

Lung cancer persists as No. 1 killer

By the time symptoms appear, it's too late for medical treatment to save most patients

By Claire Hughes Updated 1:24 pm, Sunday, March 6, 2016



IMAGE 1 OF 27

[Buy Photo](#)

Laura Greco, who discovered she had lung cancer after a hospital scan following a car accident, talks about her ordeal at her home on Monday, Jan. 18, 2016 in Wilton, N.Y. (Lori Van Buren / Times Union)

Laura Greco, a 41-year-old who has never smoked, found out she had lung cancer by accident — literally. Doctors found her tumor on a CT scan following a car crash.

John, a 71-year-old Colonie resident who asked that his last name be withheld, had no symptoms of lung cancer when he decided to get screened for the illness, based on family history and his years of smoking. He was shocked when the radiologist who read his CT scan asked if he already had a

cancer doctor.

Longtime smoker **Joe Iraci**, a Greene County resident, had been on lung-cancer alert for years and insisted on regular chest X-rays. Yet the first time doctors detected the disease, it had already spread to his lymph nodes.

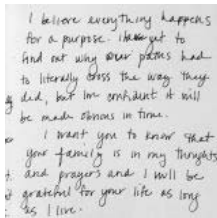
One way or another, lung cancer sneaks up on people.

That the disease is capable of such surprise is ironic, perhaps.

It is the second most common cancer in the country (after breast cancer) and by far the cause of more deaths nationwide than any other.

Often detected after it's too late for effective treatments, lung cancer is expected to kill more than 150,000 Americans this year — more than the death estimates for breast, prostate and colon cancers combined.

Special Report: Lung Cancer



I believe everything happens for a purpose. I thought to find out why dear potters had to literally cross the way they did, but I'm confident it will be made obvious in time. I want you to know that your family is in my thoughts and prayers and I will be grateful for your life as long as I live.

tu+ The car crash saved her life



tu+ No one tells him he's to blame for his cancer

tu+ She did everything right, but still got lung cancer

Yet awareness of lung cancer pales in comparison to diseases that kill fewer people. Everyone knows, for instance, that a pink ribbon denotes breast cancer.

There's a ribbon for lung cancer, too. Know the color? (It's white. Or maybe clear. As one advocate said, there's not even broad consensus on that.)

Patients, doctors, advocates and other experts say there's one reason lung cancer has held on tenaciously to its position as No. 1 killer, with



See the Times Union and WMHT special report

relatively little discussion and a historical lag in research advances that have propelled promising treatments for other cancers: Unlike other cancers, lung cancer carries a stigma. Due to the illness' long-time link to smoking, patients are

blamed for getting sick.

That causes some of them to keep quiet and deters philanthropists from making big donations for lung cancer research when public support is greater for finding cures to other diseases, experts said.

The public judgment is unwarranted, they add.

For one, it's not just smokers who get lung cancer, a fact highlighted early this year by the death of former New York Chief Judge **Judith Kaye**, a nonsmoker and fitness enthusiast. As many as 20 percent of Americans who die from lung cancer each year — 30,000 of those estimated to die this year — have never smoked.

More Information

About this report

These stories are brought to you as a joint Times Union/WMHT venture. See a multimedia presentation at wmht.org/lungcancer.

For another, the nicotine in cigarettes is highly addictive — as tough to kick as heroin, cocaine or alcohol, according to health agencies.

Many of today's smokers started before the health hazards were widely

known.

Dr. Christopher Dolinsky, a 38-year-old radiation oncologist with

Schenectady-based Northeastern Radiation Oncology, grew up on public service messages and a health curriculum that cautioned about the dangers of smoking.

But a generation before him, people smoked on airplanes and even in hospitals.

"People were growing up at a time when people were smoking. And they smoked. How can you fault them for that?" Dolinsky said.

Smoker or non-smoker, there's few other diseases where people are questioned as if they deserve the illness, experts said.

"Unfortunately, lung cancer stigma is alive and well, and that is very real," said Erika Sward, assistant vice president at the American Lung Association. "No matter what, no one deserves lung cancer."

Some suggest socioeconomics play a role in keeping lung cancer out of the public eye, too.

While decades of anti-smoking campaigns have reduced cigarette use, tobacco consumption remains tenacious among groups whose public voices are muted – lower-income Americans and those with mental illness. That leads some experts to see the relatively meager amount of attention given to lung cancer as an example of a class-based health disparity.

But others say socioeconomic discrimination may be a secondary issue or problem for a future generation of lung cancer patients. Today, the group most at risk of contracting the disease are seniors who smoke or used to smoke. In a generation for whom smoking was cool for everyone, tobacco use was not a mark of class, said Dr. Jorge Gomez, a lung cancer specialist at Mt. Sinai Hospital in Manhattan.

Regardless of who gets lung cancer, survival rates are lower than for many other cancers. (Though whites fare somewhat better than blacks, women

somewhat better than men.)

Five years after diagnosis, less than 18 percent of lung cancer patients are alive, compared to 65 percent for colon cancer and over 90 percent for breast cancer, according to data from the National Cancer Institute.

A key to lung cancer's deadliness is that tumors are often not caught until the disease is in its late stages, when the cancer has spread and treatments are limited. Only 15 percent are caught in an early, more treatable stage, according to the American Cancer Society. More than half of patients die within a year of diagnosis, according to federal data.

