US Trends in Infant Mortality due to Specific Critical Congenital Heart Defects from 1999 to 2017

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PURPOSE

• Congenital heart disease (CHD) is the number one contributor to birth defect related infant mortality in the developed world
• Population-based studies in Canada and Europe have published declining rates of CHD-related infant mortality
• Single center studies in the United States have reported declining trends in infant mortality for various CHD lesions

BACKGROUND

• Vital Statistics information from death certificates filed for United States residents, 1999 to 2017
• Centers for Disease Control and Prevention Multiple Cause of Death data were used to calculate the mortality rate due to CHD
• Mortality rates were calculated using the number of infant deaths caused by CHD specific lesions as the numerator, and the total number of live births as the denominator

METHODS

• To describe infant mortality trends by specific CHD lesion in the United States from 1999-2017

RESULTS

• Congenital heart disease (CHD) is the number one contributor to birth defect related infant mortality in the developed world
• Population-based studies in Canada and Europe have published declining rates of CHD-related infant mortality
• Single center studies in the United States have reported declining trends in infant mortality for various CHD lesions
• Infant mortality due to CHD decreased from 1999 to 2017
  – Prematurity, extracardiac birth defects, and genetic syndromes play a large contributory role in CHD-related deaths
  – Mortality trends vary substantially by lesion with several lesions plateauing in the latter years, most clearly seen in SV lesions
  • Variation may be due to differences in screening efficacy, surgical advances, and improvements in critical care

CONCLUSION