Peer Learning Practices in Different Environments – Current Best Practices and Lessons Learned on the Journey for Large Academic Group

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My department

- 101 Faculty
  - Almost 100% sub-specialized
  - Dedicated ED radiology division with 27/4/365 attending coverage
- 29 Fellows
  - Breast, Body, MSK, Neuro, IR, Nucs, ED
- 57 residents
Yale Peer-Review program - in place since 2011

Rad-Peer “scoring” system

• 1=Concur with interpretation
• 2=Difficult diagnosis, not ordinarily expected to be made
• 3=Diagnosis should be made most of the time
• 4=Diagnosis should be made almost every time

Enter 1 case/day - Told to pick 1st case we read and most recent comparison. Not random, not blinded. Great call category created in 2014
Yale IRIS (Improved Radiology Interpretation System)

- Quarterly dept. wide 1 hour conference during lunch hour started in April 2013
  - Broadcasted online
  - Abdominal, US, Peds, MSK, Chest, and Neuro participation for many years
    - ED division added in last year
  - Each sections QA lead
    - All great call cases and all score 3 or 4 cases reviewed
      - Error analysis and pt outcome analysis completed for each case by section peer review champion
• 2 best cases that offer learning opportunities shown per section
  – Usually one “discrepancy” and one “great call”
  – Cases stripped of all pt identifier data
  – Audience response system (Poll Everywhere) used to allow engagement
  – Teaching points emphasized
Where should be going next?
October 2018

- Transitioned to a peer learning entry system

- 2 cases per month/radiologist
  - Not random, but radiologist driven by impact for learning
  - Competency assessment now in hands of section chief for OPPE
    - We used to report score 4 data per radiologist to administration
    - We now report participation in program, not “scores”
  - Section specific quarterly conferences to share cases not shown in IRIS
  - Breast and ED Division added into program
Attributes of a good peer learning system

• Fair and transparent system run by a physician’s peers to identify opportunities for additional education, error reduction, and self-improvement
• Non-punitive with focus on learning
• Some form of sharing in divisions/departmental

Case counts that offer learning opportunity

Number of Peer Review Cases Submitted: 2015 - 2019

2015 = 437 Cases
2016 = 378 Cases
2017 = 349 Cases
2018 = 256 Cases
2018-19 Peer Learning = 1710 Cases

2015-18: Score 3/4 and great calls
2018-19: PLO, great call, great teaching case
Number of **meaningful** cases entered

- Average per year over last 4 years (w/ RAD-PEER like system) = **355**
- One year peer learning = **1603** (Oct to Oct)
- Our prior YEARLY case count of cases that may offer learning potential now seen QUARTERLY – **450% rise!**
How is the program being used?

Spectrum of case entry

- Body (n=196)
- Breast (n=249)
- Cardiac (n=1)
- Chest (n=147)
- Community (n=19)
- ED (n=383)
- IR (n=1)
- MSK (n=122)
- Neuro (n=169)
- Nuc Med (n=89)
- Peds (n=44)
- US (n=92)

- Great Call (n=520)
- Potential Learning Opportunity (n=496)
- Potential Teaching Case (n=496)
"Outliers"?

Spectrum of case entry

- Great Call (n=520)
- Potential Learning Opportunity (n=496)
- Potential Teaching Case (n=496)
Differences in use by section

- 3/10 - Great calls most common
- 4/10 - Potential Learning Opportunity most common
- 3/10 - Teaching case most common

- If your dept. has a dedicated ED/community group it warrants some special attention
  - Challenging for ED radiologists as they read across multiple divisions
    - Follow ups done by sub-specialists, but exams read by “generalists”
    - Hard to apply same standards as the sub-specialists tend to think all findings they would see ED Radiologist should see too.....
    - Sub-speciality staff don’t know the ED section members as well
      - Often not at dept. grand rounds etc due to shift work
What gets reported for PLOs?

• 70/30 split for detection and interpretive
  – We tend to enter detection (not seen) issues much more commonly than mis-interpretation (seen but wrong conclusion)

• Challenging to get system based issues entered
Where we continue to struggle

• Case submission
  – Some individuals submit a lot, some enough to hit “requirements”
  – Some still prefer to not enter any PLO cases

• Work Environment
  – Hard to get 100% anonymous- people often guess who entered case based on follow-up
  – Too emotional
    • Colleagues still feel upset when they get a case
    • Colleagues tend to focus more on whether they agree with comments (and less on learning potential)
      – Teaching comfort with disagreement
    • Still possible for faculty to “target” individuals

• Value
  – Current systems are not outcome measures
  – Would need to review many more cases than 1x/day to have enough power to detect meaningful differences in radiologist performance

-Larson et al. Peer feedback, learning, and improvement: answering the call of the Institute of Medicine report on diagnostic error. Radiology 2017
Tips for launching a program in large academic practice

• Form a team
  – Sectional leads
  – Overall program lead/leads
    • Some “policing” is needed to eliminate fluff and edit cases comments
    • Picking your lead is important
      – Needs to be respected, needs to be clinically excellent
      – It is a hard program to run/lead

• Ensure system embedded into PACS/Work-flow manager
  – It has to be easy and quick for case entry…. or expect poor participation
  – Participation should be mandatory- if you have to report anything, report this
Tips for launching a program in large academic practice

• IR should have separate M and M/Learning Conference
• Must share cases in some fashion
  – One bigger conf. is great for generalists/ED and trainees
    • Our residents and fellows find this conf. extremely valuable
  – Smaller sectional conf. allow more nuanced teaching points
    • This also allows review of all other cases not shown in our IRIS conf.
• Recognize great calls
  – Learn from successes & failures
Smile if you like peer learning!

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