Paediatricians with expertise in cardiology special interest group (PECSIG)

G9 EVALUATING OUTCOMES IN INFANTS DIAGNOSED WITH PULMONARY HYPERTENSION IN BRONCHOPULMONARY DYSPLASIA – A 4 YEAR RETROSPECTIVE STUDY

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Aims Chronic pulmonary hypertension (PH) is a complication of bronchopulmonary dysplasia (BPD), associated with increased morbidity and mortality. The aims of our study were to evaluate the outcomes of a cohort of patients with BPD alone, and with BPD complicated by PH.

Methods A single centre retrospective observational study involving all infants admitted to NICU between 1/10/14 to 1/8/18 and diagnosed with BPD. Data was collected from electronic patient records. Infants with persistent pulmonary hypertension of the newborn were excluded.

Results A total of 130 infants were diagnosed with BPD during this period, with 9 infants developing pulmonary hypertension (7%). Most patients who developed PH had severe BPD (table 1) and other severe comorbidities, such as extreme prematurity and sepsis.

Echocardiography can be used to screen for PH in patients with BPD. 91% of all patients with BPD had an echocardiogram during the initial hospital stay, but only 25% had one at the recommended time of 36 weeks.

8/9 patients with PH were given sildenafil to treat PH, and there was improvement in 75% cases after starting treatment. However, this was a short-lasting effect in 4 infants, who later had deterioration of PH.

The mortality in BPD patients without PH was 4% (5/121), whereas patients with BPD and PH had a higher mortality of 67% (6/9). All deaths occurred during the first year of life. In the BPD+PH group, 50% patients died from worsening PH, whilst the other 50% died from bronchiolitis or multiorgan failure, and all patients who died had severe BPD (table 1). 33% (3/9) patients were discharged from outpatient clinic. In BPD only patients, 31% (38/121) were discharged, 10% (12/121) are being followed up, and 55% (66/121) were transferred back to local hospitals.

Abstract G9 Table 1 Severity and mortality of BPD

Severity of BPD	Total no. infants with BPD alone	No. deaths in infants with BPD alone	Total no. infants with BPD+PH	No. deaths in infants with BPD +PH
Mild	21	2	0	0
Moderate	47	2	1	0
Severe	53	1	8	6

Conclusion Pulmonary hypertension is a serious complication of BPD, with high morbidity and mortality. There is an urgent need to implement a screening programme for early detection of PH in infants with BPD and study of their outcomes prospectively.

G10 SERVICE EVALUATION OF A BUSY LEVEL 3 CHILDREN'S CARDIAC CENTRE OVER 5 YEARS

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Background NHS 'Safe and Sustainable' programme emphasises providing high quality services near home. These services are provided in the Level 3 Children's Cardiac Centres by the paediatricians with expertise in cardiology (PECs) working in collaboration with the specialist paediatric cardiologists.

Aims and Objectives

- To assess workload trends in the paediatric cardiology clinic services in a busy level 3 Children's Cardiac Centre over the last 5 years
- To investigate outcomes of the new referrals to the outpatient clinics

Methods A retrospective observational study of all patients (0–18 years) seen in Paediatric Cardiology Clinics between 1 April 2014 – 31 March 2019. Data were collected from electronic patient records.

Results A total of 9884 patient episodes were recorded and approximately 55% of these were new patient episodes (new referrals).

There has been a >30% increase in patient episodes between 2014 and 2019. Similarly, there has been a trend increase in proportion of new patient episodes over the last 5 years - 51% in 2015 to 58% in 2019. However, there has been no increase in number of patients seen in the joint out-reach clinics during this study period.

Outcomes of New Referrals In the last 4 years, 4238 new patients were seen in the cardiology outpatient clinics. Around two-thirds (67%) of the referrals were discharged from the clinics after assessment while one third (33%) needed follow up or further investigation/management.

Conclusion There has been sustained and significant increase (>30%) in the workload of paediatric cardiology services provided by the paediatricians with expertise in cardiology (PECs) over the last 5 years while managing the same workload in the joint cardiology clinics. Similarly, there continues an increasing trend in the number of new referrals to PEC clinics.

G11 ISOLATED SECUNDUM ASD (ATRIAL SEPTAL DEFECT) – SIZE MATTERS!

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Introduction Secundum ASD (Atrial Septal Defect) is a frequent often incidental finding during neonatal echocardiography. It might be associated with other congenital heart defects or can be an isolated finding. The smaller ASDs often close spontaneously and the larger ones often persists and may need surgery. The reported spontaneous closure rates for ASDs are between 14–66% in infants.

Aim To look at the outcomes and need for surgery, for different sizes of isolated secundum ASDs.