Patients often don't experience any symptoms at all when their tumors are small, doctors said. Or they dismiss problems such as persistent coughs or shortness of breath as symptoms of other respiratory conditions, like emphysema, said Dr. Makenzi Evangelist of New York Oncology Hematology in Albany.

By the time breathing problems are severe enough to prompt most patients to visit the doctor, or a patient feels pain in their bones, the cancer is unstoppable.

"When it gets big enough that it causes respiratory symptoms, it's usually large enough that it's already spread outside the lungs, so it's incurable," Gomez said.

Another trait fueling lung cancer's deadliness is its aggressiveness. It spreads fast, so that even people like Greene County resident Iraci, who check for it regularly, often don't catch it early.

"It doesn't stay 'early' for very long," said Gomez, who is a scientific advisor to the American Lung Association.

Low-dose CT scans that hold the promise of improving lung cancer survival rates by catching tumors earlier have become available in recent years. The

idea is to catch malignant lumps when they are small and easy to remove.

A large-scale study published in 2011, the National Lung Screening Trial, found a 20 percent reduction in lung cancer deaths among healthy smokers at high risk for the disease who received the low-dose CT scans, compared to those who had chest X-rays. At Albany Medical Center Hospital, Dr. Thomas Smith and Dr. John Fantauzzi showed the differences in the two types of scans; even the untrained eye can see nodules on the CT image that are barely noticeable on the X-ray.

Government and private insurers began covering the screenings last year for the highest-risk patients. Guidelines vary, but patients recommended for screening include current and former heavy smokers over 55, who have smoked the equivalent of a pack of cigarettes a day for 20-30 years.

Drawbacks of the scans — cost and radiation exposure — make them inappropriate for all but high-risk patients, Gomez said. But even that highest-risk group is not getting scanned in sufficient numbers, specialists at Albany Med and Schenectady's Ellis Hospital said. Primary care doctors are not yet routinely referring eligible patients for lung cancer screenings, the way they do for mammograms or colonoscopies to detect breast or colon cancer, respectively, they said.

A series of lucky coincidences prompted John, the 71-year-old Colonie man, to get screened three years ago. John's father and brother had died of lung cancer, a second brother had been recently diagnosed and he'd smoked "a lot," he said, "three packs a day, for 40 years, maybe more."

A mailer from John's health insurer, Albany-based CDPHP, alerted him that he was a candidate for the screenings. Then he saw an ad urging heavy smokers to get them, and decided to spend the \$200 or so not covered by his insurance.

It was well worth it, given the finding. Doctors caught his lung cancer at its earliest stage. Treatments have proven effective and doctors have deemed

him clear of disease.

"It kind of amazes me," John said. "If my brother wasn't diagnosed, I don't think I would have even thought about going for this scan."

While smoking remains the biggest risk factor for lung cancer, there are other known causes. People who don't smoke can get lung cancer from radon gas, air pollution, secondhand smoke and cancer-causing materials in some workplaces.

Gene mutations also cause lung cancer. These are not inherited genetic traits, explained Evangelist, but changes in genes that can result from environmental factors or other causes that remain mysterious.

A few recent studies, in fact, have pointed to a rise in lung cancer among non-smokers, especially women under 40. Gomez is skeptical about the numbers, however, because long-term comparisons are impossible. Until about a decade ago, doctors didn't ask whether a lung cancer patient smoked or not. That distinction only mattered when targeted treatments developed.

"That would suggest there's something new in the air or the environment, or some new genetic issues going around," Gomez said of the hypothesis about the rise. "I'm not sure that's the case."

Identification of gene mutations in non-smokers with lung cancer have brought about some of the most promising recent advances in drugs that target the specific genetic change.

The treatments are more effective than traditional chemotherapy, which attacks all cells and not just the cancerous ones, and side effects are also less severe.

Immunotherapy is also showing promise for both smokers and nonsmokers with cancer, something that excites Evangelist. Aimed at boosting the body's own immune system, immunotherapy does not have the toxic side effects of

traditional chemotherapy.

Seven drugs were newly approved for lung cancer last year, the Lung Association's Sward said, something she called part of a "paradigm shift" for the disease. Right in the Capital Region, NYOH is conducting five clinical trials on new lung cancer treatments, and a sixth is about to start.

Federal funding for lung cancer research has increased markedly too – from \$233 million in fiscal year 2012 to \$362 million this year. Funding decisions are based in part on the likelihood that the research will yield useful results, a factor working against lung cancer for years. "It has only been because of some of these new therapies, that we have lung cancer survivors," Sward said.

Gomez said he, too, is optimistic. But he's also aware that the advances are being made in increments that affect small percentages of lung cancer patients.

A decade ago, researchers discovered that a drug targeting mutations of a gene known as EGFR helped 10-15 percent of lung cancer patients. That finding launched a search for others, Gomez said. A drug that targets the ALK gene is now known to work for about 4 percent of patients. One targeting a gene called ROS1 works for another 1 percent, he said. Researchers have also found changes in the HER2 and BRAF genes, associated with breast cancer and melanoma, in lung cancer patients.

"These are huge advances, but they're for 1 percent here, another 1 percent there," Gomez said. "So yes, these are amazing things. But I look at what we haven't done, and I become less enthusiastic and more driven to find new stuff."

chughes@timesunion.com • 518-454-5417 • @hughesclaire

