Recommendations for Responding to Changes in Reimbursement Policy

JOHN BYRNES, MD, AND JOE FIFER

SUMMARY • With profound changes in reimbursement policy on the horizon, organizations are preparing a variety of responses to ensure long-term success. Most are anticipating decreases in reimbursement rates from most payers. Whether due to nonpayment for hospital-acquired complications and infections, reductions due to high readmission rates, or a move toward value-based purchasing and bundled payment models, the impact is predicted to be substantial. Because of these sweeping changes, organizations must quickly prepare a thoughtful, effective response to ensure their financial stability.

At the heart of these global changes in reimbursement, including those in the healthcare reform legislation, is a drive toward integration, the formation of integrated delivery systems in response to changing financial incentives. However, the new integrated systems must be not just an assemblage of the required components, but a true functional integration in which patients experience a seamless continuum of care that is highly coordinated, efficient, effective, and accessible.

In this article, we’ll address changes in reimbursement and recommended responses from three perspectives. First, we offer a three-pronged approach for managing general decreases in reimbursement. Second, we highlight strategies for managing nonpayment for readmissions, focusing on the demonstration project in the state of Michigan, MI STAAR. And finally, we review managing patient care in an environment of bundled payment, including the interventions at the center of the PROMETHEUS demonstration project.

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Three Tactics to Manage Decreasing Reimbursement

Tactics to manage decreased reimbursement fall into two categories: (1) those that are familiar and well tested, and (2) those that have been tested and proven but are not in widespread use in the nation’s hospitals. This article focuses on the second group of interventions and refers readers to the extensive literature on approaches to efficiency, throughput, and patient flow, including standard utilization-management techniques.

(For a discussion on breakthrough strategies for improving patient flow, please see the summer 2004 issue of Frontiers of Health Services Management.)

The strategies we discuss include (1) the use of evidence-based medicine and the standardization of clinical practice, (2) an accountable and effective medical leadership infrastructure, and (3) a robust quality-reporting system.

Evidence-Based Medicine and Standardization of Clinical Practice

Because most of the traditional approaches to cost containment are poorly received by physicians, a more physician-friendly approach is required—one that by its nature engages physicians, nurses, and clinical staff in efforts to decrease costs. We’ve found that implementation of evidence-based medicine (EBM) and standardization of clinical practice is highly effective in this situation. This strategy also has a valuable byproduct: reduced cost of care.

Evidence-based medicine simply means that physician order sets and nursing protocols contain the most up-to-date treatments that are shown (in the medical and nursing literature) to produce the best patient outcomes—a better quality of life, improved functional status, reduced complications, a shorter length of stay, and lower mortality rates. All of these outcomes lower the cost of care. EBM and standardized order sets also decrease costs in two other ways. First, they reduce variation in treatment patterns between physicians. Second, they involve using the most cost-effective drugs and treatment choices from a standardized formulary.

At the core of EBM is its focus on reducing complication rates for high-volume, high-cost medical conditions and surgical procedures. This provides multimillion-dollar opportunities for the average-sized hospital. For example, with the appropriate infrastructure, leadership, and tools, our organization has seen over $25 million in cost savings using this approach.

Accountable, Effective Medical Leadership Infrastructure

An accountable and effective medical leadership structure is required to manage quality and costs in an environment of healthcare reform, reduced reimbursement rates, and continued cost control. In the average hospital, physicians control 80 percent of resource utilization (and resource waste) and 80 percent of patient outcomes (including costly complications) through the decisions they make and the orders they write. If hospitals are to effectively partner with frontline physicians, with the goal of influencing their practice patterns and adoption of EBM as outlined above, an organized physician leadership infrastructure is required.

In many hospitals around the country, physician leadership is absent or under-
funded. Is it seen as too expensive? Possibly, but properly structured, an organized medical leadership infrastructure will deliver a positive return on investment. The ideal medical infrastructure includes a chief medical officer (CMO) and the appropriate number of part-time, paid medical directors (or department chairs). If the hospital or organization is large (500 or more beds), a chief quality officer (CQO) is also justifiable.

