Orthopaedic online clinical teaching during the COVID 19 pandemic

Dr Osadebamwen Omosigho, Dr Fraser Cullen, Mr Tim Gardner, Ms Louise McCullough, Mr Santosh Baliga, Mr G Patrick Ashcroft

1. Emergency Department, Aberdeen Royal Infirmary, Aberdeen, UK
2. Department of Trauma & Orthopaedics, Aberdeen Royal Infirmary, Aberdeen, UK

1. Introduction
The COVID 19 pandemic has led to social distancing being introduced in order to reduce the spread of the infection. Medical students were no longer able to benefit from the valuable clinical experience gained by seeing patients during their early formative years in medical school.

In order to minimise this loss of experience, the Orthopaedics department at Aberdeen Royal Infirmary devised an online teaching method that would allow medical students to have patient contact but at a distance.

2. Aims
- To introduce new online medical student teaching, with direct real time patient and doctor contact.
- To seek feedback from participants on these sessions and to identify ways to improve on current methods.

3. Methodology
3.1 Preparing the Online teaching
- Patients willing to participate in online teaching were selected from those admitted onto an orthopaedic ward. The proposed session was explained to them and then verbal consent was taken to participate in the teaching.
- The junior doctors working on the ward used an electronic tablet with Microsoft Teams installed to enter a pre-selected Teams group of three to four 3rd year Aberdeen University medical students.
- A group video call was started with the participation of all members in the Teams group and after a short introduction, the tablet was taken to the patient’s bedside.
- The students (online) and the patient were left alone for roughly one hour to allow the students to take the patient’s history.
- After the history taking was completed, the students and junior doctor discussed the management of the patient’s case.

3.2 Obtaining feedback
- At the end of the teaching session, the students completed a feedback form.
- These results were compiled then analysed to identify areas of improvement.

4. The Microsoft Teams interface

4. Results

5. Discussion
The results show that the majority of students were happy with this form of teaching. It was viewed as an appropriate alternative to face-to-face teaching given the circumstances.

The students were able to practice history taking within the clinical setting and then use their history and prior knowledge to discuss and eventually interpret relevant investigations, in addition, they were able to ask any pertinent questions to doctors on the ward. These actions would ultimately have the desired effect of reinforcing prior learning through reading textbooks and lecture content.

6. Conclusion
- The level of interest shown by the students in this novel form of clinical practice, demonstrates that there may be a valid place for this type of learning even after the COVID pandemic.
- If the students and ward staff are appropriately equipped and have access to IT facilities, this can be applied to many different areas of medical teaching.
- However, the lack of face-to-face contact prevents the students from being able to examine patients which may hinder the development of examination skills that is part of the learning experience at the clinical setting.
- This issue could be addressed during the teaching session after the patient encounter.

7. References