

Booster Immunization in children and adolescents with congenital heart disease in Germany

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Introduction: High risk patients like children and adolescents with congenital heart disease benefit most of the reduced infection rate caused by immunization. The question raises, if these patients are sufficiently immunized.

Patient and Methods: Children with congenital heart disease aged between 2 and 18 years were enrolled in a prospective study at the German Heart Center Munich, Germany. Immunization and medical status were received by a specific questionnaire and patient survey. Excel and SPSS.

Statistics 20 were used for statistical analysis. Results were referred to the STIKO recommendations.

Results: Out of 657 enrolled children with a mean age of 9.8 (SD+/- 4.8) years, 179 (27.2%) received the recommended basic immunization within the compulsory time frame. Vaccination rates for all recommended basic immunizations were over 80.0%, except for Hepatitis B (75.7%), meningococci (74.3%), varicella (49.9%) and pneumococci (37.7%). Regarding booster vaccinations for patients with 16 years or above (n=90), 81 (90.0%) were vaccinated against tetanus, 82 (91.1%) against diphtheria, 59 (55.6%) against poliomyelitis and 77 (85.6%) against pertussis within the recommended time frame. Out of these, 18 (20.0%) had completed all recommended booster vaccinations.

Discussion: The immunization rate was moderate in patients with congenital heart disease. The rate of basic pneumococcal immunization was extremely low, as well as the rate of booster immunizations within the recommended time frame. Reasons were low patient advice, need of surgical intervention and concerns about vaccination. In addition, late basic immunizations led to late booster vaccinations.

Conclusion: Low booster and pneumococcal immunization rates within the recommended time frame revealed the essential elucidation concerning the need of vaccinations.