US DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF INSPECTOR GENERAL

Office of Healthcare Inspections

VETERANS HEALTH ADMINISTRATION

Improvements Needed in Lung Cancer Screening Through Use of Community Care

National Review | 22-00416-10 | October 31, 2023

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Executive Summary

The VA Office of Inspector General (OIG) conducted a national review to evaluate Veterans Health Administration (VHA) lung cancer screening (LCS) with low-dose computed tomography scan (CT scan) provided through the VA community care program. The OIG reviewed the resources and processes for management of community care low-dose CT scans and identified barriers impacting timely and quality screening for patients.

In the course of conducting this review, the OIG initiated a separate focused review to assess VHA's guidance for establishing LCS programs at VHA facilities. Findings from that review were published in the OIG report, *Concern with Veterans Health Administration's Lung Cancer Screening Program Requirements*.[1]

Lung Cancer

Lung cancer is the third most diagnosed type of cancer and is the leading cause of cancer-related death in the United States.[2] The American Cancer Society estimates that in 2023, the United States will have 238,340 new cases of lung cancer, and 127,070 people will die from the disease.[3] When compared to the general population, veterans have a higher rate of lung cancer. VA reports diagnosing 7,700 veterans with lung cancer each year.[4]

Lung cancer often does not cause symptoms until it spreads to other parts of the body, making the prognosis after cancer diagnosis poor.[5] LCS with low-dose CT scan helps identify lung cancer prior to the development of symptoms and reduces mortality. Since 2013, the US Preventive Services Task Force recommended annual screening for lung cancer with low-dose CT scan for current and former adult smokers who have quit within the past 15 years. The US Preventive Services Task Force updated the recommendation in 2021 to expand the high-risk

[1] VA OIG, *Concern with Veterans Health Administration's Lung Cancer Screening Program Requirements*, Report No. 22-01511-174, August 16, 2023.

[2] Centers for Disease Control and Prevention, *Lung Cancer-What is Lung Cancer*, accessed September 29, 2022, https://www.cdc.gov/cancer/lung/basic_info/what-is-lung-cancer.htm. Lung cancer is an abnormal growth of cells that begins in the lungs; National Institutes of Health, National Cancer Institute, *Cancer Stat Facts: Common Cancer Sites*, accessed September 29, 2022, https://seer.cancer.gov/statfacts/html/common.html; American Cancer Society, *Key Statistics for Lung Cancer*, accessed March 6, 2023, https://www.cancer.org/cancer/lung-cancer/about/key-statistics.html.

[3] American Cancer Society, *Key Statistics for Lung Cancer*.

[4] VA Office of Research and Development, *VA works to raise awareness for lung cancer screening in Veterans*, accessed February 2, 2023, https://www.research.va.gov/currents/0720-VA-works-to-raise-awareness-for-lung-cancer-screening-in-Veterans.cfm.

[5] American Cancer Society, *Lung Cancer Early Detection, Diagnosis, and Staging*, accessed November 9, 2022, https://www.cancer.org/cancer/lung-cancer/detection-diagnosis-staging/signs-symptoms.html.

population eligible for screening by lowering both the age and cumulative smoking years.[6] Low-dose CT scan is the only recommended screening test for lung cancer.[7]

VHA Lung Cancer Screening

In November 2017, VHA issued an initial memorandum providing implementation recommendations for LCS with low-dose CT scan at VHA facilities and provided requirements if community care is used for LCS. Per the memorandum, if facilities decide to use community care "they are required to confirm and document that these community providers/systems meet all lung cancer screening program criteria. . . ."[8]

On July 15, 2022, VHA issued a revised memorandum stating that "the Medical Facility Director should coordinate with the Office of Community Care to ensure that appropriate LCS procedures are in place for Veteran care coordination, management, and quality assurance."[9] The OIG noted there is no requirement for VHA to use facility LCS resources when patients are sent for low-dose CT scan through community care.

Methodology

The OIG developed and distributed a questionnaire to 139 VHA-identified facility points of contact to assess how facilities completed LCS under the requirements delineated in VHA's operational memorandum for LCS. [10] See appendix A for the list of questions and response options that were used for this report.

In addition, the OIG reviewed electronic health records (EHRs) for veterans that had a community care consult for LCS with low-dose CT scan to evaluate the elements of care coordination and timeliness.

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[6] US Preventive Services Task Force, *Final Recommendation Statement, Lung Cancer: Screening*, March 9, 2021, accessed March 23, 2023, https://uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening. In 2013, the US Preventive Services Task Force published the first recommendation for low-dose CT scans for lung cancer screening. In 2021, the Task Force updated the recommendation, expanding the population for whom screening was recommended.

[7] Centers for Disease Control and Prevention, *Who Should be Screened for Lung Cancer*, accessed September 22, 2022, https://www.cdc.gov/cancer/lung/basic_info/screening.htm.

