

Abstract 21 Table 1 Demographics of 294 patients with valve replacements enrolled in our service

Median age at operation (years)						
71						
Gender						
<i>Male</i>			<i>Female</i>			
69.0% (n=203)			31.0% (n=91)			
Valve type						
<i>Bioprosthetic</i>	<i>Mechanical</i>	<i>Transcatheter</i>	<i>Repair</i>			
60.8% (n=179)	27.2% (n=80)	4.5% (n=13)	7.5% (n=22)			
Position*						
<i>AVR</i>	<i>MVR</i>	<i>AVR/MVR</i>	<i>TVR</i>			<i>MV Repair</i>
82.6% (n=243)	5.8% (n=17)	1.4% (n=4)	<i>AVR/TVR</i>	<i>MVR/TVR</i>	<i>MV Repair/TVR</i>	6.4% (n=19)
			0.7% (n=2)	1.4% (n=4)	1.7% (n=5)	
Indication**						
<i>AS</i>	<i>MR</i>	<i>IE</i>	<i>Other</i>			
67.7% (n=199)	11.2% (n=33)	6.5% (n=19)	14.6% (n=43)			

*AVR = Aortic Valve Replacement, MVR = Mitral Valve Replacement, TVR = Tricuspid Valve Repair, **AS= Aortic Stenosis, MR= Mitral Regurgitation, IE= Infective Endocarditis.

Abstract 21 Table 2 Follow up intervals, echocardiographic and clinical complications of 294 patients with valve replacement enrolled in our valve clinic

Follow up intervals					
<i>Baseline</i>		<i>Yearly follow up</i>		<i>< Yearly follow up</i>	
37.0% (n=109)		82.7% (n=243)		17.3% (n=51)	
Echocardiographic Complications					
<i>Paravalvular regurgitation</i>		<i>Transvalvular Regurgitation (≥Moderate)</i>	<i>Increased Gradients</i>	<i>Thrombosis</i>	<i>LV Failure</i>
<i>Mild</i>	<i>Mod</i>	3.4% (n=10)	9.5% (n=28)	0.3% (n=1)	9.2% (n=27)
15.6% (n=46)	1.7% (n=5)				
Clinical Complications					
<i>Re-intervention</i>	<i>Cardiac Admissions</i>			<i>Cardiac Death</i>	
1.4% (n=4)	<i>HF</i>	<i>IE</i>	<i>Other</i>	<i>IE</i>	<i>HF</i>
		1.3% (n=4)	3.4% (n=10)	0.7% (n=2)	1.3% (n=4)
				0.3% (n=1)	

*IE = Infective Endocarditis, Mod = Moderate, LV = Left Ventricular, HF = Heart Failure

the long-term management of patients with valve replacements.

Conflict of Interest None

22 PRE-PREGNANCY COUNSELLING IN CARDIOVASCULAR DISEASE: A SERVICE EVALUATION AT THE LEEDS TEACHING HOSPITALS NHS TRUST (LTHT) 2014–2020

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Background The European Society of Cardiology (ESC) 2018 guidelines for the management of cardiovascular disease during pregnancy¹ recommend women with cardiac disease receive pre-pregnancy counselling to facilitate informed decision making. Diagnoses are classified according to the mWHO score¹, enabling a quantified risk of maternal morbidity and mortality. This estimated risk can be further adjusted based on individual anatomical, physiological and functional factors, allowing for tailored advice.

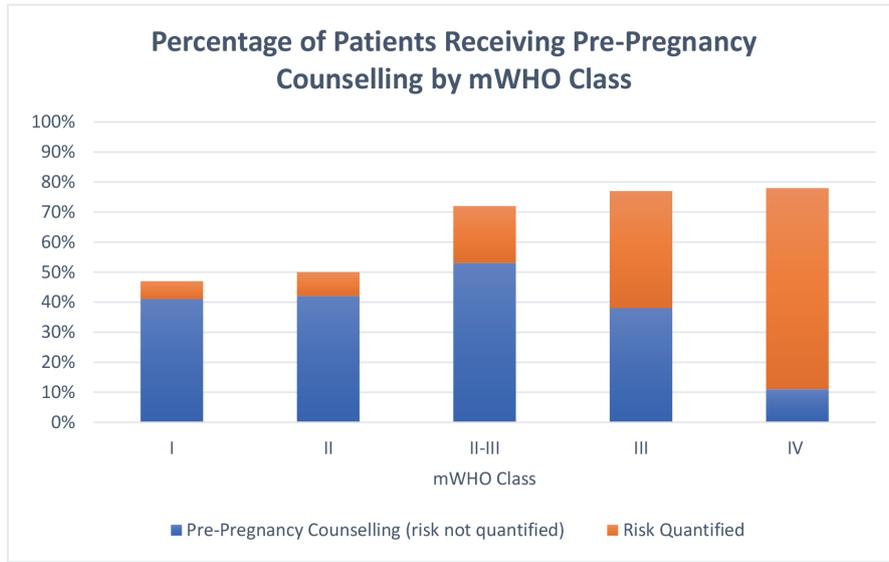
Aim To evaluate compliance with ESC guidelines¹ on pre-pregnancy counselling at LTHT, including providing a quantified risk.

