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Using Revenue Cycle Analytics for Effective Value-Based Care

The transition to value-based care requires a familiarity with revenue cycle analytics and population health management techniques.

The hospital industry has been experiencing a number of challenges in recent years due to the payment reforms coming from the Centers for Medicare & Medicaid Services (CMS) and commercial health payers.

There has been a much greater push toward value-based care reimbursement and away from fee-for-service payment programs. This has led to the development of bundled payment contracts, accountable care organizations, and CMS projects such as the **Comprehensive Care for Joint Replacement Model**.

However, hospitals, clinics, and other medical facilities have become accustomed to the fee-for-service payment system and revenue cycle managers are finding it complex to transition to **value-based care reimbursement**. Nonetheless, there are a number of solutions and strategies that providers can incorporate to gain greater understanding of how to keep their healthcare revenue cycle healthy.

By implementing revenue cycle analytics and population health management techniques, providers can actually use these opportunities to avoid losing revenue in the midst of a value-based care reimbursement model. It is useful for providers to better manage revenue and claims data analysis when preparing for the transition toward a value-based care payment contract whether through an accountable care organization or a bundled payment.

THE CHALLENGES OF TRANSITIONING TO VALUE-BASED CARE REIMBURSEMENT

Dr. Garry Choy, MD, Radiologist at Massachusetts General Hospital and Chief Medical Officer of CredSimple, explained that both credentials and patient enrollment processing issues lead to money being tied up for an excessive period of time, which makes it very difficult to see a true picture of a hospital's revenue cycle.

"At any given time there are hundreds of millions of dollars tied up in Accounts Receivables due to mismanaged credentialing and enrollment processes," Choy said.

"It's a common problem for revenue cycle managers because the process of enrolling new practitioners with a health plan can take months to complete. And reimbursements are at risk for procedures that are performed while enrollment is in process. Because the timeline is different for every payer, it is a very difficult process to manage, measure and improve."

Another challenge that's plaguing the healthcare revenue cycle and hospitals around the nation is that of the ongoing transition to value-based care reimbursement and away from fee-for-service payments. Randy Notes, Principal of Healthcare Advisory Services at auditing company KPMG, provided more detail on the ongoing transition to value-based care.

"Revenue cycle management would be different for each hospital depending on the volume of business as it's related to value-based reimbursement or your traditional volume-based reimbursement," Notes began.

"Because the timeline is different for every payer, it is a very difficult process to manage, measure, and improve."

"That value tip - if you think of that seesaw and where you are on that seesaw, whether you're all the way still in that traditional volume-based reimbursement or you're in the middle or you're angling towards value-based reimbursement - will depend significantly on how it would impact."

Essentially, healthcare providers and hospital revenue cycle managers will need to completely change their methods of assessing the financial health of their establishment. They will need to adopt a new viewpoint in order to see the revenue cycle from the value-based care approach instead of the fee-for-service payment system.

"The push toward value-based reimbursement affects hospitals' revenue cycle management because it requires taking a very different, cross-functional perspective

than that of a fee-for-service model," said George Dealy, Vice President of Healthcare Applications at Dimensional Insight.

"The activities of clinical and operational teams will have a direct impact on revenues as quality, safety and patient experience measures have a greater impact on reimbursements. Revenue cycle and financial teams need to better understand this shift and work closely with one another in order to effectively manage the transition, said Dealy.

"That means receiving additional visibility into measures that matter and confirming which day-to-day working measurements will help signal the impact of frontline care on revenues. The most important element is receiving direction from leadership that gets everyone on the same page."

Dr. Rita Numerof, Co-founder and President of Numerof & Associates

Additionally, healthcare revenue cycle management is becoming more and more complicated due to federal programs from CMS, various regulations like meaningful use requirements leading to costly technology implementations, and the transition to ICD-10 diagnosis coding.

Hospital executives will need to be prepared for resolving many of these complexities, says Dr. Rita Numerof, Co-founder and President of Numerof & Associates.

"I think the first point we need to understand is that the revenue cycle has become a lot more complex than it has ever been before," Numerof said. "The solution to traditional

data analysis and looking at numbers and making sure the cash flow is there is necessary but not sufficient in the environment going forward."

