Cardiovascular Perspective

Cardiology and Accountable Care

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Cardiovascular disease is the leading cause of death in the United States and accounts for ≈17% of national health expenditures and 30% of Medicare spending. Among physician groups and professional societies, cardiologists have been among those leading efforts to create evidence-based guidelines and to measure quality of care. In the post-health reform era, national efforts have expanded beyond quality to include innovative delivery models, such as the patient-centered medical home (PCMH), the medical neighborhood, and accountable care organizations (ACOs). This next generation of care models and the payment strategies that support them incentivize efficiency, patient-centeredness, and care coordination with an emphasis on primary care. We propose strategies for cardiologists to create collaborative opportunities within these new models drawing from examples from around the country within the context of a framework developed by the American College of Physicians. Pursuing these approaches or others along similar lines will enable cardiologists to lead and to be active participants in shaping delivery system transformation.

These innovative delivery models share similar features. The PCMH is a model of care that emphasizes additional support for primary care providers within a patient-centered team, whereas a medical neighborhood represents a broader collection of primary care doctors, specialists such as cardiologists, hospitals, and other stakeholders within a region that seek to reduce fragmented care by sharing accountability. The ACO, too, is a broader care delivery arrangement, but in this case, groups of providers are accountable for the quality, cost, and overall care of a particular population, typically defined by the payer. In the Medicare Shared Savings Program (MSSP), an ACO model for Medicare beneficiaries, the ACO can capture shared savings if it reduces its healthcare expenditures and meets certain quality performance standards, nearly half of which are related to cardiovascular disease. Within the ACO, the cardiologist can be identified through claims information to screen cardiology referrals for urgency, offer guidance to generalists about consultation or testing appropriateness, or request additional diagnostic testing as part of a pre-visit workup. University of California, San Francisco (UCSF) and San Francisco General Hospital developed and implemented an eReferral system, which gave PCPs from 26 city-funded and independent clinics in San Francisco easier access to specialists based at San Francisco General Hospital. They found that there were remarkable improvements in wait times for specialty appointments. For example, the median wait time for a routine rheumatology appointment decreased from 126 to 29 days. PCPs also gave the eReferral system overwhelmingly positive reviews with ≈70% noting an improvement in patient care and 90% reporting easier referral tracking.

The second interaction highlighted by the American College of Physician and the form we are all most familiar with, the formal consultation, would include a cardiologist’s evaluation of a patient in real time. Although this generally relates to traditional face-to-face office visits, it could also use innovative technologies such as telemedicine to virtually bring the cardiologist and patient together. While the patient and PCP are in the office, the cardiologist could do a consultation via videoconference. This dramatically increases the potential geographic reach for specialty services. In addition to the patient interview, data can be collected and transmitted to the cardiologist’s office via Bluetooth enabled medical devices, such as amplified stethoscopes and handheld EKG devices. Telemedicine, videoconferencing, store and forward, and home monitoring, all have the potential to impact on the quality and cost of care while broadening access. University of Pittsburgh Medical Center (UPMC) is currently using telehealth services in several areas of patient care such as dermatology and believes it can positively impact specialties.

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including cardiology. Telemedicine has created cost savings for UPMC in the form of fewer admissions and better provider efficiency.\(^7\) Alternatively, the PCP can seek a curbside cardiology consultation. At Massachusetts General Hospital, a cardiology e-consult program was piloted where cardiologists electronically reviewed a patient’s data and images and were able to offer recommendations without having to see the patients in clinic.\(^8\) The primary care provider then gave the recommendations to the patient. Cardiologists were paid for their time via a fee-for-service model. Of the 67 e-consults performed, the cardiologist advised further diagnostic testing in \(\approx50\%\), and medication changes were made in 12%. All 27 referring providers who filled out the survey found the e-consults beneficial. Of the 30 patients surveyed, 100% were very or somewhat satisfied with the experience and \(\approx97\%\) were very or somewhat satisfied with their understanding of the recommendations. This type of provider-to-provider interaction has also been shown to trim costs. As an example, the US Department of Defense conducted a project called the Pacific Asynchronous Telehealth Program (PATH) where providers submitted patient information and data along with a consultation question to the PATH system.\(^9\) A case manager would review the information and forward it to the appropriate pediatric specialist. Approximately 90% of the teleconsultations originated from outpatient clinics, and 60% of the cases no longer required additional specialty care after the telehealth consult. Provider-to-provider communication led to a change in diagnosis/treatment plan in 74% of cases. In this cohort of \(\approx1000\) cases, PATH saved the military as much as \$750,000 per year.

