Lung cancer causes about 160,000 U.S. deaths a year, which is greater than the toll of the next three most common cancers—colon, breast and prostate—combined. Yet only about 30% of lung cancer cases are diagnosed early with most patients diagnosed at a far less treatable, later stage of the disease. And with about 20% of lung cancer deaths preventable, evidence-based screening recommendations for high-risk patients offers the best hope to catch the disease early and provide the best chance for effective treatment.

AMA policy recommends lung cancer screening to be considered standard care and that coverage of screening low-dose computerized tomography (CT) scans for patients at high risk for lung cancer by Medicare, Medicaid and private insurance be a required covered benefit. The policy also aims to raise awareness of lung cancer screening with low-dose CT scans in high-risk patients to improve screening rates and decrease the leading cause of cancer death in the U.S.

The AMA’s What Doctors Wish Patients Knew™ series provides physicians with a platform to share what they want patients to understand about today’s health care headlines.

In this installment, AMA member Omar Atiq, MD, a medical oncologist at the Winthrop P. Rockefeller Cancer Institute at the University of Arkansas for Medical Sciences in Little Rock and president-elect of the American College of Physicians, took time to discuss what patients need to know about lung cancer screening and prevention.

Smoking is the leading risk factor

“In general, anybody can have any cancer based on a number of different factors, but the factor that causes the most preventable cancer deaths is smoking,” said Dr. Atiq, noting that “it’s cigarette smoking, pipe smoking as well as cigar smoking. Mostly in our country it’s cigarette smoking.”

“Are there other risk factors? Yes,” he said. “There is heavy metal exposure—like arsenic, lead, uranium—and environmental factors like air pollution, but those are not as clearly defined as risk factors.”
factors as smoking or tobacco, therefore the screening guidelines are based on tobacco smoking.”

“We don’t know yet whether vaping, e-cigarettes or even marijuana are related to an increased risk of lung cancer,” said Dr. Atiq. “We believe it may be, especially for marijuana, but the data is not as robust as it is for tobacco.”

If eligible, get yearly screenings

“Because of the effects of cigarette smoking, the current recommendations from the U.S. Preventive Services Task Force are that any person between the ages of 50 and 80 who has a 20-pack year history of cigarette smoking should be screened with low dose CT scans on a yearly basis,” Dr. Atiq explained. “Now, what does a 20-pack year history mean? Well, that’s fairly simple. It’s packs of cigarettes per day multiplied by the time in years.

“So, if somebody smokes two packs of cigarettes a day for 10 years, that’s a 20-pack year history,” he added. “On the other hand, if somebody smokes a pack of cigarettes a day for 20 years, then that’s a 20-pack year history and that’s considered to cause similar risk of lung cancer.”

“It should be a 20-pack or more history between the ages of 50 to 80 who is either smoking now or quit within the past 15 years and people who are asymptomatic and are otherwise in good health to be able to tolerate treatments that may be needed if lung cancer were to be found,” Dr. Atiq echoed. “If somebody has a 20-pack year history of smoking and is 60 years old, but quit smoking 20 years ago, it is generally thought that their risk of getting lung cancer is lower than the risk of those who are currently smoking or quit within the previous 15 years.”

Get screened with low-dose CT scans

“For patients who are between the ages of 50 and 80 with a 20-pack year history of cigarette smoking who are either smoking now or quit within the past 15 years, yearly low-dose CT scans are recommended,” said Dr. Atiq. “Low-dose CT scans are sophisticated CT scanners where you do not get the full dose of radiation that you get on a diagnostic CT scan.

“But you do get a good enough picture for the radiologist to be able to find a small lung cancer if there is one,” he added. “Some older CT scans are not considered good enough for lung cancer screening in high-risk patients.”
Follow up will be needed

“Low dose CT scans for screening for lung cancer should be done with the right equipment at the right place with the right radiologists and with the right follow up,” said Dr. Atiq. “In other words, you need to have the right medical team in place who have the right equipment, who know what they’re doing and who know the patient has an appropriate follow up in case you find lung cancer or, for that matter, any other malignancy or some other disease.