"Those executives and staff that don't appreciate the complexity of this are going to find themselves very surprised," she continued. "Part of the complexity is around the compliance issues that are associated with the revenue cycle that oftentimes don't get the kind of attention that they should. Part of this is the ICD-10 coding requirements. There are issues with regard to avoiding fraud and abuse litigation as we get increased scrutiny around billing."

TACKLING NEW CHALLENGES WITH REVENUE CYCLE ANALYTICS

When it comes to resolving the complications of patient enrollment and bringing the revenue back on track, Choy advises that providers create a delegated credentialing system with health payers.

"There are two ways a provider group can solve this revenue cycle management process," he said. "The first is to move to a delegated credentialing arrangement with payers. This is typically an option for practices or provider groups that are larger than 50 providers. The second is to closely monitor and align the enrollment process."

Notes added that value-based care reimbursement will change the revenue cycle by transitioning an organization from a transactional type of payment system to taking on more **revenue cycle analytics**.

"If you're getting reimbursed less upon how many activities that you do and there is some sort of performance-driven element to that, you have to measure those performance elements, and then how you are doing against those elements, and then what insight you bring back to the rest of the organization to then drive additional payments or reduction of penalties," he said.

He went on to explain that reimbursement for medical services through a health maintenance organization (HMO) would bring greater financial responsibility onto the medical facility and would be directly dependent on the clinical activity taking place at the organization.

"If an organization is using value-based reimbursement to the extreme where they're fully capitated and you're responsible for the entire premium, there's no collection going on except for some patient collection activity. There's no third party collection in that

environment. Then it really comes down to what clinical activity is being delivered. Is it the most appropriate activity? If it's not, how do we get that information back into the hands of our clinicians so that they can make better decisions with their patients?"

THE NEED FOR ANALYTICS IN THE VALUE-BASED ENVIRONMENT

Clearly, physician decision-making and clinical activity will need to play a role in the hospital revenue cycle. In addition, providers seeking new solutions for managing their revenue cycle in the midst of pay-for-performance contracts will need to understand the background and challenges of their population before signing onto such contracts.

"I think the way you're able to keep revenue stable in a **value-based care environment** is by understanding the experience of your population before entering into those contracts. You need to, in essence, have to be able to perform what your revenue would look like in a value-based arrangement," Notes explained.

In addition, Notes stated the importance of having reporting capabilities that will allow providers to understand their performance on key quality measures. That would help hospitals and providers determine whether they are closer to a financial penalty or a bonus payment.

Randy Notes, Principal of Healthcare Advisory Services at KPMG

"As you begin to go through that process, you need to segment out that cohort that really applies to the value-based reimbursement model and understand how you're trending towards your bonus payment or penalty payment," Notes said.

“You cannot enter into one of these value-based contracts without the tools available to know where you are on that contract at any given point in time. You don’t want to saddle up at the end of the year or at the end of the quarter, and realize you just lost your shirt. You can’t put your organization in a position to do that.”

When it comes to utilizing revenue cycle analytics in a value-based reimbursement model, it’s necessary for providers to plan and design exactly how their revenue would appear in a pay-for-performance contract. Revenue cycle analytics will be key for keeping a hospital running and avoiding significant revenue loss.

INTEGRATING BIG DATA ANALYTICS INTO THE ACO WORKFLOW

With regard to using financial analytics for revenue cycle management improvements, Notes commented, “We all have plenty of data. The question is how do you apply those analytics to the data that we have? There are a lot of very good tools out there to be able to do that. These are tools that are not Excel tools. Excel only gets you so far.”

“Organizations need to take advantage of some advanced analytics visual tools that are out there. Using visualization analytics gets you to a decision point faster and allows you to see variability in the data,” he added.

"You don’t want to saddle up at the end of the year or at the end of the quarter, and realize you just lost your shirt."

Advanced revenue cycle analytics visualization capabilities include the use of pie charts, graphs, and various templates using color and labels to produce a clearer picture of the revenue within a hospital or other healthcare organization.

“Using your traditional analytics method of using a spreadsheet - you can do these things in a fifth of the time that it would normally take for you to do it in a traditional sequel-based or Excel-based driven framework,” Notes continued. “The tools out there that we are using and others are using are more visual-based so when you see an anomaly in the data, it really leaps off the page.”

