

Teaching chest computed tomography (CT) interpretation to respirology residents: Experience using an objective structured clinical examination (OSCE) style format as a teaching method

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Respirology residents are required to recognize common abnormalities on chest computed tomography (CT). Evidence shows that such a skill is attained through deliberate practice with feedback, utilizing contrastive groups of cases and following a set arrangement of instructional material (also known as programming).

Instructional methods such as rotation based learning cannot control the arrangement of cases, and teaching atlases fail to provide users with live feedback from an instructor. While small-group seminars can control case arrangement and provide feedback on interpretation, only 1 person can participate at a time, which risks disengaging other members of the group as each CT has up to 200 images.

To simultaneously incorporate deliberate practice with feedback, contrastive grouping and programming, we set up a series of objective structured clinical examination (OSCE) style sessions to teach chest CT interpretation. For each session, we set up six 6-minute stations, each with a chest CT. All residents rotated through each station and wrote down their interpretation. Afterwards, each resident presented his interpretation of 1 chest CT and received feedback from an attending respirologist. The cases in each session followed a set curriculum, and contrasting chest CTs were used in each session.

In a satisfaction survey, all 6 residents agreed or strongly agreed that they were more actively engaged in learning and that the breadth of cases was broader using this teaching method compared with other teaching methods. An OSCE style format is an effective method to teach chest CT interpretation.