

## Commentary

The radiology report is the interface between the radiologist and the referring physicians. Unfortunately we are at a disadvantages as we generate these reports in a foreign language and we do not always understand the nuances of English and from to time the message gets lost in the telling. Having said all of this even when the reports are generated by radiologists whose first language is English the message may not be as clear as it should be. As we all know even though the radiological image is literally in black and white the findings are often either ambiguous or equivocal creating uncertainty in the radiological read. It is important for the radiologist to convey his or her level of certainty of any particular observation or interpretation. Lacson et al describe the use of what they call Diagnostic Certainty Phrases (DCP). These are phrases such as “diagnostic of,” “unlikely” and “represents” that most radiologists and referring physicians would understand to mean the same thing. They looked at the frequency of their use and tried to determine the factors which may be associated with their use. They find that although the phrases were consistently used in reports there was wide variation in their use. They also did not find a correlation between their use and the factors such as the presence of trainees during the reporting sessions.

Elizabeth A. Krupinski also reflects on this article and her analysis is well worth a read.

Although e learning resources have become progressively more popular in most aspects of medical education. Radiology in particular lends itself to this medium. Wade et al compared adaptive tutorials to other based resources and found that adaptive tutorials work better than other types of web resources as they allow interaction and participation which promotes knowledge retention.

Social media has become ubiquitous in today's world. It has become an integral part of our daily routines. The use of social media may have negative impact on our daily lives by the time it occupies and is generally considered a distraction from patient care. Tso et al point out that like many other things in life, if used appropriately social media may have a positive impact on both our personal and professional lives.

### **Prof. Zafar Sajjad**

*Department of Radiology*

*Cleveland Hospital, Abu Dhabi, UAE.*

## Academic Radiology 2019; 26(9): 1229-34

Ronilda Lacson, Eseosa Odigie, Aijia Wang, Neena Kapoor, Atul Shinagare, Giles Boland and Ramin Khorasani

### Multivariate Analysis of Radiologists' Usage of Phrases that Convey Diagnostic Certainty

**RATIONALE AND OBJECTIVES:** To quantify the use of Diagnostic Certainty Phrases (DCP) in radiology reports, including DCPs with good agreement (including "diagnostic of," "unlikely" and "represents") in connoting degree of certainty between providers based on previous studies; and to assess whether modality, presence of a trainee, radiologic subspecialty, and individual radiologists are associated with the usage of DCPs with good agreement.

**MATERIALS AND METHODS:** This retrospective, IRB-approved study was conducted at an academic medical center. Radiology reports that contain DCPs were identified using information retrieval from all reports generated in 2016, excluding mammograms, obstetrical ultrasound, bone densitometry, and interventional studies. DCPs connoting good agreement were further noted. Of the reports that contained DCPs, a two-level hierarchical generalized linear model with attending as the level-two variable was performed

comparing the use of DCP with good agreement while considering trainee involvement, modality, and subspecialty.

**RESULTS:** A total of 159,151 reports out of 370,881 were found to have at least one DCP (43%). Reports of CT scans had the most number of DCP (68% of all CT reports). Breast and abdomen subspecialties were associated with use of DCP with good agreement. There was significant variation in use of DCP with good agreement between physicians that could not be explained by modality, trainee presence, and subspecialty.

**CONCLUSION:** Phrases to convey diagnostic certainty were commonly used in radiology reports. There is wide variation in usage of DCP with good agreement. Future interventions to reduce variation in use of DCPs may reduce ambiguity and improve quality of radiology reports.

## Academic Radiology 2019; 26(9): 1235-6

Elizabeth A. Krupinski

### How Certain Are Your Radiology Reports And Are We Alone In Our Uncertainty?

## Academic Radiology 2019; 26(10): 1421-31

Stuart W.T. Wade, Michelle Moscova, Grad Dip, Nicodemus Tedla, Daniel A. Moses, Franzcr, Noel Young, et al.

### Adaptive Tutorials Versus Web-Based Resources in Radiology: A Mixed Methods Analysis of Efficacy and Engagement in Senior Medical Students

**RATIONALE AND OBJECTIVES:** Radiology education is suited to delivery via e-learning which may

be used to fill gaps in knowledge and help prepare medical students for internship. There is limited evidence

of effectiveness of adaptive tutorials, a form of e-learning in a senior medical student cohort.

**MATERIALS AND METHODS:** A randomized mixed methods crossover trial was performed to assess effectiveness of adaptive tutorials on engagement and understanding of appropriate use and interpretation of basic imaging studies. Eighty-one volunteer medical students from years 5 and 6 of a 6-year program were randomly allocated to one of two groups. In the first phase of the trial on head CT, one group received access to adaptive tutorials and the other to peer-reviewed web-based resources. A cross over was performed and the second phase of the trial addressing chest CT commenced. Examination style assessments were completed at the end of each phase. At the trial's

conclusion, an online questionnaire was provided to evaluate student perceptions of engagement and efficacy of each educational resource.

**RESULTS:** Adaptive tutorial groups in both phases achieved higher mean scores than controls which were statistically significant in the first phase only. Students reported higher engagement and overall perceived value of the adaptive tutorials than controls.

**CONCLUSION:** Adaptive tutorials are overwhelmingly supported by senior medical students. Questionnaire responses suggest the engaging nature of the tutorials efficiently aids participation and knowledge retention which is in principle supported by test results.

## Clinical Imaging 2019; 58: 191-3

Hilda H. Tso and Jay R. Parikh

### Embracing social media in the era of work-life integration

Radiology practices are leveraging social media for networking, education, branding, and marketing. This change inherently requires radiologists to increase their engagement in social media and may negatively affect work-life integration and contribute to radiologist burnout. In this article, we describe specific strategies that radiology practices may deploy to help balance work-life integration.

#### HIGHLIGHTS:

- Increasing professional social media usage may negatively affect work-life integration and contribute to radiologist burnout.

- Radiology leadership need to fully embrace the value social media brings to the practice and establish stakeholder buy-in.
- Adequate and available training of professional social media usage to all radiologists helps establish shared responsibility.
- Structured time and compensation to account for radiologist's time invested in social media may improve work-life integration.
- Outsourcing to non-physician social media person/marketing team may minimizing radiologists' time.