

QuadraMed's Care-Based Revenue Cycle Helps Hospitals Deliver High Quality Care And Achieve Financial Health

QuadraMed's Care-Based Revenue Cycle is a deceptively simple phrase that aptly describes the technology that hospitals desperately need: sophisticated clinical solutions that mesh seamlessly with world class applications supporting administrative and financial goals, all at a highly competitive price point. Few vendors can boast of a single product line of robust applications that include computerized physician order entry, integrated medication management, patient registration, patient accounting, identity management, and perhaps the most lauded health information management systems in the industry. We spoke with Joe Bormel, MD, MPH, the company's chief medical officer and vice president for clinical strategy.

QuadraMed had a limited line of clinical applications when you joined the company in 2001. How has your job and the company's emphasis changed now that it has a highly regarded clinical suite to join its strong patient management, billing, scheduling, and health information management solutions?

Acceleration, in a single word. The vision that everyone has had in the HIS industry is similar, such as following the Gartner criteria for workflow and knowledge management and providing an effective user interface and high quality embedded analytics.

For us, that vision became reality when QuadraMed acquired the Misys CPR products. It accelerated us forward. The depth and power of our solutions grew exponentially. Our new integrated meds management product is a good example. It's distinctly better than what we had and distinctly stronger than many other solutions on the market because it was modelled after real clinical workflow.

What is your take on the HIS industry and where you think QuadraMed fits into it?

Everyone working on both the vendor side and the provider side recognizes that no product is complete or where we want it to be. The industry as a whole is making progress and we're doing more complicated things.

However, the HIS industry as a whole is moving at a glacial pace when compared to other industries. It's not significantly further along than it was 15 years ago. We're a lot more paperless. We're more automated. There's more decision support. But, compared to where everyone sees us going, the industry is still in its infancy.



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Markets are consolidating. Ten years ago, when you bought an HIS system, you could buy tools in applications that allowed you to build up a system the way you wanted. But that meant build work usually fell on the clients. Implementations took a long time, making it frustrating and expensive to get an application, much less a system, to the point where it was strong.

QuadraMed has addressed this by developing a starter set, a core solution to get going quickly. Although other vendors have also taken this approach with varying degrees of success, QuadraMed offers functionality comparable to the biggest players, but for a significantly more competitive price. This creates an opportunity for us to compete for a much larger share of the market and that's a great fit for us.

Economic conditions today may force some hospitals to look hard at improving patient throughput, case management, utilization management, and similar functions. If a hospital called you today and asked for help in those areas, what kind of systems or services would you recommend?

My blog recently included a headline that read "Overcrowded Hospitals – and Bottlenecks; ROI=Zero If You Improve Anything Other Than a True Bottleneck." The whole issue with throughput is redesign to eliminate waiting.

We have a number of solutions and related services that can help do exactly that. The "Quad" in QuadraMed represents

the four pillars of an end-to-end HIS: access management, care management, HIM management, and revenue cycle management. Each solution offers unique opportunities to improve patient flow and minimize wasteful waiting.

On the access side, many of our clients are challenged with MPI problems, so we have very strong clean-up services coupled with applications to maintain a clean MPI that are particularly useful in large and multi-hospital systems. MPI issues have huge implications for the registration process, getting clean bills out, and quickly and reliably providing patient information for safety and quality.

On the care side, flow can be improved through rich use of pathways. We have solutions for our clients that provide pathways for the CMS scope of work diagnoses. These can absolutely reduce the time to initiate the appropriate antibiotics or the appropriate agents for patients coming in with strokes, heart attacks, etc. We have teams of clinicians that go to hospitals and assess how to make improvements.

In HIM and Revenue Cycle Management, we're speeding up processes, eliminating waits, and looking for risks, like RAC audits. Of course, we help with denial management to reduce throughput challenges for billing and collections. Collectively, those four pieces are parts of an integrated inpatient throughput value chain, before, during, and after care is provided.

ICD-10 has generated much discussion. What is your thought on the role of current taxonomies and nomenclature for research and decision support purposes versus reimbursement?

Great question. As we both know, the ICD-9 terminology was really developed to classify diseases for aggregate public health reimbursement purposes. It works reasonably well for that purpose. But there are many clinical conditions that are not only inadequately represented, but also a degree of clarity that's lost by picking a particular code.

For example, the ICD-9 code for hypomagnesemia and hypermagnesemia is the same. It is insulting to a physician to use codes that obfuscate. ICD-10 is exciting clinically because it expands the number of codes roughly tenfold. You can get much closer to describing a clinical scenario.

