The role of accountable care organizations in delivering value

Kevin O'Halloran · Andres Depalma · Vilma Joseph ·
Neil Cobelli · Alok Sharan

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Abstract The goal of Accountable Care Organizations is to improve patient outcomes while maximizing the value of the services provided. This will be achieved through the use of performance and quality measures that facilitate efficient, cost-effective, evidence-based care. By creating a network connecting primary care physicians, specialists, rehabilitation facilities and hospitals, patient care should be maximized while at the same time delivering appropriate value for those services provided. The Medicare Shared Savings Program will financially reward ACOs that meet performance standards while at the same time lowering costs. The orthopaedic surgeon can only benefit by understanding how to participate in and negotiate the complexities of these organizations.

Keywords Accountable care organization · ACO · CMS · Centers for medicaid and medicare services · Affordable care act · Healthcare reform · Pay for performance

K. O'Halloran · N. Cobelli · A. Sharan (✉)
Department of Orthopaedic Surgery, Montefiore Medical Center,
The University Hospital for Albert Einstein College of Medicine,
1250 Waters Place,
Bronx, NY 10461, USA
e-mail: asharan@montefiore.org

K. O'Halloran
e-mail: KOHALLO@montefiore.org

N. Cobelli
e-mail: NCOBELLI@montefiore.org

A. Depalma
UMDNJ—Robert Wood Johnson Medical School,
675 Hoes Lane,
Piscataway, NJ 08854, USA
e-mail: andres.depalma@gmail.com

V. Joseph
Department of Anesthesiology, Montefiore Medical Center,
111 East 210th Street,
Bronx, NY 10467-2401, USA
e-mail: VJOSEPH@montefiore.org

Introduction

As the health care system prepares to undergo a fundamental shift in the financing and delivery of care, it is important for the orthopaedic surgeon to understand the opportunities and challenges of the new system. The financing of the health care system is changing its focus towards maximizing the value of services provided while also monitoring physician accountability for those services. The establishment of Accountable Care Organizations is believed to help the effort to refocus.

The current healthcare financing system has been determined to be unsustainable. The Centers for Medicare and Medicaid Services (CMS) put total health spending in 2010 at \$2.6 trillion. The CMS estimates spending will drastically increase to \$4.6 trillion by 2020. This translates to per capita health care spending increasing from \$8,327 in 2010 to \$13,708 in 2020 [1].

Understanding the severity of this expected increase, policy makers have been attempting to reduce healthcare costs while expanding access to our healthcare system. The Patient Protection and Affordable Care Act of 2010 (ACA) mandated the establishment of a shared savings program that entails accountability for a specific patient population, coordinates inpatient and outpatient Medicare services (Parts A and B), and seeks to streamline the delivery of services to enable efficiency and high quality care. The Accountable Care Organization (ACO) is one type of shared savings program established as part of the ACA [2•]. The ACO establishes shared accountability and shared savings for the physicians involved in managing a patient's care. It is being touted as the principle strategy for altering the health care cost curve while simultaneously improving the quality of care provided. According to Jay Crosson MD at the Kaiser Permanente Institute for Health Policy, ACOs may be “the last best hope the industry has before we get to the sledge hammer approach and our only choice is to start cutting everything” [1].

It is important that orthopaedic surgeons understand the structure and design of an ACO and the role that the surgeon may have within such an organization. This article will focus on exploring ACOs from the perspective of an orthopaedic surgeon and will evaluate how ACOs have been designed to deliver both value and accountability. The history and evolution of the ACO will be discussed along with a discussion on how value will be delivered by the participating physicians. Particular attention will be placed on the means by which Orthopaedic Surgeons can become involved in Accountable Care Organizations, their responsibilities within these organizations, and opportunities for joining them.

