

The Future of Clinical Education

Think Training...Train Safely



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Introduction

The current Covid-19 pandemic has significantly impacted upon the delivery of clinical education and training. Ensuring the safety of patients, staff and students limits traditional face-to-face teaching and as such, approaches to clinical education must evolve to encompass new attitudes, opportunities and methods.

The need to maintain educational activities remains paramount as even short-lived gaps in education risks profound impacts upon the current and future proficiency of healthcare workers, as well as implications on career progression and future workforce availability.

Despite the challenges that this crisis places upon clinical education, there is now an opportunity for the development of innovative teaching methods, many of which may prove more effective than traditional, pre-Covid-19 methods.

Purpose of This Document

Whilst it is not possible to provide detailed guidance relating to all aspects of undergraduate and postgraduate healthcare education, this document sets out general themes and approaches that may be applied to the ongoing training of healthcare professionals.

Key Messages

- The safety of patients, staff and students remains the first priority.
- Educational activities must resume and evolve to be fully integrated into the new clinical landscape.
- Training curricula and competency requirements can help distinguish training opportunities into:
 - Training possible with remote teaching
 - Training not possible with remote teaching
- Live meeting platforms (eg MS Teams, Zoom), combined with an online “hub” can facilitate ongoing learning whilst providing a repository for recorded teaching events, learning resources and discussions – examples of “hubs” include Google Classroom, Slack and Moodle.
- Principles of effective teaching and learning are equally applicable to online, remote teaching as they would be in face-to-face teaching.
- Face-to-face teaching or teaching in a clinical setting should be limited only to the encounters which provide a high educational yield and should be conducted in adherence to the best available and most up to date infection prevention advice.
- The boundaries between service provision and education should be removed and opportunities to maximise the learning yield of day-to-day clinical activities should be taken wherever possible.
- Protected learning and teaching time must be made available to all trainers and trainees– this must be flexible and adaptable to fulfil individual training requirements.

Current Issues in Training

Training in healthcare is currently threatened by:

- Social distancing regulations and its impact on observing and performing patient consultations and procedural skills
- Availability of PPE
- Reduced frequency and variety of training opportunities
- Redeployment and de-skilling
- Delay or cancellation of formal assessments
- Limited opportunity to complete competencies required for progression to next phase of training
- Lack of facilities to conduct remote teaching
- Impact of Covid-19 on trainer and trainee health and wellbeing

These issues are relevant to differing degrees for undergraduates and postgraduates across healthcare settings. Despite these barriers, education can be conducted effectively, and a careful evaluation of the relevant curricula and competencies may assist in delineating the training that can be conducted remotely and that which cannot.

Remote teaching should be exploited to its maximum possible potential, with face-to-face teaching and teaching in a clinical setting limited to those events which provide a high educational yield.

Training Possible Through Remote Teaching

Technology

The technology to conduct remote teaching is free, easily accessible and easy to use. Online, remote meetings have already become embedded into personal and professional lives, therefore their extension into the domain of education is a natural progression.

Microsoft Teams

Microsoft Teams is available and free to use for all UHL employees. A single meeting can host up to 250 participants. Participants from outside the organisation can be invited to attend meetings but cannot themselves organise meetings. Participants allocated as “organisers” or “presenters” can upload files or presentations into the Teams app for sharing, in addition to screen sharing. Meetings can be recorded for future distribution. HEE recommends the use of Microsoft Teams for education purposes.

Zoom

Zoom can be used universally and meetings can be arranged from within or outside the organisation by any individual. The free version hosts up to 100 participants, with a 40-minute limit on meetings. The paid versions can include additional participants and a meeting limit of 24 hours. Screen sharing and meeting recording is also available.

Pre-recorded videos can also be created easily with Zoom. Initial security concerns seem mostly resolved and HEE sees no issue with the use of Zoom for education purposes.

Blackboard Collaborate

Blackboard Collaborate is being extensively used by the University for undergraduate teaching. For educators engaged in undergraduate education, the University may be able to facilitate access to Blackboard Collaborate, although a Blackboard login is required. This software is more education focussed, with the ability to create voting polls within the meeting, share a “whiteboard” to facilitate group discussions, and create breakout groups.

