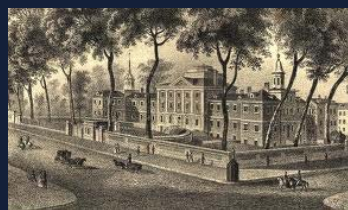


# Targeting the Top 5 On-Call Resident Misses with Focused Lecture Series: A Pilot Study

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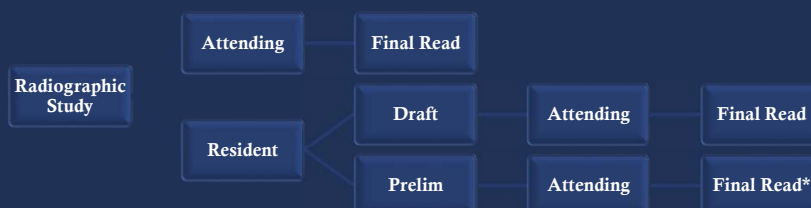


## Background

- ❧ Pennsylvania Hospital (PAH) is the oldest hospital in the United States (est 1751) and part of the University of Pennsylvania Health System.
- ❧ PAH is a 500+ bed hospital that services approximately 25,000 patients annually.
- ❧ The PAH radiology residency program consists of 20 residents and 24 faculty members.
- ❧ The Radiology Department generated over 750,000 reports over the last 12 months.

## Background

- ☞ Radiographic studies are initially dictated by either an attending or resident.
- ☞ During weekday business hours residents dictate drafts which are then quickly read out with and finalized by attendings.
- ☞ Night and weekend (on-call) residents dictate preliminary reports which are available for clinicians to view.
- ☞ Prelim reports overread by attendings. Discrete degrees of discrepancy are tracked by CAPRICORN.



## CAPRICORN

- ☞ Resident discrepancies tracked with CAPRICORN, an open source analytic tool:
  - ☞ Attending radiologist uses macros in dictation to indicate level of agreement with resident's report
  - ☞ Automatically logs cases
  - ☞ Tracks attending changes between preliminary and final report
  - ☞ Analyzes attending changes to provide qualitative and quantitative performance feedback to residents

# CAPRICORN

- ☞ CAPRICORN categories of agreement/discrepancy:  
Attending places macro in report with text indicating level of agreement
  - ☞ Agree – Nothing to change or add
  - ☞ Addition - no change in overall diagnosis/impression; additional findings or stylistic change
  - ☞ Minor change - discrepancy in findings or impression that does not affect immediate patient care
  - ☞ Major Change: discrepancy likely to affect immediate patient care

## Examples

- ☞ Prelim read:  
Unremarkable examination of the lower extremity veins.
- ☞ Addition: Duplication of the popliteal vein.
- ☞ Minor Change: Chronic non-occlusive thrombus is present
- ☞ Major Change: Acute thrombus is present

# CAPRICORN

Discrepancy Worksheet

Review Cases From: 01/01/2018 - 12/31/2018

By Discrepancy Types: The System Has 58,026 Cases. You Have 10,000 Cases Pending Review.

Pending Review  
 Major  
 Minor  
 Addition  
 Analyze

ED Notify  
 Great Call  
 Flagged  
 Resolved  
 Teaching Files

**Total**

Total Volume	Major	Major %	Minor	Minor %	Addition	Addition %
5397	48	0.75	577	9.01	2411	37.68


**Organized by Modality**

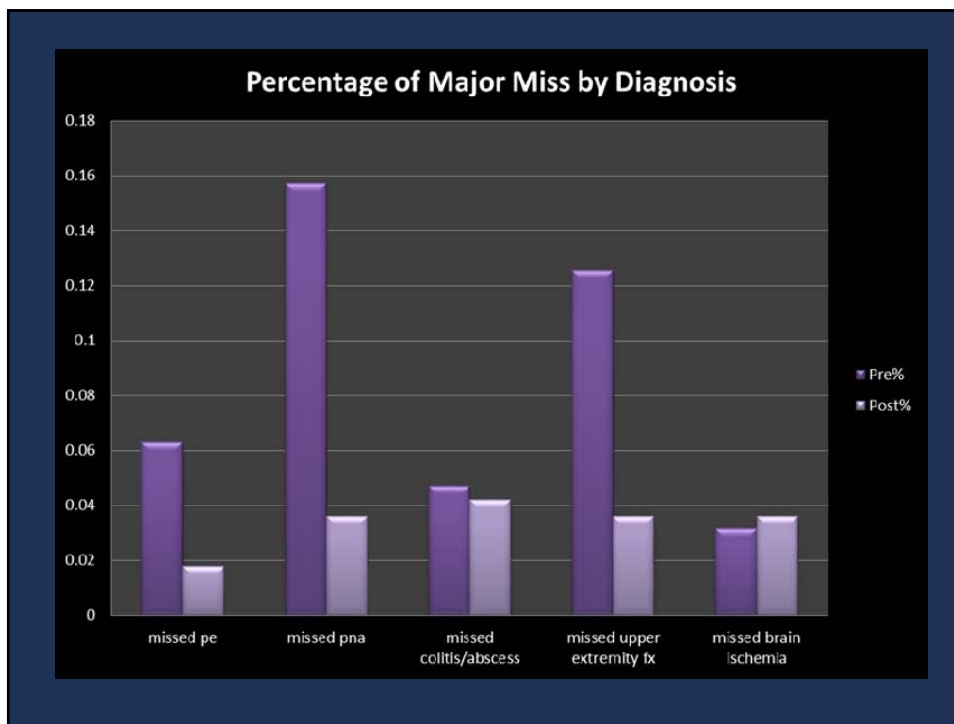
Type	Total Volume	Major	Major %	Minor	Minor %	Addition	Addition %
CR	3886	26	0.66	306	7.87	1177	30.28
CT	1693	21	1.24	211	12.46	881	52.03
MR	158	0	0.00	1	0.63	6	3.79
US	660	1	0.15	59	8.93	347	52.57

**Organized by Modality and Section**

Type	Section	Total Volume	Major	Major %	Minor	Minor %	Addition	Addition %
CR	BODY	187	0	0.00	14	7.48	58	31.01
CR	CHEST	2566	17	0.66	168	6.54	714	27.82
CR	MSK	1118	9	0.80	123	11.00	395	35.42
CT	BODY	605	9	1.48	88	14.54	336	55.53
CT	CHEST	286	4	1.39	36	12.58	138	48.25
CT	MSK	41	0	0.00	4	9.75	15	36.58

# METHOD AND MATERIALS


 CAPRICORN is a software tool that provides a comprehensive analysis of the medical imaging system's performance. It is designed to help healthcare providers identify and address issues related to image quality, patient safety, and workflow efficiency. The tool is used to analyze data from various imaging modalities, including CT, MR, and CR, and provides detailed reports and insights into the system's performance over time.



## Conclusion

❏ The results of this trial indicate that the use of a video-based telemedicine platform for the diagnosis of pneumonia, upper extremity fractures, and colitis/abscesses is associated with a greater percentage of major misses compared to a traditional in-person consultation. The results suggest that the use of a video-based telemedicine platform for the diagnosis of these conditions may be associated with a higher percentage of major misses compared to a traditional in-person consultation.

Thank You For  
Your Attention