Antibiotic Prophylaxis for Infective Endocarditis: A Survey of Current Practice Amongst Pediatric Cardiology Providers

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INTRODUCTION

The 2007 American Heart Association (AHA) guidelines significantly reduced antibiotic prophylaxis (AP) for infective endocarditis (IE) to fewer patients with predisposing cardiac conditions (PCC) at highest risk of poor outcomes. We sought to study the current prescribing practices of pediatric cardiology providers and their satisfaction with AHA guidelines.

METHODS

Email survey of American Academy of Pediatrics (AAP) section on Cardiology and Cardiac Surgery (SOCCS). Clinical cases including 6 different PCC lesions were presented and providers responded if they would provide AP or not. Clinical scenarios were divided into three groups (red) clearly not indicated for AP, (green) clearly meets criteria for AP, (yellow) AP could be indicated or not depending on interpretation of guidelines by the provider. A comparison of AP rates by those who completed training before and after 2007 was performed. Providers were also asked if they would prescribe AP for non-dental procedures. Providers were asked their satisfaction level with current guidelines in addressing the AP needs for their practice. Data analyzed was limited to those who completed the full survey and those following 2007 AHA guidelines.

RESULTS

There were 215 responses (54% response) and after exclusion n=173. AP rates for the 35 PCCs are shown in table 3 and for procedures in table 2. Rates for PCCs with clear indication for AP ranged 70.5-89.8%. For PCCs where AP is clearly not indicated, AP rates ranged 1.7-29.5%. PCCs where interpretation of the guidelines may play a role, AP rates were 9.9-39.8%. In a post-hoc comparison of providers who completed training before 2007 and those after, there was a significant difference in 16 scenarios in all of which the providers with more experience endorsed AP more often. Other factors found to be significant were left AV dysfunction in AV canal repairs, bicuspid valves in a coarct, stenosis of that BAV within a coarc, and surgical repair of Ebstein or PDA. Providers were generally satisfied with the guidelines with 88.4% saying they fit their practice needs well or very well.

CONCLUSIONS

Rates of AP given by providers still vary significantly 12 years since the most recent guidelines. Level of experience may play a role in the variations but is not the sole factor. Level of residual valvaru abnormality has an apparent positive trend with increasing AP rates.

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