“Accurate, complete coding is essential for quality of care.” In this decade, such a statement is bold, maybe even controversial. That’s because since 1983, when Medicare made Diagnostic Related Groups (DRGs) the standard for paying for inpatient care, coding has been central to getting paid. It wasn’t always that way. In fact, the Inpatient Classification of Diseases (ICD) coding system was implemented across the globe to be exactly what it was called — a classification system.¹ The system is still used for public health and quality purposes, but given that revenue is the driving force behind coding, quality has taken a back seat.

But good coding has good downstream effects. Research has demonstrated that patients whose chronic diseases are completely coded receive better care. Provider organizations working under risk-based contracts have also been shown to improve their financial performance when their patients are more completely coded.

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—John Cuddeback, MD, Chief Medical Informatics Officer for Anceta
Finding and coding uncoded patients

The research noted on the previous page was made possible by a best-practice learning collaborative called Anceta. The Anceta Collaborative comprises a select group of provider organizations — members of the American Medical Group Association (AMGA) — who share their clinical data using a common data repository to reap the benefits of big data. They use the shared data to find evidence of best practices that they can then implement into their individual groups.

Anceta set out to understand whether their member clinics were able to identify all patients with chronic disease by simply finding their coded diagnoses. The results showed that coding identifies only about 80 percent of those patients suffering from chronic disease. Researchers were able to identify a full cohort by applying population analytics to Anceta members’ clinical data found within electronic medical records (EMRs). John Cuddeback, MD, Anceta’s chief medical informatics officer, expressed some surprise at the results of this research.

“The surprising part to me was how many significant diagnoses are missing,” Dr. Cuddeback said. “In an ambulatory setting, we haven’t needed to be very thorough to get paid. Coding traditionally has been driven by a check-off on a routing sheet. In the EMR world, things are a little more sophisticated, but not by a lot. There hasn’t been much need; you don’t get paid any more to code. The problem lists in the EMR were not getting populated any better than they were before.”

Current coded diagnoses identify only about 80% of those patients suffering from chronic disease.

The use of EMRs in the U.S. has become pervasive. As of 2014, 97 percent of hospitals and 62 percent of physician offices currently use some sort of an EMR technology. Providers primarily use EMR applications as a transactional database to document and bill for care. As such, electronic medical records typically include laboratory, pharmacy and other data that can be reviewed by sophisticated analytic engines to check for the presence of specific diagnoses.

A recent white paper published the results of this study, which found that accurate, complete coding was a significant factor in quality of care. Patients with chronic conditions but without a coded diagnosis used far less primary care but much more acute care. What’s more, once uncoded patients with chronic conditions had a coded diagnosis attached to their record, their use of outpatient services increased nearly threefold, and their clinical outcomes improved.

ACCURATE, COMPLETE CODING was a significant factor IN QUALITY OF CARE
The impact of coding on quality of care

But why?
Focusing on conditions like diabetes and hypertension — which are responsive to ambulatory care interventions — researchers found that at baseline, uncoded patients were sicker than coded patients. Almost half had evidence of two or more conditions, and many were poorly controlled. A significant number of uncoded patients were relatively complex, the data revealed, and had a high risk of future problems requiring higher levels of care.

And the sicker, uncoded patients sought the wrong kind of care. Uncoded patients used 42 percent less primary care than coded patients, while their rate of emergency and inpatient utilization was 14 percent and 19 percent higher, respectively.

Would coding those patients make a difference? Researchers found that it would. Newly coded patients showed significantly higher rates of clinical improvement. Forty-seven percent of diabetes patients with a newly coded diagnosis, for instance, improved on at least one clinical measure versus only 24 percent of those who remained uncoded.

Providers using population analytics were able to identify, accurately code and treat uncoded patients, thereby improving the health of the uncoded cohort. There was also a link between degree of improvement and how well patients were controlled to start. After coding, those who improved the most were the ones who had the most room for improvement. Better coding, it turns out, helped identify high-risk patients and enabled significant clinical impact quickly.

The research showed that newly coded patients who improved on two or more relevant clinical measures increased their use of outpatient care by 0.9 visits per year, on average. In comparison, those who experienced clinical decline increased their outpatient care by only 0.2 visits a year.

Further analysis demonstrates that uncoded patients represent lost revenue and increased costs to providers, especially to providers with patients in risk-based contracts.

Assuming that 20% of patients in risk contracts are missing the CMS Risk Adjustment to the HCC score, significant revenue is lost for each patient each month. Estimated lost revenue per year is close to $17 million for an average practice of 500,000 patients over one year.

A large group practice seeing 500,000 patients stands to lose close to $17 million each year due to uncoded patients (see figure 1; note that the average Anceta-member practice averages about 476,000 patient visits per year). The calculation...
assumes that 20 percent of such a practice’s patient mix is covered by risk-based contracts, and that about 20 percent of the patients in risk-based contracts suffer from an uncoded chronic disease. Without a coded diagnosis, those 20 percent of patients are missing the CMS risk adjustment to their HCC score, leading to millions of missing revenue.

Not only do practices with uncoded patients miss out on revenue, but also such patients cost more to treat. Since uncoded patients utilize the emergency department 14 percent more often than coded patients, and since they are admitted to the hospital 19 percent more often, they’re going to cost more. Assuming that the average daily cost of an inpatient stay or an ER visit is $2,000, the average annual cost per patient is $408 per year more for uncoded patients than for coded patients (see figure 2). With roughly 82,500 patients not fully coded in a 500,000-patient practice, uncoded patients cost an extra $33.6 million each year to treat. This should be especially concerning for provider organizations with such patients in risk-based contracts.

In an analysis of five major chronic conditions — diabetes, congestive heart failure, hypertension, dyslipidemia and coronary artery disease — between 11 and 23 percent of patients were uncoded (see figure 3). The analysis also demonstrated that more than half of all patients with these chronic conditions suffered from more than one condition. In fact, more than two-thirds of Medicare patients suffer from more than one chronic disease.6 However, while patients age 50 and above represent the vast majority of patients with chronic conditions, the highest percentage of uncoded patients with chronic conditions were between the ages of 18 and 29. Health systems may be paying less clinical attention to a group of patients that is widely thought to be both healthy and a crucial market for long-term financial viability (see figure 4).

Providers that understand the importance of fully coded patients work to identify uncoded patients, create registries for them, push the registries to their outreach programs for intervention, coordinate the care of these newly coded patients and measure the success of their interventions over time.

The impact of uncoded patients is also evident in the type of care provided. Patients who are uncoded are sicker and utilize more inpatient and Emergency Department care.
“Most Anceta-member groups start with diabetes, because it’s a big problem and a growing problem,” Dr. Cuddeback said. “It’s something that’s important for every practice. With diabetes, we can diagnose it definitively based on laboratory data or classic symptoms. And there often are best-practice care coordination and health management services that are available. If you can make sure that every diabetes patient is getting incorporated into the outreach, that’s obviously beneficial.”

The takeaway?
Coding is central to taking good care of your patients and running the organization in an efficient way.

About Optum
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