The Practice Model Challenge: Definitions, Drivers and Decisions
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The speaker has no conflict to disclose.

How many here today are...
• A. Students
• B. Residents
• C. Technicians
• D. Pharmacists- non-administrative
• E. Directors, managers

Program Objectives
• Define the attributes of current pharmacy practice models as described in the American Journal of Health-System Pharmacy.
• Identify factors that are driving our critical re-examination of pharmacy practice models.
• Choose at least one action item from those presented that may help participants facilitate positive change in the practice model employed in their organizations.

Background
• In April 2008, ASHP President Kevin Colgan and the ASHP Board approved the creation of an advisory committee for the purpose of initiating and guiding plans for a Practice Model Summit.
• “The summit will create passion, commitment, and action among hospital practice leaders to significantly advance the health and well being of patients by optimizing the role of pharmacists in providing direct patient care.”
• “The summit will be a key event in a comprehensive process that is designed to increase the value of the pharmacists and pharmacy enterprise in hospitals and health systems.”

Historical Precedent for a Summit Conference Approach
• Hilton Head “Pharmaceutical Care” Conference in 1985
• Pharmacy in the 21st Century Summit Conference in 1990
• San Antonio “Implementing Pharmaceutical Care” Conference in 1993

Goals for the Practice Model Summit
• Initiative Goal:
  – To advance the health and well being of patients in hospitals and health systems by developing and disseminating optimal pharmacy practice models that are based on the effective use of pharmacists as direct patient care providers.
### Objectives for Pharmacy Practice Model Initiative (PPMI)

- Describe optimal pharmacy practice models that ensure safe, effective, efficient and accountable medication-related care for patients.
- Identify core patient-care-related services
- Foster understanding of and support for optimal pharmacy practice models by key groups

### Objective 1: Defining Practice Model Attributes

- Before critically examining pharmacy practice models it is important that we examine the "present state"
- For something so important to the work of our profession, there has been surprising little written about this topic
- We need to establish a taxonomy of terms and baseline data
- If we are to judge the success of the practice model initiative it is important to know where we are starting our work

### Pharmacy Practice Models Defined

- The task of defining optimal practice models is hampered by the lack of a taxonomy of terms to define such models
- To achieve consensus we must develop a lexicon of terms
- Terms proposed for at least three distinctive models in 2009
  - Drug distribution-centered model
  - Clinical pharmacist-center model
  - Patient-centered integrated model

### Practice Model Defined

- Describes how pharmacy department resources are deployed to provide current patient care services
- It includes:
  - How pharmacists practice and provide care to patients
  - How technicians are deployed to support care, and
  - Deployment of automation/technology in the medication use system

### Drug Distribution-Centered Model

- Pharmacists engage primarily in drug distribution and reactive order processing
- Little proactive involvement with health care team or in making therapeutic plans for patients
- Little accountability for outcomes or leadership responsibility for medication use process
- May be poor differentiation in roles for pharmacists/technicians
- Less than optimal use of technology/automation
Clinical Pharmacist-Centered Model

• Pharmacists engaged in clinical activities with medical teams on nursing units but may have little or no responsibility for issues related to medication use or delivery systems
• May be little or no collaboration between clinical and distributive pharmacists
• Pharmacist's accountability/ownership for medication use processes is not well-defined or understood

Patient-Centered Integrated Model

• Pharmacists accept responsibility for both clinical and distributive activities
• Pharmacist's clinical role is enhanced because well-trained technicians manage most drug distribution processes
• Pharmacists proactively engage in medication use/selection with interdisciplinary team and exhibit a high degree of ownership/accountability for medication use process

Comprehensive Pharmacy Services Model

• Proposed 4th pharmacy practice model
• Utilizes distributive, generalist and specialist pharmacists
• Pharmacists accept a range of responsibilities for both clinical and distributive activities

Where Do We Stand Today?

<table>
<thead>
<tr>
<th>No. of Staffed Beds</th>
<th>Drug-Distribution Centered Model</th>
<th>Patient-Centered Integrated Model</th>
<th>Clinical Specialist-Centered Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 50 beds (82)</td>
<td>35.4%</td>
<td>64.6%</td>
<td>0%</td>
</tr>
<tr>
<td>100-199 beds (73)</td>
<td>20%</td>
<td>65.8%</td>
<td>13.7%</td>
</tr>
<tr>
<td>300-399 beds (81)</td>
<td>9.9%</td>
<td>60.5%</td>
<td>29.6%</td>
</tr>
<tr>
<td>All hospitals 2009 (549)</td>
<td>24.4%</td>
<td>64.7%</td>
<td>10.9%</td>
</tr>
</tbody>
</table>

