Becoming a Clinical Diagnostic Radiologist: The Answer Is Not “Clinically Correlate”

Mark Daniel Mamlouk, MD

One would be hard pressed to dispute radiology’s dynamic role in health care, which has launched it to the forefront of medicine. However, in all of this, radiologists have seemed to be growingly passive. Before PACS, clinicians were more dependent on radiologists for image interpretation; there was an established radiologist-clinician relationship. In the present era, clinicians more readily interpret their own studies [1]. This has led to less communication between the 2 parties, decreased education of clinicians on interpretations and protocols, and the failure of radiologists to act as image consultants [1]. These sobering facts emphasize the need for the emergence of a more refined radiologist.

THE CLINICAL DIAGNOSTIC RADIOLOGIST

My definition of a clinical diagnostic radiologist is one who succinctly and effectively relays information to the referring clinician with a clinical perspective and considers the patient at all times. Clinical radiologists try with their utmost ability to guide clinicians to the right diagnosis, avoid vague verbiage that confuses clinicians, tailor reports to clinicians’ preferences within reason, and practice evidence-based medicine. Furthermore, radiologists consider patients when composing radiology reports to avoid unnecessary patient concern.

RADIOLOGISTS’ PITFALLS

Poor Clinical History

There are multiple pitfalls that prevent radiologists from accomplishing all these difficult but still pursuable goals. Most notorious is the lack of a good clinical history [2]. A poor clinical history is one of the bane[s] of the profession of radiology: we all grumble about its widespread existence. Although I agree that more ownership is required from our referring clinicians to provide better histories, what clinician acquires a “free history”? Clinicians all attain their own histories. Why not us too? In the age of electronic medical records, a pertinent history is only a mouse click away from the radiologist. Although admittedly, time constraints prevent radiologists from seeking out the appropriate history on every study, history searching should be performed more frequently than it is [3].

Vague Radiology Vernacular

Vague terminology is rampant in radiology reports [4]. Consider the following hypothetical case: a 51-year-old woman has a 4-cm low-attenuation pancreatic tail mass with mild peripheral enhancement. The radiologist’s impression is “Pancreatic tail mass that may represent a pseudocyst, but also may represent malignancy. Clinically correlate.” This widely used phrase is commonly used by radiologists but does not add value to radiology reports. Clinicians satirize it. Not only does this expression lack pertinent meaning, it does not protect radiologists in litigation for poorly interpreted studies [4]. If radiologists seek to include clinical correlations, they need to be specific. In the case of a presumed occult fracture, for instance, “Correlate for point tenderness” may be a better alternative. If there is a suspected cerebellopontine angle mass, “Correlate for vertigo” is a specific and superior statement. Going back to the pancreatic tail mass, how can a clinician “clinically correlate”? There are not many ways.

But what “if clinically indicated?” An 89-year-old man with worsening metastatic bladder cancer has an incidental small thyroid nodule on staging CT. The radiologist’s impression is “Incidental low-attenuation right thyroid nodule for which ultrasound can be done if clinically indicated.” Although this is a true statement, consider whether there is additional value. This thyroid nodule is probably of little significance in this elderly patient with metastatic bladder cancer. Preferred dictation would be “Incidental low-attenuation right thyroid nodule is noted of doubtful clinical significance given the metastatic disease.” In other words, before including this vague phrase, ask yourself what it would mean to you if you were the clinician [5]. This is our patient too!

Radiology Report Impression, or Lack Thereof

The radiologist’s impression is the most important component of the radiology report. Yet a significant number of radiologists forgo an impression. In a recent study, 94% of 703 polled clinicians believed that radiology reports longer than a few lines should have separate conclusions [6]. Not only is an impression necessary, it should be concise and relevant, should not reiterate the findings, and should answer the clinical question [3]. Even when the provided clinical history is simply “Evaluate endotracheal tube position,” an appropriate impres-
sion is “Satisfactory endotracheal tube position.” A brief yet helpful impression will streamline clinical management and better aid our referring clinicians.

**Remember the Patients**

It is important to remember who is on the other end of our reports. Case in point: a 15-year-old boy with epistaxis has a 3-cm avidly enhancing mass in the sphenopalatine foramen that extends into the pterygopalatine fossa. The radiologist’s impression is “Findings may suggest a juvenile angiofibroma, a benign entity, but a malignant tumor such as rhabdomyosarcoma cannot be excluded.” Although this is true, commit to the diagnosis when findings are classic. Preferred dictation would be “Findings suggest a benign juvenile angiofibroma.” The caveat of being unable to exclude rhabdomyosarcoma causes unnecessary anxiety, especially given that our patients have increasing access to their medical records [7]. In the future, radiology reports may become more patient directed and be sent directly to patients. They will have to be written with patients in mind and in a way that laypeople can understand [7].

**THE DETAILS AND OUR PERCEPTION**

One may think that these suggestions are minor details, but if we do not strive to achieve the best we can, do we really deserve the full compensation for each study [8]? Furthermore, clinicians will not embrace us as the imaging experts. Of 712 clinical specialists, 37% believed that they can interpret imaging studies from their own specialties better than radiologists [6]. In addition, only 41% of 432 clinical specialists deemed radiology reports valuable [6]. These sobering statistics should propel radiologists to reach a higher standard.

**MY IMPRESSION**

A clinical diagnostic radiologist:

1. seamlessly guides clinicians to their diagnoses,
2. avoids vague terminology and provides meaningful impressions,
3. gathers a separate history when needed, and
4. keeps referring clinicians and patients in mind when constructing radiology reports.

**REFERENCES**

5. Ginsberg LE. “If clinically indicated:” is it? Radiology 2010;254:324-5.

Mark Daniel Mamlouk, MD, University of California, Irvine, Department of Radiology, 101 The City Drive South, Orange, CA 92868; e-mail: mamlouk@gmail.com.