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## **Teleradiology: job-killer, or lifesaver?**

by [Nancy Ryerson](#), Staff Writer

When teleradiology companies first appeared back in the 1990s, they operated under cover of darkness. Like the Tooth Fairy spirited away molars from beneath pillows, teleradiologists would read late-night studies and have them waiting for on-site radiologists first thing in the morning for a final read.

Today, it's a very different scene. Teleradiologists now work during the day, and they're generally based in the U.S. Hospitals task them with final reads, rather than preliminary, and a wide swath of specialists provide valuable reads from far away.

Telerad companies estimate that around 50 percent of hospitals are now using their service. The technology that allows for teleradiology — robust PACS, cloud storage and other image sharing techniques — is even more ubiquitous.

“In a way, teleradiology has really been adopted by all practices in the country,” said Ben Strong, medical director of Virtual Radiologic, or vRad, the largest radiology practice in the country. “They may not be using a third-party teleradiology vendor, but they understand the need to distribute studies digitally, and use it on a local and possibly regional basis.”

Despite its widespread use, teleradiology stills stirs up significant controversy in the radiology world. Some radiology groups have vowed to “take back the night” to regain lost ground. Meanwhile, teleradiology continues to widen its scope, connecting hospitals with specialists and offering the last word on studies.

### **Final answers**

One of the main changes shaking up teleradiology, and the way it's viewed, has been a shift from preliminary reads to final reads performed off-site. In 2007, CMS ruled that only radiology cases read in the U.S. could be billed for reimbursement. At the time, most teleradiologists were based internationally so they could read during daytime hours while it was night on the other side of the world. The cases they read were preliminary, to be looked over again in the morning by an on-site counterpart. As more teleradiology companies have hired U.S.-based radiologists,

more have been able to offer final, billable reads.

“Preliminary reads will go the way of the dinosaurs in a few years as more and more cost pressures come down on hospitals,” says Paul Johnson, vice president of sales and marketing at Aris Radiology. Today, 80 percent of his company’s interpretations are final reads.

Johnson argues that preliminary reads are inefficient, and that teleradiologists, just like their on-site counterparts, can be trusted to provide reliable final looks. “There’s one big benefit of the preliminary reading process, and that comes in the fact that every study that’s re-read is a built-in quality assurance process. But it is inefficient,” says Johnson.

“When preliminary reads are gone, it’s going to become more incumbent to have a QA process. We don’t necessarily have to review every exam a second time, but a sampling of maybe five percent — I think that will be demanded in order to promote the quality of the service.”

Some teleradiology companies work in their own quality assurance procedures. Radisphere, for one, uses data gleaned from its teleradiologists’ work to determine what kind of studies are most likely to have errors, and which could use a second opinion.

“Our technology will randomly select two percent of all the cases, make them anonymous and assign them to a second radiologist,” says Hank Schlissberg, chief growth officer at Radisphere, a cloud-based radiology company. “They think they’re just reading a case that’s in their queue. With this method, we’ve found that we miss broken pinkies all the time, for example, so we know to look out for that.”

And regardless of which side of the teleradiology debate you fall on, facilities that partake may be reassured by a white paper published in May by the American College of Radiology’s Teleradiology Task Force, which aimed to create guidelines for the practice.

“We created this in the hopes that it will raise the standards across the industry, so when it’s all done, you’ll have better patient care,” said Ezequiel Silva, task force chair.

The white paper encourages teleradiology companies to put patients first, and notes that facilities should emphasize on-site service over off-site. Teleradiology companies don’t see the guidelines impacting their business, but they’re happy for the validation the task force’s creation suggests.

“It was fair and balanced, and hit on some of the key issues involved in teleradiology,” says Howard Reis, vice president of business development at Teleradiology Specialists.

### **Daytime dynamic**

Powered by the ability to offer final reads and specialty services, teleradiology companies have sought out daytime opportunities as well.

“On-site radiologists need to concentrate on the things that need to be done on-site, like interventional procedures, mammography and consultation with the medical staff, all of the things that sometimes radiologists in the traditional environment don’t have enough time to do,” says Aris’ Paul Johnson. “Unfortunately, they’ll get caught in an interventional procedure that’s supposed to take 30 minutes and it takes two hours, then there’s a huge backlog of a work-list that they can’t see the end of, and turnaround times become a problem.”

Many radiology firms offer both teleradiology and on-site radiology and see radiology as a team effort. Facilities can choose to send out studies that need a specialist’s eye, for example, or for a quick turn-around in an emergency situation.

