

# The Pros and Cons of Teleradiology

Telemedicine uses a variety of technologies to transfer clinical information. The Internet has made it possible for telemedicine to expand across numerous medical specialties, including radiology. Teleradiology refers to the practice of radiologists receiving images to interpret from a facility that is out of the radiologist's geographical vicinity. This practice is possible because these images are obtained electronically. According to a team led by Dr. Andrew Rosenkrantz, who is an Associate Professor of Urology and Radiology and the Prostate Imaging Director at NYU Langone Medical Center, radiologists have mixed opinions when it comes to teleradiology.

Teleradiology does offer benefits, but some say that this type of radiology practice does not have enough pros to make up for its cons. For example, two of the negative aspects mentioned include a decrease in the quality of image interpretation as well as the move toward the commercialization of radiology. So, the best way to determine if teleradiology is a blessing or a curse is to review some of the pros and cons of this practice.

## Teleradiology: A Blessing, a Curse or Just a Bit of Both?

A recent study published in the Journal of the American College of Radiology states that when it comes to teleradiology, there have been mixed opinions amongst radiologists for some time. Concerns expressed by naysayers include that radiologists who perform teleradiology services are disconnected from their contracts with hospitals, which, in turn, helps spark what is being referred to as 'turf wars' within other specialties.

## **Keep in mind:**

*It must be noted that despite the downside of the so-called turf wars, teleradiology does provide the opportunity for those who reside in more remote locations to receive care.*

Successfully implementing teleradiology is going to be a challenge due to a wide range of issues that will need to be dealt with prior to implementation. Some of the issues mentioned in the study include the physical distance between the technologist, radiologist and the referring physician as well as concerns related to the need for complex information technology (IT) integration to make accessing patients' prior imaging examinations and records possible. Other valid concerns include quality assurance, reimbursement and credentialing.

If IT integration is accomplished allowing easy access to patients' previous imaging and records, this information will be available to treating physicians and radiologists across the country, across the globe: Essentially, wherever there is an Internet connection.

## **What if:**

- Credentialing could be addressed using the same strategy as Hospice, an online verification tool.
- Reimbursement was sent to the facility where the images were taken and then dispersed to the teleradiologists, accordingly.
- Quality assurance may be measured through certification programs requiring teleradiologists to take an annual online refresher course that includes interpreting actual films to verify their abilities.

# **What Do Today's Radiologists Really**

# Think About Teleradiology?

To get a true understanding as to what today's radiologists think about this practice and to determine how prevalent the practice is in the radiology community, Dr. Rosenkrantz and his colleagues conducted a national survey. The survey participants were the members of the American College of Radiology: the samples included a total of 937 respondents, 731 of these respondents were not teleradiologists and 87 respondents were teleradiologists.

## Survey results:

### Non-teleradiologists

Nearly 90% of the 731 non-teleradiologist respondents had interpreted a teleradiology image within the past 10 years. Approximately 24% of these radiologists stated that teleradiology accounted for more than 50% of their yearly reading volume, with 46.2% being offsite rural exams and 37.2% being offsite critical-care exams. As the size of their practices increased, so did the number of teleradiology duties they received. Over the last decade, non-teleradiologist respondents have interpreted images from offsite exams in a variety of settings

## The settings where non-teleradiologists have interpreted images from offsite exams within the past 10 years:

- Community-based hospital – 85.1%
- Academic hospital – 85.5%
- Freestanding oncology or imaging center – 91.4%

**The percentage of settings where more than 50% of the yearly imaging interpretation volume came from offsite exams:**

- Community-based hospital – 23.2%
- Academic hospital – 18.6%
- Freestanding oncology or imaging center – 38.7%

**Percentage of the offsite exams that were interpreted from rural locations:**

- Community-based hospital – 55%
- Academic hospital – 28.6%
- Freestanding oncology or imaging center – 20.7%

**Critical-care hospital exams:**

- Community-based hospital – 40.6%
- Academic hospital – 38.1%
- Freestanding oncology or imaging center – 27.6%

## **Teleradiologists**

Needless to say, all 87 of the teleradiologist respondents had interpreted teleradiology exams in the past decade.

The curse may be that, despite concerns related to the possible negative impact that this practice could have on radiology, it seems that teleradiology will remain a viable part of this department. The blessing? It is easy to see how teleradiology can be a blessing to those residing in rural areas where few radiologists are available. So, in the end it seems that teleradiology is just a bit of both after all.