**Abstract 4 Table 2** Prevalence of top contributors to mortality amongst heart failure patients discharged on weekdays and weekends

	Discharged on Weekday	Discharged on Weekend
Heart Failure	27944 (100%)	3816 (100%)
IHD	12052 (43.1%)	1592 (41.7%)
Lung Cancer	505 (1.8%)	63 (1.7%)
Breast Cancer	543 (1.9%)	90 (2.4%)
Colon Cancer	198 (0.7%)	38 (1.0%)
Cerebrovascular Disease	2344 (8.4%)	311 (8.1%)
COPD	5699 (20.4%)	690 (18.1%)
CKD	4338 (15.5%)	543 (14.2%)
Dementia	1894 (6.8%)	258 (6.8%)
Pneumonia	4490 (16.1%)	619 (16.2%)

statistically greater for heart failure patients discharged on weekends after cox regression analysis accounting for differences in age, gender, ethnicity and the top contributors to mortality (OR 1.270, 95% confidence intervals 1.219–1.323). Kaplan-Meier survival analysis demonstrated that although 5-year survival for heart failure patients discharged on Monday-Friday were similar, survival for those discharged on Saturday/Sunday was greatly reduced.

Conclusions We have demonstrated that long-term mortality of heart failure patients discharged on weekends is significantly higher than those discharged on weekdays. Further research is required to elucidate the reasons for these disparities and could relate to premature discharge or lack of community care for heart failure patients discharged on weekends.
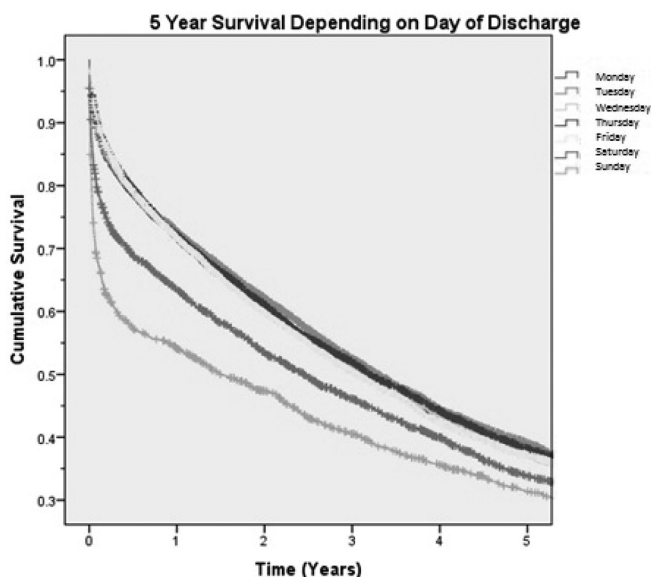
Abstract 4 Figure 1 5 year survival depending on day of discharge

5 THE IMPACT OF PSYCHIATRIC COMORBIDITIES ON THE LENGTH OF HOSPITAL STAY IN PATIENTS WITH HEART FAILURE

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Introduction Heart failure (HF) is a major healthcare problem contributing significantly to hospital admission stays and NHS spending. Reducing length of hospital stay (LOS) in HF is paramount in reducing this burden and is influenced by factors relating to the condition, sociodemographics and comorbidities. Psychiatric comorbidities are being increasingly identified amongst HF patients but their impact on LOS has not been studied in the UK.

Objectives We aimed to investigate the impact of psychiatric comorbidities on length of hospital stay in a large database of patients admitted with heart failure to hospitals in the North of England over a 14-year period between 2000–2013.

Methods Anonymous information on heart failure patients was obtained from the local health authority hospital activity register for hospitals in North West England between 1st January 2000 and 31st March 2013. This data was analysed according to the ACALM (Algorithm for Comorbidities, Associations, Length of stay and Mortality) study protocol. ICD-10 and OPCS-4 codes were used to trace HF patients, psychiatric comorbidities and demographics including LOS. LOS of HF patients with and without psychiatric comorbidites were compared by logistic regression. P values of <0.05 were taken as statistically significant.

