cognitive developmental outcome than indomethacin, but this may be an effect of using both the Bayley-II as the Bayley-III.

**1266 INTRAUTERINE GROWTH RESTRICTION AND VERY PRETERM BIRTH ARE ASSOCIATED WITH MOTOR DYSFUNCTION AND WHITE MATTER PATHOLOGY AT SCHOOL AGE**

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1E Morsing, 2A Kahn, 3D Ley, 1Björkman-Burtscher, 4K Marsal. 1Department of Pediatrics, 2Department of Radiology, 3Department of Obstetrics and Gynecology, Clinical Sciences Lund, Lund University, Lund, Sweden

**Objective** To assess neuromotor ability and white matter (WM) pathology at early school age in children delivered at very early gestation due to intrauterine growth restriction (IUGR) with abnormal fetal blood flow.

**Design** Morphological ST MR1 and Movement assessment battery for children (ABC) were performed at median 8.5 years of age (range 7–11) in 27 children with IUGR and abnormal fetal blood flow born at a median of 26.9 (range 24–29) gestational weeks (PT-IUGR) to assess WM morphology and motor skills. Control groups were matched for gender and age and had birthweight appropriate for gestational age (AGA); 26 preterm (PT-AGA), born at 26.9 (range 24–29) gestational weeks and 28 term children (T-AGA).

**Results** Children with cerebral palsy in the PT-IUGR (n=3) and PT-AGA group (n=4) were excluded from further analysis. The PT-IUGR group had significantly higher rate of WM pathology compared to the T-AGA group (p<0.001) whereas PT-AGA did not differ from the other groups. WM pathology was found in 39%, 14% and 0% in the PT-IUGR, PT-AGA and T-AGA groups respectively.

Higher scores on ABC, reflecting impaired motor skills, were found in the PT-IUGR mean (SD) 9.7 (5.5) compared to the PT-AGA 5.3 (4.1) and T-AGA 3.9 (3.7) children (p<0.001, respectively). WM pathology found on MRI was not related to ABC-movement scores.

**Conclusion** IUGR with abnormal fetal blood flow in infants born very preterm has an additional negative impact on motor outcome and WM morphology at early school age.

**1267 ANTE NAL CORTICOSTEROIDS AND PULMONARY HYPERTENSION TREATED WITH INHALED NITRIC OXIDE ARE ASSOCIATED WITH NEURODEVELOPMENTAL OUTCOMES OF ELBW INFANTS**

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1M Nishihara, Y Shiraishi, S Hirano, E Yamamoto, H Kitajima. 1Department of Neonatology, 2Department of Child Psychiatry, Osaka Medical Center and Research Institute for Maternal and Child Health, Tami, Japan

**Background and Aims** To describe neurodevelopmental outcomes of ELBW infants in our NICU and to identify characteristics associated with severe disability.

**Methods** A retrospective cohort study was conducted to collect perinatal factors and neurodevelopmental outcomes at 5 years old among extremely low birth weight (ELBW) infants admitted to the level III NICU at Osaka Medical Center and Research Institute for Maternal and Child Health in Japan from January 1, 2008 to December 31, 2007. Logistic regression was used to identify characteristics associated with cerebral palsy (CP) and mental retardation (MR) corrected developmental quotient (CDQ) < 70.

**Results** 201 ELBW infants without major congenital anomalies were admitted and 28 (13.9%) of them were discharged by death. Of the remaining 173 survivors, 153 (88.4%) were evaluated. CP and MR occurred in 37 (24.2%) of the assessed infants. Multivariate logistic regression suggested antenatal corticosteroids (45.9%) vs 71.6%; adjusted odds ratio, 0.29 [95% CI, 0.14–0.68]) and pulmonary hypertension (PH) treated with inhaled nitric oxide (iNO) (8.1% vs 0.9%; adjusted odds ratio, 13.19 [95% CI, 1.23–138.34]) were the characteristics most highly associated with CP and MR. Of 3 infants, who had suffered from PH treated with iNO at birth and subsequently had CP and MR, 2 infants were delivered after premature rupture of the membranes and 1 was delivered at home accidentally.

**Conclusions** Antenatal corticosteroids and PH treated with iNO are associated with severe disability of ELBW infants. Further prospective studies involving large samples are required to confirm these results.

**1268 USE OF HEALTH CARE RESOURCES BY SURVIVING VERY LOW BIRTH WEIGHT (VLBW) INFANTS AFTER DISCHARGE TO HOME**

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1Ø Bratli, KE Heltn. 1Pediatrics and Adolescent Medicine, St. Olavs University Hospital; 2Institute of Laboratory Medicine, Children’s and Women’s Health, Faculty of Medicine, Norwegian University for Science and Technology, Trondheim, Norway

**Background and Aims** VLBW infants require intensive care in the neonatal period and to discharge. The aim of this investigation was to study the extent to which surviving children who stayed less than 1500 g in neonatal intensive care units (INU) and subsequently discharged to home.

**Methods** The study was conducted as a retrospective cohort study where four cohorts (1997, 1998, 2004, and 2007) of VLBW infants were followed. Data on perinatal factors that could contribute to increased risk for future health care needs, hospital admissions and outpatient visits as well as drug prescriptions after discharge were obtained from patient records. The study included 152 infants.

**Results** The study shows that VLBW infants have a significant need for later health care resources, particularly the first 4–7 years after discharge. During the first 4 years 70% of infants had been hospitalized with 3.6±6.0 admissions. They spent 25±29 days in hospital the first year decreasing to 6.5±9 days the fourth year. A significant higher admission rate was found for male infants, infants with BW < 1.000 grams, infants with bronchopulmonary dysplasia (BPD), and infants treated for patent ductus arteriosus (PDA). Drugs were prescribed to 52.5% of infants with 1.5±1.8 drugs/year. Infants with BPD and PDA and BW < 1000 grams had significantly more drug prescriptions.

**Conclusions** Surviving VLBW infants have an increased need for health care resources several years after discharge. Emergency admissions and high admission rates in some infants might reflect suboptimal follow-up.

**1269 LE VENE INDEX AT DIFFERENT GESTATIONAL AGES IN INFANTS < 32 WEEKS**

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1R Shim, 2N Ganasakaran, 3M Boyle, 3S Ryan, 4A Tarrant, N McCaillon. 1Department of Paediatrics, RCSI; 2Department of Paediatrics; 3Dept of Radiology, Rotunda Hospital; 4Department of Paediatrics, Rotunda Hospital/Royal College of Surgeons in Ireland, Dublin, Ireland

**Background** Levene index is used for the diagnosis of ventricular enlargement, including intraventricular haemorrhage and posthaemorrhagic ventricular dilatation. The original data dates from the 1980s and more recent studies are based on relatively small numbers of infants.

**Aim** To describe normal values for Levene Index at different gestations.

**Method** The serial cranial ultrasounds were reviewed of all preterm infants with gestation under 32 weeks admitted to Rotunda