How to justify, implement, accredit and expand your pharmacy residency within a small institution

Jaclyn Boyle, PharmD, MS, BCPS
Jodie Fink, PharmD, BCPS
Jason Glowczewski, PharmD, MBA
Mate Soric, PharmD, BCPS
Learning Objectives - Pharmacist

1. Explain 3 financial justification strategies for establishing or growing a pharmacy residency
2. Indicate how the ASHP PPMI hospital self assessment may guide residency training opportunities within your institution
3. Express the need for residencies within community hospitals
4. Describe common obstacles and their solutions for initiating residencies in smaller hospitals
Learning Objectives - Technician

1. Describe the role of a pharmacy resident within the department
2. Explain to other technicians their role in helping the resident learn
3. Summarize the ASHP PPMI hospital self assessment role in advancing pharmacy practice
4. Express the need for residencies in community hospitals
Residency Expansion

• Starting with a plan
• Role of the resident
• Implementation case study 1
• Implementation case study 2 and PGY2
Where to start?

Build Foundation  Vision  Business Plan  Implement
The role of pharmacy at your facility
- Understood by hospital administration and leaders
- Beyond dispensing (ASHP PPMI)
Vision

• How will your program look in a few years?

• Residents on floors
  – Joining rounds
  – Clinical and quality projects
  – New weekend coverage
  – More patient interactions

• Opportunities to pilot new services
Resident Projects within UH

Taking lean to the cath lab: streamlining the charge capture process
Jeremy Hall, Pharm.D. Candidate¹, Tahani Mansour, Pharm.D.²,
Jason Glowczewski, Pharm.D., MBA²
(¹Northeast Ohio Medical University, Rootstown, Ohio, (²University Hospitals Geauga Medical Center, Chardon, Ohio

Purpose
- Charge capture of medications used within the catheterization lab is performed either through the electronic medical record (EMR) or on paper charge sheets
- As a result of an audit, inconsistencies within the medication charge capture process were discovered
- The purpose of this study is to:
  - Evaluate the current processes involved in the charge capture of medications within the catheterization lab
  - Streamline medication charge capture within the catheterization lab
  - Reduce process defects
  - Expedite charge data entry
  - Evaluate opportunity to increase pharmacy revenue

Methods
- Current medication charge capture processes utilized within the catheterization lab will be analyzed using the framework of a value stream analysis
- Pharmacy personnel will take accountability for the medication charge process associated with the catheterization lab
- Pharmacy-based charge capture will be performed directly from reports generated by the catheterization lab imaging and information management system
- The number of steps within the process will be reduced
- Data will be collected to analyze the effects of the process changes
  - Effectiveness of the charge capture process
  - Decreased time between medication use and charge entry
  - Survey for potential cost saving

Results

Conclusion
- As a result of streamlining the charge capture process, there was an increase in discrepancy awareness and a decrease in overall discrepancies
- Increased charge capture by 48.7%
- Average time between medication use and charge data entry was not reduced as a result of pharmacy interventions
- Increased collaboration with other disciplines and creating additional opportunities for the expansion of pharmacy services

Future Opportunities
- Based on outcomes of this study, additional interventions are needed to further decrease process defects, expedite charge data entry, and increase overall charge capture
  - Facsimile of the procedure report
  - Elimination of paper charge sheets
  - Utilization of electronic procedure reports
- The charge capture process would benefit through the implementation of Quick Charge and EMR charge medication lists
- Re-evaluation of time between medication use and charge capture

Disclosure
- Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:
  - Jeremy Hall: nothing to disclose
  - Tahani Mansour: nothing to disclose
  - Jason Glowczewski: nothing to disclose
Business Plan (Simplified)

Revenue or cost savings
- Expenses

= Financial Impact
Business Plan

Source of revenue

• Medicare pass through funding (PGY1)
• Outpatient billable encounters
• Medication therapy management
Cost savings opportunities

• Formulary Management
• Staffing (weekends)
• Emergency staffing
• Recruitment (training costs)
# Medicare Pass Through Funding

## Program Memorandum

**Intermediaries**

<table>
<thead>
<tr>
<th>Transmittal</th>
<th>A-03-043</th>
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</table>

**Date:** MAY 23, 2003

**CHANGE REQUEST 2692**

**SUBJECT:** Changes to Fiscal Year (FY) 2001 Nursing and Allied Health Education Payment Policies

The Benefits Improvement and Protection Act (BIPA), P.L. 106-554, enacted on December 11, 2000, contained numerous provisions affecting inpatient hospital payment policies. Some of these provisions became effective either prior to the passage of the BIPA, or shortly after its passage. This Program Memorandum (PM) is to notify you of the actions you are to take to implement §512 of the BIPA. It also implements §541 of the Balanced Budget Refinement Act (BBRA) of 1999 (P. L. 106-113) regarding Medicare+Choice nursing and allied health payments for portions of cost reporting periods occurring on or after January 1, 2000.

