND ABSTRACTS

The NSW PIC is in a unique position to collect data and coordinate research into clinical toxicology, particularly for rare poisonings and poisoning involving agents newly introduced to the market. This is facilitated by close relationships with clinical toxicology units and the University of Sydney, University of NSW, University of Newcastle, University of Queensland, NSW Ministry of Health, and others.

Publications in scientific peer-reviewed journals

- Berling I, Brown J, Toy B. 'Vitamin B17': Killing more than cancer. Emerg Med Australas. 2024;36(4):650-1.
- Berling I, Isbister GK. Chlorpromazine overdose: a case series. Clin Toxicol (Phila). 2024;62(6):372-7.
- Berling I, Isoardi K, Harris K, Downes MA, Lovett C, Isbister GK. Growing burden of gamma-hydroxybutyrate intoxication on emergency department resource utilisation. Emerg Med Australas. 2024;36(5):792-4.
- Buckley NA, Jayawardane P, Weerasinghe V, Dawson AH, Dassanayake TL. Serial repetitive nerve stimulation studies in organophosphorus poisoning indicate two distinct pathophysiological processes occur at the neuromuscular junction in the intermediate syndrome. Clin Toxicol (Phila). 2024;62(4):219-28.
- Cairns R, Noghrehchi F, Raubenheimer JE, Chitty KM, Isbister GK, Chiew AL, Brett J, Dawson AH, Brown JA, Buckley NA. Poisoning and envenomation linkage to evaluate outcomes and clinical variation in Australia (PAVLOVA): a longitudinal data-linkage cohort of acute poisonings, envenomations, and adverse drug reactions in New South Wales, Australia, 2011-2020. Clin Toxicol (Phila). 2024;62(10):615-24.
- Camacho X, Schaffer AL, Brett J, Pratt N, Buckley NA, Henry D, et al. Quality use of publicly subsidised tapentadol in Australia: a population-based analysis. Intern Med J. 2024;54(6):941-50.
- Carroll A, Bayes A, Montebello M, Brett J, Arunogiri S, Saunders JB, Loo CK. Drug dependence and prescribing ketamine for treatment-resistant depression in Australia and New Zealand. Aust N Z J Psychiatry. 2024;58(10):831-8.
- Chakar B, Kabir S, Dane C, Proschogo N, Dawson A. Paramao root oil: a novel culprit in salicylate poisoning. Clin Toxicol (Phila). 2024; 62(3): 202-203.
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- Chidiac AS, Buckley NA, Noghrehchi F, Cairns R. Paracetamol Dosing Errors in People Aged 12 Years and Over: An Analysis of Over 14,000 Cases Reported to an Australian Poisons Information Centre. Drug Saf. 2024;47(12):1293-306.
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- Chiew AL, Lin CS, Nguyen DT, Sinclair FAW, Chan BS, Solinas A. Home Therapies to Neutralize Button Battery Injury in a Porcine Esophageal Model. Ann Emerg Med. 2024;83(4):351-9.
- Currey EM, Falconer N, Isoardi KZ, Barras M. Impact of pharmacists during in-hospital resuscitation or medical emergency response events: A systematic review. Am J Emerg Med. 2024;75:98-110.
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Oral and poster scientific presentations at conferences and scientific meetings

- Isbister GK, Jenkins S, Chiew A, Buckley NA, Browns SGA, Soderstrom J, Isoardi K. Real World Delays in Antivenom Administration: Patient, Snake or Hospital Factors (ASP-33). American College of Medical toxicology (ACMT) Annual Scientific Meeting Washington, DC, April 2024.
- Beaulieu J, Roberts DM. Management of toxic alcohol poisoning in New South Wales: a retrospective study. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Beaulieu J, Roberts DM. Systematic review of new publications describing the use of extracorporeal treatments for lithium overdose since the publication of evidence-based recommendations in 2015. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Buckley N, Noghrehchi F, Elliot R, Wylie C, Merwood N, Benger L, Brown J, Cairns R. Self-poisoning in young Australians: the impact of COVID-19 and recent trends following easing of restrictions. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Chan B. Interrater Agreement on QRS and QT Interval Measurement in Tricyclic Antidepressant Poisoning. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Chan B. Balancing Act: Digoxin Antidote Supply and Demand in New South Wales, Australia. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024
- Chan B. From Guidelines to Practice: Clinical Toxicologists' Decision-Making in Digoxin Poisoning Cases. Toxicology and Poisons Network

Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.

