How Accurate is Self-Reported Data?: Radiologic Procedure Logs at a Large Academic Medical Center

Adam Prater MD, Thomas Loehfelm MD/PhD, Bradley Rostad MD, Emily Ebert MD, Mark Mullins MD/PhD, Christopher Ho MD

Emory University
Department of Radiology and Imaging Sciences

Disclosure of Commercial Interest

- Neither the authors nor immediate family members have financial relationship with a commercial organization that may have a direct or indirect interest in the content
In 2007, ACGME issued guidelines requiring radiology programs/residents to maintain Radiology Procedure Logs. Traditionally, our residents have maintained self-recorded logs. Self-recorded logs require continuous reporting by residents.

Is a user-independent data logging system a feasible replacement for traditional self-recorded procedure logs?
Methods
- IRB approval was obtained
- Self-reported resident procedure logs from the graduating class of 2012 (N=13 residents) were examined
- Raw data from radiology reports including time stamp and author of report are periodically retrieved from electronic medical record systems and standardized

Methods
- Self-reported logs were then compared to procedure data obtained from the electronic medical record across 3 hospital systems
Methods

- Procedures were categorized by departmental division and technical difficulty (basic or advanced)
- Basic Procedure examples:
  - GI fluoroscopy, Central venous access, US guided breast biopsy, Fluoro-guided lumbar puncture
- Advanced Procedure examples:
  - CT-guided and MRI-guided procedures

Results

- A total of 1,915 procedures were self-recorded by residents, while 2,982 were dictated in the EMR (64% recall rate)
- Basic Procedures were under-reported (32%)
- Advanced Procedures were over-reported (204%)
Results

Conclusions

- Self-reported procedure logs capture only 64% of the total number of procedures dictated by resident.
- Automated procedure logging provides more accurate and comprehensive data than manual logs.
- Basic procedures, which are more likely to have been performed by the resident, are less likely to be captured in a manual procedure log.
Conclusions

- Automated logging standardizes the process across residents and facilitates administrative analysis, providing a wealth of data to the Radiology Milestones Review Committee.
- Automated logging removes a significant burden of administrative paperwork for residents.
- Automated procedure logging can be part of a larger comprehensive case log system.

Discussion

- How accurate are self-reported procedure logs?
- What level of resident participation constitutes a procedure?
Limitations and Challenges

- Automated logging capabilities may not be available at all institutions.
- Our residents rotate among different hospital systems, with varying HIS, RIS, and PACS systems.
- Capturing data requires technical expertise and standardization to account for differences in computer systems.