



Teleradiology + Final Reads = Better Patient Care

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Partnering with the right teleradiology company for final reads allows radiologists to provide better care for their patients. The right teleradiology company will support, not compete with, the local group as they grow their practice and increase revenues.

State of Radiology Staffing

The shortage of radiologists allows teleradiology companies to fill a multitude of gaps for radiology groups including helping to alleviate the stress of a radiologist shortage, augmenting the subspecialty expertise of the in-house group and providing faster report turnaround to referring physicians – ultimately providing better service to patients.

The demand for imaging procedures is currently outpacing the number of radiologists by 3:1 (Wells). Demand will continue to increase, especially as the baby boomer population grows older and will undoubtedly require more imaging procedures. One study determined that a Medicare-aged individual has approximately 2.5 diagnostic imaging procedures annually (or nearly 2,500 images per 1,000 people.) (Pesavento) The same study also found that in 2020, the volume of radiology-related procedures will more than double the 1999 volume, an estimated 140% increase in annual imaging procedures. (Pesavento) Unfortunately, the number of radiologists is only expected to increase by about 2% each year (Applegate and Rumack).

The number of new radiologists that can enter the workforce is limited by the number of available seats in residency programs, which is not expected to increase by a significant number in the near future. The regulations on residency programs make it difficult to add a large number of additional seats. For example, residency programs must have a 1:1 faculty to resident ratio and at least 7,000 cases must be available per resident. Increasing the number of radiology procedures will allow the training of more residents however, the 1:1 ratio must still be maintained. Preserving that ratio is a difficult task because many radiologists are reluctant to pursue a career in academics, where the pay is often lower than in private practice. (Applegate and Rumack)

The shortage is magnified even more by the large number of radiologists at or past the typical retirement age. Currently, fifty percent of radiologists are at least 50 years old (Wells). However, reaching retirement age no longer means radiologists have to choose between full time employment at the practice or full time retirement; Teleradiology technology makes it possible for radiologists to remain in the workforce longer. These radiologists can spend more time with family or pursue other interests without committing to full retirement because they can work as many or as little hours as they want to, from wherever they choose to live.

Combine the shortage of radiologists with the economic effects of the DRA and running a successful practice is significantly more difficult. In some instances, the radiology practice can make up for lost revenue by finding additional business. In other cases, reorganizing the operation, reducing redundant costs and partnering with the right teleradiology provider would allow the radiology group to operate more efficiently and streamline costs. Partnering with a teleradiology company would allow the group full access to all subspecialties and coverage throughout the often difficult-to-staff overnight shift for “pennies on the dollar.”

How Teleradiology Companies Can Serve Your Practice

By utilizing economies of scale, Teleradiology companies can meet the demands of multiple facilities with far less staff. Resources can be easily spread across many facilities while still meeting rigorous turnaround time requirements. In contrast, hiring one additional full time radiologist is often not enough to meet the demand for night call because one person shouldn't be expected to provide coverage every night. The cost of partnering with the right teleradiology provider is well worth the investment when compared to the benefit plan and ownership structure associated with hiring an additional on-site radiologist.

A Teleradiology partner can also provide the local group with a larger combined skill set. This is particularly valuable in small hospitals where there may only be one or two radiologists with or without subspecialties. Despite the fact that they are often required to read a wide variety of imaging studies, no radiologist can be expected to be an expert in every area of radiology. Teleradiology can help to expand the group's subspecialty expertise or be a valuable resource for consults on difficult cases.

Teleradiology can also help to improve report turnaround time. While it might take a local radiologist a few days to get through his or her workload, most Teleradiology groups will deliver a final interpretation within 24 hours. Faster turnaround times mean that critical findings are diagnosed more quickly and potential treatments can begin earlier – which results in better care for the patient. In addition, this gives the local radiologist more time to meet with patients during the day.

The combination of additional areas of subspecialty expertise and improved report turnaround time will enhance the radiology practice's reputation within the community. Patients satisfied with turnaround times will report the good experience back to their physician. Referring physicians pleased with the quality of the subspecialty read will certainly increase referrals to that particular radiology group. Increased referrals will ultimately lead to higher revenues for the radiology group.

Acceptance of Teleradiology

Despite the many benefits of teleradiology, it is not always embraced by local radiology groups. The most difficult hurdles to acceptance are the fear that the Teleradiology company will eventually become the group's competition and the potential loss of revenues.

Most, if not all, Teleradiology companies will sign a non-compete agreement if requested by the radiology group. In most cases, it is rarely the intention of Teleradiology companies to displace

the local group. Rather, the teleradiology companies are there to augment the local group by filling staffing shortages, meeting subspecialty needs and covering off hours.

