



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

Scott E. Mambourg, PharmD, BCPS, AAHIVP
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

Advanced Practice

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.

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

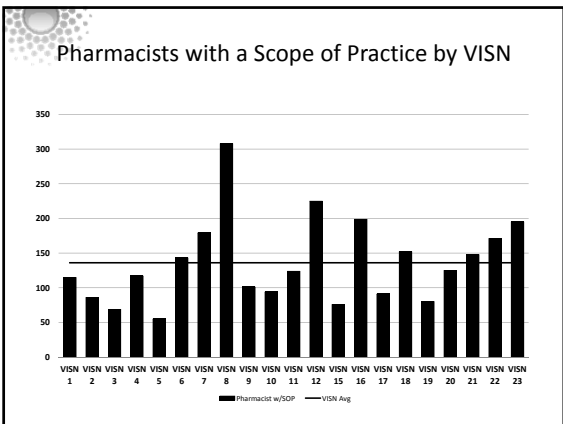
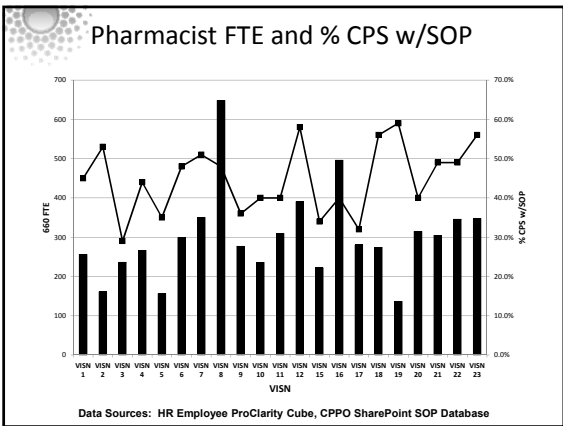
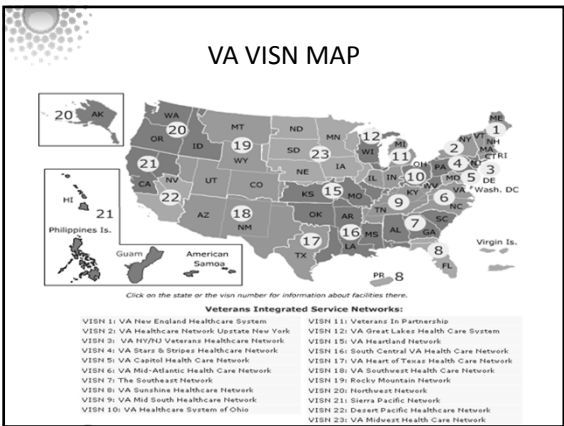
6

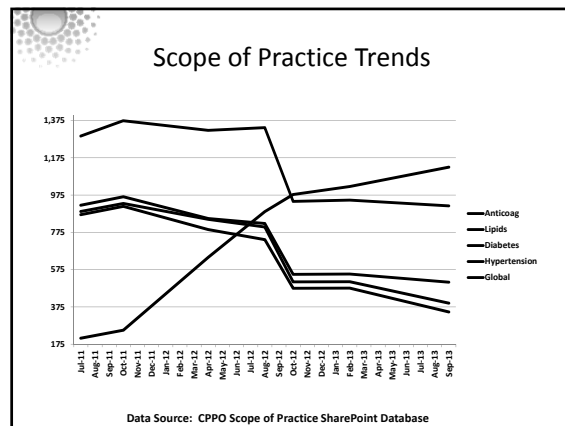
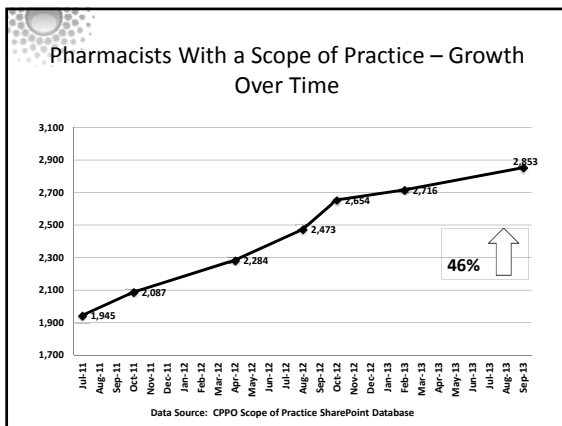
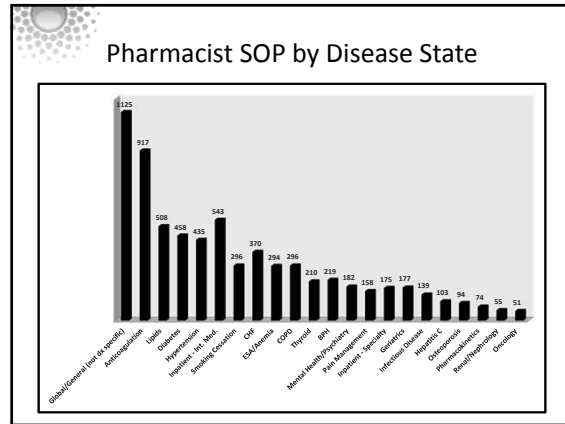
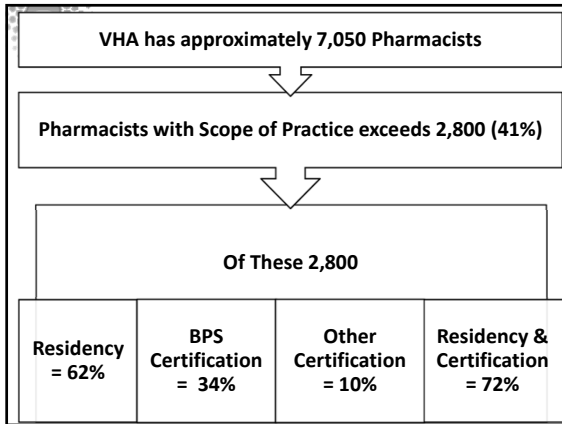
Core Elements of a Pharmacist Scope of Practice

