Extracorporeal life support, also known as extracorporeal membrane oxygenation, is the use of a cardiopulmonary bypass device to prolong the life of a critically ill patient who has inadequate pulmonary or cardiac function.

General:
- Extracorporeal life support is used for patients with severe (predicted mortality ≥80%) but potentially reversible cardiopulmonary failure. It is invasive and expensive and requires anticoagulation; therefore, it is reserved for patients who have failed simpler treatment regimens.
- Extracorporeal life support provides rest from high ventilator settings, high inspired oxygen fractions (FiO₂), and high doses of pressors.

Criteria for adult & paediatric ECMO
- Patients who are placed on extracorporeal life support typically have a 20% predicted survival rate without bypass.
- In the 1970s, trials failed to show improved survival with extracorporeal life support. However, since that time, there have been improvements in technology, technique, and understanding of the involved pathophysiology.
- A randomized, controlled trial is currently underway in the United Kingdom to assess the outcome with current extracorporeal life support protocols.

- Extracorporeal life support is a viable and effective treatment.
- Patients who are placed on extracorporeal life support typically have a 20% predicted survival rate without bypass.
- In some cases, patients at referring facilities are too unstable to be transported on conventional ventilation. The University of Michigan recently reported 100 patients transported on extracorporeal life support. Overall survival to discharge was 66%, and the complication rate during transport was 17%, with no deaths in transit.