

The Future of Radiology Consultation

Henry Y. Chou, MD, and Richard B. Gunderman, MD

American College of Radiology Annual Meeting

Washington, DC

May 14-19, 2016



SCHOOL OF MEDICINE

INDIANA UNIVERSITY

Disclosures/Conflicts of Interest

- None



SCHOOL OF MEDICINE

INDIANA UNIVERSITY

Purpose

- To recognize four basic models of radiology consultation, including their benefits, drawbacks, and examples in practice
- To appreciate the benefits of radiologists taking a more collaborative role in patient care



Background

- Radiologists should function not as production line workers according to a factory model, but as consultants.
- We need to carefully consider the kind of relationships we are building with referring health professionals.
- Radiology consultation can take many forms. Despite increasing use of information technology, direct consultation still has an important role to play.



Materials and Methods

- We evaluated characteristics of different types of radiology practices and consultation activities documented within and outside of our institution.
- Major themes were categorized into four distinct radiology consultation models.



Results

Four Models of Radiology Consultation

1. Isolated Radiologist
2. Available Radiologist
3. Eager Radiologist
4. Embedded Radiologist



1. The Isolated Radiologist

- Reading room is literally or figuratively distant
- Interprets the greatest number of studies
- Anonymous to patients, clinicians, and administrators
- Examples: teleradiology services, inaccessible reading room in one's own hospital

2. The Available Radiologist

- Readily responds to queries but rarely initiates contact with referring clinicians
- Interprets a large number of studies
- Few meaningful clinical relationships
- Examples: reading rooms commonly seen today



3. The Eager Radiologist

- Actively builds relationships with clinicians and patients
- Viewed as less productive using traditional metrics
- Stronger clinical relationships
- Examples: radiology clinics, radiology workstation in the physician's lounge

4. The Embedded Radiologist

- An integrated member of the patient care team
- Perceived productivity may be lowest of all four models
- Clinical interactions are robust and include point-of-care decision making
- Examples: radiology residents rotating with non-radiology services



Discussion

- The four consultation models presented here are not all-encompassing or inflexible. The key is finding a balance that builds one's practice beyond mere image interpretation.
- Productivity is not always reflected in the most obvious quantitative measures. For example, a radiologist who builds superb relationships with referring health professionals may do far more to build a practice than an isolated one who generates huge numbers of dictations.
- Radiologists also need to adapt to ongoing reforms in physician reimbursements, such as proposals requiring physicians to identify their level of involvement in patient care. The era of bundled payments will tend to reward radiologists who function in a less reactive, more collaborative capacity.



Discussion

- We believe that many practices would benefit from shifting toward the model of the eager radiologist. This keeps radiologists more visible and knowable on a personal basis without reducing productivity to the same degree as the embedded radiologist. It takes the professionalism of both the referring physician and the radiologist seriously, respecting the important role that relationship plays in ensuring good care for patients. And it provides the necessary degree of adaptability in ensuring that radiologists can respond as needed to the demands of patient care.



Conclusions

- Consultation in radiology is paramount to building strong relationships with referring clinicians.
- A more collaborative approach to consultation is one that every radiologist concerned about the future of radiology should be eager to embody.



References

1. Norbash A, Bluth E, Lee CI, et al. Radiologist manpower considerations and Imaging 3.0: effort planning for value-based imaging. *J Am Coll Radiol*. 2014;11(10):953-8.
2. Larson PA, Berland LL, Griffith B, Kahn CE, Jr., Liebscher LA. Actionable findings and the role of IT support: report of the ACR Actionable Reporting Work Group. *J Am Coll Radiol*. 2014;11(6):552-8.
3. Weiss DL, Kim W, Branstetter BFT, Prevedello LM. Radiology reporting: a closed-loop cycle from order entry to results communication. *J Am Coll Radiol*. 2014;11(12 Pt B):1226-37.
4. Berlin L. Communicating Nonroutine Radiologic Findings to the Ordering Physician: Will (Should) Information Technology-assisted Communication Replace Direct Voice Contact? *Radiology*. 2015;277(2):332-6.
5. Siström CL, Dreyer KJ, Dang PP, et al. Recommendations for Additional Imaging in Radiology Reports: Multifactorial Analysis of 5.9 Million Examinations. *Radiology*. 2009;253(2):453-61.
6. Lam DL, Medverd JR. How radiologists get paid: resource-based relative value scale and the revenue cycle. *AJR Am J Roentgenol*. 2013;201(5):947-58.
7. Glazer GM, Ruiz-Wibbelsmann JA. The Invisible Radiologist. *Radiology*. 2011;258(1):18-22.
8. Gunderman RB, Tillack AA. The loneliness of the long-distance radiologist. *J Am Coll Radiol*. 2012;9(8):530-3.
9. Mangano MD, Bennett SE, Gunn AJ, Sahani DV, Choy G. Creating a Patient-Centered Radiology Practice Through the Establishment of a Diagnostic Radiology Consultation Clinic. *AJR Am J Roentgenol*. 2015;205(1):95-9.
10. Gunderman RB. The Radiologist in the Doctors' Dining Room. *J Am Coll Radiol*. 2015;12(8):872-3.
11. Patel S. Value management program: performance, quantification, and presentation of imaging value-added actions. *J Am Coll Radiol*. 2015;12(3):239-48.
12. Enzmann DR. Radiology's value chain. *Radiology*. 2012;263(1):243-52.
13. Mamlouk MD, Anavim A, Goodwin SC. Radiology residents rounding with the clinical teams: a pilot study to improve the radiologist's visibility as a consultant. *J Am Coll Radiol*. 2014;11(3):326-8.
14. LaBerge JM, Anderson JC, Radiology Review C. A Guide to the Interventional Radiology Residency Program Requirements. *J Am Coll Radiol*. 2015;12(8):848-53.
15. Enzmann DR, Schomer DF. Analysis of radiology business models. *J Am Coll Radiol*. 2013;10(3):175-80.
16. Muroff LR. Culture shift: an imperative for future survival. *J Am Coll Radiol*. 2013;10(2):93-8.
17. Thrall JH. Teleradiology Part II. Limitations, Risks, and Opportunities. *Radiology*. 2007;224(2):325-8.
18. CMS Episode Groups. Centers for Medicare and Medicaid Services; 2015 [February 2, 2016]; Available from: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Episode-groups-summary.pdf>.

