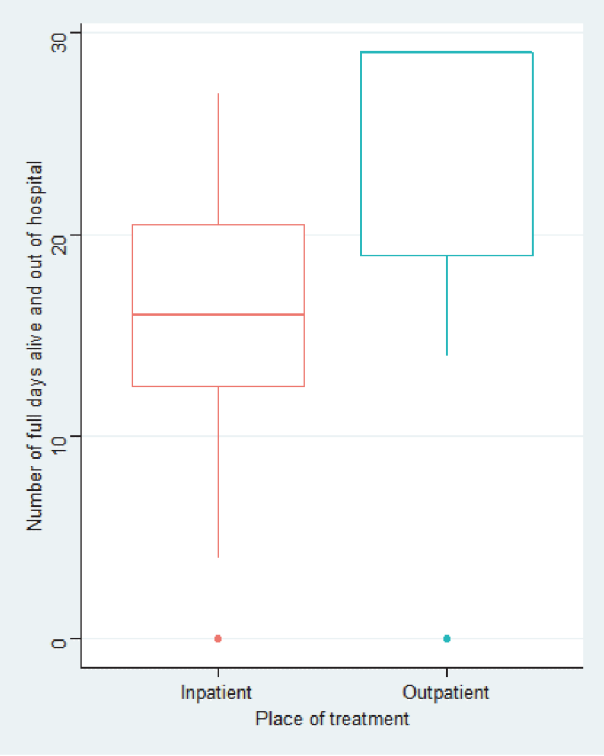
were also required. Patients who were admitted to hospital as well as those seen in the emergency department or out-patient clinic could be enrolled. Patients were randomised to be admitted (conventional care) or for out-patient care (at home, in the community centre, or in a hospital 'Furosemide lounge'. The primary safety outcome was all-cause mortality during the index episode and primary effectiveness outcome was the number of full days alive and out of hospital (which did not include day-care in the Furosemide lounge) within 30 days after randomisation. Statistical analysis was based on 'intention to treat'.

Results Of 24 patients enrolled, eleven were randomised to in-patient and thirteen to out-patient care.



Abstract 96 Figure 2

Abstract 96 Table 1

		Inpatient (n=11)	Outpatient (n=13)	p-value
Sex	*Female*	63.6%	23.1%	p=0.095
Age	*at randomisation*	81.8 ±10.4	70±16.0	p=0.052
LV systolic function on echocardiography	*EF 55% or more*	45.5%	38.5%	p>0.99
Impaired (<55%)	54.5%	61.5%		
IHD Aetiology		18.2%	7.7%	P=0.44
Number of comorbidities		3.8±2.7	5±2.9	P=0.3
Rockwood frailty score		6 [5, 6]	5 [4, 7]	p=0.72
Derby frailty index	*Frail*	54.5%	46.2%	p>0.99
Palliative Care		9.09%	0	-
Systolic Blood Pressure		144.6±21.2	136.9±25	P=0.43
Creatinine		119.5±37	113.7±48	P=0.75

Abstract 96 Table 2

		Inpatient (n=11)	Outpatient (n=13)	p-value
Number of full days out of hospital within 30 days of randomisation {min, max}		16 [12.5,20.5] {min 0, max 27}	29 [20.5, 29] {min 0, max 29}	**p=0.015**
Readmissions	*Within 30 days of randomisation*	2	5	p=0.52
	Within 60 days of randomisation	2	6	p=0.31
Serious adverse event (any cause)	*before end of diuretic treatment*	1	1	p>0.99
	within 30 days of randomisation	4	4	p>0.99
	within 60 days of randomisation	5	6	p>0.99
Oedema symptoms resolved	*Two values unknown*	5 (45.5%)	9 (69.2%)	p=0.397
Hospital length of stay for Furosemide treatment, after randomisation, during index episode(days)		6.2 (3.6)	1.0 (2.0)	**p<0.001**

There was no statistically significant difference in all-cause mortality. Only one patient, who was randomised to inpatient care, died.

Patients randomised to in-patient care accrued 16 [IQR 12.5 to 20.5] days alive out of hospital compared to 29 [IQR 20.5 to 29] days for those assigned to out-patient care (p=0.015). Two patients randomised to in-patient care required readmission within 30-days compared to five assigned to out-patient care.

Using these data, we calculate that a trial using this primary endpoint would require 92 patients to show, compared to standard in-patient care, that outpatient care leads to at least two more days alive and out of hospital with 90% power.

Conclusion In this feasibility RCT, out-patient intravenous diuretic treatment was associated with a favourable outcome compared to standard inpatient care which might also be a cost-effective and an approach to care preferred by many patients.

Conflict of Interest No conflict of interest

97 IS IMPROVED HEART FAILURE MORTALITY UNDER CARDIOLOGY BECAUSE CARDIOLOGISTS ARE 'CHERRY-PICKING'?

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10.1136/heartjnl-2020-BCS.97

Introduction Heart Failure mortality is high -7% if patients are under the care of Cardiologists, or 11% if under general physicians (according to the national heart failure audit in 2013). It is unclear whether cardiologists are 'cherry-picking' patients who are less frail with fewer co-morbidities.