Methods Retrospective analysis of electronic records of 476 patients seen in the cardio-obstetrics clinic in LTHT 2014–2020. 241 met the inclusion criteria: 1. Known to LTHT cardiology services prior to first pregnancy 2. Cardiac diagnosis classifiable by mWHO class

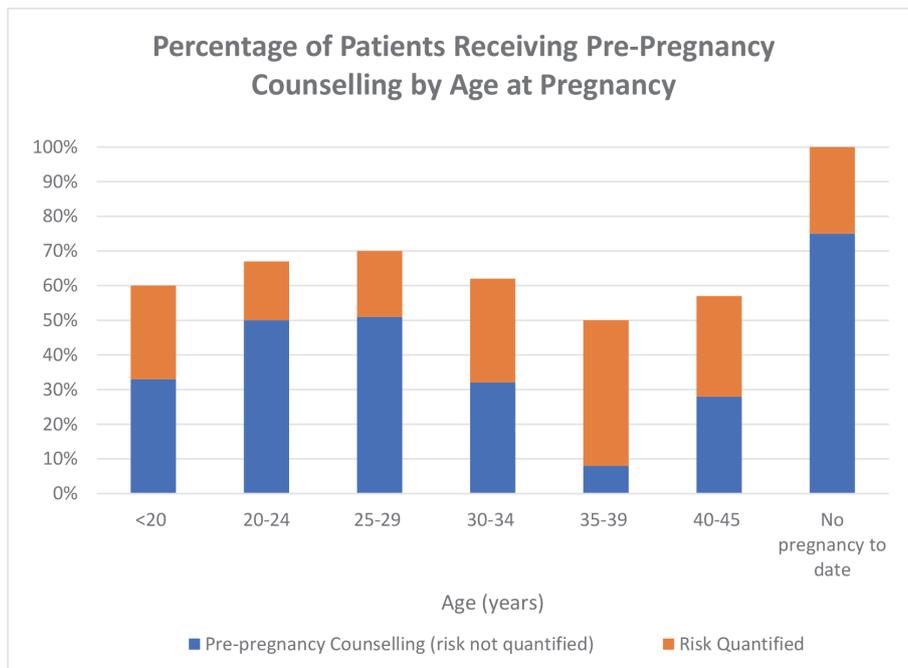
Results Demographics of our patient cohort are in table 1. 77.2% had congenital heart disease (CHD), and 22.8% acquired disease. 66.8% received pre-pregnancy counselling, 32.3% of these were given a quantified risk (table 2). Rates of pre-pregnancy counselling were similar in CHD and acquired disease (67.6% vs 65.0%). 8 patients attended for

Abstract 22 Table 1 Demographics of patients

mWHO Classification	Number of patients	Percentage	Age at first pregnancy	Number of patients	Percentage
I			<20		
II			20–24		
II–III			25–29		
III			30–34		
IV			35–39		
			40–45		
			No pregnancy to date		



Abstract 22 Figure 1 Percentage of patients receiving pre-pregnancy counselling by mWHO class



Abstract 22 Figure 2 Percentage of patients receiving pre-pregnancy counselling by age at pregnancy

pre-pregnancy counselling with no pregnancy to date. There was correlation between a higher mWHO class and a greater percentage of patients receiving pre-pregnancy counselling with risk quantification (figure 1). Median age of first pregnancy was 27, irrespective of whether pre-pregnancy counselling occurred. No patients who became pregnant under age 18 received pre-pregnancy counselling, with the highest incidence of counselling occurring in those aged 35-39 (figure 2). **Discussion** Those at lower risk in pregnancy (mWHO I and II) were less likely to receive pre-pregnancy counselling, despite being advised in the ESC guidelines. The upward trend as risk increases is encouraging, however as ESC advise

pregnancy in mWHO IV is contraindicated¹, pre-pregnancy counselling is imperative to facilitate informed choice. ESC recommend pregnancy is first discussed in adolescence when becoming sexually active, so lower maternal age should not be prohibitive to receiving pre-pregnancy counselling. Whilst preferable for this to occur before transition to adult services, it should not be assumed that adult patients have received this information. Limitations include not accounting for patients who have not yet conceived (aside from 8 shown in figure 2), which in some cases could be the result of pre-pregnancy counselling. Furthermore, data collection from clinic letters

Abstract 22 Table 2 Overall rates of pre-pregnancy counselling

Did the patient receive pre-pregnancy counselling?	Number	Percentage (of total participants)	Was the risk quantified?	Number	Percentage (of pre-pregnancy counselling group)
Yes	161	66.8%	Yes	52	32.3%
			No	109	67.7%
No	80	33.2%			

omits any pre-pregnancy counselling that was not documented or pre-dated the use of electronic records.

