Submission Id: 3883

Title

Clinical Outcomes of a Newly Instituted Hospital at Home Program During the COVID19 Pandemic

Priority 1 (Research Category)

Acute and emergency care

Presenters

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Abstract

Context: The COVID19 pandemic stressed U.S. health systems beyond their capacity and created worsening clinical outcomes. Hospital a Home (HaH) programs were utilized infrequently prior to pandemic. The Acute Care at Home Waiver was introduced in 2020 to facilitate the creation of HaH programs with a goal of promoting treatment in the home setting. A potential alternative approach to creating rapid inpatient level health system capacity is providing hospital-level care at home to substitute for inpatient hospitalization. The overall impact on clinical outcomes of a HaH program in patients with COVID19 is not well understood. Objective: To compare clinical outcomes of a HaH program versus usual hospital care for patients admitted for COVID19. Study Design: Matched casecontrol retrospective chart review. Setting or Dataset: Academic medical center. Population studied: Patients admitted with COVID19 and subsequently enrolled into the HaH program from February 1, 2021 to January 31, 2022. Patients aged <18 were excluded from consideration for enrollment. A casecontrol sample was matched on age, gender, and severity of illness. A total of 200 patients (100 HaH and 100 control) were included for analysis. Outcome Measures: Primary outcome: 30-day readmissions, Secondary outcomes: Inpatient length of stay (iLOS) defined as length of stay in the physical hospital, total length of stay (tLOS) (sum of iLOS and HaH program days), time to readmission, and 30-day emergency department visits. Results: Analysis included 200 patents. The mean age was 50.4. The sample was 55% female. 48.5% were black, 43.5% were white, and 8% were other races. Compared with usual care patients, HaH patients had no difference in 30-day readmissions (11% vs. 14%, p=0.648), mean days to readmission (9.0 vs. 11.8, p=0.201), or return ED visits (17% vs. 20%, p=0.701). Inpatient LOS (5.7 vs. 9.4 days, p=0.005) was shorter in the HaH group. Total LOS (13.0 vs. 9.4 days, p<0.001) was longer in the HaH group. Conclusions: The HaH program was associated with no difference in readmissions, time to readmission, or return ED visits compared to usual hospital care. HaH programs were associated with shorter inpatient length of stays, but longer total length of stays. In surge times, HaH programs could potentially reduce iLOS and increase bed capacity. Future studies should look to evaluate the economic impact of HaH programs and investigate the drivers of the increased tLOS.