

Beaumont Hospital, P.O. BOX 1297, Beaumont Road, Dublin 9.





Telephone +3531 837 9964 / 809 2566



Fax + 3531 836 8476



E-mail npicdublin@beaumont.ie Website: www.poisons.ie



### **Executive summary**

The core function of the National Poisons Information Centre (NPIC) is to provide information, by telephone, to assist in the treatment of poisoning. Total enquiries in 2012 rose by 4.0%, mainly due to increased calls from the general public. Use of TOXBASE®, mainly by emergency departments, also increased slightly (by 1.6%).

We answered a total of 9905 enquiries in 2012. Of these, 9563 enquiries were about human poisoning and we followed-up 230 serious or unusual cases to determine the outcome. 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. The remaining enquiries included 274 non-emergency requests for information and 68 enquiries about poisoning in animals. Most enquiries were from medical and nursing staff in GP practices/co-ops and in hospitals, while 25.7% were from members of the public.

Overall, 61.3% of human cases were suspected accidental poisonings and 20.4% were cases of intentional self-poisoning or recreational abuse. Paracetamol remains the most common drug involved in human poisoning enquiries, and laundry products the most common group of household products.

We continue to contract the UK National Poisons Information Service to answer enquiries from doctors and healthcare professionals between 10pm and 8am each day. This is a cost effective way to provide a 24-hour service and requires good, on-going communication with the UK centres. In January 2012, we extended the hours of the Public Poisons Information Line to 8am-10pm every day and calls from members of the public subsequently increased by 21.5%. 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 CPD activities with our colleagues in the UK on several occasions during the year.

In 2012, we embarked on a number of poison awareness activities. We held the first national Poisons Awareness Day on Friday 19<sup>th</sup> April, supported by funding from the Health Service Executive (HSE). The major event on the day was the launch of the "Say NO to Poisons"" book, which was developed in collaboration with early childhood education specialists. The central message is that children should always ask an adult minding them if something is safe to eat, drink or touch. 4750 copies of the book have been ordered by the County Childcare Committees and other early years organisations for distribution to childcare facilities nationally.

We also launched our Facebook page in April 2012 with the aims of increasing awareness of the Public Poisons Information Line among parents of young children, communicating with potential service users and promoting poisons prevention. The number of Facebook users who "Liked" the page grew steadily and reached 300 by the end of the year.

A further poison prevention initiative resulted from collaboration with the Health and Safety Authority (HAS), who are one of the Competent Authorities responsible for implementation and enforcement of the EU Detergents Regulation No. 648/2004 and the Dangerous Preparations Directive 1999/45/EC in Ireland. The NPIC approached the HSA in September with concerns about the number of enquiries received involving young children exposed to liquid laundry detergent capsules. Subsequently all companies manufacturing products on the Irish market signing up to a voluntary product stewardship plan to address the issue. The NPIC will monitor the impact of these measures and will continue to liaise with the HSA and with industry about this issue.



## 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 telephone information service for healthcare professionals operates 24 hours a day, every day of the year. Our own staff answer enquiries between 8am and 10pm each day, and 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.

In January 2012, we extended the hours of the Public Poisons Information Line to 8am-10pm every day. We give advice to members of the public on the need for medical attention following accidental poisoning only. It is our policy to refer all cases of intentional self-poisoning for medical assessment.

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 staff then log on a computer database (UKPID). All in-coming and out-going calls are recorded, for quality assurance and training purposes. Staff followed-up a number of selected enquiries by telephone to determine the outcome of the case. We are very grateful to the medical and nursing staff for taking the time to give us this follow-up information.

### **Information sources**

Computer databases:

TOXBASE POISINDEX

In-house database.

Textbooks.

Journal articles.

Safety data sheets.

