Critical care of patients after cardiac arrest is crucial: Consensus panel says more research needed

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A new consensus statement from the American Heart Association Emergency and Cardiovascular Care Committee and the Neurocritical Care Society calls for more research to address areas of post-cardiac arrest care that have limited research. The statement published...
simultaneously in *Circulation* and in *Neurocritical Care*.

Cardiac arrest affects over 600,000 people in the United States annually, with a worldwide annual incidence of 30 to 97 individuals per 100,000 population.

While guidelines address some relevant topics based on large bodies of scientific evidence, like temperature control and neurological prognostication, many important subject areas have less evidence to support practice or to be included in guidelines. A scientific statement is an expert analysis of current research and may inform future clinical practice guidelines.

In this scientific statement, the consensus panel outlines suggestions to address the following topics in post-cardiac arrest care: neurological, cardiac, pulmonary, hematologic, infectious, gastrointestinal, endocrine and general critical care management.

"This is not just a heart, brain or lung problem, this is a whole-body problem," said Romergryko G. Geocadin, M.D., professor of neurology at Johns Hopkins Hospital and chair of the writing committee. "After they resuscitate, many professionals think they've done their job, however, there's much more to do after that moment, and it should be a more cohesive team providing care from there on."

**The expert panel categorized the needs for future research by body system, and concluded:**

- Neurological management in the Intensive Care Unit (ICU) includes future research considerations for the use of advanced seizure monitoring techniques, and the influence of analgesic, sedative and neuromuscular blockade agents.
- Cardiac management in the ICU includes hemodynamics,
monitoring and mechanical circulatory support, and considerations for timing and appropriateness of cardiac catheterization.

- Pulmonary and hematologic management in the ICU needs future research on the impact of oxygenation and ventilation on all organs, and studies on the safety and efficacy of early thromboprophylaxis in patients after cardiac arrest are warranted.
- Additional system and disease management in the ICU includes digestive system management, infectious disease management and endocrine and fluids management. Management of these systems and diseases is an important aspect of critical care management, and future research is needed.

"Until high-quality studies that inform practice guidelines in these areas are available, we hope this statement will help further advise clinicians on the critical care management of patients after cardiac arrest," said Karen G. Hirsch, M.D., associate professor of neurology and neurosurgery at Stanford University and co-chair of the writing committee.

This scientific statement was prepared by the volunteer writing group on behalf of the American Heart Association and the Neurocritical Care Society.

**More information:** Karen G. Hirsch et al, Critical Care Management of Patients After Cardiac Arrest: A Scientific Statement From the American Heart Association and Neurocritical Care Society, *Circulation* (2023). [DOI: 10.1161/CIR.0000000000001163](https://doi.org/10.1161/CIR.0000000000001163)

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