

## PPMI in the Ambulatory Setting

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The speaker has no conflict to disclose.



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## Ambulatory Services?

- How many of you have ambulatory services at your institutions?  
 yes                       no
- If not are you considering expanding to clinical ambulatory services?  
 yes                       no
- Are your organizations considering becoming an Accountable Care Organization (ACO)?  
 yes                       no



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## What are ambulatory settings?

PPMI OPERATIONAL DEFINITION:  
Ambulatory Care/Outpatient Settings - references to ambulatory care or outpatient settings refer to ambulatory care clinics that are part of the hospital/health-system.



Should you/we think broader?  
ACO, PCMH, other community entities



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“Given

- (1) the evidence supporting pharmacist’s value across the continuum of care,
- (2) new opportunities for engagement and
- (3) that patients spend most of their lives outside the confines of a health system

**the design of a pharmacy practice model should ensure that the role of the health-system pharmacist extends beyond acute cares as much as possible.” Rita Shane**




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### The Need to Consider the Patient in the Ambulatory Setting

- Facilitate medication continuity of care and medication reconciliation (PPMI B22)
- Each outpatient deserves drug therapy management from a pharmacist. (PPMI B9)
- Responsible for patient medication outcomes *transcends the hospital walls* (PPMI B7)
- Patient safety and adverse drug events (PPMI B17 &21)
- Quality of care and financial health (PPMI A5,7 &8)




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### Continuity of Care and Medication Reconciliation

- Medication histories
- Medication reconciliation
- Discharge counseling

Complex ↔ ROI > 100% , substantial ↑ safety, quality  
Vermeulen et al. AJHP 2007



An ambulatory pharmacist.....  
maintaining a current medication list plus  
relaying current patient information  
continuing education and plan of care




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**Drug Therapy Management**

- Member of the patient care team
- Access to patient data
- Need for certification and training
- Need to prioritize patients “medication complexity index”
- Medication review
- Dosing adjustment
- Medication related plans of care




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**Drug Therapy Management**

- Monitor patient response to therapy
- Prevention and wellness
- Patient education
- Document
- Track and trend interventions
- Collaborative practice
- Provider status




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**Medication Therapy Management Services Definition**  
(As defined by 11 national pharmacy organizations in July 2004)

- Performing or obtaining necessary **assessments** of the patient’s health status,
- Formulating a **medication treatment plan**,
- Selecting, initiating, modifying, or administering** medication therapy,
- Monitoring** and evaluating the patient’s **response to therapy**, including safety and effectiveness,
- Performing a comprehensive medication review to identify, resolve, and prevent **medication-related problems**, including adverse drug events,
- Documenting** the care delivered and communicating essential information to the patient’s other primary care providers,
- Providing verbal **education** and training designed to enhance patient understanding and appropriate use of his or her medications,
- Providing information, support services, and resources designed to enhance patient **adherence** with his or her therapeutic regimens, and
- Coordinating** and integrating **medication therapy management** services within the broader health care management services being provided to the patient.




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## Comprehensive MTM Service

<http://www.pcpcc.net/content/medication-management>

**Identify Medication-Related Problems**


- Appropriateness of the medications
- Effectiveness of the medications
- Safety of the medication
- Adherence to the medication

**Develop a care plan**

- Individualize therapy goals
- Intervene and solve medication problems
- Design personalized education and interventions
- Establish patient outcomes that can be monitored
- Determine follow up plan and care coordination

**Follow up Evaluation**

- Measure outcomes
- Ensure coordination of care
- Repeat process as needed




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## Patient Medication Outcomes




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## Patient Medication Outcomes

- HQA, AQA, PQA, NCQA, NQF, HEDIS, PPI
- AHRQ National Quality Measures Clearinghouse  
<http://www.qualitymeasures.ahrq.gov/index.aspx>
- “Highest quality and the least cost”
- Focus
  - Re-hospitalization and other costly utilization
  - Medication adherence
  - Prevention or improvement in chronic disease
  - Adverse drug events




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### Patient Safety and Adverse Drug Events

Rates	ADR	ADE
Hospital	6.75% (0.2 – 60.7%)	4.2% (0.17-65%)
Emergency Room	6.37% (1.36-35%)	
Ambulatory	14.9/1000 patient months (4.0-91.3)	

Krahenbuhl-Melcher A, et al 2007 Systematic review  
Thomsen LA, et al. 2007 Systematic review  
Chrischilles E, et al. J Am Geriatr Soc. 2007;55:29-34  
Hajjar ER, et al. Am J Geriatr Pharmacother. 2003;1:82-89  
Ghandi, et al. NEJM 2003

“No comprehensive, systematic documentation exists of medication use problems...” Charles E. Meyers



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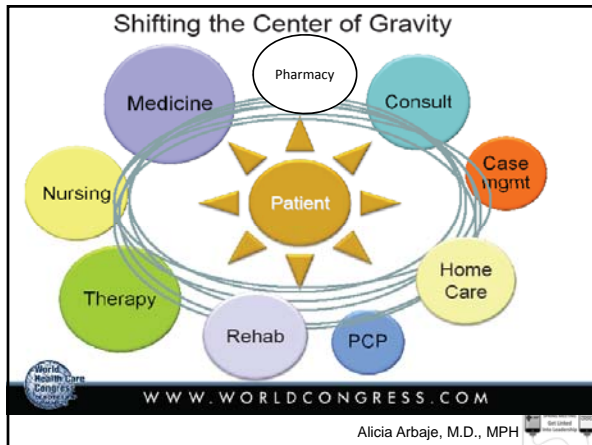
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ICHP/MSHP 2011 Spring Meeting  
Pharmacy Practice Model Initiative – The Results are in!  
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121-000-11-016-L04-P  
121-000-11-016-L04-T

Post Test Questions:

1. The patient care role of the ambulatory pharmacist within the health care system is:
  - a. Medication Reconciliation
  - b. Medication Therapy Management services
  - c. dispensing of medications
  - d. a and b only
  - e. none of the above
  
2. The ambulatory pharmacists have responsibility for which of the following patient outcomes?
  - a. Medication adherence
  - b. Adverse drug events
  - c. Re-hospitalization due to inappropriate medication use
  - d. Prevention and improvement of chronic disease related to appropriate medication management
  - e. All of the above.