Primary Intended Outcomes

1. Maximize the scope of practice of the pharmacist to assist with medication refill approvals via Collaborative Drug Therapy Management (CDTM) agreements to reduce clinician workload, resulting in improved patient access to care.

2. Apply evidence-based medicine in a standardized process, which includes a proactive review of visit, lab, and adherence criteria to promote the safe and effective use of maintenance medications.

3. Respond to medication-related e-mails and phone calls with timely consultation regarding access, proper use, and adherence to prescriptions.

Relevant PAI Recommendations

B14. Through credentialing and privileging processes, pharmacists should include in their scope of practice prescribing as part of the collaborative practice team.

B15. Pharmacists must be allowed to document recommendations and follow-up notes in patients’ medical records.

B23. The following characteristics or activities should be considered essential to pharmacist-provided drug therapy management in optimal pharmacy practice models:
**Situation Analysis**

Pharmacists practicing with physicians and other healthcare professionals improve pharmacotherapeutic outcomes and provide increased value and efficiency to the healthcare system.\(^1\) The findings of Chisholm-Burns, et al., provide compelling evidence of pharmacists’ positive effects on direct patient care and supports pharmacists as key members of the healthcare team.\(^2\)

The advent and ongoing evolution of Collaborative Drug Therapy Management (CDTM) agreements over the last few decades has enabled the progression of these practices. State legislation now allows for CDTM agreements between physicians and pharmacists in most states, including both Oregon and Washington. The Kaiser Permanente Northwest region’s Refill Protocol Program applies a CDTM agreement that allows pharmacists to oversee the refill request process and approve refills based on an established set of defined monitoring criteria. The Regional Formulary and Therapeutics Committee annually reviews and approves monitoring criteria to ensure that they are current and evidence-based. Physicians, pharmacists, members of the healthcare team, and administrative staff develop protocol-related documentation and other process details. The Kaiser Permanente group practice model, with key services such as laboratory, radiology, and pharmacy that are available in its ambulatory clinics, provides an ideal setting for this type of collaboration.

Kaiser Foundation Health Plans are nonprofit, public benefit corporations that contract with Kaiser Foundation Hospitals and medical groups to provide services. Kaiser Permanente's seven regions are composed of separate but closely cooperating organizations. The Northwest region employs 880 physicians and serves patients in 27 outpatient medical offices. The health plan provides a variety of clinical pharmacy services with 20 ambulatory pharmacies and 12 specialty care pharmacies in Oregon and Washington.

The electronic medical records (EMR) system at Kaiser Permanente allows physicians to efficiently document diagnoses, prescribe medication, order tests, and make referrals. Refill request messages are generated automatically by the system when refills are requested and no valid refills remain on the prescription. These messages reside in an electronic folder that pharmacists can access and take action on behalf of the prescriber as outlined in the established CDTM agreement. Pharmacists place orders for the defined monitoring laboratory tests or procedures and facilitate outreach to patients for follow-up care as needed.

Using the EMR, healthcare team members can document the nature of an incoming patient call or message and forward any medication-related work to pharmacy. Since many calls and messages from patients are related to medications, this agreement allows pharmacy to support over 5,000 of these each month, relieving physician time for other tasks.

**Service Description**

The Refill Protocol Program is a multi-faceted project designed to improve quality and safety as well as contribute to affordable care by providing increased medication-related support to physicians and patients. By maximizing pharmacist scope of practice in support of Kaiser Permanente physicians, the program seeks to increase patient access to primary care provider visits and pharmacy services. It also improves medication safety through proper monitoring and accuracy of medication records.

Priorities include patients on maintenance medications, chronic opioid therapy, or those seeking medication-related information via non-traditional routes such as e-
mail or telephone calls to non-pharmacy departments. Using the EMR enables the work to be done from any location, which allows for shared utilization of pharmacists from each of the ambulatory pharmacies. The staffing model is ideal because shifts can be scheduled independently or shared with normal dispensing duties to provide flexibility for unexpected staffing or workload scenarios.

