Throughout the healthcare system, a shift in how healthcare is paid for is well underway. Fee-for-service, which rewards providers for the volume of tests and procedures done, is being replaced by payments linked to quality – that is, do the treatments make a difference for the patient, and is the cost justified?

Linking reimbursement to quality of care is called value-based purchasing. The goal is to reward effective care, discourage ineffective care, and ultimately bring down costs while improving patient health. Many EMS experts believe it’s only a matter of time before the movement toward value-based purchasing impacts EMS. Here’s a quick guide to understanding value-based purchasing and what it may mean for EMS.

What is value-based purchasing?
According to the Agency for Healthcare Research and Quality (AHRQ), value-based purchasing, sometimes referred to as “pay for performance,” is rooted in the idea that anyone who pays for healthcare should “hold the providers of healthcare accountable for both cost and quality of care.” Healthcare payers can include patients, employers, insurers or the government.

How is the value of healthcare determined?
In a single word? Data. Hospitals, physicians, insurers, the Centers for Medicare and Medicaid Services (CMS) and others are collecting all sorts of information on the patient experience, patient outcomes and the costs associated with medical care.

Put simply, \text{Value} = \frac{\text{Quality}}{\text{Cost}}

In the real world, determining what to measure can be complicated. Decisions have to be made on whether to reward process (such as stroke patients receiving clot-busting drugs within a certain time period) or outcomes (how well patients actually fare). Despite the complexity, research has proven that for some costly, serious conditions such as heart attack, heart failure, pneumonia and stroke, patients are more likely to fare better when hospitals take certain steps to manage the condition. Quality measures are based on what the data has shown actually works.

How is value-based purchasing used in healthcare today?
CMS, which administers Medicare and Medicaid, is a big driver of this trend. Hospitals that bill Medicare or Medicaid are required to report a long list of clinical process of care, patient experience of care and patient outcome benchmarks. Those that meet expectations can receive bonuses; those that fail face reimbursement penalties.

Examples of performance benchmarks include how quickly heart attack patients receive percutaneous coronary intervention (PCI), and whether all patients with heart failure receive discharge instructions so they can manage the condition at home. One of the most notable outcome measurements is the 30-day readmission rate. Hospitals with excessive readmissions are penalized.

Under CMS’s Value-Based Purchasing Program, for example, hospitals pool a portion of their Medicare payments. Hospitals that perform higher than average on clinical performance measures and patient satisfaction measures, such as how well doctors and nurses communicate, pain management and overall impressions of the hospital, receive a bonus paid out of the pool. Underperforming hospitals see their reimbursement lowered.

CMS is continuing to refine the performance measures, and in 2015 will add an efficiency measure. In 2015, many physicians will also have cost and quality data linked to their reimbursement.

Has value-based purchasing come to EMS?
Not yet. So far, EMS reimbursement from CMS isn’t dependent on meeting performance benchmarks; nor has EMS had to show data to healthcare payers proving that EMS response improves patients’ health. But many in EMS are certain EMS will eventually have to answer hard questions about the value of all of those ambulance transports to hospital emergency departments.

Currently, response times are the primary performance metric EMS tracks. An example of an outcome-based performance metric that some EMS agencies track is sudden cardiac arrest survival. Participating agencies in 40 communities in 25 states report the data to CARES (Cardiac Arrest Registry to Enhance Survival).

As electronic patient care reporting becomes widespread and patient data now routinely collected and shared
When will value-based purchasing come to EMS?
No one knows for sure. An oft-cited figure is that ambulance transports account for only about 1 percent of Medicare spending, so presumably it’s not high on the cost-containment priority list, compared to say, congestive heart failure patients, who account for nearly 40 percent of Medicare spending.

But there’s a growing awareness that decisions made in the field impact not just the cost of the transport, but also downstream costs in the emergency department and subsequent charges that result from the patient being taken to the hospital. This issue was highlighted in a 2013 editorial in the *Journal of the American Medical Association* (JAMA)*, one of the nation’s most influential medical journals. From 2002 to 2011, ambulance charges rose more than expected. The number of beneficiaries transported rose by 34 percent, even though the total number of beneficiaries increased by only 7 percent.

