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Clinical Update
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Physician News

SERVICE LINE SPOTLIGHT:

Lung Cancer Screening Program Update

Lung cancer statistics in the United States are staggering, despite the fact that it is not as well-known as other cancers such as breast, colon or prostate.

The overall lifetime risk of developing lung cancer is 1 in 13 for men, and 1 in 16 for women. Smoking is responsible for 90 percent of male lung cancers and 80 percent of female lung cancers.

One of the biggest challenges in saving lives, according to Michaela Straznicka, MD, co-medical director of John Muir Health's Thoracic Program, is that "in its early stages, lung cancer is so elusive. At the late stages, patients have poor prognosis – and only 16-20 percent of cancers are found in early stages (IA and IB). And 75 percent of patients that present with a symptom, any symptom, have locally advanced or metastatic disease already."

Luckily, says Lynn Rodegard, RN, Nurse Navigator at the John Muir Health Cancer Institute, the recent CMS (Centers for Medicare and Medicaid Services) decision to cover low-dose CT lung cancer screening (finalized in February, 2015) has provided a lifeline to patients who might not otherwise get the early diagnosis that can prolong their lives. "It is such a victory that we can now screen and diagnose these patients. Most physicians have patients with smoking histories. Without symptoms, they were not previously eligible for a scan based on smoking history only. Now, we are screening many patients, and the number continues to increase per month. We are more likely to diagnose them in early stage cancer, when curative treatments can be successful," says Rodegard.

JMHPN spoke with Dr. Straznicka, Sunil Gandhi, MD, chief diagnostic radiologist, and Lynn Rodegard, RN, to get an update on how lung cancer screening has evolved at John Muir Health since our Lung Cancer Screening program began in October 2015. We also reached out to pulmonologist Fred Nachtwey, MD, who frequently refers his patients for Lung cancer screening, to ask him why it's important (see Interview).

What are some of the basics on lung cancer screening that you'd like to share?

Dr. Straznicka: The key in this disease is simply to identify patients in earlier stages. Surgery is the treatment modality of choice and offers the highest chance for cure in early stages.

- Screening is the pursuit of early diagnosis before symptoms
- The purpose is to provide early treatment to potentially improve survival
- It is best applied to cancers that are significant both in terms of incidence and lethality

John Muir Health has been working toward early screening programs for a long



time. The International Early Lung Cancer Action Program (I-ELCAP) is a study that helped fast-forward the acceptance of lung cancer screening. John Muir Health was involved, to help strengthen numbers in the database, demonstrating the need for passing the CMS recommendation for low-dose CT for lung cancer screening, and we remain involved. We also participate in the Flight Attendant Medical Research Institute (FAMRI) study. (FAMRI is a study for non –smokers who have been exposed to secondhand smoke.) These all help us with early detection and better outcomes when we do find cancers.

What have we learned from these earlier studies?

Dr. Straznicka: The I-ELCAP conclusions have shown us that early detection WORKS.

Some of its conclusions:

- 10 year survival for all cancer patients detected in this study is 80 percent, with a low rate of advanced and metastatic disease
- 10-year survival for clinical Stage I is 88 percent when all treatment options are considered
- 10-year survival for clinical Stage I treated with surgical resection is 92 percent
- In a population at risk for lung cancer, screening could prevent 80 percent of deaths from lung cancer

What do you most want other physicians at JMH to know?

Dr. Gandhi: It has been truly rewarding to be a part of the team helping advance lung cancer screening at John Muir Health. Because these screening exams are performed on a recurring basis, one key component is to minimize the radiation dose. As a result, we utilize a high quality, low dose protocol for these CT scans that safeguards the patient in this shared goal of early lung cancer detection. I have been pleasantly surprised to see that these exams provide reasonable (if not excellent) image quality, more than adequate for lung nodule detection. Furthermore, it is satisfying to know that, due to continued advances in CT scanner technology, the image quality will continue to improve.

