SMILE: Sustaining Medical education In a Lockdown Environment Can free online access medical education be effective for the retention of long term knowledge acquisition?

John Pascoe, Paul Foster, Muntasha Quddus, Angeliki Kosti, Francesca Guest, Sian Stevens, Richard Bamford, James Coulston

Exeter University/Musgrove Park Hospital

Corresponding Author: Mr. John Pascoe (john.pascoe1@nhs.net)

Introduction: The 2020 coronavirus lockdown lead to medical educators finding new ways to teach. SMILE is a free online access medical education platform created by UK surgical trainees and a medical student that delivered 200 live lectures to students during lockdown, with up to 1500 students from every UK medical school as well as abroad.
This study aims to demonstrate line education is an effective tool for knowledge retention.

**Method:** Students were invited to participate in three live sessions covering haematuria, bone infections/tumours and endocrine emergencies, in which students complete knowledge assessment over time. Quiz-based polls using zoom were taken before and after each session. After two weeks and again at one month the same quiz questions were sent out to attendees of the lecture.

**Results:** 312 students completed all 4 tests. In all three sessions average scores improved post lecture (haematuria 58%-85%; endocrine emergencies 48%-70%; osteomyelitis/bone tumours 40%-77%). At 2 weeks (H 86%; EE 78%; O/BT 75%) and 4 weeks (H 88%; EE 76%; O/BT 69%) scores remained high.

**Conclusion:** This study demonstrates that FOAMed is able to engage audiences in a unique way on a large scale with evidence of long-term knowledge retention.