

for other risk factors. On average patients received 3.7 ± 1.5 injections, with 17,982 doses given overall. There were no drug related serious adverse events. 296 infants required 357 hospitalizations for respiratory tract infections with a hospitalization rate of 6.0%. There were significant differences between indications for palivizumab (chi-square=71.8, $p < 0.005$). The overall RSV positive HR was 1.38%. Hospitalization rates were highest in infants of aboriginal descent (15.0%, chi-square = 22.2, $p < 0.005$). Hospitalized infants had a lower percentage of compliant injections (62.8% vs 68.6%, $p = 0.003$).

Conclusions: The RSV HR in the 2006-2009 RSV seasons resembled several published reports (range 1.3%-5.3%). RSV HR may be decreasing because of compliance with palivizumab prophylaxis, variability in RSV epidemiology, hospital admission criteria and preventive education.

1201

RESPIRATORY SYNCYTIAL VIRUS PROPHYLAXIS IN SPECIAL POPULATIONS

B. Paes¹, A. Li², K. Lanctot², I. Mitchell³

¹Pediatrics, McMaster University, Hamilton,

²Medical Outcomes and Research in Economics (MORE), Sunnybrook Health Sciences Centre, Toronto, ON, ³Pediatrics, University of Calgary, Calgary, AB, Canada

Objective: To determine palivizumab utilization in infants with pre-existing disease within the Canadian Registry Database (CARESS)

Methods: A prospective registry of infants from 27 sites who received palivizumab during the 2006-2009 RSV seasons. Demographic data were collected from the parent/caregiver at enrollment. Data on palivizumab utilization, compliance, and outcomes related to respiratory infection (RI) events were collected monthly. Infants ≤ 35 weeks gestational age (GA) who met current approval criteria (Group 1) were compared to those with medical disorders who received off-label palivizumab (Group 2).

Results: Group 1 (n=3379) Group 2 (n=489). Male: 56.9% vs 54.9% ($P = 0.43$). Average Enrollment Age (months) \pm SD: 3.6 ± 3.4 vs 9.9 ± 8.8 ($P = 0.00$). Average GA (weeks) Mean \pm SD: 31.0 ± 3.1 vs 37.1 ± 4.3 ($P = 0.00$). Average # injections \pm SD: 3.6 ± 1.5 vs 3.7 ± 1.5 ($P = 0.16$). Hospitalization Rate (HR) for RI: 4.1% vs 9.2% ($P = 0.00$). RSV HR: 1.0% vs 2.2% ($P = 0.04$). Compliant injections: 67.6% vs 67.6% ($P = 0.99$)

Group 2 infants comprised Down syndrome (n=118, 24.1%), upper airway anomalies (n=112, 22.9%), cystic fibrosis (n=62, 12.7%), neuromuscular impairment (n=42, 8.6%), pulmonary (n=38, 7.8%), multiple system disorders (n=34, 7.0%), cardiac (n=17, 3.5%), immunocompromise (n=8, 1.6%), and miscellaneous (n=58, 11.9%). The proportion of Group 2 infants receiving prophylaxis increased from 5.6% (69/1224) to 12.2% (245/2016). Group 2 infants were older at enrollment with more advanced GA and had significantly higher RI and RSV hospitalization rates.

Conclusion: Clinicians strongly advocate for palivizumab in special populations based on perceived morbidity and mortality risk and evolving evidence from small cohort and case-controlled studies.

1202

OUTCOMES OF BABIES WITH SEVERE RHESUS DISEASE FOLLOWING IN-UTERO TRANSFUSIONS - A 10 YEAR EXPERIENCE

P. Chandra¹, S.V. Rasiah¹, A.K. Ewer¹, M.D. Kilby²

¹Neonatology, ²Maternal and Fetal Medicine, Birmingham Women's Foundation NHS Trust, Birmingham, UK

Background: In-utero transfusion (IUT) has transformed the management and outcome of severe Rhesus disease.

Objective: To assess the outcomes of babies that had IUT in a tertiary Fetal Medicine and red cell alloimmunization Centre.

Methods: Retrospective analysis of all cases of IUT for severe Rhesus disease over a 10 year period.

Results: 263 IUT were performed in 80 pregnancies. Median IUT was 3 (range 1-8). Antibodies involved were: anti-D (84%); anti-Kell (13%) and anti-c (3%). 19 (24%) cases were hydropic: of these 3 were intra-uterine deaths, 2 neonatal deaths and 3 were born elsewhere. 74 were live births (92.5%); median gestation 34 weeks (range 24-38), 11 babies ≤ 30 weeks, 5 born elsewhere. Of the 69 infants born in our centre, 3 died in the neonatal period and 1 infant at 19 months (SIDS). Median cord haemoglobin was 10.7g/dL (range 5.7-20.9). 29/69 (42%) babies required 45 exchange transfusions (range 1-5). 57/69 (83%) babies required 151 top-up blood transfusions (median 2, range 1-20). Of those ≤ 30 weeks, 9/11 survived (82%), 2 had retinopathy of prematurity and