What is the size of your hospital?
A- less than 50 beds
B- 100-199 beds
C- over 300 beds

Which practice model do you utilize?
A- Drug-distribution centered model
B- Patient-centered integrated model
C- Clinical specialist-centered model
### Plans for Change in Next 3 Years

<table>
<thead>
<tr>
<th>Changes made or planned</th>
<th>Extent of Automation Use (n = 526)</th>
<th>Roles of Pharmacists (n = 527)</th>
<th>Roles of Technicians (n = 525)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made significant changes; no more changes</td>
<td>29.2%</td>
<td>14.1%</td>
<td>16.1%</td>
</tr>
<tr>
<td>No or limited changes planned</td>
<td>20%</td>
<td>31.5%</td>
<td>39%</td>
</tr>
<tr>
<td>Significant changes made but plans for significant change</td>
<td>19.5%</td>
<td>20.8%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Made significant changes and planning more changes</td>
<td>31.3%</td>
<td>33.5%</td>
<td>22%</td>
</tr>
</tbody>
</table>

### Objective 2: Factors Driving Practice Model Change

**AJHP 2009;66:713**

- The “distinctiveness” of pharmacy practice in hospitals and health systems is characterized by:
  - Complexity/intensity of the medication use process
  - Close collaboration of pharmacists with other members of the health care team
  - Focus on improving patient outcomes
  - Pharmacist access to patient information/records
  - Compliance with professional standards of practice
  - Specialization
  - Commitment to training/education/research

### Objective 2: Factors Driving Practice Model Change

**AJHP 2009;66:713**

- Drug therapy is becoming more complex and risky, demanding more attention from pharmacists
  - Adverse drug events (ADE’s) account for 5% of hospital admissions (JAMA 1998;279:1200)
  - ADE’s were present in 6.5 patients per 100 nonobstetric admissions in two tertiary care hospitals (JAMA 1995;274:29)
  - Adding a pharmacist to rounding teams in ICU’s and general medical units reduces preventable ADE’s by 70% (JAMA 1999;282:267 and Arch Intern Med 2003;163:2014)

### Objective 2: Factors Driving Practice Model Change

- More physicians and nurses in training have observed the value of pharmacists at the patient’s bedside and will insist they be members of patient care teams
  - Physician organizations recognizing the value of the pharmacist include SCCM, IDSA, UNOS, others (AJHP 2007;64:911)
  - Other key constituents requiring the presence of pharmacists on health care teams include payers and new pharmacists

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**Growth Of Pharmacy Residency Program in the U.S.**

<table>
<thead>
<tr>
<th>Year</th>
<th>More Applicants than Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
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<tr>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
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**Source:** ASHP Accreditation Services
Objective 2: Factors Driving Practice Model Change

- The explosion of drug information requires pharmacists to give more time and attention to the formulation and implementation of rational drug use policies.
  - Demand for evidence-based practice (order sets, guidelines, etc.)
  - Counter-detailing creative pharmaceutical manufacturers
  - Dealing with ever increasing safety alerts from the FDA and others
  - Skillfully addressing increasingly frequent and troublesome drug shortages

- Health care reform and changes in reimbursement will require hospitals to quickly adopt best practices and improve operational inefficiencies in all areas of patient care including medication use
  - Role of the pharmacist in reducing “never events”
  - Pharmacists taking full advantage of their skill sets
  - Positioning ourselves as key players in the quality arena
  - Entering new arenas outside our previous domain (MTM?)

Objective 3: Action Steps for Practice Model Change

- What organizational issues are missing to move practice model changes ahead?
  - Lack of resources
    - To allow pharmacists to develop/practice in new models
    - To provide proper training to existing staff, residents, and students
  - Realignment of pharmacy incentives with those of hospital leadership
  - Lack of true interdisciplinary care models

Facilitating Practice Model Change

Potential Organizational Action Items

- Positioning professional meetings as an employee benefit
  - What Were They Thinking – Unconventional Wisdom About Management – Jeffery Pfeffer
  - “Short tail” of meetings as a benefit
- Incorporating students/residents into your practice model (AJHP 2009;66:1623)
  - Making direct contributions to patient care
  - Using this to “sell” your practice model to future employees

- Making Pharmacy the “solution” to important quality and safety gaps
  - National Patient Safety Goal 3E – Anticoagulation
  - Medication reconciliation/ED services
  - Pneumococcal/influenza vaccination
  - Incorporating quality gap problems into your daily “Essential services”
  - Are you ready for the “heat” when outcomes are less than optimal?
Facilitating Practice Model Change
Potential Organizational Action Items

