



**POISONS**®

**INFORMATION CENTRE OF IRELAND**

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# Annual Report 2009



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## Executive summary

The core function of the National Poisons Information Centre is to provide information, promptly, by telephone, to assist in the treatment of poisoning. We responded to 9647 enquiries about human poisoning in 2009, as well as 89 enquiries about poisoning in animals. We also answered 102 non-emergency requests for information and followed-up 250 enquiries to determine the outcome of serious or unusual cases of poisoning. Follow-up is usually performed by telephone and can involve multiple calls to nursing and/or medical staff. We are very grateful to everyone who takes the time to talk to us when we call to follow-up a case.

GPs/GP co-ops and hospitals were the most frequent callers while 25.1% of enquiries were from members of the public. Overall, 59.4% of human cases were suspected accidental poisonings and 23.2% intentional self-poisoning. A larger proportion of enquiries at night were about intentional poisoning, reflecting the pattern of presentations following self-harm to hospital emergency departments. Paracetamol remains the most common drug involved in human poisoning and laundry products the most common type of household product.

We continue to contract the UK National Poisons Information Service to answer enquiries between 10pm and 8am each day. This is a cost effective way to provide a 24 hour service but requires good, on-going communication with the UK centres. Our background activities during the year included managing information on the composition of products, surveillance of trends in poisoning, and the education and training of our service users as well as our own staff.

A welcome development in 2009 was the decision by the Department of Health and Children to appoint the National Poisons Information Centre as the body responsible for receiving information relating to emergency health response under Article 45 of EU Regulation 1272/2008 on classification, labelling and packaging of chemical substances and mixtures (CLP regulations). As a result, we are playing an active role in developing harmonised European guidelines for industry, which will specify the product information to be provided to poisons centres and the preferred format for electronic data exchange.

We noted an increase in enquiries about alcohol hand gels during 2009 and wrote to the Irish Medical Journal to highlight this trend (IMJ 2009; 102: 343-344). We saw a change in the location where these poisoning incidents occurred as well as an increased number of enquiries. In previous years most incidents involving alcohol hand gels occurred in hospitals or other healthcare facilities. However, in 2009 we received increasing numbers of enquiries about young children who had been exposed at home. We postulated that this reflected increasing availability of hand gels in the home, and poor storage practices which made it easy for young children to reach these products.

In May we ran a "Toxicology for Nurses" study day which was attended by 31 nurses, mainly working in GP out-of-hours co-ops, which now account for 23% of enquiries. As well as providing education for our service users, this was also an important opportunity for continuing professional development (CPD) for our own staff, who gave most of the talks on the day. As a small national centre we are fortunate to have close links with the UK National Poisons Information Service, which enabled our staff to participate in other CPD activities with our colleagues in the UK during the year.

## INTRODUCTION

The National Poisons Information Centre (NPIC) provides an information service, mainly by telephone, to doctors and other healthcare professionals throughout Ireland, assisting them in the diagnosis and management of poisoning. The Centre does not actively promote its service to the general public but will provide an emergency risk assessment and advice if contacted by members of the public.

Our service operates 24 hours a day, every day of the year. Our own staff answer enquiries between 8am and 10pm each day, while night-time calls are automatically diverted to the UK National Poisons Information Service (NPIS). The extra call charges are borne by Beaumont Hospital so there are no additional costs to callers.

The main source of information used when answering enquiries is TOXBASE, the clinical toxicology database of the UK NPIS. A variety of other information sources are also available to staff.

The NPIC keeps written records of all enquiries which are then logged on a computer database (UKPID), and used to compile statistics. All in-coming and out-going calls are recorded, for quality assurance and training purposes.

Staff follow-up selected enquiries by telephone to determine the outcome of the case. We are very grateful to the medical and nursing staff who take the time to give us this follow-up information.

### Information sources

Computer databases:

TOXBASE  
POISINDEX  
TICTAC

In-house database.

Textbooks.

Journal articles.

Safety data sheets.

