MSE ECMO Simulator

Screen-based, high-fidelity medical simulation system for training professionals in VV and VA ECMO principles and crisis management.

https://www.ecmosimulation.com

Overview

The MSE ECMO Simulator is a screen-based implementation of 'The Modular Simulation Environment' (MSE), designed for teaching the principles of Veno-Venous (VV) and Veno-Arterial (VA) Extracorporeal Membrane Oxygenation (ECMO) in adults. It is targeted at professionals in Intensive Care, Anaesthesia, and Perfusion, and is intended for use by single users or small groups in a tutorial setting.

Key Capabilities and Features: The simulator incorporates numerous MSE components, including a 'Virtual' patient consisting of about 20 real-time physiological models that can be adjusted to reproduce a wide variety of clinical states.

The simulation system includes a centrifugal pump-based ECMO system, a hollow-fibre oxygenator, a physiological monitor, a ventilator, and a defibrillator. It also contains a compendium of drugs and fluids for treating the virtual patient, a series of VV and VA ECMO tutorials, and a scenario database to provide relevant clinical data to the trainee.

Crisis Management and Control: The simulation can be remotely-controlled by a supervisor using a separate application that runs on a second PC, Netbook, PDA, or mobile phone (Android Supervisor is mentioned). The supervisor can reproduce a wide variety of ECMO or patient crises, such as oxygenator failure, inlet/outlet obstruction, fresh gas disconnection, massive blood loss, and changes in lung or cardiac function.

Data and Analysis: The system includes a data recording feature capable of recording up to thirty variables simultaneously. The data recorder generates time-indexed Microsoft 'Excel' files for post-hoc analysis and debriefing.

Key Features

- VV and VA ECMO Simulation
- Virtual Patient (20+ real-time models)
- Supervisor Remote Control (PC/Android)

- ECMO/Patient Crisis Simulation

- Integrated Devices (Ventilator, Defibrillator, Monitor)

- Data Recording to Microsoft Excel

- Scenario Database

- Tutorials

Pricing

Model: one_time

One-time purchase license with two tiers: Personal (A$300.00) and Institutional (A$1500.00). An optional Integrated Presentation Manager add-on is available for A$250.00. Users are advised to try the program before purchasing.

Starting at: USD $194

Target Company Size: small, medium, enterprise

Integrations

microsoft-excel