



## STABLE INCIDENCE OF ENDOCARDITIS IN PEDIATRIC PATIENTS BEFORE AND AFTER THE 2007 ENDOCARDITIS PROPHYLAXIS GUIDELINES

Moderated Poster Contributions

Congenital Heart Disease and Pulmonary Hypertension Moderated Poster Theater, Poster Hall, Hall C  
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**Background:** Endocarditis is a rare but potentially devastating form of acquired heart disease that can have a significant impact on pediatric patients, particularly those with pre-existing congenital heart disease. The 2007 American Heart Association endocarditis guidelines substantially decreased the number of patients for whom endocarditis prophylaxis was recommended. Previous studies have examined changes in the proportions of hospitalized patients but national estimates of pediatric endocarditis hospitalizations have not been performed.

**Methods:** Hospital admissions with the diagnosis of endocarditis in patients <21 years old from the Kids' Inpatient Database were identified from the following years: 2000, 2003, 2006, 2009, 2012. Patients were divided into groups based on age, underlying congenital heart disease, and etiologic organism, if available. Descriptive comparisons were made over time.

**Results:** Overall, the national estimates for endocarditis hospitalizations did not change dramatically from 2000 to 2012 and ranged between 913 and 1093 cases per year. The average annual national endocarditis hospitalization rates before and after the 2007 guidelines were 12.7 and 11.7 per 1,000,000 children, respectively. The proportion of endocarditis patients with congenital heart disease was also stable between 38-44% ( $p=0.44$ ). The endocarditis bacteriology was also stable over this time interval, with the most frequently identified pathogen being *Staphylococcus* (35-41%,  $p=0.23$ ). There was an increase in endocarditis cases in patients between 17 and 20 years old from 276 cases in 2000 to 394 cases in 2012 ( $p<0.001$ ), but the percentage of patients with congenital heart disease in these older patients remained similar. There was an increase in mean length of stay by 1.1 days every three years ( $p=0.01$ ), and mean cost increased by 50% from 2003 to 2012 in 2012 dollars (from \$61,491 in 2003 to \$92,211 in 2012).

**Conclusions:** Despite decreasing use of antibiotic prophylaxis since the 2007 endocarditis guidelines, there has been a stable incidence of endocarditis hospitalizations in all patients groups and specifically in patients with underlying congenital heart disease.