Among practices that use teleradiology, a recent study estimated that only 1%-5% of the group's interpretations were performed by the teleradiology provider. (Kaye) So, while a group may lose some money by paying for an outsourced final read, it is not a significant percentage of total revenues. In most instances, Teleradiology companies price final reads at a fair market price that still allows clients to break even when billing out the professional component.

Partnering with the right teleradiology company can help build the practice as a whole. The group will be able to handle a much larger study volume, radiologists will be more productive during the day and coordinating coverage on nights, weekends and holidays will no longer be an issue. There are valuable intangible benefits as well, including improved radiologist morale and improved emergency department morale. It is also important to note that radiology practices are much better able to recruit and retain top quality radiologists when there is already a solution in place for night call. Quality of life and workplace satisfaction are much higher among radiologists that do not have to take night call.

Providing quality patient care is the number one goal of doctors. The *right* teleradiology company will work with local radiology groups to not only provide the best patient care but to also grow the practice.

Successfully Integrating Teleradiology Into Your Practice

Depending on the specific needs of the group, there are many different types of report services that can be provided by Teleradiology companies including, but not limited to:

- Overnight emergent preliminary reports
- Overnight emergent final reports
- Overflow non-emergent final reports
- Subspecialty reports
- Daytime final report augmentation
- Vacation coverage and tele-locums support

Each of these report services requires a different set of policies and procedures. It is important for the Teleradiology company and the group to thoroughly address these clinical and operational procedures in the early stages of the implementation process.

One of the most important aspects of successfully integrating your teleradiology provider is the development of a framework that will provide the Teleradiologist with all clinical data necessary to render a complete interpretation. Teleradiologists need the same level of access to patient information and records as the onsite radiologists. Prior studies, clinical history, relevant patient paperwork (and any other necessary clinical data relating to the patient's presentation) must be provided in a timely manner.

Also of critical importance to a successful integration is a discussion regarding communications between the group and the Teleradiology company. Specifically, relaying critical findings to referring physicians, escalation procedures and patient follow-up.

Preliminary reads are always overread by the hospital radiologist the next morning, so there is no confusion as to which physician will be responsible for patient follow up. However, when a final read is given, it's important to have a procedure in place for how those results will be communicated to the patient and their primary care physician – especially at 3 o'clock in the morning. Clearly, the procedures will be different for overnight emergency final reads. The Teleradiology company and the local group must work together to develop a solution to this.

When reports for emergent studies are provided, critical findings often need to be communicated to the referring physicians as quickly as possible. If critical findings are to be communicated through a phone call, access to pertinent contact information is important. Also, in addition to the generally accepted critical findings, every facility may have their own subset of what is considered to be critical findings. It is important for the Teleradiology company to recognize this and establish a process to ensure compliance.

Clearly, there's one operational issue that is important in executing this across several different technology platforms with different providers. The technological solution becomes a critical success factor. To be a true partner, the Teleradiology company must be able to provide interfaces and integration across the client's RIS/PACS, V/R and billing platforms. In doing so, there will be a need for a more robust support system during the Teleradiology operations for real time troubleshooting and operational support. This is a significant technology challenge and requires a great deal of planning from all parties involved.

Can Teleradiology + Final Reads = Better Patient Care?

The answer is absolutely yes. Partnering with the right teleradiology company, focusing on clinical and operational framework for the radiology group and hospital and a robust communication and support system all become critical success factors. Once these challenges have been resolved, the Teleradiology company in partnership with the local group, can provide the high quality of care that referring physicians have become accustomed to and that patients expect.

References:

Applegate, MD, Kimberly E., Carol M. Rumack, MD. "Workforce Problems and Strategies." Imaging Economics May 2003. <http://www.imagingeconomics.com/issues/articles/2003-05_02.asp>

Kaye, BA, Adam H., Howard P. Forman, MD, MBA, Roger Kapoor, MD, MBA, Jonathan H. Sunshine, PhD. "A Survey of Radiology Practices' Use of After-Hours Radiology Services." Journal of the American College of Radiology 5 (2008): 748-758.

Pesavento, Peter. "A Turn-of-the-Century Census." Imaging Economics January/February 2001. <http://www.imagingeconomics.com/issues/articles/2001-01_03.asp>

Wells, Robert. "Web Exclusive: Retooling with Teleradiology." Imaging Technology News June 2008. <http://new.reillycomm.com/imaging/article_detail.php?id=610>