“Let’s say the radiologist is on the phone, and the techs come in with another study, something that needs to be looked at and evaluated, and we’ve still got the patient in the ER sitting there because we don’t have an interpretation,” says Johnson. “That doesn’t happen when we have a hybrid situation. Those studies are sent to the offsite network where they’re read immediately.”

Teleradiology also comes in handy for rural hospitals that only staff a handful of radiologists. There are at least a dozen radiology specialties, from pediatric to MRI, and many hospitals don’t have every type on staff.

“There is a strong interest in subspecialty support,” says Reis of Teleradiology Specialists. “If I’ve got a neuro radiology case, I want it read by a neuro radiology doctor.”

### **Take back the night – and the day**

Many traditional radiologists are not taking what they see as an affront from teleradiology sitting down. The “commoditization” of radiology, and ways to push back against it, has been a popular topic in discussions at RSNA and articles in the Journal of the American College of Radiology and other publications. Radiologists on this side of the debate argue that teleradiology cheapens their practice and hurts patients, and ultimately takes jobs away from on-site radiologists.

One recent study published in the JACR found that radiologists spend only 36.4 percent of their time reading images and dedicate the rest of their time to interacting with other hospital personnel involved in patient care. Radiology advocates say the practice needs to make a stronger effort of making that fact better known.

“They have to go overboard to provide good service,” says David Levin, professor of radiology at Thomas Jefferson University and a long time teleradiology critic. “They have to build bridges to their hospital administration,

volunteer for committee service, be better consulting physicians. And they also have to do a better job of weeding out requests for inappropriate studies and exercising more power over the technologists.”

If radiologists don’t seize the day, and take back the night, Levin warns that hospitals will be lured away by the lower prices and fast turnaround times teleradiology companies can offer. Levin even suggests that radiologists should sacrifice 10 to 15 percent of their income to help hospitals save money while holding on to their contracts.

Meanwhile, despite teleradiology’s current popularity, the field still experiences a stigma from some hospitals, leading some facilities to provide teleradiology services only to their own hospitals system.

Massachusetts General Hospital, once a popular teleradiology provider, has scaled back its services to other hospitals, focusing instead on covering its satellite campuses.

“For example, we provide teleradiology at our Nantucket and Martha’s Vineyard hospitals because we don’t have radiologists there 24/7,” says James Brink, chief of radiology at Massachusetts General Hospital.

Brink agrees that radiologists need to step up or risk being replaced. He suggests that sometimes, in-house groups that lose their contract only have themselves to blame.

“One of the worst things that can happen is if a group outsources teleradiology to a company that’s perceived as better than the day company, then they really shot themselves in the foot, because now the teleradiology can say we’ll cover daytime too,” says Brink. “That’s happened. And it’s not complimentary to the group to which it happened, because number one, they were willing to outsource at night, and number two, they weren’t providing the value add they should have been, to make their own hospital value what they’re bringing.”

Brink agrees that specialty teleradiology is valuable for small radiology practices, but notes that because radiology practices, both on and off site, are getting larger, practices that cannot provide their own nighttime and specialty service may become less common.

It’s also possible that larger, academic hospitals will help pick up the slack for rural hospitals in their region more often.

Saint Louis University Hospital currently uses teleradiology services at one of the community hospitals in its network, St. Mary’s, but hopes to move away from it altogether and perhaps offer teleradiology to area hospitals itself.

“Here, our model is based on sub-specialization, so at some point we would be interested in offering teleradiology services to other small practices, rural practices that don’t have the subspecialty inhouse,” says Jeff Brown, chief of

radiology at SLU.

### **We can work it out**

For now, at least, teleradiology seems to be here to stay, and some radiologists think there may be a way to for rads and telerads to operate in perfect harmony — or at least in a way that's good for patients.

“There are places where certain parts of radiology should be efficient, and there's a place that should not go to that model,” says Jim Anderson, a radiologist at OHSU Hospital in Portland, Ore. He cites certain spine studies and basic chest X-rays as studies that could be sent off-site without any detriment to patient care. “Basically when you're just comparing an old study with a new one and looking for visuals, you don't need to be able to talk with a clinician, because that's already been established.”

Jordan Halter, vice president of Business and Clinical Solutions at vRad predicts that as radiology practices become more consolidated, the battle lines between radiology and teleradiology will eventually be erased.

“I think the demarcation of onsite versus teleradiology is going away. It's becoming blurred,” he says. “You just have to be able to move the right study to the right rad at the right moment.”