Hypothesis and Aim Cardiologists select patients who are less frail with fewer co-morbidities. We also aimed to compare the

compliance to NICE quality standard and length of stay between patients admitted to general medical wards, cardiology ward in the Lancashire Cardiac Centre, and an Acute Cardiac Ward (ACW)-'Ward 19', led by Consultant Cardiologists, supported by a team of Cardiology juniors and nurses, adjacent to our Acute Medical Unit (AMU) in the District General Hospital (DGH) part of the Trust.

Methodology The study was carried out in Blackpool Victoria Hospital. The data was collected from 99 patients admitted to Blackpool Victoria Hospital. Data was collected retrospectively (random sample from 2016-8).

Results There is no significant difference in Derby Frailty Index between patients admitted to DGH wards, the ACW and Tertiary Cardiac Centre wards. The Rockwood frailty score was slightly higher in the DGH wards compared with the ACW, but not significantly different with the tertiary centre wards. More co-morbidities were observed in patients in the DGH wards compared with the ACW but not significantly different compared with the tertiary centre. However, there is no significant difference in the age of patients, or proportion of patient on palliative care. Importantly, the proportion of people who suffered 'falls'/ reduced mobility was

Abstract 97 Table 1

RESULTS: FRAILTY ANALYSIS- BASIC CHARACTERISTICS

	Cardiac Center[1] N=48	DGH[2] N=39	ACW[3] N=12	P
Age	80[66,84]	81[73,88]	82[74.5,90]	NS
Female	31%	51%	58%	0.023[2 vs 3 P=0.018]
Number of co-morbidity	6[4,7.25]	6[5,7]	5[4,6]	NS
Frail, according to Derby Frailty Index	50%	64%	67%	NS
Rockwood Frailty Score	5[4,6]	6[5,6]	4[3.75,5]	0.012[2 vs 3 P=0.019]
Nursing home resident	2%	13%	17%	NS
Incontinence	17%	26%	8%	NS
Falls	21%	33%	8%	NS
Reduced mobility	56%	74%	58%	NS

Abstract 97 Table 2

TREATMENT AUDIT

	Cardiac Center[1] N=48	DGH[2] N=39	ACW[3] N=12	P
ACEI/ARB/Entresto	69%	59%	75%	NS
Beta blocker	75%	92%	100%	0.024[Pairwise comparison NS]
MRA	60%	18%	50%	0.001[1 vs 2 P=0.0003]
Not on MRA when there is EF < 35%	13%	13%	17%	NS
Not on MRA when there is EF < 35% AND where there is no contraindication or intolerance(e.g. low BP, fall, worsening CKD, hyperkalaemia)	8%	10%	17%	NS
Not on ACEI/ARB/ Entresto if EF < 55%	21%	21%	0%	NS
Not on ACEI/ARB/ Entresto when there is EF < 55% AND where there is no contraindication or intolerance(e.g. low BP, fall, worsening CKD, hyperkalaemia)	8.3%	10%	0%	NS
Not on beta blocker when EF < 55%	8%	3%	0%	NS
Not on beta blocker when EF < 55% AND not prone to fall, low BP or other known intolerance/ contraindication	4%	2.6%	0%	NS

not significantly different between the groups. Thus, our observation that more patients in Cardiology/ACW were receiving MRA could not be explained by lower blood pressure for instance.

Limitations There is significant difference in terms of heart failure treatment received in patients admitted under general medicine vs cardiology. However, tendency to falls in 1/3 of DGH patients may be a clinically important reason that may contribute to lower use of MRA in DGH (even though the small study has not found a statistically significant difference in % of patients who suffer falls). Notably, 13% DGH patients were discharged without echocardiography.

Tendency for DGH wards to have higher frailty score, also multiple markers of frailty–incontinence, confusion, falls/reduced mobility (though not statistically significant) does suggest the cohort is more frail. Equally, they are probably appropriately placed for the MDT delivery of comprehensive geriatric assessment. The key is to ensure they receive cardiology/HF specialist input.

Conclusion We have found no definitive evidence to suggest Cardiologists are cherry-picking patients, in terms of age, creatinine, Derby Frailty index, falls, reduced mobility and palliative care. Patients in the ACW were slightly less frail (Rockwood score) with fewer comorbidities, but the proportion of patients who fall and BP is similar to DGH patients. Despite that, more Cardiology patients are on appropriate HF medication than DGH patients. More research is required to test whether it is possible to safely reduce the length of stay in patients in Cardiac wards and whether frail heart failure patients may cope with outpatient based therapy for acute decompensation.

