

Addenbrooke's Paediatric Emergency Department Multidisciplinary In-Situ Simulation Programme For the COVID-19 Pandemic

Background:

During the COVID-19 pandemic there have been significant changes to the entire Emergency Department at Addenbrooke's, with restructuring to provide "Red" and "Green" Resus areas. The paediatric area has also moved. Currently the sickest paediatric patients may be managed in several different areas within the Emergency Department which has led to changes in staffing, emergency protocols and equipment provision.

Concerns had been raised that these significant changes may affect the way in which the sickest children are cared for within the Emergency Department. These changes and their impact on patient care needed to be shared and disseminated to all teams that may be involved with the care of these patients.

We established an on-going programme of simulation within the multidisciplinary teams managing children in the ED to enable the dissemination of these changes

Methods:

In-situ simulations within the ED, involving the acute on-call teams, were planned weekly during July and August 2020. We created 4 simulation scenarios including Paediatric major trauma, the apnoeic neonate, super ventricular tachycardia and the seizing child.

6 participants could sign up for simulation scenarios, but all other participants were unaware of the simulation commencing. Therefore "Live" paediatric cardiac arrest and trauma calls were used.

Departmental leads were informed of training dates to minimise clinical disruption, including:

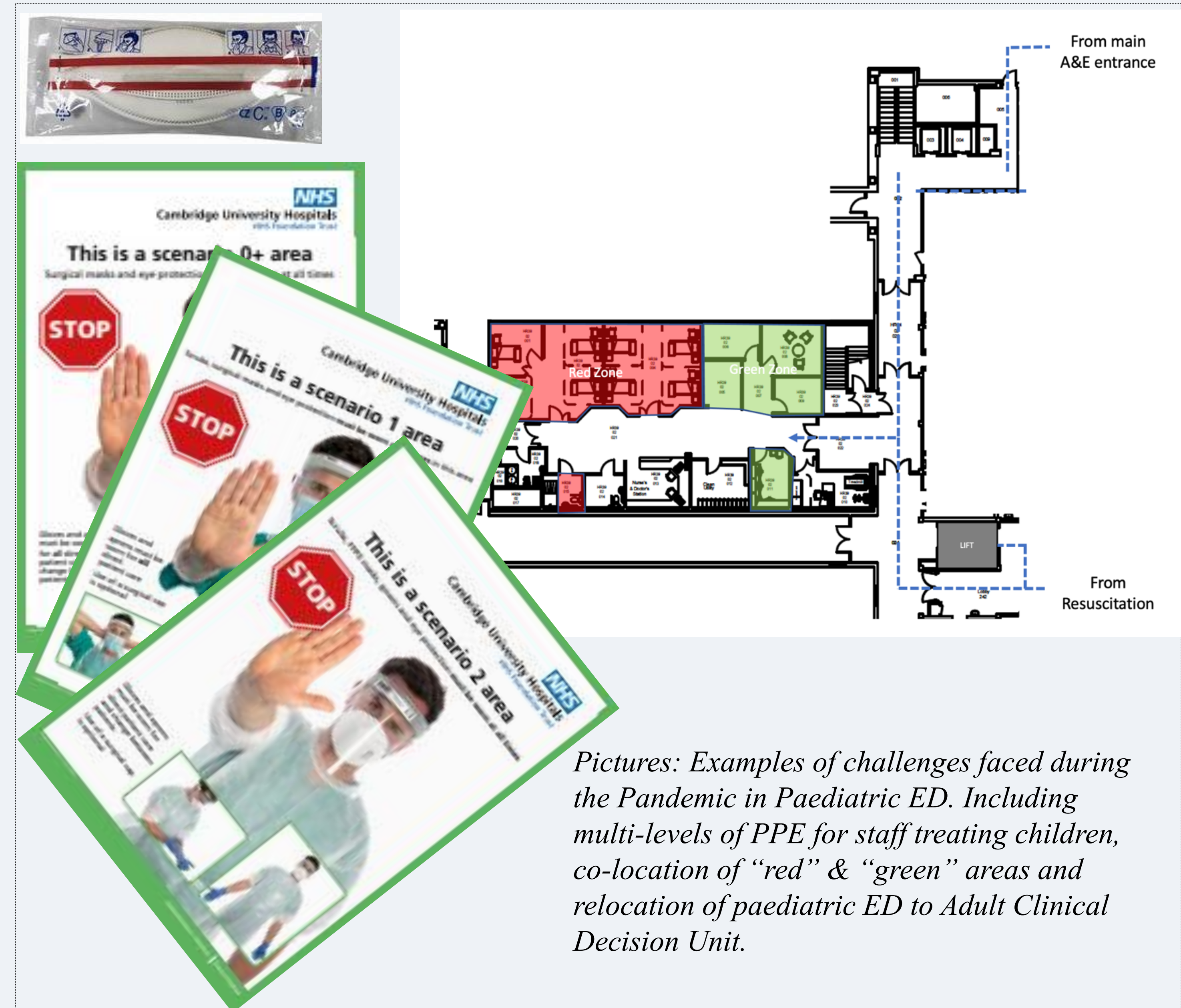
- Paediatric Emergency Medicine
- Paediatric Intensive Care
- Paediatric Anaesthetics
- General Paediatrics
- Resuscitation Officers.

