Center for Schools & Communities Online Learning

Poison Prevention: Making Your Program Work

Tuesday, March 11, 2008
2:00 p.m. to 3:00 p.m.
Moderators for Today’s Session

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Presenters

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Safe Kids Allegheny County
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PITTSBURGH POISON CENTER
Statistics, Services, Treatment

Rita Mrvos BSN, CSPI
Manager
Community Education Coordinator
Pittsburgh Poison Center
University of Pittsburgh Medical Center
US POISON CENTER ACCESS
Common Telephone Number

1-800-222-1222
THE EVOLUTION OF US POISON CENTERS

- **1940-50’s**
  - 800-1400 home poisoning fatalities/yr
  - 33% = < 4 yr of age

- **1953**
  - First Poison Center

- **1958**
  - AAPCC

- **1970**
  - Poison Prevention Packaging Act

- **1971**
  - 800 Poison Centers

- **1978**
  - 61 Centers

- **2006**
  - 24/7 Service
To promote the reduction of morbidity and mortality from poisonings through the dissemination of poison information and treatment advice, public and professional education and scientific research.
PITTSBURGH POISON CENTER
Information Services

AAPCC Certified Regional Center
Department of UPMC
University of Pittsburgh Medical Center
24/7 Service
2007 Statistics
139,572 Calls

INFORMATION 60%  EXPOSURES 40%
PITTSBURGH POISON CENTER

Knowledge Resources

👩‍⚕️ Expert Staff
Specialists in Poison Information
Clinical Toxicologists

👨‍⚕️ Consultants

💻 Electronic Documentation

🔍 > 700 Reference Texts

🌐 Online Resources-Micromedex

📚 Literature Files

🌐 Internet Resources
PITTSBURGH POISON CENTER
Types of Calls

- EXPOSURES
  - Human
  - Animal
- POISONINGS
  - Information
  - Treatment
- ADVERSE REACTIONS
- INFORMATION
WHO UTILIZES THE PITTSBURGH POISON CENTER?

- PUBLIC
- PHYSICIANS
- NURSES
- PHARMACISTS
- PARAMEDICS
- VETERINARIANS
- URGICARE CTRS
- OCCUP MED MD
- POLICE
- FIRE SERVICES
- PRISON OFFICIALS
- CORONERS
- ATTORNEYS
- INDUSTRY

Public 80%
Medical 20%
<table>
<thead>
<tr>
<th>ALL POISONINGS</th>
<th>PEDIATRIC POISONINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analgesics</td>
<td>1. Cosmetics</td>
</tr>
<tr>
<td>2. Cosmetics</td>
<td>2. Cleaning Products</td>
</tr>
<tr>
<td>3. Cleaning Products</td>
<td>3. Analgesics</td>
</tr>
<tr>
<td>4. Sedatives</td>
<td>4. Foreign Bodies</td>
</tr>
<tr>
<td>5. Foreign Bodies</td>
<td>5. Topicals</td>
</tr>
<tr>
<td>6. Cough/Cold Medications</td>
<td>6. Cough/Cold Medications</td>
</tr>
<tr>
<td>7. Topicals</td>
<td>7. Plants</td>
</tr>
<tr>
<td>8. Pesticides</td>
<td>8. Pesticides</td>
</tr>
<tr>
<td>10. Envenomation/Bites</td>
<td>10. Antihistamines</td>
</tr>
</tbody>
</table>
PITTSBURGH POISON CENTER

Caller Site

- Residence 78%
- Health Care Facility 14%
- Workplace 2%
- School 1%
- Other 5%
PITTSBURGH POISON CENTER

Age Distribution

AGE (Years)

%
PITTSBURGH POISON CENTER

Calls by Hour

TIME OF DAY

% of CALLS

0 2 4 6 8 10 12 14 16 18 20 22

0 2 4 6 8
Interesting Facts

- **BUSIEST TIME**: 18:00-21:00
- **BUSIEST DAY**: Wednesday
- **BUSIEST MONTHS**: May-September
- **WHERE POISONINGS OCCUR**: Home 92%, Workplace 3%
TOXICOSURVEILLANCE

