

Physiotherapy management of an intubated and ventilated child requiring suctioning



Synopsis

Physiotherapists treating patients with respiratory illness will often perform manual techniques and suctioning, in many cases, in an intensive care environment. Specific knowledge and skills are required in performing these techniques, given there are a range of risks and contraindications. This simulation aims to equip physiotherapists with the knowledge and skills to provide safe and effective treatment of an acutely unwell child using manual techniques and suctioning via an endotracheal tube (ETT). Clinical specialists and educators may find that they can adapt this simulation to suit physiotherapists treating adult patients. The scenario should be co-facilitated with at least one physiotherapist with specialist experience in managing an intubated and ventilated child requiring suctioning. The simulation should be conducted in a simulation centre where specialist equipment and technical support is available.

NOTE: While this simulation can assist in the development of new knowledge and skills, it is important that physiotherapists consult with their line manager, as well as review local policies and practice guidelines, prior to providing treatment to patients.

Learning Objectives

By the end of the simulation, participants will be able to:

1. Demonstrate safe and effective assessment of an acutely unwell child who is intubated and ventilated in a Children's Intensive Care Unit (CICU) including subjective and objective assessment
2. Demonstrate safe and effective treatment of an acutely unwell child who is intubated and ventilated in a CICU including manual techniques and suctioning
3. Demonstrate re-assessment during and after treatment and modification of treatment as appropriate
4. Demonstrate effective skills in communication, teamwork and role delineation.

Target Audience

This simulation has been written for qualified physiotherapists who have some experience in performing suctioning on children with respiratory problems. The scenario, however, can be adapted in complexity depending on the learners' needs. For example:

- To increase complexity for more experienced staff, the stability of the patient/handling tolerance could be modified according to the level of staff experience.

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Simulation activity

The simulation will take place in the context of a simulated CICU. The CICU registrar has paged the physiotherapist asking for physiotherapy review of a patient, Millie.

Millie (SimJunior) is a 7 year old female patient who has been admitted with likely aspiration pneumonia. Millie has chest x-ray (CXR) changes and thick secretions that are difficult to clear with suctioning. Millie has a background of Cerebral Palsy, seizures, reflux (has had a fundoplication and feeds via jejunostomy), scoliosis, poor swallow and global developmental delay (GDD).

Participants will have access to patient medical notes, the observation chart, and the resuscitation chart. There will be a CICU nurse present who can answer questions, and assist with providing treatment.

It is expected that participants will review and interpret information, identify precautions/contraindications for treatment and interact safely and effectively with the patient, treating team and the environment. They will be required to perform manual techniques and suctioning on the patient. The information and skills required to perform these tasks will be presented in the education session preceding the simulation activity.

In this simulation, participants work in pairs. One pair will participate in the simulation, while the other two pairs observe. Participants then engage in the debriefing following the simulation. The simulation is then repeated another two times so that each pair can participate in the simulation; each time followed by a debriefing session.

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Duration 4 hours

Faculty

- 1 x Facilitator (a physiotherapist who is highly experienced in performing manual techniques and suctioning)
- 1 x Facilitator (another health professional/educator who can provide feedback on communication/non-technical aspects of simulation)
- 1 x Confederate (preferably a Clinical Nurse Educator (CNE) who can assume the role of CICU nurse)
- 1 x Technician (person who can operate SimJunior and the simulation environment)

Participants Up to 6 qualified physiotherapists.

Authors

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Educators and clinicians who would like to offer this simulation can access the complete package on the **HETI website**. Supporting documentation includes:

- Simulation Scenario Development Template
- Facilitator Session Plan
- Simulation Activity Running Sheet
- Participant Briefing Notes
- Confederate Briefing Notes – CICU Nurse
- Sample Progress Notes for the Medical Record
- Sample Observation Chart/Resuscitation Chart/Chest X-Ray
- Sample Competency Self-Checklist

Facilitators can print off copies and distribute the relevant documentation to faculty and participants.

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