Key Takeaways:

• Leaders from radiology, cardiothoracic surgery, and other specialties involved in lung cancer screening and treatment at Indiana’s Elkhart General Hospital partnered to create a multidisciplinary Thoracic Oncology Clinic.

• Patients and family members have a seat at the table, participating with doctors in their course of treatment.

• The hospital’s cancer committee initiated the program to address a public health crisis involving the area’s high percentage of smokers, as compared to the rest of Indiana.

Retired nurse Robyn Shank followed in her mother's footsteps when looking for the right place to begin her lung cancer treatment journey.

"When my mother was diagnosed with cancer, her community hospital in Tennessee had a tumor board where physicians reviewed patients' cases, and the patients were involved in the process," Shank says. "I wanted that same level of involvement in my cancer treatment program."

Shank, 59, searched the Internet and found Elkhart General Hospital’s multidisciplinary Thoracic Oncology Clinic. Started in 2012, the program incorporates low-dose CT technology for lung cancer screening and brings together all of the medical professionals involved in a patient’s lung cancer treatment for weekly conferences with their patients. The lung cancer screening occurs first, and then the patient is referred to the Thoracic Oncology Clinic.

Shank and her husband make the 45-minute drive from their home in Sturgis, Mich., to the hospital in Elkhart, Ind., to attend the conferences. Patients typically attend an initial conference immediately following their lung cancer diagnosis. Upon completion of their treatment plan, patients attend a second session, during which they see a comparison of their CT scans before and after treatment.

Inviting Patients

Held from 7-8 a.m. every Thursday, the conference's early hour doesn't deter participants from attending. Each session includes a team of physicians from thoracic surgery, radiology, interventional radiology, pathology, medical oncology, radiation oncology, and pulmonology, along with an oncology nurse practitioner. Other participants can include registered dietitians, registered nurses, a research nurse, director of oncology services, case managers, physician assistants, cancer registrars, nurse navigators, and palliative care staff.

Most importantly, the patient is there with a family member, sitting at the head of a u-shaped conference table. This aspect of the program is so well received that organizers had to limit the number of family members attending conferences.

"With lung cancer management, patients are at the center," says Samir B. Patel, MD, founder and director of the value management program at Radiology, Inc., in Mishawaka, Ind.

Including families in these conferences improves the patient experience, he says.

"No patient comes alone," Patel continues. "Lung cancer is a life-altering disease and, with that, patients want to have as many supporters with them as possible. It improves the experience for the patients to have family members with them, not only for support but also to listen and ask questions."

Addressing a Public Health Crisis

Patel is also a member of the Elkhart General Hospital’s board of directors. He and the interventional and diagnostic radiologists of Radiology, Inc., helped establish the Thoracic Oncology Clinic at a time when the community was facing a significant public health issue.

According to the Centers for Disease Control and Prevention, Elkhart County, an area known for its recreational vehicle manufacturing industry, has a high percentage of smokers, compared to the rest of Indiana.
of Indiana. In response, Elkhart General’s cancer committee, along with senior-level executives and administrative personnel, initiated efforts to address this crisis.

The cardiothoracic surgeons and radiologists teamed up to give multiple presentations to the hospital’s senior leadership, presenting a vision for what would eventually become the Thoracic Oncology Clinic. The cardiologists were seeing patients who had heart disease, but many of their patients had similar risk factors for lung cancer. At the program’s onset, the cardiologists were the greatest advocates for lung cancer screening.

With the introduction of low-dose CT technology, which reached Elkhart in 2012, the hospital felt comfortable launching the Thoracic Oncology Clinic. Low-dose CT was a safe way to address the community health crisis involving heavy smokers.

“We had to weigh the risks of radiation dose versus the benefits of CT lung screening,” says Albert W. Cho, MD, vice chairman of radiology at Elkhart, who was also involved in the creation of the lung screening program. “We didn’t want to expose patients to high doses of radiation for a screening exam. There needed to be a balance. The low-dose technology provided that.”

**Overseeing the Program**

Leading the day-to-day operations at the clinic is Jackie S. Lenfesty, MSN, FNP, APRN-BC, and the program’s point of contact for both physicians and patients. Within five days of a patient’s CT scan, Lenfesty calls the patient to discuss the results and next steps.

“I tell patients that the goal of the clinic is to pull together all the doctors and hospital personnel working on their case, to agree on the stage of their cancer and to give the patient the best options for their treatment,” she says. “Throughout the process, we keep the patient at the forefront of care.”

