The Importance of Incorporating Analytics & Reporting Into Your Radiology Practice

Data within today's healthcare industry is abundant. Arguably, out of all the departments inside a hospital, radiology holds the most and richest variety of data. Unleashing the power of this information propels many benefits for a radiology practice, such as enhancing operational processes, saving money improving clinical care. Yet, the deployment of interactive analytics and reporting continues to be a severely underutilized strategic asset.

Nonetheless, as the importance of leveraging analytics and reporting moves forward at a rapid rate, the industry continues to fight a major battle when it comes to its use and management of it. As a result, analyzing data has now become one of the top concerns among radiology practice leaders, according to a poll by Radiology Business Journal.

Jacob Follis VP, Analytics & Digital

Transformation at Collaborative Imaging

“Analytics and reporting remain a key piece of the puzzle for any radiology practice, from clinical operations to revenue cycle management,” said Jacob Follis, vice president of analytics and digital transformation for Collaborative Imaging. “However, when used incorrectly, it can cause errors that damage every function in the supply chain, which leads to a practice witnessing an overall decrease in reimbursements, patient care and business success.”

While incorporating analytics and reporting can be a big transition for any radiology practice, it has now become an extremely vital component to drive operational improvements and business planning. Without it, surviving can be impossible.

Three Key Benefits of Analytics & Reporting:

1- Contextualizes data for operational efficiency.

According to Jeff Zagoudis’s article in Imaging Technology News, the radiology industry has “so much data that, in fact, it can be difficult to know what to do with it or how to handle it.” This is precisely accurate. However, one of the biggest challenges with handling radiology data is that the information is often spread across multiple databases, such as electronic health records, radiology information systems, picture archive and communication systems, among a host of other sources.

“Today’s radiologists are often using multiple systems, one for each partner hospital they are working for, which causes a massive operational headache,” said Follis. “Given that these resources are not compounded or streamlined, it can cause many

glitches or errors in the system while failing to visualize trends, detect gaps or draw accurate correlations."

Managing information across various systems places a large burden on radiologists and is extremely time-intensive, contributing heavily to another key problem facing the industry: radiologist burnout. Per a recent survey reported by Health Imaging, more than 50% of practice leaders describe burnout as a major problem. What's more, the study continued by stating that 70% of respondents cited high workplace stress as a driving force of burnout.

Thankfully, the rise and sophistication of analytics within the industry can effectively handle information overload within radiology departments. By leveraging these reporting tools, data can be aggregated and consolidated from various platforms into one common system, which then converts it into a more easily functional format. This allows radiologists to be more productive with the incorporated assistance of functional technology.

The Collaborative Imaging Reading Station is designed to manage multiple radiology systems/workstations with a Universal Work List and industry standard three monitor solution to ease the workflow for the radiologist. This means that the images for interpretation, prior to reports/images, all analytics/reporting and all dictation tools used in the resident system(s) that will be linked by the Collaborative Imaging solution are available to the radiologist just as they are familiar.

2- Fixes billing inaccuracies while eliminating waste.

According to a story in Healthcare Finance News, 60 to 70% of provider-submitted claims have incomplete or incorrect data as a result of poor data quality, which leads to problems in revenue cycle management.

For instance, let's say a radiologist filed a claim for

imaging services to the billing company. When the claim is submitted, the software accidentally attaches the imaging service to three other patient claims. As a result, this shows that those patients received additional imaging services that were never completed, causing a major quagmire in the revenue management cycle. Furthermore, this error results in an intensive, time-consuming billing nightmare that eventually delays reimbursement.

Another key example: imagine if a patient was accidentally billed for the same test not only once, but multiple times, causing a duplicate billing error. Simply, this was a result of a test being scheduled that was eventually cancelled, but never removed from the patient's account. This human error, unfortunately, can lead to a facility being fined for fraud.

Altogether, these errors in claims end up costing the healthcare industry billions in wasteful spending. In fact, according to a study by the American Medical Association (AMA), these errors waste an estimated $17 billion annually. Furthermore, given the sheer volume of claims submitted each day, the prices of capturing and reconciling discrepancies without the use of rich analytics is extremely ineffective as well as time-consuming.

However, by incorporating rich analytics into the equation, it can identify poor data quality and notify the mistake right away. For instance, if a radiologist is preparing to submit a claim with a duplicate billing error, software infused with analytics and reporting capabilities, such as the proprietary technology that Collaborative Imagining offers its partners, would be able to indicate the problem to the radiologist and fix the mistakes instantaneously. Making these corrections earlier on will result in more accurate claims, as well as higher reimbursements.

However, Collaborative Imaging's platform incorporates rich analytics into the operational workflow. It can identify

inaccurate or missing data, specific to a payor, as it is being dictated, highlight the mistake in a pop-up template for the radiologist to correct. The intention of the analytics is to assist the radiologist in the required detail in the dictation will result in payment of the claim. Making these corrections will lead to "clean claims" that get paid the first time they are submitted.

3- Enforces better patient care through detection and prioritization.

A recent 2018 report shared in a story by Health Analytics revealed that "radiological imaging data continues to grow at a disproportionate rate when compared with the number of available trained readers, and the decline in imaging reimbursements has forced health-care providers to compensate by increasing productivity."

As a result, these factors have contributed to a dramatic increase in radiologists' workload. In some cases, an average radiologist must interpret one image every three to four seconds in an eight-hour workday to meet workload demands. This presents concerns that this can lead to more errors and discrepancies. In fact, a separate study found that 80% of missed diagnoses are alleged to have resulted from the misinterpretation of clinical tests.

Fortunately, the use of analytics, in conjunction with artificial intelligence, offers the benefit of reading and interpreting multiple images correctly and quickly, while also enforcing deep learning models that are trained for specified image recognition tasks.

For example, if an image comes through with a nodule detection on a computed tomography (CT) of a patient's chest, the system will be able to recognize the abnormality in the image and place it higher in the order of interpretation reads by the radiologist. This process allows the radiologist to view

images based on reading priority, which drastically speeds up reporting and improves patient outcomes.

Furthermore, the data can then be automatically rerouted it to the appropriate referring physician, so an immediate plan of action can be determined at the sake of the patient’s health. What’s more, if the wrong image is sent alongside incorrect patient information, rich analytics’ have the capacity to determine the error and notify the radiologist immediately, so it then can be properly rerouted to the correct physician.

The Collaborative Imaging solution has easy “messaging” to a referring physician in real time from the reading radiologist and a “help desk” that handles the direct contact to the referring physician on behalf of the radiologist. Data and interpretations can then be automatically route