RSV Immunoprophylaxis treatment for RSV in Children with Congenital Heart Disease in Sweden.

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Introduction: Respiratory Syncytial Virus (RSV) is the most common cause of lower respiratory tract infection in infants and young children. Children with congenital heart disease (CHD) have an increased risk of severe RSV disease. Palivizumab, a monoclonal antibody, is an effective, safe and well-tolerated prophylaxis for serious RSV disease. Swedish National Guidelines for prophylactic treatment for CHD children were published 2003. Aim of this study was to study, during the seasons of 2010-11 and 2011-12, if the prophylactic treatment corresponded to the guidelines and to study the morbidity of children that received prophylaxis and yet got a RSV infection.

Methods: All Swedish paediatric cardiology centres were invited to the study. A questionnaire for each treated child with information on CHD-diagnosis, age at start, number of injections and RSV-infection was retrieved. Medical journals of all RSV cases treated were obtained from each hospital.

Results: A total of 219 children were included in the study. Overall there were 869 doses of Palivizumab given during the study-period. The majority of children started treatment during their first six months of life. Each child received an average of 3.97 (1-7) injections. About 51% of the children started treatment according to recommended time of the year. Single ventricle was the most common type of CHD. A total of ten children (4.5%) were tested positive for RSV infection. Five of them had received non or one injection prior the infection and in three cases the infection prolonged time to operation.

Conclusions: The majority of children were treated according to the Swedish National Guidelines. However, adverse time and age at start of treatment was seen. The epidemiological status of RSV in society and guidelines for RSV prophylaxis in other countries may have affected the clinicians’ decision of starting time. Ten of the children treated were affected by RSV, which is more than compared to resent studies. This study indicates that even if the infant is treated with Palivizumab immunoprophylaxis, the time of start of treatment and identification of CHD children is essential. The National Guidelines are now being reviewed.