- Chandru P, Roberts DM, Chiew A. A review of 3 years of cardiac arrest calls to the New South Wales Poisons Information Centre. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Chiew A, Chan B, Brett J, Jagarlamudi B. Nitrous oxide presentations: the growing trend of nitrous oxide cylinder usage. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Jagalamudi B, et al. Navigating the unknown: paediatric Deferasirox overdose. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Jagalamudi B, Salter M. Blind Spot: The Silent Threat of Closantel Toxicity. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Jagalamudi B. Surfactant Storm: A Turbulent Tale. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Lycett C, Chan B, Chiew A. Blocker out: Na channel blockade with persistent wide complex tachycardia. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Lycett C, Jagarlamudi B, Moore A, Minhas S, Chan B, Chiew A. Vaping and E-cigarettes: An Emergency Department Survey. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Penafiel R, Roberts DM, Jamshidi N. Serve persistent buprenorphine toxicity post-depot injection in a patient with low opioid tolerance. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Sellors K, et al. Rapid response to opioid toxicity from Protonitazepyne sold as 3,4-Methylenedioxymethamphetamine (MDMA) at a music festival in New South Wales. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Isbister GK, Jenkins S, Chiew AL. Outcomes in paracetamol overdose: is acetylcysteine enough? International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Jagalamudi B, Fraser C, Salter M. Blind Spot: The Silent Threat of Closantel Toxicity. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Jeong JH, Buckley NA, Cairns R, Chan BSH. Balancing act: digoxin antidote supply and demand in New South Wales, Australia. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Jeong JH, Cairns R, Buckley NA, Chan BSH. From guidelines to practice: clinical toxicologists' decision making in digoxin poisoning. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Ong SH, Isoardi KZ, Roberts DM, Chan BSH. Vasoplegic shock associated with dihydropyridine calcium channel blocker poisoning in Australia: a retrospective study of treatment modalities and patient outcomes. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Ong SH, Dawson AH Nic Ionmhain U, Chan B. Life threatening verapamil and flecainide overdose with a favorable outcome. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Salter M, Greenwood M, Mason G. When 'pumping' iron leads to weakness: a case of ferric carboxymaltose leading to hypophosphataemia. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Chiew A, Lycett C, Chan B. Blocked out: a case of sodium channel blockade overdose with persistent wide complex tachycardia. North American Congress of Clinical Toxicology (NACCT), Denver USA, September 2024
- Chiew AL, Nguyen K, Isbister GK, McCulloch K, Nic Ionmhain Ú, Isoardi KZ. Risk of serotonin toxicity following acute lamotrigine overdose. North American Congress of Clinical Toxicology (NACCT), Denver USA, September 2024
- Isoardi K, Chiew A, Do C, Humphreys M, Isbister G. Acute propranolol overdose and dose thresholds of severe toxicity. North American Congress of Clinical Toxicology (NACCT), Denver USA, September 2024
- Buckley NA. Using toxico-epidemiology to influence diagnosis and management. Annual Scientific Congress of Asia Pacific Association of Medical Toxicology (APAMT), Penang Malaysia, November 2024.
- Isbister G, Page C, Chiew A, Buckley NA, Isoardi K. A non-inferiority randomised controlled trial of a Shorter Acetylcysteine Regimen for Paracetamol Overdose: the SARPO trial. Annual Scientific

Congress of Asia Pacific Association of Medical Toxicology (APAMT), Penang Malaysia, November 2024.
- Jangjou A, Kolahi A, Taheri M, Deravi N, McDonald R, Buckley NA, Hassanian Moghaddam H. Intramuscular versus intravenous naloxone for the reversal of methadone overdose: a randomized clinical trial. Annual Scientific Congress of Asia Pacific Association of Medical Toxicology (APAMT), Penang Malaysia, November 2024.
- Thomson A. Bad Medicine: The Consequences of ADHD Medication Poisonings. University of Sydney Pharmacy Faculty Higher Degree by Research Scientific Conference, 2024.

Other conference participation

- Angela Chiew (Chair), Geoff Isbister, Amy Thomson, Ingrid Berling. Toxicology and Poisons Network Australasia (TAPNA) Scientific Committee 2024.
- Geoff Isbister (Chair). Asia-Pacific Association of Medical Toxicology (APAMT) Scientific Committee, 2024.

Successful new and continuing grants

2020-2025. NHMRC Centre of Research Excellence in Medicines Intelligence. GNT1196900. $2,500,000. Pearson SA, Pratt N, Buckley N**,** Preen D, Degenhardt L, Van Gool K, Vajdic C, Jorm L, Wilson A, Henry D.

2024. Emergency Medicine Foundation. Efficacy of pressure pad v pressure immobilisation bandage for snakebite first aid. $96,157. Little M.

2020-2025 NHMRC Ideas Grant APP 2001107: Emerging Drugs Network of Australia: a coordinated toxicosurveillance system of illicit drug use in Australia to enable rapid detection and harm reduction responses via an Early Warning System. Fatovich D, Soderstrom J, Dawson A, Alfred S, Greene S, Isoardi K, Pulbrook L, McCutcheon D, Oosthuizen F, Ezard N $**3**,722,730.80

2021-2023. Australian Research Data Commons: Australian Data Partnerships RFP 2020. APP-DP735. Boosting public health research with a national poisoning dataset. $500,000 (+ $667,355 in-kind). Cairns R, Wright N, Elliott R, Wylie C, Lynch AM, Dawson A**,** Greene S, Isoardi K**,** Armstrong J, Buckley N**,** Chiew A, Huynh A, Brown J.