#### STAFF

Clinical Director: Dr Edel Duggan MB, BCh, BAO, MD, FFARCSI

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



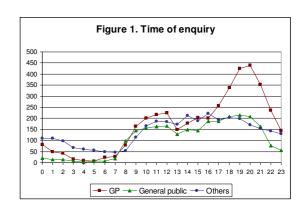
The Poisons Information Officers and Manager staff the Centre's emergency phone lines between 8am and 10pm each day (7 days a week). They are all scientists with additional training and postgraduate qualifications in Medical Toxicology. If necessary, they can refer complicated or serious cases to the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



#### **ENQUIRIES**

The NPIC received 9905 enquiries in 2012, an increase of 4.0% compared to 2011. We received 7594 of these enquiries (76.7%) between 8am and 10pm and 2311 (23.3%) between 10pm and 8am.

The Centre received an average of 27 calls per day in 2012 and 18:00-20:59 was the busiest time of day (24.3% of enquiries, Figure 1). This evening peak was due to calls from the GP coops, particularly CareDoc and SouthDoc.



Source of enquiry	Number of enquiries	%
GP/Primary Care	4071	41.1
Hospital	2734	27.6
Member of public	2545	25.7
Community pharmacist	232	2.3
Other/Unknown	323	3.3
Total	9905	

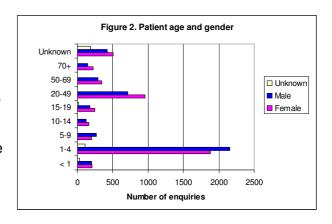
GP's/Primary care, hospitals and members of the public were the most frequent callers. Calls from members of the public increased by 21.5% compared to 2011.

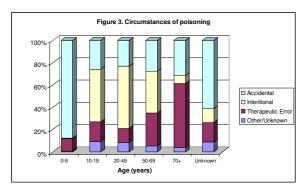
9563 (96.5%) enquiries concerned human cases of poisoning, 68 (0.7%) poisoning in animals and 274 (2.8%) were requests for information.

#### Human cases of poisoning

9563 enquiries concerned human cases of poisoning. 5055 (52.9%) of these were children under 10 years and males outnumbered females in this age group. 2680 (28.0%) enquiries were about adults (≥20 years) with a predominance of females in this age group.

93.6% of poisoning incidents occurred in the home or a domestic setting. Small proportions occurred at work (2.0%), in nursing/care homes (1.5%), hospitals (0.7%), schools (0.5%), public places (0.3%) or other/unknown locations (1.5%).





Overall, 61.3% of human cases were suspected accidental poisonings, 19.1% were intentional self-poisoning, 15.3% were therapeutic errors, 1.3% involved recreational abuse and 3.0% had another or unknown intent. The circumstances of poisoning varied with age: 87.7% of enquiries about children were due to accidental poisoning while 57.7% of enquiries involving older adults concerned therapeutic errors.



# Agents in human cases

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

Paracetamol remains the most common drug: 1622 of the products ingested contained this drug. Ibuprofen was the next most common drug (512 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.

	0-9 years	10-19 years	≥20 years	Unknown	Total
Drugs	3401	909	4342	757	9409
Industrial	1086	133	652	329	2200
Household	1461	81	280	264	2086
Plant/Fungi	252	43	64	68	427
Cosmetic	335	2	39	33	429
Agrochemical	87	7	78	72	244

# Most common drug enquiries 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	Tramadol	Carbamazepine
Ibuprofen	Oral Contraceptive	Vitamin D
Codeine	Levothyroxine/Thyroxine	Sertraline
Amoxicillin	Unknown drug	Esomeprazole
Diazepam	Venlafaxine	Lamotrigine
Alprazolam	Sodium valproate	Risperidone
Diclofenac	Mefenamic acid	Warfarin
Zopiclone	Amitriptyline	Lithium
Aspirin	Flurazepam	Montelukast
Multivitamins	Fluoxetine	Metformin
Quetiapine	Mirtazapine	Chlorpromazine
Pregabalin	Cetirizine	Heroin
Escitalopram	Atorvastin	Bisoprolol
Clavulanic acid	Clonazepam	Citalopram
Caffeine*	Prednisolone	Hyoscine
Olanzapine	Diphenhydramine	Ecstasy
Zolpidem	Pseudoephedrine	Carbamazepine

• Caffeine is a common ingredient in many analgesic products but does not contribute significantly to acute toxicity.