The scope of the program’s activities are wide but are well represented by four key goals. The first goal is to increase patient access to care by decreasing physician workloads with a shift of refill request approvals to pharmacists. Secondly, the program applies the protocol to refill requests received internally as well as those from outside pharmacies to provide a medication monitoring safety net and assist in medication reconciliation for an accurate EMR. The third goal is to respond to medication-related e-mails and phone calls with timely consultation regarding access, proper use, and adherence to prescriptions. The fourth goal is to participate in harm reduction and cost savings initiatives as driven by industry safety standards and regional goals. Resulting benefits to patients include timely processing of refill requests, improved access to consultation for medication side effects, and discussions about proper medication use or adherence.

**Key Elements for Position Success**

1. A collaborative practice environment supported by administrative leadership with clear and consistent communication among participating physicians, pharmacists, administrative staff, and other ancillary departments,

2. Access to medical records to review and assess the patient's problem list, progress notes, laboratory and procedure results, and medication history,

3. A leadership role responsible for development, training, administration, and quality assurance of the CDTM arrangement, and

4. Establishing a rotation of pharmacists working part-time in the CDTM role and at least some time spent in distribution functions.

**Resource Utilization**

**Personnel:**

While the project was initiated on a smaller scale, it has grown to one that uses an annual average of 23 total Full Time Equivalents (FTE’s): 19 pharmacists and four technicians. Approximately 16-18 FTE’s are used for the Refill Authorization Request (RAR) workload, and the remaining FTE is used for administrative functions such as training, quality audits, competency assessments, etc.

**IT and Other Infrastructure:**

The EMR allows pharmacists to act on refill request messages, which are automatically routed to the prescriber by the pharmacy system when authorization is needed. It also allows all medication-related calls and messages to be routed to the pharmacy team for support.

**Return on Investment**

Increased clinician access through workload shifts resulted in an estimated 86,376 additional physician office visits per year (assessed as the average pharmacist time spent to cover the refill request workload).

**Recognized Intangible Benefits**

Positive impacts to quality of care measures are noted since the pharmacist reviews the patient’s chart for any quality care gaps when refill requests are received and assures completion of required labs or procedures. For example, the program has ensured the success with HEDIS measures related to the monitoring of persistent medications. Other quality measures also have improved, such as increased screenings for cervical and breast cancer, and Chlamydia.
Outcome Measures
1. Supported at least 60% of the Kaiser Permanente Northwest physician workload related to refill requests,
2. Responded to > 95% of medication-related calls or messages directed to physicians or the healthcare team within two business days, and
3. Demonstrated improvement in timely intervention on unexpected urine drug screen results by ensuring >75% are addressed within less than one month.

Lessons Learned
1. Key stakeholder input is vital to the success of the program and how it is perceived by clinicians, support staff, outpatient pharmacy staff, laboratory staff, and patients.
2. Regional collaboration with department leaders is invaluable in identifying potential needs and continued evolution of the program.
3. Additional cost savings are achieved through various therapeutic conversions and dose consolidation projects completed annually by participating pharmacists on behalf of physicians.

Other Considerations
- The program also has a positive impact on service by ensuring the timely processing of refill requests since the work is shifted from physicians to pharmacists for accurate and efficient processing.

Suggestions for Other Hospitals/Health Systems
- The program utilizes pharmacists from the dispensing teams. The shifts, which can be stand-alone or in segments, are incorporated into existing roles in Pharmacy Operations to ease implementation. Testing can be completed in any range of scale beginning with merely one physician, a select physician group, or a medical office building. It can be rapidly changed if necessary. The impact is instantly observable to physicians in the form of decreased medication-related workload, and it ultimately positively affects quality measures. The Refill Protocol Program offers clear advantages compared to the use of physician resources for the same work.

Helpful References