NSW PIC continues collaboration at a national level with the other Australian Poisons Information Centres, NSW Ministry of Health and the University of Sydney on an Australian Research Data Commons (ARDC) Australian Data Partnerships Grant: Boosting public health research with a national poisoning dataset led by Dr Rose Cairns, Director of Research at the NSW PIC. As part of this project the PICs have developed a National Minimum Dataset and have made significant progress towards the development and implementation of a national database. This will enable consistent data collection, improve capability to share data and facilitate access to valuable information for research, toxicovigilance and public health activities.

2021-2027 NHMRC Investigator Grant GNT1196516. Blocking paths to suicide: a data linkage program to identify modifiable risk factors for self-poisoning and suicide in Australia. $501,205. Cairns R**.**

2022-2026 NHMRC Investigator Grant GNT2007726. Applied research to prevent the epidemic of poisoning deaths. $1,500,000. Buckley NA**.**

2022-2026. NSW Health, Prevention Research Support Program Grant. Edith Collins Centre for Translational Research in Alcohol Drugs and Toxicology. $500,000. Haber P, et al.

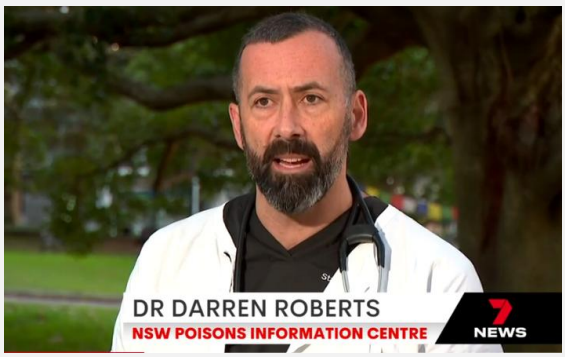
2022-2026. Centre for Alcohol and Other Drugs, Ministry of Health. $750,000 for a public health toxicology registrar to support surveillance of severe, unusual and clusters of overdoses.

2023-2028 Research and Innovation for Global Health Transformation (RIGHT-4) Programme: NIHR203140 -Preventing Deaths from Acute Poisoning in Low- and Middle-Income Countries. UK £4,984,490. Eddleston M, Gawarammana I, Street A, Karunarathne A, Sandilands E, Hovda KE, Tse ML, McDonald R, Marks C, Wickramasuriya S, Ghose A, Bhalla A, Weir C, Konradsen F, Hassanian-Moghaddam H, Dear J, **Buckley N.** https://fundingawards.nihr.ac.uk/award/NIHR203140

2023-2028 NHMRC Investigator Grant (Emerging Leadership 1): ID 2016380. Improving Outcomes in Paracetamol Poisoning. $327,575. Chiew AL.

Hospitalisations after consuming Uncle Frog's Mushroom Gummies

Poisons Information Centres were amongst the first to detect the risks of consuming Uncle Frog's Mushroom Gummies after several people presented to hospital experiencing unexpected toxicity. The first signal was detected by the Animal Poisons Information Centre (Perth) after a dog consumed a gummy. Toxicological testing identified that the gummies also contained hexahydrocannabinol (HHC) which has effects similar to tetrahydrocannabinol (THC, an active component in cannabis). This prompted much media, health messaging and regulatory action leading to the product to be withdrawn from the market.



TOXICOVIGILANCE AND PREVENTION OF POISONING

Toxicovigilance activities

Toxicovigilance is the active process of identifying and evaluating toxic risks, and critiquing the measures taken to reduce or eliminate them. It involves analysis of PIC data to identify if there are specific circumstances or agents giving rise to poisoning, if there are certain populations or locations suffering a higher incidence of poisoning, and if there is the need for public education and/or restricted availability of certain agents or products. Toxicovigilance may lead to PIC safety alerts in cases of sentinel events. Toxicovigilance can also reveal whether there is an emerging toxicological problem resulting from, for example, the reformulation of a product or a change to its packaging or labelling, or a newly available drug of abuse.

To support toxicovigilance activities, the NSW PIC has developed collaborative links with the other Australian PICs, public health agencies, regulatory authorities such as the Therapeutic Goods Administration (TGA), medication safety bodies and child safety groups eg Kidsafe.

Some of these toxicovigilance activities are outlined below:

Translation of research into policy/practice

Research by NSW PIC staff Ong, et al evaluated 'The impact of updated national guidelines for managing unintentional paediatric liquid paracetamol exposures: a retrospective poisons centre study' which was published in the journal Clinical Toxicology (Phila). This research prompted an update of the guidance in the Australian electronic Therapeutic Guidelines.

Research by NSW PIC relating to e-cigarette exposures informed NSW and Australian Government responses including regulatory actions.

Poisoning prevention and public education

The following poisoning prevention and public education activities were undertaken in 2024:

- NSW PIC successfully proposed an amendment to the scheduling of bromoxynil, resulting in all herbicides containing greater than 1.5% bromoxynil included in Schedule 7 of the Poisons

Standard. This was prompted by NSW PIC data that indicated a high mortality from acute intentional poisonings with products containing this herbicide. This means concentrated bromoxynil herbicides will not be available for use domestically.

