



## INTRODUCTION

This is a retrospective chart review of all adult patients (>18 years) with a clinical or laboratory diagnosis of COVID-19 admitted between 3/1/20 to 5/31/20 at a community based medical center. Patient records were analyzed to determine if certain characteristics such as age, gender, body mass index, and the number and type of comorbid conditions may predispose to readmission among patients with COVID-19.

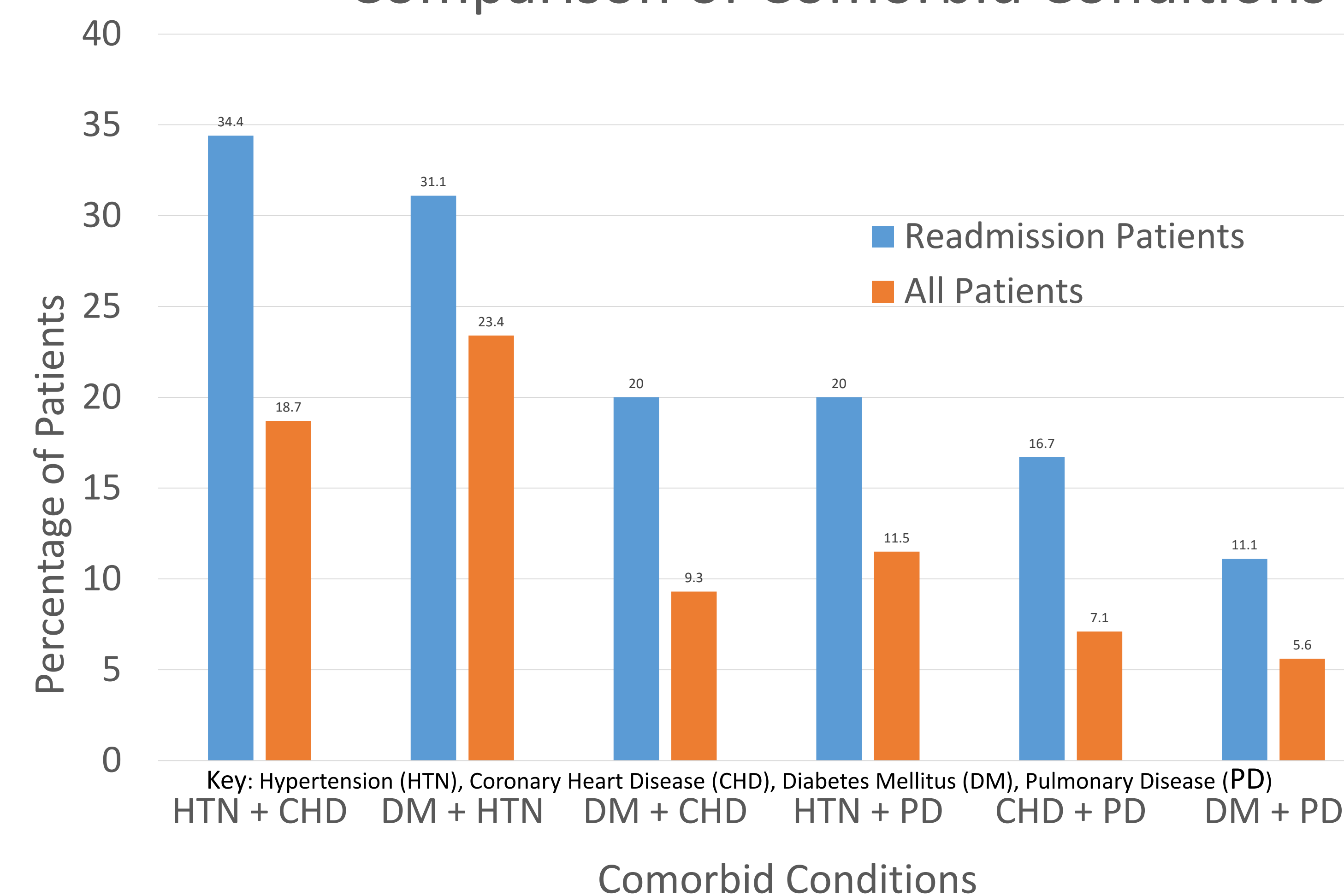
## DESIGN

The Information Technology Department created a database with relevant data. The remaining information was extracted manually by 3 investigators for whom Inter-rater reliability tests showed good concordance.