“The follow up includes making sure if there is an abnormality that it is looked at first by the radiologist who can sometimes tell us what their suspicion is in terms of this abnormality in the lung being lung cancer or some other illness,” he explained. “Then the primary care physician or the pulmonologist may have to do further testing to confirm that it is indeed lung cancer.

“If it is confirmed that it is lung cancer, then appropriate workup for further management will be needed, which we hope would include surgical resection,” Dr. Atiq said. “That means that it would be an early-stage lung cancer, but sometimes screening can find advanced cancers.

“For those, there may be a need for a multidisciplinary team, which includes a medical oncologist, a radiation oncologist and a surgical oncologist,” he added. “That is the right way of making use of lung cancer screening to reduce the death rate.”

Weigh screening benefits and risks

“Lung cancer screening has a few risks. One is that an abnormality may be found for which further testing may be required, which may eventually turn out not to be cancer,” said Dr. Atiq. “But there could be complications of further testing. A biopsy could sometimes find small enough cancers that if we hadn’t found them, that wouldn’t have affected the length or the quality of a patient’s life.”

In turn, “you are treating something that may not have to be treated. Repeated low-dose CT scans could theoretically cause cancer in some people. Although, the risk is very low,” he said. “Therefore, you have to weigh the risks and benefits in each individual patient.

“But it is generally accepted by the U.S. Preventive Services Task Force, Centers for Disease Control and Prevention, American Cancer Society and other experts in the lung cancer field that in the right population, lung cancer screening has been shown to reduce deaths,” Dr. Atiq said. “Because you can find many of them at an earlier stage when they’re potentially curable as opposed to finding them in advanced stages when they are symptomatic and incurable.”
Make the decision to quit smoking

“The most common and the most salient preventable factor in cancer deaths is smoking, so people should not smoke,” Dr. Atiq urged. “If they are smoking, they should quit smoking. That is beneficial.

“Talk to your physician about help with quitting smoking,” he said. “That should be at any time if you are smoking, even if you have just started smoking or you’ve been smoking for five years or 10 or more years; even if you are still not at high enough to be screened.”

Take other preventive measures

While “asbestos exposure is now rare, based on what we know about the relationship of asbestos to cancer, we know it can lead to lung cancer,” Dr. Atiq said. “Then the environment. We have to take care of our environment. We have to reduce pollution.

“We have to make sure that people who are exposed to heavy metals and other pollutants have appropriate clothing, masks, goggles and protective equipment and gear so that their exposure to those elements is minimized,” he added. “And then, although data is not definitive yet, logic would tell us that we should also avoid marijuana, e-cigarettes and vaping because there are good reasons to believe that they may also have deleterious effects on our health, especially as it pertains to cancer.”

Be honest with your physician

“If you are in your 50s or higher up to age 80 and you have been a smoker or are currently a smoker, then you should talk to your physician,” said Dr. Atiq. “But, in general, primary care physicians, internists, family medicine physicians and others would generally bring this up themselves as long as the patient has a relationship and is following up with that physician.

“That’s the only way to do it,” he said, noting that “the highest honor and the highest privilege that one can get is that of being a physician when a stranger puts his or her life into your hands,” he said. “So, if there is not complete honesty and transparency, then that relationship can suffer and there’s no reason for that.

“The physician can’t help the patient if the patient’s not telling them everything,” Dr. Atiq emphasized. “So, if they don’t know you smoke, they can’t provide the right services for quitting smoking and for lung cancer screening.”
It's an individualized process

“Prevention of cancer with minimizing exposure to known carcinogens along with appropriate screening helps reduce our risk of death from lung cancer,” said Dr. Atiq. “It is a very individualized decision and screening should be recommended unless there are reasons that a physician and a patient decide the benefits of screening don’t outweigh the risks.

“Lung cancer is preventable, and an ounce of prevention is better than a pound of cure, so please do not smoke. If you are smoking, quit,” he said. “Try to also keep your environment clean of pollutants, and that of course is a societal imperative, but we all as individuals make the society and have an important role to play.

“And if you have any questions, please talk to your physician about it,” he emphasized. “At the American Medical Association—as the largest umbrella organization of physicians in our country—what we are trying to do is to help not only our members, but the public and our patients to live longer, better lives.”