

PRIMARY CARE REPORTS

The Practical CME Journal for Primary Care and Family Physicians

December 2015

VOL. 21, NO. 12

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STATEMENT OF FINANCIAL DISCLOSURE

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AHC Media

Collaboration with Community Pharmacies in the Patient Centered Medical Home

The sometimes rocky progress of the U.S. healthcare system along the road toward comprehensive reform can make it difficult to remember the overall goal: to improve the quality of care while reducing costs systemwide. While emphasis has been placed on enhancing patient satisfaction in an effort to increase patient involvement and commitment to their own health, a great deal of focus has been placed on encouraging healthcare professionals to commit to cooperative efforts and greater accountability to improve the quality of the care they provide. The premise is that these combined efforts will increase efficiency and effectiveness of healthcare delivery in this country while reducing the per capita cost.¹

The patient centered medical home (PCMH) is a model that leverages the skills and training of primary care physicians (PCP) to help coordinate these efforts toward healthcare reform. In order to provide an overview of the PCMH model and how it fits into the overall healthcare reform efforts, we will first review the recent history of healthcare reform. Along the way, we will examine the fundamental principles of the PCMH model and look at potential ways the model can have a positive impact on healthcare delivery. (*See Table 1.*)

As part of our exploration of the PCMH model, we searched for data that demonstrate the model's potential to achieve the ultimate goal of healthcare reform: providing better care to patients. Initial literature surveys found studies with encouraging outcomes data, and we noted that many studies focused on PCMH practices that closely integrated pharmaceutical services as part of their overall delivery of care.²

Given the importance of pharmacological management in achieving treatment goals for many common chronic health issues, it is certainly intuitive that close integration of pharmacy services would be a very valuable step toward achieving the ideal optimized care that is the end goal underlying the principles of the PCMH. The kind of fully integrated pharmacy services represented in these studies may not be within the reach of small group practices, however, and also impractical for the independent physician. Therefore, we chose to illustrate the principles of the PCMH model with examples of how PCPs working within the PCMH framework can reach out and leverage partnerships

EXECUTIVE SUMMARY

- The patient centered medical home (PCMH) model provides primary care physicians (PCP) with a comprehensive approach to patient care and healthcare delivery that meets the present challenges of outcomes-based, quality-oriented healthcare reform efforts, while providing a sound foundation for leading the progress of healthcare reform into the future.
- Community pharmacists are uniquely positioned to provide services that are highly synergistic with the principles of the PCMH model. Given the importance of pharmacological management in achieving treatment goals for many common chronic health issues, close integration of pharmacy services would be a valuable step toward achieving the ideal optimized care. Many state legislations allow pharmacists to initiate, modify, and/or discontinue drug therapy.
- Building a practice on the PCMH principles serves as a framework for the PCP to take a leadership role, embrace healthcare reform, and improve quality and patient satisfaction.

Table 1. Goals of Reform

	Patient Involvement	Provider Cooperation	Provider Accountability		Quality	Patient Satisfaction	Cost
Need for Reform	↓	↓	↓	=	↓	↓	↑
Goals of Reform	↑	↑	↑		↑	↑	↓

with community pharmacy (CP) service providers in pursuit of improved patient engagement and satisfaction as well as the better outcomes that provide the objective basis for measuring quality of care.

Healthcare Reform at a Glance

Healthcare reform dates back to the early 20th century, but recent efforts have had enormous impact and direct consequences on today's policies and practices. As part of this effort to achieve systemwide reforms, objective quality measures have been identified and implemented to create a standardized system for the evaluation of quality in various aspects of the healthcare system. This has not only impacted medical practices, but also hospitals, insurance providers, and almost all elements of the healthcare system as a whole. While the focus on quality measure reporting can seem burdensome, the idea behind the implementation of these reporting systems remains improving the quality of care across the healthcare system. Tracking these performance-based objectives may empower medical practices

to innovate their systems of care delivery to improve the outcomes on which this quality reporting is based.

The development of the quality standards utilized as part of these reform efforts has roots in the development of the Healthcare Effectiveness Data and Information Set (HEDIS) in the 1990s. Developed by the National Committee for Quality Assurance (NCQA), now one of the principal PCMH certification organizations, HEDIS was originally designed to provide a comprehensive overview of the quality of care provided by health management organization (HMO) health plans for employers contracting with those insurance providers. The HEDIS standards have since been adopted by the Center for Medicare and Medicaid Services (CMS) as an integral part of its process for evaluating private insurers contracted to provide healthcare coverage alternatives to Medicare-eligible patients, sometimes referred to as MedAdvantage plans.³

One of the tools developed in conjunction with the HEDIS program is the Consumer Assessment

of Healthcare Providers and Systems (CAHPS) program. The CAHPS program uses standardized surveys to measure patient satisfaction with the quality and delivery of their healthcare across a broad range of components of the healthcare delivery system, from insurance payers to provider offices. Given the original intent of HEDIS as a means for employers to evaluate insurance plans, measuring the satisfaction of covered employees with regard to their care would certainly be vital as a baseline measure of overall customer satisfaction. In the PCMH model, while it may be inferred that patients are more inclined to access care from practices that are responsive to their concerns and actively engage them in the importance of self-care, some believe that this is better care overall, regardless of whether it results in a measurable change in outcome.⁴

In 2006, CMS created the Physician Quality Reporting Initiative (PQRI). In the early phases of this program, CMS offered a bonus to Medicare payments to physicians who voluntarily submitted quality data on a variety of standardized measures. In 2008,

PQRI was made permanent, and renamed the Physician Quality Reporting System (PQRS). The passage of the Affordable Care Act (ACA) in 2010 implemented an escalating set of penalties for physicians who did not report quality data through the program that gradually displaced the incentive payment for voluntary participation in 2015. These changes effectively made participation in the program mandatory for all physicians who receive payment from Medicare, as reimbursement from Medicare is reduced for physicians who do not or cannot report on a sufficient number of PQRS quality standards. Many of these standards, incidentally were adapted from or developed in parallel to measures developed for HEDIS, and therefore also parallel quality measures used by PCMH-accrediting organizations like NCQA.

