

# Topics



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



## 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



# 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.

# Current Technology



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



# Current Technology

- Automated Dispensing Cabinets
- Inventory Management Systems
- Bar Coding
- Radio-frequency identification
- Smart Pumps
- Robotics





# 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

# Becoming a Pharmacy Informaticist



- There are a growing number of residency/training programs available
  - Typically 12 months in length
- Some individuals obtain formalized training while others have had extensive experience in utilizing health information systems and technology

# Residency Training



- Four PGY2 specialty residencies (ASHP accredited status)
  - Vanderbilt University Medical Center
  - University of Utah Hospitals and Clinics
  - University of Michigan Hospitals and Health Centers
  - Oregon Health and Science University Hospitals and Clinics

# Residency Training



- Five PGY2 specialty residencies (ASHP candidate/pre-candidate status)
  - Clarian Health Partners
  - James A. Haley Veterans Hospital
  - University of Louisville Health Care
  - VA San Diego Healthcare System
  - The Johns Hopkins Hospital

# Non ASHP Accredited Training



- Brigham and Women's Hospital
- Cedar-Sinai Medical Center
- Ohio State Medical Center
- Penn State Hershey Medical Center
- Sentara Health System
- University of California San Francisco



# Additional Resources



The screenshot shows the ASHP website with a navigation bar containing links: About Us, News, Member Center, Advocacy, Practice and Policy, Meetings, Continuing Education, Accreditation, and Bookstore. The main content area is titled "Pharmacy Informatics and Technology" and includes a "MEMBER CENTER" sidebar with links like "Join ASHP", "Update Profile", and "Renew Membership". The main text describes the section's focus on interfacing information technology and medication use to improve safety, efficiency, and patient care. It also features a "Message from the Chair" by Chris Sklarowski, R.Ph., M.S., and a "In the Spotlight" section highlighting Mark H. Siska, B.S. Pharm., MBA, TM.

**Additional Resources**

- Visit the Pharmacy Informatics and Technology section of the American Society of Health-System Pharmacists website

# Additional Resources



- 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