### Medicare+Choice Nursing and Allied Health Education Payments

Section 541 of the BBRA of 1999 provides for additional payments to hospitals for costs of nursing and allied health education associated with services to Medicare+Choice enrollees. Hospitals that operate approved nursing or allied health education programs and receive Medicare reasonable cost reimbursement for these programs would receive additional payments. Section 541 limits total payments to a maximum of 2.5% of the hospital's costs for these programs.
# Medicare Funding

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<thead>
<tr>
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<th>Community Hospital Example #1</th>
<th>2013 Cost Report Estimate</th>
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<td>Indirect Costs</td>
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### Pharmacy Residency (Allied Health)

#### Example Pharmacy Pass-Through Reimbursement

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Example data based on community hospital setting
- Estimated census of 100 to 150 patients
- 2 PGY1 residents in all years
- All values are estimated and not actual for any one hospital
## Example Business Plan - Community Hospital (2 PGY1)

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### Residency associated cost savings:

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| Total Pass through Funding                        | $49,500     | $104,445    | $110,189    | $174,250    | $238,644    |
| Total cost savings                                | $14,200     | $36,200     | $37,286     | $38,405     | $39,557     |
| **Total Expenses**                                | **-$67,200**| **-$126,378**| **-$128,906**| **-$131,484**| **-$134,113**|

| Impact with overhead                              | -$104,300   | -$202,075   | -$202,099   | -$143,911   | -$85,497    |
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**Impact with overhead**                                         **-$104,300** | **-$202,075** | **-$202,099** | **-$143,911** | **-$85,497**

**Impact (no overhead)**                                         **-$3,500** | **$14,267** | **$18,570** | **$81,171** | **$144,087**

**Cash Flow (no overhead)**                                       **-$53,000** | **-$90,178** | **$62,325** | **$17,110** | **$79,693**
Residency Justification

• More than Medicare reimbursement
• Customize to unique facility needs
• Quality and patient satisfaction impact
• Work with your finance director on the details and start early!
The benefits and challenges of a small community hospital: embracing practice change as a resident
Why complete a residency at a community hospital?
How organization work ties in to residency…
Welcome to the PPMI Hospital Self-Assessment

The PPMI Hospital Self-Assessment was developed to assess an individual hospital's conformity with the recommendations from the PPMI Summit. This tool consists of 100 questions assessing adoption of the PPMI recommendations at the hospital level. Upon completing the questions, the tool will allow the user to develop a list of priorities (an "Action List") individualized to their own hospital/health system.

Hospitals will also have the opportunity to generate reports comparing their data with aggregated data collected from similar hospitals within and across their state. A list of resources will also be provided to assist hospitals in implementing change in their institution.

Anyone can complete an assessment, but an individual hospital can only have one "official" submission that will be used for data comparisons. All data will be kept confidential and only aggregated data will be reported.

PPMI HSA Completion by State

How to Get Started
1. Create Account
2. Download Questions (PDF)
3. Review questions and assess practice offline
4. Complete online assessment
5. Use results at your institution

PPMI Summit Findings
Access the proceedings from the PPMI Summit in AjHP.
View Proceedings
University Hospitals Geauga Medical Center
Pharmacy Practice Model Model Initiative

Objective 1: Create a Framework
- Institution Self Assessment
- Create Action Plan
- Develop Template for Pharmacy Practice Model Change
- Align strategic plan with PPMI

Objective 2: Determine Services
- Interprofessional Internal Medicine Rounds
- Clinical Oncology Services
- Participation in Senior Assessment Program
- Medication Reconciliation
- PGY1 Pharmacy Residency Program
- Pain consult service
- Coumadin Education
- Medication Management Clinic
- CHF Education/Counseling
- COPD Education/Counseling
- Discharge Counseling & Beside discharge prescription delivery

Objective 3: Identify Emerging Technologies
- Clinical intervention documentation
- Increasing Omnicell capacity/functionality
- Working with EMR team to improve distribution process
- Design Pharmacy Productivity Dashboard
- Implement beside barcoding for administration

