

IMPACT OF CT RADIOLOGY ASSISTANTS ON ABDOMINAL CT SECTION PRACTICE QUALITY AND WORKFLOW

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DISCLOSURE

No relevant disclosures

BACKGROUND

The work environment in a large-sized academic institution's CT reading room can be hectic.

Interruptions can vary from simple walk-in and phone call questions, to more complex inquiries about contrast protocoling and diagnostic interpretation.

Volume overload can become a real issue due to staff shortages and interruptions to workflow, prolonging working hours and negatively affecting quality of life.

OBJECTIVE / HYPOTHESIS / RELEVANCE

- Objective:** To assess the impact of CTRAs on CT reading room workload in a large-sized academic abdominal CT reading room.
- Hypothesis:** CTRAs will improve productivity, quality of life, and have an overall positive impact on abdominal CT reading rooms.
- Relevance:** CTRAs can be a beneficial addition to large-sized academic radiology institutions, helping alleviate workload burdens of both non-interpretive and interpretive tasks.

METHODS

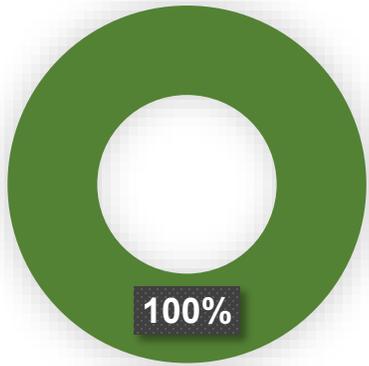
- An IRB waiver was obtained for this project.
- Two CTRAs (international medical graduates) were asked to log their daily tasks for 2 weeks and count dictated preliminary reports for 3 weeks.
- A survey was conducted among abdominal CT faculty, using a combination of a 7-point Likert scale and free-response questions.
- The survey covered 7 themes, 4 of which have been used in this poster.

METHODS

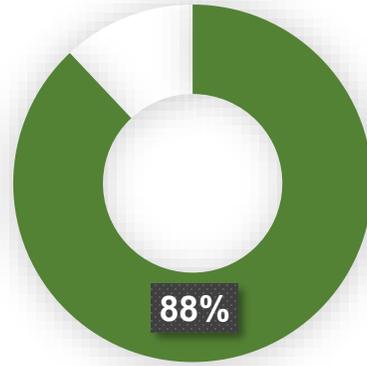
- Interpretive tasks included preliminary reports.
- Non-interpretive tasks included phone calls, technical troubleshooting, and staff requests.
- Reports were judged for errors by 2 blinded abdominal radiologists and compared to trainees (2 PGY2, 1 PGY5, 2 fellows) using Chi Squared test.
- A 3rd radiologist adjudicated differences in assessing errors.
- Assessed variables included CTRA performance, impact of CTRAs on faculty productivity and quality of life, and quality of preliminary reports.

RESULTS-SURVEY

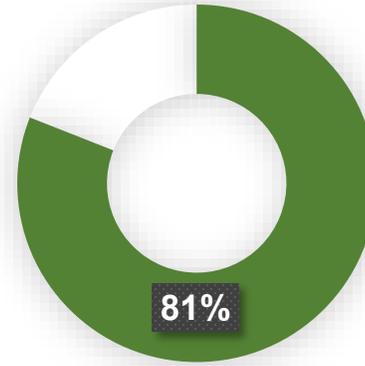
Non-Interpretive Tasks:



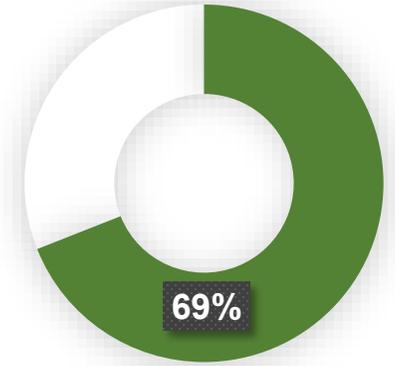
- Decreased contrast questions
- Reports are standardized
- Decreased phone call interruptions
- Improved well-being
- Would recommend to a similar practice



- Effectively communicate findings to ordering physicians
- Decrease burnout



- Speed up relaying findings to
- Allow faculty to complete more non-clinical tasks



