Are We Preparing Graduates to Succeed in a Value Driven Health System?

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THE FUTURE IS NOW
Please rate your familiarity with the concept and application of value-based health care practice.

A. Very familiar
B. Moderately familiar
C. Somewhat familiar
D. Not familiar

vote at coppoll.participoll.com
The Value Equation

Benefits
(outcomes that matter to someone)

Costs
(costs throughout the patient journey)

= Value
Is the following statement true or false?

Pharmacists produce value in health care.

1. True
2. False
3. I don’t know
Outcomes Reported in Literature Evaluating Services Delivered by Pharmacists

- Improvement in chronic disease measures
- Improvements in medication adherence
- Reductions in hospitalizations and ER visits
- Return on investment (up to 12:1)
Do the clinical services of pharmacists produce value in the health care system in ambulatory care?

AHRQ Effective Health Care Program

- Provide valid evidence about the comparative effectiveness of different medical interventions

Systematic analysis of 44 studies

- What are components and implementation features of medication management services?
- Are medication management services effective in improving intermediate outcomes, patient-centered outcomes and/or resource utilization?
- Does effectiveness of medication management services differ by implementation features or patient characteristics?
- Are there harms from medication management services?
Do the clinical services of pharmacists produce value in the health care system in ambulatory care?

AHRQ Effective Health Care Program – MTM Interventions in Outpatient Settings

**Conclusion:** The evidence base offers low evidence of benefit for a limited number of intermediate and health utilization outcomes. We graded the evidence as insufficient for most outcomes because of inconsistency in direction, magnitude and precision, rather than lack of evidence. Wide variations in populations and interventions, both within and across studies, likely explain these inconsistencies.

New research, regardless of specific focus, will likely continue to find inconsistent results until underlying sources of heterogeneity are accounted for.

A Payer’s Perspective on Evidence

Integrated health care provider and health insurance company

**Analyses:** To determine if the medication therapy management (MTM) program has a positive effect on the total costs of care for fully insured members who have been identified as eligible for the program and have enrolled to participate

**Methods:** matched case/control analysis approach

- Matched members from the fully insured MTM enrolled case study group to members of a self insured control group based on demographics as well as pre-invitation utilization information
  - Adjusted clinical groups, reimbursement amount, gender, age, CDC grouping sum
  - 374 matched members
Results: Return on investment of **11:1** when annualized savings were compared to fully loaded expenses (including indirect expenses at 60%).

– Repeated analysis in 2016, same results

Key Environmental Factors

– Common patient care process (CMM) – “fidelity” of service
– Face-to-face assessments
– Competency of practitioners
– Service integrated with medical providers
– Integration with EMR
– Population management – targeting highest utilizing patients
What is going on here?
What are the implications for pharmacy education?
What responsibility does academic pharmacy hold for addressing this issue?
Principles of Value-Based Health Care

- Pay for outcomes, not units
- Whomever can provide an outcome at the lowest price wins
- Payers and providers are partners
- Information that can effectively inform decision making will be shared
- The patient and their needs are at the center of care
Team-Based Care
- Rethinking roles and responsibilities
- Connecting care systems

Population Health
- Segmenting patient groups
- Alignment of resources

Focus on Measurement
- Measure what matters
- The “quadruple aim”

Application of Technology
- Informatics
- Electronic Health record integration

Strategies to Drive Value in Health Care
Building a Graduate for VBHC

Knowledge
Care Delivery and Care Systems
Population Management
Metrics and Measurement
Information Technology

Skills/Traits
Professional Identity
Quality Improvement
Leadership
Rate your agreement with the following statement.

My program’s graduates are ready to participate in value-based practice.

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree
5. I don’t know
“Your students are highly professional, but they don’t have a professional identity.”

Team-Based Care
- Rethinking roles and responsibilities
- Connecting care systems

Questions for Pharmacy Educators
- Is the unique thought process of a pharmacist inculcated in all of our graduates? Do they have a true sense of professional identity?
- How well do our graduates understand care systems beyond pharmacy?
  - Within and across health care institutions
  - State and national policies and trends
- Do our graduates understand the concept of value-based practice in relation to the clinical services of other health disciplines?
Are these questions the same?

Do the clinical services of pharmacists produce value to patients and payers?

*Versus*

Does a medication management service defined and delivered consistently produce value to patients and payers?
Pharmacy Value Equation

Clinical Knowledge

Defined Process of Application (Care Process)

= Value to Patients, Payers and Society
My school’s curriculum consistently does which of the following at the level required to produce value in health care:

1. Prepares students with a unique set of knowledge about medications.
2. Inculcates in students a defined care process that is distinctive to pharmacists.
3. Both A and B
4. Neither A nor B
5. I don’t know
Joke or Reality?

A dentist, a pilot and a pastry chef walk into a bar and the bartender asks, “What common trait brings the three of you together today?”
JCPP Pharmacists’ Patient Care Process

**Pharmacists’ Patient Care Process**

Pharmacists use a patient-centered approach in collaboration with other providers on the health care team to optimize patient health and medication outcomes.

