

# Radiology Practices: Five Ways to Improve Productivity and Quality

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It's no secret that, alongside hospital consolidation, there has been substantial consolidation of radiology practices over the last few years.

Faced with declining reimbursement and increasing administrative costs, many are merging with other practices, acquiring imaging centers, or contracting with more hospitals to generate growth. With this consolidation comes new challenges and new opportunities.

Most practices see their biggest challenges as enabling growth, increasing productivity, and reducing costs, while at the same time improving quality and demonstrating value to their hospital partners.

To benefit from their size, these large practices need to read across multiple PACS and hospitals, as well as leverage their radiology specialists for added value. If they don't

adopt the technology to enable this, they may find their growth restricted to clients with compatible systems.

### **Expanding Teleradiology vs. Focusing on Hospital Partners**

Large practices may seek to drive growth by expanding their remote teleradiology services. This growth strategy can create new challenges for practices.

To protect their hospital contracts, practices may choose to align more closely with their partner hospital and patient care teams. This could entail integrating workflows to improve processes, like shortening ED wait times. It also can mean helping the hospital achieve its goals, such as reducing length of stay.

In contrast, as they also invest in more teleradiology, practices become isolated from patient care teams.

Should practices provide more remote services and focus on quantity? Should they become closely integrated with their hospital partner and focus on quality?

These choices may appear mutually exclusive, but they don't need to be. Enterprise imaging has matured with universal worklist and workflow solutions. There's better access to data, analytics, and decision support solutions. Artificial intelligence and natural language processing are automating and expanding radiology practices' capabilities, as well. Equipped with these resources, practices can be more successful than ever in their quest to deliver quantity and quality.

## **3 Ways to Improve Productivity**

### **1. Efficient Reading Across Multiple PACS**

One of the challenges for a growing practice is enabling its specialists to effectively read studies from multiple hospitals from a single application. A [universal worklist](#) solution with an [enterprise viewer](#) allows practices to consolidate all their reading tasks into a single platform. It saves time and eliminates the disruption of moving from one system workstation to another.

Another benefit is the flexibility to offer more onsite services to more clients. With a universal worklist solution, radiologists can be located at one hospital while reading for multiple hospitals to stay fully productive.

### **2. Staff & Shift Preplanning**

With [advanced analytics solutions](#), practices can become much more effective in planning their workforce needs. They can see exactly where there are bottlenecks and where historically there have been periods of overcapacity. Equipped with this information, they can better plan their resources accordingly.

### **3. Load Balancing**

How can you optimally use your resources during each shift? In high-volume practices there's often a tradeoff between:

- Productivity: Assigning the next study to the most available person
- Equality: Assigning the next case to the radiologist with the least amount of RVU or studies read
- Quality: Assigning the study to a physician considering the urgency of the study and the qualification of the physician

With a smart worklist solution, workflow rules can be configured to account for all of these concerns. Before implementing workflow rules, make sure to discuss them with all stakeholders to ensure they align with the group's culture.

## **2 Ways to Improve Quality and Demonstrate Value**

### **1. Smart Prioritization**

The ability to consistently make sure the "right study is read by the right specialist at the right time" is critical for clinical excellence. This can be challenging when there are high study volumes, different Service Level Agreements (SLAs) for different customers, different study types, and a large number of radiologists with different specialties.

These requirements make it even more important to have an intelligent universal worklist that uses a configurable rules engine to translate the desired best practices into automated, consistent workflows. Dynamic rules-based study prioritization can help achieve much more than simply meeting the contracted average SLAs. It also can considerably reduce the number of outlier cases that fall through the cracks.

For example, one Change Healthcare customer suffered from the "everything is STAT and therefore nothing is STAT" phenomena. The solution was the creation of an intelligent worklist that consistently focused the radiologists on the most important cases to read. The end results? Turnaround times were reduced 35% in the ED and 50% in the ICU.

In addition to adjusting for clinical urgency or contracted SLAs, smart prioritization can factor in opportunities to reduce length of stay. Another customer discovered that they had thousands of patients who could be discharged earlier from the hospital if their imaging studies had been read in time. The extra night inconvenienced patients and created additional costs for the hospital. The solution was straightforward: A case prioritization process was put in place for radiology.

The workflow engine was configured to consider the potential discharge date and other relevant factors to ensure these cases were given a higher priority. This allowed patients to go home sooner, and the hospital to gain an available bed.

