

Radiology Teaching Series for Resident Doctors; Improving Confidence in Interpreting and Requesting Imaging in Daily Practice



Dr Megan Wallace - Princess of Wales Hospital, Bridgend, CTM

Objective – To determine how confident resident doctors feel on interpreting various radiological imaging types and facilitate a radiology teaching series as part of the core curriculum to improve day to day practice.

Introduction

49.1 million imaging tests were reported in England between March 2024-2025 (1). This highlights the precedence of radiological investigations in the diagnostic evaluation of patients and thus the importance of doctors understanding interpretation of various imaging types. A study of Scottish medical schools showed that only 0.3% of timetabled teaching was allocated to radiology (2). This is despite examinations having a high inclusion rate, with one study showing that radiological images were used on average 0.6 times in each OSCE examination (3). Thus, there is evidence that radiology is not adequately taught in medical school and foundation school curriculums.

Example CXR Teaching Question

A 74-year-old man presents with gradually increasing breathlessness. He is a lifelong smoker. What does his CXR show?

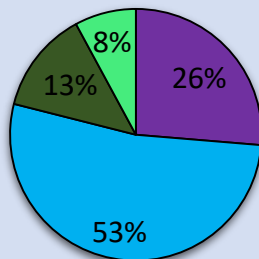
- a) Left sided pleural effusion
- b) Left sided lower lobe collapse
- c) Dextrocardia
- d) Endotracheal tube misplacement



How would you rate the quality of radiology teaching you received in medical school?

38 respondents:

- Poor (10)
- Average (20)
- Good (5)
- Excellent (3)



Results

- 79% of 38 respondents rated their radiology teaching in medical school as either poor or average
- 96% of those who attended the teaching sessions found the sessions more useful than those they had received in medical school
- 95% of respondents to the initial survey had only very little or average confidence in interpreting CTAPs
- 96% of attendees improved in confidence in interpreting CTAPs and 100% improved in interpreting CXRs

Methods

A questionnaire was conducted to analyse how confident resident doctors were at interpreting various scans in daily practice. The results then lead to a case-based teaching series being created and delivered, with topics ranging from abdominal CT scans and chest x-rays to paediatric CT head guidelines. The series is being expanded and is now available as core foundation teaching in Princess of Wales Hospital.

QR codes for interactive CT case + example session



Resources:
learnabdominal.com
Radiology masterclass.co.uk

Conclusion

Deficiencies in the knowledge of the requesting doctor may contribute to inappropriate imaging and subsequent image overutilisation (4). One study also showed that only 3% of final year medical students felt that the teaching they had received had inspired them to consider a career in radiology (5). Therefore, effective radiology teaching can help with both requesting and interpreting scans and help to inspire the next generation of radiologists.

References:

- (1) Dixon, S. NHS England: Diagnostic Imaging Dataset Statistical Release. 2025. Vol 1. (2) Chew C et al. Radiology for medical students: do we teach enough? A national study. British Journal of Radiology. 2021. Vol 2 (94) doi: 10.1259/bjr.20201308 (3) Chew C. The role of radiology in medical student education. Enlighten PHD thesis. 2022. <https://theses.gla.ac.uk/82865/> (4) Moloney B et al. Teaching radiology to medical students – there is a need for change to better prepare students for clinical practice. Research Gate. 2016. Doi: 10.1016/j.acra.2016.10.009 (5) Nyhsen C et al. Undergraduate radiology teaching from the student's perspective. Insights into Imaging. 2013. Vol 4 (103-109). Doi: 10.1007/s13244-012-0206-8