Dr. Straznicka: All aspects of lung cancer care are available here at John Muir Health. Definitive treatment modalities include:

Thoracoscopy (VATS - Video-Assisted Thoracoscopy)

Thoracotomy for large or invasive tumors

Robotic - Assisted Lobectomy

Radiation therapy including SBRT (Stereotactic Body Radiation Therapy)

Chemotherapy

What are the biggest challenges facing your department?

Lynn Rodegard: A big challenge is getting the word out to our physicians to take advantage of lung cancer screening. It took about six months to build the program here, and now we hope more and more doctors will use this important tool to benefit their patients.

We really want to highlight to primary care and all other John Muir Health physicians who see patients in practice, that they can order CT for lung cancer screening or refer patients to our lung cancer screening clinical trials. Most referrals come from PCPs and pulmonologists, and some from allergists – in all, 80 physicians have referred patients for a screening CT. We encourage new physicians to participate. The process is not difficult. If physicians have questions about eligibility or documentation, I am available as a resource. The team reviews every CT for Lung Cancer Screening order to ensure the patient meets the screening criteria and the required documentation is in the medical record.

Our biggest stumbling block is the documentation of smoking history and the Shared Decision Making (SDM) visit. I would encourage physicians to discuss overall smoking history with all patients and document in the social history section of Epic. The age of the patient and the pack year smoking history prompts the firing of the Best Practice Alert (BPA), encouraging the physician to discuss lung cancer screening with their high-risk patients. It also walks the physician through all required steps prior to ordering the CT scan.

Incomplete documentation prompts messages to be sent to the physician requesting that corrections be made (which leads to delays in scanning). The good news is that documentation is getting better!

How has screening impacted our patients in this area? Have we seen a number of diagnoses through early screening?

Lynn Rodegard: The data from the I-ELCAP study certainly gives a compelling reason why patients should consider lung cancer screening. Patients often feel that if they are symptom-free, they are cancer-free, but that may not be true. We have had lung cancer screening patients diagnosed with lung cancer who got a CT only due to their significant smoking history. They were symptom-free. If those patients had waited until they had symptoms, it might have meant a higher stage and less chance for a cure. We need patients to understand that lung cancer screening can save lives.

Criteria for Lung Cancer Screening Participation

- Age 55-77, current or former smokers with documentation of at least a 30 pack year smoking history
- Former smokers must have quit within the last 15 years
- Medicare coverage includes a visit for counseling and shared decision-making (SDM) on the benefits and risks of lung cancer screening – use of a decision aid is required
- Data collection (all lung cancer study patients are entered into the registry) specific coverage eligibility criteria for radiologists and radiology imaging centers

Things to know for your high risk patients

- Any physician can order the low dose CT for lung cancer screening as long as the patient qualifies and the documentation is completed
- COPD or cough does not preclude patients from getting the CT for lung cancer screening
- Patients will qualify for a CT for lung cancer screening annually until age 77; for a former smoker, up until 15 year quit date
- If abnormal findings are found on the CT for lung cancer screening, a follow up scan should be ordered as a low dose chest CT
- Physicians can charge for the Shared Decision Making visit

- Patients who do not meet the eligibility criteria for lung cancer screening, as defined by Medicare and Commercial payors, may be eligible for the I-ELCAP or FAMRI study .For more information please call the Clinical Research Program @ 674-2580.
- Documentation of smoking history for all patients will help ensure that all highrisk patients that should be scanned are given the opportunity to decide if lung cancer screening is the best option for them

If you have questions or would like more information regarding the lung cancer screening program, please call Lynn Rodegard, Thoracic Program Nurse Navigator, at (925) 947-3322.

INTERVIEW: Why I Refer Patients to the Lung Cancer Screening Study

JMHPN talked with Fred Nachtwey, MD, pulmonologist in Walnut Creek, to get his viewpoint on the study's value.

JMHPN: Why is this study so important?

Dr. Nachtwey: One of the frustrating things about practicing all these years is that we've made very little impact in the survival rate of people with lung cancer. We had just X-rays for screening. By the time the cancer was visible, it was often not curable. That was before we knew about the effect of lowdose CT scanning.