Using principles of evidence-based practice, pharmacists:

**Collect**
The pharmacist ensures the collection of the necessary subjective and objective information about the patient in order to understand the relevant medical, medication history and clinical status of the patient.

**Assess**
The pharmacist assesses the information collected and analyzes the clinical effects of the patient's therapy in the context of the patient's overall health goals in order to identify and prioritize problems and achieve optimal care.

**Plan**
The pharmacist develops an individualized patient-centered care plan, in collaboration with other health care professionals and the patient or caregiver that is evidence-based and cost-effective.

**Implement**
The pharmacist implements the care plan in collaboration with other health care professionals and the patient or caregiver.

**Follow-up: Monitor and Evaluate**
The pharmacist monitors and evaluates the effectiveness of the care plan and modifies the plan in collaboration with other health care professionals and the patient or caregiver as needed.

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**Nursing Patient Care Process**

1. **Assess**
   - Gather information about the patient’s condition

2. **Diagnose**
   - Identify the patient’s problems

3. **Evaluate**
   - Determine if goals and expected outcomes are achieved

4. **Plan**
   - Set goals of care and desired outcomes and identify appropriate nursing actions

5. **Implement**
   - Perform the nursing actions identified in planning

6. **Follow-up: Monitor and Evaluate**
   - Monitor and evaluate continue to ensure desired outcomes
What is unique about the pharmacists’ patient care process?
**Essential Function**

*Assess the Information and Formulate a Medication Therapy Problem List*

The clinical pharmacist assesses the information collected and formulates a problem list consisting of the patient’s active medical problems and medication therapy problems in order to prioritize recommendations to optimize medication use and achieve clinical goals.

**Operational Definition**

A. Assess and prioritize the patient’s active medical conditions taking into account clinical and patient goals of therapy.

B. Assess the indication of each medication the patient is taking.

C. Assess the effectiveness of each medication the patient is taking.

D. Assess the safety of each medication the patient is taking.

E. Assess adherence of each medication the patient is taking.

F. Formulate a medication therapy problem list via the medication therapy problem categories established by the Pharmacy Quality Alliance.

G. Prioritize the patient’s medication therapy problems.
 Operational Definition

A. Assess and prioritize the patient’s active medical conditions taking into account clinical and patient goals of therapy.
B. Assess the indication of each medication the patient is taking by considering the following:
   • Does the patient have an indication for the medication?
   • Is the medication appropriate for the medical condition being treated?
   • Does the patient have an untreated medical condition that requires therapy, but is not being treated or prevented?
C. Assess the effectiveness of each medication the patient is taking by considering the following:
   • Is the patient meeting clinical goals of therapy?
   • Is the patient meeting overall personal goals of therapy?
   • Is the most appropriate drug product being used for the medical condition?
   • Is the dose, frequency, and duration appropriate for the patient?
   • Do additional labs need to be obtained to monitor the effectiveness of the medication therapy?
D. Assess the safety of each medication the patient is taking by considering the following:
   • Is the patient experiencing an allergy or adverse effect from a medication?
   • Is the dose too high for the patient? Is the frequency and duration appropriate for the patient?
   • Do safer alternatives exist?
   • Are there any pertinent drug-disease, drug-drug, or drug-food interactions?
   • Do additional labs need to be obtained to monitor the safety of the medication therapy?
E. Assess adherence of each medication the patient is taking by considering the following:
   • Is the patient receiving the most affordable option to optimize adherence?
   • Is the patient able to obtain his/her medications, and, if not, why?
   • Are the medications taken at times during the day that are convenient for the patient?
   • Is the patient taking the medications as prescribed/instructed or missing doses?
   • If the patient is not taking as instructed or missing doses, why?
   • Is the frequency and formulation appropriate for the patient to optimize adherence?
F. Formulate a medication problem list via the medication therapy problem categories established by the Pharmacy Quality Alliance
G. Prioritize the patient’s medication therapy problems.
<table>
<thead>
<tr>
<th>Medication Related Needs</th>
<th>Medication Therapy Problem Category</th>
<th>Medication Therapy Problem Rationale</th>
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</thead>
<tbody>
<tr>
<td>Indication</td>
<td>Unnecessary medication therapy</td>
<td>Duplicate therapy</td>
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<tr>
<td></td>
<td></td>
<td>No medical indication at this time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nonmedication therapy more appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Addiction/recreational medication use</td>
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<tr>
<td></td>
<td></td>
<td>Treating avoidable adverse medication reaction</td>
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<tr>
<td>Needs additional medication therapy</td>
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<td>Preventive therapy</td>
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<tr>
<td></td>
<td></td>
<td>Untreated condition</td>
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<td>Synergistic therapy</td>
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<td>Effectiveness</td>
<td>Ineffective medication</td>
<td>More effective medication available</td>
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<tr>
<td></td>
<td></td>
<td>Condition refractory to medication</td>
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<td></td>
<td>Dosage form inappropriate</td>
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<td>Dosage too low</td>
<td>Low dose</td>
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<tr>
<td></td>
<td>Frequency inappropriate</td>
<td>Frequency inappropriate</td>
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<tr>
<td></td>
<td>Incorrect administration</td>
<td>Incorrect administration</td>
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<tr>
<td></td>
<td>Medication interaction</td>
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<tr>
<td></td>
<td>Incorrect dosage</td>
<td>Incorrect dosage</td>
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<tr>
<td></td>
<td>Duration inappropriate</td>
<td>Duration inappropriate</td>
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<td>Needs additional monitoring</td>
<td>Medication requires monitoring</td>
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<tr>
<td>Safety</td>
<td>Adverse medication event</td>
<td>Undesirable effect</td>
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<td></td>
<td>Unsafe medication for the patient</td>
<td>Unsafe medication for the patient</td>
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<tr>
<td></td>
<td>Medication interaction</td>
<td>Medication interaction</td>
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<tr>
<td></td>
<td>Incorrect administration</td>
<td>Incorrect administration</td>
</tr>
<tr>
<td></td>
<td>Allergic reaction</td>
<td>Allergic reaction</td>
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<tr>
<td></td>
<td>Dose increase/decrease too fast</td>
<td>Dose increase/decrease too fast</td>
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<tr>
<td>Dosage too high</td>
<td>High dose</td>
<td>Dosage too high</td>
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<td></td>
<td>Frequency inappropriate</td>
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<td></td>
<td>Duration inappropriate</td>
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<tr>
<td></td>
<td>Medication interaction</td>
<td>Medication interaction</td>
</tr>
<tr>
<td>Needs additional monitoring</td>
<td>Medication requires monitoring</td>
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<tr>
<td>Adherence</td>
<td>Adherence</td>
<td>Does not understand instructions</td>
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<td></td>
<td>Patient prefers not to take</td>
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<tr>
<td>Cost</td>
<td>More cost effective medication available**</td>
<td>More cost effective medication available</td>
</tr>
<tr>
<td></td>
<td>Cannot afford medication product</td>
<td>Cannot afford medication product</td>
</tr>
</tbody>
</table>
Resource for Teaching the Patient Care Process