It’s vital to have a clearer understanding of what type of visualizations should be matched up to the type of data being measured so that it is simpler for revenue cycle managers to view and process the developed charts or graphs.

“There’s all sorts of literature out there about how the mind thinks and how it processes data as well as what kind of visualization to use in a trending environment versus a

proportional environment," Notes said. "Being able to quickly do that, allows you to figure out if something doesn't look right."

"Having the ability to quickly dig into that subset of the population and either need to do additional trending or additional analysis to get you to a smaller subset, which then allows you to take that manageable level of accounts and to put it to Excel to look at the individual account level to see truly what's driving that variability. Organizations must, in my opinion, employ visualization analytics in order to achieve quick analysis that they likely desire."

Along with understanding the complexity of the current revenue cycle environment and the hospital financial penalties that could take hold, providers and healthcare revenue cycle managers may need to begin incorporating automation technology and EHR data analytics, as both will prove crucial in a value-based care payment model.

"Some [healthcare providers and revenue cycle managers] don't properly label workflow and they call workflow electronic work lifting. Taking something that is a paper list and putting into an electronic format, while you do get some benefits from that, you're really not getting the full benefit of automated workflow," Notes explained.

"What you really need to do is you need to have business rules delivering individual accounts to an individual. You don't want the individual necessarily picking from a list. You want the most valuable account served up to them."

Automated solutions can be very useful for assessing the healthcare revenue cycle when implementing data analytics software. Instead of having a staff member complete some of the analysis, the automated system can handle the work.

"What the best automated solutions do is they take that concept of cognitive automation and they apply it to the revenue cycle," he added. "By that, I mean, you take everything that is a transaction and you apply business rules so that the machine can do the work as opposed to an individual. That's what the best automated workflow solutions do."

HOW CMS REIMBURSEMENT PENALTIES AFFECT THE REVENUE CYCLE

Hospital reimbursement penalties may expand throughout the country as value-based care programs take hold within the federal government and CMS, Numerof warns.

Already, CMS has established the Comprehensive Care for Joint Replacement Model, which requires a number of hospitals to use a bundled payment system for all Medicare beneficiaries who undergo joint replacement surgeries such as knee or hip replacements. Additionally, the Medicare Shared Savings Program has gone through a number of changes as accountable care organizations have evolved from the **Pioneer ACOs** to the **Next Generation ACOs**.

Both the bundled payments from the Comprehensive Care for Joint Replacement Model as well as the Medicare Shared Savings Program are directly tied to either sharing or keeping financial savings along with monetary penalties from CMS if the performance quality of medical services is not up to par.

"The government is really determined to reduce healthcare expenditure in this country. Those working in the revenue cycle side need to be very mindful of this increased complexity."

“I think that the new and existing reimbursement penalties that are associated with value-based programs are only likely to expand,” Numerof said. “They’re going to include new therapeutic areas as well as a variety of new safety and quality issues. The government is really determined to reduce healthcare expenditure in this country. Those working in the revenue cycle side need to be very mindful of this increased complexity. It’s not business as usual.”

Revenue cycle analytics and **big data analytics that includes EHR information** could work to stabilize healthcare revenue and spending by improving patient health outcomes in a value-based care environment. As CMS continues to expect the Medicare program to have half of its reimbursement in the form of alternative payment models by the end of 2018, quality metrics and patient-reported outcomes will need to become a mainstay of the healthcare revenue cycle.

MANAGING POPULATIONS TO REDUCE COSTS AND CRISES

In order to get fully reimbursed and create new opportunities within the revenue cycle, hospitals need to overcome the challenges of measuring performance and analyzing quality metrics. For instance, healthcare providers who treat more complex cases and disadvantaged patient populations will need to figure out how to handle these particular patient groups in a pay-for-performance environment.

The **Committee for Economic Development** states that pay-for-performance or value-based care reimbursement initiatives may actually play a role in blocking healthcare access for high-risk and disadvantaged patient populations. Essentially, hospitals, physicians, and other healthcare providers may be less likely to treat patients with more complex medical conditions and less likelihood of better health outcomes because it may lower hospitals' performance standards.