## STAFF

### *Director:*

Dr Joseph A Tracey MB, BCh, DCH, FFARCSI, DABA

### *Manager:*

Ms Patricia Casey BSc, DipMedTox

### *Clerical Officer:*

Ms Annette Cooke

### *Poisons Information Officers:*

Mr John Herbert BSc, DipMedTox  
Ms Nicola Cassidy BSc, MMedSc, DipMedTox  
Ms Elaine Donohoe BSc, MSc, DipMedTox  
Mr Feargal O'Connor BSc, Certificate in Med Tox  
Ms Niamh English BSc, MSc, DipMed Tox



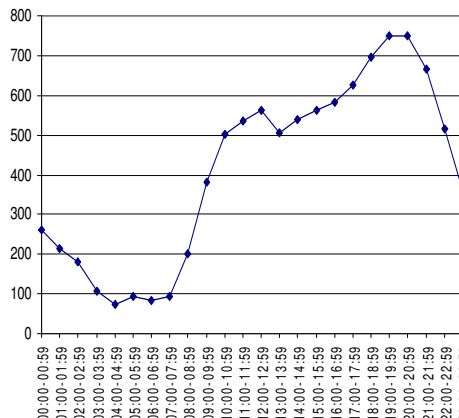
The Poisons Information Officers and Manager staff the Centre's emergency phone lines between 8am and 10pm each day (7 days a week). They are all scientists with additional training and postgraduate qualifications in Medical Toxicology. If necessary, they can refer complicated or serious cases to the Director for further advice on treatment.

**ENQUIRIES**

The Centre received 9838 enquiries in 2009, a decrease of 6.3% from 2008. We received 7830 of these enquiries (79.6%) between 8am and 10pm. The NPIS in the UK answered a further 2008 (20.4%) calls on our behalf.

The Centre received an average of 27 calls per day in 2009 and 18:00-20:59 was the busiest time of day (23.0% of enquiries, Figure 2).

9647 (98.1%) enquiries concerned human cases of poisoning, 89 (0.9%) poisoning in animals and 102 (1.0%) were non-emergency requests for information.



| Source of enquiry    | Number of enquiries | %    |
|----------------------|---------------------|------|
| GP/Primary Care      | 3465                | 35.2 |
| Hospital             | 3354                | 34.1 |
| Member of public     | 2469                | 25.1 |
| Community pharmacist | 235                 | 2.4  |
| Other/Unknown        | 315                 | 3.2  |
| <b>Total</b>         | <b>9838</b>         |      |

GP's/GP co-ops, hospitals and members of the public were the most frequent callers. 2306 (23.4%) enquiries were from GP co-ops, most frequently CareDoc and SouthDoc.

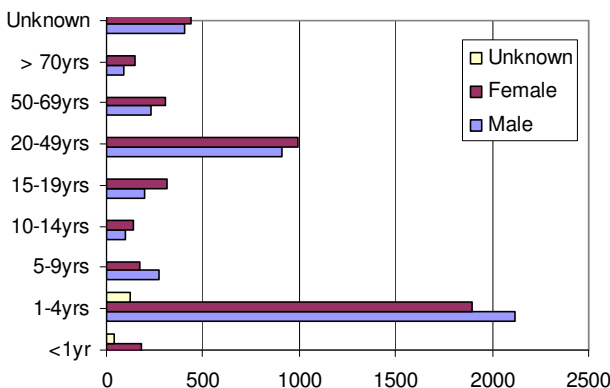
27.8% of calls between 8am-10pm were from the general public, but from 10pm to 8am members of the public made just 13.2% of the enquiries.

**Human cases of poisoning**

9647 enquiries concerned human cases of poisoning. 5044 (52.3%) of these were children under 10 years and males outnumbered females in this age group.

2693 (27.9%) enquiries were about adults ( $\geq 20$  years) with a predominance of females in this age group.

90.8% of poisoning incidents occurred in the home or a domestic setting. A small proportion occurred at work (1.9%), in nursing/care homes (1.1%), hospitals (0.9%), schools (0.7%) and other/unknown locations (4.7%).



More than half (59.4%) of the human cases were suspected accidental poisonings, 23.2% were intentional poisoning or recreational abuse, 11.1% were therapeutic errors and 6.3% had another or unknown intent. A larger proportion of enquiries between 10pm and 8am were about intentional poisoning (47.2% vs 17.0% between 8am and 10pm) reflecting the pattern of presentations to hospital emergency departments.

**Agents in human cases**

Drugs (pharmaceuticals and drugs of abuse), industrial chemicals and household products were the main product groups in human cases. Drugs were most common in all age groups.