Bleach

# Common household product enquiries

Fabric cleaning/care product Dishwasher product

Cleaning product Automotive product

Toilet cleaner/freshener Air freshener

Disinfectant/antiseptic/sanitiser Fire product/chemical

# Liquid detergent capsules

220 (62.0%) enquiries involving fabric cleaning/care products were about exposure to liquid detergent capsules. 199 (90.5%) of these patients were children under 5 years old and 149 (67.7%) patients were symptomatic. 137 patients had minor symptoms, usually one or two episodes of vomiting, with a small number becoming drowsy or coughing. 12 patients had moderate symptoms, usually repeated episodes of vomiting. No patient had severe symptoms in 2012.



#### **OUTCOME**

230 (2.4%) human cases were followed-up. Most of these patients recovered completely but 16 suffered sequelae, 7 patients died as a result of poisoning, the outcome of 23 cases could not be determined and in 6 cases, including one further fatality, the features were not related to poisoning. Pharmaceuticals were implicated in four fatal cases, chemicals in two and veterinary medicines in one.

Toy/Novelty

## **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. Irish users, excluding the NPIC, accessed TOXBASE on 9393 occasions in 2012, a 1.6% increase compared to 2011. Hospital emergency departments were the main users (98.8% of sessions).

#### WEBSITE

The NPIC website, www.poisons.ie, had 13,342 visitors during 2011, an average of 1112 visits per month. This represents a 36.5% increase in visitors compared to 2011.

The section on low toxicity substances was the most popular. The news page, healthcare professionals sections, and the antidotes page were also popular.





# **POISONS AWARENESS ACTIVITIES**

### **Poisons Awareness Day**

The NPIC organised Irelands first national Poisons Awareness Day on Friday 20<sup>th</sup> April 2012, with the support of the Health Service Executive (HSE) and in collaboration with Early Childhood Ireland (ECI). This campaign focused on accidental paediatric poisoning and was aimed at parents of young children, caregivers, and public health nurses. The day was intended to increase awareness of the dangers of poisons in the home, especially to very young children, of the steps to take to avoid those dangers and what to do if a child has taken something which could be poisonous. A secondary aim was to advertise the Public Poisons Information Line. This dedicated telephone number was introduced in January 2011 and enables members of the public to speak directly with a Specialist in Poisons Information, for treatment advice following suspected accidental poisoning.

To mark the launch of the Poisons Awareness Day, a storybook, "Say NO to Poisons!" was developed by the NPIC with the assistance and support of the staff and children of County Carlow VEC Childcare Centre, the HSE and ECI (see below). The launch took place in collaboration with ECI at their annual conference in Dublin. This event was covered on RTE News, TV3 News and News2day. NPIC staff also delivered a one hour workshop on accidental poisoning to childcare professionals at the ECI conference. In addition, NPIC staff had a stand in the main reception area of Beaumont Hospital where they gave poisons prevention literature to hospital staff, patients and visitors. The Dublin children's hospitals also distributed poisons prevention materials on the day.

The HSE provided funding for the story book, posters, leaflets and fridge magnets and supported the project through PR and internal communications initiatives. The target audience for the public campaign was primarily parents of young children, preschool/Montessori providers, HSE staff and the general public.

The NPIC and the Poisons Awareness Day were featured in national and local newspapers and radio stations, and in HSE staff publications. Early Childhood Ireland featured the "Say NO to Poisons!" initiative in their conference report (on their website) and in their June Ezine newsletter.

