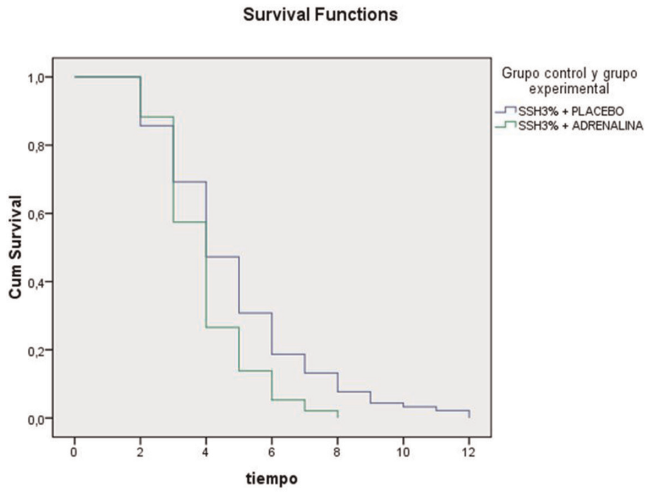

Abstract O-018 Figure 1

36%), parental atopy (29% vs 31%), breastfeeding (56% vs 53%), number of siblings (0.68 vs 0.72), day care attendance (14% vs 10%), clinical scale at admission (5.24 vs 5.36) or percentage of positive RSV (60% vs 61%).

Conclusions The use of nebulised adrenaline in hypertonic saline solution may significantly reduce the length of stay among hospitalised infants with moderately ill acute bronchiolitis.

O-019 VIRAL RESPIRATORY TRACT INFECTIONS RESULT IN SIGNIFICANT RESPIRATORY MORBIDITY IN NICU INFANTS: A MATCHED CASE-CONTROL STUDY

[1]S Zinna, [1]A Lakshmanan, [2]S Soo, [1]D Sharkey. *[1]Academic Child Health, University of Nottingham, Nottingham, UK; [2]Microbiology, Nottingham University Hospitals NHS Trust, Nottingham, UK*

10.1136/archdischild-2014-307384.88

Introduction There is very little data available on the impact that viral respiratory tract infections (VRTIs) have on neonatal morbidity during their NICU stay.

Hypothesis NICU patients with proven VRTIs have significantly worse respiratory outcomes until the time of discharge from hospital.

Methods We conducted a retrospective case-control study, at two large UK tertiary centres, of all NICU patients with multiplex PCR confirmed VRTIs between 2007 and 2013. Two controls per case were matched for centre and gestation.

Results 255 babies (86 cases and 169 controls) were identified with a median gestation of 29 weeks (IQR 26–34) for both groups. No differences were noted between groups in birth weight, antenatal steroids, maternal smoking or number of siblings. 71% of cases had rhinovirus, 8% RSV and 6% H1N1. Fewer cases had positive blood cultures during their admission (11/86 vs 65/169, p < 0.0001). Almost half (46%) of all VRTI positive babies required escalation of respiratory support especially those <28 weeks gestation who required re-ventilation (38%). Cases required a significantly greater number of days of respiratory support (median 21 vs 7, p < 0.001 see table) and more were discharged on home oxygen (35% vs 18%, OR 2.54 95% CI 1.4–4.7, p < 0.01). Mortality did not differ between groups (3/86 and 11/169).

Abstract O-019 Table 1

	Case (n = 86)	Control (n = 169)	p value
Ventilation days (median, IQR)	7 (2–22)	2 (0–8)	p < 0.0001
CPAP days (median, IQR)	14 (0–35)	5 (0–33)	p = 0.09
Supplemental oxygen (median, IQR)	13 (2–37)	2 (0–32)	p < 0.0001

Discussion This is the largest study of VRTIs in this population to date and demonstrates significant respiratory morbidity with rhinovirus being the dominant pathogen. We need to explore better ways of minimising the impact of VRTIs in this vulnerable population.

O-020 HUMAN CORONAVIRUSES INFECTION IN ACUTE LOWER RESPIRATORY TRACT INFECTION IN CHILDREN

[1]Y Qian, [1]Z XIE, [2]L Ren, [1]X Liu, [3]K Shen, [2]J Wang. *[1]Virology Lab, Pediatric Research Institute, Beijing Children's Hospital, Beijing, China; [2]Institute of Pathogen Biology, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; [3]Respiratory Department, Beijing Children's Hospital, Beijing, China*

10.1136/archdischild-2014-307384.89

Objectives To explore the effects of HCoVs (including HCoV-OC43, HCoV-229E, HCoV-NL63 and HCoV-HKU1) in acute lower respiratory tract infection (ALRTI) in children and to investigate the clinical features of paediatric ALRTI caused by HCoVs.

Methods Total 3503 cases with ALRTI from March 2007 to March 2010 in Beijing Children's Hospital Affiliated to Capital Medical University were enrolled into this study. One nasopharyngeal aspirate specimen was collected from each patient. PCR (or RT--PCR) were used to detect respiratory viruses including respiratory syncytial virus, human rhinovirus, influenza virus type A, B and C, parainfluenza virus type 1–4, adenovirus, enterovirus, human coronavirus, human metapneumovirus and human bocavirus. Clinical manifestation and laboratory findings of patients with HCoVs were analysed by using SPSS 19.0 for Windows (SPSS Inc., USA).

Results The overall positive rate of HCoVs infection was 3.77%. Most cases with HCoVs infection were under 3 years old. The ratio between male and female were 2.3:1, and the rate of co-infection with other respiratory virus in patient infected HCoVs was 65.2%. The positive rate of HCoV-OC43 and HCoV-229E were higher than that of HCoV-NL63 and HCoV--HKU1. There were no significant differences of clinical manifestation, laboratory findings and severity between ALRTIs caused by HCoVs and RSV.

Conclusions The overall infection rate of HCoVs in ALRTI in children was low. The clinical manifestations, laboratory findings and severity of ALRTI caused by HCoVs were comparable to that of ALRTI with RSV infection in children.

Bronchopulmonary Dysplasia

O-021 PREVENTION OF BRONCHOPULMONARY DYSPLASIA (BPD) IN VLBW INFANTS WITH SEVERE RDS – A RANDOMISED TRIAL OF A NEW THERAPEUTIC REGIMEN

[1]TF Yeh, [2]SY Wu, [2]Z Ullah, [3]TC Li, [4]WS Hsieh, [5]CH Tsai, [5]HC Lin, [6]CM Chen. *[1]Mat. Child Health Center, Taipei Medical University, Taipei, Taiwan; [2]Department of Pediatrtics, John Stroger Hospital of Cook County, Chicago, USA; [3]Graduate Institute of Biostatistics, China Medical University, Taichung, Taiwan; [4]Department of Pediatrics, National Taiwan University, Taipei, Taiwan; [5]Department of Pediatrics, China Medical University, Taichung, Taiwan; [6]Department of Pediatrtics, Taipei Medical University Hospital, Taipei, Taiwan*

10.1136/archdischild-2014-307384.90