

NHS Lothian COVID-19 PREP 'LESSONS LEARNED' SUMMARY

Site/Department/Specialty	WGH / MAU / Acute Medicine
Date & Time of Training	Tuesday 7 th April 2020
Trainer Contact	Vicky Tallentire and Ailsa Howie, with thanks to Stephen Hartley, Euan Leinster, Keith Kelly and Jenni Crane

Training Delivered (what we did)

Cardiac arrest simulation in likely COVID-19 patient.

12 learners; 5 faculty - number limited by need to maintain social distancing throughout session.

Initial briefing involving talk-through of new Lothian cardiac arrest guidelines for confirmed or possible COVID-19 patients.

In-situ immersive simulation scenario involving a previously well 45 year-old man who self-presented to WGH after a week of cough and fever. Extremely SOB on arrival and escorted directly to RED resuscitation room. He arrested a few minutes later, with only a nurse 'first responder' in the room.

Scenario run for 23 minutes. Donning and doffing incorporated into scenario, with doffing demonstrated by simulation participants to rest of learners. Subsequent debrief followed by demonstration of mechanical chest compression device, LUCAS 3.

Whole session lasted **90 minutes**.

Results & Reflections (what we found)

- PPE:** Delay in anaesthetist entering due to a perceived shortage of gowns - in fact gowns present but were packaged differently to those used in theatre, causing some confusion. Runner sent to ward 20 to find additional gowns. Also concern regarding lack of theatre hats. Individuals entering room not easily identifiable.
- Task overload** of the two red team members (prior to the arrival of the anaesthetist).
- Physical exhaustion** of red team members due to intensity of CPR required, resulting in poor quality chest compressions for a significant period.
- Communication** between team leader and the red team was challenging, despite use of a baby monitor to negate the requirement to activate a walkie-talkie. Timings were not synchronized between the red and green teams, with the green team using a timer and the red team using the defibrillator in AED mode. Red team were unable to hear team leader instructions due to PPE and noise of CPR; team leader felt ignored.
- Equipment:** Some airway equipment required for intubation was not available on the airway trolley inside the room (such as size 7 ETT; 20ml syringe; C-circuit).

Take Home Messages (Lessons learned for educators as well as learners)

- A minimum of three gowns and a box of surgical hats to be kept in donning area. One green team member to annotate plastic aprons with names and grades of red team members as they enter; appropriate pen required.
- Consideration of a third member of the team (also wearing AGP PPE) entering the resuscitation until the anaesthetist arrives to assist with initial tasks - acknowledging this is a slight deviation from the current NHS Lothian guidelines.
- Reminder for team leader (outside room) to promote high quality chest compression. Consider use of LUCAS 3 (mechanical chest compression device) to reduce workload of CPR (training required for the majority of MAU staff). LUCAS 3 device to be kept in green resuscitation room in MAU for the foreseeable future, this change has been disseminated throughout the hospital.



4. Encourage use of defibrillator in AED mode to provide definitive timings and rhythm check reminders. Consider trial of two-way radios or mobile phones in addition to baby monitor, to allow team leader's instructions to be projected at higher volume within the room, with all communication in the room still audible by the team leader (via baby monitor).
5. Airway trolley restocked with anaesthetic input.

Future plans

Repeat immersive simulation of cardiac arrest in suspected COVID-19 patient on Thursday 9th April, for a further 12 participants.

Trial of modifications above, including use of LUCAS 3.

Plans for rapid up-skilling of MAU staff in use of LUCAS 3.

Author(s)	Vicky Tallentire
Contributor(s)	Keith Kelly, Stephen Hartley, Ailsa Howie

Please submit COVID Prep 'Lessons Learned' Summaries to nathan.oliver@nhslothian.scot.nhs.uk. Completed summaries and resources will be published onto <https://www.med.scot.nhs.uk/resources/covid-19> for free use and sharing under Creative Commons Licensing.

