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How can Imaging departments stay relevant and align themselves with hospital goals? And how can workflow optimization help?

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If radiology departments want to stay relevant and thrive in the U.S. healthcare industry's shift from volume-to-value, they need to clearly demonstrate their contribution to the organization's overall success. Imaging continues to play a critical role across the patient care continuum, and as hospitals redefine their own benchmarks, imaging departments must also find new ways to prove their value. "Outcomes and value are the new

drivers in today's market," says Ran Rumianek, Executive Director of Workflow at McKesson Imaging and Workflow Solutions. "To adapt, radiologists need solutions that help them manage their processes more intelligently and more efficiently."

In a volume-based model, the main factor driving radiology operations was productivity. While it's still a key driver, it must now be accompanied by many other things, like quality improvements, better outcomes, patient satisfaction and reduced costs.

This transformation is easier to talk about in theory than to put into practice, especially when many financial incentives are still tied to volume. For radiology, adapting to this new reality means implementing new processes, new workflows and new technologies.

Rumianek, who leads product development for Conserus Workflow Intelligence, a software rules engine that orchestrates and automates imaging workflows expounded on these and other workflow-related themes in a recent interview with imagingBiz.

What do you see as the most pressing challenge facing radiology today?

Rumianek: What we see in radiology departments at many of our customer sites is their challenge to stay relevant and demonstrate

their contribution to overall hospital goals. In their new environment, radiology is often viewed as a cost center instead of a profit center. The hospital wants to get the most out of each imaging study performed, while still driving down costs.

To show value in this context, an imaging department needs to adjust its clinical operations to make workflows more streamlined and efficient than ever. One of the challenges radiologists have is that most of their tools - mainly the PACS - were designed to meet their "old world" challenge of reading more studies faster.

In a value-based world, they need tools that let them collaborate and communicate with other departments and care providers. They need the ability to prioritize their reading so the most urgent cases are read first by the most qualified sub-specialist. They need consistent quality processes and they need clear visibility into their operations so they know where they can improve and where they are bringing quantifiable value to the hospital.

Are there particular areas or pain points that are common to many healthcare organizations?

Many hospitals look at improving their ED flow as a critical goal. This area is often a bottleneck that impacts patient satisfaction, bed turnover, patient outcomes etc. Imaging plays a significant role in supporting ED operations, with a steadily growing volume of advanced imaging studies. Timely management of imaging for this area can have a positive impact on patient care and flow, whereas delayed or sub-optimal diagnosis adds time, costs and may compromise patient outcomes. Imaging departments that can optimize service to this area can demonstrate value in both interpretation quality and turnaround times.

One of our customers had a scenario where every case coming to radiology from the ED was marked "STAT" and it was extremely difficult for them to distinguish the truly important cases. In ad-

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dition they didn't have good visibility on their turnaround times. We worked with this customer to help them define and automate their prioritization rules; we helped them build a model that assessed each study coming from the ED and dynamically assigned it a priority. The results of this workflow orchestration were surprising even to us - they measured their turnaround times before and after implementing the automation, and were able to reduce them by up to 50 percent.

Now that they have a system in place, and a tool to measure it, they're also able to adjust the prioritization model to make even more improvements. Since all the data can be measured, it's much easier for them to see the impact of any changes they make from this point forward.

One of the areas where workflow challenges frequently appear is in quality workflows. How can departments use workflow orchestration technology to implement more robust quality practices?

Value = quality divided by cost. There is no doubt that robust quality workflows are critical for any organization from patient care, risk and cost perspectives

A good quality system is about consistency, visibility, education and ongoing improvement; however, in many facilities the quality system is manual or paper based. It's inconsistent and therefore cannot become part of the organizational DNA. Automating quality workflows makes them a consistent part of a department's daily operations.

A good quality system is also about timeliness. Imagine a food or drug manufacturer that samples their product for quality months after it ships. If an issue is discovered, it may be helpful for long term quality improvement, but it won't be very effective for the customers who already consumed it. The same concept applies to quality workflows. We encourage customers to use our solutions to facilitate timely peer review to ensure that a certain percentage of studies are reviewed quickly - even within 24 hours. With a system like this one in place, any discrepancies can be corrected quickly so there can be positive impact on the affected patient.

What are the key factors that lead to successful implementation of workflow orchestration solutions?

While every organization is different, we've seen some common qualities in enterprises who have successfully implemented workflow orchestration, whether it be for quality workflows, interpretation workflows (through a single enterprise worklist), or a combination of both.

First they understand that successful change is not only about product and technology but also about strategy, governance and people. They have a good understanding of the problems they

want to solve and often address wide-ranging issues, like adoption, change management, staffing etc. Enterprises who are truly seeking transformation focus on the need to change processes, behaviors and mindset. To achieve this goal, they seek out partners, who understand the healthcare industry as a whole; who can help them align their goals related to patient health with their goals related to business health.

Technologies like workflow orchestration systems have the potential to revolutionize imaging operations, but their best results will always occur when they're accompanied by a consultative and all-encompassing approach to change management.

How can workflow orchestration technology help move quality processes forward in imaging departments?

Workflow automation and orchestration solutions help take industry defined best practices from theory to reality and make them an integral part of clinical operations. They facilitate compliance, standardization and give administrators control and visibility. For example, they allow high volume imaging departments to ensure that SLAs and turnaround times are met consistently; they direct priority cases to the most appropriate resource; they instill confidence that critical findings are efficiently communicated and properly documented. They also allow changes to be introduced to these processes quickly. Rules based workflow solutions help ensure these workflows are rolled out consistently and easily accommodate improvements.

Additionally, hospitals that want to facilitate quality workflows can use automated solutions to help them go beyond simply "checking the box" of existing requirements. New standards in peer review call for reviews to be both blind and timely. A completely anonymous workflow can help create a culture of learning where physicians can provide real opinions without concern for reprisal or blame. This type of workflow requires a sophisticated, automated system that can be adapted for each facility's needs.

A customer of ours who implemented a sophisticated peer review system like the one I describe above told me a story about a situation where an anonymous review resulted in an early diagnosis of a previously missed cancer. Their workflow orchestration solution was designed to create a balance between timely reviews that captured discrepancies quickly and anonymity that let a reviewer flag them without fear of judgment. In this case, the combination profoundly changed the patient's treatment pathway. Without a leading-edge approach and automated workflow management, the result could have been very different.