- NSW PIC provided comments to the Advisory Committees on Medicines and Chemical Scheduling regarding proposed changes to the Poisons Standard at their meetings in March, July and November 2024.
- NSW PIC submitted a proposal to amend the Poisons Standard to include high concentration high pH sodium hydroxide and potassium hydroxide in schedule 7 to remove domestic use and minimize accidental paediatric exposures.
- NSW PIC reported faulty ice cream makers to Australian Competition and Consumer Commission (ACCC) facilitating a safety recall.
- NSW PIC submitted comment to the enquiry on compounding of GLP-1 analogues.
- NSW PIC collaborated with the Ministry of Health Environmental Health Branch to
    - develop programmes for preventing carbon monoxide and mushroom poisonings.
    - refine a surveillance program for *Amanita phalloides* mushrooms growing in NSW.
    - explore risks of button battery and water expanding bead exposures, and occupational exposures (with SafeWork NSW)
- NSW PIC clinical toxicologists attended regular meetings with Alcohol and Other Drug Policy, ACT Health to discuss detections and testing results from CanTEST Health and Drug Checking Service including risk assessment, notifications (public and clinician focused) and interjurisdictional drug trends.
- NSW PIC clinical toxicologists were members of the Cadia Mine Expert Advisory Committee and Deep Dive investigation and conducted clinical reviews as part of a multidisciplinary assessment of residents with concerns about heavy metal exposures, including liaison with local GPs and environmental and public health experts (NSW Health).
- NSW PIC worked with NSW Food Authority regarding ongoing risks from non-food grade poppy seeds and imported scorpions sold with food.
- NSW PIC was a member of the Expert stakeholder roundtable - TGA's toxicology review of sunscreen ingredients.
- NSW PIC collaborated with TGA regarding compounding and adverse reactions to semaglutide.
- NSW PIC updated poisoning factsheets with Kids Health.
- Input to the development of the NSW Health safety alert “Risk of toxicity from ‘colic preparations’ containing belladonna” (SAFETY NOTICE 011/24), including clinical cases and advice.
- NSW PIC provided comment and presented at the NSW Ministry of Health on Volatile Substance Use Roundtable, to reduce harm from volatile substances misuse.

MEDIA

In 2024, NSW PIC engaged with a wide range of media activities to disseminate poisoning warnings and poisoning prevention messages. These media activities were both proactive and reactive.

Topics included:

Public health warning as tablets sold as MDMA found to contain potent opioid, 3 February. Dr Darren Roberts, Medical Director of the NSW PIC, was quoted in an NSW Health press release regarding the dangers of tablets being sold as MDMA found to contain a potent opioid. Additional coverage landed in February following the January release. Titles included The Australian, the Gold Coast Bulletin and Busselton Dunsborough Times. View story here.

Public health warning regarding high dose MDMA pills, 15 February. Dr Darren Roberts, Medical Director of the NSW Poisons Information Centre, was quoted in a press release distributed by NSW Health regarding high dose MDMA pills circulating in NSW. Dr Roberts spoke about the potential adverse effects of MDMA, and the variance in the amount of MDMA in a single tablet. This was covered by The Daily Telegraph, news.com.au and syndicated to various News Corp outlets. View story here.

Public health warning regarding opioid overdoses, 24 February. Dr Darren Roberts, Medical Director of the NSW Poisons Information Centre, was quoted in a press release distributed by NSW Health press release regarding the dangers of using drugs such as cocaine or methamphetamine following a recent spike in opioid overdoses. He spoke about the signs of an opioid overdose and how to respond. This was covered by The Guardian Australia and MSN Australia.

Exposures to GLP-1, 19 March. SCHN issued a statement on behalf of the NSW Poisons Information Centre to ABC's Four Corners regarding exposures to GLP-1. The statement includes information about the number of calls regarding exposures, the symptoms of semaglutide toxicity, and ways to prevent medication errors.

Shroom gummies warning, 27 June. A/Prof Darren Roberts, Medical Director of the NSW Poisons Information Centre, was interviewed by various media outlets following a warning from NSW Health about the consumption of Uncle Frog's mushroom gummies. Stories appeared in the Daily Telegraph, Channel 7 News, Channel 9 News, The Australian, ABC News, The Guardian, Perth Now and Australian Community Media. View story here

Recreational nitrous oxide use, 16 October. Dr Darren Roberts, Medical Director, NSWPIC was interviewed by Illawarra Mercury about the recreational use of nitrous oxide. He spoke specifically on what recreational use of nitrous oxide is, the potential impact, dangers, and preventative measures. View story here

Accidental poisoning, 4 December. Genevieve Adamo, Senior Specialist Poisons Information Centre (PIC), was interviewed by ABC Radio Hobart about accidental poisonings. Genevieve discussed the most common calls received by PIC and accidental poisonings to be aware of. View story here

Pink cocaine/tusi, 17 December. Dr Darren Roberts, Medical Director of the NSW Poisons Information Centre (NSWPIC), was interviewed by The Daily Telegraph about pink cocaine/tusi. Dr Roberts discussed the apparent rise in popularity, what pink cocaine is, and the potential side effects if used.

