

# Expanding a Comprehensive Lung Cancer Screening Program

By Buffy Jansak, RN, MBA, OCN

## EXECUTIVE SUMMARY

- The OhioHealth Lung Cancer Screening Program is a high quality multi-disciplinary program that was launched in July 2013 at OhioHealth Riverside Methodist Hospital, OhioHealth Doctors Hospital, and OhioHealth Grant Medical Center in Columbus, Ohio.
- With the assistance of the AHRA & Toshiba Putting Patients First grant, we were able to expand community access for people at high risk of developing lung cancer by opening several more programs at OhioHealth Marion General and OhioHealth Grady Memorial Hospitals.
- A subsequent patient educational video was developed to highlight the comprehensive program, nurse navigational involvement, potential risks, benefits, and tobacco cessation.
- The tobacco cessation educational skills of the OhioHealth Lung Nurse Navigators were enhanced with the completion of the Tobacco Treatment Specialist certification.

**OhioHealth** is central and north central Ohio's largest and most preferred health system. It is a nationally recognized, faith-based, not-for-profit, charitable healthcare organization with a family of 28,000 associates, physicians, and volunteers. OhioHealth includes Riverside Methodist Hospital, Grant Medical Center, Doctors Hospital, Grady Memorial Hospital, Dublin Methodist Hospital, Hardin Memorial Hospital, Marion General Hospital, Rehabilitation Hospital, O'Bleness Hospital, MedCentral Mansfield Hospital, MedCentral Shelby Hospital, and Westerville Medical Campus, as well as many health and surgery centers, urgent care, wellness, hospice, and home health providers throughout central Ohio and a 40 county area. In addition, OhioHealth routinely works with many independent physicians who treat their patients in its hospitals and who are also vital partners in providing high quality care.

The opportunity to make a difference in the communities that OhioHealth serves is now. Lung cancer continues to have the highest number of cancer related deaths in men and women—more than breast, prostate, and colorectal cancers combined.<sup>1</sup> In fact, Ohio is ranked sixth among all states in the United States, with more than 10,000 new cases of lung cancer in 2012.<sup>1</sup> In Franklin County, the largest county in

central Ohio served by OhioHealth, cancer is the second leading cause of death, and rates of new cases of lung and bronchus cancer are higher than the rest of Ohio and the United States.<sup>1</sup>

Given these statistics and the release of the National Lung Cancer Screening Trial results, which demonstrated a 20% reduction in lung cancer mortality with low-dose chest CT, OhioHealth Cancer Services implemented its Lung Cancer Screening Program on July 22, 2013.<sup>2</sup> The program uses a low-dose chest CT scan to identify lung cancer at its earliest stages, before symptoms develop. Because the best chance of a cure is early detection, the OhioHealth Lung Cancer Screening team collaborates promptly with referring physicians to develop a plan of care based on radiologists' recommendations. Specifically, the comprehensive, multi-disciplinary screening program includes:

- Low-dose chest CT scan
- Dedicated team of radiologists
- Nurse navigation
- Patient education about screening and smoking cessation
- Tobacco treatment specialists for patients who are ready to quit smoking
- Follow-up evaluations and consultations with referring physicians
- Affordable, low out-of-pocket cost for the patients

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The program follows the United States Preventative Services Task Force and National Comprehensive Cancer Network guidelines, which defines those at higher risk for lung cancer as<sup>3,4</sup>:

- Men and women age 55–80 who have at least a 30 pack-year smoking history, and/or are ex-smokers who quit within the last 15 years.
- Men and women age 50 or older who have smoked at least one pack of cigarettes or more for 20 years or more and have one additional risk factor (eg, COPD, pulmonary fibrosis, radon exposure, occupational exposures, personal history of lung cancer, or family history of lung cancer).

