Poison Control Centers
Through the Years

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Objectives

- Review the historical development of the US Poison Control Center System (PCC)
The 1930’s - Chicago

Louis Gdalman, RPh
- Provided informal poison service at St. Luke’s Hospital
- Office directly across from ED
- MD’s consulted for management of poisoning cases
- Resources limited to St. Luke’s staff initially
Gdalman created poison information cards
Created library of cards for reference
Became nationally known
  – Received calls from around country
  – Requests for poison information and management of poisoning
The 1940’s

- Increased city growth post WWII
- Increased consumer product technology
  - More products in American household
    - Insecticides, furniture polish, pains, disinfectants
- > 50% of children’s accidents reported to pediatricians due to poisoning
- 1949-1950
  - 834 deaths due to poisoning in children <5y
    - Easy access to poisonous substances
    - Focus begins to shift to accident/poisoning prevention
Early Alarming Statistics

- ~1400 fatal poisonings in the home
  - ~1/3 of cases in children < 4y
Nationwide Response

- No single source for information on toxic substances
- >250,000 toxic trade name substances
- MDs request source for toxic ingredients of common household substances
The Founding Fathers

Joseph R. Christian MD
- Recognized need for public education and awareness of household products and poisonings

Edward Press MD
- Created Chicago sub-committee to evaluate public health needs

Louis Gdalman, RPh
First Poison Control Center

November 1953
- Founders: Press, Christian, Gdalman
- Chicago, Illinois
- St. Luke’s Hospital
- Single room, desk, telephone, clerk, and files
- 85 page manual
  - Chemical ingredients of household products
  - Poisoning management recommendations
  - “Accidental Poisoning in Childhood”
- Initially responded to local calls only
  - 7 participating hospitals
First Poison Control Center
Chicago

1954
- Poison center program expanded to other city hospitals
- Received endorsement from multiple local medical societies

1954-1956
- Number of poison control centers increases nationwide
  - Variable in size, resources, staffing, population served
- Duplication of efforts
- No collaboration between centers
The Development Process

1957
- National Clearinghouse for Poison Control Centers created
- Clinical Toxicology of Commercial Products

1958
- American Association of Poison Control Centers created
  - Develop educational programs
    - Healthcare professionals
    - General public
  - Created standards for Poison Control Center Operations
The Development Process

1960’s & 1970’s

- 1962 - National Poison Prevention Week
- 1970 – Poison Prevention Packaging Act
- 1971 – Mr. Yuk
- 1970 Toxicity Bibliography
- 1972
  - Computer based information system combined Clearinghouse cards and Clin Tox compendium
  - Available to 14 Regional Centers in 1977
  - Microfiche- Poisindex, Toxifile

Mid 70’s
- Toxline
- Toxic Effects of Chemical Substances
Focus on Prevention

Prevention Strategies emphasized

- Child-resistant packaging
- Educational programs
  - Children
  - Parents
  - Healthcare professionals
  - Others
Focus on consolidation

1978 – 661 PCCs in the US
- Move towards regionalization of PCCs
- Consolidate and improve services
- Personnel proficiency standards

1983
- Toxic Exposure Surveillance System (TESS)
What is TESS?

- Comprehensive poisoning surveillance database
- Participating PCCs report all cases to TESS
- Captures >96% of all poisonings reported to PCCs
- >24 million poisoning cases
- Provides several reports on poisoning cases
The 1990’s
Budget Crunch & Cost Justification

- PCCs funded from various sources
  - Sponsoring hospitals - majority
  - Government funds ~ 37%
  - Donations <4%

- Early 1990’s
  - Budget reductions
  - Loss of government funds and hospital sponsors
Cost Justification

- Multiple studies conducted
  - PCCs reduce morbidity and mortality
  - Costs avoided
    - Preventing hospitalizations/ED visits by managing select pts at home
    - $7 saved for every $1 spent on PCC
    - 2004 data indicate continued savings
      - $26.6 million saved
        - 78% of cases handled at poisoning site
        - Decreased ED and MD visits
Regionalization

- Main focus due to budget crisis
- Standard created for designation of regional PCC
Certification Criteria for Regional Poison Centers - Summary

- Covers a designated geographical area
- 24/7 coverage
- Services free of charge
- Maintain comprehensive poison information resources on site
- Supervised by board certified medical toxicologists and clinical toxicologists

- Medical and managing directors
- On site certified specialists in poison information
- Quality improvement program in place
- Familiarity of regional treatment capabilities
- Participation in TESS
- Education
  - Professional
  - Public
Poison Control History

February 2000
- Poison Control Center Enhancement and Awareness Act
  - Allocated federal funding of poison control centers

January 30, 2002
- National toll free number
- 1-800-222-1222
- New logo for poison center

Today
- 64 US Poison Centers
- 51 certified
The End of Development – Questions?