Top Things To Know
Evolution of Critical Care Cardiology

1. In the context of a growing interest of business entities, consumer focus groups, and public agencies tasked with ICU care quality improvement, it is vital that the cardiovascular community develop a response to the “critical care crisis.”

2. Advances in technology, medical care, critical care unit organization, and changes in the patient population have contributed to evolution of the contemporary cardiac ICU (CICU) from a coronary care unit focused on rapid resuscitation to a unit providing comprehensive critical care for patients with cardiovascular diseases.

3. The continually evolving field of critical care necessitates innovative approaches to the staffing, structure, and training behind the contemporary CICU, therefore evidence-based staffing models are proposed that are adaptable to the variety of clinical settings in which cardiovascular care is provided.

4. Physicians in the modern CICU must be experienced in managing use and complications of advanced medical technologies, including:
   - noninvasive and invasive hemodynamic monitoring tools
   - complex modes of mechanical ventilation
   - renal replacement therapies
   - imaging guidance for bedside vascular procedures
   - methods for induction of therapeutic hypothermia
   - mechanical circulatory support

5. The growing population of patients with severe pulmonary hypertension and advanced structural heart disease deserve special consideration in the expanding needs of the CICU population.

6. Coordination of end-of-life care, including discussions with patients and families, decision making, ethics consultation, pain management, and symptom relief, is now a central part of compassionate care in the CICU.

7. Access to clinicians who, through focused experience or training, have specialized skills in critical care is important for all settings in which cardiovascular critical care is provided. Alternatives for meeting this goal include:
   - dedicated cardiac intensivists (the preferred approach for the advanced ‘Level 1’ CICU)
   - shared responsibility with consulting intensivists (the most flexible organizational paradigm)
   - integration with other ICUs
   - “Service Line” ICUs

8. Because it is neither necessary nor possible for all healthcare environments to support an advanced closed CICU, a schema similar to trauma center verification for describing the level of care offered by the CICU is proposed.

9. To keep pace with evolution of the contemporary CICU, training must be included to ensure development of basic skills, as well as advanced training in critical care cardiology for those who intend to specialize as a cardiac intensivist.

10. The future of cardiovascular critical care medicine is rapidly evolving, with an opportunity to improve the education and skills of clinicians and the care of their patients.