Objective 4: Develop a Template
- Medication Education
- Expansion of Pharmacy Residency Program
- Increase clinical pharmacy services in the emergency department
- Educate and train pharmacy technicians who will be prepared to participate in patient care and advanced roles

Objective 5: Implement Change
- Establish PGY2 Internal Medicine Position
- CHF Initiative: Pharmacy Technician Involvement
- COPD Initiative: Technician Involvement
- Integrate Clinical Pharmacy Services into Emergency Department
- Continuous Assessment of Pharmacist and Pharmacy Technician competencies
- Establish Geriatric ED service
- Expand Residency Program in 2014

Last updated February 2013
Objective 1: Create a Framework

- Institution Self Assessment
- Create Action Plan
- Develop Template for Pharmacy Practice Model Change
- Align strategic plan with PPMI

- Interprofessional Internal
Objective 2: Determine Services

- Interprofessional Internal Medicine Rounds
- Clinical Oncology Services
- Participation in Senior Assessment Program
- Medication Reconciliation
- PGY1 Pharmacy Residency Program
- Pain Consult Service
- Coumadin Education
- Medication Management Clinic
- CHF Education/Counseling
- COPD Education/Counseling
- Discharge Counseling & Beside Discharge Prescription Delivery

Objective 3: Identify newer change technologies
Objective 3: Identify Emerging Technologies

- Clinical intervention documentation
- Increasing Omnicell capacity/functionality
- Working with EMR team to improve distribution process
- Design Pharmacy Productivity Dashboard
- Implement beside barcoding for administration
• **Medication Education**
• **Expansion of Pharmacy Residency Program**
• Increase clinical pharmacy services in the emergency department
• Educate and train pharmacy technicians who will be prepared to participate in patient care and advanced roles

**Objective 4:** Develop a Template
Evaluation of Daily Medication Exchange and Impact on Workflow
Michelle Tilley, BSHS, CPhT, Jaclyn Kruse, PharmD, MS, Jason Glowczewski, PharmD, MBA, Rachael Lerman, PharmD, BCPS

BACKGROUND
• Ideally, patient-specific medications would be exclusively stored in automated dispensing cabinets
• A variety of obstacles prevent the use of this technology
• A daily medication exchange is often needed to provide patients with the next 24 hours of medication

PURPOSE
This project was designed to find an easier, more efficient and flexible way for pharmacy technicians to fill, pharmacists to check, and for technicians to deliver daily medications to nurses' workstations on wheels (WOW) in a community hospital.

OBJECTIVES
Primary Objective:
• Evaluate delivery time of daily medication exchange utilizing LEAN methods

Secondary Objectives:
• Evaluate nurse satisfaction with pharmacy services
• Evaluate HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) score(s) related to hospital environment as a result of intervention
• Evaluate average filling and checking time of daily medication exchange
• Evaluate pharmacist and pharmacy technician satisfaction related to medication exchange processes

METHODS
• Three different methods were performed for two week periods each and evaluated at the end of the six week period.

RESULTS

<table>
<thead>
<tr>
<th>METHOD</th>
<th>Average Fill/Check Time</th>
<th>Average Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cart Method</td>
<td>161 min</td>
<td>50 min 30 sec</td>
</tr>
<tr>
<td>Combined Method</td>
<td>172 min</td>
<td>37 min 30 sec</td>
</tr>
<tr>
<td>Cart-less Method</td>
<td>146 min</td>
<td>39 min 17 sec</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent Time Savings</th>
<th>(Cart to Cart-less)</th>
<th>(Cart to Cart-less)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 min 10 sec</td>
<td>9.4%</td>
<td>22.2%</td>
</tr>
</tbody>
</table>

Strengths:
• Improved patient care by reducing missing doses, medication delivery errors, and quietness of hospital environment
• Improved pharmacy teamwork with daily medication exchange
• Removed unnecessary equipment and saved time to reallocate pharmacy productivity

Limitations:
• Small sample size
• Data hard to measure due to inconsistency in workflow pre-implementation
• Data dependent on pharmacy staff cooperation

DISCUSSION
Hospital innovation is needed to improve workflow. Experimenting with new processes for performing daily medication exchange led to improved pharmacy staff efficiency and increased nurse satisfaction with pharmacy services.

