

Identifying Factors Underlying Readmissions via Retrospective Chart Review

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Background

- Preventing hospital readmissions has become increasingly important, as readmissions are now a metric of quality care and have an impact on reimbursement.¹
- Readmissions are associated with adverse outcomes as well as increased costs to both patients and hospital systems.²⁻³
- There have been increased efforts to prevent readmissions with studies failing to show a single strategy to be superior.⁴



National 30-day all-cause adult hospital readmission rate of 14%



Average readmission cost of \$15,200



Adverse events include nosocomial infections, medication side effects, falls, and even death

Figure 1. Readmissions are associated with adverse outcomes and are costly for both hospital systems and patients.

Hypothesis and Aims

Hypothesis: Retrospective chart review of readmissions will identify common reasons underlying readmissions and could guide future interventions to reduce readmission rates

Aim 1: Identify the most common factors underlying readmissions

Aim 2: Determine an effective method to intervene on the factors identified in Aim 1

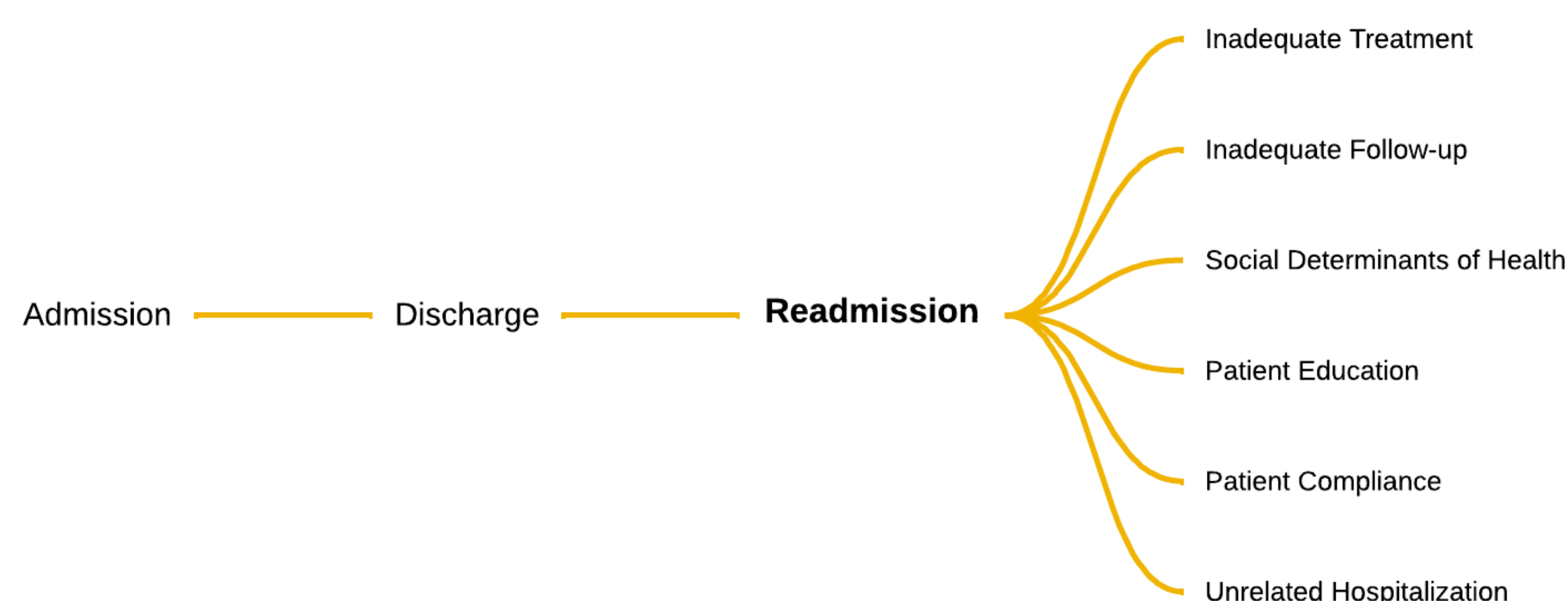


Figure 2. There are several factors that can contribute to readmissions.