The NPIC has noted a 21.5% increase in enquiries from members of the public in 2012, indicating greater awareness of our public access service. There has also been significant demand for poisons prevention materials: we distributed 4750 "Say NO to Poisons!" books, 2002 ABC of Poisoning posters, 10,000 fridge magnets and 24,198 Poison Prevention Guidelines leaflets during 2012.

# Say NO to Poisons!

The NPIC approached ECI in late 2011 to collaborate on a poisons awareness project for pre-school children. A storybook, featuring Ben and Amy (two inquisitive pre-schoolers), was chosen as an appropriate method to engage children, to teach them about poisons safety and to empower them to keep safe. We chose the title "Say NO to Poisons!" as it is a simple, effective catchphrase that is easy for children to understand and communicate. The central message of the "Say NO to poisons!" programme is that children should always ask an adult minding them if something is safe to eat, drink or touch.

The "Say NO to Poisons!" book and educational resources were developed in collaboration with Martina Osborne, an adult education officer from County Carlow VEC, with over 30 years experience in early childhood education. The materials included a "Say NO to Poisons!" storybook, a learning plan for childcare practitioners, safety signs (to demonstrate safe/unsafe items), activity sheets, a poster, a slide show, and a certificate of participation.



The staff, parents and children of County Carlow VEC Childcare Centre participated in a pilot study to evaluate the "Say NO to Poisons!" programme. The feedback received confirmed that the programme successfully informed pre-school children and parents about poison safety.



ECI endorsed the "Say No to Poisons!" book and the programme was launched by the Minister for Children and Youth Affairs, Ms. Frances Fitzgerald at the ECI Conference in April 2012.

The HSE provided funding to print 6,000 copies of the book, one for each registered childcare facility in Ireland. The book and educational resources are also available to download from <a href="https://www.poisons.ie">www.poisons.ie</a>. To date 4750 books have been ordered by County Childcare Committees and other early years organisations, for distribution to childcare facilities, and an additional 326 books have been downloaded from www.poisons.ie. The "Say NO to Poisons!" project received a commendation at the 2012 Irish Healthcare Awards in the Best Patient Lifestyle Education Project, "for its focus on improving patient care, innovation and collaboration".

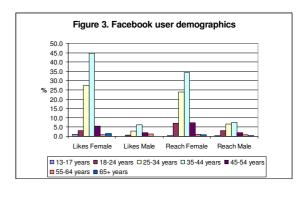
# Facebook (www.facebook.com/NPICDublin)

The NPIC launched its Facebook page in April 2012 with the aims of promoting poisons prevention, increasing awareness of the Public Poisons Information Line among parents of young children and communicating with potential service users.

We promoted the page initially by "Liking" Facebook pages aimed at Irish parents or childcare professionals and asked them to tell their users about the NPIC page. We also asked staff in Beaumont Hospital, visitors to the Poisons Centre website and NPIC staff's personal Facebook friends to Like the page and to tell their own friends about it. A monthly plan for posts to run in parallel with the seasonal hazards updates on poisons.ie was prepared, with a focus on educating parents about poisoning hazards in the home and the prevention of accidental poisoning in young children.

One staff member checked the page daily (Monday-Friday), responded to comments, deleted spam and uploaded our own posts. They also shared relevant safety alerts, product withdrawals and news items. We explicitly stated that we do not monitor the page continuously and that it should not be used in emergencies, and we turned off the Message function to prevent people seeking emergency advice via this route.

The NPIC Facebook page gained 300 Likes during 2012 with an average Weekly Total Reach<sup>1</sup> of 667 (range 110-3359). Most people who liked the page were female 35-44 or 25-34 years old. Similarly, most of the Facebook users reached were females 25-44 years old. Since the average age of mothers giving birth in Ireland is 31.3 years and of first-time mothers is 29.7 years, these data indicate that the page is reaching the appropriate group of Facebook users.



<sup>&</sup>lt;sup>1</sup> Facebook defines Weekly Total Reach as "the number of unique people who have seen any content associated with your Page in the last 7 days."