AAPCC NATIONAL POISON DATA SYSTEM

COMPREHENSIVE POISONING SURVEILLANCE DATABASE

COLLECTIVE EXPERIENCE OF US PCs

All US PCs

Medical Records Data

REALTIME ‘AUTOUPLOADING’ OF DATA 24/7
BENEFITS
POISON CENTERS

POISON CENTERS SAVE LIVES

POISON CENTERS SAVE $$$
WHO AM I?
MR YUK FACTS

- Born in 1971 in Pittsburgh, PA.
- Replaced the skull and crossbones symbol which represented the Pittsburgh Pirates baseball team to PGH. KIDS.
- Originally use vs today’s use
  ***A symbol must be taught in order to be effective***
EDUCATION MATERIALS
2007

⚠️ Distributed in Pennsylvania
→ 882,000 sheets of Mr. Yuk stickers
→ 347,700 brochures, pencils and magnets

3,320 individual requests for poison prevention/education materials were filled.

24 public poison prevention education lectures and health fairs were conducted.
NEW! MR. YUK-POISON HELP TATTOOS

NEW! POISON HELP AWARENESS WRISTBANDS

POISON Help Promotion Items
Poison Help (1-800-222-1222) promotion can be nontraditional and fun. The use of tattoos and wristbands can promote poison prevention and poison center awareness to the tough to reach audiences such as adolescents.

BROCHURES

ACTIVITY ITEMS

AWARENESS TOOLS
Welcome to the Poison Control Center at The Children’s Hospital of Philadelphia

Allison A. Muller, Pharm.D, D.ABAT
Clinical Managing Director
Overview

• Who are we?
• What do we do?
• What resources do we have?
• Where do our data go?
• What are our most common calls?
The Mission of PCCs

• To provide 1st aid home poisoning management via telephone
• To save health care dollars by reducing unnecessary ER visits
• To prevent poisoning exposures by disseminating information and increasing awareness in the community
History of PCCs

- **1953**: 1st PCC opened in Chicago, IL
- **1958**: American Association of PCCs (AAPCC) formed
- **1978**: AAPCC introduced PCC standards
- **1983**: Certification exam for Specialists in Poison Information (SPIs) is introduced
History of PCCs, con’d…

- 1972: introduction of child-resistant containers
U.S Poison Centers: No Longer on Every Corner!

- **1978**: number of PCCs grew to a high of > 600
- **1998**: 74 PCCs
- **2005**: 61 PCCs remain with 57 fully certified (including Philadelphia’s)
U.S. Poison Center Statistics (2005)*

- Total number of calls from 57 PCCs: 2,424,180 calls and 3.9 million follow-up calls
- 92.7% exposures occurred in the home
- 76% of cases managed at home
- Peak call volume between 4-11 pm

* www.aapcc.org
Requirements for Certified PCCs

Service

• Provide a **FREE** service 24 x 7 x 365
• Have at least one Specialist in Poison Information (SPI) in the PCC at all times
The Poison Control Center at CHOP

- Started in 1986
- Became part of CHOP in 1995
- Current clinical staff:
  - Nurses (8), Pharmacists (7), Pharm.D students (3)
  - Medical Director (MD, MSCE, FAAP, FACMT)
  - Associate Medical Director (MD, FAAP, FACMT)
  - Clinical Managing Director (Pharm.D, CSPI, DABAT)
Requirements for Certified PCCs

**Resources**

- To maintain a comprehensive toxicology library
- Availability of a medical library or comparable on-line resources
Resources Used by SPIs

- Micromedex (Poisindex, Drugdex)
- Textbooks (Goldfrank, Dart…)
- Protocols created by the PCC Directors
- Internet
- On-Call Toxicologists
- Mycologist
- Veterinarian
- Zoo
Requirements for Certified PCCs

Written Guidelines

• Must be approved in writing by the Medical Director
• Periodic review (and evidence of) required
Requirements for Certified PCCs

Staff Requirements

- Specialists in Poison Information (nurses, or pharmacists) on the PCC hotline “SPIs”
- Poison Information Providers (in our PCC these are PharmD students) - 2:1 ratio with a “SPI”
- A board-certified toxicologist available on call, 24 hrs/day
Requirements for Certified “SPIs”

