Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Coronavirus (COVID-19)

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The Decrease in Hospitalizations For Heart Failure During the Covid-19 Pandemic: A Community and Academic Hospital Comparison Study

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Introduction: During the novel coronavirus (COVID-19) pandemic, the incidence of cardiovascular hospitalizations has been observed to decrease. The patient behavior, clinician behavior and pathophysiological contributors are currently unclear. We sought to determine if the pattern of heart failure (HF) hospitalizations was the same between 1 Academic Hospital with Advanced HF and Transplant services and 2 Community Hospitals, within a single health system in Massachusetts (MA). **Methods:** The 3 hospitals, Academic/Advanced HF Hospital A, Community Hospital B and Community Hospital C, are all located within 30-mile radius and share many clinical protocols, although HF hospitalizations at Academic/Advanced HF Hospital A include advanced HF therapy referrals and patients listed for heart transplantation. We retrospectively reviewed the weekly adult hospitalizations for HF, defined as patients ≥18 years discharged with a principal diagnosis of HF per ICD-10 coding (I110, I130, I132, I50 subsets) across the 3 hospitals, between January 1 and April 26 in 2019 and 2020. The weekly hospitalization volumes for 2019 and 2020 were displayed as a bar graph, alongside the total MA COVID-19 diagnosis and key dates in the pandemic response, for each hospital. **Results:** The volume of weekly hospitalizations for HF in March and April 2020 were lower at all 3 hospitals, as compared to 2019 (Figure 1). At Academic/Advanced HF Hospital A, the reduction in weekly HF hospitalizations began in mid-February, prior to the MA 'state of emergency' declaration effective March 11 and the 'stay at home' order effective March 24, 2020. Conversely, at Community Hospitals B and C the reduction in hospitalizations for HF (compared to 2019) occurred closer to the 'stay at home' order. The date on which each hospital formally ramped down non-urgent outpatient visits and procedures occurred first for Academic/Advanced HF Hospital A, but HF hospitalization volume reduction still appeared to precede this announcement. **Conclusion:** The decrease in hospitalizations for HF during the COVID-19 pandemic began in an Academic/Advanced HF Hospital before the MA 'state of emergency' and 'stay at home' orders, but around the time of the 'state of emergency' order in 2 affiliated Community Hospitals. This observation suggests that the factors driving HF volume during a pandemic may differ across patient populations and hospitals, even within the same region.

