

Cardiac Arrest during COVID-19: A Multidisciplinary Simulation based Approach

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INTRODUCTION

Simulation based training tests clinical knowledge and situational awareness while exercising teamwork by simulating a real time clinical scenario.

Large number of patients and rapidly changing clinical guidance amid the COVID-19 pandemic required addressing staff training and education.

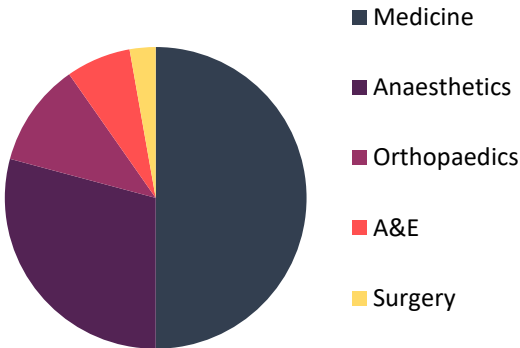


Chart 1. Proportion of participants trained by specialty

KEY AIMS

- Review and apply updated ALS guidance.
- Affirm appropriate use of PPE.
- Improve interdisciplinary communication and maximise staff safety when managing cardiac arrest in COVID-19 patients.



METHODS

We developed a multidisciplinary simulation centred around a COVID-19 patient found in cardiac arrest .

Participants were allocated time slots and roles. Two facilitators run the scenarios with aids of a mannequin, an AED and a scenario checklist (Figure 1).

A debrief took place afterwards to solidify training objectives.

Medical SpR Medical and Junior arrive outside room	Medical SpR confirms appropriateness of continued CPR	<input type="checkbox"/>
	• Medical notes/ nurse/ junior doctors' initial assessment	<input type="checkbox"/>
	Medical SpR and Medical Junior don FULL PPE and enter room	<input type="checkbox"/>
	• Those in standard PPE leave room	<input type="checkbox"/>
	• Commence ALS (with airway manoeuvres if confident)	<input type="checkbox"/>
	- Rhythm/ pulse checks +- shocks +- drugs	<input type="checkbox"/>
	- 4Hs 4Ts	<input type="checkbox"/>

Figure 1. Exemplar part of the simulation checklist used by facilitator

RESULTS

- 72 doctors : various specialties (See Chart 1) and grades - F1 to consultant level
- 45/72 completed online feedback
- **100 % reported**
 - ✓ **improved knowledge regarding PPE and updated ALS guidelines**
 - ✓ **improved confidence** (See Chart 2)
 - ✓ **multidisciplinary simulation as useful**

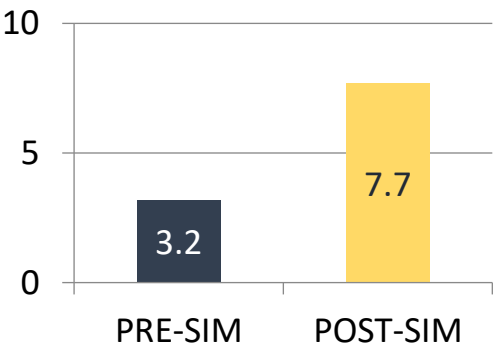


Chart 2. Average confidence level in managing COVID-19 cardiac arrest – Score out of 10

CONCLUSION

This simulation approach proved effective in training doctors across grades and specialties in managing cardiac arrest during COVID-19 pandemic.