There are some indications that CMS and the wider healthcare system are paying more attention to the costs of ambulance transports.* In September 2013, the Office of Inspector General found that from 2002 to 2011, ambulance charges rose more than expected. The number of beneficiaries transported rose by 34 percent, even though the total number of beneficiaries increased by only 7 percent.

What can EMS do to ensure it’s on the right side of value-based purchasing?
In EMS, the body of literature proving effectiveness is limited. In 2009, the National EMS Advisory Council published “EMS Makes a Difference” (www.ems.gov/pdf/nemsac-dec2009.pdf) in which researchers analyzed 400 studies spanning two decades of EMS research. The report found that for specific call types including STEMI (ST-segment elevation myocardial infarction), stroke, respiratory emergencies, trauma and pediatric shock, there was some evidence that rapid EMS response can make the difference between life and death. The challenge for EMS in a value-based purchasing scenario is that those ultra-critical calls represent a small proportion of total responses.

Mobile integrated healthcare and community paramedicine (MIH-CP) are exploring ways to reduce downstream costs by using nurses to triage non-urgent 911 calls instead of sending an ambulance; by taking patients with non life-threatening conditions to alternative, less expensive sources of care such as urgent or primary care clinics; and by helping patients manage conditions at home. For more on MIH-CP, see the NAEMT video at www.naemt.org.

Many EMS agencies have data showing effectiveness in reducing 911 calls and healthcare costs associated with frequent users or system abusers. A small but growing number are reporting data showing effectiveness in reducing costly hospital readmissions for patients with chronic conditions while maintaining patient safety.

For example, a one-year pilot project involving Valley Ambulance and Regional West Medical Center in Scottsbluff, Neb. focusing on recently-discharged heart failure and pneumonia patients found only 10.8 percent of patients who received home visits from paramedics were readmitted compared to 26 percent of patients who did not receive home visits, according to an article in *Nebraska Medicine*.

McKinney Fire Department in McKinney, Texas also has data showing the effectiveness of a community paramedic program launched in June 2013. As part of that program, a hospital refers patients with chronic diseases such as diabetes, renal failure and heart failure who are at risk for readmission to fire department Paramedics for home visits. Paramedics provide services such as health education and point-of-care lab tests.

Unpublished data on 28 patients found a statistically significant reduction in 911 calls (from 7.07 visits in the six months prior to enrollment to 2.14 in the six months after enrollment); emergency department visits (8.64 visits before to 1.89 after) and admissions (3.1 before to 0.75 after), according to Medical Director Dr. Elizabeth Fagan. They have since enrolled a total of 60 patients and are seeing similar results.

Though encouraging, these statistics are only the beginning, and far more research needs to be done to build a body of evidence for both EMS emergency response and alternative EMS delivery strategies such as MIH-CP.

GLOSSARY

Accountable Care Organizations - ACOs are groups of doctors, hospitals, and other health care providers who come together to provide coordinated care and chronic disease management to a defined group of patients. The goal is to get patients the right level of care while avoiding unnecessary spending. CMS is heavily involved in ACOs, but there are also private insurers that have formed ACOs.

Bundled payments - A lump sum paid to healthcare providers to provide treatment for a given condition instead of paying for individual treatments or services. Payments are made based on the *expected* cost of treating the patient for a defined episode. Since providers assume some financial risk if the costs of providing services exceed what’s expected, the idea is to discourage unnecessary healthcare spending.

Patient-centered care - A cultural approach that takes into account the needs and concerns of the patient in the provision of healthcare.

Patient-Centered Medical Home (PCMH) - When all of a patient’s healthcare is coordinated by a single provider, usually a primary care physician, to ensure patients receive the appropriate level of care and to avoid duplication. The goal is to encourage a partnership between the patient and the PCMH to improve outcomes and reduce costs. Both ACOs and PCMH rely on value-based purchasing.