Additional Personal Protective Equipment was sourced and debriefs were run in large spaces following social distancing rules. Advanced Life Support Group¹, Health Education England and Public Health England recommendations regarding the running of courses during a pandemic were followed.



References:

1. https://www.alsg.org/en/files/Planning_socially_distanced_courses.pdf



Pictures: Examples of challenges faced during the Pandemic in Paediatric ED. Including multi-levels of PPE for staff treating children, co-location of "red" & "green" areas and relocation of paediatric ED to Adult Clinical Decision Unit.

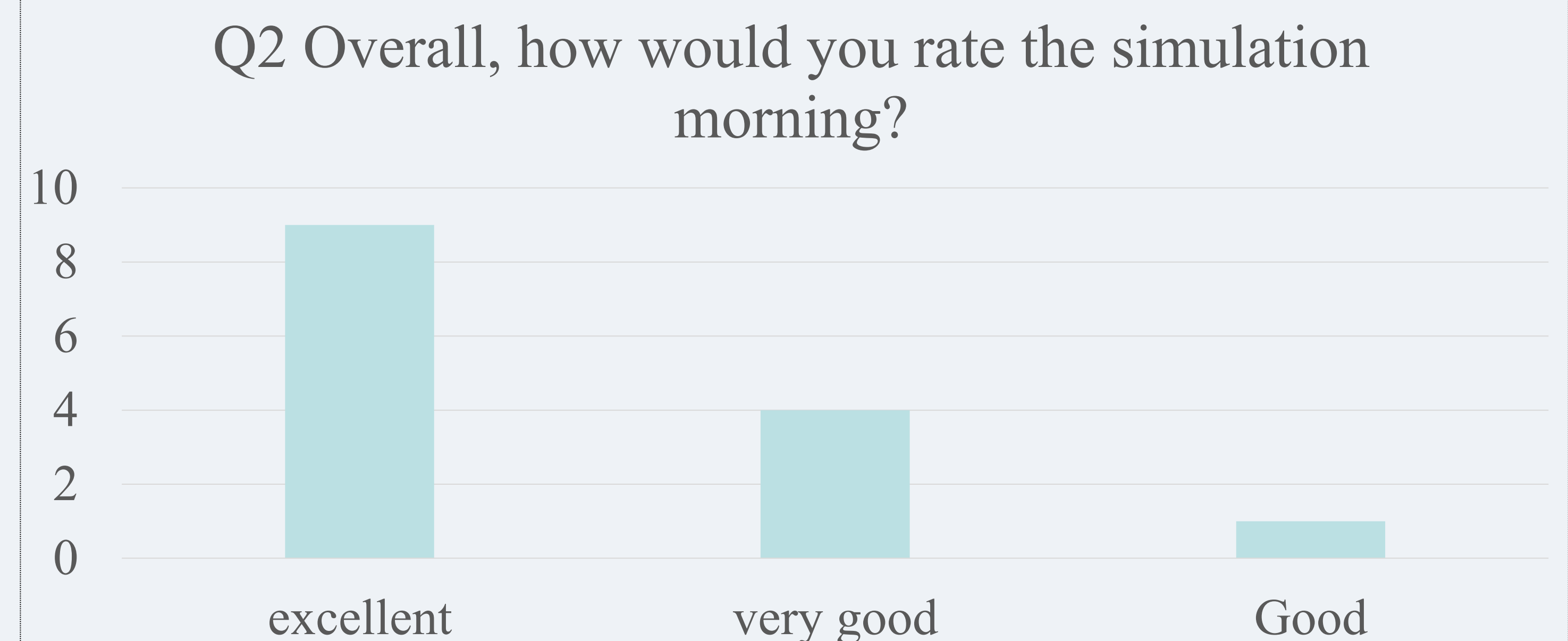
Results:

4 in-situ simulation mornings were held. Participants included paediatricians, ED nurses and doctors, the trauma team, PICU and anaesthetics.

24 members of staff participated across the 4 simulations. 100% of participants provided post course feedback.

93% of respondents felt more prepared to manage children in ED.

All participants found the simulation a positive learning experience:



Discussion:

Face-to-face simulation training is still possible during the COVID-19 pandemic.

Our Paediatric ED Simulation project allowed the sharing of geographical & protocol changes and provides a model for shared learning within the paediatric ED.

This will be of particular importance when the Paediatric ED evolves as part of the creation of a new Children's Hospital within Addenbrooke's Hospital.