- 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., dietician, 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 or 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):





Nationwide Workload Trends

Parameter	FY11	FY12	FY13	% Change
# Pharmacists with SOP	2,132	2,616	2,853	↑ 34%
Encounters/FTE	403	615	586	↑ 45%
% Pharmacists w/SOP	30.9%	38.6%	41%	↑ 33%
Total 160 Encounters	2,454,419	3,677,269	3,751,001	↑ 53%

- ### 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, lipids, 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.

19

PBM PhARMD Pharmacotherapy Reminder Tool Design and Use

Document any interventions made for the disease states or additional pharmacotherapy interventions listed

Primary Care Conditions Addressed:

- Hypertension
- Type I Diabetes Mellitus
- Type II Diabetes Mellitus
- Lipids
- Heart Failure
- Bone Health
- Smoking Cessation

Specialty Conditions Addressed:

Additional Pharmacotherapy Interventions:

- Refer back to provider, discharge from CPS clinic

Example Disease State Documentation

Type II Diabetes Mellitus

Primary goal for patient (required to choose one):

- Patient's goal is <7%
- Patient's goal is <8%
- Patient's goal is <9%
- Patient's goal is:

Medication intervention

Nonpharmacologic intervention made
 **Examples include, 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

PBM PhARMD Pharmacotherapy Reminder – Additional Pharmacotherapy Interventions

Additional Pharmacotherapy Interventions:

- Anticoagulation Therapy
 - Anticoagulation initiation
 - Anticoagulation education provided
 - Dose adjusted due to supratherapeutic INR
 - Dose adjusted due to subtherapeutic INR
 - Compliance/Adherence addressed
- Contraindication
- Drug Interaction
- Drug not indicated
- Duplication of therapy
- Manage adverse drug event
- Medication Intervention for other disease state
 - Initiate new medication for treatment naïve patient
 - Adjust dosage or frequency
 - Discontinue, change to different medication, or add new medication to current therapy
 - If related to management of an ADE or allergy, please document as well under additional pharmacotherapy intervention, manage ADE or allergy
- Medication Reconciliation Performed
- Non-Formulary review/coverage
- Nonpharmacologic intervention made for disease state not listed above
 **Examples include, but are not limited to:
 disease state education,
 lifestyle counseling and education,
 providing educational materials,
 providing home monitoring devices,
 making referrals for additional care
- Prevent or manage drug allergy
- Therapeutic drug monitoring or diagnostic evaluation (e.g., Anticoagulation, Phenothiazine, Anticoagulation, etc.)

PBM PhARMD Pharmacotherapy Reminder Tool Example of Progress Note Text

CLINICAL REMINDER ACTIVITY:
 PBM PhARMD Pharmacotherapy:

Assessment and Plan:

Type I Diabetes Mellitus
 Patient's goal is <7%
 Nonpharmacologic intervention made
 Plan: Discussed in length carb counting

Smoking Cessation
 Medication intervention
 Initiate new medication
 Plan: bupropion
 Changed or discontinued medication

Additional Pharmacotherapy Interventions:
 Manage adverse drug event
 Plan: Chantix caused worsening of nightmares

23

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

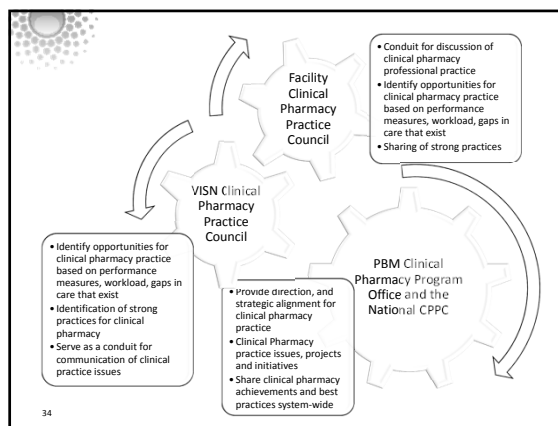
- Development of a community of practice for clinical pharmacy-
 - The National Clinical Pharmacy Practice Council (NCPPC)
- To serve as a communication conduit for bidirectional flow on clinical pharmacy practice issues
- Optimize cohesion/collaboration
- Provide a platform for discussion of clinical 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