CONCLUSIONS
Nurse Satisfaction Surveys: [n=38]
• 89% (n=34) of nursing staff are satisfied with pharmacy services overall
• 83% (n=30) of nurses who noticed a difference in the medication exchange stated that they preferred technicians delivering medications to their WOW instead of nursing staff moving their WOW

Pharmacy Satisfaction Surveys:
Pre-Implementation Survey [n=16]
• 63% (n=10) of pharmacy staff preferred the completely cart-less method

Post-Implementation Survey [n=18]
• 94% (n=17) of pharmacy staff preferred the completely cart-less method over the cart method
• 89% (n=16) of pharmacy staff found the cart-less method easiest overall
• 95% (n=16) found the cart-less method quickest overall
• 95% (n=16) found the cart-less easiest to share the workload
• 96% (n=16) felt errors decreased with the cart-less method
• 96% (n=16) felt missing doses decreased with the cart-less method

FUTURE DIRECTIONS
Opportunities:
• Additional LEAN projects to improve efficiency
• Expansion to other hospitals in health system

CONFLICTS OF INTEREST
The authors have no potential conflicts of interest in this study.

REFERENCES
- Establish PGY2 Internal Medicine Position
- CHF Initiative: Pharmacy Technician Involvement
- COPD Initiative: Technician Involvement
- Integrate Clinical Pharmacy Services into Emergency Department
- Continuous Assessment of Pharmacist and Pharmacy Technician competencies
- Establish Geriatric ED service
- Expand Residency Program in 2014

Objective 5: Implement Change
Challenges

• Engaging stakeholders (including pharmacy staff!)
• Staying involved in health-system wide initiatives
• Showing up
• Demonstrating to students the value of the community hospital setting
• Not stretching resources too thin
In summary …

• As residents, find ways to be involved in Pharmacy Practice Model Initiatives in your health-system

• Pharmacy practice changes will drastically shape the way we practice pharmacy – be a part of it!

• Organizational involvement is one way to stay updated and involved in PPMI Initiatives at local, state, and national levels and advance residency training
Case Study: UH Ahuja Medical Center

- Located in Beachwood, OH
- 148 registered beds
- 1 resident position
  - 1 PGY1 position
  - 1st resident July 2015
Program Development

ASHP Program Structure Standards

• Single-site residency requires a minimum of 60% of the training program at the site

• Must permit residents to gain experience and sufficient practice with diverse patient populations, a variety of disease states, and a range of patient problems

• No more than one-third of the 12 months may deal with a specific patient disease state and population

• Residents must spend two-thirds or more of the program in direct patient care activities
Considerations for Rotations

- Maximize site strengths
  - Hospital Practice
  - Intensive Care Unit
  - Emergency Department
- Variable rotation duration
  - 6 weeks vs. 4 weeks
- Utilizing system resources
  - Medication Safety
  - Information Technology
  - Elective Experiences
    - Psychiatry
    - Oncology
Pharmacy Residency Rotations

- Orientation
- Hospital pharmacy
- Internal medicine
- Critical care
- Emergency department
- Management
- Medication safety
- Health care informatics
- Research
- Other electives
# Preceptor Standards

<table>
<thead>
<tr>
<th>Eligibility</th>
<th>Qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Licensed pharmacist</td>
<td>• Training/Practice</td>
</tr>
<tr>
<td>• ASHP-accredited PGY1 residency</td>
<td>• Teaching Skills</td>
</tr>
<tr>
<td>• 1 year experience</td>
<td>• Resident Assessment</td>
</tr>
<tr>
<td>• Licensed pharmacist</td>
<td>• Formal Recognition</td>
</tr>
<tr>
<td>• ASHP-accredited PGY1 + PGY2 residency</td>
<td>• Established Practice</td>
</tr>
<tr>
<td>• 6-month experience</td>
<td>• Professional Service</td>
</tr>
<tr>
<td>• Licensed pharmacist</td>
<td>• Professional Contributions</td>
</tr>
<tr>
<td>• 3 years experience</td>
<td></td>
</tr>
</tbody>
</table>
Additional Preceptors

• Preceptor-in-training
  – Advisor
  – Development plan

• Non-pharmacist preceptors
  – Independent resident
  – Educational goals and objectives selected with pharmacist preceptor
Case Study: UH Geauga Medical Center

• Located in Chardon, OH
• 225 registered beds
• 126 staffed beds
• 3 resident positions
  – 2 PGY1 positions
  – 1 PGY2 position
• ASHP Accreditation
Potential Barrier #1: Space