Section 1. History and definition of an ACO

According to the Congressional Budget Office (CBO), the share of Gross Domestic Product (GDP) federal spending on major mandatory health care programs and Social Security will increase from 10 % currently to roughly 16 % in 25 years. This is due to both the rising cost of health care as well as the aging of the population. This is in comparison to the cost of all federal programs and activities, which averaged 18.5 % of GDP over the last 40 years. For health care spending to be redirected onto a sustainable trajectory, the Government will have to either make draconian cuts in these programs, cut other federal programs, increase federal revenues or a combination thereof [3]. According to the WHO the United States' public and private health care expenditures totaled 15.2 % of GDP in 2008. In 2008 this equated to over 7,100 dollars per year per resident of the country [4]. Public and private policy makers have experimented for some time with strategies to rein in costs in the health care system without compromising care.

Recent attempts to control medicare and private insurance spending

In 1992 the Medicare Volume Performance Standards (MVPS) was created by Congress to enact expenditure targets for Medicare fees in an attempt to control the rate of increase of physician services fees [5]. This program, however, failed to decrease fees and the Congress replaced it with the Sustainable Growth Rate Program (SGR) in 1998. The SGR, unlike the MVPS attempted to tie the growth in fees paid to physicians to the growth in gross domestic product (GDP). The SGR was met with criticism by many physicians as the fee schedule does not adequately take into account the measure of annual increase in the cost of medical practices (evaluated by the Medicare Economic Index) [6]. The SGR reports on Medicare physician services annually and compares the

actual expenditures in the fee-based system to the targeted expenditures. Expenditures are estimated before each calendar year using a formula that includes the estimated change in GDP, Medicare beneficiaries, fees for physician services, and the estimated percentage change in expenditures due to changes in law or regulations [7]. If the actual expenditures exceed the targeted expenditures, the fees are reduced for the following year. The legislation was designed to make the reductions cumulative if they are not enacted each year. Fee reduction last occurred in 2002 when a 5.4 % decrease in physician reimbursement was implemented [6]. Since 2002 the SGR formula has continued to call for annual decreases in physician reimbursement; however, due to Congressional legislation the reductions in reimbursement have not been implemented. This has resulted in the current situation whereby a colossal fee reduction of over 27 % would be required to account for the many years of deferred reductions by the Congress [8, 9, 10, 11]. Simultaneous to the failure of the SGRs to control costs, Health Maintenance Organizations (HMOs) were established in the early 1980s. While achieving modest cost savings, HMOs engendered backlash from patients and politicians. Cost increases were limited by HMOs by employing primary care physicians as gatekeepers and enacting copays, complex referral processes, and preauthorizations that in turn reduced patient access to care, especially specialty care [12]. Payers also attempted to negotiate capitated payment models with physicians. Physicians therefore had the incentive to limit interventions for cost savings alone. Quality of care was not generally assessed in this model.

The advent of the accountable care organization (ACO)

Policymakers have conceptualized a system of shared risk and shared responsibility between the insurer (the CMS) and physicians. This is central to the idea of an ACO. An ACO is loosely defined as any group of providers and suppliers of services that collaborate to provide coordinated care for Medicare Fee-For-Service patients. In late 2011, the CMS finalized the rules for the new ACOs. According to the CMS, ACOs will incentivize physicians to collaborate across health care platforms in order to efficiently and appropriately treat their patients. The CMS created the Medicare Shared Savings Program (MSSP) as the supervisory organization for all fee-for-service ACOs. The MSSP will financially reward those ACOs that meet performance standards on quality of care while simultaneously lowering costs [13]. The goal of an ACO is to coordinate patient care among physicians, hospitals and other entities in order that fragmented care, waste, and overutilization will be reduced. The physician and patient would make care decisions together. The ACO is a patient-

