mass index (BMI). We included this in our debriefings. Our role-play videos are used in training to give examples of obesity discussions with CYP. These were semi-scripted to allow the CYP to incorporate their own voice and provide their insight into how they or their peers might react. In the patient experience survey, all parents were positive about the approach, rating the conversation on average 7.6/10 for being helpful (10 most helpful). Notable comments from parents included 'the approach was sensitive, they spoke about positive change, not negative'.

Conclusion: Parents talked positively about conversations that they had about obesity with staff trained using our simulation programme designed following CYP collaboration. It is encouraging that these conversations have been useful for CYP and families. Based on this feedback, we will continue to engage CYP and parents. Feedback from CYP is planned. The Obesity Toolkit is made free and Open Access for any interested departments.

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CREATING AN EASY TO CONSTRUCT, LOW-COST ASPIRATION SIMULATOR FOR AIRWAY TRAINING

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Background: Aspiration of gastric contents remains the commonest cause of death during anaesthesia, accounting for 50% of deaths and occurring more frequently than cannot intubate, cannot oxygenate (CICO) events [1]. Despite this, training for CICO is ubiquitous while rehearsal of aspiration management is rare. Soiled airway simulation has been shown to reduce the time to intubation with less volume entering the lungs, a factor known to correlate with the severity of aspiration [2]. Initially developed by Dr DuCanto, high-fidelity vomit simulators have existed since 2014 however cost (£1,595) precludes their widespread use. Low-cost models have since been described, however, the materials are sourced from hardware stores, relatively expensive, require skills to construct, utilise noisy pumps, and some even require electrical safety considerations [3]. We aimed to improve access to aspiration training by designing an aspiration simulator that is easy to construct and low-cost.

Methods: Employing an iterative design process we created an aspiration simulator using materials readily available in the operating theatre. The final model requires an intubatable manikin with an oesophagus, such as the Laerdal Airway Management Trainer™. The oesophagus is intubated distally with a shortened size 9.0 cuffed endotracheal tube (acting as both a conduit and seal), which is then connected to a shortened bladder irrigation set and two 3-litre bags containing simulated regurgitation (made from propofol, water, and green food colouring), elevated and manually pressurised to 300 mmHg (Figure 1, upper left).

Results: The setup silently produces a titratable flow of up to 250 ml per minute, sufficient to flood the oropharynx within 30 seconds. The simulation itself can be set up in under 10 minutes, used several times before requiring refilling, and is easily transported between theatres as a part-task trainer or concealed for a multi-disciplinary simulation (Figure 1, bottom left). All parts are reusable and the total cost equals £9.90 (excluding the manikin, which is undamaged). Our simulator was tested on a cohort of 16 middle-grade anaesthetic trainees and its performance was evaluated using pre and post-course questionnaires (scale 0–10). All successfully intubated the simulator. Average user-rating scores for realism were 8.4/10 while confidence in managing soiled airways improved from 6.2/10 to 8.9/10 after exposure to the simulation.

Conclusion: Soiled airway simulation can be simple and affordable, creating a realistic environment to practise the unique skills necessary to manage this important yet under-rehearsed cause of death during anaesthesia.

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DESIGN OF A FUNCTIONALLY EQUIVALENT MENTAL SIMULATION PROTOCOL FOR LEARNING CARDIAC ARREST SKILLS

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Background: Mental simulation assists learners in repetitive, solitary, deliberate practice. Mental simulation can complement laboratory simulation-based learning and clinical practice in learning skills and increasing self-efficacy [1]. Mental simulation is a quasi-sensory or quasi-perceptual experience without stimuli and overt physical movement. Mental simulation occurs when one imitates actions in an imaged state but does not trigger the action itself [2]. Mental simulation is based on the 'simulation theory of action'. This theory suggests that observing an action, imaging an action, or understanding an action will activate the neural networks involved in the actual execution of that action. While these states differ, there is a partial overlap between covert and overt action [2]. The images produced during mental simulation must be vivid or high-fidelity to activate the said neural networks. Higher fidelity images create greater 'functional equivalence', increasing the likelihood that the imager will learn from their experience [3]. The aim was to create a mental simulation protocol rich in motor and sensory cues that would assist pre-registration nurses