### Nurse Navigators

At the center of the OhioHealth Lung Cancer Screening Program is a dedicated team of oncology lung nurse navigators. The navigators perform pre-enrollment risk assessments to ensure

appropriateness for screening. The navigators then meet the patients to provide education about risk reduction, assess initial patient's readiness to quit smoking, initiate smoking cessation referrals, and to show the educational video created to explain a possible CT scan.<sup>5</sup> Following the scan, the navigator contacts the patient's primary care physician to communicate results and coordinate the recommendations for follow-up and track all findings and future appointments through Midas, a navigational focused data base. See Figure 1 for workflow.

### Advancements

The OhioHealth Lung Cancer Screening program had already established the ground work for a successful lung cancer screening program, and with the help of the AHRA & Toshiba Putting Patients First grant we were able to advance our program this past year. The main goals focused on patient safety, education, and overall patient experience.

Creating a standard radiology low dose protocol and new OhioHealth Lung Cancer Screening Program *Startup* hospital check list assisted with the expansion of the program into new OhioHealth hospital locations in the northern region of Ohio (see Figure 2). The standardized protocol allows the technologist(s) to set up the CT scanners properly and safely since a low dose amount of radiation is delivered to patients during their chest CTs.

The *Startup* hospital check list was created to identify team members, map scheduling process for retail billing, implement the radiology protocol and processes, and map out patients' flow through the program. This new check list was successfully utilized to implement the program at two additional hospital locations.

With the initiation of the program in 2013, a patient educational video was developed.<sup>5</sup> This OhioHealth Lung Cancer Screening Program video was created to increase patients' awareness of the risks and benefits of the program and to include smoking cessation education. This video was overwhelmingly received by our patients with a 90% acceptance rate. The OhioHealth Lung Cancer Screening Taskforce group determined that a second video for patients

