Shining a Spotlight on VA Clinical Pharmacy Practice: Advanced Services, Strong Communication, Quality Outcomes

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Representing: VA Clinical Pharmacy Advisory Board (CPAB); VA Clinical Pharmacy Program Office (CPPO)

Objectives

- Describe VA Advanced Pharmacy Services
- Describe Communication Process: Education and Committee Structure
- Define Quality Outcomes

Scope of Practice (SOP)

- VHA Policy System-wide since 1995
- Each VHA pharmacist with direct patient care responsibility which includes prescriptive authority must have a Scope of Practice
- Medication prescribing privileges for non-controlled substances can be granted to Clinical Pharmacy Specialists (CPS) based on a locally-defined Scope of Practice
- The Scope of Practice delineates any prescriptive authority and the ability to order laboratory tests, screenings, referrals, and other items pertinent to monitoring and assessing the patient's drug therapy.

Advanced Practice

Direct Patient Care Activities

Direct Patient Care defined for the purpose of Scope of Practice guidance:

- Patient care functions which are carried out collaboratively or independently by a pharmacist in an advanced practice role and are above and beyond those functions considered a routine part of a pharmacist’s duties.

Pharmacist Scope of Practice

- Allows for autonomous practice and prescribing of the pharmacist to address the medication management needs of the Veterans
- Prescriptive authority and responsibility will include practice areas for which the pharmacist has experience and expertise, including but not limited to:
  - Addressing medication management needs of patients with defined diagnoses,
  - Management of medication-related adverse events,
  - Ongoing and acute medication monitoring, and
  - Collaboration with other healthcare providers for management of new diagnoses
Core Elements of a Pharmacist Scope of Practice

- Developing, documenting, and executing therapeutic plans
- Ordering and interpretation of diagnostic studies
- Prescribing medications, devices and supplies
  - Note: Medical center policy may be developed to allow the ordering of non-medication supplies
- Ordering and administering vaccines
- Taking independent corrective action for identified drug-induced problems
- Ordering consults (e.g., diettian, social work, specialty provider), as appropriate, to maximize positive drug therapy outcomes
- Serving to provide clinical pharmacy expertise for practice-based areas to include clinics and wards in conjunction with the attending physician or team (e.g., Home Based Primary Care, Internal medicine, critical care, Community living centers)

Scope of Practice

- **Part 1.** General area of responsibility for activities to be performed under the scope of practice (must choose at least one):
  - [ ] Medical center
  - [ ] Community Based Outpatient Clinic
  - [ ] Contracted locations
  - [ ] Telemedicine, specify location:
  - [ ] Other location (specify below):

- **Part 2.** The pharmacist scope of practice includes the following practice areas of diseases/conditions (must choose at least one):
  - [ ] Comprehensive Medication Management, inpatient
    - [ ] Internal Medicine
    - [ ] Specialty Care such as surgery, infectious disease, critical care, community living centers, psychiatry, hematology/oncology, etc. (define specialty below):
  - [ ] Comprehensive Medication Management, outpatient
    - [ ] Primary Care
    - [ ] Specialty Care (define specialty below):

Data Sources: HR Employee ProClarity Cube, CPPO SharePoint SOP Database

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<table>
<thead>
<tr>
<th>Parameter</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>% Change</th>
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<tbody>
<tr>
<td># Pharmacists w/ SOP</td>
<td>2,132</td>
<td>2,616</td>
<td>2,853</td>
<td>34%</td>
</tr>
<tr>
<td>Encounters/FTE</td>
<td>403</td>
<td>615</td>
<td>586</td>
<td>45%</td>
</tr>
<tr>
<td>% Pharmacists w/ SOP</td>
<td>30.9%</td>
<td>38.6%</td>
<td>41%</td>
<td>33%</td>
</tr>
<tr>
<td>Total 160 Encounters</td>
<td>2,454,419</td>
<td>3,677,269</td>
<td>3,751,001</td>
<td>53%</td>
</tr>
</tbody>
</table>

**Pharmacists Achieve Results with Medications Documentation (PhARMD) Project**

- Clinical reminder with embedded health factors
  - Assigned to the pharmacists at your facility location
- Health factors represent tracking items of interest
  - Clinical interventions and therapeutic goals
    - DM, Lpids, HTN, HF, Smoking Cessation, Bone Health, Hepatitis C specific
  - Additional pharmacotherapy interventions
    - General interventions on other disease states
    - Used interventions which other authors have assigned cost avoidance
- Project started in 2010 at 2 separate medical centers and has expanded to 62 sites in 2013
PhARMD Tool Design

- The PBM PhARMD Pharmacotherapy Reminder was developed in a way to allow quick and easy documentation of clinical pharmacy interventions.
- The disease state interventions have been standardized across the various diseases so they look similar.
- Pharmacists have found that the tool takes on the average of 1-3 minutes of additional time in documenting the interventions.
  - Completes the visit encounter at the same time.
- Created in a way that by logging the interventions using the tool it will add text into the progress note under the title of “Assessment and Plan”.
  - This is a useful option to help the CPS quickly document their interventions and complete their progress note in a timely manner.