- Must meet current AAPCC educational requirements (e.g., degree in pharmacy or nursing)
- State licensure in Pharmacy or Nursing
- Completion of PCC Orientation Program
- After one year (2000 hours) and 2000 human exposure calls: qualified to sit for the certification exam (given every May)
- Re-certification every 7 years
Professional Education at CHOP PCC

• SPI continuing education
• New staff training
• Clerkship site for PharmD students (5 week rotations)
• Rotation site for medical students, residents and fellows.
• Teaching schedule format
Requirements for Certified PCCs

**Education**

- Provide education to health care professionals throughout the region
- Public education activities targeting “at-risk” populations throughout the region
## Non-toxic exposures (examples)

<table>
<thead>
<tr>
<th>Water based paints</th>
<th>Toilet bowl water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica gel</td>
<td>Poinsettia</td>
</tr>
<tr>
<td>Cat litter</td>
<td>Glue traps</td>
</tr>
<tr>
<td>Glow jewelry</td>
<td>Soap</td>
</tr>
<tr>
<td>Shampoo, conditioner</td>
<td>Shaving cream</td>
</tr>
<tr>
<td>Lotion</td>
<td>Calamine lotion</td>
</tr>
<tr>
<td>Antacids</td>
<td>Book matches</td>
</tr>
<tr>
<td>Rust</td>
<td>White glue</td>
</tr>
<tr>
<td>Plaster</td>
<td>Crazy glue®</td>
</tr>
<tr>
<td>Ballpoint pen ink</td>
<td>Chalk</td>
</tr>
</tbody>
</table>
Toxic in Small Doses

- Lomotil
- Calcium channel blockers
- Oil of wintergreen
- Imidazoline decongestants
- Alpha-2 agonists (eg, clonidine)
- Beta blockers
- Sulfonylureas
Toxic in Small Doses

- Isoniazid
- Toxic alcohols (methanol, ethylene glycol)
- Camphor
- Hydrofluoric acid
- Lindane
- Gun blue (selenious acid)
- Benzocaine
The Top Ten Exposures Reported to PCCs

1. Cleaning products (bleach, Lysol…)
2. Analgesics (Tylenol, Motrin..)
3. Cosmetics (perfume, creams/lotions)
4. Cough & Cold Preparations (Dimetapp, Triaminic…)
5. Plants (poinsettias, berries..)
The Top Ten Exposures

6. Bites and Stings (bee stings, spider and snake bites)
7. Pesticides (insecticides, insect Repellants)
8. Foreign Bodies (coins, watch batteries)
9. Topical Preparations: creams/ointments
10. Food poisoning
MARCH POISON PREVENTION MONTH IN ALLEGHENY COUNTY

STAN JONAS, RPh., MPH.
Chair Poison Prevention Committee
Safe Kids Allegheny County
GOALS

- Distribution of poison education awareness materials to general population through a combination of pharmacies and Head Start programs

- To support poison education programs in the community
SUPPORT FUNDING/DONATIONS

- Highmark Blue Cross Blue Shield
- Pittsburgh Poison Center
- Allegheny County Health Department
FIRST STEP - CONTACTS

- Duquesne University School of Pharmacy
- Cardinal Health System
- McKesson
- RDC Services
- Pittsburgh Poison Center
- Allegheny County Medical Society
- US Consumer Product Safety Commission
- Printer

- Allegheny County Health Department (ACHD)
- Bayer Corporation
- City of Pittsburgh Head Start
- Allegheny Intermediate Unit (AIU)
- Three Rivers Indian Council Head Start
- City of Pittsburgh (Proclamation)
- County of Allegheny (Proclamation)
SECOND STEP – RETRIEVAL AND PACKAGING

Printed Materials

Pittsburgh Poison Center Materials

ACHD Supplies

Duquesne University Mylan School of Pharmacy student volunteers – package over 300 kits
What most people don’t know about poison could kill a child.

Step One

What is poison, anyway?

