Abstract 144 Table 2 Outcomes and side effects

	SV Continued n=130	SV Discontinued n=17	P
Outcomes:			
Mean Follow-up (months)	27.2 ± 9.0	27.3 ± 7.5	0.13
LVEF Improvement ≥ 10% n; (%)	37; (28.4)	2; (11.8)	0.42
Hospitalisation n; (%)	8; (6.1)	5; (29.4)	<0.01
Death n; (%)	8; (6.1)	7; (41.1)	<0.01
SV Stop to Hospitalisation in Months	-	11.0 ± 12.7	-
SV Stop to Death in Months	-	9.9 ± 10.8	-
Post SV Measures:			
GFR Change	-4.6 ± 10.2	-7.4 ± 12.7	0.23
LVEF %	39.5 ± 13.5	35.8 ± 14.0	0.71
Side Effects:			
Renal Impairment n; (%)	13; (10.0)	7 (41.1)	<0.01
Hyperkalaemia n; (%)	4; (2.5)	0	1.00
Headache/Dizziness n; (%)	9; (6.9)	4; (23.5)	0.05
Postural Hypotension n; (%)	16; (12.3)	3; (17.6)	0.46
Cough n; (%)	1; (0.8)	4; (23.5)	1.00
Shortness of Breath n; (%)	1; (0.8)	2; (11.8)	0.04
Diarrhoea n; (%)	1; (0.8)	2; (11.8)	0.04
Skin Irritation n; (%)	0	2; (11.8)	0.01
Fatigue/Nausea n; (%)	6; (4.6)	2; (11.8)	0.23
Medication after stopping SV:			
No Drug n; (%)	-	2; (11.8)	-
ACEi n; (%)	-	10; (58.8)	-
ARB n; (%)	-	1; (5.9)	-
Digoxin n; (%)	-	1; (5.9)	-
Nitrate n; (%)	-	1; (5.9)	-

LVEF: Left Ventricular Ejection Fraction

investigation on how to improve maintain/titrate to max dose SV in cohorts of HFrEF patients who do not tolerate SV well with respect to outcomes.

Conflict of Interest Nil

REFERENCE

- McMurray JJV, Packer M, Desai AS, *et al.* Angiotensin–Neprilysin Inhibition versus Enalapril in Heart Failure. *N Engl J Med* 2014;**371**(11):993–1004. doi:10.1056/NEJMoa1409077

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INVESTIGATING THE DIRECT IMPLICATIONS OF THE DAPA HF TRIAL AND THE INTRODUCTION OF SODIUM-GLUCOSE LIKE CO-TRANSPORTER 2 (SGLT2) INHIBITORS ON MIDDLESBROUGH'S HEART FAILURE POPULATION

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Background DAPA HF was an international, multicentre, parallel group, event-driven, randomized, double-blind, placebo-controlled study in patients with chronic heart failure with

reduced ejection fraction (HFrEF), evaluating dapagliflozin versus placebo. This showed individuals with Heart Failure with Reduced Ejection Fraction (HFrEF) (NYHA II–IV, LVEF ≤40%) with or without Type 2 Diabetes Mellitus (T2DM), addition of the SGLT-2 inhibitor dapagliflozin decreased rates of cardiovascular death or worsening heart failure (NNT=21), reduced hospital admissions at 28 days (NNT=27) and all-cause mortality (NNT=43.5). We aim to ascertain the impact the introduction of SGLT2 inhibitors, could have on our local population.

Method A retrospective review of James Cook University Hospitals heart failure database (all patients with LVEF ≤ 40%) from 7/3/2019– 7/3/2020. Data recorded: Age, Diabetic Status, Renal Function, HbA1c, HFrEF medication, Diabetes Medication, Heart Failure aetiology. Exclusions: Type 1 Diabetes Mellitus, Deceased, Incomplete data. Data was reviewed by thematic analysis.