Conflict of Interest No conflict of interest

98 CHARACTERISTICS AND LONG-TERM PROGNOSIS OF PATIENTS WITH EUROPEAN SOCIETY OF CARDIOLOGY DEFINED HEART FAILURE WITH PRESERVED EJECTION FRACTION PRESENTING TO SECONDARY CARE: PROSPECTIVE COHORT STUDY

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10.1136/heartjnl-2020-BCS.98

Introduction . Heart failure (HF) with preserved ejection fraction (HFpEF) is a growing problem, but its diagnosis and management in routine clinical practice remains difficult. Recent European Society of Cardiology (ESC) guidelines sought to provide a diagnostic framework to identify patients with HFpEF. We aimed to assess the prevalence, characteristics and prognosis of HFpEF patients identified using these guidelines.

Methods We characterised 960 consecutive patients referred from primary care with signs and symptoms of heart failure and elevated NT-proBNP, between 1st May 2012 and 1st May 2013, using the 2016 European Society of Cardiology (ESC) guidelines for the diagnosis and treatment of acute and chronic heart failure.

Results . HFpEF (n=464, 48%) was more common than HF with reduced EF (HFrEF) (n=314, 33%) or neither HFrEF/HFpEF (n=182, 19%). Patients with HFpEF were older, (mean age 83.8 vs. 81.9 years; p<0.01) more frequently female (65% vs. 42%; p<0.01), more likely to have a history of hypertension (64% vs. 49%; p<0.01) and less likely to have a history of myocardial infarction (10% vs. 19%%; p<0.01) than patients with HFrEF. 5-year survival rate was 60.4% (95% confidence interval (CI) 55.9% to 64.9%) in HFpEF, 50.9% (95% CI 45.4% to 56.4%) in HFrEF and 68.1% (95% CI 61.2% to 75%) in patients with neither.

Abstract 98 Table 1 Characteristics of patients presenting to secondary care with suspected heart failure and based on the European Society of Cardiology guidelines for the diagnosis of heart failure with preserved ejection fraction (HFpEF), heart failure reduced ejection (HFrEF) fraction and the absence of heart failure (Neither)

	All n=960	HFpEF n=464	HFrEF n=314	Neither n=182
Age (years)	82.4 (9.5)	**83.8 (8.6)**	**81.9 (10.0)**	**79.5 (10.1)**
Female sex (n [%])	550 (57%)	**303 (65%)**	**131 (42%)**	**116 (64%)**
Prior myocardial infarction (n [%])	121 (13)	**46 (10%)**	**61 (19%)**	**14 (8%)**
Diabetes mellitus (n [%])	226 (24%)	**95 (21%)**	**93 (30%)**	**38 (21%)**
Hypertension (n [%])	548 (57%)	**299 (64%)**	**154 (49%)**	**95 (52%)**
Atrial fibrillation (n [%])	281 (29%)	**155 (33%)**	**99 (32%)**	**27 (15%)**
NT-proBNP (pg/ml)	913 (433-2162)	**846 (439-1707)**	**1622 (678-3843)**	**454 (231-927)**
Bisoprolol equivalent dose (mg/day)	2.5 (3.3)	**2.9 (3.5)**	**2.4 (3.3)**	**1.5 (2.7)**
Ramipril equivalent dose (mg/day)	3.0 (3.7)	3.1 (3.8)	3.0 (3.6)	2.7 (3.5)
Furosemide equivalent dose (mg/day)	16.5 (26.5)	**13.7 (21.7)**	**22.3 (32.4)**	**13.8 (24.6)**

* Kruskal-Wallis test. Bold denotes p<0.05 in test of difference between groups.

Abstract 98 Table 2 Univariate Cox Regression analysis.

	Neither HFpEF/HFrEF		HFpEF		HFrEF	
Variable	**HR**	**95% CI**	**HR**	**95% CI**	**HR**	**95% CI**
Age (per year)	**1.05**	1.02 - 1.08	**1.07**	1.05 - 1.09	**1.05**	1.04 - 1.07
Male sex	**1.75**	1.08 - 2.86	1.02	0.77 - 1.36	1.32	0.96 - 1.82
LVEF (per%)	**0.859**	0.805 - 0.918	**0.962**	0.930 - 0.996	**0.982**	0.968 - 0.997
NT-proBNP (per 10-fold increase)	**3.4**	2.02 - 5.71	**2.71**	2.03 - 3.6	**2.02**	1.51 - 2.71
Prior myocardial infarction	1.66	0.76 - 3.64	1.24	0.8 - 1.92	0.88	0.59 - 1.31
Diabetes mellitus	1.2	0.67 - 2.13	0.99	0.7 - 1.39	1.06	0.76 - 1.48
Hypertension	0.67	0.41 - 1.1	0.97	0.73 - 1.29	1.06	0.78 - 1.45
Bisoprolol equivalent dose (per mg/day)	0.948	0.857 - 1.050	**0.958**	0.919 - 0.999	**0.891**	0.841 - 0.943
Ramipril equivalent dose (per mg/day)	0.976	0.908 - 1.049	**0.959**	0.923 - 0.997	1.016	0.972 - 1.061
Furosemide equivalent dose (per mg/day)	**1.015**	1.008 - 1.021	**1.010**	1.005 - 1.015	**1.011**	1.006 - 1.015