

Publication Summary

Understanding the patient journey to diagnosis of lung cancer

Zhang, Y., Simoff, M.J., Ost, D. et al. BMC Cancer 21, 402 (2021). <https://doi.org/10.1186/s12885-021-08067-1>

Understanding the patient journey to diagnosis of lung cancer¹

Published study results

Objective:

This research describes the clinical pathway and characteristics of two cohorts of patients. The first cohort consists of patients with a confirmed diagnosis of lung cancer while the second consists of patients with a solitary pulmonary nodule (SPN) and no evidence of lung cancer. Linked data from an electronic medical record and the Louisiana Tumor Registry were used in this investigation.

Materials & methods:

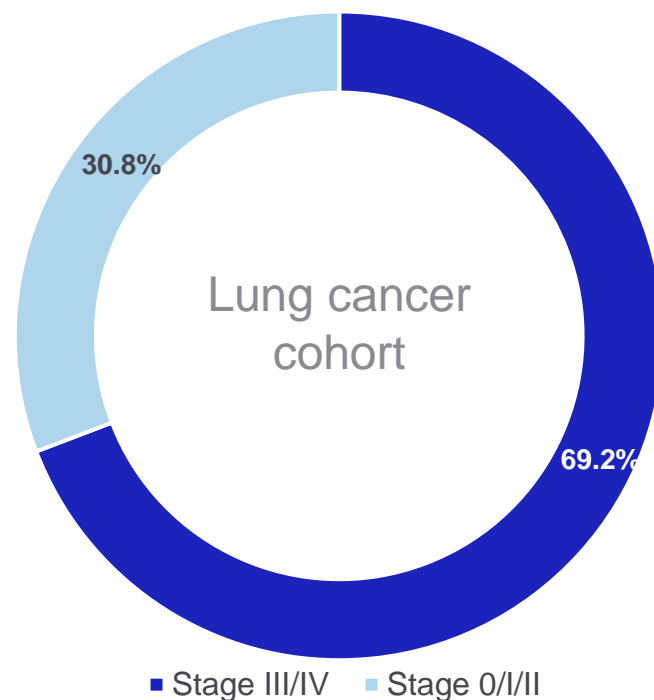
This is a **retrospective** cohort study, using **linked data** information systems, designed to document the patient pathway from (a) identification of a pulmonary nodule to lung cancer diagnosis, and (b) identification of a pulmonary nodule to 1-year follow-up among those with no lung cancer diagnosis. Data from **Ochsner Health System and Tulane Medical Center** were linked to **Louisiana Tumor Registry (LTR)**, a statewide population-based cancer registry, for analysis of patient's clinical pathways between **2013 and 2017**. Patient characteristics and health services utilization rates by cancer stage were reported as frequency distributions. The Kaplan-Meier product limit method was used to estimate the time from index date to diagnosis by stage in lung cancer cohort.

1. Zhang, Y., Simoff, M.J., Ost, D. et al. Understanding the patient journey to diagnosis of lung cancer. BMC Cancer 21, 402 (2021). <https://doi.org/10.1186/s12885-021-08067-1>

Understanding the patient journey to diagnosis of lung cancer¹

Published study results

69.2% of patients in the diagnosed population had stage III or IV disease.



Key results (lung cancer cohort):