Funnel-web spider bite, 17 December. Dr Darren Roberts, Medical Director of the NSW Poisons Information Centre (NSWPIC), was interviewed by The Daily Telegraph about a two-year-old patient who was recently admitted for a funnel-web spider bite. He discussed the call NSWPIC received, and the advice given to manage and treat the bite. View story here

Data requests

During 2024 NSW PIC has provided data in response to requests on the following topics for the purpose of research, media, audit, and public health activities:

- Snakebite calls
- Paracetamol intentional self-poisonings
- Lignocaine (lidocaine) exposures
- Carbon Monoxide poisonings for NSW Health educational campaign
- Hand sanitiser exposures
- Accidental poisonings in older adults >75 years of age
- Ivermectin exposures
- Paediatric exposures to melatonin, paediatric intentional self-poisonings and top exposures in childcare/daycare settings
- Digoxin exposures where treatment has involved digoxin antibody
- Dihydrocodeine exposures
- Dichloromethane (also known as methylene chloride) exposures
- Kava exposures
- Recreational drug use involving nitrous oxide
- Modern bufotenine use and toad poisoning/ recreational cases
- E-cigarette exposures
- Substance use disorder study
- Workplace and occupational exposures
- Opioids prescribed for back pain that are continued after hospital discharge and linked to self-harm
- Group home calls
- MCPA/Bromoxynil combination herbicides
- 1080 poisonings
- Amygdalin exposures
- Hydroxychloroquine poisonings
- Kamini exposures

TEACHING, TRAINING AND PROFESSIONAL DEVELOPMENT

Education and training delivered by NSW PIC staff

- Isbister G. Snake envenomation. Sydney Helicopter Emergency Medicine Services Education Day, Sydney, January 2024.
- Mitter S. Toxicology Workshop. Evidence Review, Wollongong, February 2024
- Roberts D. When basic science informs clinical toxicology practice. Annual Scientific Meeting of the British Toxicological Society (BTS), Liverpool UK, April 2024.
- Roberts D. When to consider dialysis for your poisoned patient. UK National Poisons Information

Service Continuing Professional Education, Birmingham UK, April 2024
- Coulson L. Papers that changed my practice - Fellow. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Buckley NA. The antidote of last resort. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Carter K. I scream for ethylene glycol ice cream. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Roberts D. Dialysis (double dialysis). Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Adamo G. Chemical regulations and toxicovigilance – Banish the Bindie. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Dawson A. Transformative toxic relationships. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Brown J. Legal highs in Australia – vapes, poppers and more. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Berling I. Sniffing arrest and the role of adrenaline. Toxicology and Poisons Network Australasia (TAPNA) Annual Scientific Meeting, Melbourne, May 2024.
- Chiew A. Tox collaboration update. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Isbister G. Venom-induced coagulopathy: mechanisms and pharmaceutical interventions. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Roberts D. Toxic kidney injury: biomarkers to evaluate nephron functions. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Roberts D. Panel member for clinical case session. International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), Munich Germany, May 2024
- Wright N. Talking Toxicology. Pharmacist Practice Development Day, RNSH, June 2024.
- Roberts D. Uncommon opioids that you may encounter. NSW Education in Addiction Program (NEAP), July 2024
- Isbister G. Invited talk: Sticks, snakes and a race for antivenom – what is essential for first aid. National First Aid Trainers Conference, Cairns, August 2024.
- Chiew A. The changing paradigm of paracetamol overdose. Queensland Poisons Information Centre 50th Golden Jubilee Symposium, Brisbane, August 2024
- Dawson A. The Evolution of Australian Poisons Information Centres. Queensland Poisons Information Centre 50th Golden Jubilee Symposium, Brisbane, August 2024
- Isbister G. Snakebite in Queensland. Queensland Poisons Information Centre 50th Golden Jubilee Symposium, Brisbane, August 2024
- Roberts D. Mushroom poisoning in Queensland. Queensland Poisons Information Centre 50th Golden Jubilee Symposium, Brisbane, August 2024
- Thomson A. Paediatric Poisoning Enquiries. SHPA NSW Branch Paediatric Symposium, Sydney, September 2024
- Gunja N. Plant poisoning. Tox in the Vines, Spring Seminar on Emergency Medicine, Orange, October 2024
- Little M. Spring Seminar on Emergency Medicine, Orange, October 2024
- Nic Ionmhain U. Emerging trends in toxicology. Spring Seminar on Emergency Medicine, Orange, October 2024
- Roberts D. Mushroom poisoning. Tox in the Vines, Spring Seminar on Emergency Medicine, Orange, October 2024
- Chiew A. Vaping-Associated Lung Injury (EVALI): Clouds of Concern. Annual Scientific Meeting of the Australian College of Emergency Medicine (ACEM), Adelaide, November 2024
- Buckley NA. Using toxico-epidemiology to influence diagnosis and management. Annual Scientific Congress of Asia Pacific Association of Medical Toxicology (APAMT), Penang Malaysia, November 2024
- Roberts D. A day in the life of a clinical toxicologist. Nurse Practitioner Network Meeting, December 2024
- Roberts D. Toxicology and Medication Safety. RACP College Learning Series, December 2024
- Chiew A. SHPA CPD. Acid Base Disturbances in Toxicology, September 2024.
- Toxicology workshops in Sri Lanka, organised by Toxicology and Poisons Network Australasia (TAPNA)
- Other education activities within NSW, including Sydney Children's Hospital, Bega, Newborn and Paediatric Emergency Transfer Service, Southwest Sydney LHD, Western LHD, Western Sydney LHD, Sydney LHD, Children's Hospital Westmead, Centre for Alcohol and Other Drugs (MOH), NSW Toxicology meetings