Methods

- DHM Data Team provided preliminary data for readmissions to UCH within 48 hours of discharge in June and July 2023
- Two researchers independently reviewed the primary admission and readmission in EPIC to collect further data
- This project met all COMIRB criteria for a quality improvement project and therefore was IRB-exempt

Results/Analysis

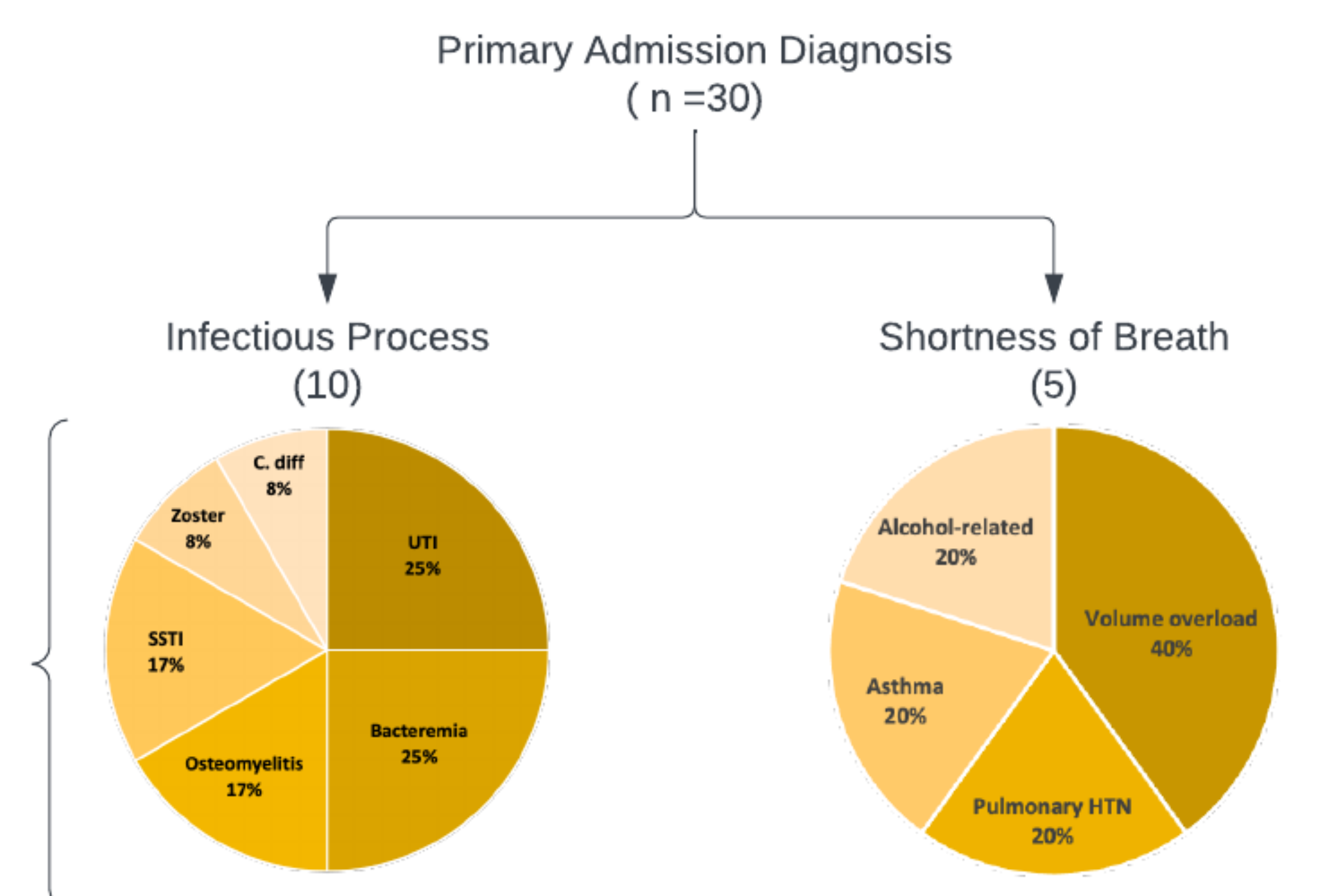


Figure 3. Breakdown of primary admissions for infection and shortness of breath.

