

**Primary Health Care Initiatives (PHCI) Project
Contract No. 278-C-00-99-00059-00
Abt. Associates Inc.**

POISONING INFORMATION FOR PHARMACISTS

LEARNING OBJECTIVES

- Distinguish the most common types of poisoning
- Understand most common non-toxic substances that are sometimes ingested
- List possible antidotes to some poisonings

TEACHING STRATEGIES

- Ask a participant to briefly describe a recent case of poisoning that they treated. Use this case to illustrate the general approach to management of a poisoning victim.
- Bring cans or bottles of the most common items responsible for poisoning episodes for demonstration
- Use lecture/discussion to communicate major points

MATERIALS AND EQUIPMENT NEEDED

- Whiteboard or flipchart and markers
- Overhead projector and previously prepared transparencies
- Cans or bottles of the most common items responsible for poisoning episodes in your area

LEARNING POINTS

- Demography of Poisoning
 - Children under age 6 are at least 50% of all poisoning cases in many countries
 - Adults who are poisoned by ingestion of material most commonly are suicidal
 - Poisoning by inhalation or skin contact most common in agricultural workers, and occasionally in other manufacturing industries
- Most common poisoning
 - Depends on age of patient, availability of poison, social issues
 - Children – most commonly medications found in home, household cleaners and furniture polishes, items in open containers
 - Adults – pesticides and fungicides in agricultural workers, medications or other poisons taken as suicide attempt
- Harmless Ingestions
 - Many common household items are relatively harmless if ingested, and patients can simply be observed. Be sure that a suicide intent was not present, even if item was relatively non-toxic.

Commonly Ingested Nontoxic Substances

<i>Personal care products</i>	<i>Household items</i>	<i>Miscellaneous</i>
Bubble bath	Thermometers (mercury, --OK; glass, potentially --harmful)	Play-Doh®
Soap	Ballpoint-pen ink	Caps for toy pistols
Lipstick	Crayons	Teething rings
Hand lotion	Chalk	Watercolors
Suntan lotion	Candles	
Perfume/cologne --(low alcohol content)	Pencils/erasers	
Eye makeup	Ink marking pens	
Toothpaste	Laundry detergent	
Deodorant	Fabric softener	
Other cosmetics	Household bleach --(<5 % sodium hypochlorite)	
Shampoo		

- Specific Antidotes
 - Specific antidotes exist to only a few specific intoxications, as seen in the below table
 - Many of these antidotes are found only in referral centers – refer patient immediately if one of these poisons is suspected

Antidotes to Common Toxins

<i>Toxin</i>	<i>Antidote</i>
Acetaminophen (Paracetamol)	<i>n</i>-Acetylcysteine (Mucomyst, Mucosil-10)
Cyclic antidepressants	Bicarbonate
Benzodiazepines	Flumazenil (Romazicon)
Opiates	Naloxone (Narcan)
Calcium channel blockers	Calcium
Beta blockers	Glucagon
Anticholinergic agents	Physostigmine salicylate (Antilirium)
Iron	Deferoxamine (Desferal)
Methanol, ethylene glycol	Ethanol
Cholinesterase Inhibitors	Atropine

PREVENTIVE ISSUES AND HEALTH EDUCATION MESSAGES

- Counsel young parents to be sure that all toxic items are beyond the reach of young children
- Properly label all containers – counsel patient not to put a poisonous substance in another container
- Be certain that patient understands correct dosage of medication, to avoid accidental overdose
- Use proper protective equipment when using toxic pesticides or herbicides in agricultural areas
- Medications from all members of the family should be beyond the reach of young children

CRITICAL ELEMENTS FOR EVALUATION OF COMPETENCE

- Recognition of dangerous and non-dangerous ingestions
- Proper referral of poisoned victims