(p = 0.03) but not on Form Constancy (p = 0.17). Compared to VLBW children without any oculomotor or visual sensory deficit, VLBW children with one or more of these deficits performed worse only one visual perceptive measure (Figure-Ground perception; p = .01).

Discussion We found reduced functioning in VLBW children for binocularity, perceptual grouping, visual-spatial judgment and figure-ground segmentation. Except for figure-ground segmentation, these visual perceptive deficits remain present in the absence of oculomotor and sensory deficits.

327

ANTENATAL FACTORS ASSOCIATED WITH DEVELOPMENTAL DELAY IN MODERATELY PRETERM-BORN CHILDREN, RESULTS OF A COHORT STUDY

doi:10.1136/archdischild-2012-302724.0327

¹J Kerstjens, ²AF Winter de, ³KM Sollie, ²MR Potijk, ¹IF BoccaTjeertes, ²SA Reijneveld, ¹AF Bos, Lollipop. ¹Neonatology, Beatrix Children's Hospital, University of Groningen, University Medical Center Groningen; ²Health Sciences, University Medical Center Groningen, University of Groningen; ³Obstetrics, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands

Background Worldwide 6–9% of all children are born moderately preterm (32⁺⁰–35⁺⁶ weeks' gestation). They are at risk for developmental delay in early childhood. Knowledge on the influence of antenatal maternal, fetal, and delivery-related factors on the development of moderately preterm-born children is limited.

Objective To determine the association between developmental delay in early childhood and antenatal factors in moderately preterm-born children.

Design/methods We measured development with the Ages and Stages Questionnaire (ASQ) at age 43–49 months in 834 moderate preterms born in 2002–2003, in a community-based cohort study.

A total ASQ score > 2SD below the Dutch mean reference was considered to indicate developmental delay. Data on maternal, fetal, and delivery-related factors were obtained from medical records. We used logistic regression to estimate odds ratios (ORs) for developmental delay, adjusted for socio-demographic variables.

Results In univariate analyses, several fetal and maternal factors were associated with risk of developmental delay. In multivariate analyses, only pre-existent obesity (odds ratio (OR) 3.0, 95% confidence interval (CI): 1.5–5.8), multiparity (OR:2.8, CI: 1.6–4.9), Small-for-gestational-age (SGA) (OR:2.9, CI: 1.4–6.1), multiple pregnancy (OR:1.8, CI: 1.0–3.3), and male gender (OR:4.1, CI: 2.2–8.6) increased risk of developmental delay.

Conclusions Of all antenatal factors studied, no modifiable factors were associated with developmental delay except for SGA. Enhanced prevention of intra-uterine growth restriction, interventions aiming at reducing pre-pregnancy weight in fertile women, and reducing number of transferred embryos in assisted reproduction might offer routes to improve developmental outcomes in children eventually born moderately preterm.

328

VALIDATION OF ERIC - A NEW PARENTAL REPORT INSTRUMENT FOR DETECTION OF COGNITIVE DELAY IN AT-RISK INFANTS

doi:10.1136/archdischild-2012-302724.0328

¹G Schafer, ¹L Genesoni, ²R Jones, ³HA Doll, ⁴E Adams, ⁵R Gray, ⁶G Boden. ¹Department of Psychology, University of Reading, Reading; ²Paediatric Department, Wexham Park Hospitals, Slough; ³Department of Population Health, Norwich Medical School, Norwich; ⁴Neonatal Unit, John Radcliffe Hospital; ⁵National Perinatal Epidemiology Unit (NPEU), University of Oxford, Oxford; ⁶Neonatology, Royal Berkshire Hospital, Reading, UK

Background and Aims At 2 years, cognitive delay is the most common form of developmental disability in the preterm population (Marlow, 2004). We have established the diagnostic properties of a new cognitive developmental screen (Early Report by Infant Caregivers, ERIC), between 10–24 months.

Methods Participants. 362 infants aged 10–24 months, with at least one of: weight < 1500g, < 34 completed weeks gestational age, 5-min Apgar < 7, HIE. Children with impairments preventing fair assessment by ERIC were excluded. Parents/caregivers completed ERIC at home before administration of the Cognitive Scale of the Bayley Scales of Infant Development III. Delay was defined as a prematurity-corrected Bayley score < 80 (Moore et al, 2011).

Results Nineteen infants were delayed, with age-corrected ERIC scores lower than those without delay (p<0.001). On ROC analysis, Area Under the Curve was 0.86, with 83% sensitivity (95% CI 66–99.9%), 79% specificity (75–83%), 19% Positive Predictive Value (PPV) (2–36%), and 98% Negative Predictive Value (NPV) (96–99.6%). The low PPV reflects low prevalence of delay (5.2%) in this sample.

Conclusions ERIC provides a useful diagnostic screening tool, able to rule out developmental delay in this population (NPV = 98%).

Note This abstract presents independent research funded by the National Institute for Health Research (NIHR) under its Research for Patient Benefit (RfPB) Programme (Grant Reference PB-PG-0807–14202). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health. Preliminary results were presented to the Neonatal Society, London, March 2012.

329

SEVERE RETINOPATHY OF PREMATURITY (ROP) REMAINS A MARKER OF CHILDHOOD DISABILITIES: RESULTS FROM THE CAFFEINE FOR APNEA OF PREMATURITY TRIAL

doi:10.1136/archdischild-2012-302724.0329

^{1,2}B Schmidt, ³P Davis, ³L Doyle, ³P Anderson, ⁴E Asztalos, ⁵A Solimano, ⁵R Grunau, ⁴A Ohlsson, ⁶D Dewey, ⁷D Moddemann, ⁸K Barrington, ⁹W Tin, ²R Roberts, for the Caffeine for Apnea of Prematurity (CAP) Trial Investigators. ⁷University of Pennsylvania, Philadelphia, PA, USA; ²McMaster University, Hamilton, ON, Canada; ³University of Melbourne, Melbourne, VIC, Australia; ⁴University of Toronto, Toronto, ON; ⁵University of British Columbia, Vancouver, BC; ⁶University of Calgary, Calgary, AB; ⁷University of Manitoba, Winnipeg, MB; ⁸University of Montreal, Montréal, QC, Canada; ⁹James Cook University, Middlesbrough, UK

Background The Cryotherapy for Retinopathy of Prematurity Cooperative Group showed that the severity of ROP was a marker for functional disability at 5.5 years in infants ≤1250 g BW who were born in the late 1980s.

Objective To determine whether severe ROP remains a strong predictor of visual and non-visual disabilities at age 5 years in infants ≤1250 g BW who were enrolled in the CAP trial between 1999 and 2004.

Methods 5-year follow up of 1580 surviving CAP children with known ROP status. Severe ROP was defined as stage 4 or 5 disease or receipt of retinal therapy in at least one eye. Outcomes were disabilities in 6 domains, and including cognitive impairment (Full Scale IQ< 70), motor impairment (GMFCS level 2–5), deafness and blindness. Odds ratios were adjusted for antenatal steroids, gestational age, sex, multiple birth, and mother's education.

Results There were 94 survivors with and 1486 without severe ROP. Rates of visual and non-visual disabilitites were significantly higher in children with severe ROP (Table 1).

Abstract 329 Table 1

Outcome	Severe ROP	No Severe ROP	Adjusted OR	95% CI
10 < 70	15%	4.5%	4.0	1.9 to 8.4
Motor impairment	13%	2.4%	4.0	1.9 to 8.6
Deafness	13%	2.4%	4.0	1.9 to 8.6
Blindness	14%	0.1%	129	21 to 786
Any disability	45%	16%	3.5	2.2 to 5.6