

Education Research Category

Best Oral Paper Presentation

00636

Evaluation of Peer Assessment of Clinical Skills and Knowledge in Rheumatology

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Aims: We aimed to determine the level of agreement between peer and senior doctors' assessments of junior doctors' clinical skills in Rheumatology.

Methodology: Junior doctors from 3 tertiary hospitals in Singapore participated in the 2016 Rheumatology Practical Assessment of Clinical Examination Skills course. They were divided into groups of 4 and rotated through 6 clinical stations on rheumatic conditions. At each station, the junior doctor examining the patient was independently assessed by 3 peers and 1 senior doctor (ie. Consultant rheumatologist). Grading of clinical skills was based on a standardised marking sheet that assessed seven clinical skills using a 3-level rating scale (satisfactory, borderline and unsatisfactory). A passing grade of ≥ 11 was based on a summation of individual scores obtained from each core skill.

Result: Twenty-four junior (58.3% men) and 6 senior (33.3% men) doctors participated in the course. Overall there was no difference in mean scores between junior and senior doctors (11.5 \pm 2.3 vs 11.3 \pm 2.1, $p=0.405$), however, intra-class correlation (0.21) suggested poor level of agreement. Using senior doctors' scores as the reference, misclassification rate between a passing or failing grade was 37% with junior doctors more likely to give a higher grade (vs lower, 23.1% vs 13.9%, $p=0.006$). There was heterogeneity in the scoring of individual core skills with misclassification rates ranging from 15.7% (maintaining patient welfare) to 50.0% (identifying physical signs). Junior doctors were significantly more lenient in assessing peers' abilities to identify physical signs (satisfactory vs unsatisfactory or borderline, 63.9% vs 41.7%, $p=0.019$). Gender of examiner ($p=0.146$) or examinee ($p=0.532$) did not influence test scores with a non-significant interaction between gender of examiner and examinee ($p=0.696$).

Conclusion: Although overall mean scores given by junior and senior doctors did not differ, there are important disagreements in the grading of individual clinical skill components.