Abstract 70 Table 2 Summary of projected cost data

Item	Total
Bed-days saved per patient by referring to syncope clinic (n)	4
Mean monthly frequency of patients reviewed in syncope clinic (n)	16
Total in-patient bed days saved per month (n)	64
Total in-patient bed days saved per year (n)	768
Cost of in-patient bed-day (£)	273
Cost of saved in-patient bed-days saved per year (£)	209,664

were excluded. Student's t-test and chi-squared tests were used to compare continuous and categorical data respectively.

Results The median length of admission for patients remaining in hospital for assessment was 4 days compared to 1 day for those referred to the syncope assessment unit ($p < 0.05$). The median waiting time from discharge for a syncope unit appointment was 3 days. 32% of the patients referred to the syncope clinic were reviewed or discussed with a cardiologist. This figure was higher (46%) for those patients remaining in hospital for assessment although not statistically significant ($p = 0.151$). There was no significant difference in 30-day readmission rate with syncope or 90-day mortality rate between the two ($p > 0.05$). 93 patients were reviewed in the syncope clinic over the first 6 months (16/month). With an in-patient bed-day costing £273, referral of patients to the syncope clinic at this rate would save £17,472 per month and £209,664 per year (Tables 1 and 2).

Conclusions The introduction of a novel low-risk syncope assessment unit promotes early discharge from hospital with prompt outpatient medical review and shorter waiting times for diagnostic investigations. Our data suggests this is both cost-effective and safe with improved patient care.

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Congenital Heart Disease

71 LONG-TERM OUTCOMES OF COARCTATION OF AORTA IN EAST OF ENGLAND – THE NORFOLK AND NORWICH AND PAPWORTH HOSPITAL EXPERIENCE

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Background Coarctation of the aorta (CoA) is associated with premature mortality with a mean survival age of 35 year in spite of early repair. Treatment paradigms are continually changing and contemporary data on CoA are needed.

Methods The Norwich and Papworth (NORPAP) dataset was set up in 1993 to record demographics, treatments and outcomes of adult congenital heart disease (ACHD) patients in the east of England. We report on the CoA subset.

Results In total 2322 patients were included in the dataset and of these 223 had CoA (9%): 146 males and 77 females, mean age 40 years (range 16–94). Hypertension was documented in 34% and coronary heart disease 6%. 91% received a corrective procedure (80% surgical and 11% percutaneous) and of these 38% required more than one procedure. Percutaneous intervention made up about half of all re-do procedures. 13% of second procedures were not related to CoA and were mostly aortic valve replacement. There were two case of subarachnoid haemorrhage and 2 deaths (0.8%) over approximately 10 years follow up.

Conclusion There is a high initial intervention rate in CoA with about 40% requiring additional intervention. The serious complication rate was low in our cohort suggesting that prognosis is improving over time.

72 MORBIDITY AND MORTALITY ASSOCIATED WITH CONGENITAL HEART DISEASE IN ADULTS WITH TRISOMY 21 (T21)

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Background Trisomy 21 is frequently associated with congenital heart disease (CHD). Survival and life expectancy has increased as a result of surgical intervention and medical therapies. The NORPAP GUCH database, started in 1993, has 2668 patients.

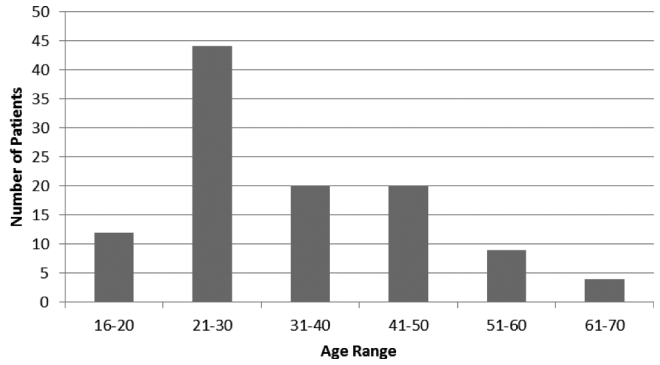
Methodology Patients with Trisomy 21 were selected from the NORPAP database. Population demographics, underlying diagnosis, comorbidities and mortality were analysed.

Results 110 patients had T21; Mean 34 years, Median 30 years, M:F 1.1:1 (Figure 1). Underlying CHD was AV Canal defect 57 (51.8%), VSD 30 (27.3%), Fallot Repair 10 (9.1%), Secundum ASD 6 (5.5%), Bicuspid Aortic Valve 3 (2.7%), Mitral Regurgitation 1 (0.9%), Single Ventricle 1 (0.9%), Pulmonary Stenosis 1 (0.9%), PDA 1 (0.9%). 61 (55%) patients had had surgery. Of those under 40, 51% were unoperated.

Death occurred in 9 patients (9%). Average age at death 46 years. 78% of deaths were in patients with AV Canal defect. Mode of death was cardiac in 8 and PAH-CHD was present in all but one.

Figure 2 shows associated comorbidities. 35% have PAH -– 59% receivetargeted therapy.