The development of healthcare information technology (HIT) infrastructure is a vital component of this drive toward measuring and reporting on quality standards. Technology like electronic health records (EHRs) and health information exchanges are increasingly used across the industry to record, store, share, and analyze vast amounts of healthcare information generated in the pursuit of quality healthcare. The capabilities of these systems allow these data to be analyzed and cross referenced, allowing efficient tracking and reporting of quality standards.

The importance of HIT in current healthcare reform efforts was emphasized by the inclusion of measures to track the utilization and implementation of EHR and electronic prescribing technology as one of the principal components of the early PQRS program.

The passage of the Health Information Technology for Economic and Clinical Health (HITECH) Act in 2008 further hastened efforts to implement EHRs

and other HIT across the health-care system. Sometimes referred to as meaningful use (MU), the CMS EHR incentive programs provide financial incentives for hospitals and healthcare providers who are able to successfully meet a progressive set of goals and standards to demonstrate that they are implementing EHR systems in a way that improves the safety, efficiency, and quality of care, while promoting patient engagement and improving the coordination of care, while protecting the privacy and security of healthcare information. The goal of MU is to create a HIT infrastructure that will facilitate better clinical outcomes and improve overall population health through efficient and coordinated care. It is also hoped that greater transparency and availability of population health data gained through quality reporting could produce further innovation and improvements through research efforts.⁵

With the passage of the ACA and the institution of systemic participation in PQRS, Medicare also announced a payment reform measure that would tie physician compensation to quality care metrics with the value-based payment modifier (VBPM). The VBPM was set to begin with large groups of 100 physicians or more in 2015, and was ultimately slated to affect all physician services reimbursed through CMS by 2017. The program would have adjusted reimbursement for services furnished under the physician fee schedule based on a value modifier. Incorporating relative performance on PQRS metrics with cost-of-care data and a risk adjustment for average complexity of case management in the specific practice, group or physician patient population, the value modifier would yield a positive bonus to reimbursement for exceptional performance. However, a negative value modifier would reduce compensation for performance that was significantly below the average on this aggregate scale.⁶

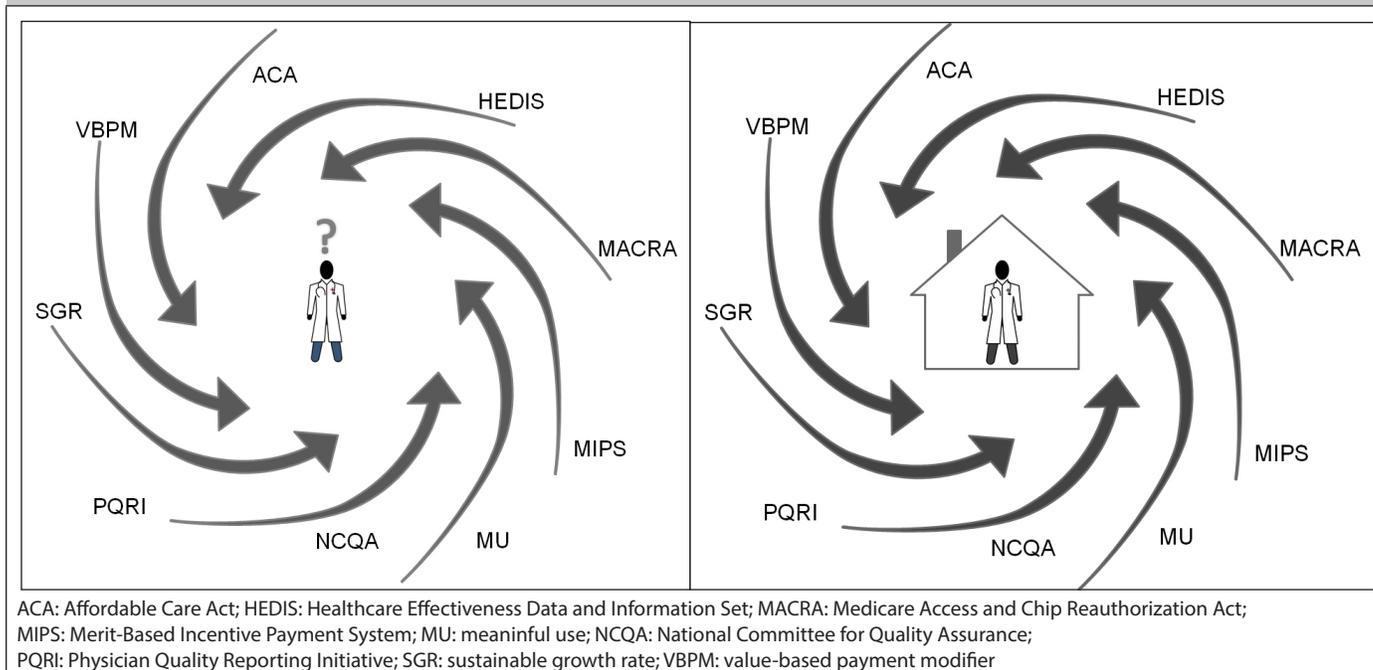
The passage of the Medicare Access and Chip Reauthorization Act (MACRA) repealed the obsolete sustainable growth rate (SGR) global modifier to payments for services reimbursed according to the CMS physician fee schedule in 2015.⁷ This legislation also deferred the implementation of the VBPM system. The program is now set to be replaced in 2019, along with the PQRS and EHR incentive programs, with the merit-based incentive payment system (MIPS), which will be fully developed and defined in the interim.⁸

This trend clearly shows how reporting and measuring performance according to objective quality metrics will ultimately affect payments received for physician services through Medicare in the near future. As CMS also moves forward with plans to publish the performance data it is collecting to the public, provider performance on standardized quality metrics may well come to be publicly recognized as a significant measure of quality healthcare.