1. Do you recognize poison when you see it? Which of the following products are harmful when ingested or misused?

<table>
<thead>
<tr>
<th>Can Be Poisonous</th>
<th>Not Poisonous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfumecolonyshave</td>
<td></td>
</tr>
<tr>
<td>Car and boat care products</td>
<td></td>
</tr>
<tr>
<td>Toilet bowl cleaners</td>
<td></td>
</tr>
<tr>
<td>Bubble bath</td>
<td></td>
</tr>
<tr>
<td>Button batteries</td>
<td></td>
</tr>
<tr>
<td>Sport remover</td>
<td></td>
</tr>
<tr>
<td>Mouthwash</td>
<td></td>
</tr>
<tr>
<td>Insecticides/rodenticides</td>
<td></td>
</tr>
<tr>
<td>Fabric softeners</td>
<td></td>
</tr>
<tr>
<td>Detergents</td>
<td></td>
</tr>
<tr>
<td>Oven cleaners</td>
<td></td>
</tr>
<tr>
<td>Rust remover</td>
<td></td>
</tr>
<tr>
<td>Deodorants</td>
<td></td>
</tr>
<tr>
<td>Hair conditioner/hair dye</td>
<td></td>
</tr>
<tr>
<td>Soap</td>
<td></td>
</tr>
<tr>
<td>Shampoo</td>
<td></td>
</tr>
<tr>
<td>Deodorant</td>
<td></td>
</tr>
<tr>
<td>Fertilizers</td>
<td></td>
</tr>
<tr>
<td>Herbicides</td>
<td></td>
</tr>
<tr>
<td>Kerosene lamp oil</td>
<td></td>
</tr>
<tr>
<td>Turpentine</td>
<td></td>
</tr>
<tr>
<td>Meth repellent</td>
<td></td>
</tr>
<tr>
<td>Paint stripper</td>
<td></td>
</tr>
<tr>
<td>Antiseptic (aspirin, benzocaine, &amp; acetaminophen)</td>
<td></td>
</tr>
<tr>
<td>Antihistamines</td>
<td></td>
</tr>
<tr>
<td>Cord medicine</td>
<td></td>
</tr>
<tr>
<td>Whiskey</td>
<td></td>
</tr>
<tr>
<td>Beer</td>
<td></td>
</tr>
<tr>
<td>Laxatives</td>
<td></td>
</tr>
<tr>
<td>Muscle relaxants</td>
<td></td>
</tr>
<tr>
<td>Camphor</td>
<td></td>
</tr>
<tr>
<td>Multiple vitamins with iron</td>
<td></td>
</tr>
<tr>
<td>Diffuser/fragrance plant</td>
<td></td>
</tr>
</tbody>
</table>

2. Prescription drugs and over-the-counter medications were responsible for nearly one-half of all poisonings last year. Do you know which of these products caused the largest number of exposures?

| A. Sedatives | B. Antihistamines | C. Children’s acetaminophen | D. Multiple vitamins |

3. Children often do not understand that poison can come in many forms. Most children think of poison only as:

| A. Liquid | B. Chunky solid | C. Spray | D. Invisible (a fume or a gas) |

4. Ready for some fact vs. fiction questions? Write “T” for true or “F” for false. Here we go.

| 1. Poisons can never be red in color. | T |
| 2. There is no such thing as an invisible poison. | F |
| 3. Poison is always ugly. | T |
| 4. Poison always smells “sickly”. | F |
| 5. Poison Southeast is very poisonous plants. | T |
| 6. A little alcohol can’t hurt a child. | F |

Hey—you’re doing great!

Step Two

Who’s most vulnerable to a poisoning accident?

1. In 2006, according to the American Association of Poison Control Centers, children under six years of age accounted for what percent of all accidental poisonings?

| A. 15% | B. 25% | C. 38% | D. 51% |

2. In 2006, what percentage of the cases of accidental poisonings reported in the 44 counties in and around Allegheny County were by children under six years of age?

| A. 32% | B. 5% | C. 18% | D. 46% |

Step Three

Where and when poisonings happen

You’re doing too well. We’ve gotta get tougher.

1. Over 90% of all poison exposures occur in one place.

| Where is it? | A. The workplace | B. Schools | C. Health-care facilities | D. Residences |

2. Most poisonings occur?

| A. Between 6 P.M. and 9 P.M. | B. Between 8 A.M. and 11 A.M. | C. Between 12 P.M. and 3 P.M. | D. Between 9 A.M. and Noon |

3. The peak hours for poisonings are?

| A. 9 P.M. to Midnight | B. Midnight to 7 A.M. | C. Between 5 P.M. and 8 P.M. | D. Between 9 A.M. and Noon |

Step Four

What do you do if a poisoning occurs?

