THE ECONOMIC IMPACT OF MEDICAL SCRIBES IN HOSPITALS

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In this article...

A study conducted from 2012 to 2014 evaluating the use of medical scribes in hospitals found that they save money and facilitate better physician/patient communication.

THE TYPICAL AMERICAN HOSPITAL BARELY breaks even, and many are experiencing declining margins.[1] In fact, during the past decade, the total number of hospitals and hospital beds has been steadily declining.[2]

One of the main issues is that hospitals have little to no pricing power, and the only way to generate revenue is through services provided to patients. It is therefore crucial to document every detail of a patient's diagnosis and treatment, as well as improve throughput, so that hospitals are able to admit, treat and discharge patients in a timely and cost-efficient manner.

For treating most patients, hospitals are reimbursed upon Case Mix Index (CMI). The impact of an improved CMI on a hospital's revenue can be substantial, as a change in CMI of 0.1 generally translates to either a loss or gain of approximately $4,500 per patient.

In an ideal world, the CMI accurately reflects the resource utilization of patients at a hospital. In practice, however, assigning the proper CMI is difficult as extracting these from the patient record can be very difficult. The electronic health record (EHR) was developed to facilitate accurate documentation. However, in reality this can be far from the actual situation.

A major factor cited for the difficult adoption and implementation of an EHR is resistance from physicians.[3] According to a RAND report in 2013, some aspects of the current EHRs that physicians were unhappy with included "degradation of clinical documentation" and "poor usability," among other issues.[4]

Adopting an EHR can be a daunting task. Many feel that they have been reduced to the role of a data-entry clerk, spending too much time doing "inefficient and less fulfilling work" instead of seeing patients.[3]

Physicians also feel that EHRs often interfere with face-to-face patient care, and this ultimately has an effect on a hospital's potential revenue.[5] Communication is challenging when doctors are constantly distracted by having to update or think about their patient's electronic profiles. Moreover, the constant time pressure hospitalists are under as they coordinate the care of large numbers of very ill and complicated patients is ever present and is made worse by data entry.

Just like the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), quality indicators are also linked to the value-based purchasing program. When hospitals and their customers compare outcomes on a national level with other institutions, accurate documentation is crucial to make sure accurate metrics are compared.

One solution to address all the various issues associated with the documentation process is to employ medical scribes. A medical scribe's primary responsibility is to capture and enter

highly accurate and detailed information into the EHR in real-time as the physician interacts with the patient.

Other duties of medical scribes might typically include locating information for the physician to review or researching information requested by the physician. Medical scribes-to-be usually spend up to four weeks learning clinical terminology, HPI documentation, ICD-9 and common CPT codes for their specialties, alongside compliance with Health Insurance Portability and Accountability Act (HIPAA) patient privacy mandates.

Moreover they are also trained to use the client doctor's EHR. It is important to note that medical scribe programs are specialty tailored; a medical scribe trained for a hospital's emergency department will not be as efficient and will fall short of expectations if assigned to the hospital's inpatient department without a training program that is specifically designed for this field.

It should be noted that the program used in this study was based on the experiences of an 11-year-old scribe company, and a 14-year-old hospitalist group, and not all hospitalist scribe programs can or should be expected to duplicate these results quickly.

METHODS — To determine the impact of medical scribes on a hospital's CMI, Best Practices Inpatient Care Ltd., together with Advocate Good Shepherd Hospital, Advocate Condell Medical Center and hospitalist-specific medical scribes from ScribeAmerica LLC, conducted a study in which medical scribes were assigned to doctors who worked within the adult internal medicine department starting from 2012 until 2014.

Each scribe went through a curriculum that ScribeAmerica and Best Practices jointly developed as a standard for inpatient facilities where an emphasis of workflow, productivity and accurate inpatient specific documentation was at front and center.

KEY FINDINGS — For both Advocate Good Shepherd Hospital and Advocate Condell Medical Center, the CMI values steadily increased after the introduction of medical scribes. At the end of the study, the CMIs of Good Shepherd Hospital and Condell Medical Center had increased by 0.26 and 0.28 respectively (Figure 1).