#### **OTHER ACTIVITIES**

# **Toxicovigilance**

In September 2012, the NPIC met the Health and Safety Authority (HSA) to discuss the increasing number of poisoning incidents involving young children exposed to liquid laundry detergent capsules. (The HSA is one of the Competent Authorities responsible for implementing and enforcing the EU Detergents Regulation No. 648/2004 and the Dangerous Preparations Directive 1999/45/EC in Ireland.) The HSA subsequently met with the NPIC and the companies selling these products on the Irish market. They also brought this matter to the attention of the EU Commission and EU Member States.

All companies placing such products on the Irish market have agreed to introduce changes to the packaging and labelling of the products, to try and reduce the number of such incidents. The NPIC will monitor the impact of these measures and will continue to liaise with the HSA and with industry about this issue.



#### **Newsletter**

We produced one issue of our newsletter for emergency department staff in the summer of 2012. The topics covered included new drugs of abuse, glyphosate, kettle descalers, paracetamol-staggered overdose and ethylene glycol. Publication of the winter issue was postponed until January 2013 so that the new treatment guidelines for paracetamol overdose could be highlighted.

#### COMMITTEES

The Director sits on the UK National Poisons Information Service Clinical Standards Group and Dr Duggan attended 5 meetings/teleconferences of this group in 2012. Elaine Donohoe remains on the TOXBASE editing group and she attended three meetings/teleconferences in 2012.

Dr Duggan and John Herbert are members of the Early Warning Early Trends Sub-Committee of the National Advisory Committee on Drugs. Patricia Casey is a member of the UKPID working group, the HSE Injury Prevention Forum and the EAPCCT working group on harmonisation of product data. Nicola Cassidy is a member of the Medication Safety Forum.

Patricia Casey is a member of a working group convened by the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT) to develop harmonised guidelines for product information for Poisons Centres. The group mainly conducted its work via email during 2012. The guidelines remain the subject of ongoing discussions with the European Commission and industry groups.

# **PUBLICATIONS**

#### Letters

Dosing errors with infant vitamin D3 supplements Casey P, Cassidy N, Tracey JA. Irish Medical Journal 2012; 105(6):189.



#### **Abstracts**

The epidemiological profile of methotrexate enquiries to the National Poisons Information Centre of Ireland.

Cassidy N, Cooke A, Tracey JA, Duggan E.

Clinical Toxicology 2012; 50: 296.

Surveillance of paraquat cases reported to the National Poisons Information Centre of Ireland: 1999–2011.

Cassidy N, Tracey JA, Duggan E. Clinical Toxicology 2012; 50: 296.

Pesticide enquiries to the National Poisons Information Centre of Ireland: A prospective 4 year study.

English N, Cooke A, Duggan E. Clinical Toxicology 2012; 50:356.

Knowledge of Intralipid<sup>©</sup> in Emergency Departments Donohoe E, Browne E, Duggan E. Clinical Toxicology 2012; 50: 361.

#### **PRESENTATIONS**

Dr Duggan spoke about "Common ingestions in children" at the Emergency Medicine Congress (Toxicology workshop) in June.

NPIC staff organised and gave two presentations at "The Poison Awareness Project - A cautionary Tale of Care" workshop at the Early Childhood Conference on 20<sup>th</sup> April 2012. Dr Duggan spoke about "What's a poison?" and Elaine Donohoe spoke on first aid for poisoning "What would you do?"

### CONTINUING PROFESSIONAL DEVELOPMENT

February	CPD Day, Cardiff	John Herbert
Мау	EAPCCT Congress, London	Nicola Cassidy
		Elaine Donohoe
June	<b>Emergency Medicine Congress</b>	John Herbert
	(Toxicology workshop), Dublin	Dr Edel Duggan
November	CPD Day, Newcastle	Feargal O'Connor
	TOXBASE editing meeting, Edinburgh	Flaine Donohoe

