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Dear Editor,

ONLINE CLINICAL ASSESSMENT OF PAEDIATRIC
SUB-INTERNSHIP STUDENTS DURING THE COVID-19
PANDEMIC

Oral examination (viva) has been used as an important tool to evaluate various orders of cognitive domain amongst medical students for decades. However, its objectivity and reliability have been increasingly questioned by experts.¹ Standardised oral examination is considered superior to traditional viva with higher overall and inter-rater reliabilities.²

In view of the nationwide lockdown due to COVID-19, we designed an online format of clinical assessment called 'structured online viva examination' (STOVE), based on the principles of structured oral assessment.³

The 20-min STOVE comprised of a set of three clinical case scenarios, with each scenario having a subset of 8–10 tailor-made questions to address core clinical competencies of our curriculum. Appropriate weightage was given to clinical knowledge, focused history-taking skill, steps of bedside examination and clinical/laboratory data interpretation to ensure the validity of the examination. The scenarios reflected the real clinical cases that students were likely to encounter during their forthcoming internship. Blueprint was used to map course learning outcomes and to ensure alignment with graduate attributes. In addition to assigning a checklist score, each of the two examiners assigned a global rating score for candidate's knowledge and organisation. A practice session was conducted for students to train in the online process of the examination which included mock viva and role plays with the faculty acting as the simulators to replicate the actual conditions during the online examination. A calibration meeting of the examiners was held prior to the examination. We used the online virtual meeting platform Cisco WebEx (Cisco Systems, Inc., San Jose, CA, USA).

Nine (21%) out of the total 42 students took examinations from outside the country. The global inter-rater reliability score was 0.78 (Cohen's κ : 0.47) which is comparable to that reported in the literature.⁴ Minor technical issues experienced during the examination included interruption in internet connectivity ($n = 1$) and problems with video streaming ($n = 2$). Feedback interviews indicated that students found the online exam well-organised, fair and largely acceptable ($n = 42$, 100%). The majority of students ($n = 40$ (95%)) felt that facility to record the online examinations reduced examiner bias. Examiner feedback suggested that STOVE was more objective than traditional viva ($n = 6$, 100%) but could limit the flexibility to move from one subtopic to another in the given case scenario and restrict examiners' style of asking questions ($n = 2$, 33%).⁵

Our experience suggested that the STOVE format was successful in assessing the 'knows how' level of Miller's pyramid. It is a useful online method to assess the depth and breadth of students' knowledge and other clinical competencies except psychomotor skills. STOVE has good inter-rater reliability and is well accepted by faculty and the final-year medical students for summative assessment.

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PECULIAR CASE OF MISDIAGNOSED EPISTAXIS

A 9-year-old girl presented with recurrent nose bleeding, two to three times daily for 2 months. Her parents had consulted two different otorhinolaryngologists who had treated her with amoxicillin-clavulanate, tranexamic acid, xylometazoline, levocetirizine and haemocoagulase nasal drops. Clinical examination and laboratory parameters including blood counts, peripheral blood smear, prothrombin time, International Normalised Ratio (INR), Activated Partial Thromboplastin Time (APTT) and paranasal sinus X-rays were normal. Examination of her nose and pharynx revealed perfectly healthy mucosa with no tear, inflammation, bleeding spot or clot. On her next visit, her parents brought the 'blood' collected in a container. It was a reddish gel-like substance adherent to the walls of the plastic container, with a strong menthol odour and no evidence of black clots or yellow serum (Fig. 1). Her parents were asked to return with the toothpaste they use at home. It was identical and we concluded that the supposed 'blood' was actually toothpaste. We advised them to replace the red toothpaste with a brand of white bland-taste toothpaste at home. No further 'epistaxis' occurred. We were uncertain whether this was attention seeking