

RSV prophylaxis in heart disease – indication and limits of worldwide administration.

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Background. Respiratory syncytial virus is a common pathogen affecting almost all children by the age of 2. The morbidity from such lower respiratory tract infection results in 20% of those with haemodynamically significant congenital heart disease (hsCHD) being admitted to hospital during the winter season. Palivizumab (PVZ) is the standard immune prophylaxis, in the absence of a vaccination, and we wished to understand global variations in its use.

Methods. A steering committee, with 1 clinician from 5 countries (England, Spain, USA, Colombia, Japan), devised a set of questions, using Delphi methodology, concerning PVZ usage. We determined the importance of these questions with an extended faculty with one clinician (including paediatric cardiologists, intensivists and cardiac surgeons) from each of 7 countries (Germany, Spain, Korea, Taiwan, UAE, USA, Mexico). Evidence based answers were obtained with regional variations for use of PVZ prophylaxis in each type of cardiac disease and additional indications and determined the resistance to use.

Results. There was agreement on many items, such as the main indication that hsCHD in the first 12 months of life included those on medication for left to right shunt, those with cyanosis (oxygen saturation <85%), those with cardiomyopathy or pulmonary hypertension on treatment and those on transplant waiting lists. There was divided opinion on the evidence for use after 1 year old, in nosocomial outbreaks, immune deficiencies and those being admitted for cardiac intervention. The paediatric cardiologist usually determined patient selection, there was no evidence of benefit after 2 years of age, in those with arrhythmia or those with co-morbidities conferring no independent risk. In some countries use of PVZ was restricted by access to funding, in others there was lack of clinician knowledge concerning indications. In subtropics, it was both access to the prophylaxis and the lack of a clearly defined RSV season, with cases appearing all year round.

Conclusion. There is general consensus that PVZ prophylaxis should be used in hsCHD under 1 year and that it should be available more freely in resource limited countries. There is still insufficient evidence to guide its use in subtropical countries and in certain co-morbidities.