The formal consultation stage could also take the form of evaluation within specialty observation units and outpatient infusion centers. Certain cardiac conditions may be too complex or require services not able to be delivered in a typical ambulatory environment. These observation and infusion units can provide a venue for patients to receive accelerated evaluation and inpatient-like treatment directed by cardiology staff without necessarily requiring an actual hospital admission. For example, a patient with congestive heart failure who present to an outpatient clinic volume overloaded may be directed to the emergency room. Johns Hopkins Hospital has a multidisciplinary heart failure infusion clinic that enables the cardiologist and PCP to delineate each provider’s responsibility in the patient’s care to ensure ongoing care continuity. For example, the primary care provider and cardiologist can both manage a patient’s cardiac disease and risk factors, such as hypertension and dyslipidemia. Or the cardiologist can assume total care of a patient’s cardiac disease while the PCP is in charge of other medical problems. As appropriate, the cardiologist and PCP can communicate updates on managements via phone calls, e-mails, and other forms of electronic communication. Because of their patients’ concerns about care coordination between primary care providers and specialists, The Family Care Network, a family medicine practice in Washington State, established a service agreement with a local cardiology group focused on comanagement.\(^12\) Components of the agreement included role delineation such as who prescribes specific medications and who is the point of contact for certain issues. They also agreed on ensuring that there was bidirectional access to patient data. Comanagement can impact care across the continuum including in the community, in the acute care environment, and in post-acute or skilled nursing facilities (SNFs). Within SNFs, the number of Medicare patients admitted postdischarge is steadily climbing,\(^13\) and a large percentage of them are older patients that have sustained a myocardial infarction and underwent coronary artery bypass surgery (CABG).\(^14\) Generalists are typically responsible for patient care, but there can be an important role for cardiologists to play in management. Cardiologists from Johns Hopkins Bayview Medical Center are helping to manage patients with heart failure discharged from the hospital to nearby SNFs. The goal is for SNF patients with heart failure to be monitored closely, especially in the early postdischarge stage. The cardiologists are reimbursed directly by the SNFs.

It is essential that payment mechanisms incentivize these types of interactions between primary and specialty care that are both patient-centered and allow for care in the right place at the right time. Under the current structure, the MSSP continues to pay ACO providers for services rendered to Medicare beneficiaries. The Centers for Medicare & Medicaid Services (CMS) allows organizations to choose either a shared savings (no risk) model or shared savings and losses model, and nearly all entities to date have elected to pursue the former. The ACO may be able to share in savings if quality performance targets are achieved and the cost of care is reduced versus benchmark calculations. Shared savings can be reinvested in infrastructure, such as for telemedicine or to support cardiologists’ participation in eReferrals, curbside consultation, or to support other provider incentives. Health and Human Services recently announced that Medicare plans to have 30% of Medicare payments linked to quality or value through alternative payment models such as ACOs by the end of 2016, and 50% of payments to these models by the end of 2018, which will lead to a dramatically increased prevalence of these care delivery arrangements.\(^15\) There are hundreds of commercial insurance ACOs throughout the country that are increasingly aligning payment and incentives with high-value care and seek to reduce variability along these lines. Although
relative value unit–based incentive models have typically been
the norm, how an individual cardiology practice may choose
to structure its compensation models to further support high-
quality care and related activities could be a powerful tool to
motivate behavior change moving forward.

Bundled payment models could also incentivize these types of
interactions between primary care providers and cardiolo-
gists. The CMS Bundled Payments for Care Improvement
initiative (BPCI) proposed several models of care that linked
payments for services provided to Medicare beneficiaries
during a defined clinical episode. Under the BPCI, there are 48
clinical conditions that are eligible to receive bundled pay-
ments. Examples include hospital and physician services for
an implantable cardioverter-defibrillator or hospital and sup-
port services associated with the management of a patient
with congestive heart failure. A bundled payment would be
automatically triggered by a patient with an eligible episode
care in a participating facility. The Medicare Participating
Heart Bypass Center Demonstration of 1998 showed that an
all-inclusive bundled payment arrangement for CABG saved
$42.3 million, or ≈10% of expected spending, on CABG sur-
gery at the 7 participating hospitals over a 5-year period.

