How Clinical Pharmacy Services can help Oregon achieve the Triple Aim

CCO Oregon Fall Conference
October 21, 2013
Patient safety and effective medication use
Overview

1. Medications are at the center of most medical interventions and can provide:
   Success - Potential for lack of success - Great harm

2. What are Clinical Pharmacy Services (CPS)?

3. When and how do they provide value?
   - Historical
   - Current
   - Potential for the future
THE BURDEN OF MEDICATION-RELATED PROBLEMS: QUALITY AND COST
“Pharmaceuticals are the most common medical intervention, and their potential for both help and harm is enormous. Ensuring that the American people get the most benefit from advances in pharmacology is a critical component of improving the national health care system.”

- Institute of Medicine¹

Cost of medication-related problems

- The **cost of all medication-related problems** in the ambulatory setting
  - $290 billion per year in avoidable medical spending (**13% of total health care expenditures**)
  - Contributes to as many as **1.1 million deaths annually**¹

- “During 2009, The FDA received 19,551 reports of patient deaths associated with drug therapy, a 14% increase compared to 2008 and a 3-fold increase over the past decade...” ²

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http://www.nehi.net/publications/44/thinking_outside_the_pillbox_a_systemwide_approach_to_improving_patient_medication_adherence_for_chronic_disease

Cost of medication-related problems

- Office of Inspector General report on preventable serious adverse events in hospitalized Medicare patients\(^1\) cited:
  - Medication errors a top cause of serious adverse events
  - Medication errors / lack of reconciliation a top cause of avoidable readmissions

- *Effective* medication management is critical as CMS and commercial carriers move away from reimbursement for “avoidable hospital readmissions”

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\(^1\) *Adverse Events In Hospitals: National Incidence Among Medicare Beneficiaries*, November 2010. [oig.hhs.gov/oei/reports/oei-06-09-00090.pdf](oig.hhs.gov/oei/reports/oei-06-09-00090.pdf)
WHAT ARE THE BENEFITS OF CLINICAL PHARMACY SERVICES?
Pharmacists in health care

- Hospitals:
  - ED, critical care, medical, surgical, discharge
- Nursing homes
- Poison centers
- Home infusion
- Specialty care: Warfarin, diabetes, oncology, hospice
- Health plans
- Community: Vaccinations, tobacco cessation, pain management
What are Clinical Pharmacy Services?

• CPS are services that focus on the effective use of medications.
• CPS are clinical services provided as part of a care team that includes a clinical pharmacist.
• CPS can be provided in a variety of settings.
• CPS are separate from the dispensing roles of a pharmacist.
What are Clinical Pharmacy Services?

A variety of medication management services that are provided by a clinical pharmacists and are proven to

• improve health status
• improve clinical outcomes
• reduce medication-related problems
• reduce overall healthcare costs
Clinical Pharmacy Services

- Patient assessment and education
- Collaborative Drug Therapy Management Protocols / Collaborative Practice Agreements
- Comprehensive Medication Management
- Medication Therapy Management
- Anticoagulation management
- Management of high-risk, high-cost treatments
- Medical team education & quality improvement
Surgeon General’s Report

The U.S. Public Health Service released a Report to the Surgeon General in 2011 that reviewed the evidence on the valuable clinical role pharmacists play in coordinated health care in the United States.

Surgeon General’s Report

- “..the ROI of medication management services can be seen as a legitimate cost-containment and cost-effective strategy for health plans, employers and other third party payers.”

- For each dollar invested in CPS from 1988-2005, the overall average benefit gained was $10.07.
Surgeon General’s Report

• CPS demonstrated an ROI of as high as 12:1 and an average of 3:1 to 5:1.

• “The value of CPS was based on ability of service to reduce hospital admissions, reduce the use of unnecessary or inappropriate medications, and reduce emergency room admissions and overall physician visits.”
2012 Findings: Outpatient CPS Program

Overall healthcare savings/costs for 15,426 patients:

**Total savings = $5,970,023**

*Combined medication and healthcare utilization overall cost savings* ($9,473,912) *minus total cost of CMM services* ($3,503,889)

- $387 savings per patient
- $140 savings per encounter

**ROI = 2.7:1**


2012 Findings: CPS has profound effect on provider workforce shortage

CPS enabled 35,242 physician/provider visits to be reallocated to other, potentially sicker patients.
(41,574 avoided – 6,332 incurred) for the 42,746 clinical pharmacist visits)

Improve value and support primary care

• Improves high-risk patient health outcomes through a cost-effective medical team approach
• Improves effective medication use by reducing medication-related problems, ED visits, readmissions
• Frees up primary care provider time by providing high-risk patients with the extra support they need from the experts in medication management
Healthcare solutions
OREGON CLINICAL PHARMACISTS PROVIDING HEALTH CARE SOLUTIONS
Clinical Pharmacy Services in Oregon today

A Clinical Pharmacy Services questionnaire was sent to all licensed pharmacists in Oregon to assess current CPS programs in the state.

- 460 Pharmacists provide CPS in Oregon
- 21% provide CPS in clinic settings
- 243 use Collaborative Practice Agreements
- 209 use the Prescription Drug Monitoring Program to provide pain management services
The Legacy Medical Home

- Practicing through Collaborative Disease Management Protocols since 1998.
  - HTN, DM, COPD, Asthma, Lipids, CHF, Smoking Cessation
- 77 RPh-managed DM patients at baseline
  - Average A1c at start = 10.7%
  - 49% had A1c >10% at start
  - 13% had A1c >13% at start
  - 45% African American
  - 20% Asian, Indian, Hispanic, Middle Eastern
  - 38% Uninsured, 48% MC/Medicaid, 14% Commercial
The Legacy Medical Home

After 2 years...