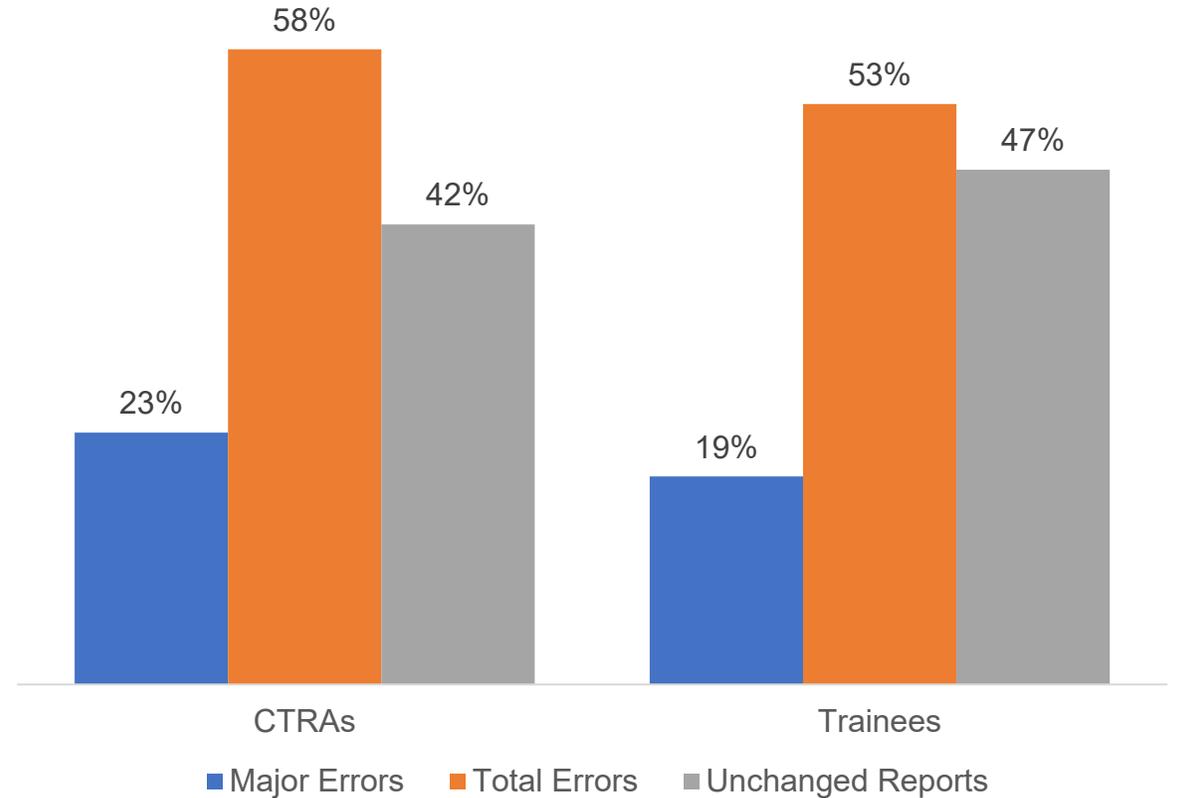
- Allow faculty to take more breaks

N= 19 non-interpretive tasks per CTRA. Most preferred tasks were phone calls, contrast questions, and maintaining reading room facilities.

RESULTS

Interpretive Tasks:

- N = 13 preliminary reports per CTRA.
- CTRA reports had a major error rate of 23% (87/374) vs. 19% (41/213) for radiology trainees ($p=0.26$), and a total error rate of 58% (216/314) vs. 53% (113/213) for radiology trainees ($p=0.27$).
- 94% of faculty preferred non-interpretive over interpretive tasks.



LIMITATIONS/STRENGTHS

Limitations: CTRAs were highly-trained international medical doctorate graduates, both with prior work experience in radiology.

Short period of training prior to starting assessment.

Strengths: Overwhelming agreement that CTRAs improve reading room environment.

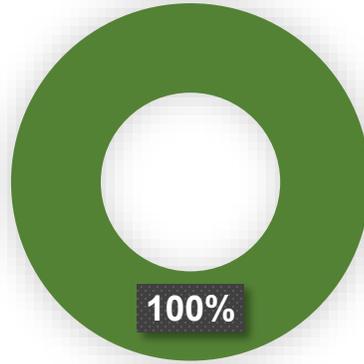
Flexible in assisting faculty and residents alike, presenting unexpected additions to the workplace.

Educate new residents about contrast questions.

CONCLUSION

CTRAs improve productivity, quality of life, and have an overall positive impact on abdominal CT reading rooms.

- 94% preferred non-interpretive tasks.
- Most preferred were phone calls, contrast questions and maintaining facilities.



- Decreased contrast questions
- Reports are standardized
- Decreased phone call interruptions
- Improved well-being
- Would recommend to a similar practice