In the private sector, payers and health systems are apply-
ing bundled payments to cover acute medical conditions, such
as acute myocardial infarction, chronic conditions such as
heart failure, and procedures such as coronary revasculariza-
tion. The goal was to improve quality and decrease expendi-
tures on potentially avoidable complications. When Geisinger
Health System’s bundled payment program, ProvenCare, was
created, the insurance company paid a flat fee to Geisinger
for nonemergency CABG surgeries. The flat fee covered
the preoperative evaluation, hospital and professional fees,
as well as complications within 90 days of the procedure.
ProvenCare reduced average length of stay for CABG by 16%
from 6.3 days in the conventional care group to 5.3 days in
the ProvenCare group. Mean hospital charges also decreased
by ≈5%. The change in payment was coupled with a pay-for-
performance system that gave salaried doctors bonuses for
following 40 best practices. Adherence to the 40 best prac-
tices was 100% within just 3 months compared with 59% at
program initiation. ProvenCare has now expanded to include
angioplasty, cataract surgery, and hip replacement.

PROMETHEUS (Provider Payment Reform for Outcomes,
Margins, Evidence, Transparency, Hassle Reduction,
Excellence, Understandability, and Sustainability) is one of
the several bundled payment pilot projects being evaluated
nationally. Sponsored by organizations including the
Commonwealth Fund and the Robert Wood Johnson
Foundation and managed by the Healthcare Incentives
Improvement Institute, PROMETHEUS is being tested to
determine the feasibility of bundled payments in real-world
conditions. One of the first PROMETHEUS participants,
Employers’ Coalition on Health (ECOH), in Rockford, IL,
offers an example of how savings are produced for the payer
and how it can be distributed between payers and providers.
ECOH represents the collective purchasing power for a group
of employers who joined together to sponsor employer health
benefit plans. At the beginning of the bundled payment pro-
gram pilot, ECOH convinced the area’s 3 major healthcare
providers to participate, including SwedishAmerican Health
System, Order of Saint Francis Saint Anthony Medical Center,
and Rockford Health System. Pilot participants decided to
include chronic medical conditions in their bundle, specifi-
cally diabetes mellitus, coronary artery disease, and hyper-
tension. If potentially avoidable complications were reduced
by 6% in each of these 3 categories at the end of the first live
year of the pilot and the health system achieved 100% on their
quality scorecard, ECOH and the health systems would share
the cost savings 50/50. However, if the health system only
scored 90% on the quality scorecard, for example, the health
system would be eligible to receive 90% of half of the sav-
ing. ECOH would determine whether the remaining funds
would go to the health system or if it would be rolled over
into the following year. ECOH is still in the process of using
the PROMETHEUS model to implement bundled payments.

Interactions between PCPs and specialists within medical
neighborhoods currently must occur within existing insurer
payment models, typically a fee-for-service model. In the
future, as cardiologists and primary care providers become
increasingly comfortable with managing risk, payment can
be structured as alternative payment models where financial
incentives are aligned for accountable care. One example
of this is Blue Cross Blue Shield of Massachusetts alterna-
tive quality contract. Launched in 2009, the alternative qual-
ity contract is a 2-sided contract that gives provider groups
an annual budget for meeting their patients’ healthcare needs
and bonuses for meeting quality goals. An October 2014
study showed that spending was lower and quality higher in
Massachusetts alternative quality contract enrollees from 2009
savings of 6.8%, 8.8%, 9.1%, and 5.8% by the end of 2012. A
collaborative approach would then need to be sought within
the entity for distributing any such savings by a fair and trans-
parent process among stakeholders, including cardiologists.

For select patients, an alternative approach to the tradi-
tional PCMH model would be a PCMH-Cardiology model
(PCMH-C) highlighting the cardiologist as the quarterback
working in concert with the primary care and other provid-
ers. Under limited circumstances for appropriate patients,
this model could improve the delivery of cardiovascular care
while reducing overall unnecessary resource utilization. The
PCMH-C is most analogous to the patient-centered specialty
practice concept developed by the National Committee for
Quality Assurance (NCQA), the purpose of which is to high-
light specialty practices that have taken steps to improve com-
munication and care coordination for patients and can serve as
a medical home or part of a medical neighborhood. In a well-
integrated cardiology practice, it may be constructive for the
cardiologist to be the initial point of contact for patients for
whom their cardiac condition is the driver for much of their
health utilization. For example, heart transplant recipients or
patients with complex coronary atherosclerotic disease may
benefit from the cardiologist playing a more central role in the
care team. Because primary care doctors may be less comfort-
able with certain advanced specialty disease processes, they
may recommend the patient seek emergency room or inpatient
care in circumstances where the specialty provider may have
been more comfortable in managing in an outpatient setting
based on their knowledge of the patient or the condition. This may lead to reductions in unnecessary testing and hospital admissions. In contrast with a traditional PCMH model, the PCMH-C model would likely require more intensive cardiologist real time evaluation and involvement. A PCMH-C could support active cardiologist comanagement of multimorbid, high-cost patients throughout the care continuum from outpatient clinics to acute rehabilitation centers and SNFs. Other nonprimary care specialties that have created PCMHs have met success. For example, a 9-physician oncology PCMH outside of Philadelphia, Consultants in Medical Oncology and Hematology (CMOH), reduced emergency visits by 68%, hospital admissions per year for patients being treated with chemotherapy by 51%, and length of stay for admitted patients by 21%. CMOH’s total economic savings was estimated to be $1 million per physician per year. It became the first oncology practice to receive NCQA recognition as a Level III PCMH because of its ACO capabilities and strong performance in quality measures.