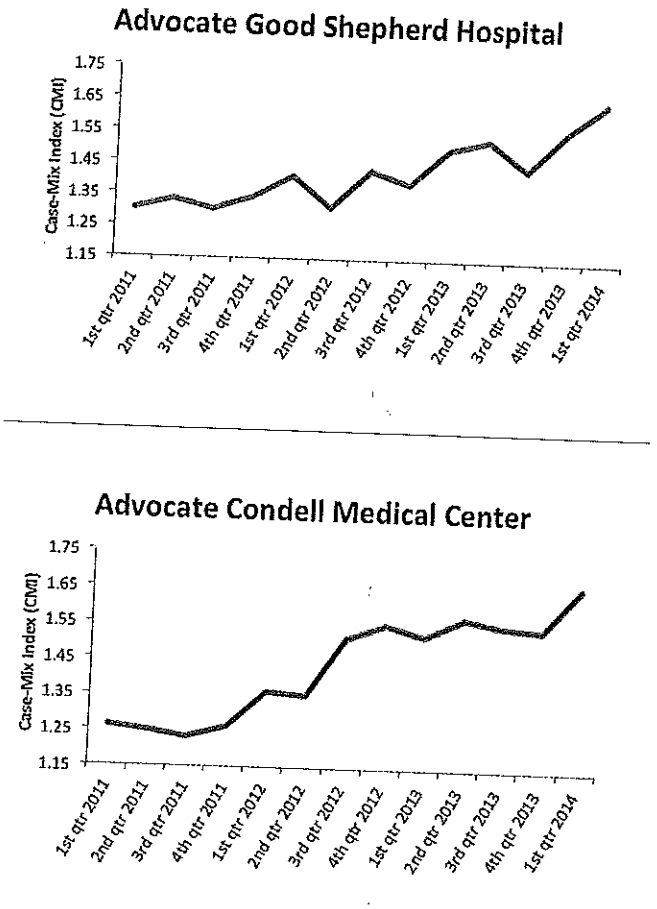
When CMI for the teams with medical scribes were compared to the whole hospital, there was a substantial improvement in CMI (Figure 2). This indicated that the increase was a direct result of the addition of medical scribes to the care team.

As length-of-stay ratios (Figure 3) for both hospitals were relatively stable across the study period and did not change after the introduction of scribes, it is reasonable to conclude that the actual severity of the patients treated at both hospitals was unchanged. These findings therefore indicate that both hospitals missed out on significant inpatient revenue due to inappropriate coding between 2011 and 2012, and recovered it with the addition of the medical scribes.

DISCUSSION — Medical scribes as well as hospitalists are historically viewed as a line item expense in the inpatient setting.

FIGURE 1

EFFECT OF MEDICAL SCRIBES ON CASE-MIX INDEX (CMI) SCORES.



The CMI was calculated for Advocate Good Shepherd Hospital (GSH) and Advocate Condell Medical Center (Condell) on a quarterly basis starting from 2011 till early 2014. The scribes were introduced on October 1, 2012 at GSH and June 7, 2012 at Condell (as indicated by arrows).

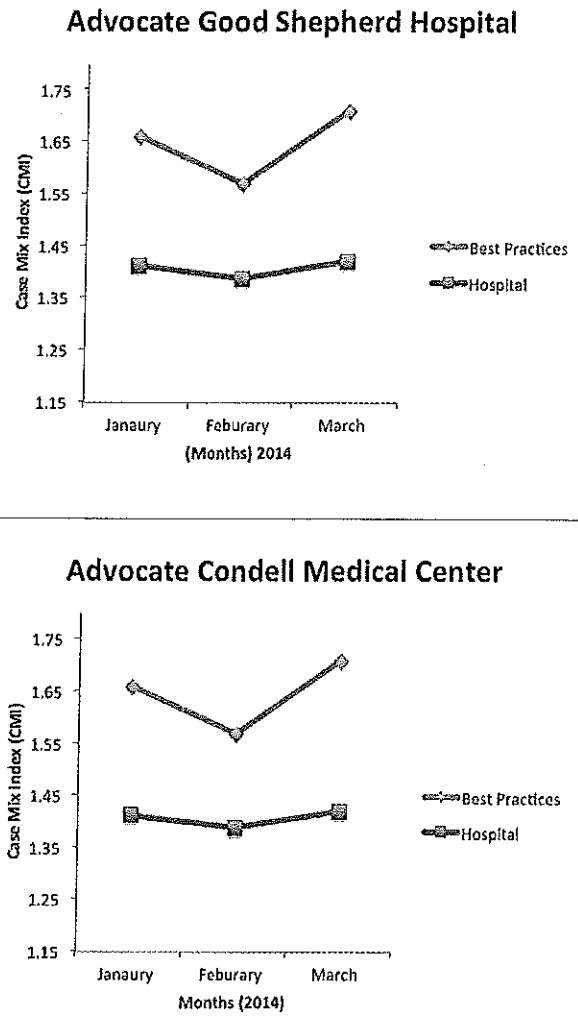
On the contrary, the data demonstrated that the introduction of medical scribes resulted in markedly improved revenues for hospitals. Since an increase of 0.1 in CMI results in an increase in revenue of approximately $4,500 per patient, at the end of this study, both hospitals gained approximately $12,000 per patient.