To demonstrate the effectiveness of and support for the investment in this infrastructure at our organization, our finance department colleagues recently documented the financial return from our outcome improvement program. The program focuses on improving care in high-volume, high-cost medical conditions and surgical procedures. Several examples follow.

The Return on Investment for One Medical Director
Within our Grand Rapids Hospitals, the financial opportunity from decreased complications in colon resection is approximately $3 million. The cost of a quarter-time medical director (a colon-rectal surgeon at $150 per hour) is $76,000 annually. If the medical director leads efforts to decrease the complication rates and associated costs by a very reasonable 10 percent, or $300,000, the ROI is more than adequate.

The Return on Investment for Multiple Medical Directors in Large Service Lines
For some large service lines, several medical directors can be justified. At the Meijer Heart Center in Grand Rapids, two medical directors led efforts to improve patient outcomes in acute myocardial infarction/percutaneous intervention. Their efforts resulted in an 18 percent reduction in hematoma rates, a 44 percent decrease in coronary perforation, a 44 percent decrease in readmission rates, and a 23 percent decrease in length of stay (LOS). In aggregate, savings were approximately $1.3 million. The decrease in LOS and readmission rates was viewed as a positive outcome because of the need to create virtual capacity.

If these examples are repeated in every specialty or service line, the savings are substantial. In our organization, annualized savings using these strategies are now in excess of $25 million.

Outcomes of Medical Directors Working Across Departments
Cooperative efforts between physician leaders from different hospital departments can also create important cost savings through better coordination of care between departments. The medical directors from the cardiology service line and the emergency department led efforts to decrease door-to-intervention time in patients with ST-elevated myocardial infarction. Their efforts resulted in door-to-intervention times that are routinely within 90 minutes (95 to 100 percent month to month). The process of care was redesigned to be highly efficient and time compressed. Fewer resources are used, time in the ED has decreased, virtual capacity is created, and complications have decreased, resulting in cost savings and increased revenue. Also as the result of this coordination, the mortality rates for AMI patients from 2003 to 2009 fell from approximately 6 percent to 1.5 percent. This directly results in more lives saved—the primary reason we’re all here.

Medical Directors Contribute to Market Share and Competitive Advantage
Medical directors can also make substantial contributions to market share and
competitive advantage. The Meijer Heart Center has been designated a top 100 heart center by Thomson Reuters for nine of the last ten years. In this year’s list, only 10 hospitals have received the award nine times or more, placing the Center in the Top 10 heart centers nationally. If this achievement is properly marketed to our community, business leaders, purchasers, and referring physicians, it will create a competitive advantage in our region and increase our market share.

Are all of these positive improvements due solely to the medical directors and physician leadership? Not at all. Nursing leaders, frontline clinicians, and many other caregivers played substantial roles. But the fact that physicians control over 80 percent of clinical outcomes and resource utilization underlies the importance of investing in a strong, effective, and accountable medical leadership team.

What is meant by a “robust” quality reporting system—one that will provide the information necessary to drive the change previously described and to meet coming requirements? In the purest form, the quality system should match the reporting capabilities of the finance system—the ability to report quality performance in any part of the hospital, on any patient population, with drill-down capability service lines, nursing units, physician groups, and individual physicians.

To illustrate this point, Exhibit 1 shows a clinical dashboard for ischemic stroke.

The report contains four sections. Section One contains process measures, which represent the most important evidence-based treatments and interventions—those that are shown to improve patient outcomes, through improved mortality rates and lower complications.

Section Two contains outcome measures—the most common complications, length of stay, readmission, and mortality rates.

Sections Three and Four provide critical insight in an environment of decreasing reimbursement. In Section Three, the costs of care are reported in the traditional cost buckets (e.g., supplies, pharmacy costs). In Section Four, the cost of complications has been quantified. In this dashboard, the total savings opportunity if complications were eliminated is approximately $550,000. Interestingly it’s not uncommon for complication rates that are considered within the normal range to carry a huge cost-saving opportunity. In our experience, this has resulted in new, more aggressive targets being set for complication reductions.