Conclusion AV Canal defect was the most frequent underlying CHD in the T21 NORPAP cohort and was associated with



Abstract 72 Figure 1 Age of T21 cohort: NORPAP database

the highest mortality. 1/3 of all patients had PAH and 1/4 of these died during follow up. Survival into the 4th and 5th decade is frequent. Patients in the 3rd decade now may expect to survive for another 25–30 years. Ongoing cardiac and non-cardiac morbidity requires dedicated CHD clinics, frequently with PAH clinicians given that 50% of those under 40 have not had surgery and may need targeted therapy.

73 MATERNAL AND FETAL OUTCOMES IN WOMEN WITH AORTOPATHY: EXPERIENCE IN A TERTIARY JOINT CARDIAC OBSTETRIC CENTRE

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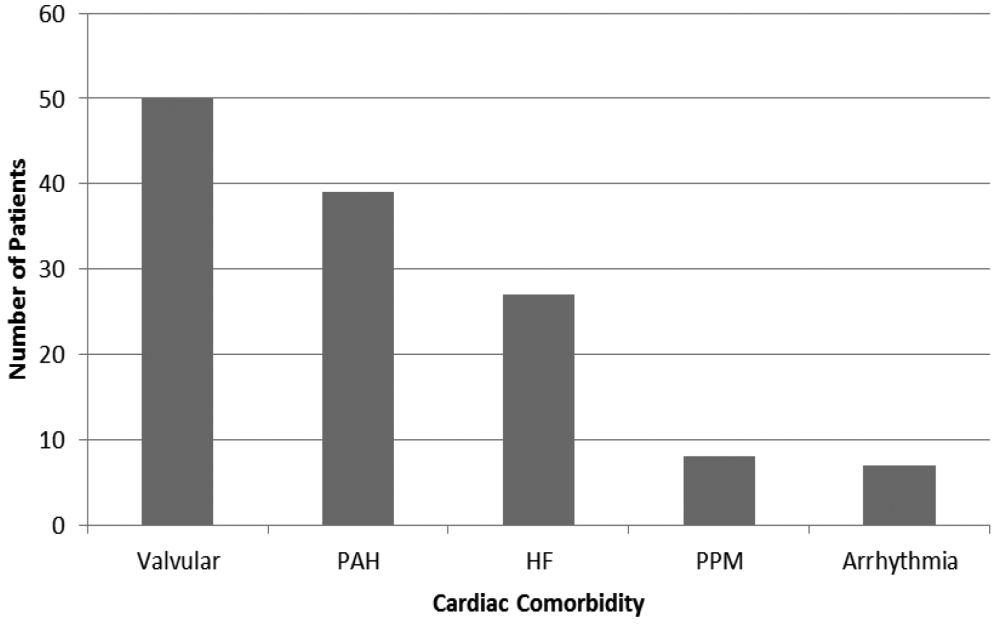
Introduction Pregnancy is associated with increased risk of cardiovascular complication for women with aortic pathology. The University Hospitals Birmingham (UHB) and Birmingham Women's Hospital (BWH) joint cardiac obstetric service sees women with aortopathy for pre-pregnancy assessment and counselling and subsequently manages them during pregnancy. A 10% incidence of serious maternal complications during pregnancy is widely quoted. We sought to review our recent cases and describe maternal and fetal outcomes in our patient population.

Methods Female patients aged 16–35 with aortopathy and a recent pregnancy (2008 ï¿½ 2015) were identified from the UHB database. Patients with a bicuspid aortic valve, structural congenital cardiac disease and coarctation of the aorta were excluded. Electronic and paper patient records and imaging results were reviewed to collect data regarding diagnosis, medical management, aortic dimensions, maternal obstetric and cardiovascular complications during or subsequent to pregnancy (within 1 year) and fetal outcome.

Results 23 patients were identified with the following diagnoses: Marfan syndrome (n = 14), Ehlers-Danlos (n = 4), Loeys-Dietz (n = 1) and undefined (n = 4) aortopathy. There were no patients with Turner syndrome within this cohort. One patient was excluded as she was under follow up for a family history of aortic disease which did not subsequently manifest itself in the patient. There were a total of 28 pregnancies. Beta blockers were prescribed in 21 pregnancies. Magnetic resonance imaging (MRI or MRA) was performed in 17 pregnancies.

Maternal outcomes Two patients had aortic dissections related to pregnancy. One was diagnosed immediately post partum in a woman with known Marfan syndrome and the other at 38 weeks gestation in a woman subsequently found to have to have Marfan syndrome. Both had successful emergency aortic root replacement, the second immediately after delivery of the fetus by caesarean section. One patient with undefined aortopathy presented acutely with chest pain and a rapidly dilating aorta; she had an emergency aortic root replacement at 22/40 gestation and was found to have a necrotising granulomatous aortitis. No patients died. Two patients had a change in aortic dimensions noted during pregnancy.

Fetal outcomes Two of the pregnancies resulted in therapeutic abortions related to occurrence of inherited lesions in the fetus.



Abstract 72 Figure 2 T21 NORPAP Comorbidities. PAH Pulmonary Arterial Hypertension; HF Heart Failure; PPM Permanent Pacemaker