in an excluded atrium accessed via retrograde aortic approach. Follow-up was at 3 and 6 months with ambulatory electrocardiographic monitoring for arrhythmia recurrence.

Results 49 patients with CHD undergoing atrial arrhythmia ablation were included. Group 1, 2 and 3 comprised of 33, 10 and 6 patients respectively. Vast majority had atrial septal defect/repair (35%) and repaired tetralogy of Fallot (17%). Of the patients in whom retrograde access was performed, three had a Fontan circulation, two had a transposition with Senning/Mustard Repair, and one had a surgically repaired ASD with a calcified septum not amenable to transseptal puncture. The most common procedure for group 1 was cavo-tricuspid isthmus ablation (63%), group 2 – AF ablation (62%), and group 3 atrial tachycardia ablation (50%) ($p<0.001$ between groups). Between groups 1, 2 and 3 there was no difference in procedure time (171±116, 204±94 and 245±35 min, $p=0.23$), or fluoroscopy time (6±11, 10±7 and 14±22 min, $p=0.40$). There was no difference in freedom from atrial arrhythmia between groups 1, 2 and 3 (70%, 50% and 67%, $p=0.52$), at mean follow-up of 6±3 months. There was no difference in complications between group 1 (5%), group 2 (17%) and group 3 (17%, $p=0.38$). The one complication in the retrograde access group was a femoral arterial pseudoaneurysm.

Conclusion Patients with congenital heart disease and an excluded atrium requiring ablation via retrograde aortic access can benefit from comparable outcomes to CHD patients who undergo ablation via a conventional right or left atrial approach. The retrograde aortic approach can be performed with equivalent procedure time, fluoroscopy time, and risk of complications compared with standard right or left atrial access.

81 SUITABILITY OF CARDIAC RESYNCHRONISATION THERAPY IN PATIENTS WITH UNIVENTRICULAR AND SYSTEMIC RIGHT VENTRICULAR HEARTS

[1]Polyvios Demetriades*, [2]Alexandra Bell, [3]Gubran Christopher, [1]Paul Clift, [1]Sara Thorne, [1]Sarah Bowater, [4]Howard Marshall, [4]Joseph DeBono, [1]Lucy Hudsmith. *[1]Department of Adult Congenital Heart Disease, Queen Elizabeth Hospital; [2]University of Birmingham, Queen Elizabeth Hospital; [3]Department of Adult Congenital Heart Disease, Queen Elizabeth Hospital; [4]Cardiology Department, Queen Elizabeth Hospital*

10.1136/heartjnl-2017-311726.80

Introduction Cardiac resynchronisation therapy (CRT) is a well-recognised treatment in patients with systolic heart failure complicated by ventricular dyssychrony. However, there is limited evidence to support its use in patients with congenital heart disease and particularly those with univentricular hearts or systemic right ventricles (RV). In 2014, the PACES/HRS published a consensus statement recommending CRT in these populations. The indications in patients with univentricular hearts include ventricular EF of 35%, with QRS duration 150 ms in a LBBB or RBBB morphology (spontaneous or paced), ventricular dilatation and NYHA II-IV symptoms. In contrast, in patients with systemic RV, CRT is recommended if ejection fraction is <35% with RV dilatation, NYHA II-IV, RBBB, QRS duration >150 ms in non-paced and NYHA I-IV and >40% V-pacing in paced.

Methods We performed a retrospective analysis for EF, QRS duration and NYHA status, from 203 patients with a Fontan circulation (univentricular) and 55 patients with congenitally corrected Transposition of the Great Arteries (ccTGA, systemic RV) under specialist Adult Congenital Heart disease (ACHD) follow-up to assess the suitability for CRT according to the guidelines.

Results **Table 1** shows data collected from both groups of patients. Univentricular functional data from the Fontan population was available for 194 patients. Only 5% had EF 35%. QRS duration was available for 190 patients and was 150ms in 3% and 47% of patients were NYHA II-IV. Ejection fraction data was available for 54 ccTGA patients and was 35% in 11%. QRS duration was 150ms in 26% and 31% were NYHA II-IV.

In total, only two patients with Fontan circulation and only one from the ccTGA population qualified for CRT according to the current recommendations. One patient had CRT implanted in 2010 and is well to follow-up in NYHA II.

Discussion We have assessed the suitability of CRT recommendations in a large pool of univentricular and systemic RV patients. We have identified very few candidates for CRT within this cohort.

Unfortunately, there is little evidence to support CRT in ACHD setting. Furthermore, procedural and technical difficulties, potential complications including infection and associated morbidity and mortality, ventricular morphology, co-existent cardiac pathologies, the aetiology of ventricular dyssynchrony and cardiomyopathic disease *per se* also require specific consideration before CRT is recommended. Decision to implant CRT in univentricular ACHD patients is more complex than guidelines suggest and requires discussion in a combined ACHD electrophysiology multidisciplinary meeting involving the patient at all levels.

Abstract 81 Table 1 Demographics, NYHA status, ejection fraction and QRS duration of univentricular and systemic right ventricular heart patients

	Univentricular	Systemic Right Ventricle
Demographics	n=203	n=55
Mean age	22.2	43.6
Female gender (%)	99 (48.7)	29 (52.7)
NYHA status		
Class I (%)	108 (53.2)	38 (69.1)
Class II (%)	62 (30.5)	8 (14.5)
Class III (%)	27 (13.3)	8 (14.5)
Class IV (%)	6 (3.0)	1 (1.9)
Ejection fraction		
55% (%)	111 (57.5)	18 (33.3)
36%–54% (%)	73 (37.7)	30 (55.6)
35% (%)	10 (4.8)	6 (11.1)
QRS duration		
120 ms (%)	163 (85.7)	25 (50.0)
121–149 ms (%)	22 (11.5)	12 (24.0)
150 ms (%)	5 (2.8)	13 (26.0)