These dashboards are essential to managing improvement work. They

Cooperative efforts between physician leaders from different hospital departments can also create important cost savings through better coordination of care between departments.

The Third Ingredient: A Robust Quality-Measurement and Reporting System

Given the foregoing examples, a robust quality-reporting system is required to drive broad-based outcome improvement and cost reductions. In addition, the healthcare reform legislation outlines requirements for all sectors of the healthcare system to create or expand their respective quality-measurement and reporting capabilities. This includes hospitals, physician practices, long-term care (LTC) organizations, hospice services, home health agencies, and others. From a strategic standpoint, it’s important to develop internal reporting capabilities in anticipation of coming mandates.
Exhibit 1: Clinical Dashboard for Ischemic Stroke: June 1, 2008 to May 31, 2009

<table>
<thead>
<tr>
<th>Name</th>
<th>No. of Patients</th>
<th>SH-GR</th>
<th>Varies</th>
<th>No. of Patients</th>
<th>SH-GR</th>
<th>Varies</th>
</tr>
</thead>
<tbody>
<tr>
<td>STK-1: DVT Prophylaxis</td>
<td>392</td>
<td>391</td>
<td>391</td>
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<td>391</td>
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<tr>
<td>STK-2: Discharged on Anti-Thrombotic</td>
<td>526</td>
<td>526</td>
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<td>526</td>
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<tr>
<td>STK-3: Patients with AFib Receiving Anticoagulation Therapy Within 48 Hours</td>
<td>528</td>
<td>528</td>
<td>528</td>
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<td>528</td>
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<tr>
<td>STK-4: Anti-Thrombotic Drug Process Outcome</td>
<td>510</td>
<td>510</td>
<td>510</td>
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<td>510</td>
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<tr>
<td>STK-5: Smoking Cessation/Advice/Counseling</td>
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<td>511</td>
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<td>STK-6: Lipid Profile</td>
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<td>STK-7: Dysphagia Screen</td>
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<td>STK-8: Stroke Education</td>
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<tr>
<td>STK-9: Anti-Thrombotic Drug Process Outcome</td>
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<td>STK-10: Assessed For Rehabilitation</td>
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</tr>
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Identify improvement opportunities within EBM care and opportunities to reduce complication rates. They allow the organization to prioritize improvement opportunities, not only within the condition, but also among the 50 conditions. Each measure is trended over a minimum of 24 months, which illustrates the effectiveness of improvement interventions over time.

Today, Spectrum Health System uses over 50 disease-specific dashboards. Together, they represent care delivered to over 80 percent of our inpatient population. This reporting system allows the organization to improve care to the majority of patients who come to Spectrum Health. Is this too much? If we emulate the financial system of reporting, all patient care activity will soon be included within the quality-reporting system.

Strategies to Avoid Reduced Payments to Hospitals with High Readmission Rates

The healthcare reform legislation includes provisions to reduce payments to hospitals with high readmission rates, effective in 2013. In Michigan, a statewide collaborative to reduce 30-day readmission rates was launched in August 2009. With support from the Michigan Hospital Association, the Michigan peer review organization, and the Institute for Healthcare Improvement (IHI), 15 organizations are participating in the one-year pilot program. Within Spectrum Health System, seven inpatient units (two from small hospitals, four within larger hospitals, and one long-term care unit) are participating. Collaboration with our medical group, rehab and nursing centers, visiting nurses, care managers, LTC facilities,
and outpatient services are also in place. The scope is limited to hospitalists and cardiologists and includes patients on the pilot units with congestive heart failure, diabetes, and stroke.

To effect change, four interventions were designed.

1. Assessment of post-hospital needs at admission, including standardized assessment, standardized plan of care, and intimate involvement of key family members and community support organizations. The goals are to begin planning on arrival and to have a complete plan by the time of discharge. Electronic medical record screens have also been redesigned to facilitate communication between all caregivers involved in this process.

2. Enhanced patient education and learning using teach-back methodology.

3. Improved discharge and handoff communication. This includes electronic, customized discharge instructions for patient and family, reconciliation of medications at discharge, and, most importantly, customized, real-time critical information to the next provider, the primary care physician (PCP), or the accepting facility.

