

Not Just Child's Play

VIEWPOINT

Trends in pediatric teleradiology

By Jodi A. Katz, PsyD, and Michael E. Katz, MD

While pediatric imaging is concentrated in children's hospitals and units within general facilities, a sizeable percentage of cases still present to general inpatient and outpatient facilities, which do not have a trained pediatric radiologist on staff, using "adult" radiologists to read pediatric studies. Learn how Pediatric Radiology of America is attempting to turn the tide on this problematic trend.

TELERADIOLOGY HAS FOREVER ALTERED THE LANDSCAPE OF IMAGE INTERPRETATION. As a technology, teleradiology is used internally within both group practices and hospitals to move cases to radiologists for the purposes of subspecialty expertise, leveling workloads, and optimizing efficiency. It is also used to provide images to clinicians who may need them for planning surgical intervention and other treatments.

As a service, teleradiology is generally meant to refer to the transmittal of images and receipt of interpretation with radiologists who are not regular day-by-day practice members and are, instead, employed by an outside company or entity. The primary impetus for the development of these relationships has been coverage of emergent cases from night and weekend times. Increasingly, other reasons for use of teleradiology services include the desire to broaden the subspecialty capabilities of a practice, help with daytime radiologist shortages or avoid incurring expensive training and equipment costs needed for certain examinations, such as PET or cardiac CT angiography.

Pediatric imaging across the country is moderately concentrated in children's hospitals and children's units within general hospitals, but there is still a sizeable percentage of cases that present to general inpatient and outpatient facilities, which do not have a trained pediatric radiologist on staff. Even in practices that do have one or more fellowship-trained pediatric radiologists, not all pediatric cases may be interpreted by the subspecialists for a variety of reasons – for example, off-hours, vacations, cases that cross subspecialty lines (such as pediatric neuro or interventional cases) or simply having too much pediatric volume for the fully trained pediatric readers to handle.

In this type of practice, it would be typical for the after-hours cases to be read by either an internal or external "nighthawk" who is not subspecialty trained in pediatric radiology. While it may not be optimal for patient care, it is already the standard practice in that organization for "adult" radiologists to read pediatric studies; therefore, using adult teleradiologists is not viewed as a problem unless a pattern of errors arises.

In children's hospitals that are used to having exclusively pediatric radiologists with a certificate of added qualification, there has been understandable reluctance to send cases to teleradiologists who do not have equivalent credentials. Most often, when these types of arrangements have been made, the teleradiology service has been enlisted to provide only preliminary interpretations, so that the final readings are still vetted by pediatric subspecialists. This can be problematic, because critical decisions – such as whether to operate on a child – may have already been made, based upon the preliminary report.

Also, because there is a shortage of pediatric radiologists, many facilities are understaffed, and having to reinterpret the night work is a burden that would be avoided if final readings were

provided by the after-hours coverage service of pediatric radiologists.

While the initial impetus for development of teleradiology was clearly night and weekend coverage, recently there has also been significant movement in the development of daytime teleradiology. These "dayhawk" services meet needs for extra manpower at facilities that are short-staffed; may provide coverage at remote smaller, rural facilities or at imaging centers that can usually get by without an onsite radiologist; and also provide access to subspecialists who may be lacking in a small general practice.

In pediatric teleradiology, Roanoke, Va.-based Pediatric Radiology of America Inc. (PRA) has arisen as one of the largest single provider of subspecialty imaging for children. This company was founded in 2006 and has grown steadily since its inception. It now employs more than 20 radiologists who are fellowship-trained in pediatric radiology and American Board of Radiology Certificate of Added Qualification-certified or eligible. It provides services mostly to freestanding children's hospitals, but continues to encourage use by smaller facilities that would benefit from having access to pediatric radiologists for their children's imaging needs. With its sister company – Teleradiology of America Inc. –



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Pediatric Radiology of America

it can also provide a combined teleradiology solution with routine and emergent adult interpretation, plus subspecialty pediatric reporting.

Many teleradiology companies cover night cases in the United States with radiologists working a day shift in their overseas offices, but this precludes provision of final interpretation under Medicare rules. All of the radiologists with PRA are based in the U.S., and the company has been engaged to provide final interpretations for most of its client facilities. This has afforded these facilities with reliable subspecialty readings on a 24/7 basis, and saved time for the regular department radiologists.