As a result of these various healthcare reform efforts, a whirlwind of regulatory and reimbursement pressures has developed. (*See Figure 1.*) Increasingly the PCP is found at the center of the maelstrom. The goal of all the mounting regulation is, ultimately, the improvement of patient care — an aspiration clearly aligned with the desires of the PCP. With so many pressures on PCPs, many have left private practice for larger groups and hospital-based practices. As reimbursement becomes tied to quality and cost of care, PCPs may be frustrated by the prospect of striving to meet every need for every patient in the hope of having a meaningful impact on the outcome of their care.¹⁰

The PCMH model provides PCPs with a comprehensive approach to patient care and healthcare delivery that meets the present

Figure 1. The Patient Centered Medical Home Puts Calm in the Eye of the Storm⁹



challenges of outcomes-based, quality-oriented healthcare reform efforts, while providing a sound foundation for leading the progress of healthcare reform into the future.

The central role of the PCP in the PCMH model empowers the PCP to assume a greater degree of control and influence over the various aspects of care that can affect the patient outcomes that quality metrics seek to assess. Additionally, many of the quality metrics of the PQRS and the MU standards of the CMS EHR incentive programs are based on or derived from the same sources as quality metrics and performance standards associated with PCMH accreditation. By taking ownership of their central position within the complex web of patient care, PCPs following PCMH practice guidelines are ideally positioned to use the information that HIT places at their disposal to exert the greatest potential influence on care their patients receive throughout the healthcare system. By enrolling and encouraging the coordinated efforts of patients and other healthcare partners, PCPs can find a greater degree of confidence in their ability to impact

patient outcomes in a meaningful and positive fashion, and yet not feel that they must shoulder the entire burden by themselves.

Fundamentals of Patient Centered Medical Home

The PCMH model for primary care was first introduced by the American Academy of Pediatrics (AAP) in the 1960s. In 2007, four of the largest primary care oriented professional organizations, the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), the American Osteopathic Association (AOA), and the AAP released the joint principles of the PCMH. The PCMH model has since been widely promoted as a potential basis for the reform and improvement of healthcare delivery in the United States.

In the PCMH model, a PCP serves as the leader of a care team dedicated to identifying and meeting the healthcare needs of the patient. Enlisting and coordinating the services of consultants, specialists, and other healthcare service providers in a cooperative effort provides PCPs in a PCMH practice

with the information needed to track and monitor the care provided through other segments of the healthcare system. Collecting, coordinating, and reconciling information from other facilities, such as hospitals or skilled nursing facilities, further helps the PCP maintain their involvement in patient care, even when outside of the primary care setting. This allows the PCP to facilitate safe and efficient transitions of care when patients move between different care settings.

There are seven components to the Joint Principles of the PCMH. (See Table 2.) The overall aim of these principles is to provide patients with a principal healthcare relationship that engages them in a cooperative, coordinated, and comprehensive healthcare process that responds to changing needs throughout their lifetime. While this article will focus on the joint principles of the PCMH already mentioned above, other models and standards have been developed that delineate slightly divergent yet fundamentally similar approaches to meeting the overall goals of the PCMH model.¹¹

Table 2. Joint Principles of the Patient Centered Medical Home¹²

1. A Personal Physician
Each patient builds an ongoing relationship with a personal physician. This relationship serves as the foundation of coordinated, comprehensive, and continuous care.
2. Physician-directed Medical Practice
The personal physician leads a team dedicated to the ongoing care of patients.
3. Whole Person Orientation
The personal physician coordinates all patients' care throughout their life. If patient needs cannot be met directly through the practice team, then appropriate care and services are arranged to meet them.
4. Coordinated and/or Integrated Care
Patients should receive care appropriate to their needs across all elements of the healthcare system. Hospitals, specialists, skilled nursing services, etc., should leverage information technology to communicate and coordinate treatment efforts, ensuring effective, efficient, ongoing, and continuous care.
5. Quality and Safety
By actively educating patients and their families and seeking feedback from them in combination with evidence-based clinical guidelines and decision-support tools, PCMH practices develop and advocate for treatment goals defined by this cooperative care planning process. In addition, PCMH practices continually monitor and seek to improve the quality of their care, and involve patients and their families in these quality improvement efforts. Information on quality improvement and performance is voluntarily reported to independent agencies who certify and affirm that practices are capable of providing services consistent with PCMH guidelines.
6. Enhanced Access
Extended hours, open scheduling models, or enhanced communication options allow patients easier access to their personal physician and care team.
7. Payment
The final component of the joint principles of the patient-centered medical home advocates for enhanced reimbursement to both facilitate and recognize the ability of physicians and practices to meet PCMH goals of coordinated, effective, efficient, patient-centered care. These enhancements to reimbursement should accommodate fee-for-service models for face-to-face care, and also reward patient management work that falls outside of face-to-face visits, as well as reward the ongoing commitment to quality improvement that is integral to the PCMH model.

