

Abstract

Causes of pediatric cardiac arrest

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This lecture reviews the causes and characteristics of pediatric cardiac arrest in hospitalized children, with brief comparison to out-of-hospital cardiac arrest. Particular focus is placed on the pathophysiology and epidemiology of in-hospital cardiac arrest, where respiratory failure, circulatory shock, congenital heart disease, and progressive critical illness are common contributing factors. Differences in patient characteristics, arrest etiology, and outcomes between in-hospital and out-of-hospital events are highlighted.

The lecture also addresses current resuscitation strategies and the importance of early recognition of clinical deterioration. Special emphasis is given to ECPR and ECMO as rescue therapies for selected patients with refractory cardiac arrest. Clinical experience and outcomes from our center: logistical challenges and factors associated with survival and neurological recovery. The aim is to provide practical insight into modern management of pediatric cardiac arrest and advanced life-support interventions.