Disclosure statement

I have no disclosures or conflicts of interest at this time regarding the subject matter of this presentation.

Objectives

- Discuss the history of pharmacy technicians
- Define quality improvement as it relates to the healthcare system
- Describe evidence that supports the expansion of the pharmacy technician’s role
- Identify concerns within your work environment and which improvement strategies may be applied

Evolution of pharmacy technicians

- Pharmacy technicians are the backbone of the pharmacy profession
  - 1975 – ASHP develops guidelines for training guidelines for hospital pharmacy support staff
  - 1977 – ASHP creates competency standards for support staff
  - 1982 – ASHP creates standards for accreditation of pharmacy technician training programs
  - 1988 – ASHP Research and Education Foundation sponsored a conference to discuss the future of pharmacy technicians

Evolution of pharmacy technicians

- 1995 – PTCB created
- 1997 – Model Curriculum for Pharmacy Technician Training developed
- 2001 – NABP joined the PTCB as the 5th supporting organization to promote the certification of pharmacy technicians
- ...2011, 2012 – State specific certifications, Tech Check Tech, etc.

PhT work environments

- Inventory control
- Pharmacy benefits manager
- Clinical pharmacy technician
- Nuclear pharmacy technician
- Education and training coordinator
- Investigational drug technician
- Pharmacy department manager
- OR pharmacy technician
- Home care technician
- DME supplier
- Narcotic control technician
- Medicare Part D specialist
- Managed care technician
- Quality assurance/staff development
- Automation technician
- Mail-order technician
- Medication assistance programs
- IV admixture specialist
Current landscape
- In 2008, estimated 326,300 pharmacy technicians in the US
  - 17% hospital based
- Training involves some degree of classroom education, but is primarily "on-the-job"
  - Training varies among states and agencies
  - Pharmacy profession has been unable to agree on a standardized training program for technicians

Looking to the future
- Expanding roles of the pharmacy technicians
  - Decentralized technicians
  - More opportunities for Tech Check Tech (TCT)
  - Quality/Patient Safety technicians
- Financial goals and other quality measures will trickle down to all employees

Quality Improvement
- Effort to improve healthcare quality and outcomes through local innovations and adaptation in the processes and systems of care
- Involves a broad range of activities
- Providers develop, implement, and assess small scale changes
  - Those that work are implemented broadly
- Improve clinical practice on the larger scale

Linked aims of improvement

Effective improvement
- Appreciate the system
- Understand differences and variability
- Facts
- Psychology

Quality improvement - summary
- Ongoing effort to better the lives of the patients that we serve
- These efforts can start anywhere and from anyone
  - EVEN YOU!
PHARMACY TECHNICIAN
Evidence of Quality Improvement and Patient Safety

Medication reconciliation performed by pharmacy technicians at the time of preoperative screening

- A pharmacy technician sat in the preoperative clinic to perform the same tasks as anesthesiologists as related to medication reconciliation
  - Medications
  - Allergies
  - Discontinuation of antithrombotics

Pharmacy technicians obtaining medication histories within the emergency department

- Studies have demonstrated that pharmacists have a positive effect on medication reconciliation
- Pharmacy technicians are very familiar with medications
- Four hour training session to learn how to obtain a complete and accurate history
- After three months, several prescribers were asking for 24 hour coverage by pharmacy technicians in the ED

Data analyst technician: An innovative role for the pharmacy technician

- Activities included chart reviews, benchmarking surveys, monthly financial impact analysis, quality improvement reporting
- Expanded into patient assessment, data collection and interpretation, formulary enforcement
- Pharmacist-technician collaboration increased patient assessments three fold per day
- Increased from 0.5 FTE to 1 FTE

Advancing technician roles: An essential step in pharmacy practice model reform

- “Tech-check-tech” (TCT) needs a timely review
- Checking of a technician’s order-filling accuracy by another technician rather than a pharmacist
  - Some form adopted by 15 states
  - 2008 survey indicated its use by 4.9% of hospitals
- Pharmacists cannot achieve our goals in providing better patient care without advancing technicians

Certified pharmacy technicians’ views on their medication preparation errors and educational needs

- 3200 technicians emailed a survey asking how pharmacists have handled and should handle technicians’ medication preparation errors
- 27% response from hospital pharmacies
  - Interruptions
  - Inadequate staffing
- Only 17% said the pharmacist used the error as a teaching opportunity to avoid future errors
On the pharmacy horizon

- Expanding roles of technicians
  - New and improved workflows
  - TCT
  - State certification
- Additional opportunities for leadership and development
  - Decentralized technicians
  - "Lead" technicians
- Cascade down of quality goals within healthcare systems
  - Impact to everyone involved

Pharmacy Technician Standards

- Puts customer/patient first
  - Strives to offer them optimal care
- Actively protects confidential information/adheres to HIPAA requirements
- Provides quality work
  - Recognizes sense of urgency (STAT meds)
  - Goes the "extra mile" or "above and beyond"

Pharmacy Technician Standards

- Abides by workplace etiquette (non-work related activities, cell phones, breaks, etc.)
- Abides by governing pharmacy laws and regulations (USP 797)
- Serves as resources to other departments
  - Communication
  - Taking initiative
  - Willing to make changes last minute in order to meet the needs of the patient

Examples

- STAT meds
  - Amiodarone, norepinephrine, heparin, nicardipine, epinephrine, diltiazem, phenylephrine, dobutamine, labetalol, hydralazine
- Medication accessibility
  - Identification of medications
  - Maintenance
  - Courtesy

Examples

- Medication delivery
  - Ownership
  - Accountability
- Tech Check Tech
- Sterile preparation
  - USP 797
- Breaks (lunch, bathroom)
  - Appropriate communication

THE MODEL FOR IMPROVEMENT

Tools to Improve Quality and Patient Safety
**Performance Improvement Model**

- **PDSA**
  - Made popular by Deming
  - Originally the PDCA (c=check)
  - Based on scientific method
    - Once a hypothesis is confirmed, repeat cycle
    - Extend the knowledge
    - Perfect output, drives continual improvement

**Fishbone diagram**

- Identifies many possible causes for an effect or problem
  - Great structure for brainstorming session
  - Use when you are trying to find possible causes for a problem
  - Immediately sorts ideas into useful categories

**Innovation techniques**

1. Critical thinking about the current system
2. Benchmarking
3. Using technology
4. Creative thinking
5. Using change concepts

**Using a PDSA cycle**

- Think of a basic process from your everyday personal or professional life that you would like to improve.
- Share with the group
Create a PDSA or Fishbone diagram

- Each 4-5 member group will choose an area within your environment in which improvement strategies can be applied
- Utilize the provided PDSA outline or Fishbone diagram
- Remember the innovation techniques