

# A Peer Learning Conference in Emergency Radiology

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# What is peer learning?

An alternative to peer review inspired by non-punitive error reporting and the just culture patient safety model

## Features of Peer Learning

Result in

## Positive effects of Peer Learning

Separates learning and QI from performance evaluation



Removes fear and defensiveness so participants more open to learning

Centered around learning conferences as improvement tool. Teaching points are presented regularly to department or division



Allows for learning and improvement of the whole practice instead of just the individual

Recurrent, important, or repeatable errors and other relevant teaching points are selected



Some lessons will be amenable to process and quality improvement projects

Cases submitted from prior comparison studies instead of random sampling



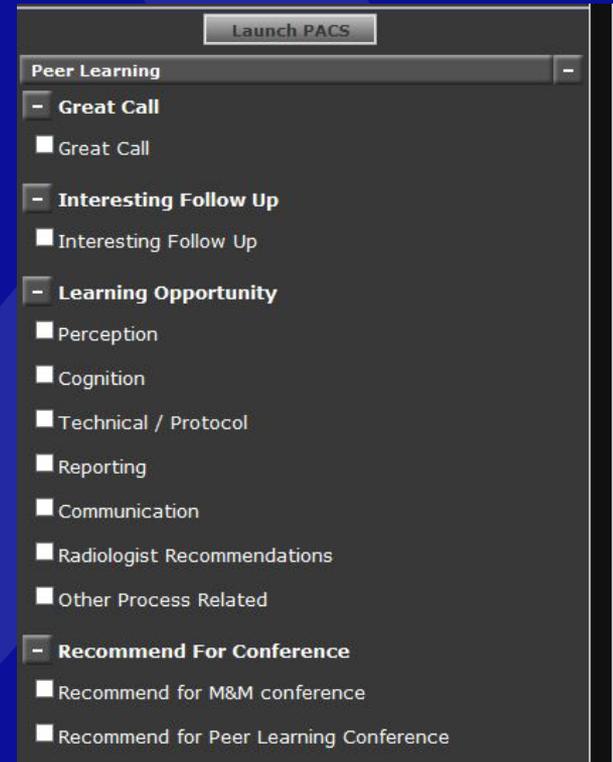
Identifies more learning opportunities with less workflow interruption

## Our emergency radiology peer learning conference

- Cases read in ED are selected from department-wide peer learning system
  - Academic department with 81 clinical faculty reading one million studies annually
  - ED division covering five emergency departments 24/7, with 11 faculty and one fellow, reading 200,000 studies annually

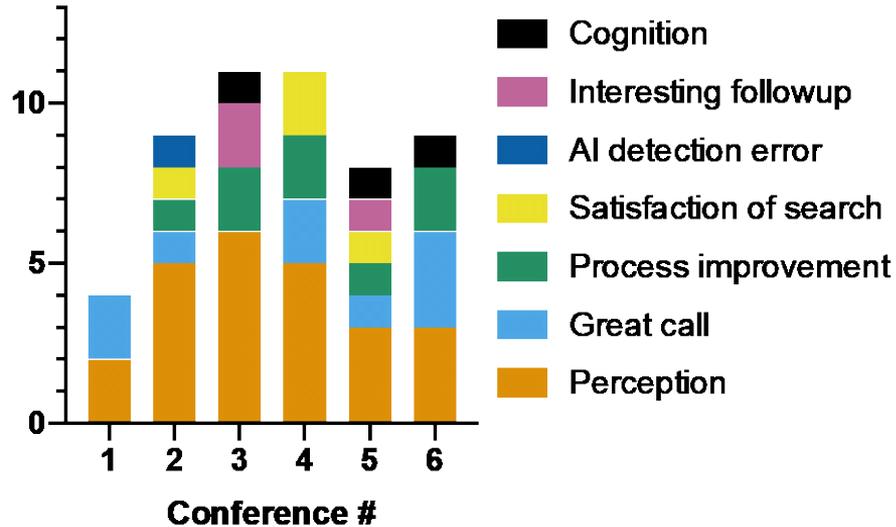
# Our emergency radiology peer learning conference

- Cases reported using peer learning software with PACS integration (right)
  - Identified by radiologists in the ED and other divisions, allowing interdisciplinary feedback.
- Bimonthly Zoom conference with faculty in the ED division
  - Five to 15 cases presented anonymously
  - One faculty member leads group case discussion to identify consensus for sources of error, process improvement opportunities, and other lessons learned



