

An in situ simulation programme for collaborative neonatal resuscitation

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Aim: To set up a multidisciplinary, multi-team in-situ simulation programme for the resuscitation and stabilisation of a neonate (<4kg).

1. Introduction

The paediatric acuity in Queen Alexandra hospital is high, in particular in relation to stabilisation and resuscitation of infants. Due to the relative **infrequency** of managing such cases for each staff member, there is often some unfamiliarity of equipment and processes that may affect the confidence and competence of care delivery. Therefore by running **regular in-situ scenarios**, focusing on **human factors** and patient safety, it was hoped to improve the interface between the paediatricians, neonatologists, and critical care staff, and test the existing hospital systems.



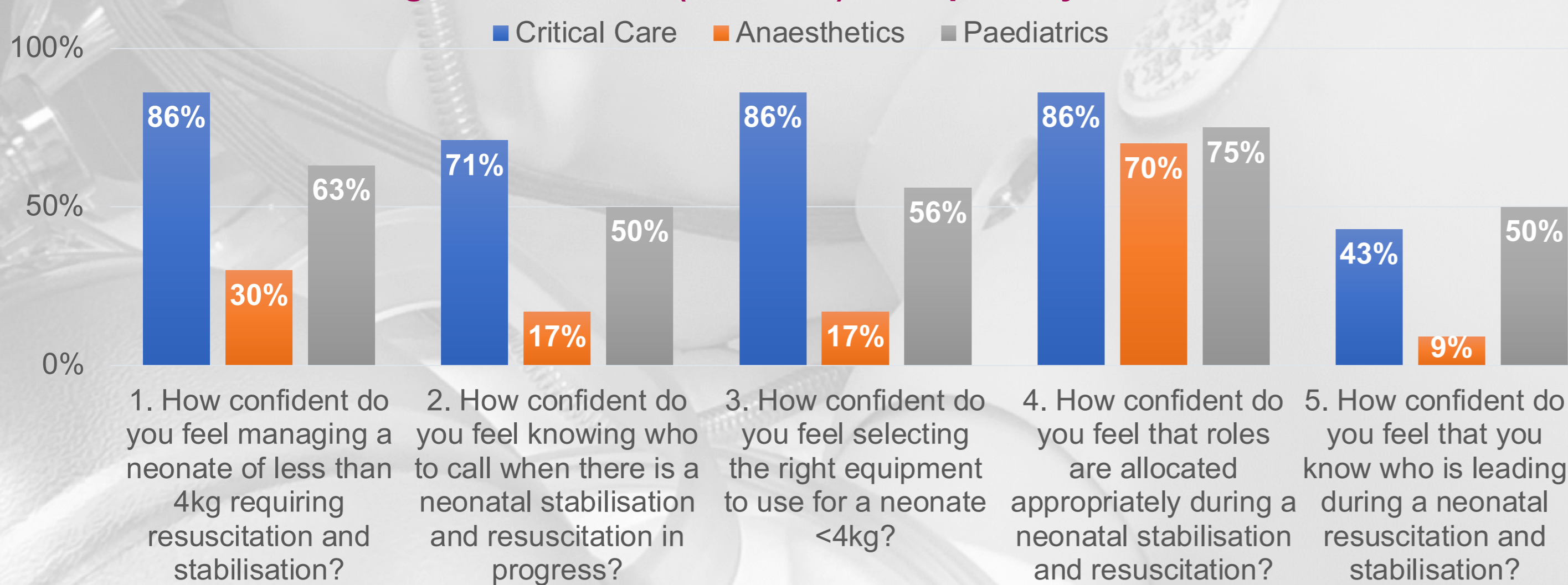
2. Strategy and progress

- A **pre-simulation questionnaire** was sent to medical and nursing staff in critical care, anaesthetics, and paediatrics (47 responded).
- Simulated scenarios were written based on recent learning events, with topics that included bronchiolitis, neonatal sepsis with an unanticipated difficult airway, and non accidental injury.
- **Four multi-team scenarios** have been successfully delivered in the child assessment unit and paediatric emergency department resuscitation area.
- Each scenario had between 12-16 participants from the above specialties.
- A series of **mini skills sessions** for the paediatric nurses and doctors, focusing on Ayre's T-piece, resuscitate, difficult airway equipment, and resuscitation scenarios have been delivered. We had a total of 20 people attend the sessions.
- The QI methodology used throughout the year was the **PDSA cycle**. After each simulation and debrief, improvements were made in order to maximise learning.

3. Achievements

1. Received **positive feedback** from participants involved, highlighting the value of collaborative in-situ simulation.
2. Introduction of an **anaesthetic checklist** in the child assessment unit.
3. Introduced **front of neck access packs** to the airway trolley.
4. Agreement for **more regular in-situ simulations**.
5. Agreement to have **name badges** when attending resuscitations – this was identified in the last scenario to improve awareness of individual roles.
6. Improved **awareness** of the Making the Airway Safe Trolley and guideline.
7. Plan to run a **paediatric study** to raise awareness about in situ simulation.

Percentage 'Confidence' (Score >3) Per Specialty Pre-Simulation



4. Impact of the project

- Recognition of the importance of in situ simulation evidenced by feedback from all participants.
- Improved **awareness** of individual roles when attending a resuscitation.
- Request for **further in situ simulation scenarios** in paediatrics and across QAH.

5. Lessons Learned

- The setting up of successful in-situ simulations of this complexity across departments takes a **minimum of 6 months**.
- It is important to highlight that simulations are **testing the system not the individual**.
- In-situ simulation provides a **safe environment** to look at recent learning events.
- Debriefing a multidisciplinary, multi-team group requires **ground rules**.

6. Sustainability

- A successful business case application to **Health Education England** for funding to develop an app based around running in situ scenarios was made, leading to the award of **£10,000**.
- Regular in-situ simulations are being continued by the project faculty.

Acknowledgements

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