The financial arrangement envisioned for the PCMH-C model would be per member per month plan (PMPM) in which the cardiologist or the PCMH-C would be given an agreed amount payment per month by the payer, likely supplementing existing payment, to provide additional medical and supportive care. This could help incentivize better communication between cardiologists and other physicians. Furthermore, this could lead clinicians to favor nontraditional communications on clinical matters, when possible, and improved access to care for urgent problems as opposed to sending patients directly to the emergency room or having them admitted to the hospital.

A capitation model is another financial model that could support more advanced and integrated care delivery arrangements. There are 2 primary capitation models. In global capitation or full risk capitation, an entity receives a global payment over a period of time for services ultimately rendered for a patient, including physician services, home health, laboratory tests and durable medical equipment. In a partial or blended capitation model, certain services are paid on a capitated basis, whereas others remain on a fee-for-service basis. The Pioneer ACO model is a Center for Medicare and Medicaid Innovation initiative tailored for more advanced care delivery entities that are better prepared to transition to a population-based payment model. The first 2 years are marked by a shared savings payment arrangement. By year 3, the ACO can transition to a partial capitation model. Launched in 2012, data are still being collected, and it will be important to see how revenues are distributed between providers. A possible way to distribute revenues fairly in a capitated model (such as with a bundled payment) is to split the physicians into risk and nonrisk groups. For example, the risk group in a joint replacement would be orthopedic surgery and anesthesia. In this case, a fixed fee would be calculated based on the average commercial rate or a percentage of Medicare. The risk group would be paid X% of the fixed amount, and the remaining 100-X% would be withheld and paid out based on quality performance. Nonrisk physician groups such as radiology and pathology would be reimbursed at a predetermined rate. Each health system or provider group system will have to decide the best payment structure for them to ensure that physicians, such as cardiologists, are properly compensated for effort expended and that as a system, the focus is on ensuring high-quality and efficient care in appropriate care settings.

Care delivery is increasingly focused on the primary care provider as quarterback within a network of invested stakeholders and a population health framework. To be high-value partners, cardiologists will need to consider opportunities for promoting efficiency in their interactions with both primary care providers and patients and seek to provide high-quality care in lower cost settings or through lower cost interactions, when appropriate. Opportunities include deployment of decision support tools, review of referrals or testing for appropriateness, evaluation in clinic or virtual settings, as well as the construction of cardiology-focused care teams for particular patient groups. Furthermore, cardiologists can apply an evidence-based and data-driven framework to support rapid cycle evaluation, continuous quality improvement, and dissemination of the science of care delivery. While seeking to promote optimal care arrangements for their patients, cardiologists must simultaneously work with stakeholders to ensure payment opportunities within delivery systems and payer contracts are sustainable.

It is important to note that cardiologists’ participation in innovative delivery models may be more easily adapted in highly integrated systems with information technology investments, care team support, and the incentives to coordinate care. However, all types of organizations can transform themselves. For example, the MSSP does not require being an integrated delivery system for participation, and many organizations are using it as a tool to help accelerate transformation. One benefit of the MSSP is that it provides an entry point for smaller practices or physician groups to gain experience with this type of payment model before assuming greater risks. Currently proposed modifications for the MSSP offer an opportunity to continue in the no risk model for more than one 3-year period. Whether in a large integrated health system or a smaller entity, lessons can be learned to determine whether these models are effective and should be scaled. Ultimately, cardiology teams that adapt and embrace the principles of delivery system reform will be the ones that both providers and payers will wish to include in their value-driven teams and networks.

Disclosures

None.

References


KEY WORDS: accountable care organization ■ Healthcare Reform ■ patients ■ quality of health care