https://www.accp.com/cmm_care_process
As a physician leader, I know that team-based care is the most effective way to improve patient health and also manage costs. To function as the high performing team our patients need, it is essential that team members understand the role and care processes for each discipline on the team. This allows team members to share responsibilities effectively, efficiently and safely. *Having confidence that the pharmacist on my team will consistently apply this standardized care process, regardless of who that pharmacist is, I am assured their work will align with our team goals.* I can then give them the independence they need to do their job while I focus on the role I am expected to bring to the team.

*Mark Loafman, MD*
*Chair, Family and Community Medicine*
*Cook County Health and Hospital System*
Questions for Pharmacy Educators

- Do our instructional activities assist learners in understanding which patients will benefit the most from the knowledge and skills of a pharmacist?
- Do we explicitly seek out practices where population health strategies are part of day-to-day service delivery for experiential education?
- When a student enters a practice post-graduation, do they have a framework from which they can lead quality improvement initiatives that demonstrate increasing value?

Population Health

- Segmenting patient groups
- Alignment of resources

Doing the things a pharmacist **COULD** do vs the things a pharmacist **SHOULD** do.
Quality Improvement as Framework for Success in Value-Based Practice

- Set a clear aim
- Define a “population of focus”
- Map out “drivers” that present in the system that can influence the outcome
- Engage in small, rapid tests of change (PDSA Cycles)
- Measure impact in real time (performance dashboards)
Questions for Pharmacy Educators

- How are learners engaged in understanding the business issues driving health care?
- Are students introduced to or competent in developing a business plan for pharmacy services?
- How can we create “Significant Learning Experiences” that allow students to be immersed in stories of value-based systems design and decision making?

Focus on Measurement

- Measure what matters
- The “quadruple aim”
The Changing Value Proposition for Pharmacy

**Volume-Driven Practice**
- Revenue per encounter
- Siloed revenue streams
- Monetary metrics

**Value-Driven Practice**
- Value per encounter
- Bundled payment (interdependent)
- Diverse metrics
  - Quantitative and qualitative
Questions for Pharmacy Educators

• Can we move learners beyond technical mastery of a technology to envisioning the possibilities not yet realized?
• How do we keep our faculty apprised of emerging technology innovations that could influence practice in the future?
Application of Technology in Value-Based Practice

- Analytics to prospectively identify patients in need and align resources accordingly
- Automated electronic alerts
- Use of telehealth
- Personal health data streams
Team-Based Care
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Strategies to Drive Value in Health Care
Conclusion

- A health system that embraces value-based practice provides tremendous opportunity for pharmacists.

- Practitioners must understand principles of value-based practice and be prepared to lead changes that will produce a recognition of value to patients, health care providers and decision makers.