- Other education activities to clinicians outside NSW, including Tasmania, Victoria, Queensland, Australian Capital Territory, Australian Defence Force, Australian Medical Assistance Team.
- Higher education activities
- Medical student teaching at various NSW universities
- Wright N. Pharmacy teaching at University of Sydney.
- Toxicology and Poisons Network Australasia (TAPNA) clinical toxicology course
- Post Graduate Diploma in Medical Toxicology, South Africa

Pharmacy industrial major student placement

NSW PIC accepted two final year undergraduate pharmacy students from the University of Sydney for their 13-week industrial major placement. They were introduced to many areas of Poisons Information, including an understanding of the clinical expertise of the Specialists in Poisons Information (SPIs); they were exposed to teaching material and call listening. They also had the opportunity to contribute to toxicovigilance activities relating to water expanding beads, as well as review PIC protocols to identify practice changing trends by comparing various local protocols with the 2024 eTherapeutic Guidelines update.

Training and professional development of NSW PIC staff

NSW PIC trained two new Specialists in Poisons Information using a virtual platform bringing the total number of trained SPIs to 31. Postgraduate fellows attended internal education including clinical based discussions and toxicology masterclasses.

Members of staff attended the following educational meetings/opportunities during 2024:

- Toxicology And Poisons Network Australasia (TAPNA) Annual Scientific Meeting
- Toxicology and Poisons Network Australia (TAPNA) regional meetings
- International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT)
- North American Congress of Clinical Toxicology (NACCT)
- Annual Scientific Congress of Asia Pacific Association of Medical Toxicology (APAMT)
- American College of Medical Toxicology (ACMT)
- International Committee of Military Medicine conference, Brisbane
- Pharmaceutical Society of Australia (PSA) National Conference
- NSW toxicology unit meetings and quarterly morbidity and mortality meetings

Kristy Carter presented at TAPNA 2024 about ethylene glycol contamination of a commercially sold ice cream maker which was detected by NSW PIC and led to a nationwide product withdrawal.

PROFESSIONAL ENGAGEMENT

Committees and Boards

The following staff at the NSW PIC provided expertise to the following local, regional, national, and international committees and boards:

Genevieve Adamo
- Member, Data Safety Monitoring Board, NSW Government Pharmacy Trial

A/Professor Sam Alfred
- Member, Toxicology and Poisons Network Australasia (TAPNA) Credentialling Committee

Jared Brown
- Member of Australian Paediatric Surveillance Unit's severe injury related to disc batteries reference group
- Peer review of journal articles for Clinical Toxicology and Emergency Medicine Australasia

Professor Nicholas Buckley
- Chair of the Writing group for Australian Therapeutic Guidelines – Toxicology and Toxinology
- Chair of the Editorial Advisory Board of the *Australian Medicines Handbook*
- Chair of IUPHAR Subcommittee on Pharmacovigilance and Pharmacoepidemiology
- Deputy Editor - Clinical Toxicology (official journal of the AACT, AAPCC, EAPCCT and APAMT)
- Member of Editorial boards of the journals *Drug Safety* (0114-5916) and *Australian Prescriber*
- Member, NSW Health Medication Safety Expert Advisory Committee
- Member, NSW Health Standing Panel on Toxicity Risk (SPaToR)
- Member, Mortality for People with Alcohol and Other Drug (AoD) Issues Research & Evaluation Implementation Group (NSW Health)
- Member, Expert Panel on Monitored Medicines (NSW Health)
- Appointed to pool of experts to provide the European Commission with ad hoc rapid risk assessment of chemical threats under the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER)
- Member of the Children's Dosing Companion (AMH) editorial group
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Dr Rose Cairns
- Therapeutic Goods Administration Advisory Committee for Chemicals Scheduling (TGA ACCS), Minister appointed member
- Editorial board member, TOXINZ
- Editorial Board, Clinical Toxicology (official journal of the AACT, AAPCC, EAPCCT and APAMT)
- Chair, Australian National Poisons Database Steering Committee
- Member, local organising committee, World Congress of Basic and Clinical Pharmacology, Melbourne
- Peer review of journal articles in many journals including Clinical Toxicology, IJDP, Addiction, MJA, BJPsych, Drug Safety, ANZJP, BJCP