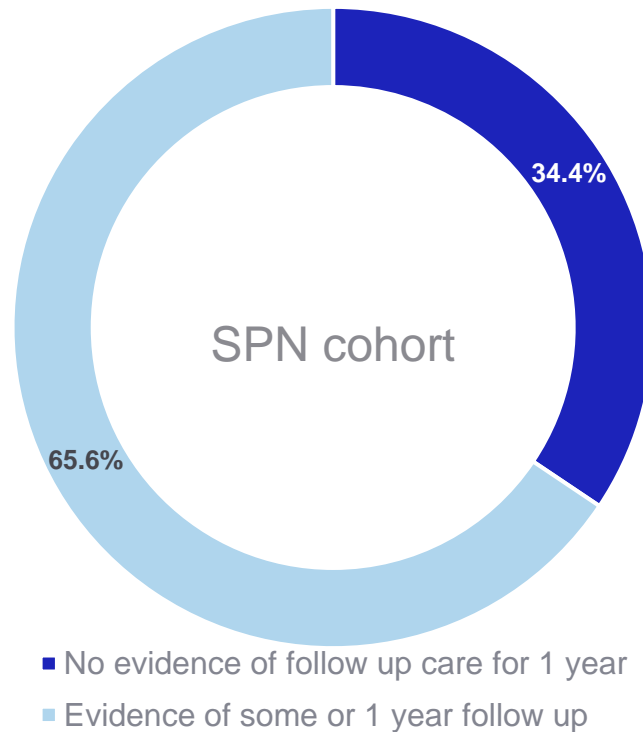
- 1,496 patients were identified in the lung cancer cohort.
- **Stage III and IV cancers were diagnosed more quickly than stage I and II.**
- **A small percentage of patients required ~6 months to receive a diagnosis.**
- A total of 1167 (79.4%) lung cancer patients had biopsy information available: 48.3% bronchoscopic, 42.8% CT guided, and 8.9% surgical.
- 25.7% had multiple biopsies and the average number of biopsies was 1.25 per patient.

1. Zhang, Y., Simoff, M.J., Ost, D. et al. Understanding the patient journey to diagnosis of lung cancer. BMC Cancer 21, 402 (2021). <https://doi.org/10.1186/s12885-021-08067-1>

Understanding the patient journey to diagnosis of lung cancer¹

Published study results

In the non-diagnosed population, 34% did not receive 1 year follow up care for their SPN diagnosis.



Key results (suspicious pulmonary nodule [SPN] cohort):

- 15,978 patients were identified in the SPN cohort.
- **10% had no workup at all.** The remaining 90% had some evidence of an SPN workup in their medical records.
- **Only ~66% received 1 year follow up care for their SPN diagnosis.**
- A total of 932 (5.83%) SPN patients had biopsy information available: 69.1% bronchoscopic, 19.3% CT guided, and 11.6% surgical.
- 35.5% had multiple biopsies and the average number of biopsies was 1.36 per patient.

1. Zhang, Y., Simoff, M.J., Ost, D. et al. Understanding the patient journey to diagnosis of lung cancer. BMC Cancer 21, 402 (2021). <https://doi.org/10.1186/s12885-021-08067-1>

Understanding the patient journey to diagnosis of lung cancer¹

Published study results

Study limitations

- This is a retrospective study that is associated with confounding factors for biopsies and treatment procedures.
- The patient population comes from two Louisiana healthcare systems and the patient pathways from nodule identification to diagnosis may not be generalizable to other healthcare systems throughout the country.
- Linking of data from REACHnet with the Louisiana Tumor Registry resulted in many patients being excluded from the final cohort per protocol.
- Results may not be generalizable to patient populations outside of Louisiana healthcare systems.

1. Zhang, Y., Simoff, M.J., Ost, D. et al. Understanding the patient journey to diagnosis of lung cancer. BMC Cancer 21, 402 (2021). <https://doi.org/10.1186/s12885-021-08067-1>

Important safety information

Important Safety Information

Risk associated with bronchoscopy through an endotracheal tube and under general anesthesia are infrequent and typically minor and may include but are not limited to: sore throat, hoarseness, respiratory complications including dyspnea or hypoxemia, airway injury, bronchospasm, laryngospasm, fever, hemoptysis, chest or lung infection including pneumonia, lung abscess or an adverse reaction to anesthesia.

Although rare, the following complications may also occur: bleeding, pneumothorax (collapsed lung), cardiac related complications, respiratory failure, air embolism, or death.

As with other medical procedures, there may be additional risks associated with the use of general anesthesia and/or endotracheal intubation which are not listed above; you should consult a health care professional regarding these and other potential risks.

© 2021 Intuitive Surgical, Inc. All rights reserved. Product and brand names/logos are trademarks or registered trademarks of Intuitive Surgical or their respective owner. See www.intuitive.com/trademarks.

INTUITIVE

intuitive.com