centered organization that removes the need for a gatekeeper. ACOs do not incentivize the withholding of care. Rather, by allowing access to optimal and timely care, outcomes will be enhanced thereby improving performance and ostensibly reducing costs. The ACO employs performance and quality measures that facilitate efficient, cost-effective, evidence-based care. When costs are reduced through more efficient care, the ACO providers share in a portion of the savings. The existence of quality measures aligning the interests of patients and physicians is a major difference between HMOs and ACOs [9•]. ACOs have been compared to the logical next step in managed care with a focus on population health, chronic disease states and clinical data exchange [1]. From 2005 to 2009 the CMS sponsored the Physician Group Practice Demonstration (PGP) to study ACOs. Ten ACOs were established through a competitive bidding process. During the five-year demonstration project, the ten sites fulfilled the majority of the quality goals originally outlined. A combined savings of \$38.7 million was achieved largely through the monitoring of chronic diseases [9•]. Many private insurers have encouraged the establishment of ACO type models. Advocate Physician Partners, a private group of physicians in Illinois, contracted with Blue Cross/Blue Shield of Illinois and successfully integrated a large pool of private physicians into a successful accountable care type organization in the year prior to the official start of the ACO by CMS [14••].

In late 2011, CMS finalized the rules for the new ACOs. Participation in the ACO is limited to those organizations meeting eligibility requirements set forth by the CMS. The ACO must serve at least 5,000 Medicare patients and agree to participate in the program for three years. Fee-For-Service payments will be the same under an ACO as under the current system. The CMS will determine a metric for each ACO annually, which is based on an estimate of the total cost of Medicare (Parts A and B) services that would have been consumed by Medicare beneficiaries. If the cost of providing care to the ACO enrollees is less than the estimate, the organization is entitled to a percentage of the savings. Participants of the Shared Savings Program can receive up to 50 % of savings [13].

Prior to receiving any savings from the program, the ACO must demonstrate that it met the quality performance standards for that particular year. Thirty-three measures (Table 1) were chosen to assess the ACO. Seven measures pertain to the patient/physician experience, six to care coordination and patient safety, eight for preventive health, and 12 measures pertain to at risk populations with diabetes, hypertension, ischemic vascular disease, heart failure or coronary artery disease. The program is set up to be progressive over the course of three years. Following year one the ACO will share in any savings as long as it reports on all 33 performance measures. The second year it must report on 8 measures and must meet performance goals in 25 of the

measures. The third year it must report on 1 measure and meet performance goals on 32 measures [13].

Section 2. Delivering value through the accountable care organization

As mentioned previously, the US healthcare system is plagued by high costs but also struggles with a lack of coordinated care, a lack of standardized practice patterns, and outcome results that are inferior to the vast majority of industrialized countries [4]. The CMS' current payment system is based on a fee-for-service model. This model is thought to favor the increased use of medical resources while failing to prevent redundancy and fragmentation in the healthcare system. Additionally, the vast majority of expenditures in the medical field are for a small subset of patients with chronic diseases. Fragmented care for those with chronic diseases leads to a significant increase in medical expenditures and a waste of human and material resources.

The advent of the ACO heralds a sea change in the CMS' strategy for purchasing health care, from that of an uninvolved payer to one seeking a return on investment. In "ACOs, A Primer for Orthopaedists," the quest for value is touted by Dr. Bozic et al. as fostering "an era of value-based purchasing" [2••]. According to Baldwin in his paper "ACO Barriers," the Medicare ACOs "signal the effort by Medicare to shift its payment methodologies away from volume and productivity toward performance and outcomes, the cornerstones of accountable care" [1].

The strategy for delivering value to the purchaser (i.e. CMS) is to facilitate a seamless care experience for the patient. In the realm of the orthopaedic surgeon this may be seen as a transition from the primary care physician (PCP) to the orthopaedic surgeon for a more complex musculoskeletal complaint than the PCP is capable of managing. Through communication between the PCP and the orthopaedic surgeon it is possible for the appropriate imaging studies to be ordered and for the referral to occur only once the patient would benefit from specialty care. This will avoid both duplication of care and too early or too late a referral to the specialist. The goal of cost savings, while improving patient outcomes, necessitates improved communication between PCPs and specialists. This communication can be direct and can also be facilitated through an improved electronic medical record.