- Developing targeted interdisciplinary care pilots
  - Identify areas of need/demand and see what others have done
  - Identify and temporarily redeploy resources
  - Work with physician/nursing “champions”
  - Develop hypothesis/endpoints/measures
  - Collect targeted data (including customer satisfaction)
  - Widely disseminate results and their implications

Objective 3: Action Steps for Practice Model Change

- What personal issues must be addressed to move practice model changes ahead?
  - Communicating importance of pharmacists to hospital administrators and public/patients
  - Helping patients/administrators recognize risks associated with medication use
  - Readiness of pharmacy leadership/individual pharmacists for change
  - Lack of pharmacist’s willingness to accept ownership and accountability for medication management

Facilitating Practice Model Change
Potential Personal Action Items

- Communicating the importance of our mission
  - Communicating success stories up and down the chain of command
  - Paying attention to the lay press and putting it into perspective for others in your organization
  - What does that FDA safety alert mean for our patients?
  - Will that new drug in the Wall Street Journal be used here?
  - Highlighting heroes in department meetings, local publications, e-rounds, etc.

Facilitating Practice Model Change
Potential Personal Action Items

- We all must accept ownership/accountability for medication management
- Are you willing to become “engaged” in this 24-7-365 work?
- Engagement - a heightened emotional and intellectual connection that staff have for their job, organization, manager or co-workers that influences them to apply additional discretionary effort to their work (Conference Board)
- Components of engagement
  - Feelings of engagement
  - Engagement behaviors

Components of Engagement

- Drivers of feelings of engagement by staff
  - Full utilization of one’s skills and abilities
  - Linking one’s work with the organizations’ objectives
  - Encouragement of innovation
- Drivers of engagement behaviors by staff
  - Quality of relationships with coworkers
  - Feeling trusted and respected
  - Supervisor credibility
Engaging Staff in Practice Model Change

- How will practice model change lead to more effective utilization of pharmacists/technicians skill sets?
  - Pharmacists are more engaged in direct patient care
  - Technicians are responsible for medication therapy logistics
- How does practice model change help better align my work with the organization?
  - Directly linking staff's work to the organization's quality initiatives
  - Helping staff understand how their work directly or indirectly impacts the organization

A Job, Profession or Calling?

- How would you describe your attitude toward your life’s work? Is it a ..........
  - Job? – use of employment to gain resources necessary to fulfill other needs or desires
  - Profession? – has requirements for entry, obligations and a sense of accomplishment; gives one credibility or stature because of the demands and value to society
  - Calling? – true dedication of your life to a purpose at the sacrifice of almost all else
- Which do you think leads to a career that brings a sense of achievement and fulfillment that positively affects the lives of others? Which leads to a legacy of significance?

Conclusions

- Practice model change will require sacrifice and commitment at both the organizational and personal level. It will be impossible to achieve without high levels of staff engagement.

Conclusions

- At present, the patient-centered integrated practice model, in which pharmacists accept both clinical and distributive responsibilities for medication management, is most commonly employed in the U.S.
- The pharmacy practice model, or how we deploy resources to provide patient care services, is undergoing critical re-examination. Drivers of this reexamination include a number of patient safety/quality gaps, demands by our constituents and economics.
Post Test Questions

1. The goal of the upcoming Practice Model Summit Conference is to develop a single best practice model that will work in all practice environments.

   True    False

2. Descriptions of practice models should include which of the following:
   a. Description of how pharmacists practice and provide care to patients,
   b. How technicians are deployed to support care,
   c. How automation/technology supports safe and effective medication use,
   d. All of the above
   e. None of the above

3. According to recent ASHP survey data, which of the following practice models is most commonly employed in U.S. hospitals:
   a. Drug distribution centered model
   b. Clinical specialist centered model
   c. Patient-centered integrated model
   d. Comprehensive model

4. Which of the following factors contribute to the urgency of health-system pharmacy’s re-examination of pharmacy practice models:
   a. The complexity and high risk associated with medication therapy in hospitals
   b. Demand by physicians and nurses to have pharmacists as part of interdisciplinary teams
   c. Desire by new pharmacists entering the profession to practice in clinical settings
   d. The economics of being unable to afford paying pharmacists to perform functions that can be performed competently and safely by technicians
   e. All of the above

5. Which of the following statements is NOT true?
   a. Drivers of staff satisfaction are generally out-of-the-control of supervisors/leaders.
   b. Drivers of staff engagement are controlled by supervisors/leaders.
   c. Engagement may be defined as a heightened emotional and intellectual connection that staff have for their job, organization, manager or co-workers that influences them to apply extra discretionary effort to their work.
   d. A profession may be defined as the use of employment to gain resources necessary to fulfill other needs or desires.