

Artificial lung support saves 60-year-old

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Calcutta: A 60-year-old woman, suffering from acute respiratory failure, was recently brought back from the brink with a form of advanced artificial life support that pumps a patient's blood outside the body to a machine that removes carbon dioxide and adds oxygen before returning it into the bloodstream.

Doctors at Manipal Hospital Broadway performed an extracorporeal membrane oxygenation (ECMO) support procedure on the woman earlier this month.

ECMO temporarily takes over the function of the lungs by circulating blood outside the body through an artificial lung that adds oxygen and removes carbon dioxide before returning it to the patient.

"Blood is flown out of the body through the femoral vein in the leg and flown in through the jugular vein in the neck. The deoxygenated blood drained out of the body is taken to a machine, an artificial lung (membrane oxygenator). The machine oxygenates the blood and removes excess carbon dioxide, warms the blood and returns it into the bloodstream," said Ashok Verma, head of the department of cardiac anaesthesia and cardiac critical care

at the hospital.

The procedure was managed through a multidisciplinary effort led by Susruta Bandyopadhyay, head of department-ICU and critical care; Verma; and Shambhu Vishal, consultant-internal medicine.

"The support allows the damaged lungs crucial time to rest and recover. The patient remained on the ECMO support for nearly two weeks," the doctor said.

The patient was battling a chronic autoimmune condition in which the body's immune system attacks its own tissues and organs. She had been on prolonged steroid therapy that significantly weakened her immunity over the years.

"The compromised immune state eventually led to a rapidly progressing pneumonia and acute respiratory distress syndrome...," said a spokesperson for the hospital.

The woman was kept on ventilation for three days after the ECMO support. She was taken off the ventilation as her condition improved and was discharged a few days later, said the hospital official.

ECMO support is a costly procedure. The upfront expense is over ₹5 lakh, not including ICU charges, said the official.