The exciting thing about the benefit that was shown to participants in the I-ELCAP study is that within about the last five years, we've substantially improved the survival rate. Prior to CT screening, the two-year survival rate was about 10 percent. For patients that have screening, the survival rate is much improved. All due to early diagnosis.

We all know the energy that has been put into screening for breast, prostate, and colon cancer. But the most dramatic improvement in survival is in CT scanning for lung cancer.

Now, everyone who is at high risk for lung cancer should have a screening CT scan every year. The number we have diagnosed early, treated, and cured is very impressive. The cancer can be treated before it spreads.

Why do you recommend it to other MDs?

We would encourage everyone to familiarize themselves with the indications for screening, and actually make sure that it's done for your patients.

Personally, I discuss screening with all my high-risk patients and a very high percentage agree to have the CT scan.

At John Muir Health we are very fortunate to have this screening system available. It will definitely improve our patients' health. We need to extend it to everyone who needs it.

Last month one of

my longtime patients, whom I have been treating for COPD, but is still smoking, agreed to be screened. When we found the nodule, the cancer was removed. This patient has a very good chance of being cured.

How should MDs get started referring?

I'd aim this suggestion to any primary care doctor at John Muir Health: You should always be asking smokers if they have been screened for cancer. Ask, "have you smoked 30 pack years? Then you're at risk for lung cancer, and should be screened."

Smokers know they are at risk, and screening helps allay their anxiety. We also recommend that physicians strongly encourage patients to consider quitting smoking and provide them with a list of available resources to help them.

Doctors want to do what's best for patients, and ask routinely about weight, cholesterol, and blood sugar. This is an important addition. By screening, you can actually improve peoples' survival.

Does the staff help with the process of referral?

If a physician is concerned about whether someone should be screened, or needs help with the CT findings, we have a system set up to help. In addition to the Lung Cancer Screening Program there is a pulmonary nodule program. Whenever there's an abnormal scan, the Nurse Navigator, Lynn Rodegard gets a report and she works with the managing physician's office to ensure the recommended follow-up has been ordered. There are a high number of scans that are false positives.

This causes a lot of anxiety in patients. Our office is set up to see these patients within a few days, to allay their anxiety. We will help them through this process. There is a lot of support at John Muir Health for this. If people get the scan, doctors don't have to make all the tough decisions – but order the scan.

There is a template to help with ordering the screening CT, and since this is a screening test, it helps with the insurance coverage as well.

Any further advice?

I believe that here at John Muir Health we are very fortunate to have this screening system available. It will definitely improve our patients' health. We need to extend it to everyone who needs it.

Lung Cancer Facts

Between 2000 and 2004, an average of 125,522 Americans (78,680 men and 46,842 women) died of smoking-attributable lung cancer each year

Nonsmokers have a 20-30 percent greater chance of developing lung cancer if they are exposed to secondhand smoke at home or work

2016 Leading Sites of New Cancer Cases and Deaths

Estimated Deaths

Male	Female
Lung & bronchus	Lung & bronchus
2,290 (27%)	1,780 (21%)
Liver & intrahepatic bile duct	Breast
1,140 (14%)	1,180 (14%)
Colon & rectum	Colon & rectum
900 (11%)	900 (11%)
Pancreas	Pancreas
640 (8%)	740 (9%)
Prostate 520 (6%)	Liver & intrahepatic bile duct 570 (7%)
Stomach	Ovary
480 (6%)	500 (6%)
Leukemia	Stomach
380 (5%)	400 (5%)
Non-Hodgkin lymphoma	Uterine corpus
320 (4%)	350 (4%)
Kidney & renal pelvis	Leukemia
230 (3%)	320 (4%)
Oral cavity & pharynx	Non-Hodgkin lymphoma
220 (3%)	290 (3%)
All sites	All sites
8,440 (100%)	8,470 (100%)