A doctor is a hospital's most valuable asset and instead of seeing patients, doctors are being distracted with clerical work. The increased documentation burden that hospitalists might encounter with an EHR is easily overcome by the introduction of medical scribes. Use of medical scribes will help improve a hospital's standard in documentation and also help a hospital benefit monetarily.[6]

Inpatient physicians such as those at Condell and Good Shepherd who worked with medical scribes reported that they were able to reduce the time spent on updating patients' charts by approximately 10 minutes on average.

FIGURE 2

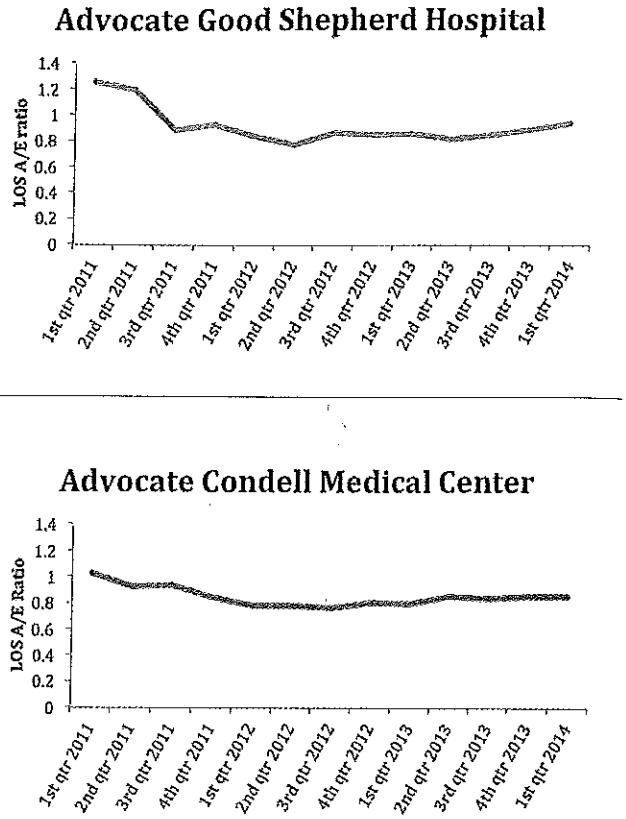
EFFECT OF MEDICAL SCRIBES ON CASE-MIX INDEX (CMI) SCORES.



The CMI was calculated for Advocate Good Shepherd Hospital (GSH) and Advocate Condell Medical Center (Condell) on a quarterly basis starting from 2011 till early 2014. The scribes were introduced on October 1, 2012 at GSH and June 7, 2012 at Condell (as indicated by arrows).

FIGURE 3

AVERAGE LENGTH OF STAY: EXPECTED LENGTH OF STAY (LOS A/E) RATIO FROM 2011-2014.



Arrows indicate when the medical scribes were introduced to the two hospitals. The patient profiles before medical scribes were introduced were similar to after the medical scribes were introduced.

This may be conservative, as it was recently published in *Today's Hospitalist* that on average, a physician at Saint Barnabas Medical Center was seeing 12 to 14 patients a day but now, after introducing medical scribes, a physician is seeing 22 to 24 patients a day resulting in reducing provider FTE's per day.[7] The same article stated that the center's billing delinquencies were reduced by 90 percent while its bottom-line revenues improved after the introduction of medical scribes.

It is not only the inpatient clinics of hospitals that are reporting an increase in physicians' productivity. There are various studies that have reported increased satisfaction and productivity of ED and outpatient physicians who worked with medical scribes.[2, 8,9]

Within the outpatient setting, a 2013 study reported that, by using medical scribes in their outpatient cardiology clinic, Allina Health physicians significantly improved their efficiency, and it resulted in revenue gains of up to $205,740.[10]

Working with medical scribes also allows physicians to communicate more with patients. Verbally detailing a patient's exam, diagnoses and treatments for the benefit of a medical scribe in the patient's presence allows the patient to understand the physician's thought processes. It is therefore unsurprising that patient satisfaction rates are reported as being higher in the presence of medical scribes.[8]

Furthermore, when every detail of a patient's care has been documented accurately, ancillary staff can take better care of the patient, increasing staff and patient satisfaction. A staff's ability to do a better job may also result in shorter lengths of stay, thus improving profitability margins.

Good documentation also helps to significantly reduce the risk of mistakes, which helps keep readmission rates low.

Moreover, with the introduction of medical scribes, discharge summaries are often more thorough and are turned over immediately instead of within 72 hours.[6]

CONCLUSION — Be it improving CMI, increasing hospital-wide productivity, staff and patient satisfaction or patient outcomes, medical scribes can have a meaningful and hugely positive impact. When millions are being spent by hospitals on EHR systems, it makes sense to invest a little bit more to gain a lot more, not only for their outpatient clinics and emergency departments but also for their inpatient clinics. ■

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