[8] VHA Deputy Under Secretary for Health for Operations and Management memorandum, "Lung Cancer Screening with Low Dose Computed Tomography," November 27, 2017.

[9] VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum, Revision Memorandum "Guidelines for Lung Cancer Screening in Veterans Health Administration," July 15, 2022.

[10] The VA Manila Outpatient Clinic in Pasay City, Philippines, was excluded due to its unique status as the only VA healthcare facility located in a foreign country. Services available to service-connected veterans are limited. Services and costs related to the treatment of non-service-connected disabilities are the veteran's responsibility. The OIG did not find that the July 15, 2022, VHA "revision memorandum" changed the results and conclusions from the questionnaire.

OIG Questionnaire Results

The OIG asked facility questionnaire points of contact to identify where the facility completed LCS with low-dose CT scans. Ninety-two (66 percent) VHA facilities indicated they use community care for LCS. Seven (5 percent) indicated they did not utilize either in-house (facility) services or community care for LCS.[11] Among these seven facilities, three reported using other VHA facilities for LCS while the remaining four reported not conducting in-house LCS or offering LCS through community care. The four facilities reported not offering LCS due to lack of an established VHA LCS program, lack of VHA resources, inability to ensure that the community care programs were adhering to VHA standards for LCS, lack of community care providers, and concerns that low-dose CT scans were not completed appropriately at community care facilities.

Questionnaire respondents were asked whether the facility tracks community care low-dose CT scans for abnormal results, follow-up care, and lung cancer diagnosis. Of the 92 facilities that use community care for LCS, 62 percent reported that the facility did not track and trend community care abnormal low-dose CT scan results, and 67 percent and 68 percent did not track and trend subsequent lung cancer diagnoses or follow-up care, respectively.

VHA requires facilities that conduct LCS to have a clinical LCS coordinator to manage and coordinate the care of patients in the program and use a patient management tool/registry to track and manage patients to ensure adherence to LCS management guidelines.[12] However, when a veteran is referred to the community for LCS, these same services are not required. The OIG analysis of the questionnaire response showed that 66 percent of VHA facilities with an LCS coordinator and 64 percent with an LCS registry/tracking system indicated they did not use the LCS coordinator or an LCS registry/tracking system to manage the care of patients referred for low-dose CT scan through community care.

Questionnaire respondents identified the following top five barriers that hindered the facility's management of community care low-dose CT consults: obtaining community care clinical documentation, absence of a clinical coordinator to manage low-dose CT consults, coordination of care, absence of a facility tracking system for low-dose CT scan results, and absence of a facility multidisciplinary lung cancer team.

Electronic Health Record Review Results

The OIG reviewed EHRs for veterans that had a community care consult for LCS with low-dose CT scans to evaluate elements of care coordination to include receipt, communication, and follow-up of scan results.

[11] Since completion of the OIG questionnaire, five of the seven facilities have initiated the development of LCS programs. In a concurrent review of in-house lung cancer screening, the OIG recommended that lung cancer screenings be required at all VHA facilities.

[12] VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum.

VHA facility community care staff must work with community providers to obtain clinical documentation associated with visits.[13] If results were not obtained within 14 days of a veteran's initial appointment, facility community care staff may close a consult after the first attempt to obtain the results. [14] VHA requires that community care staff make two additional attempts to obtain results within 90 days of an appointment.[15]

In the sample of 241 community care consults from 94 VHA facilities, the OIG found 11 VHA facilities had consults with missing scan results.[16] Additionally, five of the 11 facilities with missing scan results had consults that were closed without making three attempts to obtain the results. While consult closure without clinical documentation is consistent with VHA policy, the failure to obtain community care low-dose CT scan clinical documentation could result in negative patient outcomes.

VHA does not define the specified time frame to notify providers of low-dose CT scan results. For the purpose of this review, the OIG used the time that community care staff may initiate consult closure (14 days) as the starting point.[17] The OIG found that at 97 percent of VHA facilities, providers were notified of all community care low-dose CT scan results in the sample. However, 57 percent of VHA facilities had results that were not relayed to providers within 14 days of appointment completion. More importantly, 13 percent of VHA facilities had abnormal results that were not relayed to providers within 14 days of the appointment.

The OIG found instances at 36 percent of VHA facilities where patients were not notified of community care low-dose CT scan results by the VHA provider or designee (this includes six patients with abnormal results).[18] Additionally, 21 percent of facilities with normal community care low-dose CT scan results in the sample did not have documented patient notification within 14 days, and 4 percent of facilities with abnormal low-dose CT results did not have documentation of patient notification by the provider within 7 days as required by VHA policy.[19]

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[13] VHA Office of Community Care Field Guidebook, *Chapter 4: Consult Completion and Medical Records Management*. The Office of Community Care Field Guidebook "contains 'live' documents that are consistently updated with new and updated information."

