Objectives

- Describe the evolution of drug information.
- Define drug information and related terms.
- Describe the importance of drug information to the practice of pharmacy.
- Explain the need for drug information skills as a health care practitioner.
- Describe the essential components needed to develop a drug information center.
- Explain how drug information centers have changed and how the practice must change to meet future health care needs.

Types of DIC

- Hospital-Based DIC
- Industry-Based DIC
- Community-Based DIC

Fundamentals of DIC

- History and Introduction of DIC
- Functions of DIC
- Drug Information Center: - Organization and Space - Resources - Personnel - Policy and Procedures

Definitions

- **Drug Information** is the provision of unbiased, well-referenced, and critically evaluated information on any aspect of pharmacy practice.

- **Drug Information Center** is to provide a system for the organization and dissemination of drug information (Francke 1965).

- **Informatics** denote the electronic management of information.

History and Introduction

- 1950s Product to information shift
- 1962 First pharmacist operated DI Center at University of Kentucky, USA
- 1964 Conference on Drug Information Services
- 1967 The Drug Information Specialist
- 1975 The Millis Commission Report, AACP described the main function of pharmacists as providers of drug information
Functions of DIC

- Answering health care professionals’ questions:
  - Pharmacy and Therapeutic committee (P&T)
  - Drug Use Review (DUE) / Evaluation
  - Adverse Drug Reaction Reporting (ADR Program)
  - Investigational Drug Program
  - Education and Training
  - Publications (Newsletter, Bulletins, Journal, Column)
  - Community Services

Functions of DIC (Cont’d)

- Answering health care professionals’ questions:
  - One of the 5 R’s:
    - Right drug, Right dose, Right dosage form, Right route, Right patient
  - Drug Interaction
  - Availability / Substitute
  - Drug Identification
  - Formulary Decision
  - Drug Identification

DIC - Organization

- Determined by:
  - Type of activities offered
  - Space available
  - Budget
  - Staff
  - Resources

Types of DIC

- Hospital-Based DIC
- Industry-Based DIC
- Community-Based DIC

DIC – Resources: Pre-Computer Era

- References can be categorized into:
  - Tertiary (general reference books)
  - Secondary (indexing & abstracting)
  - Primary (journals)
DIC - Resources: Computer Era

- Computer assisted search and retrieval
  - Online service
  - Compact Disk-Read Only Memory (CD-ROM)

DIC - Resources: Internet Era

- Sometimes called National Information Infrastructure, the information superhighway, Infobahn.
- Using of Electronic Mail by health care professionals
- Access to pharmacy-related World Wide Web (www).

DIC - Personnel

- Staff requirements depend on:
  - Scope of services
  - Hours of operation
  - Monetary resources

DIC - Personnel (Cont'd)

- Staff requirements:
  - DIC specialist (Pharm.D., MS., BS.)
  - Staff members:
    - BS with training, residency, or fellowship
    - Pharm.D. with experience

DIC - Policy and Procedures (P&P)

- Policy means general outlines (framework)
- Procedures means detailed outlines (how to)
- Both helps in smoothing the operation of the DIC
- P&P development depends on
  - Type of the DIC
  - Scope of service
- P&P subdivided to Administrative and professional guides

DIC - P&P

- P&P should be written for the following reasons:
  - Serve as a guide for training new employee.
  - Ensuring the task has been carried properly.
  - Means of evaluating job performance.
  - Important elements in case of conflict
P&P answers the following questions:
- What must be done?
- What is the purpose?
- When should it be done?
- Where should it be done?
- Who should do it?
- How should it be done?

Drug information center is one of the essential services of health care professionals
Providing Drug information services is necessary for the survival of the pharmacy profession
Drug Information Services help in effective and efficient drug therapy and consequently a better patient care will be achieved
Dissemination of information is still a problematic and pharmacists should coordinate and work towards that goal

The crew of this sailing boat is responsible for the safety of its passengers. It is the same situation in health care. Patient care is the responsibility of the health care team (physician, pharmacist, Nurse, and patient).

Any Questions

Drug Information vs. Poison Control: Which Way We Should GO?

Yousif Abdu Asiri, MS., Ph.D.
Dean, College of Pharmacy
Associate Professor Clinical Pharmacy
College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.
E.mail:yasiri@ksu.edu.sa
The Difference Between Drug Information Center (DIC) and Poison Control Center (PCC)

Objectives

- Describe the functions and organization of a poison Control Center (PCC).
- Describe the various positions usually found in a poison control center and the training necessary for those positions.
- Differentiate between drug information center (DIC) and poison control center.
- Describe the facilities and resources necessary for a poison control center.