4. Ensure post-hospital follow-up care via hospital staff making follow-up appointments on the patient’s behalf. This eliminates the barrier of patients trying to make timely appointments and often failing due to physician office processes. Timing of the follow-up appointment is based on the patient’s risk of readmission. High-risk patients receive face-to-face follow-up with their PCP or specialist within 48 hours. Moderate-risk patients receive a phone call from a provider within 48 hours and a physician visit within 5 days of discharge.

A partnership with our largest cardiology group, West Michigan Heart, has been particularly rewarding. Likewise, our post-acute facilities are implementing similar tactics to reduce readmissions (including admissions back to the acute care setting) following a post-acute stay.

Readmission dashboards have been designed for each patient population within the pilot. Readmissions are also tracked on our disease- and procedure-specific dashboards (over 30 in number) across the institution. The Continuing Care Division has instituted a robust measurement system to track readmissions and ED visits post-discharge. All dashboards are updated monthly and shared with appropriate clinical leadership.

**Bundled Payment, Episodes of Care, Prometheus, and Accountable Care Organizations**

Because of the national discussion on bundled payment, episodes of care, and accountable care organizations (ACOs), this section will review a roadmap for managing clinical care under a bundled payment methodology. Bundled payment systems (also known as case rates or episode-based payment) make a single payment for all services related to an acute care procedure or chronic medical condition. For example, an episode of care for a chronic condition would include all of the care for a 12-month period following diagnosis. An acute care episode would include inpatient care, associated pre-hospitalization services, and post-
discharge care, including facility and professional services. By design, the basic goal of bundled payment is to move from a fragmented system of care to a more integrated, coordinated, and accountable one.

At SHS, we’re one of four national pilot sites participating in the three-year PROMETHEUS demonstration project. The PROMETHEUS model in particular encourages (1) collaboration and coordination of physicians and hospitals and (2) reductions in possibly avoidable complications (PACs) and the associated costs. At its most basic, the PROMETHEUS payment system will reward professionals for the quality and efficiency of services provided, not the quantity.

Because a bundled payment environment is reminiscent of the days of integrated delivery systems and capitation, albeit with new elements, many of the population-management strategies used in the 1990s can provide insight into the patient-management systems necessary under bundled payment. Let’s consider a classic episode of care model.

The episode of care (EOC) model has three components: (1) assessment of the disease load in the patient population (this is necessary to formulate informed case rates), (2) care management strategies to coordinate patient experiences, and (3) chronic disease management that ensures patients receive the most up-to-date treatment according to the current evidence base.

**Care Management and Coordination**

A goal of the episode of care model is to coordinate care across the entire continuum, combining preventive, outpatient, inpatient, and post-acute care into a tightly coordinated experience for all patients. Care managers proactively facilitate patient access to services; coordinate care between physicians, especially between primary care and specialist consultations; and manage patient reminder systems for testing and follow-up.

**Facilitating Access to Care**

Nurse telephone triage and centralized scheduling ensure that patients can call a single number to access care. Utilizing triage protocols, nurses direct patients to the right level of care and the appropriate site of care based on their presentation. This system ensures efficient and timely access to a qualified professional who can coordinate the patient’s care from one point of entry. In its most basic form, nurse telephone triage will direct patients to appropriate care for their problem and current condition.

**Support for Medium- and High-Risk Patients**

For patients identified as having a medium to high risk of future emergency room visits and hospital admissions, inbound and outbound telemanagement systems provide effective support. Classic telemanagement models have focused on patients with congestive heart failure and prevention of preterm deliveries. In both, the nurse care manager will proactively call the patient at regularly scheduled intervals to check his or her current status, coordinate any care needs that have surfaced since his or her last visit, obtain physician telephone consultations if indicated, and modify treatment regimens within certain parameters under a physician’s guidance. The inbound function ensures that at-risk patients have immediate access to a nurse specialist. This is especially important if a patient feels that his or her health status is deteriorating.