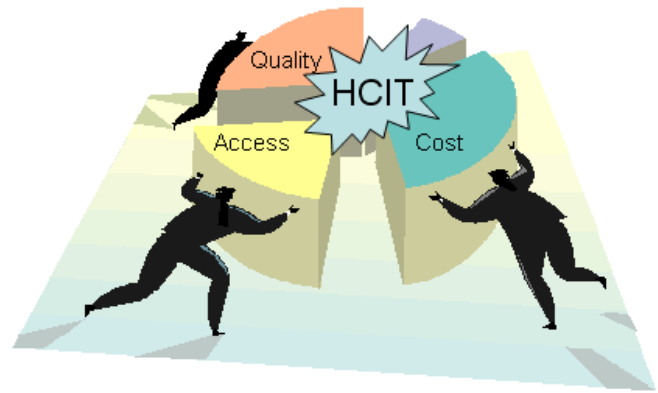
That said, you can go the next step and into nomenclatures like SNOMED. Those systems are exciting and useful and can do some additional things that systems like ICD can't do. ICD-10 is necessary. The rest of the world is there. The fact that the US isn't is more a reflection of our reimbursement system and its incentives. Payers are the ones resisting ICD-10 because they don't receive additional value from them. That is something the policy makers should be paying attention to.

What do you think the best hope is for turning research into clinical practice?

Translational Medicine is a relatively new term for "How do we bring science into clinical care delivery as rapidly as possible?" I address this in my blog, "Science 2.0," in some depth.

It takes 17 years for a medical fact to reach routine general practice. That's too long. It means we're treating people with things we know are ineffective. The translation/dissemination of knowledge problem is pretty significant.

The similarities between Translational Medicine and Web 2.0 are really striking, which is why I wrote the Science 2.0 post. The way science is communicated today is through publications. Publications have summaries of the studies' conclusions, but there's not enough information published in most of them for the results to be reproduced by a separate team. There's a fundamental problem with our publication system that is linked to the way our



reimbursement and intellectual property systems work. If people fully disclose their secret sauce, they no longer have intellectual property protection.

Web 2.0 introduces new business models. It also recognizes that society must be able to interact in order to build databases and use them during routine care going forward. Two-way mediums are absolutely critical.

The same is true for Science 2.0. Consumers and care providers are starting to share observational data more immediately. This ties into broader initiatives, both personal, like medical health record banking, and larger, like communities of interest (e.g. PatientsLikeMe). People will be able to have their own health records examined for what new science might have to bear on them, along with the ability to see the validity of sources providing these opinions.

There are a variety of ways this will come together, as we are seeing with Microsoft and Google taking a position with health record banking. It's very exciting because this is really ground zero for the collaboration and improvement of translational science with direct consumer access to knowledge.

What additional big challenges do you believe hospitals clinical departments are facing today?

Many! Clearly the costs and the value of the delivery equation are being scrutinized more closely than ever before. There are many options in terms of how to manage departments. Do IT departments outsource or develop internally?

There's the social challenge to what we're doing. We are trying to automate the delivery of high quality care while assuring the financial health of provider organizations as a whole. That ends up meaning we're changing the way physicians take care of patients, how physicians are related to their hospitals and health systems, and how physicians are reimbursed. The same thing is certainly true for the healthcare provider organizations, how they compete within markets, and how that's related to the payer-insurers.

With the new administration, we're seeing more speculation as well as consideration of new models. Everyone is interested in health information technology. We see hospitals closing because the economics of the care delivery process are often fundamentally unsustainable. Our ERs are overcrowded.





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Joe Bormel, MD, MPH

We need to close the loop on communication and messaging. Closing the loop with RIS and PACS is another example, where, for example IHE identified the problem and an explicit solution. In QuadraMed's case specifically, we have been delivering closed looped solutions for several years. Closed loop clinical documentation is an area we're very excited about. The idea here is that when a clinician sees a patient, the clinician needs to record findings in the most practical, efficient way possible. That may be dictation or direct entry to a PC, an iPhone, or a BlackBerry. Each device must be able to capture the documentation and preserve patient flow and throughput.

Those are the kinds of things we need to discuss openly so we can collectively build the kind of healthcare system we want. In my blog, I've elaborated on the publicly available objective data concerning each of these topics. The feedback has been encouraging.

How do you see the correlation between closed loop clinical quality and financial health?