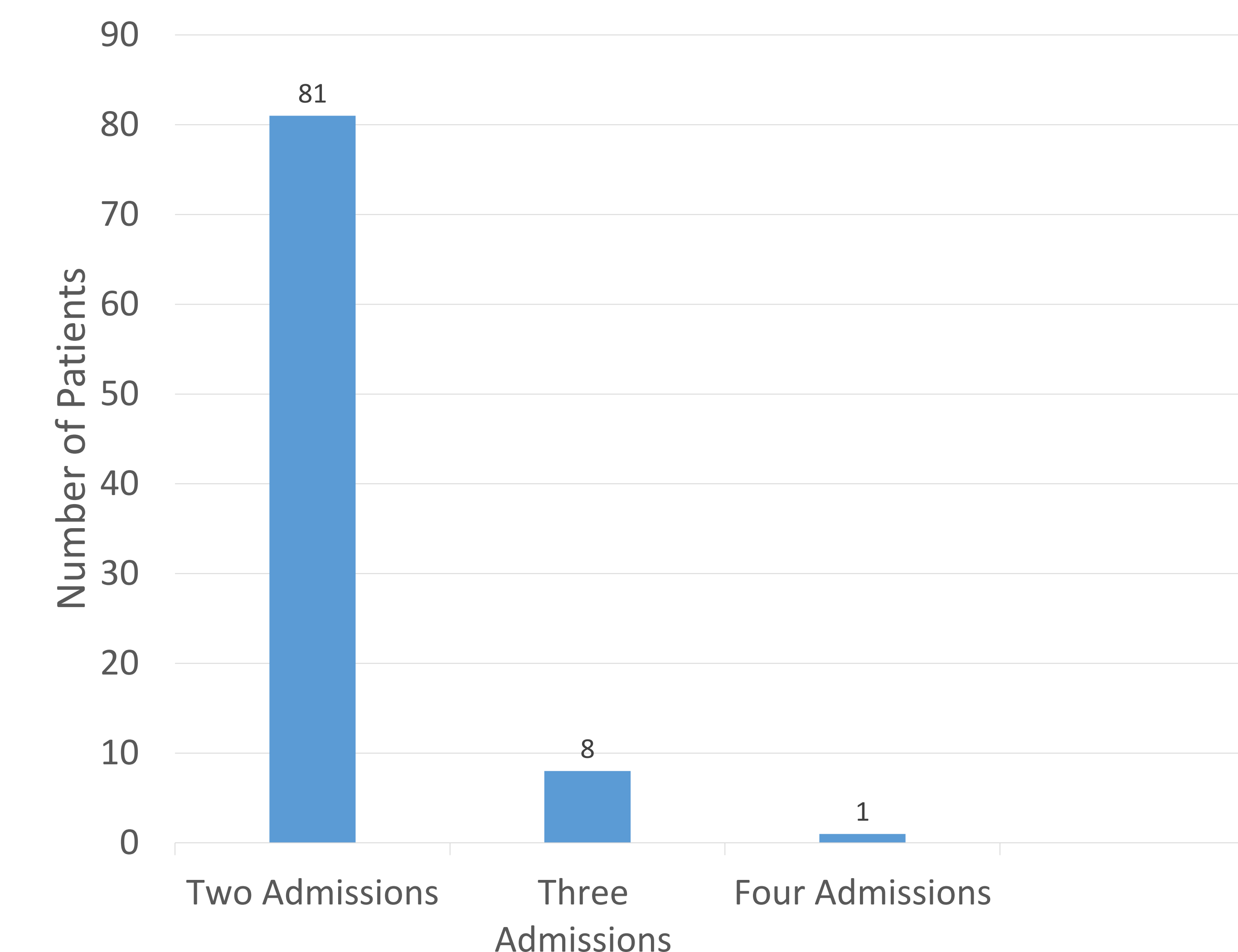
## RESULTS

- 1,314 patient records analyzed. 81 patients admitted twice, 8 three times, and 1 four times.
- When compared to all admissions, patients with readmissions were older (71 vs 66 years), male (61% vs 56%), and had lower preponderance of obesity (24.4% vs 36%).
- Patients of normal BMI were more likely to be readmitted (37.8% vs 26.2%). However, being overweight (35.6% vs 36.7%) or underweight (2.2% in both groups) was not clinically significant.
- More patients in the readmitted group had at least 1 comorbidity (80.0% vs 73.4%).
- The following combinations were most prevalent in readmitted patients: hypertension (HTN) and heart disease (CHD) (34.4% vs 18.7%), diabetes mellitus (DM) and HTN (31.1% vs 23.4%), DM and CHD (20.0% vs 9.3%), HTN and pulmonary disease (20.0% vs 11.5%), CHD and pulmonary disease (16.7% vs 7.1%), DM and pulmonary disease (11.1% vs 5.6%).
- Mortality was similar in both groups.
- There was no difference in ethnicity.

## Comparison of Comorbid Conditions



## Number of Patients with Readmissions



## CONCLUSIONS

- The results of this study show that patients with COVID-19 discharged from a community based medical center can acutely worsen resulting in readmissions.
- Certain characteristics can predict readmission including age, gender, and the number and type of comorbid conditions.
- Obesity appeared to be protective in this sample.
- Hypertension and/or diabetes in combination with cardiac or pulmonary conditions were most predictive of readmission.