Primary Intended Outcome

1. Develop consistent, reproducible pharmacy practice at primary care clinics.
2. Improve patient outcomes and quality of patient care.

Relevant PPMI Recommendation

B22. Pharmacists should be part of accountable care organizations and medical homes.

Situation Analysis

Blue Cross/Blue Shield of Michigan (BCBSM) provided financial incentives to physician groups to implement the principles of the patient-centered medical home (PCMH) model within their practices. BCBSM, along with other payers, also began paying for achievement of quality indicators for chronic disease management. These forces provided an opportunity to develop a consistent practice model across multiple sites whereby primary care pharmacists directly provide patient care. The vision was that PCMH pharmacists could work as an extension to physicians in managing patients’ chronic conditions, which in turn helps to achieve quality indicators and increase revenue.

The overall purpose of our program was to establish a partnership between the health system’s department of pharmacy, the college of pharmacy, and the physician group practice with the goal of integrating clinical pharmacists in the continuum of care at the PCMH.
Service Description
The PCMH pharmacists at the University of Michigan currently provide direct patient care services at 14 general medicine/family medicine health centers for patients with diabetes, hypertension, hyperlipidemia, and poly-pharmacy via referral from physicians.

Pharmacists screen chronic disease registries to identify patients with diabetes, hypertension, or hyperlipidemia and contact physicians with referral requests. Patients are scheduled for face-to-face visits that last 30 minutes or for telephone consultations that last 15 to 30 minutes.

In addition to delivering pharmaceutical care for patients with certain medical conditions, physicians refer patients on complex medication regimens for poly-pharmacy assessments. Pharmacists identify and prioritize problems, develop medication care plans, reconcile medication lists, communicate with physicians on optimizing medication, and conduct follow-up to implement changes.

Key Elements for Success
1. Funding obtained from BCBSM to build medical home;
2. Close partnership with the college of pharmacy, the department of pharmacy, and the health system’s physicians groups; and

Resource Utilization
Personnel: Nine members of the clinical faculty are involved in the program, of which 3.7 FTEs are dedicated to clinical practice within the PCMH. The remaining FTE is devoted to research, teaching and administration.

IT and other infrastructure: There were adjustments in the electronic medical record to include pharmacist documentation. We also developed a billing system to charge for pharmacy services.

Supply Expense: Not applicable beyond pharmacist salaries.

Return on Investment: In the first year, pharmacists generated more than $150,000 in revenue, billing via T-codes, which are billing codes for face-to-face and phone visits available to non-physician providers through Blue Cross Blue Shield of Michigan and Blue Care Network for chronic care management.

Recognized Intangible Benefits
Pharmacists now operate with one model of care and a common practice pattern, and are recognized as credentialed care providers. Involving pharmacists in the management of chronic diseases frees up physician time so that physicians may see acutely ill patients. Patients benefit from better access to their physicians in times of acute illness, and they receive closer follow-up care with pharmacists on chronic issues.
**Outcome Measures**

In the first year of practice:

1. PCMH pharmacists saw 949 patients.
2. The number of unique patient encounters ranged from 43 to 232 per pharmacist, and the number of patients per half-day clinic ranged from 2.2 to 6.
3. Preliminary data in the first year of PCMH:
   a. Patients with a baseline A1c > 7.0% (n=270) experienced a mean decrease in A1c of 0.8% (95% CI 0.6 to 1.0, p<0.001).
   b. Higher risk patients with a baseline A1c > 9.0% (n=118) experienced a mean decrease of 1.4% (95% CI 1.1 to 1.8, p<0.001).

**Lessons Learned**

1. Effective communication is vital to convince the medical community that pharmacists are value-added members of the care team.
2. Establishing collaborative relationships with senior leadership in the medical community will help to pave the way.
3. Persistence pays. Physicians and administrators are often pressed for time and may not respond to requests for meetings. That does not mean they are not interested in hearing a proposal.

**Suggestions for Other Hospitals/Health Systems**

Create a partnership between your department of pharmacy and college of pharmacy. Keep in touch with the people you are trying to promote pharmacy services to, and be prepared with evidence of the value of pharmacists providing direct patient care.

**Team Members**

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