

MECHANICAL SUPPORT: CARDIAC ECLS

ECMO is utilized in 1.5 – 4% of all cardiac surgery and survival to hospital discharge is approximately 45%. Age, surgical complexity, severity of illness, and presence of residual heart defects all impact survival

ECMO survival for children presenting with acute fulminant myocarditis and cardiogenic shock is approximately 60%. When ECMO support cannot be weaned transition to a ventricular assist device (VAD) as a bridge to transplantation is reasonable

Survival for patients who cannot be weaned off ECMO for > 7 days is poor. In these patients, a modified ECMO circuit to allow longer-term support or transition to a VAD may be helpful.

ECMO is being utilized increasingly in developing countries – indications are similar to the western world. ECMO appear to be cost-effective.

Education to ECMO providers for maintenance of competency is variable. Institutional standard for training and refresher courses are essential. Simulation based team training is crucial to ensure good team function.