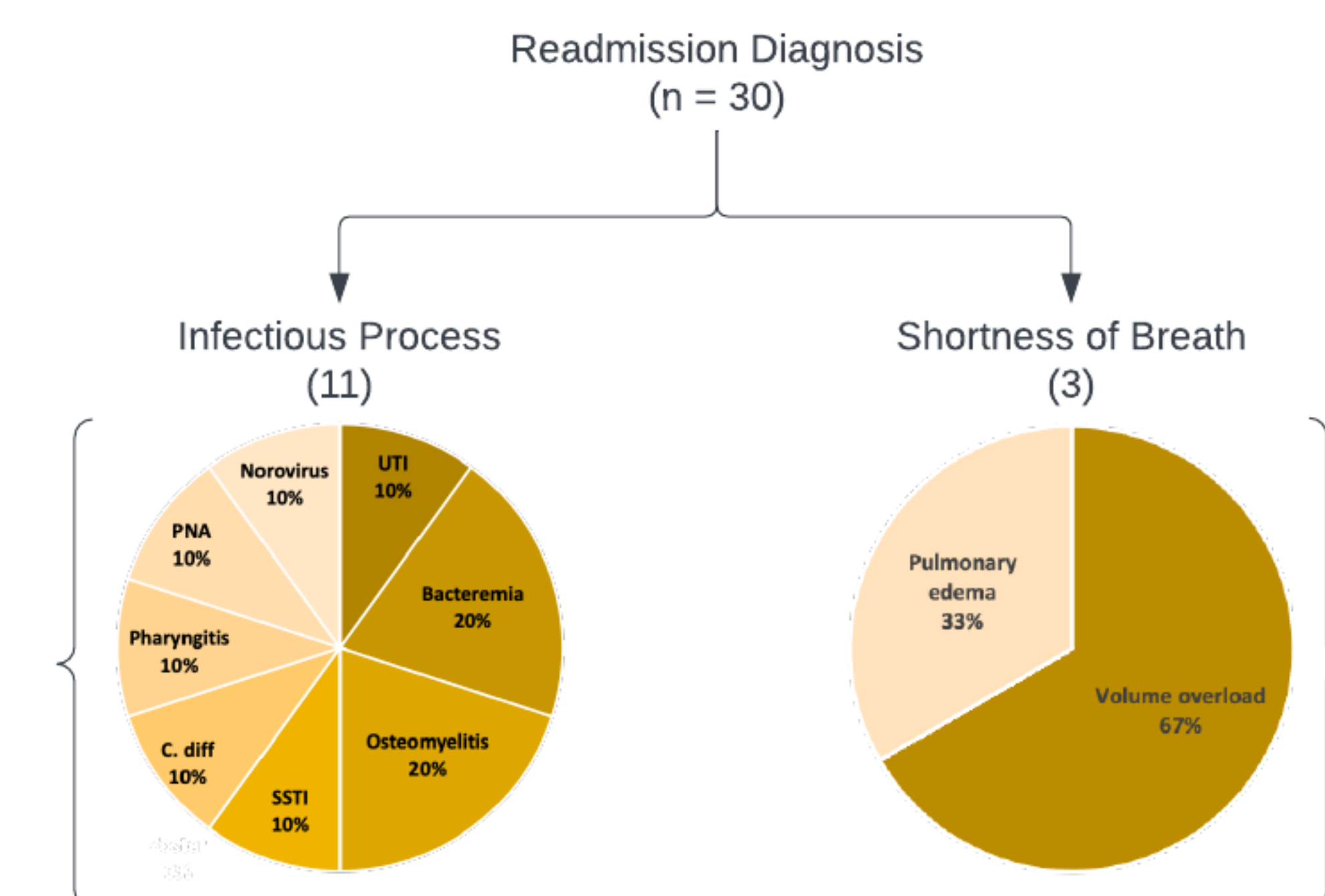


Figure 4. Breakdown of readmissions for infection and shortness of breath.

	Readmission Reason		
	Initial Problem	Complication of Initial Problem	New Problem
AMA Patients (n = 10)	90%	0%	10%
Non-AMA Patients (n = 20)	45%	20%	35%

Table 1. Reasons for readmission for patients who left against medical advice (AMA) versus versus non-AMA.

Discussion

Addressing Aim 1:

- There were a variety of unique reasons underlying readmissions
 - Substance use was a contributing factor in 8 (27%) of the 30 readmissions
- Patients with primary admissions for infectious processes and shortness of breath were most frequently readmitted
- Patients who left AMA were more likely to be readmitted for their primary admission problem than patients who did not leave AMA

Addressing Aim 2:

- Based on the variety of reasons underlying readmissions, we recommend an intervention that can address multiple problems in the post-discharge period

Implications:

- Post-discharge phone calls would be an effective intervention to prevent readmissions
 - Consider selecting patients based on primary admission diagnosis
- Efforts to address substance use disorder and prevent patients from leaving AMA likely have a role in preventing readmissions

Limitations:

- Sample size, no seasonal variability
- Accuracy of information input into HER
- Potential limited external validity

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