

Extracorporeal Membrane Oxygenation for Severe Respiratory and Circulatory Failure: A new model of Hybrid Virtual and In-Person Support



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BACKGROUND

A new ECLS program was established at University Medical Center of Southern Nevada, a large academic tertiary center in 2023. To assist with program development, clinical training and ECLS bedside staffing, UMCSN partnered with Comprehensive Care Services (CCS) and ECLS Virtual advisors (EVA) for physician oversight, education and patient management utilizing a virtual 24/7, 365-day availability to the on-site team.

METHODS

We report initial outcomes in this novel virtual/direct care hybrid approach for a new program with a high case-mix complexity.

RESULTS

When benchmarking outcomes against ELSO's annual registry report, initial results show a 16% and 12% increase over ELSO's average Pulmonary and Cardiac survival rates. Despite a high complexity of cases, initial outcomes in a program without prior ECLS experience may be improved with expert virtual and in person collaboration.

CONCLUSIONS

Use of a hybrid model of virtual and on-site training, patient assessment and support is successful. Initial outcomes in programs without prior ECLS experience may be improved with expert virtual collaboration. Continued analysis to assess correlation with outcomes, financial performance and competency achievement by on-site personnel.

REFERENCES

See Poster Author for references

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	Total Patients Cannulated (n=16)	Survived to Discharge or Transfer (n=10)	Deceased Before Discharge or Transfer (n=6)
Age in years; mean	47	38	63.5
BMI, kg/m ² ; mean	32	30.43	34.24
Gender, Male (n)	13	10	6
Duration in hours; mean; range	82.8 8-281	83.9 11.5-185	81.42 8-281
ECMO indication			
Pulmonary, n Diagnosis	4 Status asthmaticus ARDS (two patients) Overdose-ecstasy	3 (75% of Pulmoary Patients)	1 (25%)
Cardiac, n Diagnosis	12 Mediastinal mass Viral myocarditis Failure to wean CPB Cardiogenic shock ECPR	7 (58% of Cardiac Patients)	5 (41%)

