

## Stage increase in lung cancer more frequent after open vs. closed thoracic surgery

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An increase in the stage of non-small cell lung cancer (NSCLC) due to cancer positive lymph node (LN) discovery was more common following open chest surgery for lung lobe removal of early stage lung cancer compared to the closed chest procedure known as video assisted thoracic surgery (VATS).

The standard and often most effective treatment for early stage [lung cancer](#) is surgical removal of the tumor and a portion of the lung, with the open thoracotomy the traditional method of choice. Thoracotomies do pose some risk, especially in [lung cancer patients](#) with other health problems. VATS is a less invasive approach that has fewer complications, less pain, improved [lung function](#), shorter recovery periods, and lower acute care costs. However, incomplete LN staging by VATS could compromise survival by leaving residual [cancer](#) and altering optimal post-surgical treatment because of inaccurate understaging.

The National Cancer Data Base, an oncology outcomes database maintained by the American Cancer Society and the American College of Surgeons with 30 million historical records, was examined for NSCLC patients who underwent lobectomy between 2010 and 2011 for tumors smaller than 7 cm and no apparent LN involvement prior to surgery. Statistical analyses were performed to compare nodal upstaging in VATS compared to open thoracotomies and to determine if there were differences depending on surgical center. By definition, community cancer programs treat 100 to 500 cancer cases per year, comprehensive community cancer programs more than 500 cases, and

academic or research programs more than 500 cases in addition to providing postgraduate medical education.

The results published in the *Journal of Thoracic Oncology*, the official journal of the International Association for the Study of Lung Cancer, show a total of 16,983 lobectomies were performed; 29.1% using VATS. Of all 4,935 VATS, 4.9% were performed at community centers, 50% at comprehensive community cancer programs, and 45.1% at academic or research centers. Upstaging because of the discovery of cancer in LN during surgery was more frequent in the open vs. closed group (12.8% vs. 10.3%; p

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