

## Clinical Guidance: Direct-to-radiologist delivery

—CHERYL PROVAL

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Lincoln Berland, MD

Recognizing the explosion in clinical factors affecting the outcome and diagnosis of disease, Lincoln Berland, MD, quality and patient safety vice chair, radiology department, University of Alabama (UAB) at Birmingham Medicine, played an instrumental role in the development of clinical criteria beginning in 2006. As then-chair of the ACR Abdominal Imaging Committee, and with the support of the ACR, he organized

the ACR Incidental Findings Committee.

Since then, six white papers on 11 organ systems have been developed earning Berland the distinction of the most downloaded papers on the *Journal of the American College of Radiology* website. Radiologists have told Berland that they pin the papers to the bulletin boards next to their workstations or keep the digital files on their desktops. At UAB, the papers are kept in binders at workstations.

“All of the old models of simply using our diagnostic criteria that we are familiar with in our brain—and translating that to paper without any help—doesn’t work anymore,” says Berland. “There is too much detail to remember to be able to apply at any given point in time.”

Still, he acknowledges that adoption by radiologists has been spotty.

“There actually are a number of research studies that have been published in various journals that have looked at compliance with published guidelines—not just our white papers but other recommendations—and it seems like a practice is doing pretty well even to follow these recommendations up to about half the time,” he reports.

Far from passing judgment, Berland instead emphasizes the challenges inherent in accessing the clinical criteria while in the

midst of an interpretation. Locating criteria while reporting is disruptive, and the radiologist may not be aware that relevant criteria exist or may disagree with the guidelines, some of which are already out of date.

“Even if you have the paper in front of you, one still has to find the chart, go through it and read some text,” he notes. “Even if it’s in your hand, that takes some time. The development of technology will do a lot of that in the background automatically. We anticipate saving a lot of time, as well as improving accuracy.”

### On the cusp of intuitive clinical guidance

Berland points to a potentially game-changing collaborative effort on the part of the [ACR, Massachusetts General Hospital \(MGH\) and Nuance Communications, located in Burlington, Mass.](#), that puts the collective knowledge of the specialty in the cloud, deliverable at the point of interpretation.

Nuance’s clinical guidance solution grew out of the work of Keith Dreyer, DO, chair of the ACR IT Commission, and Tarik Alkasab, MD, at MGH, who assumed the task of filling the gap between “what you read in the white papers and what you actually say in the report,” Berland explains. When a radiologist specifies a relevant feature, [PowerScribe 360](#) is prompted to automatically insert the correct terminology that has been developed through review of the ACR white papers and other clinical criteria.

By leveraging Nuance’s [PowerShare Network](#), revisions and edits to the guidelines are available to all users simultaneously. The department chair or other authorized administrative user can decide whether to download the latest guidance from the cloud to the local PowerScribe 360 server. “To do it by the old model of local installation whenever there is a new version of software simply doesn’t allow you to keep up at the pace that these guidelines and best practices are being developed and revised,” Berland says.

MGH is continuing to assist, but the ACR involvement is increasing substantially.

Berland expects the initial release from Nuance to include clinical guidance for describing liver lesions, adrenal nodules, renal masses and ovarian cystic masses.

With the recent approval of lung cancer screening by CMS for Medicare patients, the ACR has made formatting the Fleischner Society guidelines for the management of pulmonary nodules—and the related Lung-RADS™—a priority for early development.

## Performing at highest level

In standardizing their approach to diagnosis, radiologists will be adopting a core concept of quality—consistency. “People appreciate consistency and the value of being able to rely on that,” Berland says. “It’s clearly shown in almost every industry that it improves efficiency, quality and outcomes.”

The consistency of the report for a given situation and a given type of patient will dramatically improve if radiologists embrace the concept of clinical guidance at the point of interpretation, Berland believes. Patient outcomes will improve, and so will the relationship between the radiologist and the referring physician, who will have greater appreciation of the value the radiologist is providing.

Referring physicians also will gain confidence in what the radiologist reports because they will begin to see consistency for a given clinical scenario that has been proven to drive better outcomes. That’s why Berland calls the solution a “win-win.”

“People have known that they are not performing at the highest level with regard to recommendations like this, but there just hasn’t been a tool available to support them,” Berland says.

With all of the pressure on the healthcare industry to improve outcomes and the increasing complexity of the field, such tools are no longer optional. “Performing at the level that we have accepted as standard—which is not very good in terms of being right maybe half the time—is going to lead to the necessity of having some kind of support, like this software, to make sure we are complying with whatever recommendations are available,” he concludes.