

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

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DISCLOSURES

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INTRODUCTION

- 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).

INTRODUCTION

- 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.

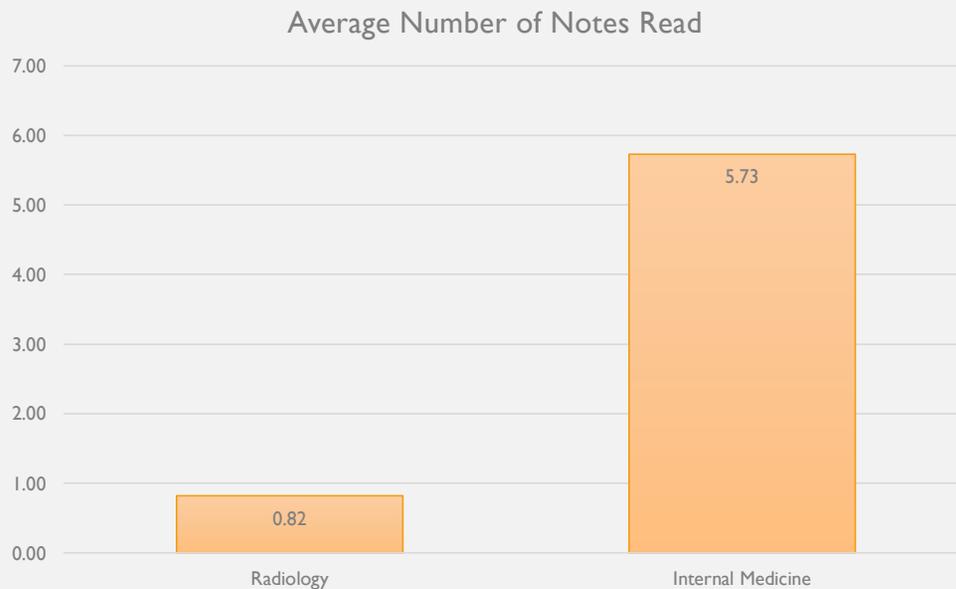
METHODS

- 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

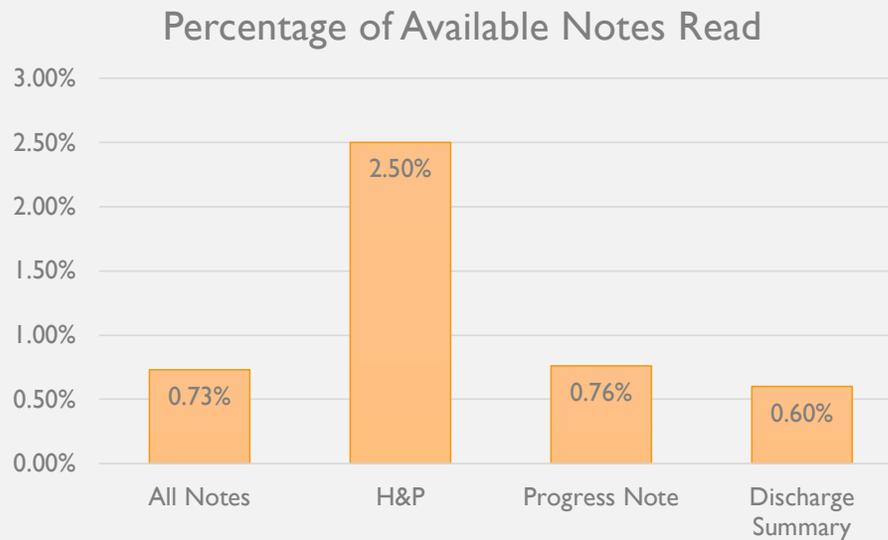
- Total of **14,650 imaging exams** of the abdomen and/or pelvis performed over the 5-month time period.
- On average, radiology residents read an **average of 0.82 notes** per imaging exam interpreted, which **represented 0.73% of all available notes**.

RESULTS



- 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

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.



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