NOTABLE SEARCH PATTERNS: A STUDY OF RADIOLOGISTS’ REVIEW OF CLINICAL NOTES DURING IMAGE INTERPRETATION

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DISCLOSURES

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Clinical history is a critical component of image interpretation.

Studies have demonstrated that clinical history significantly improves sensitivity and positive predictive value (1,2).

Clinical history has also been shown in cases to be very likely to change image interpretation and lack of that history would adversely affect patient management (3).

However, provided clinical information on imaging orders is at best limited, and at worst, absent, incorrect or misleading (4).
Universal adoption of the electronic health record (EHR) has unquestionably improved radiologists’ ability to access clinical information.

Though variable across radiologic subspecialties, use of the EHR can compromise up to 21% of diagnostic effort during image interpretation(5).

Finally, emerging EHR-PACS integration has further significantly improved the ease of access to and utilization of the EHR(6).

The number and type of clinical notes reviewed by radiologists has yet to be quantified.
THIS STUDY SEeks TO DEMONSTRATE THE IMPACT OF THE CLINICAL HISTORY ON RADIOLOGIC IMAGE INTERPRETATION BY QUANTIFYING THE CLINICAL NOTES REVIEWED BY RADIOLOGISTS.
METHODS

• Retrospective record review from a multi-site medical center.

• Identified all CT and MRI abdomen and/or pelvis exams performed during a 5-month period (3/1/2017 - 8/31/2017).

• Reviewed user access logs from the electronic health record.

• Counted the total number of clinical notes accessed by the dictating radiology resident between 24 hours prior to completion of the exam until final signing of the radiology report.

• Includes: hospital admission notes, progress notes and discharge summaries, outpatient clinic notes and consult notes.
RESULTS

- Total of 14,650 imaging exams of the abdomen and/or pelvis performed over the 5-month time period.
- On average, radiology residents read an average of 0.82 notes per imaging exam interpreted, which represented 0.73% of all available notes.
• In contrast, internists reviewed 5.73 clinical notes (3.9% of available notes) when admitting a patient.
RESULTS

• Specifically radiology residents read:
  • 2.5% of available history and physical (H&P) notes
  • 0.76% of available progress notes
  • 0.60% of available discharge summaries

Percentage of Available Notes Read

- All Notes: 0.73%
- H&P: 2.50%
- Progress Note: 0.76%
- Discharge Summary: 0.60%
CONCLUSIONS

• Overall, radiology residents reviewed an average of less than 1 note per exam, corresponding to 0.73% of available clinical notes for each patient.

• In contrast, internists review 5.73 clinical notes (3.9% of available notes) when admitting a patient.

• The discrepancy in time available for chart review likely explains this difference and highlights the importance of the clinical information provided by ordering providers.

• Limitations: This study did not include operative and pathology reports, which are also often relevant clinical notes that radiologist to review.
REFERENCES


