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.

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RESPIRATORY SYNCYTIAL VIRUS PROPHYLAXIS IN SPECIAL POPULATIONS

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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.

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

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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