Drug Information vs. Poison Control (Cont'd)

- History and Introduction
- Functions of the Poison Control Center
- Difference between DIC and PCC in:
  - Clientele
  - Call volume
  - Administrative differences (hours of operation/cost, staffing, funding)
  - Procedural Differences (response time, call complexity, references, documentation)

Drug Information vs Poison Control

- Considerations of PCC
  - Personnel (Medical Director, Manager, Poison Information Specialist (PIS), Public Educator) Coordinator (PEC), other
  - Facility considerations
  - Equipment
  - Resources
  - Policy and Procedures

History and Introduction of PCC

- 1930s First PCC by Pharmacist Louis Gdalman at RushPresbyterian-St. Luke’s Hospital
- 1950s A Missouri Pharmacist, Homer George, leads a poison prevention campaign
- 1953 The establishment of the First PCC
- 1958 Formation of American Association of Poison Control Center (AAPCC)

History and Introduction of PCC (Cont'd)

- 1980s Joseph Veltri, a pharmacist from Intermountain PC in Utah chaired a committee to improve poison data collection.
- 1978 There were 661 PCCs.
- 1998 Less than 100 PCCs in the USA, 40 of them meets the AAPCC criteria as regional PCC.
History and Introduction of PCC (Cont'd)

- PCC were established for two reasons:
  - To provide rapid access to information valuable in assessing and treating poisonings.
  - To assist with poisoning prevention
- Centers varied significantly in:
  - Hours of services
  - Staff qualifications
  - Quality of information provided

Functions of the PCC

- PCC services 5 primary functions
  - Assess and treatment recommendations during poisoning via 24-hour emergency telephone services
  - Provide public and professional educational programs
  - To collect data on poisonings
  - To perform research
  - Assist the public and health care providers during hazardous material spills

Comparison Between DIC and PCC

- Both have a common goal “provide comprehensive, accurate, and timely information to their clients”
- Both used the information “to enhance the medical care of patients”
- Both have similar “information retrieval process and physical layouts”
- Despite these similarities, there are a number of important differences between the two services

Comparison Between DIC and PCC (Cont'd)

- Clientele:
  - Public vs. health care professionals
  - Eighty eight percent of PCC calls came from public
  - Nine to 10 percent of DIC calls came from public
- Call Volume:
  - Extremely large from public versus health care professionals.
    Average is 103 calls per day (human exposure only)
    Range is 33 to 213 calls per day

Comparison Between DIC and PCC (Cont’d)

- Hours of Operation/Cost:
  - PCC operates 24 hrs a day year-round vs. 9 AM to 5 PM
  - PCC requires large staffs compare to DIC
  - PCC is more expensive to operate than DIC

Comparison Between DIC and PCC (Cont’d)

- Staffing:
  - PCC relies not only on pharmacist but also on other health care professionals (nurses, physicians, technicians)
  - Nurses worked 52% of the total phone hours in 1993
  - Pharmacists and physicians worked 36% and 3% of the total hours, respectively
Comparison Between DIC and PCC

Response Time:
- All PCC calls require an immediate response
- Time is related to the efficacy of the therapeutic interventions
- The average response time is 5 min. in PCC vs. 15 - 30 min DIC

Call Complexity:
- PCC calls are less complex than DIC calls
- Most poisoning patients rarely have complex medical history
- Poisoning agents re-occur constantly from year-to-year
- PCC is the first point of contact by public and health professionals

References:
- PCC assess and make treatment recommendation for any potential poison (medication, chemical, household, biological, natural toxin). But DIC handle medication- and pharmacy-related inquires
- PCC will often have a broader base reference collection than DIC

Documentation:
- Documentation helps in developing a data system (TESS).
- General Epidemiological Data (date & time of call, reason of exposure)
- Caller characteristics (site of call)
- Patient characteristics (age, gender, pregnancy status)
- Exposure characteristics (substance, route and site of exposure)
- Clinical course (Clinical manifestation, medical outcomes)
- Medical management characteristics (Therapeutic intervention)

Considerations of PCC

Personnel:
- Medical Director
- Manager Director
- Poison Information Specialist (PIS)
- Public Educator coordinator (PEC)
- Others

Facility considerations:
- Location (near ER, medical library, hospital pharmacy)
- Work space and environment

Equipment:
- Telephone system (direct with enough lines)
- PC computer system and/or local area network (LAN)
- Modem and facsimile machine
- Internet access
- Other (such as file cabinets, refrigerators, microwave)
Considerations of PCC (Cont'd)

**Resource:**
- Two factors should be available in PCC
- The experience and training of the specialist
- The quality of the information available to the specialist

**Policy and Procedures:**
- Different than DIC in almost all aspects
  - Handling intentional exposure
  - Long term public education program
  - Release of PCC tape recording
  - Telephone system repair

**Conclusion**
- PCC has a different role than DIC.
- The trend is to have both separately but not combined them as DPIC.
- The practice of PCC can save lives outside of hospitals.
- A lot of money could be saved by PCC.
- The staff and training requirement for the PCC is different than DIC.
- DIC and PCC can share some of the resources

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