Leveraging Community Pharmacy Services in the PCMH Model

Just as the PCP in the PCMH model aspires to build lifelong relationships with patients founded on trust and mutual respect, so too does the community pharmacist (CP). Most U.S. communities have pharmacies where patients rely on

CPs not only for their prescription medication and related information but also for many other basic overall healthcare needs. For the PCP, the CP represents an intuitive partner in the pursuit of improved outcomes. CPs are also uniquely positioned to provide services that are highly synergistic with the principles of the PCMH model. Some of these services, and the aligned

principles of the PCMH that they can address, are listed in Table 3.

In recent years there has been a lot of discussion and research focused on the integration of pharmacy services on site with PCMH practices.^{2,13-15} These innovative practices take advantage of pharmacists' expert drug knowledge and collaborative practice agreement (CPA) regulations that allow pharmacists a measure of independence to pharmacologically manage disease states in accordance with protocols defined by the PCP. Co-location of pharmacies and providers is another growing trend that provides a level of convenience for pharmacy needs all in one location.¹⁶ While innovative and important, these systems have their limitations. Not all practices have sufficient patient population or resources to support full pharmacy services. Co-location may unintentionally limit patient choice with regard to CP services, as patients may desire to access these services at other locations for considerations of cost and/or personal convenience.

Many state legislations allow pharmacists to initiate, modify, and/or discontinue drug therapy pursuant to a CPA approved by a physician. According to a 2014 survey, only five states do not allow CPAs, and one of these, Oklahoma, has the statutory authority to allow them, but regulations have not yet been promulgated.¹⁷ The four other states that do not allow CPAs are Alabama, Delaware, Illinois, and South Carolina. These agreements can be used to leverage the CPs unique ability to improve patient outcomes. (See Table 4.) When considering to establish a CPA with a CP, it's important to note that regulations do vary by state. (See Table 5.) The CP represents a cornerstone in many communities that can and should be called upon to improve healthcare delivery, and it's important to point out that the same CPA regulations that are utilized to bring

pharmacists into direct patient care can be leveraged to improve quality outcomes in the CP setting. The remainder of this article will discuss various aspects of the PCMH model via the joint principles and illustrate examples of CP partnerships for enriching the PCPs influence over the quality of patient care.

Joint Principles and the Community Pharmacy

Principle 1: A Personal Physician

Vignette 1: An overweight 43-year-old male customer asks a staff pharmacist about over-the-counter (OTC) supplements to address weight gain and fatigue. The pharmacist discusses the pros and cons of available OTC agents. When asked if he had a primary care provider, the patient stated that he hadn't seen a physician since college.

Outcome (a): The pharmacist encourages the patient to establish care with a local PCP. B12 supplement selected at the pharmacy does not adequately relieve fatigue and he relies on high-sugar content energy drinks. He continues to gain weight and fatigue worsens. Eventually, he presents to urgent care with nausea, vomiting, weakness and confusion. He is hypovolemic and hypotensive. Labs reveal a blood glucose of 404. ABG, UA, and serum evaluation confirms diabetic ketoacidosis. ICU care is required for stabilization. Patient is referred to a PCP on discharge.

PCPs can reach out to local CPs, educate them about the PCMH model, and establish mutual involvement in patient care. By taking this step, PCPs can not only leverage the CP's skill set, but the CP will be encouraged to ensure that their patients are cared for by a personal physician.

Outcome (b): Recognizing the importance of a personal physician in identifying potential risks for patients with lengthy hiatus from active care, the CP explains how the health concerns of the patient could be more effectively managed in

Table 3. Community Pharmacy Outreach Opportunities

Community Pharmacy Services	Opportunity	Alignment with Joint Principles
Automatic refills	Pharmacy operating systems allow CPs to easily setup automatic refills for patients, improving patient convenience and medication adherence.	5, 6
Collaborative practice agreements	Collaborative practice agreements enable CPs to act as an extension the PCP to provide enhanced pharmacologic services to patients.	1, 2, 3, 4, 5, 6
Durable medical equipment (DME)	CPs may offer a range of medical supplies, allowing patients to receive both their prescription and DME needs all in one convenient location.	5
Med box and bubble pack services	Med box and bubble packing services can improve patient adherence, safety, and convenience.	4, 5
Home delivery	Delivery services cater to the needs of all patients, especially those with impaired mobility or limited access to transportation.	5, 6
Medication reconciliation	CPs are often the first healthcare provider that patients' see during transitions of care. Medication reconciliation at the CP with close communication with the PCP fosters accelerated flow of information to the PCP and may identify and prevent adverse events much sooner than if the patient waited for their next physician appointment.	1, 2, 3, 4
Over-the-counter (OTC) products and counseling	OTC product availability and counseling can serve to meet basic overall health needs. When these interactions are communicated closely with the PCP under the PCMH model, the pharmacist becomes an extension of the healthcare team.	1, 2, 3, 4, 5, 6
Prescription compounding	Prescription compounding, such as converting solid dosage forms to liquid for individuals unable to swallow, personalizes medications for patients potentially improving adherence, tolerability, and safety.	3, 5

partnership with a PCP. Recognizing that these symptoms could be related to an underlying condition the CP encourages the patient to be properly evaluated, diagnosed, and managed by a PCP. The pharmacist provides the patient with information regarding local PCMH-certified PCPs with whom he has developed sound cooperative relationships. The patient made

an appointment with a local PCMH practice, where his underlying diabetes was identified and treated before his condition advanced to create an avoidable crisis for his health.

