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## **CONDUCTING OBJECTIVE STRUCTURED CLINICAL EXAMINATION IN THE COVID-19 ERA: EXAMPLES OF INTERNATIONAL EXPERIENCE**

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Throughout history, clinical competence has been evaluated using instruments such as an examination before a real patient. This traditional form of evaluation, however, makes it difficult to explicitly assess all components that comprise clinical competence<sup>1</sup>. In 1975, Harden began direct observation through multiple structured stations with a list of assessable aspects: the Objective Structured Clinical Examination (OSCE) [1]. The OSCE, a tool to objectively and fairly assess medical students' clinical competences, has become widely used in medical education worldwide [2]. The OSCE is an assessment tool based on the principles of objectivity and standardization in which candidates move through a circuit of time-limited stations in a simulated environment to determine professional performance [3]. The OSCE is becoming more prevalent within healthcare education programmes, because it is regarded as a useful method for assessing skills and underpinning knowledge required for practice. The OSCE is an assessment technique in which students demonstrate their competence under a variety of simulated conditions. Thus, providing evidence that students are competent in those specific skills tested within the exam context. However, the OSCE is a very different experience for students, in comparison to more established methods of assessment, for example: written assignments and continuous assessment in practice [4].

The COVID-19 pandemic changed our lives in 2020. The state of alarm that was declared made it necessary to complete university studies online. Spanish medical government decided to develop a computer-based case simulation OSCE (CCS-OSCE) to be administered via each university's online campus platform as part of a joint project for innovation. The CCS-OSCE made it possible to bring together the various medical schools and carry out interdisciplinary work in a crisis situation such as the one lived through. This allowed for creating a OSCE test that meets the requirements of a level 3, or Master's degree level, qualification according to the Spanish Qualifications Framework for Higher Education [1].

The current COVID-19 pandemic has emerged as the greatest threat to global educational and healthcare systems and imposed an enormous challenge. Novel way of e-OSCE was implemented to ensure medical education continuity and quality during the COVID-19 crisis. This virtual method of assessment was generally well-perceived by both students and faculty, but older ages were less satisfied with the quality of this virtual assessment. While e-OSCE provides a valuable alternative to the classic face-to-face OSCE during infectious disease outbreaks, more research on improving this virtual assessment tool is warranted. The e-OSCE can be a very effective alternative to the classic face-to-face OSCE due to the current circumstances that still pose a significant risk of infection transmission. Future studies should examine different virtual strategies to ensure effective OSCE delivery from the perspective of both faculty and students [5].

In response to the inability to conduct conventional face-to-face objective OSCE due to the COVID-19 lockdown, this study explored options to design virtual OSCE (vOSCE) that meets the objectives and standards of effective competency-based assessment for a large cohort of pharmacy students. The vOSCE required advanced planning of the actual assessment and technical conduct. The development of a master plan consisting of the types of competencies to test, topics and number of cases, and assessment rubrics, guided the team members to develop an adequate OSCE assessment module. Technical aspects included recruitment of examiners, simulated patients (SP), technical support, and a platform for vOSCE. The main challenges were to ensure well-ordered vOSCE and a stable internet connection for examiners, SP, and students. Google Meet was utilised due to its functionality, familiarity, and low internet consumption to all parties involved. Feedback was obtained from stakeholders to improve future OSCE conduct [6].

The virtual OSCE ran smoothly and was successful at discriminating between candidates. In this article, we share twelve practical tips from our experience and the small body of literature on how to successfully design and deliver a virtual OSCE. This format provides an opportunity to run similar

assessments in the future if remote assessments or assessments of telemedicine skills are required [7].

As the transformation of medical education is catalysed by the pandemic, it is important to ensure that peer to peer teaching and assessments are revolutionised with a quality similar to that of physical teaching. We have displayed how this may be achieved in an OSCE setting using Zoom teleconferencing [8].

Conducting a medical exam in the COVID-19 era carries a great challenge for the institutions. Despite the positive aspects of online control of practical skills, virtual OSCE is currently justified as an exception in extreme situations or as part of a comprehensive exam that includes the face-to-face part. The virtual OSCE can be used as a final control of the skills and abilities that students have acquired during full-time study. Remote clinical developments can be useful in the case of establishing communication skills, as well as in the development of telemedicine.

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## **IMPLEMENTATION OF INTERNATIONAL OSCE EXPERIENCE WITH COOPERATION SAFEMED+ PROJECT ASSISTANCE**

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Objective Structured Clinical Examinations (OSCEs) are very helpful in medical education because they allow a student to practice and demonstrate clinical skills in a standardized medical scenario. Students have the opportunity to demonstrate competency in communication, history taking, physical examination, clinical reasoning, medical knowledge, and integration of these skills. It is meant to be a fair and accurate way to assess competence, as well as identify areas that need more work and practice. OSCE stations may include: clinical interactions (in-person or virtual) with standardized patients: counseling, examination, history taking, examination of mannequins and interpretation of findings, computerized cases, test interpretation, order writing [1].

OSCE is becoming more widely used for performance assessment in medicine. The Bukovinian State Medical University began incorporating the OSCE into its curriculum in 2016, when Master undergraduate degree was implemented. Conducting OSCE is based on the center of simulation medicine. In order to attract international experience in the implementation of OSCE, the grant policy department is implementing the SAFEMED grant project (EACEA Erasmus+ CBHE: SEFEMED+ (Simulation in Undergraduate MEDical Education for Improvement of SAFETy and Quality of Patient Care) № 618812-EPP-1–2020–1-GE-EPPKA2-CBHE-JP). One of the main proposals of project is to improve the curriculum of Clinical skills and its teaching/learning materials and tools in function of World Federation for Medical Education standards.

OSCE preparing discussion focuses on logistics and station design, curricular content and order, student anxiety, writing and scoring exams, and