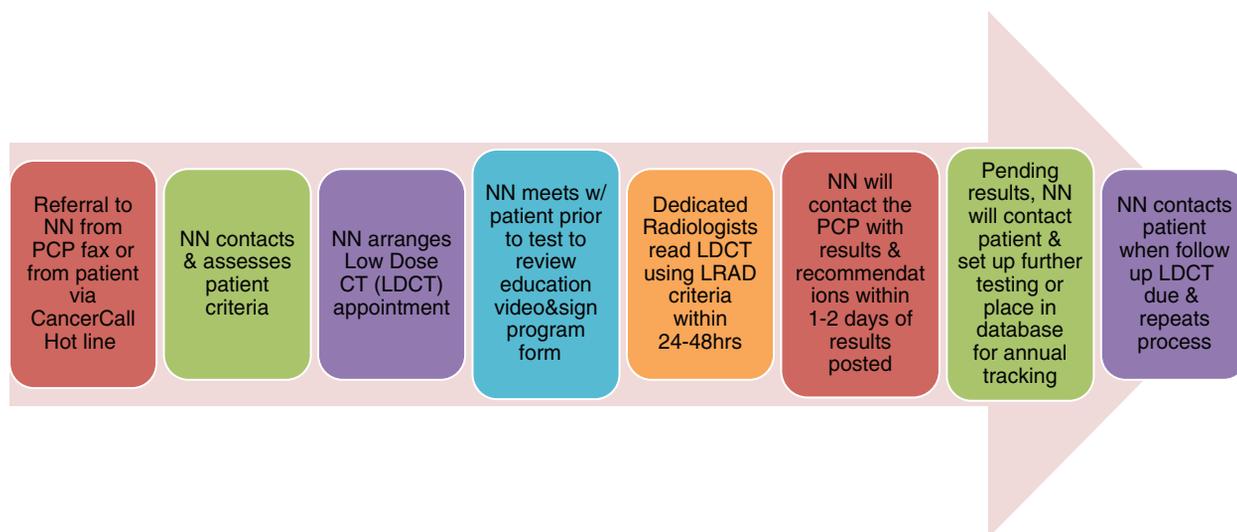


Figure 1 • Nurse Navigator Workflow

Identify Care Site Team Members	Operations	Results & Follow up
<ul style="list-style-type: none"> <li>• Nurse navigator/screening coordinator</li> <li>• Physician champion</li> <li>• Dedicated radiologist(s)</li> <li>• Dedicated pulmonologist(s)/surgeon(s) for patients without a primary care physician</li> <li>• Radiology manager/director</li> <li>• Tobacco treatment specialist</li> <li>• Physician relations person</li> <li>• Marketing team member</li> <li>• Scheduling/registration member</li> <li>• Radiology accountant</li> <li>• Charge analysis person</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Implementation</b> <ul style="list-style-type: none"> <li>• <i>Date set</i></li> <li>• <i>Marketing plan (targeted mailings, news articles, collateral developed for referring physicians)</i></li> <li>• <i>Education plan for referring physicians (attend staff meetings, physician champion/ NN to present program in offices/grand rounds)</i></li> </ul> </li> <li>• <b>Scheduling</b> <ul style="list-style-type: none"> <li>• <i>Identify data base system &amp; training needs</i></li> <li>• <i>Review 975200 lung cancer screening insurance plan (created to assure retail price is only charge on patient account)</i></li> </ul> </li> <li>• <b>Billing</b> (retail \$99.00 collection)           <ul style="list-style-type: none"> <li>• <i>Develop a process for billing errors</i></li> </ul> </li> <li>• <i>Note CMS will reimburse soon, but until Medicare provides reimbursement codes &amp; costs OhioHealth will charge retail price</i></li> <li>• <b>NN role</b> (assessment for high risk criteria, education, continuum of care)</li> <li>• <b>Radiology Department Role</b> <ul style="list-style-type: none"> <li>• <i>Radiology Information system codes developed to create PACS dedicated folder</i></li> <li>• <i>Low Dose Protocol reviewed</i></li> <li>• <i>Lung-Rad criteria by American College of Radiology use &amp; education plan</i></li> <li>• <i>Setting up Purchase Order for radiologist to collect payment</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Dedicated radiologist must read low dose chest CT within 2 days of completion of scan</li> <li>• NN will contact ordering physician with results and recommendations set forth by the Lung-Rad criteria and offer assistance with any next steps or annual testing reminders</li> <li>• Any patient with an Lung-Rad 4B will be placed on the cancer conference by the physician champion/NN for treatment decision discussion.</li> <li>• NN will track patients in Midas data base</li> <li>• Dedicated team members will meet regularly to discuss issues or barriers</li> <li>• Maintenance reports will be pulled monthly by system program director and shared with team</li> </ul>

Figure 2 • Startup Hospital Check List

## *The OhioHealth Lung Cancer Screening Program has diagnosed, on average, one lung cancer for every 65 screenings.*

returning for subsequent screenings or those patients who return annually would benefit from additional education. A second patient educational video promotes the lung nurse navigators as reliable and available resources to assist patients during the screening process.<sup>6</sup> The second video also provides valuable education regarding the risks and benefits of lung cancer screening, the diagnosis and treatments for lung cancer, and an actual screening patient's story, as well as the importance of smoking cessation. We have been able to set up a program for both videos to be viewed and acknowledged by the patient in the comfort of their homes through a web-based system. This has been a positive experience for patients who have access to the Internet.

The last investment has been to focus on the key team players: the lung cancer nurse navigators. The Lung Cancer Screening Taskforce members heard the navigators' challenge to motivate patients to quit smoking, and agreed that the remaining grant funds would be used to send all six Lung Nurse Navigators to Tobacco Treatment Specialty (TTS) professional training. TTS certification is designed to provide education to professionals involved in tobacco dependence and control administration, program development, and education. The 30 hour curriculum provided education on evidence-based clinical interventions for the treatment of tobacco dependence and best practice information for the development of tobacco treatment programs. This professional training course was offered by The Breathing Association<sup>7</sup> and required successful completion of a test. The training included sessions on leading group therapy, motivating individuals, and assessing individuals' readiness to quit. The skills that the lung cancer nurse navigators gained will be

utilized during their nursing assessments of newly and formerly enrolled lung cancer screening patients. Currently, nearly 50% of our patients are current smokers and the rate of quitting is under 5%. With the additional training for the lung cancer nurse navigators, we are hoping more patients will quit smoking through our program.

