Imaging Appropriateness Education

Quality Improvement Project

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Define

• Many orders placed on call are seemingly inappropriate
  • Leads to increased utilization of resources and time
    • Ultimately leads to radiologist frustration

• Question: **Can we help improve the appropriateness of the ordered imaging study from the referring clinician?**
Measure

- Questionnaire emailed to all PGY1 residents (n=43)
  - Responses from 18 residents (42%)
- 6 questions of various clinical scenarios
  - Multiple choice format to select the most appropriate imaging study
  - Avoided questions/scenarios that were “too easy”
  - “Open book”: Any resource could be used
Analyze

Total Respondents

- Categorical - Internal Medicine, 28%
- Preliminary - Anesthesia, 22%
- Preliminary - Surgery - Radiology, 11%
- Urology, 6%
- Categorical - Surgery, 11%
- Preliminary - Dermatology, 6%
- Preliminary - Radiology, 17%
- Preliminary - Anesthesia, 22%

Total: 18 responses

No responses from: Family medicine, Preliminary - Radiation oncology, & Preliminary - Neurology
Analyze

PRE-INTERVENTION, CORRECT RESPONSES, IMED (MEDICINE) SUBSET

Paired t-test: $p=0.6$
Improve

• Lectured all Internal Medicine residents on:
  • Radiology workflow logistics (day & call)
  • Imaging appropriateness using:
    • ACR® Appropriateness Criteria
    • “Distilled” Appropriateness Criteria
    • Personally developed online guide focusing on common inpatient indications
  • Epic EHR and CareSelect<sup>TM</sup>
Improve

• “Distilled” Appropriateness Criteria

Improve

- Original 6 questions were emailed to the IMED PGY1 subset \((n=26)\)
  - Responses from 8 residents (31%)
Pre- and post-intervention, correct responses

Paired t-test: $p=0.019$
Control

- Knowledge of resources to guide imaging orders
  - Access to the “Distilled” Appropriateness Criteria

Limitations/Future Directions

- Small size for survey respondents
  - Increase sample size

- Intervention was performed with a single cohort (IMED residents)
  - Increase scale and assess responses of other specialties, levels of training, and with advanced practice providers

- Uncertain of what resources the respondents utilized
  - Track what was utilized

*Continue to educate ordering clinicians!*