INTRODUCTION TO PHARMACY INFORMATICS
TOPIC OUTLINE

- What is Pharmacy Informatics?
- Who is an Informatics Pharmacist?
- What is the role of an Informatics Pharmacist?
- What are some current technologies?
- How can I pursue a career in Pharmacy Informatics?
- Where can I get more information?
Definition

“A unique subset of medical informatics that focuses on the use of information technology and drug information to optimize medication use.”

- The American Society of Health-System Pharmacists
Definition

“The use and integration of data, information, knowledge, technology, and automation in the medication-use process for the purpose of improving health outcomes.”

- The American Society of Health-System Pharmacists
Simple Definition

- The application of technology and information systems to the medication use process to improve outcomes and increase safety and efficiency
- Informatics pharmacists are involved in the design, implementation, customization and support of health information systems and technologies.
Who is an Informatics Pharmacist?

- An informatics pharmacist is a **Dual Specialist**
  - Knowledgeable about both **Pharmacy practice** and **Informatics**
    - Is able to analyze pharmacy practice from analytical design perspective
    - Is able to analyze health informatics technologies from a clinical/operational perspective
  - Has the ability to look at both the “**Big Picture**” and the individual details and processes.
Competencies/Characteristics

- Strong understanding of pharmacy practice
- Knowledgeable about the medication use process
- Knowledgeable about information systems, healthcare technology and automation
- Basic understanding of database design and function
Competencies/Characteristics

- Current with relevant standards, regulations and initiatives
- Ability to anticipate future needs and challenges
- Ability to think about the “end user”
- Ability to teach and guide others
- Communication skills
Competencies/Characteristics

- Project management skills
- Technology oriented
- Innovative
- Analytical
What are the Roles Played of an Informatics Pharmacist?
Role of an Informatics Pharmacist

- Ensure patient safety
- Provide guidance and leadership for all technology initiatives that support medication use
- Customize and tailor health information systems and technology to the needs of practice
Role of an Informatics Pharmacist

- Serve as a liaison between pharmacy and other departments
  - Information Technology
  - Nursing
  - Physicians
  - Vendors
Role of an Informatics Pharmacist

- Provide education to healthcare professionals and managers
- Serve as a resource for hospital staff
- Provide recommendations regarding vendor selection
Technology in Pharmacy Practice

- The field of pharmacy is rapidly evolving
- Pharmacy model is changing with the introduction of information technology and automation
- Technology is continuously being developed with the intention of increasing safety, reducing cost and increasing efficiency.
What are Some Current Technologies Relevant to Medication Use?
Current Technology

- Health Information Systems
- Electronic Medication Administration Records
- Computerized Provider Order Entry
- Clinical Decision Support
- Electronic Prescribing

[Cerner](https://www.cerner.com)  
[Episys](https://www.episys.com)  
[Epic](https://www.epic.com)
Current Technology

- Automated Dispensing Cabinets
- Inventory Management Systems
- Bar Coding
- Radio-frequency identification
- Smart Pumps
- Robotics
How can I pursue a career in Pharmacy Informatics?
Becoming a Pharmacy Informaticist

- Pharmacy informaticists should have:
  - real world pharmacy practice experience
  - thorough understanding of the medication use process
  - extensive knowledge about the health information systems and all medication related technologies
Where can I get more Information?
Additional Resources

➢ Visit the Pharmacy Informatics and Technology section of the American Society of Health-System Pharmacists website
The Pharmacy Informatics Primer is a great resource for pharmacy managers, information technology project managers and pharmacy students.

- Provides practical information regarding the most relevant topics in pharmacy informatics.
Informatics Pharmacists are “super pharmacists” who serve as the translational bridge between IT staff and clinicians, and are experts in health information systems and technology.

-Benjamin Philip
THE END