- UH Geauga Medical Center built in 1959
- Pharmacy Department located in the traditional location (basement) with little room for expansion
- Adding residency program required space for an additional 2 PGY1 residents and 1 PGY2 resident
Potential Barrier #1: Space

• Solutions?
  – Can residents share student desk space?
  – Can residents have temporary desk space?
  – Can we loft some desks?
Potential Barrier #1: Space

• Unfortunately, not...
  – 2.6 Program provides residents with an area in which to work, access to appropriate technology, access to extramural educational opportunities, and sufficient financial support to fulfill the responsibilities of the program.
Potential Barrier #1: Space

• The UH Geauga experience:
  – Get creative!
    • Old storage closet full of unusable labels and printers?
    • Nope…that’s the new RPD office!
  – Convert dead space into usable storage or new offices
Potential Barrier #2: Do I have enough learning opportunities?

• Smaller facilities may wonder if they have a sufficient contingent of qualified preceptors
• Clinical services may not be fully developed before a resident starts
Potential Barrier #2: Do I have enough learning opportunities?

• Solutions?
  – Can I set up a temporary clinical service for my resident?
  – Can I send my residents outside of my health-system?
  – Can some of my physicians serve as preceptors?
Potential Barrier #2: Do I have enough learning opportunities?

- The UH Geauga experience:
  - Maximize rotations in your strong suits
    - IM focus
    - Oncology requirement
    - Medication Safety requirement
  - Use residents as catalysts to develop new services
    - Outpatient clinics
    - ACO pilot
  - Rely on other hospitals in the system for other electives (but limit number of months away)
Sample Resident Schedule

- Jul: Pharmacy Service
- Aug: Internal Med
- Sep: Practice Mgmt
- Oct: Oncology
- Nov: Med Safety
- Dec: Research

- Jan: Elective
- Feb: Adv Internal Med
- Mar: Elective
- Apr: Elective
- May: Patient Education
- Jun: Adv Internal Med 2
Elective Opportunities

- Repeat any required rotation
- Cardiology
- Psychiatry
- Critical Care
- Infectious Disease
- Emergency Dept
- Pediatric Oncology
- NICU/PICU
- Family Medicine
- Informatics
- Critical Access Med
- Population Health
- Advocacy
- Academia
Potential Barrier #3: Where do I find the time to precept?

- Smaller hospitals have a much smaller contingent of preceptors
- Many will already have a significant student precepting workload
- Other obligations will also compete for limited preceptor time
  - Such as committee work, community service, and teaching
Potential Barrier #3: Where do I find the time to precept?

• Solutions?
  – Quit taking students?
  – Quit going to meetings?
  – Just deal with it?
Potential Barrier #3: Where do I find the time to precept?

• The UH Geauga experience:
  – Implement a Layered Learning Model
    • Limit number of learners with preceptor at any one time
  – Utilize residents as preceptor extenders
  – Involve learners even in the less glamorous parts of the job
UH Geauga Layered Learning Model

• Student stationed on an assigned unit
  – Half day spent working up patients and on rounds
  – Half day spent engaged in patient education

• Preceptor and resident spend day rounding with team

• When team arrives on a unit, assigned student joins rounds
  – Presents cases, makes interventions, etc.

• Team moves on to next unit, student stays on floor to conduct patient education
UH Geauga Layered Learning Model

• Team moves on to next unit, student stays on floor to conduct patient education

• All students return to pharmacy for end-of-day topic discussions

• Led by students, residents and preceptor
UH Geauga Layered Learning Model

- Minimizes number of learners with preceptor at any given time
- Maintains benefits for students and institution
- Delegates topic discussions to a number of individuals
- Reduces the risk of burn-out
A PGY2 program in a small institution?
Expansion to a PGY2 program

• Successful implementation of a PGY1 can be the building blocks for a successful PGY2

• PGY2 offers benefits and challenges unique to specialized training.
  – Higher level skill set, more independence, fewer preceptors
  – No pass-through funding, require preceptors with specialized skills
Expansion to a PGY2 program

• The UH Geauga experience:
  – Interest from a new IM team for clinical coverage
  – No budget for new clinician
  – Partnered with NEOMED to offer a PGY2 in IM and Academia
    • Shared faculty training program
  – Two primary preceptors cover majority of rotations
Expansion to a PGY2 program

- Challenges of a PGY2 in a small institution
  - Precepting load is very high (especially during early months of the year)
  - Identifying sufficient opportunities for research and project completion
  - Scheduling, management and evaluation burnout