Direct, In-Person Communication Between Radiologists and Acute-Care Surgeons Leads to Significant Alterations in Surgical Decision-Making

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Purpose: To determine if direct in-person communication between an acute-care surgical team and radiologists alters surgical decision making.

Introduction: Despite many electronic formats for exchanging information, communication between radiologists and clinicians remains imperfect. Nuanced language can impair understanding, reports may not address all relevant questions, and reports created without clinical data can lead to suboptimal interpretation of studies.

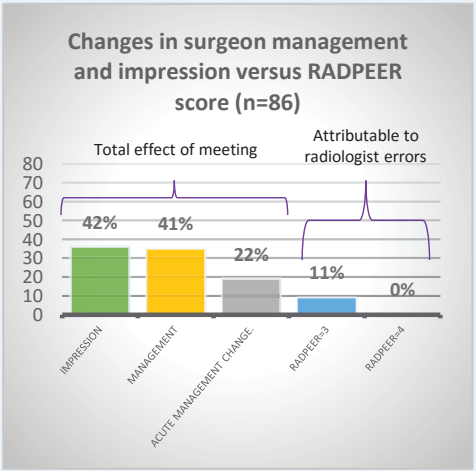
Methods: This study was IRB approved and HIPAA complaint. Data collected 1/1/15-10/14/15. This was a combined effort of the abdominal radiology division and acute care surgery team (consults, trauma, emergency, burn, critical care).

The intervention was a semi-weekly 40-60 minute in-person multi-disciplinary discussion in the abdominal reading room with up to 10 cases selected by surgeons.

Written final reports were already available for all patients in this study. Data was compiled with a custom electronic survey completed through consensus.

Results: 86 patients meeting criteria were discussed. In 42% of cases (36/86), the attending surgeon's impression of the case changed. In 41% of cases (35/86), the management plan was changed and most of these changes (54%; 19/35) were changes to *acute* management.

Substantive discrepancies between opinion of meeting radiologist and final report (RADPEER ≥3)[1] were less common (11%; 9/86).



There were multiple examples from this study (at least 10/86) where surgeon recognition of a fixed (rather than multifocal) site of bowel obstruction was facilitated.

Feedback from both radiologist and surgeon participants reported a high-level of satisfaction as well as improved inter-disciplinary communication and rapport.

Discussion: Direct, in-person review of abdominal imaging studies for selected patients leads to substantial changes in surgeon impression of cases as well as management decision making.

This likely represented a complex subset of abdominal imaging studies; surgeons chose cases of interest and the RADPEER major discrepancy rate was above literature reports.[2,3]

This project was not a one-way street; discussion with surgeons may have assisted the reviewing radiologist to make findings as well as inform the radiologist of pertinent surgical questions.

Ineffective communication in radiology is often unrelated to overlooked imaging findings. Other benefits include education as well as improved rapport.

Conclusion: In-person communication increases the value of abdominal radiologists to general surgeons.

Citations:
1. Jackson VP, Cushing T, Abujudeh HH, et al. RADPEERTM Scoring White Paper. J Am Coll Radiol. American College of Radiology; 2009;6:21–25.
2. Ruma J, Klein KA, Chong S, et al. Cross-Sectional Examination Interpretation Discrepancies Between On-Call Diagnostic Radiology Residents and Subspecialty Faculty Radiologists: Analysis by Imaging Modality and Subspecialty. J Am Coll Radiol. Elsevier Inc.; 2011;8:409–414.
3. Davenport MS, Ellis JH, Khalatbari SH, Myles JD, Klein KA. Effect of Work Hours, Caseload, Shift Type, and Experience on Resident Call Performance. Acad Radiol. Elsevier Ltd; 2010;17:921–927.

Change in management category

56 =No change in management category
30-Change in management category

Initial management category

Final management category		Surgery	Image guided procedure	Medical management	Additional imaging	Discharge	Undetermined
Surgery	With same operation and approach	8	0	0	0	0	0
	With different operation or approach	1	1	7	0	0	2
Image guided procedure		1	11	6	0	1	1
Medical management		2	2	31	0	0	1
Additional imaging		1	0	0	3	0	0
Discharge		0	0	1	0	2	0
Undetermined		0	0	3	0	0	1