

Doctor knowledge regarding radiation dose and associated malignancy risk of common radiological investigations- closed loop audit cycle from a U.K Hospital

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Abstract

Background: The RCR states that all referring practitioners should possess 100% knowledge of the radiology investigations they request. Knowledge of radiation dose and awareness of malignancy risk among doctors is known to be poor, and this is supported by published evidence. Adequate knowledge of radiation risks allows practitioners to perform safe assessments.

Methodology: Using a standardised RCR questionnaire, >30 doctors performed the assessment in the first cycle. Overall average was calculated and compared to the national standard required. Training was provided by face-to-face and handouts. The second cycle involved staff completing a second alternative questionnaire on completion of training.

Results: On completion of the first cycle, the average assessment score was <50 and the highest single score 83%. There was no difference in average assessment score between Foundation doctors and Specialty registrars. On completion of training, average score increased >90% with staff consistently achieving the national standard of 100%. A fewer number of staff were able to participate in the second cycle due to the impact of COVID-19.

Discussion: This simple closed loop audit supports evidence that awareness of radiation risk amongst doctors is poor. The first cycle average was significantly below national standard, but knowledge improved with basic teaching. Specialty registrars did not score higher than foundation doctors on initial assessment, which may indicate systemic lack of appropriate radiation training. COVID-19 impacted uptake and teaching on the second cycle, and training will need to be repeated to improve patient safety.

Biography:

Dr Alexander Frost-Younger: completed training in the Northern Foundation School, after qualifying from Newcastle University in 2016. Special interests include Emergency Medicine, Surgery and Radiology. I hope to apply for specialist training in Radiology this year, and develop skills in Intervention.

Speaker Publications:

1. "P073. Patients receiving neoadjuvant chemotherapy for breast cancer do not require routine staging investigations."
2. "P136. Does complete radiological response correlate with a complete pathological response following neoadjuvant chemotherapy?"
3. "P093. Outcomes following neoadjuvant chemotherapy for breast cancer."
4. "P015. Outcomes following neoadjuvant chemotherapy for breast cancer: pathological response in the axilla"

[2nd Global Meeting on Oncology and Radiology;](#)
Webinar- December 10, 2020

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