DEVELOPMENT OF A TEACHING TOOL TO DELIVER COVID-19 RESUSCITATION SIMULATION

Dr Meyrelle Fernandes 1, Dr Michelle Guilhermino 1,2, Dr Claire Pickering 1

1John Hunter Hospital, New Lambton Heights, Australia; 2University of Newcastle, Newcastle, Australia

Introduction: COVID-19 has provided challenges within the Intensive Care Unit (ICU), requiring a new model of care to provide safe and successful outcomes. The difficulty in delivering Advanced Life Support (ALS) within the confines of personal protective equipment (PPE) and the potentially limited number of responders in a Covid ward prompted the development of a teaching tool and simulation-based education at a Level 6 ICU.

Objectives: We aimed to develop a teaching tool to train nurses and doctors on providing ALS for adults with suspected or confirmed COVID-19 in the ICU.

Methods: The medical and nursing education team developed and implemented a teaching tool to provide ALS education with specific provisions for appropriate donning of PPE, safe defibrillation, airway management, and limited responder numbers. Initial review of the ALS modifications endorsed by the Australian Resuscitation Council (ARC) and the International Liaison Committee on Resuscitation (ILCOR) led to developing an infographic tool trialled using simulated resuscitation scenarios.

Results: The infographic tool covered the goals of a COVID-19-specific resuscitation, suggested up to six responders and detailed their roles during resuscitation. Using this teaching tool, we provided ALS education to 52 staff members (medical and nursing) over eight simulation sessions. The participants expressed that using the infographic as a visual aid before immersing in the ALS simulation improved their learning experience, confidence, communication, and understanding of delivering safe and effective ALS with a limited number of responders, whilst wearing PPE.

Conclusions: Using a visual teaching aid such as an infographic in simulation improved learners’ experience, confidence, communication and understanding of effective ALS in a COVID-19 ward simulated environment.

PRESSURE INJURIES IN MECHANICALLY VENTILATED COVID-19 PATIENTS UTILISING DIFFERENT PRONE POSITIONING TECHNIQUES – A SINGLE CENTRE EXPERIENCE

Ms Cara Woolger 1, Ms Fiona Oliphant 1, Mr Thomas Rollinson 1, Ms Joleen Rose 1, Ms Kristy Ross 1, Dr Lucy Modra 1, Dr Rahul Costa-Pinto 1

1Austin Health, Heidelberg, Australia

Introduction: Prone positioning (PP) may be utilised to improve oxygenation in mechanically ventilated patients with COVID-19 pneumonia. Pressure injuries (PIs) are a well-recognised complication of prolonged PP. It is unclear how best to position prone patients to minimise this risk.

Objectives: To ascertain differences in the incidence and distribution of PIs with two prone positions.

Methods: An iterative PP guideline for mechanically ventilated patients was developed in a tertiary intensive care unit during a pandemic surge between September and November 2021. PI data was collected prospectively on all prone patients. A default ‘Face Down’ approach utilised a neutral neck position with face resting on a foam pillow and arms resting by sides. After 3 weeks, this default approach was changed to ‘Swimmer’s Position’ which involved the patient’s head turned to the side, one hand resting next to patient’s face and other arm resting by side with 3-hourly turns. An endotracheal anchoring device was the preferred airway securement technique with both approaches.

Results: Fifty-one mechanically ventilated patients had 161 prone episodes during this timeframe. Seven patients had both ‘Face Down’ and ‘Swimmer’s Position’ PP. Of the remaining 44 patients, 34 had ‘Face Down’ PP only. Twenty-six (76%) patients developed 55 PIs – cheek (22), chin (8) and nose (5) were the most common PI areas. Ten patients had ‘Swimmer’s Position’ PP only. Four (40%) patients developed 15 PIs – cheek (4), lip (3) and ear (2) were the most common PI areas. The majority (81%) of all PIs were Stage 1 or 2. No PIs required surgical intervention. Overall, fewer patients had PIs with Swimmer’s Position (OR 0.21, 95% CI 0.05, 0.91).

Conclusion: ‘Swimmer’s Position’ yielded a lower overall incidence of PIs than ‘Face Down’ PP. The anatomical distribution of PIs differed for these two prone positions.

RESUSCITATION AND EXPERTISE IN THE ERA OF COVID-19: AN EXPLORATORY STUDY ON THE KNOWLEDGE TYPES AND INFORMAL LEARNING PATHWAYS USED

Ms Kylie Moon 1,2

1Royal Melbourne Hospital, Parkville, Australia; 2University of Melbourne, Parkville, Australia

Introduction: The COVID-19 pandemic has highlighted an urgent need to train greater numbers of critical care nursing staff more effectively, based on education research and learning theory. This exploratory qualitative research project aimed to understand the nature of ICU nurse’s expertise in resuscitation and peri-arrest scenarios, the types of knowledge involved and the informal learning pathways that may be used to reach this level of expertise.

This research project was carried out during the second wave in 2020 at the Royal Melbourne Hospital (RMH) ICU.

Methods: In-depth, semi-structured interviews were carried out with 11 ICU nurses and one ICU consultant. Participants were purposefully selected and as the study evolved and themes began to emerge, the recruitment focused on a cohort of senior ICU nurses.

Interviews were 30-105 minutes long, transcribed and analysed using thematic analysis and NVivo. The qualitative methodology used was hermeneutic phenomenology.

Inclusion criteria was nursing/medical staff who had participated in resuscitation of a patient in cardiac arrest over the period June 2017 to February 2020 at RMH ICU.

Results: Several categories were identified in the data, which were then further collated into three overarching themes (knowledge confidence, leadership), capturing the factors and types of knowledge involved in ICU nurses acquiring expertise in peri arrest and resuscitation scenarios. The knowledge theme contained 4 subthemes: i) use of tacit and insightful knowledge; ii) knowledge based on experienced; iii) knowledge of their role; and iv) knowledge creation. These findings highlighted the importance of experiential learning and leadership opportunities for ICU nurses to develop expertise in resuscitation.

Conclusion: This study contributes to our understanding of the types of knowledge and informal learning pathways used to develop expertise. By making this knowledge more visible and accessible, we can improve ICU nurse education design.

Acknowledgements: This research project was for a Master of Clinical Education minor thesis at the University of Melbourne and supervised by Professor Clare Delany and Professor Peter Morley. This project was supported by scholarships from the Australian Nurses Memorial Centre and the Royal Melbourne Hospital June Allen Award.