

Traditional Approaches to Cardiac Arrest Due to VF/Pulseless VT

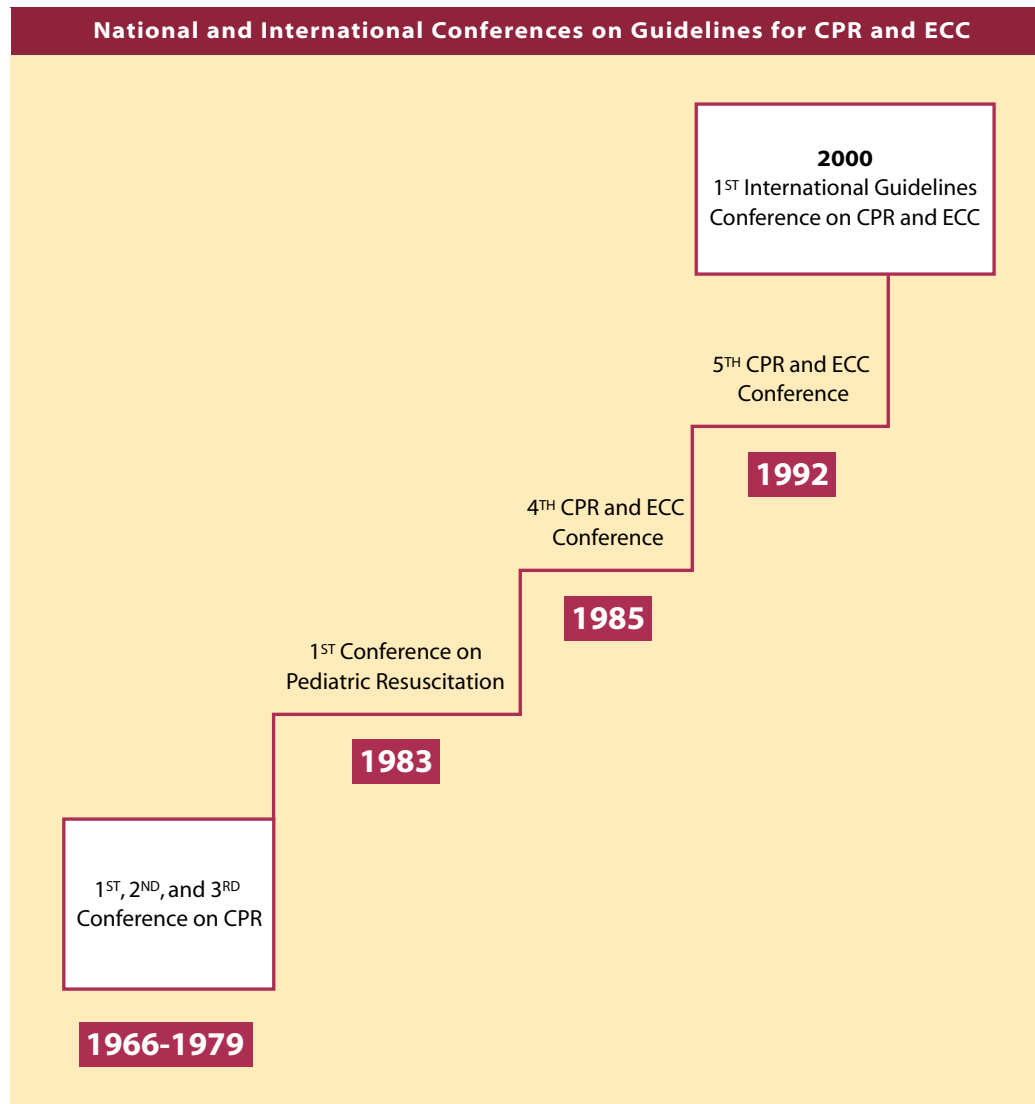
Historical Perspectives

- The introduction of antiarrhythmic drugs in the 1950s and 1960s and the subsequent emergence of techniques for cardiopulmonary resuscitation (CPR) and emergency cardiac care (ECC) expanded the treatment options for cardiac arrest caused by life-threatening arrhythmias such as ventricular fibrillation (VF) and ventricular tachycardia (VT).
- The expansion of treatment options for the management of cardiac arrest led to the development of protocols and guidelines for resuscitation efforts.

Development of Advanced Cardiovascular Life Support (ACLS) Guidelines for CPR and ECC

- Guidelines were first introduced in 1979 by the American Heart Association (AHA).
- Thereafter, the guidelines were periodically reviewed and revised at national and international conferences (Figure 1) to keep pace with emerging scientific knowledge.
- The treatment algorithms for VT/VF in 1992 reflected the traditional approach to using antiarrhythmic drugs “ of probable benefit” such as lidocaine, procainamide, and bretylium.¹
- Scientific evidence since 1992 has upheld the value of prompt defibrillation at increasing levels of power if the initial shock does not restore sinus rhythm; this remains the key intervention in cardiac arrest.²

Figure 1



- However, scientific evidence has not supported the 1992 ACLS treatment algorithm for VF/VT. Data from randomized and controlled trials have been insufficient to prove or disprove the efficacy of the antiarrhythmic drugs included in the algorithms.

- The International Guidelines 2000 Conference for CPR and ECC focused on an evaluation of all available evidence for each therapy used in resuscitation efforts. The recommendations in the current 2000 ACLS Guidelines reflect the scientific evidence supporting or opposing interventions, including traditional therapies.
- The current treatment algorithms are accepted internationally and widely followed by physicians, particularly in the treatment of malignant arrhythmia.³

REFERENCES

1. Adult advanced cardiac life support. *JAMA*. 1992;268:2217.
2. The American Heart Association in collaboration with the International Liaison Committee on Resuscitation (ILCOR). Guidelines 2000 for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation*. 2000;102:I-2, I-3.
3. Data on file, Wyeth-Ayerst Laboratories.