### Marketing

Although no grant funding was used towards the marketing of the program, it is important to mention as it was an integral part of its launch. The main marketing strategy was to target the referring physicians. It was discovered early on that many of the referring physicians did not know much about lung cancer screening, so educating them was key. Physician champions, nurse navigators, and the system program director spent many hours doing a "road show" presentation. Over 200 referring physicians were targeted through the physician relations department. They would initially take out the talking points and the main pieces of collateral for the lung cancer screening program. If there were a lot of questions from the physicians they were visiting, the team would be consulted to come and educate the physician or practice. Our team relied on the physician relations group to be the eyes and ears, and to pull us in when necessary.

### Phase I: Target Referring Physicians

- Created Tear Pad prescription with criteria, program summary, and location/contact information
- Physician champions, nurse navigator, and system program director attended medical staff meetings and specialty group meetings, and

presented new OH Lung Cancer Screening Program

- Placed program implementation plan and summary in all facility news articles
- Met with physician relations staff, presented program, and provided talking points with collateral for the program for them to target specific referring offices
- Updated facility website with screening program information

### Phase II: Target Patients

- Sent out a targeted post card to high risk patients
- Placed article in local papers introducing the program and providing contact information for inquiries
- Created a tent card to be placed in referring physician offices encouraging high risk patients to ask their doctors more about the program
- Created two patient educational videos: initial video and subsequent video for nurse navigators to use when educating patients enrolled in the program
- Developed a trifold patient brochure that provides education on risks, benefits, and tobacco cessation.

### Outcomes

Currently, the OhioHealth Lung Cancer Screening Program has diagnosed, on average, one lung cancer for every 65 screenings. The statistic is a substantially higher ratio than the National Lung Screening Trial ratio of one in 320 screenings.<sup>2</sup> OhioHealth has diagnosed 16 patients with lung cancers to date, and all but two were at an early stage. Early stage detection is the goal we continue to pursue through the OhioHealth Lung Cancer Screening Program. 🌱

### References

- <sup>1</sup>American Cancer Society. "What are the key statistics about lung cancer?" Last revised: March 4, 2015. Available at: <http://www.cancer.org/cancer/lungcancer-non-small-cell/detailedguide/non-small-cell-lung-cancer-key-statistics>. Accessed October 7, 2015.

<sup>2</sup>The National Lung Screening Trial Research Team. "Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening." *The New England Journal of Medicine*. 2011;365:395-409.

<sup>3</sup>U.S. Preventative Services Task Force. "Lung Cancer: Screening." December 2013. Available at: <http://www.uspreventiveservices.org>. Accessed October 7, 2015.

<sup>4</sup>National Comprehensive Cancer Network. "Lung Cancer Screening." NCCN Clinical Practice Guidelines in Oncology. 2015. Available at: [http://www.nccn.org/professionals/physician\\_gls/f\\_guidelines.asp](http://www.nccn.org/professionals/physician_gls/f_guidelines.asp). Accessed October 7, 2015.

<sup>5</sup>OhioHealth. OhioHealth Lung Cancer Screening Program video [https://www.ohiohealth.com/cancer/prevention-and-screenings/lung-cancer-screening/#our\\_program](https://www.ohiohealth.com/cancer/prevention-and-screenings/lung-cancer-screening/#our_program). Accessed October 7, 2015.

<sup>6</sup>OhioHealth. Welcome Back to the OhioHealth Lung Cancer Screening Program Video. Available at: [https://www.ohiohealth.com/cancer/prevention-and-screenings/lung-cancer-screening/#our\\_program](https://www.ohiohealth.com/cancer/prevention-and-screenings/lung-cancer-screening/#our_program). Accessed October 7, 2015.

<sup>7</sup>The Breathing Association. TTS Training. Available at: <http://www.breathingassociation.org/professional-healthcare-training/>. Accessed October 7, 2015.

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