Kristy Carter
- Member, Standards Australia – Child Resistant Packaging Committee

Dr Bashir Chakar
- Member, Toxicology and Poisons Network Australasia (TAPNA) Credentialling Committee

A/Professor Betty Chan
- Associate Editor, Clinical Toxicology (official journal of the AACT, AAPCC, EAPCCT and APAMT)
- Member, Lifesaving drug register (LSDR) Expert Advisory Group (NSW Health)

A/Professor Angela Chiew
- Member of Editorial board: Australian Therapeutic Guidelines - Toxicology and Toxinology
- Senior Editorial Board, Clinical Toxicology (official journal of the AACT, AAPCC, EAPCCT and APAMT)
- Chair of the Clinical Toxicology Recommendations Collaborative Steering Committee
- Lead of The Treatment of Acetaminophen (Paracetamol) Poisoning Recommendations for the Clinical Toxicology Recommendations Collaborative.
- British Journal of Clinical Pharmacology: Australasian Senior Editor
- President elect, Toxicology and Poisons Network Australasia (TAPNA) council
- Chair, Toxicology and Poisons Network Australasia (TAPNA) Scientific Organising Committee

Professor Andrew Dawson
- Member, Editorial Board: Australian Therapeutic Guidelines - Toxicology and Toxinology
- Member, NSW Health Standing Panel on Toxicity Risk (SPaToR)
- Member, Cadia Mine Expert Advisory Committee and Deep Dive investigation (NSW Health)
- Member, Lead in Broken Hill Advisory Committee (NSW Health)

- Member, Lifesaving drug register (LSDR) Expert Advisory Group (NSW Health)

Dr Michael Downes
- Member, Toxicology and Poisons Network Australasia (TAPNA) Credentialling Committee

A/Professor Naren Gunja
- Secretary, Forensic & Clinical Toxicology Association, Australia (FACTA)
- Member, NSW Health COVID-19 Adverse Effects Expert Advisory Group
- Member, eHealth NSW COVID-19 Expert Advisory Group
- Co-Chair, eHealth NSW SDPR Medical Council
- Member, SDPR Configuration Management Committee
- Member, WSLHD Drug and Therapeutics Committee
- Member, eHealth NSW Safety and Quality Advisory Group

Professor Geoff Isbister
- President, Asia Pacific Association of Medical Toxicology (APAMT)
- Chair, Scientific Committee, Asia Pacific Association of Medical Toxicology (APAMT)
- Board Member, European Association of Poison Centres and Clinical Toxicologists (EAPCCT)
- Member, Scientific Committee, European Association of Poison Centres and Clinical Toxicologists (EAPCCT)
- Senior Editorial Board, Clinical Toxicology (official journal of the AACT, AAPCC, EAPCCT and APAMT)
- Editorial Board, Toxicon, Associate Editor, Plos Neglected Tropical Diseases
- Member, Writing group for Australian Therapeutic Guidelines – Toxicology and Toxinology.

A/Professor Kath Isoardi
- Course coordinator, Toxicology and Poisons Network Australasia (TAPNA) Toxicology Course
- Editorial Board, Clinical Toxicology (official journal of the AACT, AAPCC, EAPCCT and APAMT)
- Member, Toxicology and Poisons Network Australasia (TAPNA) Poisons Information Centre Governance Committee
- Member, Toxicology and Poisons Network Australasia (TAPNA) Credentialling Committee

Elizabeth Nguyen
- Member of Editorial board: Australian Therapeutic Guidelines - Toxicology and Toxinology
- Member of the Expert Panel: NSW Health Snakebite and Spiderbite Guidelines
- Member of the EXT Toxicology Committee Tri-state: ACI Pediatric Clinical Practice Guidelines (CPG)
- Member, Patient Safety Incident Review Committee, The Children's Hospital at Westmead
- Member, Disaster Committee, The Children's Hospital at Westmead

A/Professor Darren Roberts
- Member, RACP COVID-19 Expert Reference Group
- Member, National Paediatric Medicines Forum, Australia
- Member, Medicines and Therapeutics Committee, Sydney Children's Hospital Network, NSW
- Co-chair, The Extracorporeal Treatments in Poisoning Workgroup (EXTRIP) Workgroup
- Chair, Lifesaving drug register (LSDR) Expert Advisory Group (NSW Health)
- Senior Editorial Board, Clinical Toxicology (official journal of the AACT, AAPCC, EAPCCT and APAMT)
- Member, Toxicology and Poisons Network Australasia (TAPNA) Poisons Information Centre Governance Committee
- Member, Toxicology and Poisons Network Australasia (TAPNA) Credentialling Committee
- Member, Clinical Toxicology Recommendations Collaborative: QT interval
- Member, NSW Health Standing Panel on Toxicity Risk (SPaToR)
- Member, Tri-state Paediatric Clinical Practice Guidelines in Toxicology, The Royal Children's Hospital, Melbourne, Victoria,
- Member, Cadia Mine Deep Dive investigation (NSW Health)
- Director and RACP Adult Member Division representative, Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT)