Example Disease State Documentation

Type II Diabetes Mellitus

Primary goal for patient (required to choose one):
- Patient’s goal is α = 0
- Patient’s goal is α = 1
- Patient’s goal is α = 1.5
- Medication intervention

Nephrologic intervention made

**Example: iclude, but are not limited to: disease state education, lifestyle counseling and education, providing educational materials, providing home monitoring devices, making referrals for additional care**

No change made

End of active treatment/management, continue to monitor and assess as appropriate

Education and Communication
Clinical Pharmacy Boot Camp Concept

- Subject Matter Experts (SME) providing evidence-based, intense, and current training on standards of care
- Sharing Strong Practices
- Providing Education Platform for training Clinical Pharmacy Specialists (CPS) working in Primary Care and Specialty Areas
- Train the Trainer and Self-Directed Learning
  - Talent Management System (TMS) part of VA Learning University (VALU)
- Creating a Minimum Competency Standard for Pharmacists
- Starting a movement on disease state management in Patient Aligned Care Teams (PACT) in primary care
  - diabetes, hypertension, hyperlipidemia, anticoagulation, smoking cessation, pain management, hepatitis C, osteoporosis

Bootcamps

- Purpose: Pharmacy Chronic Disease Management Movement (Phase I)
  - Pain Management
  - Diabetes
  - Hepatitis C
  - Hyperlipidemia
  - Hypertension
  - Osteoporosis
  - Tobacco Dependence

How to Start a Movement...

- Clinical Pharmacy Boot Camp Material
- The faculty provided the training to equip others with what they needed to get started when they returned to their facility (train the trainer)
- Some techniques to consider:
  - Shadowing
  - Lunch time series to review the materials
  - Self study materials
  - Staff study groups/Journal Clubs incorporating the materials from this week
  - TMS training for all PACT and Specialty CPS (minimum competency expectations)

Specialty Clinical Pharmacy Boot Camps

- These programs (Phase II) were presented Summer 2013
- Six disease states/clinical practice areas covered
  - Cardiology – Heart Failure
  - Mental Health
  - Hematology/Oncology
  - Respiratory
  - Nephrology
  - Women’s Health

PACT Clinical Pharmacy Boot Camp II

- These programs (Phase III) were presented during August and September 2013
- The training built upon the original curriculum of the 2011 Clinical Pharmacy Boot Camp
- Disease states/clinical practice areas covered include:
  - The Metabolic Patient – complex patients with diabetes, hypertension, and hyperlipidemia
  - Pain Management
  - Smoking Cessation
  - Hepatitis C

How to Access Training

- All training programs from the 2013 Specialty and PACT Part II Clinical Pharmacy Boot Camps were presented via Adobe Connect®
- The recordings of these programs, along with presentation slides and any pre-symposium and supplemental material may be accessed by one of the following methods:
  - PBM Clinical Pharmacy SharePoint Boot Camp Trainee Portal
    - Access for VA employees only through this site
  - PBM Education Moodle Site
    - Access for VA and Non-VA employees
    - Available outside the VA firewall for any individual with an internet connection following registration on the Moodle site
Moving Forward Clinical Practice System-Wide and Improving Communication
- Development of a community of practice for clinical pharmacy-
  - The National Clinical Pharmacy Practice Council (NCPPC)
- To serve as a communication conduit for bidirectional flow on clinical pharmacy practice issues
- Optimize cohesion/collaboration
- Provide a platform for discussion of clinical pharmacy practice issues
- Support uniformity of processes and priorities across VA pharmacy

NCPPC Specific Goals
- Communication for PBM and CPPO projects, policy, initiatives and guidance (updates or new issues);
- Share strong practices related to clinical pharmacy practice;
- Assess clinical pharmacy outcomes and workload, clinical pharmacy interventions and return on investment (ROI) for clinical pharmacy practice;
- Evaluate clinical performance metrics and population management for opportunities;
- Identify gaps in patient care that exist with emphasis on expansion of clinical pharmacy services; and
- Ensure a platform for discussion of clinical pharmacy professional practice elements for consistency with national guidance and policy

Desired Results
- Individuals can stay informed of what is happening
- Strong practices are shared
- Initiatives are implemented consistently and efficiently
- Collaboration occurs to advance clinical pharmacy services within the facility, VISN, and National
- New projects are created
- Clinical Pharmacy Networks are developed
- Cohesion among pharmacy leaders within VISN and National optimized

Clinical Pharmacy Practice Council
- NCPPC Communication is improved when similar committee structure exists at the local and regional levels.
- Establishment of Facility and VISN CPPCs
  - Meet on a regular basis (monthly or every other month)
  - Include a wide range of clinical pharmacy specialists and practice leaders
  - Discuss regular topics based on NCPPC, goals, and clinical “hot” topics
- Not just “another meeting”-use to get feedback and a “feet on the ground” approach to discussing key clinical pharmacy issues