Results Of 929552 patients admitted during the study period 31760 patients had heart failure. The mean age of heart failure patients was 73.6, 50.3% were male and the majority were of Caucasian origin (85.1%). Amongst 31760 HF

Abstract 5 Table 1 Length of stay in patients with heart failure and comorbid psychiatric diagnoses

Psychiatric Diagnoses	Prevalence n (%)	Mean LOS (Days)	Mean Difference in LOS compared to no comorbidities (95% confidence intervals)
No co morbidities	27757 (87.4%)	11.2	0.0 #
All co morbidities	4003 (12.6%)	14.4	3.3 (2.6-3.9)***
Dementia Total	2152 (6.78%)	15.5	4.2 (3.3-5.1)***
Dementia (NOS)	1663 (5.24%)	15.9	4.6 (3.6-5.6)***
Depression	1025 (3.23%)	14.9	3.4 (2.1-4.7)***
Tobacco Abuse	1011 (3.18%)	8.0	-3.7 (-5.0- -2.4)***
Alcohol Abuse	581 (1.83%)	11.4	-0.2 (-1.7-1.2)
Vascular Dementia	514 (1.62%)	14.6	3.0 (1.2-4.8)***
Anxiety Disorders	350 (1.10%)	10.3	-1.3 (-4.1-1.5)
Schizophrenia	179 (0.56%)	13.0	1.4 (-2.1-4.9)
Opioid Abuse	84 (0.26%)	15.4	3.8 (-3.4-11.0)
Bipolar Disorder	58 (0.18%)	20.4	8.8 (3.5-14.2)***
Parasuicide	49 (0.15%)	11.1	-0.5 (-7.5-6.6)
Phobic Disorders	44 (0.14%)	8.1	-3.5 (-7.1- 0.0)
Overdose	39 (0.12%)	7.9	-3.7 (-10.4-2.9)
Alzheimer's Disease	30 (0.10)	9.2	-2.4 (-8.1-3.3)

patients mean LOS in the absence of psychiatric comorbidities was 11.2 days. Presence of a psychiatric comorbidity increased LOS by 3.3 days. Logistic regression accounting for age, gender and ethnicity showed that LOS was significantly longer in patients suffering from depression (3.4 days), bipolar disorder (8.8 days), dementia (4.2 days), dementia unspecified (4.6 days) and vascular dementia (3.0 days). Conversely, LOS was significantly reduced by 3.7 days in patients with comorbid tobacco abuse.

Conclusion Our results demonstrate that psychiatric comorbidities have a significant and clinically important impact on LOS in HF patients in the UK. Clinicians should be actively aware of psychiatric conditions amongst HF patients and manage them to reduce LOS and ultimately the risk for patients and financial burden for the NHS.

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6   **THE IMPACT OF THE INTRODUCTION OF AN INTEGRATED HEART FAILURE SERVICE AT TORBAY DISTRICT GENERAL HOSPITAL**

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Purpose Torbay Hospital is a medium sized District General Hospital (DGH) in the South West of England with a resident *population* approaching 300,000. We have been involved in NICOR (National Institute for Cardiovascular Outcomes Research) since its inception and continue to supply annual data to the National Heart Failure Audit. In May 2013 we established an integrated heart failure service (IHFS) at our hospital and describe the effect of this on this service.

Methods The IHFS comprises two cardiologists with an interest in heart failure and five heart failure nurse specialists (HFN) who rotate between the hospital and community (two were already trained and worked in the community under primary care, three (2.4 WTE) were new appointments who all needed training in heart failure). The IHFS aims to identify

patients early following their admission, has daily out-reach ward rounds, and weekly HF meetings.

Results The Table 1 below shows NICOR audit data before, in the first transition year and after the introduction of the IHFS.

Conclusions We have shown that with the appointment of an additional 2.4 WTE HFNs and some re-structuring of our cardiology services it is possible to improve the management of

Abstract 6 Table 1 NICOR audit data before, in the first transition year and after the introduction of the IHFS

		2012–2013	2013–2014	2014–2015
		Pre-IHFS service	Transition	Post-IHFS service
Admissions		408	507	516
Cardiology ward (%)		33	42	48
Cardiologist input (%)		48	47	52
HF specialist input (%)		81	86	90
Echocardiogram performed (%)		72	74	81
Mean length of stay (days)		7.6	9	8.6
Mortality within 30 days (%)		9.4	8.6	9.1
Readmission (%)		25	22	22
HFREF:				
Disease modifying drugs (%)	ACEi/ARB	62	92	99
	Beta-blocker	50	76	94
	MRA	50	44	75
HFN follow-up (%)		28	48	66
COMMUNITY				
Consultations	Home	489	822	827
	HFNS clinic	593	956	1248
	Other	22	64	88
	Total	1104	1842	2163