1. The first thing to do if you suspect a poisoning is?

| A. Run in circles, scream and shout | B. Take the dog for a walk | C. Pretend it’ll go away | D. Call the Poison Center |

2. What percentage of poisonings do you think can be successfully treated at home with proper supervision?

| A. 16% | B. 33% | C. 55% | D. 75% |

Step Five

How to help your family stay safe from poison

1. Who is this face?

| A. President/Prime Minister | B. Mao Tse Tung | C. Mr. Yuk |

2. What does it stand for?

| A. NO! | B. Do Not Touch, Do Not Taste, Do Not Smell. |

3. Both of the above |

3. Which of the following statements are true?

| A. You may take your medicine in front of your child. | B. Never call children’s vitamins candy. | C. It is okay to take medicines in the dark. |

Now see how you did.

Answers

(Give yourself one point for every correct response)

Step One

1. Every one of these products can be poisonous if misused. Some are more dangerous than others, obviously. And, these products are only a tiny fraction of all the potentially dangerous products used regularly at home on the job, and at school.

2. C. Always tell your children that medicine is only good for you when you’re sick, and only when a doctor gives it to you.

3. B. Teach children the four forms of poison—solid, liquid, spray, and invisible.

4. Every one of these statements is FALSE, except?

Step Two

1. D |

Step Three

1. C |

Step Four

1. C |

Step Five

1. B |

2. C |

3. B |

4. B |
Allegheny County Pharmacists Association
P. O. Box 215, Wildwood, PA 15091 (412) 922-2440

TO: COMMUNITY PHARMACY OWNERS and MANAGERS
FROM: STAN JONAS
DATE: JANUARY 15, 2008
SUBJECT: MARCH-POISON PREVENTION MONTH IN ALLEGHENY COUNTY
PROMOTIONAL MATERIALS

The Allegheny County Pharmacists Association is again cooperating with Safe Kids Allegheny County, in distributing the enclosed materials for your use in promoting "March-Poison Prevention Month in Allegheny County". Each kit contains 250 sheets of "Mr. Yuk" stickers, 50 sheets of the "Home Check List", and the "Mr. Yuk poster, as well as pamphlets on preventing carbon monoxide and lead poisonings.

PLEASE DISPLAY THE POSTER PROMINENTLY AND HAVE THE "MR. YUK" STICKERS AND PAMPHLETS READILY AVAILABLE FOR CUSTOMERS.

Pharmacist activity in this and other poison prevention programs, as well as the use of safety caps on prescriptions and OTC products is, in part, responsible for having less than five deaths from unintentional poisoning of children under six years of age in the Pittsburgh Poison Center’s service area during the past twenty-five years.

Also participating in this promotion are Children’s Hospital of UPMC, the Allegheny County Health Department, Highmark Blue Cross Blue Shield, the U.S. Consumer Product Safety Commission, Pittsburgh Poison Center, Allegheny County Medical Society, Bayer Corporation, the Mylan School of Pharmacy at Duquesne University and the University of Pittsburgh School of Pharmacy.

Thank you for your cooperation.

ACPA POISON PREVENTION COMMITTEE

Stan Jonas, R.Ph., M.P.H., Chair.
William Liepach, R.Ph.
ACHD
DISTRIBUTION

- McKesson HBOC
- Cardinal Health
- Private
SUCCESS MEASURES

- Encourages pharmacists to interact with the public regarding poison prevention
- Poison education materials readily available at the prescription counter
- Provides poison prevention literature/teaching material directly to those involved in the Head Start program both adults and children
- Allows pharmacy students to develop and teach poison education programs
CONCLUSION

Pharmacist activity in this and other poison prevention programs, as well as the use of safety caps on prescriptions and OTC products, is in part, responsible for having less than five deaths from unintentional poisoning of children under six years of age in the Pittsburgh Poison Center’s service area during the past twenty-five years.
QUESTIONS?