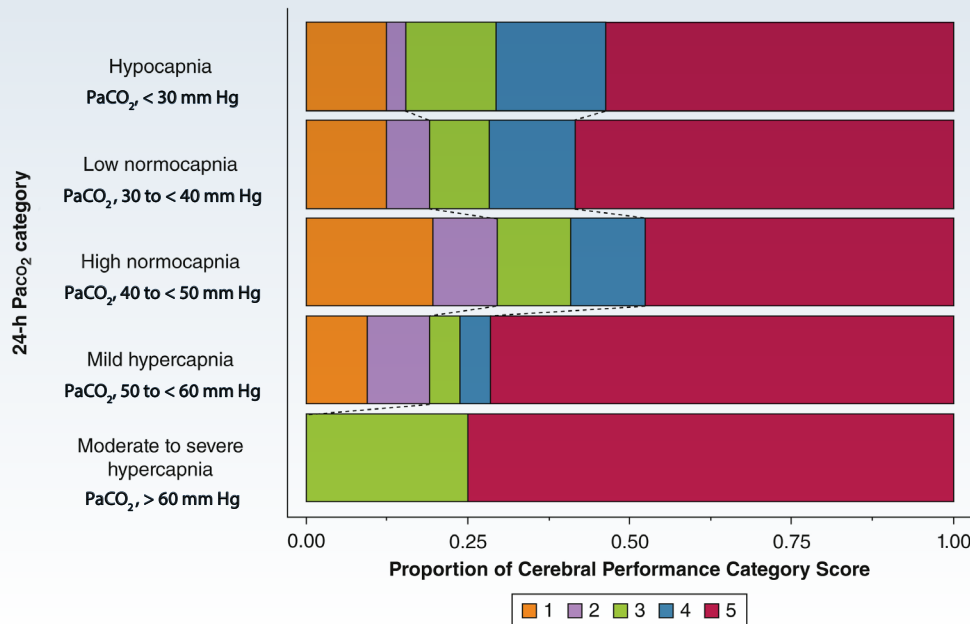


Targeting PaCO₂ Levels in Patients Receiving VA-ECMO for Out-of-Hospital Cardiac Arrest to Improve Functional Outcomes

STUDY DESIGN

- Multicenter, registry-based, observational study in Japan of extracorporeal cardiopulmonary resuscitation cases from 2014 to 2020
- Initial and 24-hour PaCO₂ levels categorized into 5 groups:
 - hypocapnia (< 30 mm Hg);
 - low normocapnia (30 to < 40 mm Hg);
 - high normocapnia (40 to < 50 mm Hg);
 - mild hypercapnia (50 to < 60 mm Hg);
 - moderate to severe hypercapnia (> 60 mm Hg)

RESULTS



- The primary end point of good **functional outcome at 30 days** was observed **most in the high normocapnia group** (PaCO₂ 40 to < 50 mm Hg)

In this study, high normocapnia compared with low normocapnia was associated with better functional outcomes both initially and 24 hours after venoarterial extracorporeal membrane oxygenation (VA-ECMO) initiation in this population.