The definition of an ACO was purposely broadened to allow the maximum number of organizations to qualify for the new program. Among the groups that can form ACOs are fully integrated healthcare systems, multispecialty group practices, physician/hospital organizations and independent physician associations.

The ACO model is not limited to Medicare beneficiaries. It can also be implemented with a private payer, an action that is already occurring nationwide. The following example not only demonstrates a successful ACO like organization coupled to a private payer, but also a program that has successfully integrated numerous small groups and solo practitioners into the private-payer-type ACO.

Advocate Physician Partners (partnership) is affiliated with Advocate Health Care (Advocate), a ten-hospital system in north central Illinois. The partnership is composed of 800 hospital staff physicians coupled with 2700 independent physicians. Many of these 2700 physicians are in solo and small group practices. The partnership and the ten hospitals care for approximately one million patients in both capitated and fee-for-service plans. A governance structure is in place that allows the independent physicians and the hospital system to have an equal voice in making changes to the system. The board, composed of a majority of practicing physicians, negotiates with payers for all the physicians both independent and on staff. This saves the solo practitioners considerable time and provides them with increased bargaining power. As part of the partnership, information technology (IT) services are provided to the independent physicians allowing them access to the Advocate system, which would have been unaffordable for many of the independent MDs. Strict requirements are in place for physicians in the partnership and those who do not comply are regularly removed from the organization. Similar to the Medicare ACOs, performance measures have been established that allow for metrics to evaluate individual physicians and groups/hospitals in the partnership. These performance measures number 116 currently and are designed to focus physicians on the population health and the group's performance as well as increasing personal accountability. Through negotiations with the private insurers 10 % of the billings are redistributed to physicians in the partnership based on meeting the performance measures. These pay-for-performance incentives numbered in the order of \$38 million in 2010. The cost savings come from such varied sources as increased use of generic medications, electronic submission of claims and improved monitoring of chronic diseases like diabetes and heart failure [14••]. Early numbers suggest better monitoring of various chronic disorders, particularly blood pressure, in the Advocate system compared to national averages. In the future, the shared savings of an official ACO could be distributed in a similar manner and the partnership has signed a contract for a commercial ACO model with Blue Cross Blue Shield, the largest private insurer in Illinois [14••].

There remain sundry challenges to the successful adoption of the ACO. There are numerous examples of public/private initiatives that have been established to reduce health care costs; it remains to be seen whether the ACO model will have any measure of success where others have failed.

Many questions still need to be answered. Are the savings generated or potentially generated by an ACO sufficient enough to bring about a change in physician behavior? Will enough providers enroll in ACOs? Will the Information Technology (IT) costs preclude the adoption of ACOs? Will already overworked physicians have the time to invest in new cost-saving and care coordination strategies? Will patients with chronic health conditions be amenable to the interventions targeted at them?

Two such challenges, IT and patient compliance, deserve special attention

Information technology will be required for any successful ACO. In his paper "ACO Barriers" Baldwin states: "Information technology will be needed to plug the many gaps in the industry that stand to impede accountable care, particularly if care is being coordinated across inpatient, outpatient and home care settings" [1]. The worst communication gap is that between the office setting and the inpatient setting; however, further gaps exist between provider and payer and between specialists in outpatient settings. Key aspects of IT are essential for the ACO including: 1) an electronic health record that is accessible in multiple care settings, 2) data analytics tools to monitor physician's interventions and at-risk patients and 3) potentially smart personal health care records that would be jointly maintained by physicians and the patients themselves. This would shift the paradigm of electronic health records from site-specific programs to multi-setting programs with enhanced accessibility over many levels of care. Such IT investments are very costly. One 14-hospital system in California (St. Joseph's) has 400 IT staff and an annual IT budget of \$80 million [1].

