

Title

CNS Complications in Adult Patients Treated With Extracorporeal Membrane Oxygenation (ECMO)

DESIGN

RETROSPECTIVE
SINGLE-CENTER
COHORT STUDY

PATIENTS

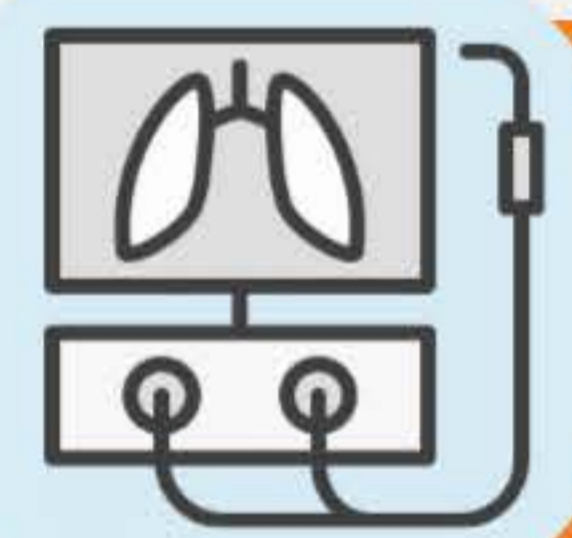
412 CONSECUTIVE ADULT PATIENTS
SUPPORTED WITH ECMO
FROM 2009 TO 2017



Overall CNS Complication

13.3%

Ischemic Stroke	7.0%
Intracerebral Hemorrhage	3.4%
Hypoxic Ischemic Encephalopathy	3.6%
Spinal Cord injury	1.2%



CNS Complications by ECMO Type

VA ECMO	18.0%
VPa ECMO	13.6%
VV ECMO	4.6%



Hospital Mortality

ECMO + CNS Complication	65%
ECMO - CNS Complication	32%
	<i>p</i> < 0.001



CNS Complications Associated with

VA ECMO	RRT
<i>p</i> = 0.002	<i>p</i> = 0.04



Hospital Mortality Associated with

VA ECMO	RRT	Days on ECMO
<i>p</i> = 0.01	<i>p</i> < 0.001	<i>p</i> = 0.002



Conclusion

CNS complications appear to occur more frequently in patients requiring circulatory as opposed to respiratory support on extracorporeal membrane oxygenation, and are independently associated with mortality.