levels were the most sensitive markers of CHF and so predictive of alerts, leading to early and increased frequency of Heart Failure Nurse contact and significant intervention, possibly helping in prevention of hospitalisation and in turn conservation of valuable financial resources.

**Conflict of Interest** None

---

**100 INTRAVENOUS IRON IN SYMPTOMATIC HEART FAILURE IS SAFE AND COST-EFFECTIVE**

James Redfern, John Hung, Beverly MacCarthy-Ofosu, Rachel Goode, Valerie Wallace, Clare Quantermian, Archana Rao, Liverpool Heart and Chest Hospital

10.1136/heartjnl-2020-BCS.100

**Introduction** Heart failure (HF) affects approximately 1 million people in the UK, adversely affecting quality of life, functional capacity and cognitive health. This results in frequent hospitalisation and significant healthcare costs1, 2. Iron deficiency complicates heart failure in approximately 50% of patients3, and is increasingly recognised as a significant contributor to morbidity in this group. Intravenous ferrous carboxymaltose (FCM) has been shown to improve quality of life (New York Heart Association [NYHA] class and Kansas City Cardiomyopathy Questionnaire [KCCQ]), performance in 6-minute walk test (6MWT), reduce hospitalisations, and is reflected in international guidelines4-7. We aimed to assess the feasibility, safety and cost implications of establishing an IV iron service for patients with HF in a large tertiary cardiology centre.

**Method** Over a 6-month period (July-December 2019), outpatient patients with symptomatic heart failure (NYHA class ≥2) and severe left ventricular systolic dysfunction (LVEF ≤40%) were screened, and serum iron studies performed. Patients with iron deficiency (ferritin <100ug/mL or 100-300ug/mL and transferrin saturation [TSAT] <20%) were included and were excluded if polycythaemic (Hb ≥150g/L) or if there was evidence of active infection. A course of FCM was administered according to newly developed local protocols within the infrastructure of the existing IV iron service. Quality of life scores (NYHA and KCCQ) and serum measures of iron deficiency (Ferritin, TSAT, Hb) were compared at baseline and 12 weeks. Patients with symptomatic heart failure (NYHA class ≥2) and serum measures of iron deficiency were considered for IV iron replacement.

**Results** Fifty-two patients underwent IV iron replacement (69% male, mean age 66 years) with no significant adverse events or hospital admissions. The financial impact to the trust was a net income of £55 per patient (FCM treatment £290, remuneration £345). Ferritin increased significantly 83.3ug/L to 433ug/L (p<0.0001) as did TSAT, 18% to 30% (p<0.0001) and Hb, 126g/L to 135g/L (p<0.01) [Figure 1]. Mean NYHA class and KCCQ scores were unchanged (2.5 to 2.3 [p=0.09] and 35-36 [p=0.68] respectively)

**Conclusion** Utilisation of the existing iron infusion service facilitated the delivery of IV iron replacement for patients with heart failure with little need for additional training and resources. Delivery of the service did not incur additional cost to the trust and in fact there was a small net gain. In-keeping with published data we demonstrated comparable improvements in serum iron parameters and a trend towards improvement in NYHA class.

IV iron replacement with FCM is safe and affordable and should be considered in all iron deficient patients with symptomatic heart failure.

**Conflict of Interest** None

---

**101 HEART FAILURE, DIABETES AND USE OF SGLT2 INHIBITORS – A MISSED OPPORTUNITY**

1Soham Coomer, 2Shrut Jain, 2Thet Tun, 2Somnath Kumar. 1Imperial College London; 2Lancashire Teaching Hospitals

10.1136/heartjnl-2020-BCS.101

**Introduction** Individuals with type 2 diabetes mellitus (T2DM) and cardiovascular (CV) disease have very high CV risk. Recently, SGLT2 inhibitors (SGLT2i) in diabetic patients with heart failure (HF) have been shown to decrease mortality and recurrent hospital admissions. The ESC guidelines suggest using SGLT2i to lower risk of HF hospitalisation (class IA evidence). We ascertained whether appropriate patients with T2DM and HF, admitted to the hospital, were prescribed SGLT2i during the admission.

**Methods** We gathered data from consecutive patients diagnosed with HF and T2DM admitted to Lancashire Teaching Hospitals between March and September 2019. Patients with an eGFR <60mmol/mol were excluded (BNF recommendations). We also analysed patients with an eGFR between 45 and 59mmol/mol as the cut-off for SGLT2i prescription is imminently changing.

**Results** 132 patients (mean age 77 ±11 years, 75 males) were studied. The mean HbA1c was 58mmol/mol ± 19 with a median value of 52mmol/mol; median NT-ProBNP was 3802pg/mL. 27 patients (21%) met the criteria for SGLT1 (eGFR ≥ 60) but none were prescribed the medication. Two patients were already on an SGLT2i. If the cut off dropped to 45mmol/mol, the number of eligible patients not receiving SGLT2i would rise to 55 (42%).

**Conclusion** A review of the current literature suggests that in eligible patients, HF re-admissions can be reduced by 35% using SGLT2i. In our study, 21% (eGFR ≥ 60) and 42% (eGFR ≥ 45) could have been prescribed an SGLT2i. We believe this is a missed opportunity during acute admissions. During such admissions, a patient may develop AKI, leading to a transient reduction of eGFR. Hence, we expect that the opportunity for prescribing SGLT2i may be larger than demonstrated in our study. We propose that the effectiveness of