Lenfesty also answers patients’ questions. “The most frequent question I get is, ‘Is it ok to ask questions?’” she says. “Patients are surprised that they, along with their family, can actively participate in the dialogue between the specialists and safely ask questions to better understand their cancer and options for management.”

**Developing a Treatment Plan**

In addition to Lenfesty, interventional radiologists have a great deal of contact with the patients, providing minimally invasive options. With that level of involvement, Patel says interventional radiology is a key participant in the thoracic oncology program. Nearly all of the patients in the program have seen an interventional radiologist for procedures, such as image-guided biopsy, prior to their lung cancer diagnoses. Having a “familiar face” at the conference goes a long way to optimizing the patient experience.

One of the clinic’s participating doctors, interventional radiologist Nazar H. Golewale, MD, receives a list of cases in advance of each weekly conference. During the conference, he posts the patient’s images on a large screen and uses layman’s terms to explain the anatomy. “In many cases, patients have never seen CT scans before attending one of the conferences,” Golewale says. “You can talk about cancer and what it does to the body, but you really get a feel for it when you see the scans.”

Shank doesn’t shy away from the details of her disease and, in fact, relishes being closely involved in her treatment process. “Once doctors reviewed the CT scans with us, explaining everything we saw on the screen, we came up with a treatment plan,” she says. “The doctors explained what the treatment would entail and, when they were done, asked if that was still the course I wanted to take. They took as much time as I needed to explain everything.”

**Building a Strong Team**

A cohesive staff is imperative to developing a multidisciplinary program like this. Organizing such a group can be challenging, though, as some physicians are employed by a hospital or multispecialty group, and other physicians work on contract. Such is the case at Elkhart, which contracts with Radiology, Inc., for its radiology services. The synergy between the interventional and diagnostic radiologists of Radiology, Inc., and their collaborative partnership with physicians in other specialties, is key to the success of the thoracic oncology program.

“We’re fortunate with our scenario, in that we take a collegial approach to problem solving even though we come from different disciplines and are not employed by the hospital,” Cho says. “We discuss together what
we need and how to get something done. It’s a win-win for us and the patients. And the hospital is addressing a health crisis in the community.”

**Spreading the Word**

As of January 2016, 443 unique patients have been imaged through the lung cancer screening program, and 14 lung cancers were diagnosed as a result. All but one of these diagnoses included completed staging information, such as the extent of the patient’s cancer, the tumor size, and whether or not the disease had spread to lymph nodes or other organs in the body. All 14 patients went on to participate in the Thoracic Oncology Clinic.

The success of the lung cancer screening program and the Thoracic Oncology Clinic spreads mostly through a grassroots, word-of-mouth campaign. “I get phone calls from people who live an hour to an hour and a half away,” Lenfestey says. “I talked to someone who heard about our program from someone at their church. People who have been diagnosed with lung cancer are hearing about our program through the community, and they want to come to Elkhart for their treatment, and to be a part of the program.”

Cho is encouraged to see patients interested and involved in their own care, instead of being passive recipients of it from their doctors. When the Lung Cancer Screening Program started at Elkhart General, it was important to allow patients to self-refer into the program. Because cost could be a barrier for some patients, program organizers sought and received a grant from Elkhart General Hospital’s foundation to cover the cost of scans for low-income individuals.

**Eliminating Stigma**

Involvement in the Thoracic Oncology Clinic not only helps patients learn more about their disease and treatment plan, but also gives them a place where they feel they can openly discuss their condition, sharing their fears and concerns. Lung cancer patients are often hesitant to discuss their disease, more so than patients with other forms of cancer, Lenfestey says. There’s a certain stigma associated with the disease, with patients often feeling like this is something they brought on themselves through lifestyle choices.

For Shank, however, talking about her disease was a no-brainer. Once again, she’s following her mother’s voice. “My mother was a school teacher, so I think it’s up to me to teach everyone how good a program like this can be,” Shank says.

**Next Steps**

- Bring together physicians from multiple disciplines throughout the hospital to share knowledge and best practices with each other and with hospital administration.

- Once the program is established, maintain patient data not only for reporting purposes, but for use in presentations at medical meetings where the program’s benefits can be promoted.

- Incorporate low-dose CT imaging into the program to reduce the risk-to-benefit ratio for lung cancer patients.

**Join the Discussion**

Want to join the discussion about how radiologists can work with their health care partners to develop a clinic that puts patients at the center of their care? Let us know your thoughts on Twitter at #imaging3.

Have a case study idea you’d like to share with the radiology community? Please submit your idea to http://bit.ly/CaseStudyForm.