

The Diabetes Difference: Characteristics of COVID-19 Hospitalizations

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INTRODUCTION

COVID-19 patients with diabetes have a significantly higher risk of disease severity and associated morality outcomes. Globally, up to 50% of COVID cases occur in patients with diabetes. Our outpatient clinic manages the oxygen weaning for COVID patients discharged from our hospital with home oxygen.

Beyond diabetes, little is known about the impact of other comorbidities on the hospital course and prognosis of patients in this population.

OBJECTIVES

Our primary care practice provided remote oxygen weaning for COVID-19 patients discharged from our hospital. This study is part one of a two-part analysis. We sought to understand the differences in the comorbidities and inpatient clinical course in our patients with and without diabetes. Part two of this analysis includes collecting data on the outpatient weaning visits to continue learning about the needs of diabetes patients following a COVID hospitalization.

METHODS

- In this single-center, retrospective, observational study, the data was collected on the inpatient course of 360 patients hospitalized with COVID-19.
- Patients were admitted between April 2020 and September 2021 and discharged to our outpatient clinic for remote home oxygen weaning.
- We evaluated demographics, comorbidities, oxygenation status, length of stay and readmission rates among patients with a diabetes diagnosis (n=142) and those without a diabetes diagnosis (n=218).
- Level of glucose control was not measured.
- Statistical analysis was performed.

PRIMARY FINDINGS:

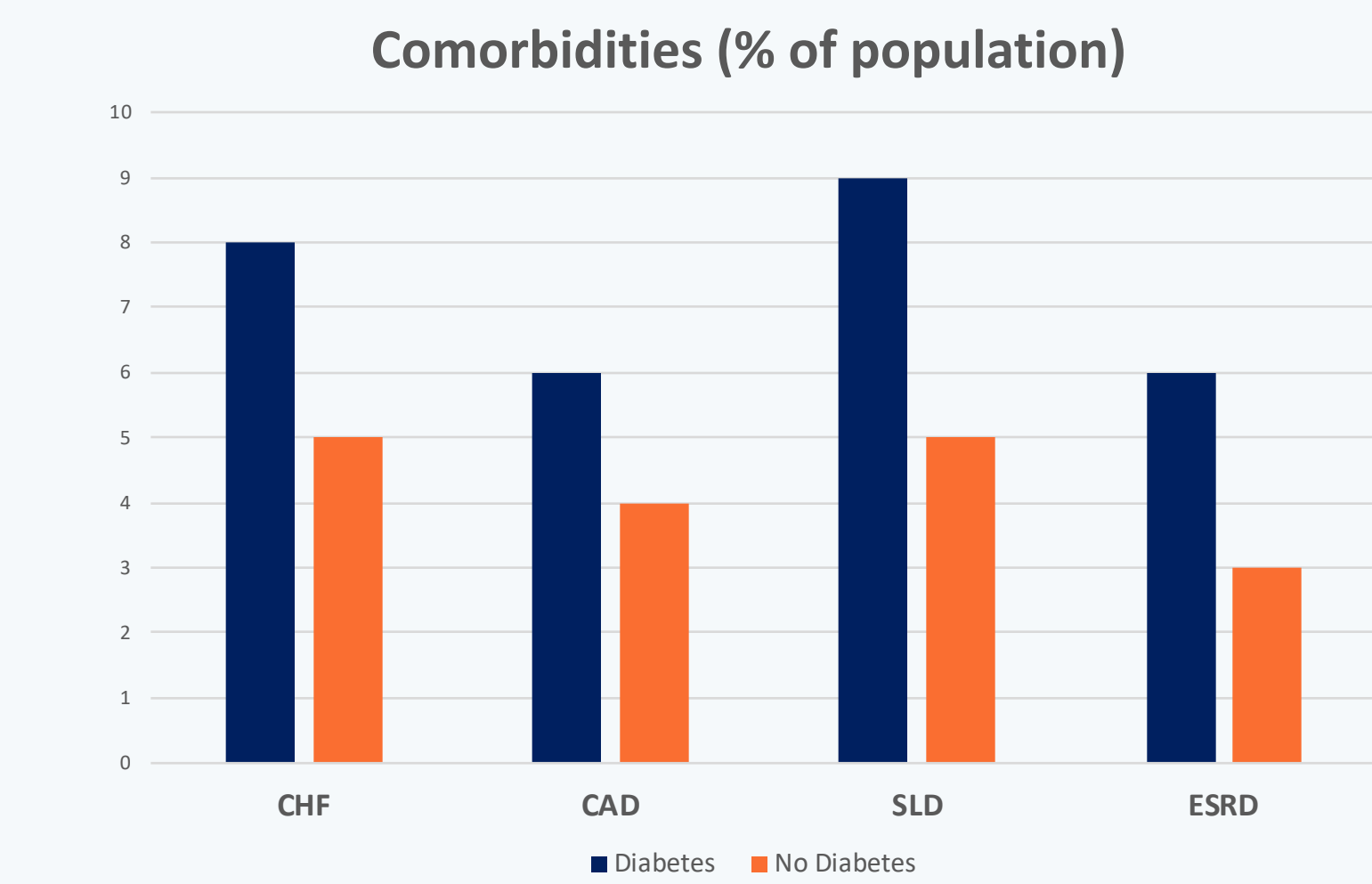
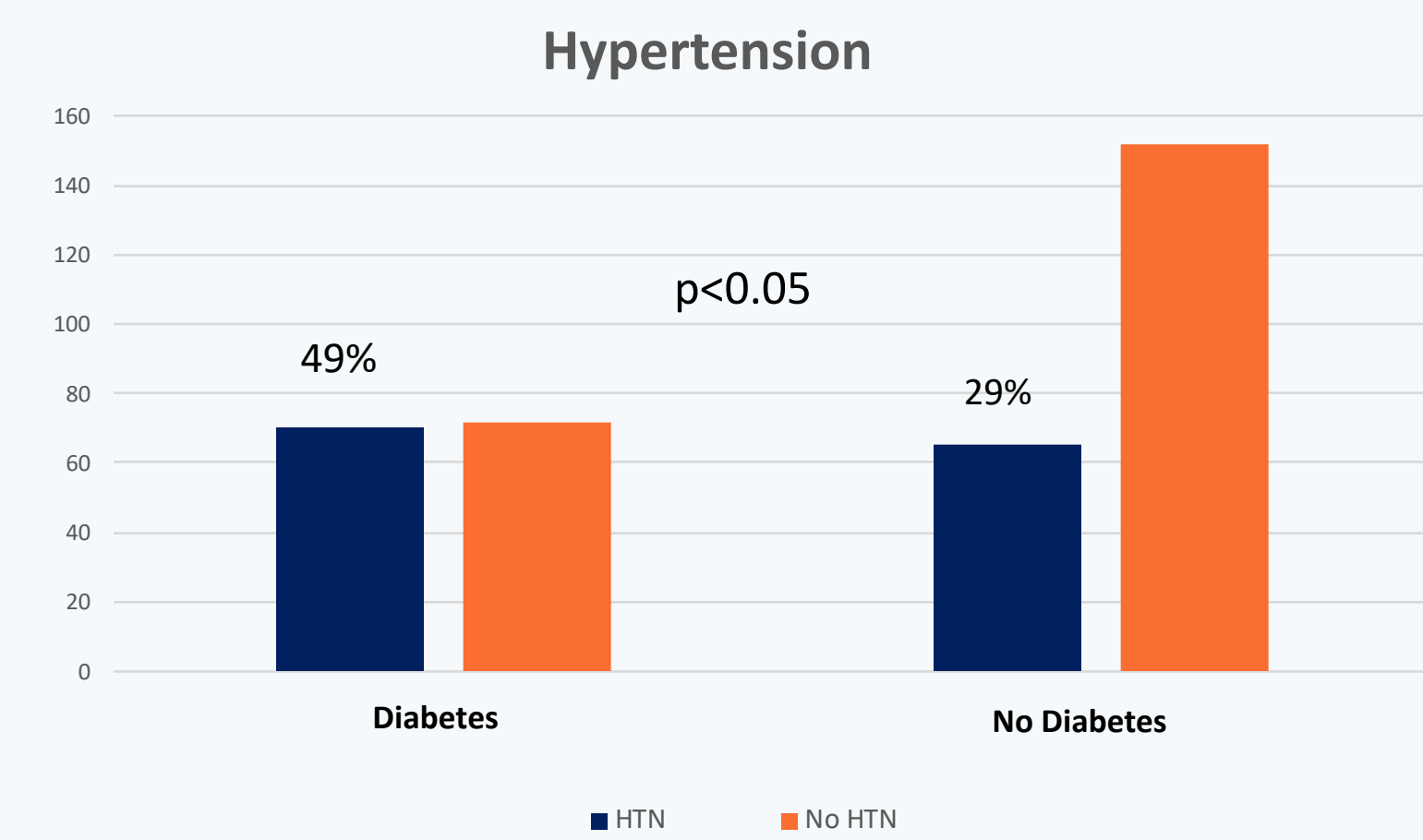
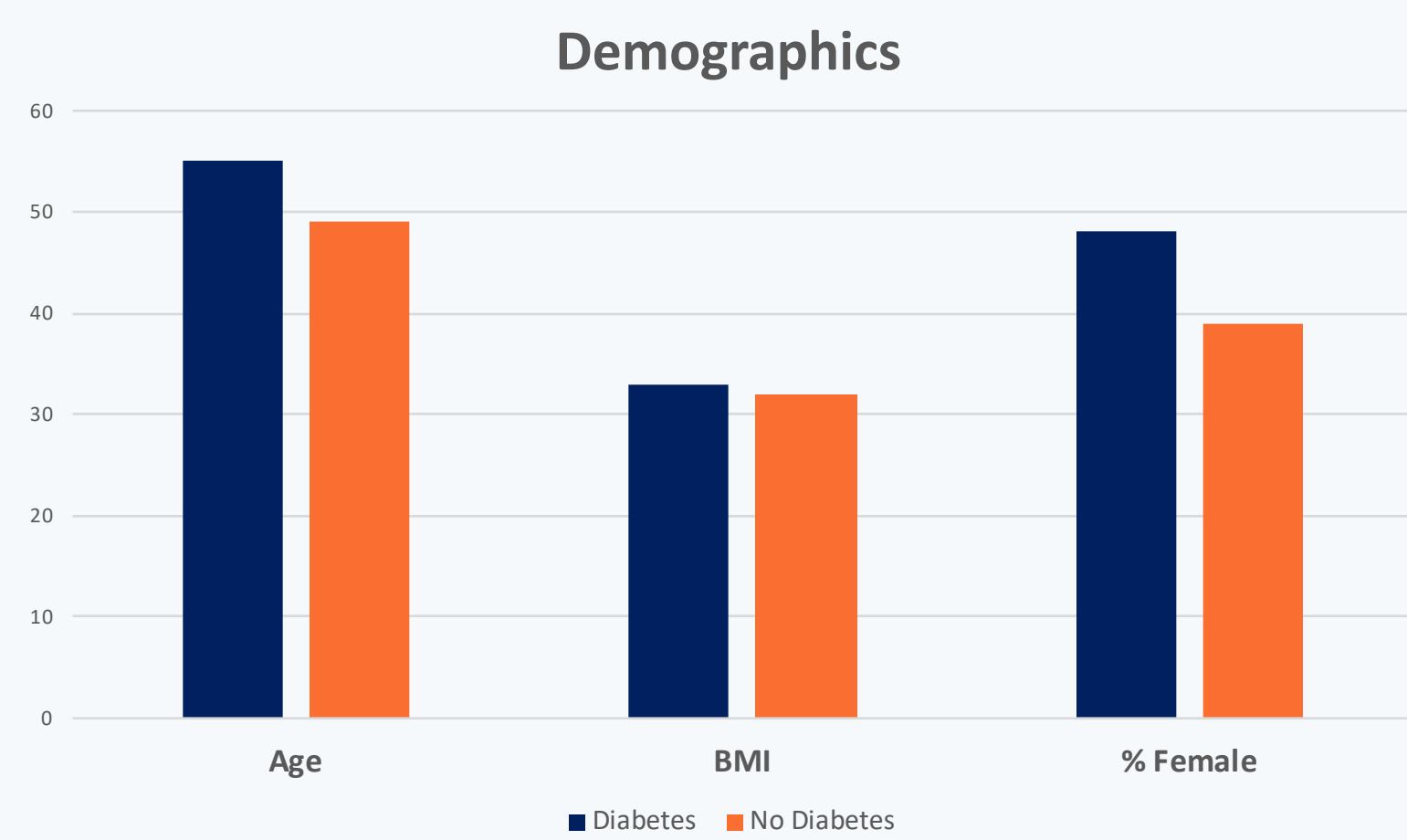
Thirty-nine percent of the 360 patients had a diagnosis of diabetes.

The average length of stay for a COVID-19 patient with diabetes was significantly longer than a patient without diabetes: 13 days vs 9 days.

Patients with diabetes had significantly higher rates of hypertension (49% vs 29%, $p<0.05$) and readmission rates within 90 days (6% vs 1%, $p<0.05$).

Patients with diabetes had higher but nonsignificant rates of CAD, CHF, ESRD, and structural lung disease, and more frequently required mechanical ventilation.

RESULTS



DISCUSSION

- In this population of patients discharged on home oxygen, patients with diabetes were older, more commonly female, and had significantly higher rates of hypertension and readmission within 90 days.
- Although the incidence of other comorbidities were similar among the two groups, the hospital course was longer and more complicated in patients with diabetes.
- Understanding how diabetes contributes to an increased length of stay may lead to better disease management while hospitalized and contribute to improvement in overall outcomes.
- Future research will focus on the outpatient oxygen weaning experience of these patients.

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