Beside the obvious benefits of having fellowship-trained pediatric radiologists reading the pediatric cases, PRA offers other benefits to the pediatric radiology community. Unlike other teleradiology companies, PRA is equipped to work with teaching facilities. The company has the ability for radiology residents to provide the initial interpretation on a case and then have it reviewed in the usual 30-minute turnaround time by a PRA radiologist for finalization. PRA radiologists have also remained academically active, delivering several presentations at the 2008 Society for Pediatric Radiology meeting.

A major issue in pediatric radiology, as opposed to general radiology, is the severe shortage of subspecialists. The existence of a company such as PRA helps to address this problem in several ways. First, it may keep readers in the field who would otherwise be lost due to retirement, relocation or family commitments. Pediatric radiologists have a higher average age than the general radiologist population, and PRA provides a vehicle where radiologists toward the end of their careers can still be productive, yet have more flexibility in scheduling when they wish to work. Rather than simply retiring, these valuable radiologists, with a wealth of knowledge and experience, can continue to practice.

A radiologist may wish to live in a certain part of the country where there are no full-service pediatric facilities, and the only employment available would require most of the individual's time to be spent reading adult work. Working for PRA would allow that physician to keep 100 percent of their productivity in the pediatric imaging arena.

Pediatric radiologists also have a higher percentage of women, and PRA can provide them with an opportunity to more readily blend caring for children with a career, as they work from home. For that matter, any pediatric radiologist who needs to be available to care for a spouse, parent or other loved one while working from home could benefit from this expansion of the workplace to the home.

PRA's scheduling options are flexible, thereby making this option more practical. Any radiologists who increase their longevity or amount of work they contribute on a weekly basis because of PRA help to alleviate the subspecialty shortage in pediatric imaging, which results in helping to maintain the high quality of care to our pediatric patients.

Pediatric radiologists also have a somewhat lower average income than the average radiologist, due to a combination of factors, such as low Medicaid reimbursements, academic practice models, and time-consuming – but relative value units-undervalued procedures – such as fluoroscopic studies. This may lead to a desire for doing additional part-time work or moonlighting to supplement income. Opportunities for that type of work in

one's hometown may be limited or prohibited by restrictive covenants. Again, PRA provides a solution, and many of the radiologists working with PRA are enjoying the opportunity to do their extra work in the subspecialty they love.

Another benefit of PRA to the manpower issue is that consolidating off-hours pediatric cases from several hospitals with pediatric teleradiology may free up pediatric radiologists who otherwise would have had interrupted sleep and then have to limit their daytime work hours. This leads to an across-the-board efficiency for the pediatric imaging community that would not otherwise be available.

Finally, many pediatric radiologists do not have the opportunity in their full-time practices to do 100 percent pediatric work. In some cases, they might even be doing less than the one-third pediatric volume mandated by the American Board of Radiology to gain eligibility for their Certificate of Added Qualification. Radiologists who wish to augment their pediatric caseload could benefit from joining PRA because it provides its readers with 100 percent pediatric cases.

Across the industry, there is starting to be a blending of teleradiology and "locum tenens" services. PRA is also launching an onsite coverage option that will provide pediatric radiologists to aid clients who have significant shortages of in-house radiologists. Many of the PRA radiologists have extensive teaching experience and will participate actively in the teaching activities of the facilities where they are performing the onsite work. The onsite PRA radiologists will be backed up by the teleradiologists to provide a total solution to serious staffing shortfalls.

The emphasis on subspecialty radiology reads is growing as hospitals and medical staff are requiring high levels of expertise in specific areas, and particularly in pediatric radiology. Although pediatric teleradiology entered the industry later than general adult teleradiology, we have experienced an increasing number of children's hospitals, general hospitals with pediatric and neonatal departments, as well as outpatient clinics, such as pediatric urgent care centers, to avail themselves of the service.

By enlisting a pediatric teleradiology service, such as PRA, the client facilities not only gain some of the most well-trained pediatric radiologists in the U.S., but the referring physicians enjoy complete confidence in the readings they receive on their pediatric patients.

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