Principle 2: Physician Directed Care

Vignette 2: A 38-year-old female with a 15-year history of daily use of paroxetine contacted her PCP by

Table 4. On-Site Physician-Pharmacist Collaborative Outcomes

Intervention	Endpoint	Outcome
Asthma management ¹⁸	Sum of asthma-related emergency department (ED) visits and/or hospitalizations at 9 months before, 9 months during, and 9 months after intervention.	Asthma related ED visits and/or hospitalizations decreased 30% ($P = 0.052$) and returned to pre-enrollment levels after the intervention was discontinued ($P = 0.83$).
Diabetes management ¹⁹	Reduction in hemoglobin A1c (A1C), percentage of patients achieving A1C < 7%, and percentage of patients with severely uncontrolled diabetes as defined as A1C > 9%.	A1C was reduced by an average of 1.16% ($P < 0.0001$). The proportion of patients with A1C < 7% increased from 12.75% at baseline to 36.76% at study conclusion ($P = 0.0002$). The proportion of patients with A1C > 9% decreased from 34.15% to 16.50%, ($P < 0.0001$).
Cardiovascular outcomes in diabetics ²⁰	Proportion of patients achieving a blood pressure goal of < 130/80 mmHg; and proportion of patients achieving an LDL goal of < 100 mg/dL.	There was a 21.8% increase in the number of patients who achieved a blood pressure of < 130/80 mmHg ($P < 0.0001$) and a 12% increase in patients who achieved an LDL goal of < 100 mg/dL ($P = 0.023$).
Guideline adherence and blood pressure control ²¹	Evaluate if guideline adherence and blood pressure control (at 3-month and 6-month follow-up) in the intervention vs control group.	No difference in guideline adherence, but blood pressure was controlled in significantly more patients in the intervention group (63.9%) than in the control group (29.9%) ($P < 0.001$).
Maintenance medication refill clinic (included medications to treat a wide range of medical conditions, including but not limited to diabetes, hypertension, and high cholesterol) ²²	The quantity of medication refill requests processed by the physician assessed at baseline, 3 months, and following protocol changes.	Physician refill request volume decreased approximately 60% following the intervention. The average daily refill request volume per physician decreased from 10 to 4 after initiation.

phone to request an increase in paroxetine dose that was previously effective and well tolerated at 20 mg daily.

The patient had recent weight gain and flare of depression symptoms. An increase to 30 mg results in worsening symptoms. Frustrated, she asks her community pharmacist about stopping the medication, expressing concerns that she has “built a tolerance” to it. She also noted weight gain among potential side effects listed in information provided with refills.

Outcome (a): The CP provides her with information on safe cessation for SSRI medications and recommends that she consult with her physician regarding possible alternatives. Patient discontinues her paroxetine and continues to gain weight. Her depression worsens, she develops increasing anxiety, and her symptoms begin to adversely impact her personal and professional life.

The CP is often a first point of contact for patients who have concerns about medication side effects and efficacy, and are very much

at the front-line of medication adherence. As the PCP proactively reaches out to CP, their relationship will strengthen and the CP begins to become an extension of the healthcare team. The CP begins to intuitively demonstrate to the patient through his actions that the PCP is the lead of the team and thus should be aware of and direct all healthcare decisions.

Outcome (b): The pharmacist stresses the importance of making medication changes in consultation with her PCP. The pharmacist provides the patient with instruction on safe cessation of SSRI, and strongly recommends that she schedule an appointment with her PCP to discuss concerns. The patient’s PCP notes that the patient has a long history of medication tolerance and good resolution and remission of depression symptoms. Weight gain is a recent development. The PCP discovers the patient has had fatigue that was attributed to depression symptoms and attributed to lack of effectiveness of SSRI. TSH reveals undiagnosed hypothyroidism.

Principle 3: Whole Person Orientation

Vignette 3: A 32-year-old female presents to pharmacy to fill oral glucocorticoid prescription from minor care for exacerbation of asthma previously well controlled on PRN albuterol, which is also refilled. The pharmacy technician notes the patient is short of breath at the counter and notifies the pharmacist.

Outcome (a): The pharmacist dispenses requested medications and recommends the patient schedule an appointment with her PCP. The patient reports that a follow-up appointment is scheduled later in the month. The patient presents a week later to the emergency department with worsening SOB and is admitted overnight for status asthmaticus.

Patient care can occasionally become fragmented as patient diagnoses are dealt with in isolation by the disparate elements of the healthcare system. Hospitals and specialists deal primarily with presenting issues, and may only

Table 5. Collaborative Practice Agreement Restrictions¹⁷

State	CPA Restrictions
Alabama	Not allowed
Delaware	Not allowed
Illinois	Not allowed
Maine	Pharmacist must have additional training in the scope of practice (i.e., board certification, residence or CE training certificate) ²³
Minnesota	Pharmacist may manage and modify but not initiate
Nevada	Hospitals
New Hampshire	Hospital, long-term care hospice, ambulatory clinics for emergency contraception
New Mexico	With special certification only
New York	Teaching hospitals only
Ohio	Modify or discontinue only, if retail. If hospital, per hospital procedure
Oklahoma	Not allowed
Rhode Island	Pharmacist may manage and modify but not initiate
South Carolina	Not allowed

consider other existing diagnoses to the extent that they intersect with that presenting issue. Integrating these disparate elements of care is often left to the PCP. However, the PCP must rely on the communication from the various actors to make complete and informed decisions. These data are often delayed, which may result in otherwise avoidable adverse outcomes. Through PCP and CP collaboration, protocols that emphasize medication reconciliation, especially during noted transitions of care can be implemented so that the results are communicated with the PCP in a timely fashion. This ensures that the PCP receives the necessary health care information to treat the patient in a timely and comprehensive manner.

Outcome (b): Pharmacist asks the patient if she has had any recent changes to medications. The patient reports recent start of propranolol prescribed by her neurologist for migraine. The medication was filled at a pharmacy near the neurologist's office, located in another city

due to lack of local neurology consult. Appointment with PCP was to follow up on migraine care.