# Emergency radiology peer learning conference highlights a variety of cases

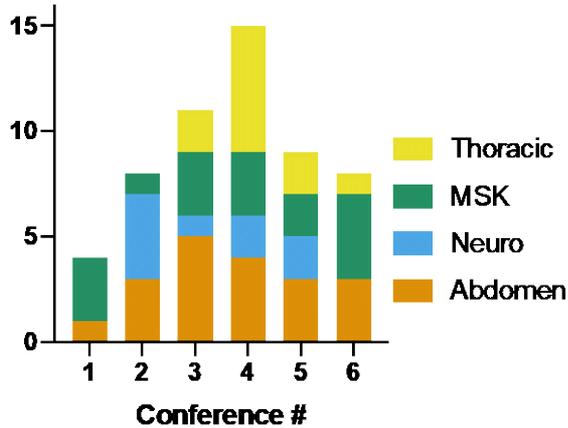
Conference volume by  
Category of Learning Opportunity



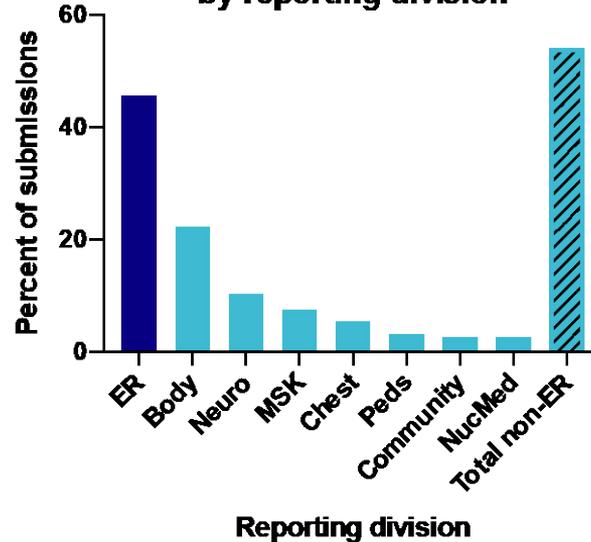
- Varied learning opportunities
- Categories of perception, cognition, and satisfaction of search allow discussion of diagnostic error
- Positive feedback with discussion of great calls
- Most conferences identified process improvement opportunities.

# Emergency radiology peer learning promotes inter-division feedback

Type of case - Anatomic



ER case submissions by reporting division

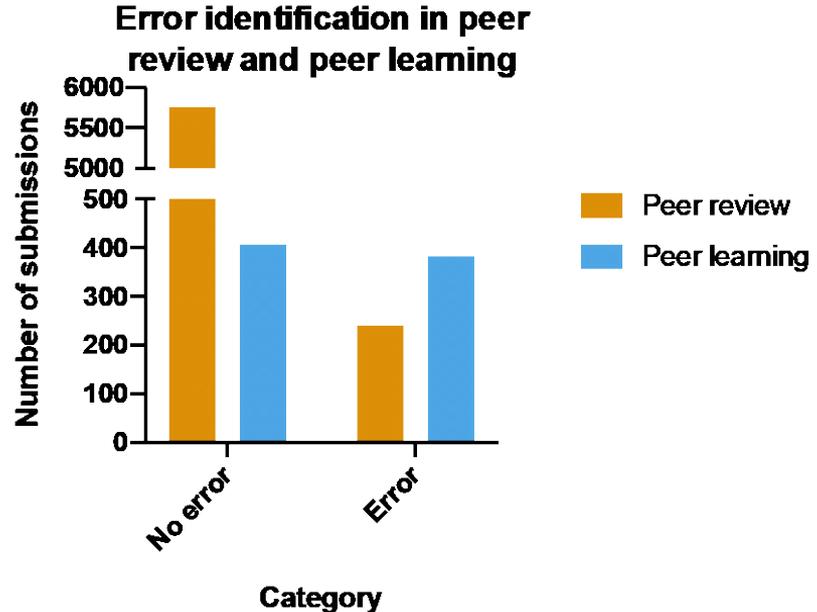


The ED division is in a unique position to be able to review and be reviewed by multiple divisions, increasing learning opportunities and interdisciplinary feedback. Around half of cases are reported by other divisions.

