

Heart Failure 30-Day Readmission Frequency, Rates, and HF Classification

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Purpose

The purpose of this DNP project is to determine 30-day hospital readmission rates, frequencies, and classifications for patients with heart failure (HF).

Specific Aims

- Compare computed annual readmission rates with national averages
- Determine the number of multiple 30-day readmissions
- Provide descriptive data for demographic variables
- Correlate age and HF classification with the number of multiple readmissions

Background

- Congestive heart failure (CHF) is the leading cause of mortality, morbidity, and disability in patients worldwide.
- Both incidence and prevalence of HF are age-dependent and relatively common in individuals 40 years of age and older.
- CHF is one of the leading causes of inpatient hospitalization readmission in the United States, with readmission rates remaining above the 20% goal within 30 days.
- The Center for Medicare and Medicaid Services imposes a 3% reimbursement penalty for excessive readmissions, including those who are readmitted within 30 days from prior hospitalization for HF. Consequently, hospitals risk losing millions of dollars due to poor performance.
- Reducing CHF readmission rates not only improves healthcare system expenditures; it also decreases patient mortality and morbidity rates and improves patient quality of life.

Methods

Study Design

- Retrospective chart review

Setting

- Urban Hospital located in Memphis, TN

Study Duration

- July 1, 2019-December 31, 2019

Study Population

- Adult patients ages 40-80 with primary diagnosis: acute or chronic HF (and appropriate ICD codes 150)

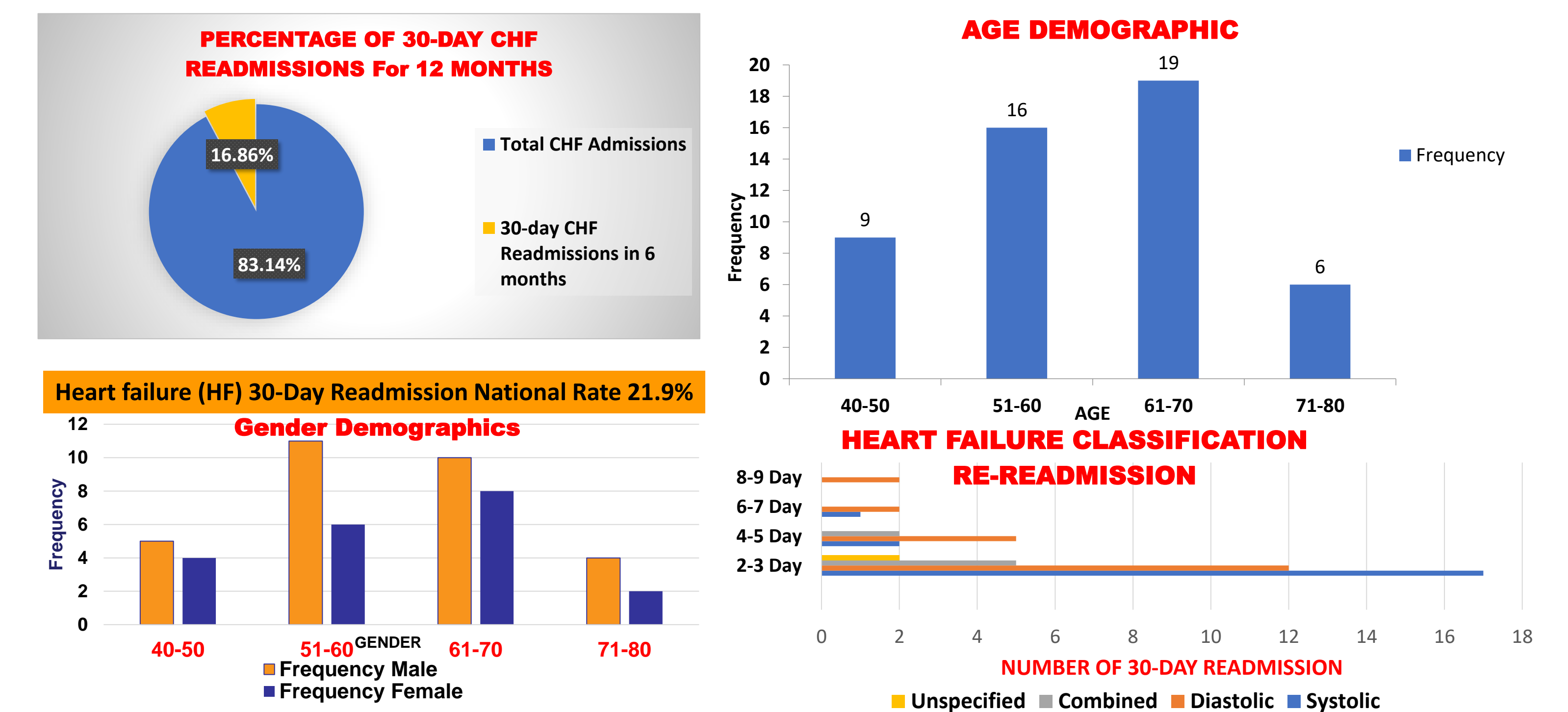
IRB

- UTHSC Institutional Review Board has deemed the project as exempt.

Procedures

- Medical records from July 1, 2019, to December 31, 2019, were queried, including diagnosis for heart failure ICD-10 code beginning with prefix 150.
- Patients ages 40-80 readmitted within 30 days for HF and admitted on multiple occasions for the same diagnosis were identified and used for data analysis.
- All personal information was de-identified during abstraction.
- Data were cleaned, showing only one HF ICD-10 code per person admitted for HF.
- The total number of hospital readmissions was computed and compared to the national average of 21%.
- Statistical functions including descriptive statistics were performed using Microsoft Excel and inferential statistics using R.

Results



- National Average: 21.9% 07/01/2016 - 06/30/2019
- Comparison - Methodist University Hospital - Total of 3524 (83.14%) HF patients. Readmitted: 16.86% (12 mo.); 8.39% (6 mo.), which is **below the national average**.
- Of those readmitted within 30 days, **50 were readmitted on multiple occasions sequentially, ranging from 2-8 readmissions, mostly with Diastolic HF**.
- Median Age: 60; Male: 60%
- Due to the skewed distribution (most readmitted twice), non-parametric statistics were used for correlation. While graphic display of charts suggested a trend for most multiple readmissions being due to diastolic dysfunction and least number due to systolic HF, there was no statistically significant correlation between age and number of multiple readmissions (Spearman rank, $p = 0.6208$) or number of multiple readmissions and HF classification (Kruskal Wallis, $p = 0.2553$).

Implications for Practice

Next Steps

- Collect data regarding associated comorbidities: HTN, DM, CAD, Valvular Disease, CKD, ESRD requiring HD, CVA, and Anemia.
- Determine if a correlation exists between comorbidities and number of HF readmissions using statistical analysis.
- Identify what EBP strategies are currently in place (diet, daily weights, medication adherence, outpatient follow-up appts, symptom recognition).
- Determine the degree to which identified EBP strategies are utilized, including teaching style and teach-back methods.
- Identify strengths and weaknesses of EBP strategies utilized to further reduce 30-day readmissions for HF.

References

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