Noting that propranolol can aggravate asthma symptoms, the pharmacist contacts the PCP to notify him of the medication interaction and minor care visit with oral glucocorticoid prescription. The PCP advises the pharmacist to recommend that the patient discontinue propranolol and schedule close follow-up with her PCP to discuss alternative migraine treatment and asthma exacerbation. The patient's SOB resolves and the PCP works with neurology to develop alternative migraine management plan.

Principle 4: Coordinated and/or Integrated Care

Vignette 4: An 85-year-old with CHF, diabetes, and chronic pain left rehab facility against medical advice with a treatment plan summary and a week's supply of medications, but no discharge orders. Her family took the paperwork to the local pharmacy for clarification.

Outcome (a): The pharmacist reviews the paperwork and

recommends that family set up a follow-up appointment with the patient's PCP. Shortly after, the patient falls walking to the bathroom. She is admitted with hip fracture for surgical intervention.

Through ongoing positive collaboration, CPs will recognize PCPs as central to the PCMH and will proactively update PCPs when changes come into the CP system from other aspects of the care network.

Outcome (b): The pharmacist stresses the importance of making an appointment with the PCP as soon as possible to avoid a disruption in care. The pharmacist asks for permission to send treatment summary plan directly to the PCP and a note explaining that patient and family had no copy of discharge orders. The pharmacist offers to help the family schedule an appointment with the PCP. The PCP orders home health services to conduct a home evaluation. Home health recommends a bedside commode due to observed weakness, instability of gait, and difficulty with transfer.

Principle 5: Quality and Safety

Vignette 5: A 74-year-old diabetic with arthritis, taking metformin, aspirin, benazepril, acetaminophen, tramadol, omeprazole, and losartatin presents to a PCP for care. Urinary microalbumin identifies proteinuria, and A1C comes back at 8.2%. The patient reveals that he does not always remember to take his medications. He avoids doses some mornings fearing doubled medication dose. Recently widowed, he previously relied on his wife to remind him about medications. Diabetic control has worsened since the death of his spouse. Due to dexterity limitations stemming from arthritis, alternative strategies are discussed prior to consideration of basal insulin.

Outcome (a): The physician arranges a meeting with patient, his son and daughter-in-law. Extensive education is provided to the patient and family on the goals of diabetes management. Medication list is

reconciled and the family is educated on which medications and treatment goals for respective disease states. Patient and family express understanding. Family members agree to provide support for better adherence. Patient continues to miss medication doses. A1C increases over time to 10.7%, GFR falls to 37, and ophthalmology initiates treatment for proliferative diabetic retinopathy. Neuropathy develops and results in some falls. Deterioration in function at home eventually results in placement in assisted living facility.

Mutual recognition between PCPs and CPs that they are both increasingly being held accountable to distinct but related measures can serve as motivation for working together and as a healthcare team. For example, CP reimbursement, and in-network/out-of-network rating can be influenced by their performance on certain medication safety and adherence standards. One such standard is the percent of a particular population that has met the designated adherence expectation for their cholesterol or diabetes medications. The corresponding PCP measures are the percentage of their patient population with at goal lipids or A1Cs.

Outcome (b): The PCP calls the local community pharmacist and inquires about support services to encourage better medication adherence. Patient transfers prescriptions to community pharmacy to take advantage of their medbox program. Three months after starting the medbox program patient's A1C is decreased to 7.0.

Principle 6: Enhanced Access

Vignette 6: WL presented to the pharmacy panicked when he realized he was completely out of and had no refill remaining on his clonidine for which he had been stable on for years. It was a holiday weekend and WL was worried that the physician wouldn't be available to approve the refill and that maybe he would have to go without.

Outcome (a): The pharmacist was

not able to reach the PCP and provided the patient with a 3 days' supply of medications to get him through the holiday weekend. The patient was unable to arrange transportation following the holiday weekend and within 48 hours was admitted to the hospital with acute hypertensive crisis.

CP hours are often extended, with some pharmacies being open 24 hours and/or all year round. CPs again could serve a vital role in enhancing and augmenting contact between patients and PCPs. Utilizing the CPA laws that vary by state, PCPs can initiate protocols to ensure a continuity of care by leveraging the extended access CPs provide.

Outcome (b): The pharmacist explained to the patient that his particular PCP and her pharmacy had established a mutual relationship so that as an extension of the healthcare team, and under the PCPs protocol she was authorized to provide a 1-month refill of maintenance medications to ensure a continuation of care. The pharmacist gathered information from the patient to document to the PCP the reason for the refill and transmitted it along with a request for additional refills to the provider. The patient was able to pick up his month supply of medications that day and the PCP refilled the medication pursuant to the pharmacist's refill the following week.

Principle 7: Payment

This principle of the PCMH model does not lend itself to case vignettes, but rather is the incentive that must be created to make the alternate outcomes of the vignettes presented above possible. In every case, it can be seen that the PCMH model represents a higher standard of outreach and communication than is commonly seen in the current environment of healthcare in our country. The only way that we can reasonably expect physicians, pharmacists, hospitals, and other healthcare providers to engage in

a more demanding cooperative healthcare delivery model is to provide some means of reimbursement that reflects the additional work involved to create and maintain the protocols and infrastructure that will make these improvements possible and sustainable.

The incentives provided through PQRS, EHR incentive programs, and the potential of bonus reimbursement through the VBPM or its likely successor MIPS, all represent valuable steps in the right direction. In addition, Medicare has also been offering primary care incentive payments for the past several years to qualified providers. The introduction of the chronic care management (CCM) program that provides a billable reimbursement for services rendered in care management for qualified patients outside of traditional patient encounters could be seen as another piece of an evolving constellation of small incentives provided mostly through CMS to encourage PCPs to engage in this additional outreach. Many PCPs, however, may view these programs as long overdue acknowledgment of unrecognized and unreimbursed work that they have been performing all along.