Paracetamol remains the most common drug: 1376 of the products ingested contained this drug. Ibuprofen was the next most common drug (537 products).

|              | 0-9 years | 10-19 years | ≥20 years | Unknown | Total |
|--------------|-----------|-------------|-----------|---------|-------|
| Drugs        | 3476      | 1104        | 4629      | 798     | 10007 |
| Industrial   | 1195      | 158         | 810       | 366     | 2529  |
| Household    | 1509      | 89          | 262       | 267     | 2127  |
| Plant        | 245       | 59          | 79        | 43      | 426   |
| Cosmetic     | 308       | 19          | 47        | 25      | 399   |
| Agrochemical | 111       | 2           | 109       | 64      | 286   |

**Top 50 drug enquiries of 2009 in descending order of frequency (human cases only)**

Inclusion in this list does not mean that these agents are toxic. It merely shows that the Poisons Information Centre received enquiries about these substances.

|                         |                    |                         |
|-------------------------|--------------------|-------------------------|
| Paracetamol             | Oral Contraceptive | Levothyroxine/thyroxine |
| Ibuprofen               | Mefenamic acid     | Sertraline              |
| Codeine*                | Pseudoephedrine    | Herbal Preparation      |
| Diazepam                | Diphenhydramine    | Chlorpromazine          |
| Zopiclone               | Sodium valproate   | Atorvastatin            |
| Alprazolam              | Quetiapine         | Montelukast             |
| Amoxicillin/amoxycillin | Amitriptyline      | Temazepam               |
| Escitalopram            | Tramadol           | Ecstasy                 |
| Caffeine*               | Fluoxetine         | Cocaine                 |
| Aspirin                 | Mirtazapine        | Clonazepam              |
| Flurazepam              | Lithium            | Carbamazepine           |
| Diclofenac              | Chlordiazepoxide   | Calcium Carbonate       |
| Clavulanic Acid         | Cetirizine         | Lansoprazole            |
| Venlafaxine             | Citalopram         | Domperidone             |
| Zolpidem                | Lamotrigine        | Esomeprazole            |
| Olanzapine              | Heroin             | Risperidone             |
| Multivitamins           | Prednisolone       |                         |

\* These are ingredients of common compound analgesics but do not contribute significantly to acute toxicity.

**Most common household products**

The most common household products were laundry products, particularly liquid detergent capsules, and cleaning products. The majority of enquiries about these products concerned children less than 10 years old.

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Fabric cleaning/care product    | Dishwasher product                |
| Cleaning products               | Toilet cleaner/freshener          |
| Decorative/DIY/building product | Disinfectant/antiseptic/sanitiser |
| Bleach                          | Air freshener                     |
| Automotive product              | Washing-up liquid                 |

**OUTCOME**

250 (2.6%) human cases were followed-up. Most of these patients recovered completely but 20 suffered sequelae, 9 patients died, and the outcome of 26 cases could not be determined. Pharmaceuticals were implicated in 6 fatal cases, agrochemicals/pesticides in three, and a household product in one death.

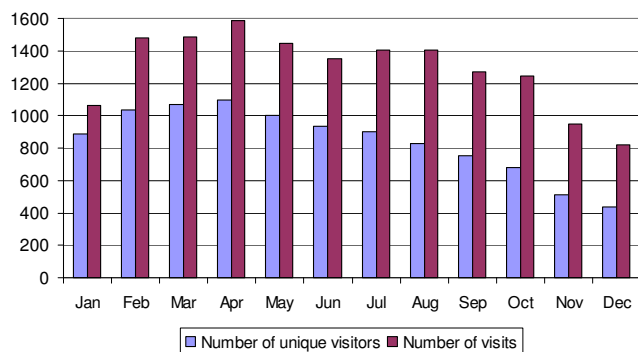
**TOXBASE**

TOXBASE is the on-line clinical toxicology database of the UK National Poisons Information Service and has been available to Irish hospital emergency departments and intensive care units since 2001. There are now 55 Irish users of TOXBASE, in addition to the NPIC, and these users accessed the database on 13,052 occasions in 2009. Hospital emergency departments were the main users (99.3% of sessions).

**WEBSITE**

The NPIC website, [www.poisons.ie](http://www.poisons.ie), was visited 15,502 times during 2009, an average of 1,292 visits per month.

The section on low toxicity substances was the most popular (2357 visits). The news section, antidotes page, healthcare professionals and seasonal hazards sections were also popular.