Patient behavior is also quite variable as it relates to ACOs. Patients in the current system are accustomed to receiving the referrals they request at the time they request them. If a PCP elects to delay a referral after consultation with that orthopaedic surgeon, will the patient attempt to go outside the ACO to obtain the referral by seeking another PCP or a referral from the ER? Will there be rules to keep patients in an ACO and would such rules be accepted by patients? [15] Modifying patient behavior is critical to any successful effort to reduce health care costs. Chronic conditions, many of which are related to poor lifestyle choices, account for 69 % of health care costs [16]. These costs can only be reduced through effecting behavioral change among the chronically ill and implementing prevention efforts to avoid additional chronic conditions [17]. However, changing behavior among Americans at risk for and with chronic health conditions is no simple task. In Dr. Sagar et al's paper "Health Care Costs Absorb Economic Growth" he states: "A huge share of patients,

especially those needing the most care, will simply never be able to investigate and grapple with detailed efficacy and cost information. Hearing and vision problems, cognitive difficulties, language barriers, and low literacy are obstacles for a great many Americans.” [16] These patients will be less likely to respond to attempts at intervention.

For orthopaedic surgeons, the management of these chronic conditions largely falls within the purview of the PCP. However, two very morbid chronic conditions regularly come to the attention of the orthopaedic surgeon: osteoporosis and chronic falls. Managing chronic conditions such as osteoporosis, as advocated by the American Orthopaedic Association’s (AOA) Own the Bone program, and implementing falls prevention programs, may reduce the amount of fragility fractures suffered by our patients. Hip fractures and other fragility fractures are frequently suffered by those with chronic health conditions. Of the patients over 50 years old who suffer a hip fracture, 24 % of them will die in the year following their fracture [18]. 20 % of previously ambulatory patients will require long-term care afterward [18]. A reduction in the incidence of fragility fractures would lead to tremendous cost savings for Medicare in addition to preventing significant suffering among our patients.

Section 3. Examples of ACOs and Orthopaedic opportunities

The final rules published by the CMS called for 33 measures for reporting/pay for performance [13]. From an orthopaedic perspective, four of these measures are truly pertinent: inpatient medication reconciliation upon outpatient visits, BMI screening and interventions, smoking intervention, and falls screening. Other measures pertaining to the patient-physician experience can be applicable to any physician that sees patients in clinic. The remaining measures apply more specifically to the realm of the PCP. Highlighted, in Table 1, are measures that relate to orthopaedic surgeons.

Solo practitioners make up 20 % of orthopaedic surgeons [2•]. It will be more difficult for solo practitioners to access the financial and quality benefits an ACO may bring. Nonetheless, as the Advocate Physician Partners in Illinois demonstrated, integrating solo and small group practices into a successful ACO is possible. However, the spread of ACOs may lead to fewer solo practitioners and further hospital employment of physicians and surgeons [2•].

Orthopaedic opportunities and challenges

Increasing the amount of patients being discharged home after elective joint procedures and after trauma will result

Table 1 A list of the 33 quality performance measures ACOs must meet. 13 of the 33 CMS vetted measures apply partially or directly to orthopaedic surgeons