Results N=321. Mean Age- 70 years ± 10.5. Non-Diabetic / T2DM = 205/105 (64.2%/35.2%). Heart Failure aetiology: Ischaemic 137 (42.68%), Non-Ischaemic 146 (45.48%), Unknown 38 (11.83%). Renal Function: eGFR<30 mlmin⁻¹= 14, <45 mlmin⁻¹= 55 and <60 mlmin⁻¹= 131. 15 (13%) T2DM patients are on SGLT2 inhibitors. 0 Non-Diabetic

patients on SGLT2 inhibitor. Average HbA1c, T2DM patients = 62.7 mmol/mol. HFrEF medication 3 classes: Beta Blockers/Angiotensin-converting-enzyme inhibitors, Angiotensin II Receptor Blockers or Sacubitril Valsartan/ Mineralocorticoid receptor antagonists. No therapy, 2 (0.62%), Monotherapy: 22 (6.85%), Dual-therapy 156 (48.60%), Triple-therapy 141 (43.93%).

Conclusion Applying DAPA HF inclusion criteria, 292 (90.97%) should be considered for introduction of SGLT2 inhibitors. Renal function isn't a significant barrier to SGLT2 inhibitor introduction. SGLT2 inhibitors aren't widely prescribed in patients with T2DM and HFrEF. Following recent NICE approval, there is scope for local and regional guidelines, directed at primary and secondary care for the prescribing of SGLT2 inhibitors in a HFrEF population.

Conflict of Interest Nil

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NHS TEST BED PROJECT: MONITORING OF HEART FAILURE PATIENTS IN THE COVID-19 PANDEMIC

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Introduction Heart failure carries a high morbidity and mortality but increasing numbers of patients are diagnosed with heart failure, with prevalence currently estimated as 26 million worldwide.¹ This better recognition of the syndrome is also compounded by the increased number of readmissions for heart failure, which carries an increased mortality risk for heart failure patients.² We evaluated: the use of NHS digital model for ambulation of heart failure patients called the NHS Test Bed project and the use of digital cardiology to follow up patients to detect early signs of deterioration, and hence prevent readmission. Its importance is recognised increasingly in the global COVID-19 pandemic to help free up inpatient beds.

Methods We initially evaluated the time involved in providing an ambulatory heart failure service compared to an inpatient admission for decompensation of heart failure. The NHS Test Bed project is a method of providing access to ambulatory services for heart failure patients and we evaluated the impact of this on admissions, focusing on Emergency Department presentations and emergency inpatient admissions.

Results We have demonstrated that an ambulatory heart failure service leads to a reduction in time caring for each patient by 4 hours and 6 minutes compared to an inpatient admission (tables 1 & 2). Our NHS Test Bed study was conducted over a two-year timeframe (inclusive of the introduction of the Combined Application System Innovation (CASI) tool to access ambulatory care services in April 2019) shows a promising linear trend with a step-by-step reduction in Emergency Department presentations for heart failure patients every month (figure 1). However, this was not statistically significant as a greater reduction was seen in the control group who did not have access to this service. The largest study of 1600 heart failure patients used telephone-based heart failure monitoring.³ This showed no reduction in mortality or hospitalisations attributed to this monitoring strategy, but this was attributed to poor adherence with only 55% of patients taking part by the six-month timepoint. The deficit in our study and others

Abstract 146 Figure 1 Representation of the NHS Test Bed data showing the effects of registering for the Combined Application System Innovation tool to access ambulatory care services (red) versus not

Abstract 146 Figure 2 Representation of the NHS Test Bed data showing the effects of registering for the Combined Application System Innovation tool to access ambulatory care services (red) versus not registering (blue) on the number of emergency hospital admissions for every 1,000 patients. Lines represent the Poisson regression model fit for the 2 cohorts

Abstract 146 Table 1 Journey of a patient admitted to hospital for heart failure decompensation in terms of hours of staff time spent looking after them

One off events	
Booked in	5 minutes
Seen in A+E + BLOODS	20 minutes
Chest x-ray + porters	25 minutes
STAT furosemide	10 minutes
Transfer to AAU	15 minutes
Clerking by medical team and drugs written up, post take	1 hour
Pharmacy medicine reconciliation	20 minutes
Referral to cardio	15 minutes
Seen by cardio	30 minutes
Seen by heart failure team	30 minutes
Discharge summary	15 minutes
	4 hrs 10 minutes
Daily events	
Furosemide infusion	15 minutes/day
Daily ward rounds	10 minutes/day
Daily bloods	5 minutes/day
Weights and fluid restricting	10 minutes/day
Obs 4 hourly	12 minutes/day
	52 minutes x 3 = 156
	Multiplied by 3 as average patient stays for 3 days as per data since January 2019
Total time	6 hrs 46 minutes