

TABLE 1 Conditions Where ECMO Should Be Considered and Is Commonly Associated With Favorable Outcomes

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| Respiratory failure (age <65 yrs) |
| ARDS with primary lung injury from infection, aspiration, or trauma |
| Primary graft dysfunction following lung transplantation (within 7 days) |
| Pulmonary vasculitis |
| Cardiac failure (age <65 yrs) |
| Acute fulminant myocarditis |
| Cardiomyopathy (first presentation) |
| Primary graft failure: post heart/heart-lung transplant |
| AMI-cardiogenic shock without multiple organ failure |
| Drug overdose with profound cardiac depression or arrhythmia |
| Pulmonary embolism with cardiogenic shock |
| In-hospital cardiac arrest (with ECMO commenced within 60 min) |
| Post-cardiac surgery (failure to wean from CPB) |

Adapted from the Extracorporeal Life Support Organization (ELSO) guidelines (6).
AMI = acute myocardial infarction; ARDS = acute respiratory distress syndrome; CPB = cardiopulmonary bypass; ECMO = extracorporeal membrane oxygenation.

TABLE 3 Conditions Where ECMO Should NOT Be Applied, as Survival Is Very Low

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| Respiratory failure |
| Interstitial lung disease/pulmonary fibrosis |
| Lung transplant chronic rejection |
| Cystic fibrosis |
| Severe acute restrictive lung disease with relative clear CXR (early) is suggestive of cryptogenic organizing pneumonia (bronchiolitis obliterans with organizing pneumonia), and biopsy should be performed prior to instituting ECMO if this condition is suspected |
| Long-term immunosuppressed (heart, renal, bone marrow transplant recipients, HIV, graft vs. host lung disease) |
| Cardiac failure |
| Unrepaired moderate-severe aortic or mitral valve regurgitation |

Adapted from the ELSO Guidelines (6).
CXR = chest x-ray; HIV = human immunodeficiency virus; other abbreviations as in Table 1.

TABLE 2 Conditions Where ECMO Is Often Considered, but Outcome Is Variable

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| Respiratory failure |
| ARDS from secondary lung injury (i.e., intra-abdominal sepsis or burns) |
| Lung transplant recipients 7 to 30 days post-transplant |
| Lung transplant recipient >30 days and suitable for retransplantation from ECMO |
| Age >65 yrs (any cause) |
| Cardiac failure |
| Chronic cardiomyopathy (suitable for VAD and heart transplant) with acute severe heart failure or sepsis |
| Ischemic cardiogenic shock with multiple organ failure or sepsis |
| Heart transplant recipient with chronic rejection and end-stage heart failure and suitable for VAD and retransplantation |
| Age >65 yrs (any cause) |

Adapted from the ELSO Guidelines (6).
VAD = ventricular assist device; other abbreviations as in Table 1.

TABLE 4 Contraindications for All Forms of ECMO

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| Presence of additional severe chronic organ failures (cirrhosis, end-stage renal disease, hepatic failure) |
| Severe brain injury |
| Malignancy |
| Age >75 yrs |

Adapted from the ELSO Guidelines (6).
Abbreviations as in Table 1.