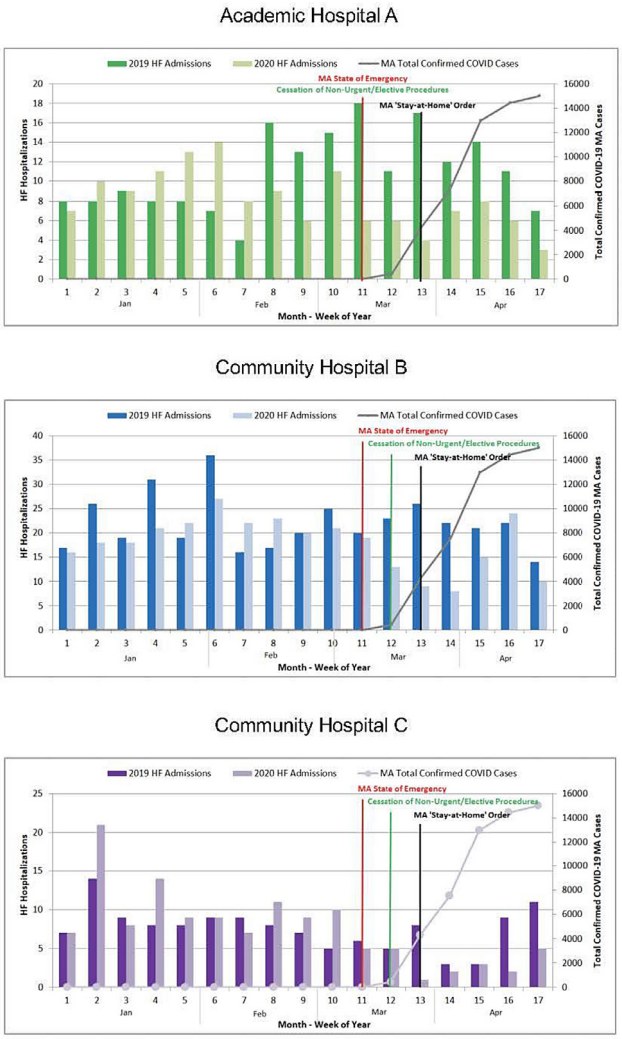

Figure 1. Heart Failure Admissions and Massachusetts COVID-19 Diagnosses

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Heart Failure Hospitalization Trends During the Early Phase of the COVID 19 Pandemic

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Purpose: To quantify the change in heart failure (HF) hospitalizations observed in the early phase of the COVID-19 pandemic across a large, multi-center health care system. **Methods:** MHealth Fairview encompasses four hospitals (one academic, three community-based) in the Minneapolis, Minnesota metro area. To compare HF hospitalization trends, two inpatient samples were created using HF discharges in the following time periods: pre COVID-19 (February 28, 2019-February 28, 2020) and post COVID-19 (April 1, 2020- May 15, 2020). March 2020 was excluded as this represented a transition point of the pandemic in the United States. Average number of discharges per day as well as demographics, diagnosis related group (DRG) codes, and inpatient mortality was then compared between the two inpatient HF samples. **Results:** The pre COVID-19 group had 2,601 patients with an average of 7.1 (+/-3) discharges per day. The post COVID-19 group had 210 patients with an average of 4.7 (+/-1.7) discharges per day, which represented a 34% reduction in HF discharges ($p < 0.001$). No statistically significant differences were observed between the pre and post COVID-19 inpatient samples with respect to age (76 vs. 75 years, $p = 0.25$), gender (46% vs. 48% male, $p = 0.7$), and DRG codes (DRG 291: 78% vs. 85% $p = 0.15$). Inpatient HF mortality pre and post COVID-19 was not significantly different (3% vs. 2.9%, $p = 0.99$). **Conclusion:** HF hospitalizations have decreased significantly during the early phase of the COVID-19 pandemic in this multi-center health care system, however the make-up of hospitalized patients remains similar. There is an urgent need to provide continued access to safe hospital care during the pandemic and to inform HF patients that inpatient care remains available.

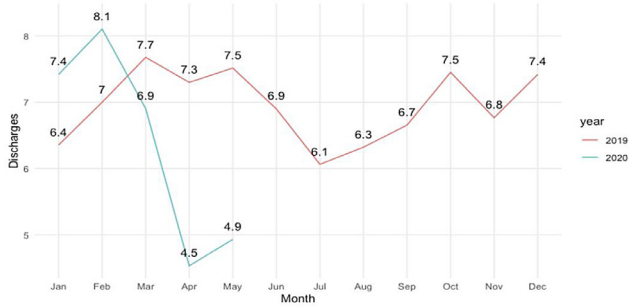

Figure 1. MHealth Fairview Inpatient HF Discharges per Day by Month

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Clinical Implications of Myocardial Involvement with Covid 19: A Case Control Study

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Background: As the number of deaths exceeds 100,000, Coronavirus Disease 2019 (COVID-19) has now become the third leading cause of death in the United States. In severe cases, the virus acts through a surge of immune modulators causing multi-organ damage and failure. The hypothesis that new onset HFrEF contributing to higher mortality and morbidity in patients with COVID-19 has yet to be tested. **Methods:** We extracted transthoracic echocardiogram (TTE) reports of all COVID-19 patients (confirmed by serology) from 4 hospitals within the Steward Healthcare System done between 3/22-4/24 of patients with no known heart failure who developed