Clinical Pharmacy Outcomes
### PhARMD Project Expansion Results

<table>
<thead>
<tr>
<th>Metric</th>
<th>FY12</th>
<th>FY13</th>
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<tbody>
<tr>
<td>Number of Pharmacist Tool users</td>
<td>117</td>
<td>893</td>
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<tr>
<td>Total Disease State Interventions</td>
<td>15,410</td>
<td>180,019</td>
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<tr>
<td>Total Additional Pharmacotherapy Interventions</td>
<td>16,717</td>
<td>129,917</td>
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<tr>
<td>Avg Number of Interventions per visit</td>
<td>1.87</td>
<td>1.75</td>
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### PhARMD Preliminary Outcomes*

<table>
<thead>
<tr>
<th>Condition</th>
<th>Visits to Goal</th>
<th>Days to Goal</th>
<th>Biomarker</th>
<th>Baseline Biomarker</th>
<th>End of tx biomarker</th>
<th>Patients Meeting Criteria</th>
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<tbody>
<tr>
<td>Diabetes</td>
<td>2-4</td>
<td>49</td>
<td>HbA1c</td>
<td>9.05</td>
<td>8.08</td>
<td>957</td>
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<tr>
<td>HTN</td>
<td>1-4</td>
<td>31</td>
<td>Systolic</td>
<td>113</td>
<td>113</td>
<td>370</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Diastolic</td>
<td>33</td>
<td>79</td>
<td>97</td>
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<td></td>
<td></td>
<td></td>
<td>MAP</td>
<td>113</td>
<td>97</td>
<td>680</td>
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<tr>
<td>Lipids</td>
<td>1-2</td>
<td>34</td>
<td>LDL</td>
<td>138</td>
<td>106</td>
<td>680</td>
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</tbody>
</table>

*Pharmacists specifically referred to the pharmacist for this disease and followed minimum of 6 month interventions.

### Archimedes – Quantifying Healthcare

- The Archimedes Model was built to represent physiological, clinical, and administrative events as they occur in reality.
- The Archimedes Model can simulate a wide spectrum of interventions.
- The Model can create simulated populations that match real populations at a high level of detail matching specific individuals on more than 40 clinically relevant variables.
- By adjusting biomarkers and processes, the interventions realistically mimic the effects of drugs, prevention programs, screening tests, diagnostic tests, care processes and protocols, compliance, performance, and guidelines.
- The Model can calculate the effects of interventions on biological outcomes, health outcomes, utilization, quality of life, and financial costs.

### Hypertension VA Population (N=370)

<table>
<thead>
<tr>
<th>Biomarker</th>
<th>Average eGFR</th>
<th>Diabetes</th>
<th>Prior MI</th>
<th>Prior Stroke</th>
<th>Stage 3 CKD or above</th>
<th>Heart Failure</th>
<th>ACE Inhibitors</th>
<th>Beta Blockers</th>
<th>Calcium Channel Blockers</th>
<th>Diuretics</th>
<th>Dyslipidemia medications</th>
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<tbody>
<tr>
<td>Average eGFR</td>
<td>70.9 ml/min</td>
<td>59%</td>
<td>6.3%</td>
<td>7.4%</td>
<td>17.6%</td>
<td>8.2%</td>
<td>39.2%</td>
<td>38.6%</td>
<td>25.5%</td>
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### Cardiovascular NNTs:

<table>
<thead>
<tr>
<th>Disease</th>
<th>Outcome</th>
<th>NNT</th>
<th>Visit range</th>
<th>$Cost/Visit (Avg cost)</th>
<th>Estimated 2 year Cost/Event*</th>
<th>Avg Benefit/Cost (min)</th>
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<tbody>
<tr>
<td>HTN</td>
<td>MI</td>
<td>152</td>
<td>1-4</td>
<td>$37.75-$150 ($75.5)</td>
<td>$40,000</td>
<td>3:1</td>
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<tr>
<td></td>
<td>Stroke</td>
<td>63</td>
<td>1-4</td>
<td>$37.75-$150 ($75.5)</td>
<td>Priceless</td>
<td></td>
</tr>
<tr>
<td>All-dx</td>
<td>MI</td>
<td>24</td>
<td>1-4</td>
<td>$37.75-$150 ($75.5)</td>
<td>$30,000</td>
<td>16:1</td>
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<tr>
<td></td>
<td>Stroke</td>
<td>52</td>
<td>1-4</td>
<td>$37.75-$150 ($75.5)</td>
<td>Priceless</td>
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*Based on expert consensus and Population Health Management Volume 14, Number 3 2011.

### Hypertension Kaplan Meier Curve (example output)

![Hypertension Kaplan Meier Curve](image)

### True or False:

**A Scope of Practice is Required For Pharmacists With Direct Patient Care Responsibilities that includes prescriptive authority**

- A True
- B False

**ARCHIMEDES Can Be Used To Calculate The Effects of Interventions On Quality of Life and Cost**

- A True
- B False

**Is the Purpose of the NCPPC to serve as a communication conduit for bidirectional flow on clinical pharmacy practice issues?**

- A Yes
- B No