Other alternative care delivery models also target systemic improvements in efficiency and effectiveness of healthcare delivery that can be achieved by following the principles of the PCMH model. Some of these are more focused on the cost-savings side of the healthcare reform equation for their reimbursement structure, however, rather than presenting any up-front or immediate incentive for participation. The ACO incentive program relies on a primary care practice recruiting a wide segment of healthcare system service providers in a collaborative care delivery structure in order to achieve a lower cost of care for patients throughout the established health

care network. Any savings demonstrated are shared as an incentive payment across the organization.

The incentive programs and bonuses to reimbursement described above are representative, not comprehensive, and many other similar programs can be identified. However, most of these programs are currently available on a national level only through CMS, and are not widely carried over into the payment structures of private insurance carriers. This limits the potential benefit to PCP practices, and thus reduces the potential incentive for participation. The changes required to adopt PCMH practice principles are most efficiently implemented across a medical practice. It is not only impractical, but likely counterproductive to try to institute a PCMH practice approach to isolated segments of a practice's patient population based on with which insurer they participate.

In 2012, the comprehensive primary care (CPC) initiative program was announced by CMS that specifically incorporated private insurances in the development of the demonstration project. The CPC initiative provides a combination of per-patient monthly care management payments with shared savings incentives to practices who provide patient care and services in a manner that is consistent with the PCMH model. These incentives are offered through both CMS and participating private payers. This program, while ongoing, is limited to a small number of selected markets. Scheduled to be completed in 2016, the likelihood of such a program becoming widely implemented will presumably be subject to the analysis of outcomes according to standardized quality metrics.²⁴

The primary issue with all of these disparate programs is that they are fundamentally limited and fragmented in their approach. It could be said that the variety

of programs present options for incentives to practices adopting PCMH principles. The difficulty presented by this, however, is that EHR systems must often tailor their software solutions for quality metric reporting and data analysis to the requirements of a specific program, with costs for development of these software tools being passed on to practices. Practices in turn must sometimes make changes to workflow to adapt to the requirements of implemented software solutions. If practices attempt to participate in more than one program, or as they are forced to rather than face reimbursement penalties from programs like PQRS and the EHR incentive payment program, unnecessary duplication of workflow accommodation for redundant software solutions becomes an issue. A more unified approach would simplify implementation of the PCMH model for practices just beginning their transformation process, reduce frustration for practices who are already making efforts to participate in the programs that already exist, and overall increase the potential positive impact of available incentives.

Summary

Healthcare reform and the regulatory pressures that accompany it can seem overwhelming and unachievable if PCPs are unprepared to tackle these complex goals. PCPs, especially those planning to remain independent of larger organizations, must educate themselves and embrace protocols that meet the various requirements placed on them by reform efforts.

The PCMH model provides the framework necessary to succeed during this transition. This model empowers the PCP to leverage various aspects of healthcare delivery, including technology and healthcare partners such as community pharmacy providers. Building a practice on the PCMH principles serves as a framework for the PCP to take a

leadership role, embrace healthcare reform and ensure that improved quality and patient satisfaction are achieved. In this manuscript, we outlined potential collaborative efforts between PCPs and CPs and how this partnership can improve patient care. Readers should be encouraged to identify and develop partnerships with other aspects of the healthcare network, both traditional and non-traditional. Work still needs to be done to ensure that a fair and appropriate payment structure is in place that rewards physicians for these efforts while simultaneously increasing the value and economic stability of our healthcare delivery system.

References

1. IHI Triple Aim Initiative. Available at: <http://www.ihio.org/engage/initiatives/tripleaim/pages/default.aspx>. Accessed August 17, 2015.
2. Pharmacists in Primary Care Practices and Clinics. Available at: <http://www.aacp.org/advocacy/policy/Statements/Documents/Pharmacists%20in%20PCP%20and%20clinics.pdf>. Accessed August 17, 2015.
3. Healthcare Effectiveness Data and Information Set. Available at: https://en.wikipedia.org/wiki/Healthcare_Effectiveness_Data_and_Information_Set. Accessed August 17, 2015.
4. The Patient-Centered Medical Home: Strategies to Put Patients at the Center of Primary Care 2011. Available at: <https://pcmh.ahrq.gov/sites/default/files/attachments/Strategies%20to%20Put%20Patients%20at%20the%20Center%20of%20Primary%20Care.pdf>. Accessed October 3, 2015.
5. EHR Incentives & Certifications: Meaningful Use & Objectives. Available at: <https://www.healthit.gov/providers-professionals/meaningful-use-definition-objectives>. Accessed September 29, 2015.
6. Value Based Payment-Modifier. Available at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/valuebased-paymentmodifier.html>. Accessed August 17, 2015.
7. Medicare Sustainable Growth Rate. Available at: https://en.wikipedia.org/wiki/Medicare_Sustainable_Growth_Rate. Accessed October 3, 2015.
8. Proposed policy, payment, and quality provisions changes to the Medicare Physician Fee Schedule for Calendar Year 2016. Available at: <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2015-Fact-sheets-items/2015-07-08.html>. Accessed October 3, 2015.

