units were expanded and staff were redeployed from other areas to provide support. These 'surge' staff required rapidly developed simulation-based training to allow them to work in this unfamiliar environment within a restricted scope of practice. Being involved with delivering this training as well as working with surge staff in Critical Care afforded me a deeper understanding of the surge role and the unique challenges it presented. Once surge training was completed and I returned to delivering our standard simulation-based education courses, my experiences of working clinically continued to enrich my teaching because I felt somewhat familiar with some of the challenges our learners were facing as the pandemic continued.

So what? Over the last year, I have felt conflicted at times; when working clinically during the peak of the pandemic, there was very little time to facilitate learning at the bedside, and during my educator weeks I relished the opportunity to support and teach but felt guilty for spending time away from colleagues and patients in Critical Care Unit. However, continuing with both roles better equipped me to answer questions and to provide support during surge training, particularly for those staff who had not yet spent time on the units. When assisting with other courses as a faculty member, I was able to deeply empathize with participants who encountered situations that I had become familiar with in practice - for example, communicating with others when wearing full personal protective equipment - which helped me to validate and normalize some of the experiences shared during debrief discussions. Through continuing to reflect on my time spent working in these environments during the pandemic so far, I hope to present my learning and recommendations for optimizing practice under challenging circumstances.

186

## REFLECTIONS ON REMOTE SIMULATION: WHAT DOES THIS MEAN THAT CANDIDATES MISS?

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### 10.54531/FGFZ5705

What? Our organization has been running some courses remotely since autumn 2020. Sessions for medical students and foundation doctors have taken place, allowing those who are isolating or shielding to participate, and facilitating the training of those who are outside our organization. We are now writing many courses with remote learning in mind and creating our course materials in digital format. This means that we are not starting from scratch if changes in circumstance prevent face-to-face training in the future. The remote format involves candidates controlling an 'avatar' in-centre, supported by a confederate (in nursing or junior doctor role), with access to a digital notes bundle. The screen on Microsoft Teams has a relatively fixed room view taking up the majority of the screen, with a change in feed to a different camera if appropriate to the flow of the scenario to focus on the defibrillator, for example, with observations in a corner, and results popping up when requested. There is no option for candidates to alter this view. During a dry-run of a scenario involving a simulated patient (played by a faculty member) with hallucinations due to delirium, the candidate struggled in their appreciation of how abnormal the patient's behaviours were, as they were unable to see all the small movements that were evident to those of us in the room, and low volume speech and muttering might have been difficult to hear, despite the faculty member wearing a microphone, though may have been easier through headphones. We sought feedback on the format and the feasibility for the scenario from the candidate, and the phrase 'I didn't see/hear that' was used a lot.

So what? This has led me to wonder how much detail our candidates are dialling in from home, particularly those who are using a tablet, phone or laptop with a small screen, and have been missing, and how that might have affected their behaviour and clinical reasoning. Submitted feedback makes little reference to missing things in the course of the scenarios, but some candidates seem to have had more issues than others. This may have been due to technical or connectivity problems but could be viewed as a limitation of the set-up in its current format. Reviewing the feedback, while some expressed frustration about technical issues, there are many more comments about how they had enjoyed the experience and hoped it will continue. The jury seems to be out, but there is much to work on as we move forward.

205

### SIMULATION AS A FORM OF IMMERSIVE THEATRE

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#### 10.54531/ESVA2083

What? Immersive theatre is a style of theatre that removes the fourth wall of traditional theatre turning the audience into participants and engaging the five senses such as sight, sound, touch, taste and smell; a concept applied equally to multi-professional, human factor-based simulation. Peter Brook, one of our greatest theatre directors, says, 'Drama is exposure; it is confrontation; it is a contradiction, and it leads to analysis, construction, recognition and eventually to an awakening of understanding'. This is without doubt what we do in simulation. We create scenarios, 'the drama', we create managing deteriorating patients, the 'confrontation and contradiction' and we enter debriefing, the 'analysis, construction and eventual awakening of understanding'. Using the concepts of immersive theatre and drama, creating more realistic environments and authentic interactions, we can offer the participants a greater sense of reality in which to practice vital inter-professional medical care. High-fidelity simulation encompasses more than just a technological top of the range manikin which often comes at a premium cost. High-fidelity simulation is an attack on all of the senses, visually sick patients, noises and smells of the environment, even touch and taste. The soundscape of an emergency room, smells of humans, drugs, equipment, tastes of stewed tea and warm water, the touch of a sick patient or a disruptive relative in a visually authentic space creates the perfect setting for an immersive simulation experience.

So what? By implementing psychological, sociological and physical fidelity, we offer a unique way of practicing essential skills of interprofessional working not only to enhance patient care and safety but also to allow a greater understanding of ourselves and others in stressful, urgent and critical situations. Applying ideas from the world of drama and theatre, creating authentic immersive environments can

give participants the freedom to be in the simulation and steer them away from acting in the simulation.

202

# HIGH-FIDELITY SIMULATED BRONCHOSCOPY: INCORPORATING SIMULATOR INTO A MANNEQUIN

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#### 10.54531/ICKV7674

What? Fiberoptic intubation (FOI) is a technique used to establish airway access in patients with anticipated and unanticipated difficult airways. Fiberoptic bronchoscopes are currently used to facilitate endotracheal intubation via either the nasal or oral route, in the positioning of endotracheal and endobronchial tubes and bronchial blocking devices, and in airway examination or evaluation. FOI is used in the management of awake spontaneously breathing patients with an anticipated difficult airway [1,2]. Anaesthetic trainees require development and maintenance of flexible bronchoscopy skills for tracheal intubation. For junior trainees or those who have not had exposure to this procedure, a virtual reality simulator, the ORSIM® bronchoscopy simulator (Airway Simulation Limited, Auckland, New Zealand), has been developed. The ORSIM® simulator is designed to incorporate a virtual patient with a difficult airway. A replica bronchoscope is advanced through a black box desktop sensor, which is connected to a laptop computer and allows visualization of video bronchoscopy. The laptop software program includes upper and lower virtual airways of varying complexity. Virtual oral, nasal and conduit entry points can be selected; the program provides recording, feedback, measurement and relevant clinical data.

So what? The aim of this project was to incorporate the ORSIM® simulator into a manikin for use in high-fidelity simulation. A basic resuscitation training manikin was used (Figure 1). The silicone/rubber skin was removed. The ORSIM® black sensor box was placed over the head with an exit point towards the thorax (Figure 2). Polystyrene was used to support the head and cheek region (Figure 3). Inexpensive props such as hats and wigs were used (Figure 4), and patients and monitors were positioned for high-fidelity simulation (Figure 5).



**Figure 1:** A basic resuscitation training manikin is used. The silicone/rubber skin is removed.



**Figure 2:** The ORSIM® black sensor box is placed over the head with an exit point towards the thorax.



**Figure 3:** Place polystyrene to support head and cheek region. This could be substituted with other materials such as foam/wax.