#	Measure
1 ^a	Timely Care, Appointments, and Information
2 ^a	How Well Your Doctors Communicate
3 ^a	Patients’ Rating of Doctor
4 ^a	Access to Specialists
5 ^a	Health Promotion and Education
6 ^a	Shared Decision Making
7 ^a	Health Status/Functional Status
8 ^a	Risk-Standardized, All Condition Readmission
9	Ambulatory Sensitive Conditions Admission: COPD or Asthma
10	Ambulatory Sensitive Conditions Admission: CHF
11	Percent of PCPs who Qualify for an EHR Program Incentive Payment
12 ^a	Medication Reconciliation Following Inpatient Discharge
13 ^a	Fall Risk Screening
14	Influenza Immunization
15	Pneumococcal Vaccination
16 ^a	Adult Weight Screening and Follow-up
17 ^a	Tobacco Use Assessment and Cessation Intervention
18	Depression Screening
19	Colorectal Cancer Screening
20	Mammography Screening
21	Hypertension Screening
22	Diabetes Composite (All or Nothing): HbA1c <8 %
23	Diabetes Composite (All or Nothing): LDL <100
24	Diabetes Composite (All or Nothing): Blood Pressure <140/90
25 ^a	Diabetes Composite (All or Nothing): Tobacco Non Use
26	Diabetes Composite (All or Nothing): Aspirin use
27	Diabetes Mellitus HbA1c >9 % (Poor Control)
28	High Blood Pressure Control
29	Ischemic Vascular Disease: Complete Lipid Panel and LDL Control <100
30	Ischemic Vascular Disease: Aspirin or Other Antithrombotic Use
31	Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction
32	CAD Composite (All or Nothing): Drug Therapy for Lowering LDL Cholesterol
33	CAD Composite (All or Nothing): Angiotensin Converting Enzyme or Angiotensin Receptor Blocker Therapy for Patients with CAD and Diabetes or Left Ventricular Systolic Dysfunction

^a Indicates measures that apply to Orthopaedic Surgeons

CAD: Coronary Artery Disease; COPD: Chronic Obstructive Pulmonary Disease; PCP: Primary Care Physician; HER: Electronic Health Record

Source 13

in savings for the ACO. As approximately 13 % of hospital admissions are for orthopaedic issues, the surgeons, physical therapists, social workers and home health workers can

collaborate to increase the number of patients that can be safely discharged home after orthopaedic procedures. This will result in decreased admissions to rehabilitation facilities and skilled nursing facilities and will decrease the amount CMS pays for orthopaedic patients. Orthopaedic examples from integrated care systems may be able to be applied on a wider scale in ACOs. Kaiser Permanente has developed a plan whereby after three months total joint patients do not typically have office visits, but rather correspond with their surgeons via electronic means. Geisinger Clinic in Pennsylvania has established a Proven Care methodology process where a specific intervention, such as joint replacement, is largely automated with computerized order sets and a road map for the patient's stay and post-operative management. This road map has resulted in a decreased length of stay, decreased infections and DVTs, improved patient satisfaction and overall cost savings. Recently Geisinger began a similar model for hip fractures. Thirty-three measures are employed to ensure optimal pre-operative and post-operative interventions for up to one year after fracture. Once the protocol is instituted the orders are automatically generated and may be altered if the surgeon feels the patient would benefit from a different approach. These protocols are based on a group effort with a "physician-leader" involved in design [2••].

Ensuring all fragility fractures and all patients presenting to an orthopaedic office are evaluated for and if necessary treated for osteoporosis and falls prevention are two ways that an orthopaedic surgeon in an ACO can prove their worth to the organization while simultaneously enhancing the health of their patients. As previously mentioned, the AOA's Own the Bone program is designed to improve the follow up of patients with osteoporosis and is being implemented at many sites nationwide. In preliminary studies, the program has led to large increases in the numbers of patients' treated [18].

Conclusion

As of June 28th 2012 the Supreme Court of the United States upheld the constitutionality of the Patient Protection and Affordable Care Act. The landmark decision cements the Accountable Care Organization concept and ethos into American Medicine. Expectations of being able to demonstrate value commensurate with the significant expenditures in all fields of healthcare will become the new norm. It behooves the orthopaedic surgeon to be able to negotiate this new value and outcome-oriented system so as to ensure both optimal care for their patients and to cement orthopaedic surgeons at the forefront of bone related health care in the decades to come. As summarized by Baldwin in Health Data Management, "the industry will move payments to an

accountable model, with more payment for value and outcomes, and not volume" [1].

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