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## Needs Assessment

Benjamin Strong, MD, is a double-boarded, fellowship-trained radiologist actively practicing and functioning as the associate medical director with the largest U.S.-based radiology practice, Virtual Radiologic. Dr. Strong has been an active member of the vRad Quality Assurance Committee for more than five years.

Dr. Strong has identified practice gaps in image interpretation accuracy that are common to nearly all radiologists and can have a significant effect on patient outcomes and costs. He has seen these gaps in his clinical experience, his tenure as a quality assurance committee member, internal focus groups, educational activities and independent surveys and analyses. This webinar will address these gaps by exposing radiologists to complex radiology cases, pathologies and new imaging applications.

Dr. Strong is responsible for overseeing and overreading the image interpretation reports for a practice of 140 radiologists that performs more than 2.5 million interpretations a year. Over 70% of vRad's interpretations are overread by the local/client radiologists, so we are in a unique position to acquire, compile and analyze accuracy data. vRad employs a complex coding system and associated database to track interpretation accuracy, graph the accuracy data quarterly and identify workflow or knowledge base issues.

vRad's years of data show an improvement in performance related to exposure to its quality assurance and education system. There is, however, a small error rate in nearly any radiologist's practice, so there is always room for



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improvement. vRad has instituted software tools and policies that require all radiologists to review and comment on all reported errors. vRad has also given numerous Web-based presentations to the members of our group, addressing common errors as well as complex cases and new imaging applications. These presentations have been universally well-received, and a subsequent documented improvement in performance has been achieved. vRad radiologists also enjoy a popular community posting board (accessible internally only) of anonymized interesting cases for educational purposes, and the importance of these activities has been frequently stressed in internal focus groups.

vRad's internal data has not been publicized for business/competition reasons, although an anonymized example of our quarterly graph is included (attachment 3a). vRad does have plans to publish both our process and analyzed data in the coming months/years, given our confidence in our Quality Assurance process and accuracy and our conviction that we currently lead the radiology industry in this regard. The premise that exposure to broader and more complex cases is essential to the educational development of a radiologist underlies the philosophy of all radiology training programs. In addition, the association between increased education and improved accuracy has been recently established in multiple studies showing improved accuracy and patient outcomes from interpretations by specialized/more highly educated radiologists.



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## **Bibliography**

American Medical Informatics Association symposium proceedings, May 2008.

Briggs GM, Flynn PA, Worthington M, Rennie I, McKinstry CS. The role of specialist neuroradiology second opinion reporting: is there added value? Clin Radiol 2008;63(7):791-795.

Electronic Health Network, University of Texas Medical Branch, May 2008.

Pitts SR, Niska RW, Xu J, Burt CW. National Hospital Medical Ambulatory Care Survey: 2006 Emergency Department Survey. National Health Statistics Reports, No. 7, Aug. 6, 2008. Accessed at:  
<http://www.cdc.gov/nchs/data/nhsr/nhsr007.pdf>

Sickles EA, Wolverton DE, Dee KE. Performance parameters for screening and diagnostic mammography: specialist and general radiologists. Radiology 2002;224(3):861-869.

Thrall JH. Quality and safety revolution in health care. Radiology 2004;233(1):3-6.