When it comes to disadvantaged populations, some providers may worry that these particular patients are less likely to adhere to treatment plans, which would once again lower their quality performance scores.

"Gaps in care need to be identified and managed proactively. This is a new requirement for healthcare delivery," Numerof said. "If a patient has been in the hospital, there is typically a fair level of anxiety associated with that hospitalization. Before discharge, they'll receive education, prescriptions, and appointments for follow up."

Despite the fact that medical staff may educate patients on follow-up care, many may miss a variety of important information including that of medication adherence or continuing rehabilitation protocols. As such, patients may need additional reminders post-discharge.

"If anxiety is high, the likelihood is patients aren't going to hear an awful lot of what's been said. What happens on the backend is that a prescription may not be filled, it may not be taken appropriately, and the appointment for follow-up treatment may not have been made. All of these things add up quickly and have a financial impact in ways that even three years ago, they didn't," Numerof continued.

"What may happen is the patient with uncontrolled diabetes or heart failure who's been in the hospital doesn't follow the regimen and within the week, he or she is back in the hospital and has complications that need to be taken care of. All of this is going to be on the hospital's nickel."

Keeping patients as healthy as possible through preventive care has an impact on the financial status of a hospital due to the many new reimbursement policies between payers, providers, and state or federal agencies. This value-based reimbursement system is a complete change from the traditional fee-for-service payments of the past.

“Preventive care and coordination now, all of a sudden, have real meaningful financial implications,” said Numerof. “That was never part of the conversation before. How these things are tracked and the kind of data needed to make sure that care gaps are closed have become a critical component of the financial health and well-being of every system.”

“It’s more complicated because these activities happen outside the walls of the institution. This represents a very different way of looking at healthcare delivery and revenue cycle.”

Another important point to remember is that safety-net hospitals and certain medical practices have rather low-profit margins, which means any financial penalties could essentially knock them out of business and, thereby, decrease healthcare access for these patient populations even more greatly.

Providers will also need to overcome the challenging costs associated with merely existing in a pay-for-performance structure. Additional spending on new technologies, for instance, is expected in the value-based care reimbursement environment. It would benefit providers if federal agencies like CMS ensured that financial incentives were large enough to cover the costs associated with implementing new technologies such as revenue cycle data analysis systems as well as provide additional profit.

Additionally, if financial penalties are too excessive, it could bring a large amount of risk on the side of providers, which would once again cause them to avoid disadvantaged patient populations.

POPULATION HEALTH MANAGEMENT IN A VALUE-BASED CARE MODEL

Numerof also spoke on the effects of patient populations on the revenue cycle within value-based care reimbursement. Essentially, population health management along with quality metrics are vital for value-based care models.

“Quality metrics and effective population health management are needed in a value-based care environment. They are not negotiable. They’re absolutely essential. These are new disciplines that organizations, unfortunately, have not had to have in place in a traditional fee-for-service environment. Whatever the service has been, it gets paid or not or it’s part of the DRG,” Numerof stated.

In the past, reimbursement between providers and payers did not have any link to strong patient outcomes. Now the new value-based care environment is causing hospitals to dramatically change their approach to medical services and patient engagement.

“Historically, there was no connection between payment and outcomes. When you have increased transparency to cost and quality, and you have payment connected to outcomes where you didn’t before, all of a sudden, the rules of engagement have dramatically changed for healthcare delivery organizations,” Numerof continued.

The healthcare revenue cycle and medical spending on patient care will change in a value-based care environment in order to meet the demands of public and private payers.

“How you pay for things has implications for what care is done, how it’s done, and who does it,” she said. “If the government or commercial payers are saying we want to look at the following quality metrics: readmissions, stability in diabetes, BMI, and a variety of others for comorbidities and specific conditions, you’d better ensure you’re addressing them.”

"It is critical that organizations have the ability to manage patients effectively in this environment or they won’t get paid."

When it comes to revenue cycle analytics and the metrics associated with population health, providers will need to be sure they are offering the services tied to the measures payers are requiring.

“Whether or not the organization thinks they’re good measures or not, the fact that the payer is asking for those things requires that organizations are prepared to produce evidence that they’re delivering services connected to those metrics,” said Numerof.