9. Cliparts.co. Available at: <http://cliparts.co/clipart/1876>. Accessed September 29, 2015.
10. Health Reform and the Decline of Physician Private Practice: A White Paper Examining the Effects of The Patient Protection and Affordable Care Act On Physician Practices in the United States 2010. Available at: http://www.physiciansfoundation.org/uploads/default/Health_Reform_and_the_Decline_of_Physician_Private_Practice.pdf. Accessed September 1, 2015.
11. Ewing M. The patient-centered medical home solution to the cost-quality conundrum. *J Healthc Manag* 2013;58:258-266.
12. Joint Principles of the Patient-Centered Medical Home. 2007. Available at: http://www.aafp.org/dam/AAFP/documents/practice_management/pcmh/initiatives/PCMHJoint.pdf. Accessed August 1, 2015.
13. Nigro SC, Garwood CL, Berlie H, et al. Clinical pharmacists as key members of the patient-centered medical home: An opinion statement of the Ambulatory Care Practice and Research Network of the American College of Clinical Pharmacy. *Pharmacotherapy* 2014;34:96-108.
14. Choe HM, Farris KB, Stevenson JG, et al. Patient-centered medical home: Developing, expanding, and sustaining a role for pharmacists. *Am J Health Syst Pharm* 2012;69:1063-1071.
15. Kozminski M, Busby R, McGivney MS, et al. Pharmacist integration into the medical home: Qualitative analysis. *J Am Pharm Assoc* (2003) 2011;51:173-183.
16. Greene J. In reform era, retail clinics become part of the healthcare delivery system. 2013. Available at: <http://www.modernhealthcare.com/article/20131209/INFO/312099991>. Accessed September 1, 2015.
17. National Association of Boards of Pharmacy. Survey of Pharmacy Law - 2014.104-110.
18. Gums TH, Carter BL, Milavetz G, et al. Physician-pharmacist collaborative management of asthma in primary care. *Pharmacotherapy* 2014;34:1033-1042.
19. Farland MZ, Byrd DC, McFarland MS, et al. Pharmacist-physician collaboration for diabetes care: The diabetes initiative program. *Ann Pharmacother* 2013;47:781-789.
20. Howard-Thompson A, Farland MZ, Byrd DC, et al. Pharmacist-physician collaboration for diabetes care: Cardiovascular outcomes. *Ann Pharmacother* 2013;47:1471-1477.
21. Carter BL, Ardery G, Dawson JD, et al. Physician and pharmacist collaboration to improve blood pressure control. *Arch Intern Med* 2009;169:1996-2002.
22. Nguyen M, Zare M. Impact of a Clinical Pharmacist-Managed Medication Refill Clinic. *J Prim Care Community Health* 2015.
23. Pharmacist Clinician Certification. 2008. Available at: <http://www.rld.state.nm.us/uploads/files/PC%20Log%20Instructions.pdf>. Accessed August 23, 2015.
24. Comprehensive Primary Care Initiative Select 2015. Available at: <http://innovation.cms.gov/initiatives/Comprehensive-Primary-Care-Initiative/>. Accessed October 3, 2015.

CME Questions

1. Which of the following includes three of the seven joint principles of the patient centered medical home?
 - a. Quality and safety, holistic care integration, enhanced access
 - b. Enhanced access, quality and safety, timely access to care
 - c. Whole person orientation, physician directed care, payment
 - d. Timely access to care, quality and safety, whole person orientation
2. Which of the below is the accepted definition of “quality and safety” according to the joint principles of the patient centered medical home?
 - a. Risk prevention and stratification are key to safety and quality is determined by balancing patient satisfaction with patient outcomes.
 - b. By actively educating patients and their families and seeking feedback from them in combination with evidence-based clinical guidelines and decision-support tools, PCMH practices develop and advocate for treatment goals defined by this cooperative care planning process.
 - c. Patient safety concerns are actively sought out to identify areas of greatest risk and patient goals are proactively evaluated to determine best quality for each individual in the patient centered model of care.
 - d. To provide responsible advocacy for and education of patients and the public in all health-related matters and preserve and promote quality cost-effective healthcare.

3. Which state has restrictions in place for pharmacist collaborative practice?
 - a. Delaware
 - b. Washington
 - c. Montana
 - d. Hawaii
4. Which of the following statements is correct?
 - a. In the PCMH model, a PCP leads a care team that is dedicated to improving the patient care experience by offering a wide array of specialty and ancillary services at one convenient place of care.
 - b. The Consumer Assessment of Healthcare Providers and Systems (CAHPS) program uses standardized surveys to measure patient satisfaction with the quality and delivery of their healthcare across a broad range of components of the healthcare delivery system, from insurance payers to provider offices.
 - c. The Value Based Payment adjusts payments from CMS to physician practices, beginning with large groups of 50 or more in 2015 and ultimately affecting all physician payments by 2019.
 - d. With the passage of the Medicare Accountability and Chip Reauthorization Act (MACRA) in 2015, the Value Modifier system is to be replaced in 2017, along with PQRS itself and the EHR incentive programs, with a yet-to-be-defined program called the Merit-Based Initiative Payment System (MIPS).
5. Which of the following does *not* reflect an established method to address “enhanced access”?
 - a. Extended office hours
 - b. Enhanced communication options such as patient portal
 - c. Assuring facility access according to standards consistent with the Americans with Disabilities Act (ADA)
 - d. Open scheduling models

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PRIMARY CARE REPORTS™ (ISSN 1040-2497) is published monthly by AHC Media LLC, One Atlanta Plaza, 950 East Paces Ferry Road NE, Suite 2850, Atlanta, GA 30326. Telephone: (800) 688-2421 or (404) 262-7436.

Executive Editor: Leslie Coplin
Associate Managing Editor:
Jonathan Springston
Editorial Director: Lee Landenberger

GST Registration No.: R128870672

Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices.

POSTMASTER: Send address changes to **Primary Care Reports**, P.O. Box 550669, Atlanta, GA 30355.

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