- 62% have A1c less than 8%
- 30% have A1c less than 7%
- Current average A1c = 7.7%
- Only 4/66 still with A1c over 10%

- 73% have reached LDL goal <100mg/dl
  - Overall average LDL 87mg/dl

- 49% have reached BP goal of <130/80mmHg
- 68% have reached BP <140/90mmHg
  - Overall average BP 127/71mmHg
Legacy Anticoagulation Clinic data

LH Anticoagulation Clinics*
Major Bleeding Events/100 Pt Years FY11

Number of Events per 100 Patient Years

- LHS: 0.5
- Usual Care: 3.9
- Other ACC: 1.6

*LGS, LEMC, LMG SH, LMH, LMP, LMG KC, LSC, LMG FL
Legacy Anticoagulation Clinic data

LH Anticoagulation Clinic*
Thromboembolic Events /100 Patient Years FY11

<table>
<thead>
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<th></th>
<th>Number of Events per 100 Patient Years</th>
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<tbody>
<tr>
<td>LHS</td>
<td>1.6</td>
</tr>
<tr>
<td>Usual Care</td>
<td>11.8</td>
</tr>
<tr>
<td>Other ACCs</td>
<td>3.3</td>
</tr>
</tbody>
</table>

*LGS, LEMC, LMG SH, LMH, LMP, LMG KC, LSC, LMG FL
Community Health Centers of Benton and Linn Counties

- Three Clinical Pharmacists serving all four clinic locations.
- Practicing through Collaborative Disease Management Protocols since 2007.
  - Chronic pain
  - High blood pressure
  - Diabetes
  - Chronic Obstructive Pulmonary Disease
  - Asthma
  - Cholesterol management
  - Smoking cessation
  - Depression
  - Mental health
Phase 2

Provider

Provider provides a warm hand-off of the patient to clinical pharmacist and RN care coordinator.

RN Care Coordinator

Patient has initial follow-up visit with the RN care coordinator.

RN visit includes:
- Education on diet and exercise
- Contact with patient navigator if appropriate
- Referral to diabetes education and self-management support through programs at Samaritan Hospital (available in English and Spanish)
- Referral to behaviorist for high-risk patients who are struggling to gain control of diabetes

If patient may return to RN for a refresher on diet and exercise if needed.

Behaviorist

Behaviorist visit includes:
- Coping strategies
- Screening for depression
- Nonpharmacological management tools (e.g., diet, exercise, etc.)

Behaviorist may see patient once a week for a few weeks if needed.

Clinical Pharmacist (CPS)

Patient receives a reminder call prior to visit with clinical pharmacist to bring all medications and diabetes supplies.

Pharmacist completes a prior review of medications.

CPS visit includes:
- Rooming completed by clinical pharmacist or P4
- Review allergies
- Review medications
- Note any discrepancies in chart
- Medication dosing
- Patient demonstration of how they administer their medication to ensure correct use
- Plan developed for follow-up with the clinical pharmacist.

If managing drug therapy, clinical pharmacist will see patient at least every three months.
Community Health Centers of Benton and Linn Counties

Purpose of program: To describe how clinical pharmacy services can assist the two staff psychiatrists in improving upon unmet target goals for meaningful use in a patient-centered primary care home.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Psychiatrist A</th>
<th>Psychiatrist B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Latest Report</td>
</tr>
<tr>
<td>Updated vital signs</td>
<td>49.4%</td>
<td>59.5%</td>
</tr>
<tr>
<td>Updated medication allergy list</td>
<td>27.6%</td>
<td>42.0%</td>
</tr>
<tr>
<td>Updated smoking status</td>
<td>26.3%</td>
<td>40.5%</td>
</tr>
</tbody>
</table>

Overall, this represents an 8.9%, 14.4%, and 14.2% increase in data collection of vitals, medication allergy list, and smoking status for psychiatrist A, and a 2.5%, 9.4%, and 7.0% increase for psychiatrist B.
Virginia Garcia Memorial Health Center

- The Clinical Pharmacy Services (CPS) program at VGMHC improved the lives of 200 community members in 2012.
  - 25% improvement in diabetes patients who reached their A1c goals and 50% overall improvement in outcomes
- Because of current success, VGMHC would like to expand CPS to all four clinics sites in the new few years.
- VGMHC is exploring the use CPS at care transitions.
PacificSource Health Plans

• PacificSource contracts with local pharmacists to provide Clinical Pharmacy Services to Medicare Part D members.

• Most services are provided face-to-face in local pharmacies or in PacificSource offices.
PacificSource Health Plans

Results for 2011–2012 (through November):

• Improved patient satisfaction
• 1,114 interventions provided for 647 patients
• 55 participating pharmacies
• 6 non-dispensing consultant pharmacists
• 1,000 patients avoided potentially dangerous medication problems

Total cost avoidance (soft savings) > $500,000

ROI > 7:1
CLINICAL PHARMACISTS PROVIDING HEALTH CARE SOLUTIONS—FUTURE
The Future of CPS in Oregon

- Clinical pharmacists are part of medical home care teams statewide, providing value-based services for high-risk populations.

- Clinical pharmacists are working at the top of their license and easing the high demand on Primary Care Providers.

- Clinical Pharmacy Services are incentivized by various payment models that drive creative, effective solutions.
QUESTIONS

COMMENTS
CPS Steering Committee: Please contact us!

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