With results like these, practices can show clear, measurable value to the hospitals they serve, setting themselves apart from the competition.

Radiologists risk becoming disconnected from referring physicians and care teams, as more practices perform remote teleradiology readings and use PACS and workflow solutions. It's important for radiology groups to make sure that the PACS and workflow solution they own provides robust, vendor neutral collaboration tools that facilitate easy communication with hospital care teams. This includes critical results communication, Tech QI, and ED discrepancies. These tools and the quality processes they facilitate can help position the group itself as a provider of premium services.

## **2. Peer Review Integration**

Peer review is another process that can help make quality part of the group's DNA, and these imaging quality programs can be run for small hospitals and nationwide programs, alike.

Anonymous and timely peer review has proven to increase engagement among radiologists and deliver value to referring physicians. A double-blind process protects the identity of the radiologist who originally read the image and the reviewer's identity. Anonymity removes bias from the review and eliminates the discomfort of evaluating another colleague's work, which increases participation. In addition, peer review can be fit into the workflow to ensure they are conducted within 24 hours of the original report. This allows the radiologist to alert the referring physician to discrepancies in a timely manner, and the referring physician can quickly communicate the discrepancy to the patient, along with any changes to care.

Analytics coupled with a flexible workflow solution like this can facilitate a powerful, ongoing improvement cycle where operational insights are translated into workflow and staffing improvements.

## **Dissolving Data Sharing Barriers**

As practices work to bring in new hospital clients, it's important to quickly and cost-effectively onboard them. However, the new hospital's IT department can become a barrier when they're asked to share imaging and EMR data with the practice. Hospital IT teams typically have concerns about data security, PHI handling, and the like. Unless these concerns are addressed, the radiology practice may lose out on the contract.

A good relationship between the group and the hospital can help. It can also be helpful for the group to find out if the imaging or PACS vendor partner has experience working on the enterprise side. If they do, they can help facilitate the data-sharing conversation and build trust.

An effective strategy for practices to resolve data-sharing concerns is to partner with the imaging vendor that serves the practice's primary hospitals. The vendor generally has a seat at the table with the hospital IT leaders, and the more familiar IT is with the imaging solution that the radiology practice uses, the more likely it will be to agree to share data. In addition, partnering with the imaging vendor allows the practice's radiologists to become familiar with the PACS user interface, which speeds the adoption process.

Practices also should consider the cost and turnaround time for the vendor to connect a new hospital into their system. The shorter the time, the sooner the radiology group can get started reading the hospital's cases. Here again, a flexible universal worklist and workflow solution can make the task of adding a new hospital simple.

### **The Role of AI and Natural Language Processing**

Artificial Intelligence (AI) and natural language processing have the potential to amplify productivity and quality. While these are new components for enterprise imaging solutions, vendors are actively engaged in integrating them into real-world solutions.

AI is a classification tool that can detect visual anomalies in images, which can be set to specific parameters. For example, an AI solution could look at all chest X-rays and identify cases with a high likelihood of having lung nodules. It would then move these cases higher on the priority list for a radiologist to review. It could also identify images that are more likely to have discrepancies and automatically assign them for peer review.

Natural language processing is another new analytical solution in development. It mines information from the text in the radiology report. To accomplish this, a dictionary is set up to find certain search terms. The dictionary could be loaded with measurement terms to identify cases with lung nodules bigger than a certain size. At the same time, it could search follow-up recommendations and flag cases where the recommendations don't align with best practices for that nodule size.

Combine AI with natural language processing, and the results could be even more powerful. Equipped with these technologies, practices could use them to prioritize discrepancies to increase productivity and enhance quality.

### **The Right Tools for the Job**

Practices don't have to choose between generating profits from increased volume or from improved value. A robust, vendor neutral solution can enable high productivity regardless of a reader's location. It facilitates easy communication with hospital care teams. It streamlines workflows and can prioritize cases to a client's specific needs. It can incorporate peer review so practices can differentiate themselves with measurable results. The right enterprise imaging solution should also have a flexible architecture that can incorporate AI and future technologies.

Equipped with a solution like this, a practice is well positioned to thrive in healthcare's rapidly changing environment. **For more information on how Change Healthcare can help your practice thrive, [contact us](#).**