

Anti-RSV Prophylaxis Efficacy for Infants and Young Children with Cystic Fibrosis in Ireland



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ABSTRACT

There is limited evidence supporting the routine use of palivizumab in paediatric cystic fibrosis (CF) patients to reduce respiratory syncytial virus (RSV) infection and related hospitalisation. Despite this, anti-RSV prophylaxis is increasingly common. This is the first report from Ireland regarding palivizumab outcomes for children with CF, under 2 years old, despite the greatest prevalence of CF globally.

An audit was performed at a tertiary hospital in Ireland's Mid-West to document all children with CF, <24 months old, who received palivizumab over a five year period and comparison made with all eligible children for the prior five year period who had not received the product (also CF patients). Palivizumab was administered to both cohorts in their first year of life. Hospitalisation rates were compared using Fisher's exact test. Incidence of RSV and *Pseudomonas aeruginosa* infection was recorded.

A total of 19 patients who received palivizumab were included in the study; comparison was made with a retrospective control group of 30 patients. Prophylactic palivizumab did not prevent hospitalisation for 10/19 patients, 3 of whom were affected by RSV. This was significantly greater than in the control group, where no hospitalisations were recorded ($p < 0.0001$). *P. aeruginosa* was isolated in one case from the study cohort, while no *P. aeruginosa* was detected in the control group.

This study, the first of its kind from Ireland where CF prevalence is highest, does not provide unequivocal support for prophylactic use of palivizumab in CF patients under 2 years. Despite being derived from a small sample size, based on these data and complementary clinical observation, we have discontinued such prophylaxis. However, should reported incidences of RSV-related hospitalisation increase, there is scientific plausibility for appropriately powered, randomised, controlled trials of palivizumab.

SOURCE

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