**Patient Education and Training**

Because protocols and treatments are standardized across the system, patient
education can also be standardized across the entire continuum of care. Care management nurses play a pivotal role in educating patients over time. This facilitates more informed patients who can become better partners with their clinical staff in caring for themselves. Every point of care is an opportunity to reinforce patient learning and often includes booklets, DVDs, on-demand video, and specialized trainers, such as certified diabetes educators.

**Chronic Disease Management**

At its core, bundled payment is designed to force integration and efficiency through care coordination (between and within sites of care). And with the added requirement to prevent potential complications, it also introduces the need for a classic episode of care model, in which all the care a patient receives within a 12-month period is based on a firm foundation of EBM with an emphasis on chronic disease management protocols and supporting systems of care as previously described.

Let’s consider an example from the disease management literature of the 1990s—the pediatric asthma episode of care from Lovelace Health System.

Pediatric asthma is one of the most common reasons for inpatient admissions in the pediatric age group. In a well-coordinated system of care, outpatient treatment and education are maximized with the express purpose of preventing the need for hospitalizations and emergency room and urgent care visits. In most circumstances, a hospitalization is considered a failure of outpatient care.

The EOC program for pediatric asthma patients aged 2 to 19 years encompassed all services provided to a patient across the continuum of care, including prevention, access to care, treatment, and follow-up, including primary and subspecialty care.

**Interventions: Pediatric Episode of Care Program**

The critical components or interventions of the Pediatric EOC included the following:

1. EBM guidelines were incorporated into physician order sets and nurse triage protocols. Forms designed to streamline documentation also embodied the guidelines by including medication algorithms. Asthma treatment guidelines were printed in formulary booklets carried by providers.

2. A pediatric asthma clinic (PAC) was established to provide in-depth patient evaluations and patient and parent education and to assist high-risk patients with intensive support services. The PAC staff also facilitated PCP and specialist communication, ensuring prompt feedback to PCPs and a coordinated plan of care.

3. In an additional effort to identify pediatric asthma patients whose asthma was uncontrolled, patients were automatically referred to PAC following an admission or multiple visits to the emergency department, urgent care, or PCP offices.

**Results Over One and Three Years**

The results from this organized care process or episode of care during a one-year and a three-year period were as follows.

At the one-year follow-up, improvement in clinical symptoms included the following:

- Patients with frequent symptoms dropped from 62 percent to 14 percent.
Patients with daily symptoms deceased from 23 percent to 6 percent.

Patients in optimal control increased from 3 percent to 50 percent.

At three years, the patient population experienced

- a 40 percent decrease in hospital admissions, to a low of 1.3 admissions per 1,000 plan members;
- a 42 percent decrease in hospital days;
- a 79 percent reduction in ED visits; and
- a 60 percent decrease in acute outpatient visits requiring nebulizer treatment.

Changes in utilization included

- a 54 percent decrease in inpatient care;
- a 137 percent increase in outpatient care, mostly due to PAC use;
- a 10 percent increase in outpatient pharmacy charges;
- a 4 percent average increase in total costs during the first year; and
- because PAC interventions and utilization substantially decreased in year two and beyond, (because the managed population has been screened and educated and treatment has been optimized), an estimated savings of 30 to 50 percent was expected during this time.

Because we were operating in a fully capitated payment environment, the revenue impact was irrelevant at the time, but efficiency, low and appropriate costs, and high quality were rewarded. A similar incentive alignment is present in the bundled payment model. Although caregivers worry that a “perverse incentive” is present, we found that patient outcomes and satisfaction were substantially higher.

Will the hospital see a drop in revenue that is not recoverable? Most agree that hospital volume will decrease under this model. However, it’s anticipated that the volume impact will be offset by increased patient volume due to the aging of the patient population. It’s also important to remember that under some bundled payment models, lower volume is offset by a higher potential margin per patient.

If bundled payment becomes a reality, accessible, coordinated, efficient care utilizing chronic disease management programs for the majority of high-volume, high-cost chronic conditions will be a must. At Lovelace, 18 chronic disease management programs were in operation at the end of their three-year demonstration project.