Separate Online “Hubs”

In addition to a meeting platform, the use of an online repository or “hub” can be beneficial. These can be areas where recorded meetings, timetables and additional learning resources can be posted, facilitating a more complete learning experience. Discussions can also take place here away from the allocated teaching time. Examples include Google Classroom, Slack and Moodle, all of which are free and easy to use. The responsibility for education need not rest with one individual or group of individuals, and an online hub can be contributed to by as many participants as deemed appropriate.

Content

Examples of the teaching activities that can take place remotely may include:

- Case review discussions
- X-ray meetings
- Histology teaching
- Journal clubs
- Formal lectures and presentations
- Conducting and debriefing remote clinics
- Workplace-based assessments, including CBDs and mini-CEX
- Wellbeing sessions, in particular, Balint groups
- Reflection on clinical activities
- Joining remote MDT meetings
- Simulated remote patient consultations

Principles of learning and teaching apply in online, remote teaching settings, as they would in a face-to-face environment.

Didactic teaching risks participants losing interest quicker than they would in a face-to-face session, especially when their videos and microphones are off and a presenter cannot gauge the attentiveness of the audience. This is particularly evident when participant numbers exceed 15-20.

Narrations over PowerPoint slides are an effective means of conveying information, but care needs to be taken to ensure the auditory and visual stimuli of the presentation are as engaging as possible and that PowerPoint slides are not overloaded with information.

Facilitating discussion and reflections permits active participation from learners, increasing attentiveness and engagement. However, this risks the facilitator not fulfilling the intended learning objectives, so care is required to maintain relevance of the discussions.

A “flipped classroom” approach can be effective with remote teaching. Learners engage with teaching materials and resources in the days prior to a live, online teaching event. The purpose of the live teaching event is then to expand upon, discuss and address questions pertaining to the pre-read material.

A “blended learning” approach can be facilitated by remote teaching, where a combination of clinical encounters, relevant reading materials, pre-recorded teaching videos and live online discussions are all tailored to achieving learning objectives.

Protected learning time must be made available to all healthcare professionals in training. Whilst it may no longer be possible for cohorts of trainees to attend protected teaching at a given time, the individual training needs of healthcare professionals must be considered by supervisors and trainees should be granted flexible protected learning time where they can access teaching resources.

Training Not Possible Through Remote Teaching

Some aspects of healthcare education are not possible remotely, and both patient and multi-disciplinary interaction are fundamental characteristics of well-rounded clinical education.

Some specific examples of training not possible through remote teaching may include:

- Procedural skills
- Examination skills

The safety of patients, staff and students remains the highest priority and can be addressed by:

- Engaging in clinical interactions that have the highest possible educational yield
- Educational opportunities in out-patient clinics are achievable by wearing face masks and limiting student numbers to a maximum of two at a time
- Adhering to the best available and most recent infection prevention advice (including social distancing and, PPE)
- Minimising time spent in the clinical encounter and maximising the remote learning opportunities generated by the clinical encounter
- Utilising the clinical skills lab where possible

Service provision as education

The value of experiential learning cannot be overstated in current circumstances. The distinctions and boundaries between service provision and education should be minimised as much as possible.

The learning opportunities generated from day-to-day clinical work can be capitalised upon through frequent reflections, discussions and de-briefs between all healthcare staff.

The experiential learning of undergraduates can be facilitated by allowing students to become fully embedded into clinical teams, working up to, but not beyond their professional capabilities and being fully included in the aforementioned day-to-day reflections and discussions.

Clinical Education Centres

Facilities provided by the UHL Clinical Education Department across all three sites are being reconfigured as part of the Trust wide reconfiguration programme.

Learning spaces will be created to provide healthcare professionals the space and facilities to engage in learning activities that will be delivered on virtual platforms

A VR solution is being installed in the lecture theatres across all three sites to permit the broadcast of events from one site to the other two, as well as being broadcast online and recorded.

At present the number of people allowed in the lecture theatres is limited even wearing Type I and II masks