Conclusions 66.8% of women with known cardiovascular disease were given pre-pregnancy counselling (target 100%). As such, a quality improvement initiative is being established to improve provision of pre-pregnancy counselling to all women of child-bearing age with cardiovascular disease.

Conflict of Interest None

REFERENCE

- 2018 ESC Guidelines for the management of cardiovascular diseases during pregnancy. *EHJ* 2018;**39**:3165–3241

23

FEASIBILITY ASSESSMENT FOR THE IMPLEMENTATION OF A VIRTUAL HYPERTROPHIC CARDIOMYOPATHY FOLLOW UP CLINIC IN A DISTRICT GENERAL HOSPITAL

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Background The COVID-19 pandemic has presented unprecedented challenges for day-to-day medical practice. In some hospitals face-to-face clinic consultations have significantly reduced, being replaced by virtual clinics where possible. We hypothesised that virtual follow up of many of our Hypertrophic Cardiomyopathy (HCM) patients could continue indefinitely without impacting on the quality of clinical care, with the overall benefits of maintaining patient safety and convenience, and reduced costs for the hospital.

Purpose The purpose of this study was to evaluate physician consultations in our HCM clinic prior to the COVID-19 pandemic to determine what proportion of consultations resulted in patients developing new symptoms or requiring medication changes. We further looked to see if we could identify any patient factors that would allow us to predict which patients would be most suitable for future virtual follow up.

Methods We retrospectively reviewed the electronic patient records of HCM patients seen in the dedicated Inherited Cardiac Conditions (ICC) clinic for follow-up over a 6-month period in 2018. Patients were classified into high ($\geq 6\%$), moderate (4-5.9%) and low ($< 4\%$) risk groups according to ESC-SCD risk score. Transthoracic echocardiogram and cardiac magnetic resonance features were reviewed. The outcome comprised number of patients developing new symptoms or requiring medication change, as well as hospital admissions for cardiovascular reasons (e.g. angina, arrhythmia, and heart failure) in the 2-years following clinic consultation.

Results Forty-seven HCM patients (mean age 61.4 ± 12.2 , 55% male) were identified and reviewed from the ICC

Abstract 23 Table 1 Demographics and the number of follow-up HCM patients who developed new symptoms or required medication changes and their respective ESC-SCD risk categories

A total of 47 follow-up HCM patients were identified over a 6-month period in 2018

Age	61.4 \pm 12.2			
Male Gender	26			
ESC-SCD Risk Stratification	N	Developed New Symptoms	Required Medication Changes	Cardiac admissions in 2-years
Low	38	8 (21%)	11 (29%)	2 (5%)
Moderate	4	1 (25%)	2 (50%)	0 (0%)
High	4	1 (25%)	2 (50%)	0 (0%)

Abstract 23 Table 2 The number of follow-up HCM patients who developed new symptoms or required medication changes and their respective echocardiography and cardiac magnetic resonance assessments. EF, ejection fraction; LA, Left atrium; LVOT, left ventricular outflow tract

Echocardiography	N	Developed New Symptoms	Required Medication Changes	Cardiac admissions in 2-years
LVOT obstruction	14	1 (7%)	3 (21%)	0 (0%)
LV systolic dysfunction (EF \leq 50%)	3	0 (0%)	2 (67%)	1 (33%)
LV diastolic dysfunction (Grade II-III)	2	0 (0%)	1 (50%)	1 (50%)
LA diameter \geq 45mm	12	3 (25%)	4 (33%)	0 (0%)
LA area \geq 30mm ²	12	3 (25%)	4 (33%)	0 (0%)
Cardiac Magnetic Resonance				
Late-gadolinium enhancement	17	3 (18%)	4 (24%)	0 (0%)

clinic. Overall, 36% of patients had interventions from the face-to-face clinic; with 21% of patients developing new symptoms and 32% of patients requiring medication changes. There were 38 low-risk, 4 moderate-risk and 4 high-risk patients. 1 patient was not eligible for the risk stratification due to age over 80. 21% of low-risk, 25% of moderate-risk and 25% of high-risk patients developed new symptoms (**table 1**). Over 50% of patients who had a moderate-high ESC-SCD risk score or echocardiographic evidence of systolic/diastolic impairment required medication changes (**table 1 & 2**). Only 2 patients had hospital admissions for cardiovascular reasons in the 2-year follow up period, and those with systolic/diastolic impairment also incur high rates of admissions (**table 2**).

Conclusion About 60% of HCM patients from our inherited conditions clinic were asymptomatic and did not require changes in medication, which suggests that this group would be very suitable for virtual follow-up clinic appointments post-pandemic. Potential predictive factors would include patients with low ESC-SCD risk score and without left ventricular impairment. Hospital costs may be reduced whilst maintaining patient safety and convenience. HCM patient satisfaction with