# Peer learning has improved case identification over peer review

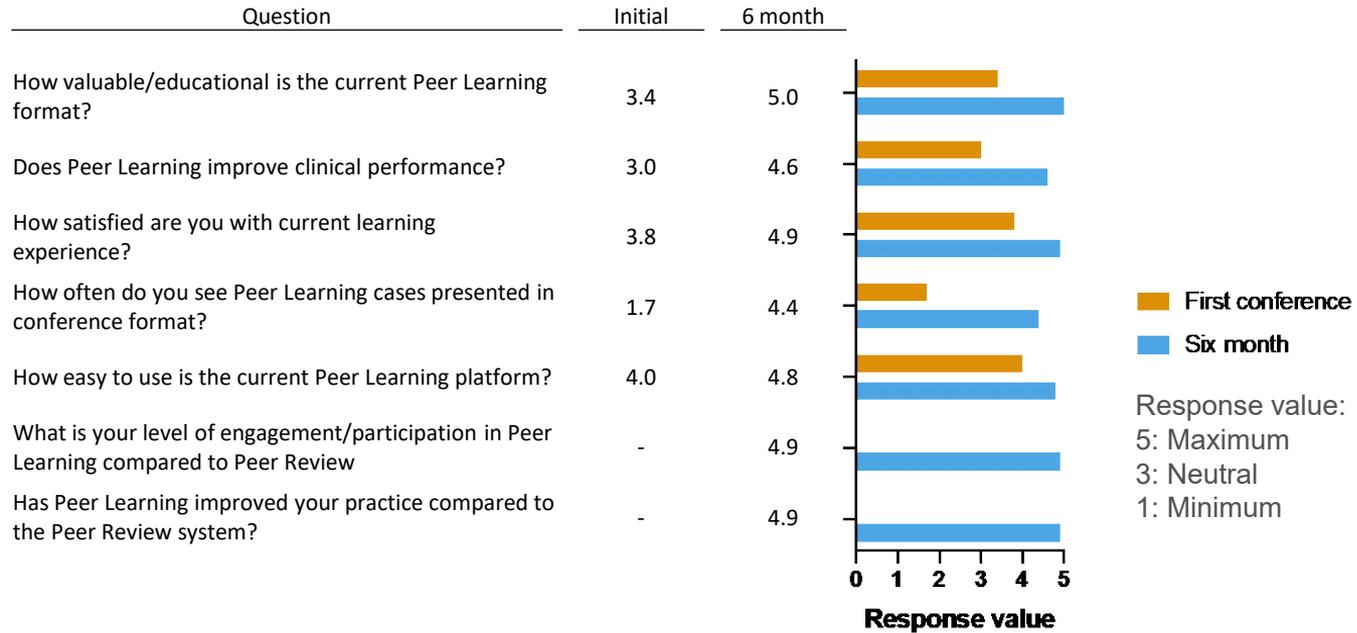
Positive effects of non-punitive, learning and improvement focused program:

- Identifies more errors with less dedicated review time
- Identifies non-error learning opportunities



	No error	Error
Peer review	RADPEER 1	RADPEER 2a or higher
Peer learning	"Great call" or "Interesting followup"	All others

# Survey after **first conference** and **six months** shows broad support



Survey data show strong support for peer learning as a tool to promote continuing education and clinical improvement.

Feedback improved over time as participants became more familiar with the new system and case submission increased.

## Lessons learned

- All survey respondents preferred peer learning as a learning and process improvement tool.
- Effectiveness improves with buy-in, familiarity, and engagement of participants
- Departmental peer learning infrastructure facilitates input from other divisions. This allows for a variety of expertise and robust case identification for a small-medium division.

# Limitations

- Survey data is subjective, not a measure of diagnostic accuracy or patient outcomes
- Requires access to prior imaging e.g. shared EMRs/PACS
- Opportunity cost—loss of randomized review and resulting performance data
  - This data is subject to sampling error and interpersonal biases
  - Randomized review could be implemented for peer learning if desired

# Current and future direction

- Increase participation throughout all 11 divisions, with goal of two weekly submissions per radiologist
- Include residents, fellows
- Monitor quality improvement projects originating from conference

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