



# Post-acute care service use for Lung Cancer Patients

Mitra McLarney MD MPH, Frances Shofer PhD, Jasmine Zheng, MD



## Introduction

- Lung cancer is one of the most prevalent and deadliest cancers worldwide, accounting for an estimated 2.1 million new cases and 1.8 million deaths in 2018<sup>1</sup>
- Rehabilitation has been found to be beneficial in cancer patients; yet, referrals to acute inpatient rehabilitation (IRF) for these patients remain low<sup>2,3,4</sup>
- Low referral rates for cancer patients are in part due to lack of understanding by patients and providers of rehabilitation and its benefits, limited access to rehabilitation, the insidious loss of function in some patients, and concern that rehabilitation would interfere with cancer treatment plans.<sup>4</sup>
- **Objective:** 1. To characterize and compare lung cancer patients who discharge to IRF as compared to those who discharge to skilled nursing facility (SNF), long term acute care hospital (LTACH), and home. 2. To compare 90-day readmission.

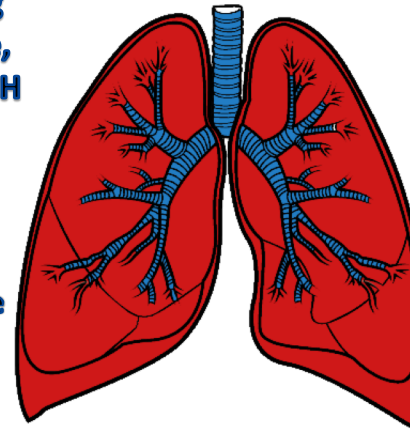
## Methods

- Patient's admitted to the University of Pennsylvania Health System between January 1, 2017 to August 31, 2018 with a diagnosis of lung cancer.
- Data obtained from the Penn Data Store via Electronic Medical Record.
- **Inclusion Criteria:**
  - Admission to one of the Penn Medicine main campuses (Pennsylvania Hospital, Penn Presbyterian Hospital, Hospital of the University of Pennsylvania)
  - International Classification of Diseases, Tenth Edition codes, C34.0-C34.9 to identify adult patients (>18 years of age) with a history of lung cancer.
- Patients discharged to hospice or who expired during acute hospitalization were excluded.
- Data analysis was performed through the use of SAS statistical software (version 9.4, SAS Institute, Cary NC).

## Results

• **Most patients with lung cancer discharged home, 86% vs. 10% to SNF/LTACH vs. 4% to IRF.**

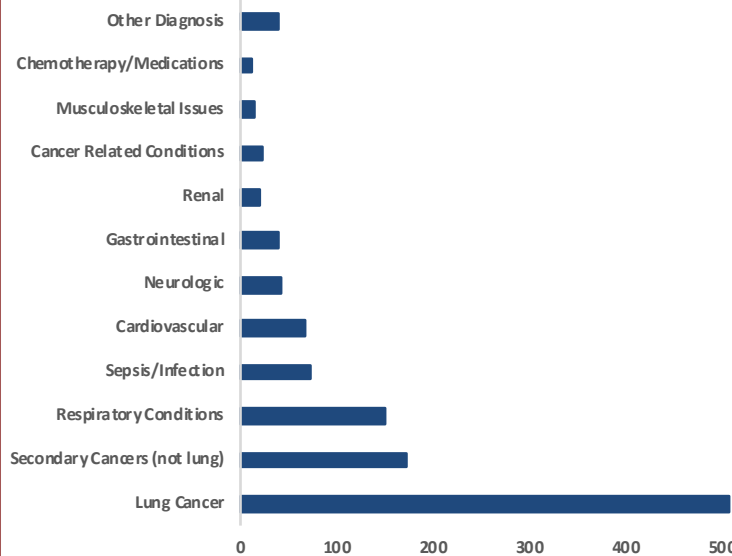
• **Older, unmarried, black patients with lung cancer were less likely to discharge home and more likely to die within 90-days of discharge.**



• **Social support and prior level of function varied by discharge location.**

• **Patients with longer acute care length of stay and a higher number of concurrent comorbidities were more likely to discharge to acute inpatient rehabilitation**

## Primary Diagnosis for Acute Hospitalization



• SNF= Skilled Nursing Facility; LTACH= Long-term Acute Care Hospital; IRF— acute inpatient rehabilitation facility

## Conclusions

- Despite known benefits of rehabilitation in cancer patients, only 14% of our study population were referred to a post-acute care rehabilitation setting.
- Discharge location in lung cancer patients varies by demographic and social determinants.
- Future study to identify if these differences persist in multivariate models.

## References

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