**OTHER ACTIVITIES**

**Toxicology for Nurses**

The Centre organised a “Toxicology For Nurses” study day on Friday 22<sup>nd</sup> May in Beaumont Hospital. The study day was aimed at nurses triaging and caring for poisoned patients and was attended by 31 nurses, mostly from GP co-ops. Topics included Epidemiology of poisoning, Nursing management of the poisoned patient, Benefits and limitations of toxicology laboratory investigations, Over-the-counter non-steroidals, Harmful if swallowed, Sanitising hand gels, Drugs of abuse, Children get high too, Fomepizole, and Paracetamol. Most of the talks were given by Poisons Centre staff.



## Poisons Prevention Leaflets

The NPIC received funding from the HSE in late 2009 to print a further 50,000 copies of the “Poisons Prevention Guidelines for your Home” leaflets. These can be ordered on-line free of charge from the Health Promotion Department of the HSE ([www.healthinfo.ie](http://www.healthinfo.ie)).

## Laboratory survey

The Centre carried out a survey of Irish hospital laboratories in 2009 to assess the availability of laboratory toxicological analyses. The findings of this survey will be published in the journal Clinical Toxicology in 2010.



## Product data

The Department of Health & Children has appointed the National Poisons Information Centre as the body responsible for receiving information relating to emergency health response under Article 45 of EU Regulation 1272/2008 on classification, labelling and packaging of chemical substances and mixtures ([CLP regulations](#)). Dr Tracey is part of a European working group developing a harmonised data set for poisons centres.

## PUBLICATIONS

### Abstracts

Enquiries to a Poisons Centre from Primary Care Out-of-Hours Services.  
Casey PB, Tracey JA, Cassidy N.  
Clinical Toxicology 2009; 47 (5): 477.

The Need for Prevention of Intentional Ingestion of Alcohol Hand Gels in Irish Hospitals.  
Herbert JX, Cassidy N, Tracey JA.  
Clinical Toxicology 2009; 47 (5): 481.

Medication Errors: The Experience of the National Poisons Information Centre of Ireland.  
Cassidy N, Tracey JA.  
Clinical Toxicology 2009; 47 (5): 510.

### Letters

Alcohol Hand Gels.  
P Casey, JA Tracey, J Herbert  
IMJ 2009; 102 (10): 343-344.

Accidental ecstasy ingestion in a two year old.  
Cassidy N, Casey PB, Tracey JA.  
IMJ 2009; 102: 62.

Self-poisoning in older adults.  
Lee SKK, Cassidy N, Donegan CF, Moore AR, Tracey JA.  
Age and Aging E-letter 19 August 2009

## COMMITTEES

Dr Tracey sits on the UK National Poisons Information Service Clinical Standards Group and attended two meetings of this group in 2009. He is a member of the EAPCCT working group on harmonisation of product data. He also serves on the Education Committee, College of Anaesthetists and is currently Vice-President of the College.

Elaine Donohoe remains on the TOXBASE editing group and Patricia Casey is a member of the UKPiD working group.

## CONTINUING PROFESSIONAL DEVELOPMENT

|          |  |  |
|----------|--|--|
| January  | Toxbase editing group meeting, Edinburgh<br>Telephone skills - Level 1, Dublin<br>(organised by the Telephone Helplines Association) | Attended by E. Donohoe<br>Attended by F. O'Connor                                  |
| March    | UKPiD working group meeting, Cardiff.<br>CPD day, Birmingham   | Attended by P. Casey<br>Attended by A. Cooke and J. Herbert                        |
| May      | EAPCCT Congress, Stockholm   | Attended by N. Cassidy<br>Posters presented by N. Cassidy, J. Herbert and P. Casey |
| July     | CPD day, Edinburgh   | Attended by J. Herbert   |
| October  | CPD day, Newcastle   | Attended by E. Donohoe and Dr J. Tracey  |
| November | Toxbase editing group meeting, Newcastle   | Attended by E. Donohoe   |
|          | Medical Toxicology course, Cardiff   | Attended by Dr J. Tracey who gave a lecture on drugs of abuse                      |
|          | Chemical Incidents Training Day, Dublin<br>(organised by the HPA)  | Attended by Dr J. Tracey   |
|          | Slán Report on Injury in Ireland, Dublin   | Attended by N. Cassidy   |
| December | UKPiD working group meeting, Cardiff.  | Attended by P. Casey   |

## ACKNOWLEDGMENTS

Our thanks to Ms Gill Cooper, NPIS Cardiff, for collating the statistics on enquiries answered by all the UK NPIS Centres, and to the UK Centres for allowing the data to be used in this report.