As a framing comment, about 10 years ago, people started to realize that you couldn't really have a standalone pharmacy system any more. The interoperation with nursing and physicians required deep integration.

We're now seeing the same thing with most other aspects of health information systems as well. For example, when a lab system determines that a patient has a new panic level for a low potassium level, the response needs to be coordinated, collaborative, and contextually appropriate. You risk creating patient safety problems unless you create a closed loop system that can reason over different rules and evaluate the true situation, and then package a single, coherent alert to the correct person. This is probably more than just a nice idea; it's a necessity.

The most effective way to get documentation in some office settings is dictation. To do that and close the loop in the process, you must do it real time, which requires voice recognition and natural language processing to convert words into codes.

The closed loop process ensures that whatever happens on the care side creates the proper documentation, informs an appropriate order set based on the appropriate evidence based medicine, and provides the correct data the coding and revenue cycle people need in order to assure appropriate reimbursement. Closing the loop on that process is something that QuadraMed is extremely well positioned to address. We have industry-leading solutions in place for different users: the care users, the HIM users, and the revenue cycle users.

What have you learned about HIT from writing your blog?

As you might expect, I've learned the most from topics that are personal, such as the issue of self-management. Maintaining attention and focus are increasingly hard to do for all of us in modern life.



I've been told by dozens of readers that the vast majority of talented, busy HCIT professionals have something that many call attention deficit traits, similar to ADHD. They are having more and more trouble focusing, staying focused, and dealing with fragmentation in their lives. This is one of the main reasons why a surprising number of highly talented executives in all industries underperform.

I've learned that hitting the brakes requires discipline -- the discipline to not check your e-mail for an hour or two, to get enough rest, to get exercise. Without a personal system, you can effectively end up with ADHD.

The blog has also given me a new perspective concerning legal challenges and provided me with valuable feedback on my evidence-based medicine and clinical decision support posts.

Anything else?

The concept of the high reliability organization (HRO) is something I feel very strongly about. Other industries that have had highly error-prone, tightly coupled processes have made themselves very safe and we can, too. The way others have done it is by focusing on anticipating failures in order to prevent them and by investing in the containment of those errors they can't prevent. The opportunity to translate that into better HIS systems is phenomenal.

HRO thinking in HCIT translates into doing a better job of getting flow sheets as check lists. The challenges? Build work can be labor intensive, development is always iterative, and these "reports" can create an unacceptable impact on performance in many existing HIS systems. A lot of companies are creating wrap-around products in order to create higher reliability organizations because existing IT infrastructure can't support them. It's a messy and unsustainable approach.

One of the things really interesting about QuadraMed is that we're based on Caché, which is a very high performance database engine. The Caché system is better suited to the kinds of information manipulations that are required in healthcare. This gives the CIO and CMIO folks an opportunity to move toward creating a highly reliable organization that includes anticipation and containment underpinnings.

High reliability needs to be part of the strategy when rolling out new systems. If you wait until after the initial go-live, you're less likely to invest in the knowledge management required to get it done. "Get 'er done" can be more costly than "Get 'er done right" the first time.

Today, most of us don't have a high level of confidence that HCIT will make "the right thing to do" the easiest thing to do. You only get there by making systems, and thereby the organizations that use them, highly reliable. And of course, those systems, to the greatest degree possible, need to know what the right course of action is for common, well described care needs. We've got a long way to go!

A final word?

Urgency. Something worth mentioning is the need for executives to bring a sense of appropriate urgency to their organizations. When you consider the emerging genomics data as it relates to common diseases like breast and prostate cancer or dosing common drugs like Coumadin, there's a rapidly rising demand for stronger HCIT.

That genomic information is absolutely fundamental to getting to the right treatment. Today, there aren't any enterprise-class clinical systems that handle such information well. We need to drive HCIT so we can facilitate care, deliver correct information, and do it better, faster and cheaper. Terabytes of genomic data per patient are just around the corner.

THE BOTTOM LINE

QuadraMed CPR has high physician utilization, robust clinical decision support tools, and integrated Six Rights medication management, all at a highly competitive price.

The Care-Based Revenue Cycle optimizes the healthcare process by linking clinical and documentation elements with the revenue cycle: patient identification, access, care management, health information management, and revenue management.

QuadraMed is an industry-leading healthcare IT vendor with 2,000 clients in several countries, well positioned to assist its clients demonstrate "meaningful use" of electronic health records systems that meets the requirements of the American Recovery and Reinvestment Act of 2009.

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