	Actual	Target	
Diabetes Mellitus (Composite)	88%	88%	●
Diabetes-Outpt-HBA1C Measured Annually	96.8%	96%	●
Diabetes Outpt and HBA1C > 9 (lower is better)	19.5%	19%	▲

	Actual	Target	Not Met	No Measure	Trends	Definitions
Diabetes Mellitus (Composite)	88%	88%				
Diabetes-Outpt-HBA1C Measured Annually	96.8%	96%	154		Trends	Definitions
Diabetes Outpt and HBA1C > 9 (lower is better)	19.5%	19%	190	154	Trends	Definitions
Diabetes Outpt LDL Measured Annually	95.3%	96%		198	Trends	Definitions
Diabetes Outpt and LDL<100	73.1%	75%	1,101	198	Trends	Definitions
Diabetes and BP < 140/90	79.5%	78%	894	96	Trends	Definitions
Diabetes Outpt and Timely Retinal Exam	99.8%	99%		11	Trends	Definitions
Diabetes Outpt and Renal Function Testing	90.2%	92%		473	Trends	Definitions

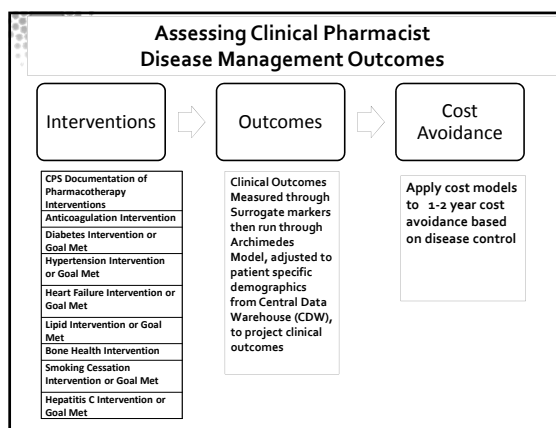
PhARMD Project Expansion Results

Metric	FY12	FY13
Number of Pharmacist tool users	117	893
Total Disease State Interventions	15,410	180,019
Total Additional Pharmacotherapy Interventions	16,717	129,917
Avg Number of Interventions per visit	1.87	1.75

PhARMD Preliminary Outcomes*

Condition	Visits to Goal	Days to Goal	Biomarker	Baseline Biomarker	End of tx biomarker	Patients Meeting Criteria
Diabetes	2-4	49	HbA1c	9.05	8.08	957
HTN	1-4	31	Systolic	153	133	370
			Diastolic	93	79	
			MAP	113	97	
Lipids	1-2	34	LDL	138	106	689

*Patients specifically referred to the pharmacist for this disease and followed minimum of 6 month



- ### 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

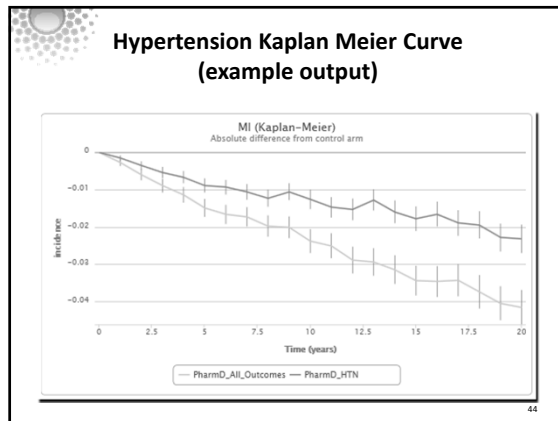
Hypertension VA Population (N=370)

Biomarker	
Average eGFR	70.9 ml/min
Diabetes	59%
Prior MI	6.3%
Prior Stroke	7.4%
Stage 3 CKD or above	17.6%
Heart Failure	8.2%
ACE Inhibitors	39.2%
Beta Blockers	38.6%
Calcium Channel Blockers	25.5%
Diuretics	35.9%
Dyslipidemia medications	56.8%

Cardiovascular NNTs:

Disease	Outcome	NNT	Visit range	\$Cost/ Visit (Avg cost)	Estimated 2 year Cost /Event*	Avg Benefit/ Cost (min)
HTN	MI	43	1-4	\$37.75-\$150 (\$75.5)	\$30,000	9:1
	Stroke	152	1-4	\$37.75-\$150 (\$75.5)	\$40,000	3:1
	Death	63	1-4			Priceless
All Dz (HTN, DM, Lipid)	MI	24	1-4	\$37.75-\$150 (\$75.5)	\$30,000	16:1
	Stroke	166	1-4	\$37.75-\$150 (\$75.5)	\$40,000	3:1
	Death	52	1-4	\$37.75-\$150 (\$75.5)		Priceless

*Based on expert consensus and Population Health Management Volume 14, Number X 2011



True or False:

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

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

True or False:

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

A True

B False