“Managing across the continuum of care, which is what population health management is all about - not just on an individual patient level but looking at groups of patients and how they’re managed - is the future of the healthcare delivery business model. It is critical that organizations have the ability to manage patients effectively in this environment or they won’t get paid.”

In addition, healthcare transparency is becoming a more sought-after topic throughout the industry, as public and private payers as well as consumers seek to lower medical spending. Ensuring quality metrics are free for the public to view will be key to improving transparency throughout the medical field.

“Increasingly, publicly available performance metrics will be more easily accessed by employers and consumers. These metrics will shine a spotlight on aspects of care that will influence their decisions. If you don’t have evidence, you won’t have income because these are the elements that go into whether or not you get paid and ultimately your focus in revenue cycle,” Numerof concluded.

These metrics overlap with effective population health management in the value-based care environment, pointed out George Dealy.

“Value-based reimbursement is impacted directly by quality measures,” he said. “Some of those measures are inherently population oriented. Regardless of the semantics, however, to move the needle on the measurements that impact value-based reimbursement, healthcare providers will need to take a population management based approach.”

“Although patients will continue to be treated individually, healthcare systems will find that they need to proactively manage populations to meet targets for quality-based measures. This is most clear in Accountable Care Organizations (ACO) and patient centered medical home (PCMH) programs where providers are rewarded, or potentially penalized, for improving measures across defined populations.”

THE IMPORTANCE OF DATA ANALYTICS IN BUNDLED PAYMENT MODELS

Bundled payments, which consist of reimbursement for an episode of care, will require hospitals to analyze the historical data of healthcare services. CMS will need to supply hospitals and providers with post-acute care Medicare data in order to take part in bundled payment programs, according to a **report published in Health Affairs**. This is especially important for providers participating in the Comprehensive Care for Joint Replacement program.

When implementing a **bundled payment** or pay-for-performance model, providers will need to look at what their current revenue cycle is like in the fee-for-service payment model. They will then need to determine how the revenue cycle will appear when pay-for-performance incentives and penalties are included.

“The first step in harnessing data analytics to improve revenue cycle management is determining which measurements are most appropriate for managing the revenue cycle,” Dealy said. “Providers can look to organizations such as Healthcare Financial Management Association and Medical Group Management Association that provide guidance on these measures as well as best practices for defining and managing them.”

It’s important to note that pay-for-performance requires a completely different viewpoint from the traditional fee-for-service payment model when managing the hospital revenue cycle. Stronger leadership will help in transitioning to a value-based care environment.

“The push toward value-based reimbursement affects hospitals’ revenue cycle management because it requires taking a very different, cross-functional perspective than that of a fee-for-service model,” Dealy continued. “The activities of clinical and operational teams will have a direct impact on revenues as quality, safety and patient experience measures have a greater impact on reimbursements.”

“Revenue cycle and financial teams need to better understand this shift and work closely with one another in order to effectively manage the transition. The most important element is receiving direction from leadership that gets everyone on the same page.”

Additionally, providers will need to look at multiple perspectives when shifting from fee-for-service payment models to the value-based care reimbursement environment.

“Providers that are looking to stabilize their revenues in the fee-for-service world need visibility into multiple perspectives, which is important for today’s models as well as in future models,” Dealy said.

"The most important element is receiving direction from leadership that gets everyone on the same page.”

“They first need to understand what revenues look like in the current RCM environment, and then determine what those same revenues would look like if the ‘pay-for-performance’ incentives and penalties were applied. Because these incentives and penalties are phased in over time and differentiate across payers, organizations in the midst of these bundled payment contracts will require multiple variations in order to gain sufficient visibility into the impact on future revenue streams.”

Whether through accountable care organizations, bundled payments, or other pay-for-performance contracts, population health management and strong data analytics will be necessary to keep hospital revenue steady when implementing value-based care reimbursement principles. Essentially, reimbursement in a value-based care environment is directly dependent upon revenue cycle analytics, quality data metrics and population health management.

For instance, accountable care organizations are a clear model of where population health management and performance data metrics is key for stabilizing the healthcare revenue cycle. With quality data metrics tied to population health, providers will need to strengthen their population health management in order to be reimbursed sufficiently.