Data Analytics: The Power of Coded Data

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To understand the power of coded data, let's first take a look at its definition. Data analytics is the science of examining raw data with the purpose of drawing conclusions about that information. Data analytics is used in many industries to allow companies and organizations to make better business decisions and in the sciences to verify or disprove existing models or theories.[1] The purpose of analytics is to take existing data collected from either a single source or multiple sources and use it to arrive at the optimal decision. Essentially, analytics can be best defined as a science of analysis. This is most commonly used in situations where realistic judgements are necessary.[2]

Healthcare analytics is a term used to describe healthcare analysis activities that can be undertaken as a result of data collected from four areas within healthcare:

- Claims and cost data
- Pharmaceutical and research and development (R&D) data
- Clinical data (collected from electronic health records (EHRs))
- Patient behavior and sentiment data (patient behaviors and preferences)

In health information management (HIM)—and in coding, specifically—the health information professional must understand the importance of their role in interpreting and abstracting this data to be collected and analyzed. While this data is used primarily in reimbursement and claims activities, it also plays a much larger role in clinical data analysis performed in facilities for quality of care reporting, disease management, and best care practices. Let's take a brief look at the power of coded data in each of these areas.

Reimbursement and Claims

The reimbursement models in the United States are very complex, but the underlying constant is the coded data abstracted from the health record. Coding and clinical documentation professionals play a pivotal role in the abstracting and reporting of this information. Their understanding of the disease process, the Official Guidelines for Coding and Reporting, and any official guidance from the American Hospital Association's *Coding Clinic for ICD-10-CM and ICD-10-PCS* publication helps ensure the accuracy of the abstracted data. The data needs to represent the true clinical picture of that encounter; it has to tell the story.

For example, consider a scenario where a 28-year-old man presents to the emergency department with an open fracture to his left thumb. He was returning from the break room to his area in the warehouse when several large boxes fell off of the conveyor belt. He held up his hands to block the boxes from striking his head and sustained an open fracture to his left thumb. How this encounter is coded and abstracted can not only impact the reimbursement made to the facility, but also plays a part in how this employee can recover from his injuries.

It is important that not only the place of occurrence is reported correctly, but what this employee was doing at the time of injury as well. ICD-10-CM Chapter 20: External Causes of Morbidity codes play an important role in telling this story. The code used could literally be the difference between whether this employee receives workers' compensation or not.

Quality Care Reporting

A 37-year-old female with Crohn's disease presents to the facility with intense abdominal pain. After work-up it is determined that she is experiencing a flare-up of her Crohn's disease and will require a partial large bowel resection due to the extensive damage to the lining of her colon. During her recovery in the hospital she starts experiencing abdominal pain and is taken to radiology. It is determined that she is experiencing a post-procedural ileus.

How these types of encounters are coded and abstracted can have an impact on the quality of care scores for a facility. If these types of cases are coded as complications of care without confirmation from the provider, it can and will negatively impact the complication rates of the facility through the Potentially Preventable Complications (PPCs) data reported. There are many post-procedural occurrences that are all but expected after certain surgical procedures due to the inherent nature of the disease process.

In another example, a 59-year-old partially bedbound functional quadriplegic is admitted to a facility due to lethargy and altered mental status. It is determined that this patient has a severe urinary tract infection and will require several days of hospitalization before they are stable enough to go back to their nursing home. After 10 days the patient is discharged and this encounter is sent down to coding and is billed out to the payer. Upon auditor review it is discovered that this encounter went out with Present on Admission (POA) indicators of "N" on a stage 3 pressure ulcer that was documented by the nursing staff and reported on the history and physical by the attending provider. This type of error in abstracting can again negatively impact the quality scores of a facility. HIM professionals must pay close attention to the data they report and recognize the implications their errors may have.

Disease Surveillance and Monitoring

According to the Centers for Medicare and Medicaid Services' Official Guidelines for Coding and Reporting, there are certain conditions that may not be abstracted and reported without confirmation by the provider. HIV/AIDS and the Zika virus are the two exceptions to the Section II. H. guideline for inpatient encounters for uncertain diagnoses. These two conditions must be confirmed by the provider. With this guideline in place, the Centers for Disease Control and Prevention (CDC) can track and monitor these outbreaks via the coded data.

Through the CDC's National Vital Statistics System, states collect and disseminate statistics on births and deaths. In this manner, the public and healthcare professionals are able to learn more about tuberculosis, HIV, influenza, and hospital infections.[3]

HIM professionals need to understand how erroneously coded data can have far-reaching implications throughout the healthcare continuum. Facilities need to have policies and protocols in place to ensure the accuracy of coded data involved in data mining activities. The power of coded data transcends far beyond the doors of the HIM department.

Notes

1. Rouse, Margaret. "data analytics (DA)." TechTarget. December 2016. https://searchdatamanagement.techtarget.com/definition/data-analytics.
2. wiseGEEK. "What is Data Analytics?" www.wisegeek.com/what-is-data-analytics.htm.
3. Centers for Disease Control and Prevention. "Disease Surveillance and Monitoring." 2016. www.cdc.gov/about/facts/cdcfastfacts/surveillance.html.

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