

## New program using CT technology helping doctors better detect lung cancer

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Long-time smokers and past smokers now have a more accurate way of detecting whether or not they have lung cancer thanks to a comprehensive lung cancer screening program that uses CT scan technology at Intermountain Medical Center in Salt Lake City.

The program is based on the findings of the National Lung Screening Trial, a study that compared CT scans and standard chest X-rays in detecting lung cancer. CT scans use X-rays to obtain a multiple-image scan of the entire chest, while a standard chest X-ray produces a single image of the whole chest.

Results from the study showed that patients who received CT scans had 15 to 20 percent lower risks of dying compared to those who received a standard X-ray.

"Taking results of a research study and applying them to the real world is extremely hard to do," said Denitza Blagev, MD, a pulmonologist at Intermountain Medical Center, and one of the program leads. "But the Lung Cancer Screening Program at Intermountain Medical Center is a direct result of that effort, and because of the best practices that came from this research, we were able to diagnose three people with [early stage](#) lung cancer in the program's first 18 months."

Dr. Blagev and her colleagues recently presented their findings at the American Thoracic Society International Conference in Denver.

The program Intermountain developed was tested between September 2014 and March 2015 and initially gave CT scans to 375 patients, 272 of whom were eligible to continue in the program. Of the 272 who were eligible, 19 of their scans found evidence of malignant cancer. From those 19, 11 were confirmed malignant. Eight of the 11 were confirmed to have lung cancer, and three of the cases were considered early stage lung cancer.

"Our goal is to save every life that we can. Our results are comparable to the National Lung Screening Trial, in which it was deemed a success if they prevented just one cancer death for every 320 patients screened. The program we created from this study detected three early stage lung cancers in the first 357 patients screened, which is incredible. "

Patients enrolled in the program were considered high risk for lung cancer. They all had a smoking history of at least 30-pack years, which is the equivalent of smoking one pack of cigarettes every day for 30 years, and were current or former smokers without any signs or symptoms of [lung disease](#).

"Results from the National Lung Screening Trial and from our program have shown that screenings are very effective and will greatly benefit our patients going forward," said Dr. Blagev. "These results will also help our patients financially as well. As of February of this year, the Centers for Medicare and Medicaid Services issued a statement about how they will cover the cost of screenings for lung cancer."

According to Dr. Blagev, the implementation of lung cancer screenings has been challenging because of the costs and uncertainty whether the same benefits will be seen outside a research setting. But with the recent announcement from CMS regarding coverage and the results of these studies, [lung cancer](#) screening is becoming more broadly available.

Provided by Intermountain Medical Center

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