Dr Mark Salter
- Member, NBMLHD Drug and Therapeutics Committee
- Member, Nepean Medication Safety Committee

Amy Thomson
- Member, SCHN Medication Safety Committee
- Member - CHW Patient Safety and Incident Review Committee
- Member, Society of Hospital Pharmacists Australia Emergency Medicine Leadership Committee
- Member, Toxicology and Poisons Network Australasia (TAPNA) Scientific Organising Committee
- Member, Toxicology and Poisons Network Australasia (TAPNA) Education Committee

- NSW Specialist in Poisons Information Representative – Tri-state Paediatric Clinical Practice Guidelines in Toxicology, The Royal Children's Hospital, Melbourne, Victoria,
- Member, Lifesaving drug register (LSDR) Expert Advisory Group (NSW Health)

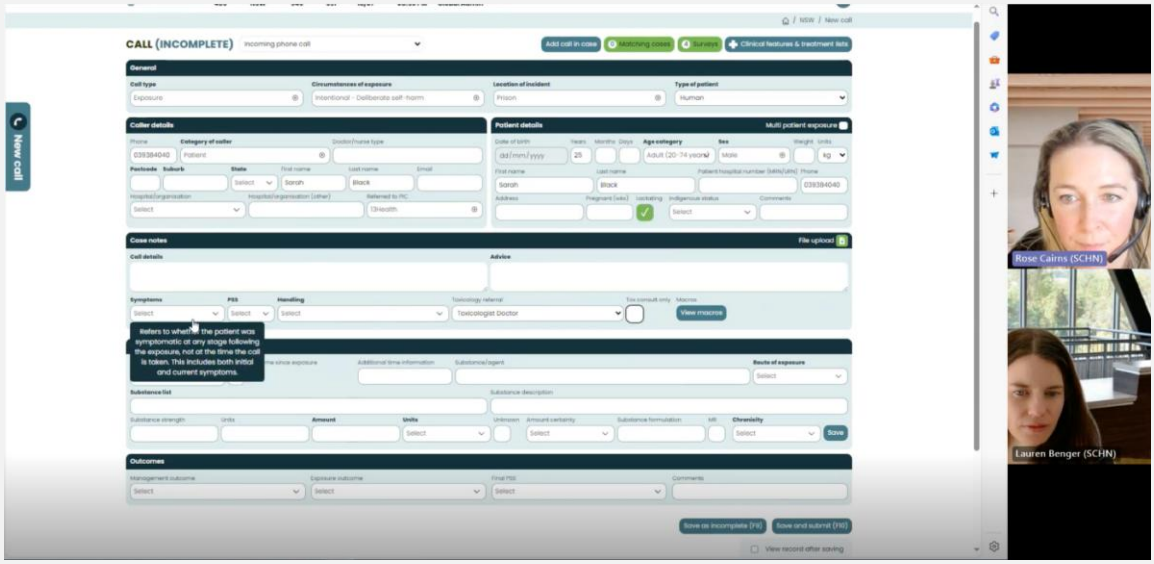
Nicole Wright

- Treasurer & Member, Toxicology and Poisons Network Australasia (TAPNA) council
- Member, Toxicology and Poisons Network Australasia (TAPNA) Governance Committee
- Member, Lifesaving drug register (LSDR) Expert Advisory Group, NSW Health

National clinical database and the Australian Poisoning Surveillance Initiative (APSI) Databank.

In 2024, NSW PIC continued to work to create a new national database for PIC calls and the APSI databank. This work is in partnership with all other Australian PICs, NSW Ministry of Health, The University of Sydney, and the Australian Research Data Commons (ARDC). Dr Rose Cairns leads this project as chair of the Steering Committee, together with NSW PIC representatives Lauren Benger, Prof Nick Buckley, A/Prof Darren Roberts and Nicole Wright.

The new clinical database is to be used for Australian PICs to enter clinical records in a standardised way. A de-identified extract of data will form the APSI databank, which will be a vital resource for public health and research in toxicology. In 2024 the final finishing touches on the call entry database were made, with NSW PIC planning to "go live" with the database in early 2025.



A/Prof Darren Roberts, Medical Director of NSW Poisons Information Centre was awarded the ASCEPT Visting Lecturer to the British Toxicology Society Annual Scientific Committee, Liverpool UK in April 2024. In addition to delivering the presentation "When basic science informs clinical toxicology practice" he visited and presented to Poisons Information Centres and clinical toxicology services in Edinburgh, Newcastle, Birmingham and London, as well as being an invited speaker at the UK National Poisons Information Service Continuing Professional Education where he spoke about "When to consider dialysis for your poisoned patient".

Sydney Children's Hospitals Network
Locked Bag 4001
Westmead NSW 2145

Phone: (02) 9845 0000

schn.health.nsw.gov.au

NSW GOVERNMENT

The Sydney children's Hospitals Network

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