

Contemporary Management of Cardiogenic Shock: Drugs and Devices

Disclosures: None

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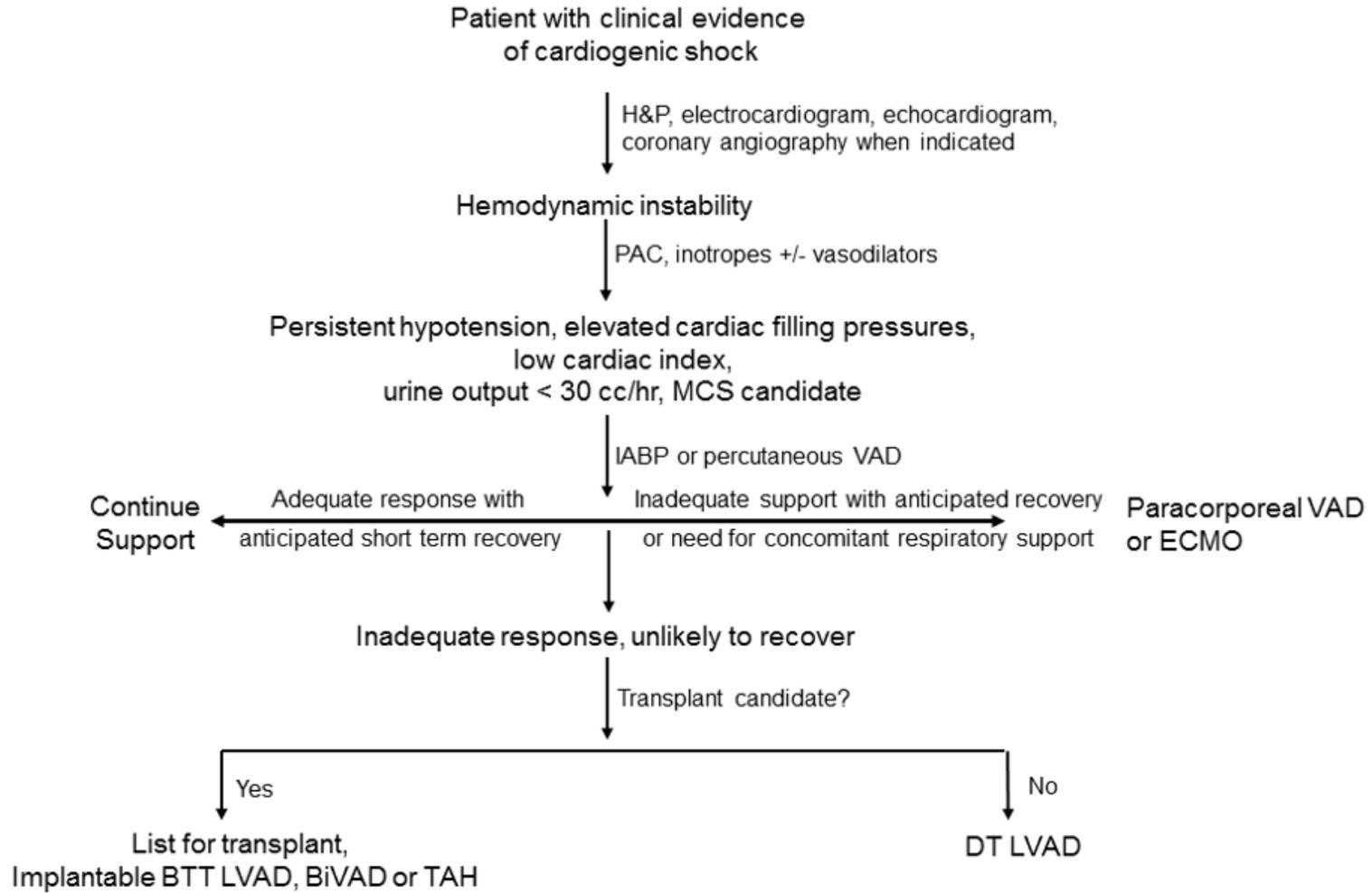


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Approach to Cardiogenic Shock



Cardiogenic Shock: What is Working Well?

- There are 52,000 members of the ACC with 53,147 solidly formed opinions on the best approach to treat cardiogenic shock
- There are many devices and drugs from which to choose
- Cardiac critical care units and teams have evolved from managing acute ischemic heart disease to caring for critically ill patients in shock
- In some centers, the “Heart Team” approach has brought together expertise from multiple disciplines to enhance and speed decision making
- We have reasonable longer-term solutions for the shock patient including high risk percutaneous and surgical interventions, transplant, durable MCS





“For my handling of the situation at Tombstone, I have no regrets. Were it to be done again, I would do it exactly as I did it at the time.” —[Wyatt Earp](#), [lawman](#)



Critical Practice and Knowledge Deficits

- Is the pathobiology of all cardiogenic shock the same?
 - Our understanding is primarily hemodynamic
- Do practitioners recognize cardiogenic shock?
 - Yes, often in the setting of an acute event
 - No, particularly in patients with chronic heart failure. There is rarely an assessment of the hemodynamic status
- The community has not organized in a manner to most efficiently manage cardiogenic shock
- Some patients have shock resiliency
- The role for drugs with positive inotropic properties is very unclear but largely untested in this patient cohort
 - Clinical trials would require clear definition of patient characteristics



Critical Practice and Knowledge Deficits

- Is there a role for matching a patient more closely to a drug/device?
 - Severity of LV dysfunction
 - Biventricular heart failure
 - Co-morbidities
- The changing healthcare environment in the US will disincentivize complex, expensive care.
 - There is a need to balance evidence-based approaches with developing an evidence base
 - The clinical community would benefit from validated risk prediction models to guide decision-making
 - We need to leverage the EHR to collect real-world evidence and perform pragmatic clinical trials

Priorities

▪ Short Term

- Characterize shock patients more thoroughly (split rather than lump)
- Develop:
 - standardized definitions, data collection, and relevant endpoints
 - national and international registries
 - research consortia that can execute clinical trials efficiently
- Develop and implement an educational campaign to re-teach clinical approaches to shock
- Use the RACE program as a model to expedite care for shock patients

▪ Long Term

- Develop comparative effectiveness trials with well-characterized patients
- Begin trials to understand adjunctive therapies for shock that go beyond hemodynamic support
- Initiate a Centers of Excellence concept for cardiogenic shock that acknowledges a team-based approach to care, process measures, and outcomes

