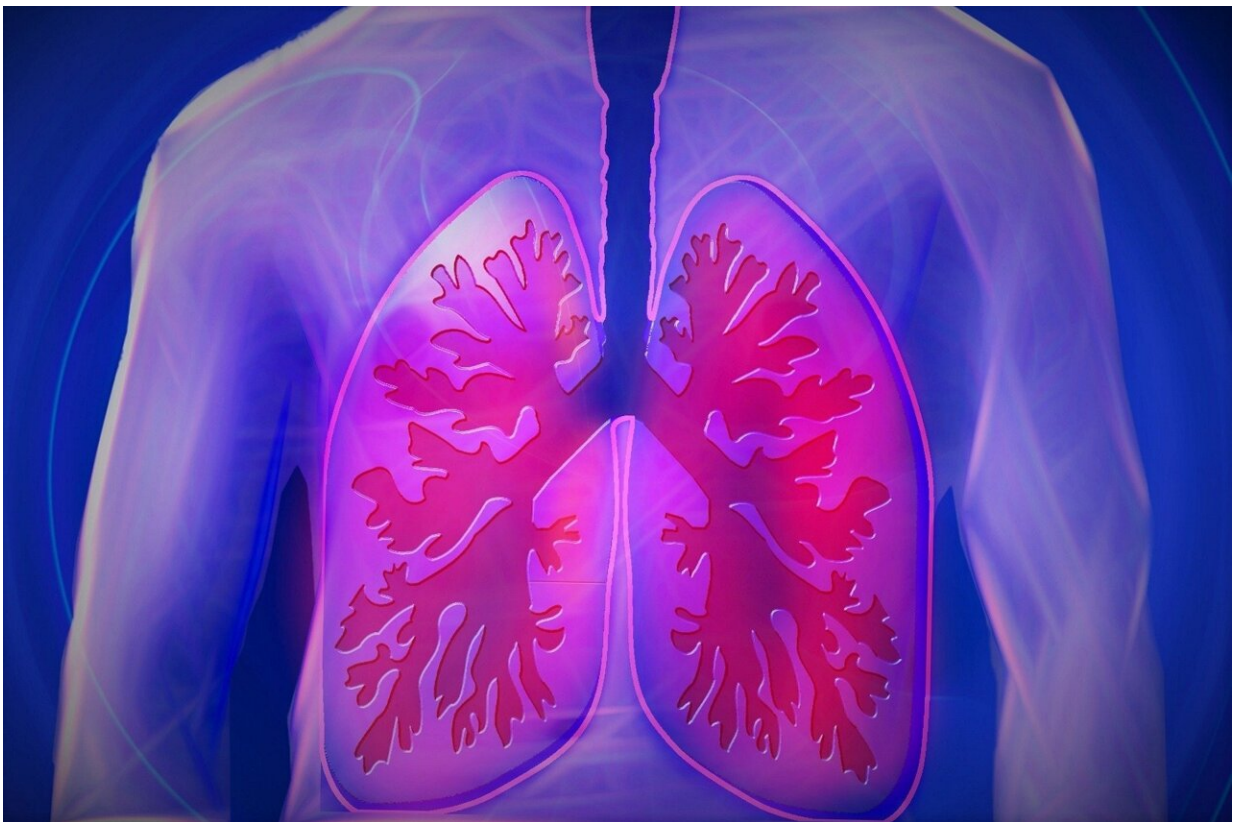


Study finds second primary lung cancer is 4 percent and as high as 8 percent among surgery patients

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Using data from the National Lung Screening Trial, researchers found that the incidence of second primary lung cancer was approximately 4%

among the entire cohort of lung cancer patients and was as high as 8% among patients undergoing surgery for stage IA disease. The research was presented today at the IASLC World Conference on Lung Cancer 2022 in Vienna.

The incidence, timing, and survival of second primary lung cancer is poorly understood, particularly in patients with lung cancers detected via [lung cancer screening](#). Ms. Alexandra Potter, Massachusetts General Hospital, in Boston and colleagues sought to examine second primary lung cancers using [data](#) from the [National Lung Screening Trial](#) (NLST). A second primary lung cancer refers to a new primary lung cancer that develops after therapy for a first primary lung cancer or when two lung cancers with different histologies are found at the time of diagnosis.

Patients diagnosed with a first primary lung cancer in the NLST were grouped according to whether they were diagnosed with a second primary lung cancer less than six months after first primary diagnosis (synchronous) or longer than six months after diagnosis (metachronous). Ms. Potter and colleagues then compared the histology of second primary lung cancers with the first primary lung cancers. The researchers also calculated the incidence rate of metachronous primary lung cancer per 100 person-years and the five-year survival rates for patients diagnosed with synchronous and metachronous second primary lung cancers.

Of the 2,053 patients meeting study inclusion criteria, 85 (4.14%) patients developed a second primary lung cancer, of which 48 (56%) were synchronous and 37 (44%) were metachronous. The incidence of second primary lung cancer varied by treatment type and stage and was as high as 8% among patients undergoing [surgery](#) for stage IA disease.

For metachronous primary lung cancer, the median time from [cancer diagnosis](#) to the diagnosis date was 32.0 (IQR: 17.5- 50.5) months. For

patients with early-stage first primary lung cancer, the incidence of metachronous primary lung cancer increased with increasing time from the diagnosis date of the first lung cancer.

The distribution of second primary lung cancers by histology was 46% adenocarcinoma, 25% squamous cell lung cancer, 8% lepidic adenocarcinoma, and 6% small-cell lung cancer. Approximately 44% (n=37) of patients were diagnosed with second primary lung cancer of the same histologic subtype as their first primary lung cancer. Five-year survival of patients diagnosed with synchronous and metachronous lung cancers from the date of first primary lung cancer diagnosis was 45.6% (95% CI: 29.9-60.1) and 80.3% (95% CI: 63.0-90.1), respectively.

"We found that the incidence of second primary lung cancer in the NLST was approximately 1-2% per year among the entire cohort of lung cancer patients. Among patients who underwent surgery for stage IA disease, the incidence rate of second primary lung cancer increased over time after the first primary lung cancer diagnosis." Ms. Potter reported. "Even 5-years after the date of first primary [lung cancer](#) diagnosis, the incidence rate of second primary [lung cancer](#) among [patients](#) who underwent surgery for stage IA disease was greater than 2% per year."

Provided by International Association for the Study of Lung Cancer

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