[14] VHA Assistant Under Secretary for Health for Community Care memorandum, *"Revised Administrative Closure of Community Care Consults Process*," October 1, 2021; VHA Office of Community Care Field Guidebook, *Chapter 4: Consult Completion and Medical Records Management.*

[15] VHA Assistant Under Secretary for Health for Community Care memorandum.

[16] Ninety-two facilities answered the OIG questionnaire as using community care for low-dose CT scans; however, OIG's data for community care consults represented 94 facilities after exclusion and inclusion criteria were applied.

[17] VHA Office of Community Care Field Guidebook, *Chapter 4*: *Consult Completion and Medical Records Management.*

[18] The OIG EHR review of the six patients found that follow-up was completed after notification from community provider, radiologist, or clinician; the OIG did not identify any clinical concerns.

[19] VHA Directive 1088(1), *Communicating Test Results to Providers and Patients*, October 7, 2015, amended January 24, 2022. The 2022 amended directive clarified "the need to send a certified letter for test results requiring action when communication attempts have failed." The OIG used the date the provider was notified of scan results as the date the results were available.

VHA guidance, based on the US Preventive Services Task Force, recommend annual low-dose CT scans for LCS to be effective.[20] During the review period, 37 percent of VHA facilities had patients in the sample that did not have their one-year follow-up scans ordered or did not have documentation of why an annual low-dose CT scan was not ordered.[21] The OIG found 23 percent of VHA facilities did not schedule a follow-up appointment for patients with abnormal scan results within 28 days of the recommended time frame or there was no justification documented for not ordering a follow-up test.[22]

Additionally, seven patients with abnormal scan results did not receive follow-up per radiologist recommendations. The OIG's EHR review of these seven patients are included in table 1 which provides cases that exemplify the complexities of managing community care low-dose CT scans.[23]

Table 1. Examples of Process Failures with Low-Dose CT Scans using Community Care

Issue	Risks and Concerns
Patient A completed a community care low-dose CT scan. VA staff closed the consult after one unsuccessful attempt to obtain clinical documentation. No further attempts to obtain the CT scan results were documented.	The low-dose CT scan results were unknown to VHA staff and care plans for the patient could not occur without the results. Abnormal results may represent lung cancer.
Patients B and C had recommendations for six-month follow-up following a low-dose CT scan. VHA primary care team failed to coordinate further testing for abnormal results despite the patients being seen by the ordering provider several months after the low-dose CT scan.	Abnormal low-dose CT scan results required follow-up for possible lung cancer. The providers missed an opportunity to engage the patients on the importance of the follow-up during a medical appointment.
Patient D had a left upper lung abnormality on a community care low-dose CT scan with recommendation for a six-month follow-up. The VHA provider attempted to schedule a community care low-dose CT scan for the follow-up. The facility's community care program did not accommodate a provider's orders six months in advance.	As the follow-up low-dose CT scan order could not be completed that far in advance, the provider was required to order the test closer to the six-month date. Instead of the six-month follow-up, the provider ordered the CT two years later and the results showed cancer.

[20] VA National Center for Health Promotion and Disease Prevention, *Screening for Lung Cancer*, accessed November 17, 2022, https://www.prevention.va.gov/preventing_diseases/screening_for_lung_cancer.asp; US Preventive Services Task Force, *Final Recommendation Statement, Lung Cancer: Screening*, *March 9, 2021.*

[21] The OIG completed this review during the COVID-19 pandemic. The OIG acknowledges that the COVID-19 pandemic decreased preventive medicine screening rates throughout the country, including LCS.

[22] The OIG team defined the follow-up date as the date recommended by the community care radiologist. For the purpose of this report, the OIG team selected 28-days beyond the follow-up due date to represent timeliness, in addition to codifying the data using successive 14-day intervals for scheduled follow-up of the low-dose CT scans.

[23] One of the seven patients decided to discuss and follow-up with a non-VA pulmonologist outside of the VA community care program and is not included in the table.

Issue	Risks and Concerns
Patient E had recommendations for six-month follow-up following a low-dose CT scan. The veteran's primary care provider forwarded the patient's case to the facility's LCS program staff to follow the patient. The facility declined to use the lung cancer coordinator to track tests completed in the community.	Although the facility had an established lung cancer coordinator, the request by the provider to the lung cancer coordinator to follow the patient was denied. The response noted, "When Veterans decide to go out in the community they can not (sic) be followed by the Lung Cancer Screening Program. [The veteran] will need to be followed by [the] PCP [primary care provider] unless [the veteran] decides to screen through the VA."
Patients F and G completed a community care low-dose CT scan with recommendation to follow up in six months. Efforts to obtain a follow-up were problematic due to no availability of low-dose CT scan in the community or specialist.	Patients depended on the VA's community care, which had no availability, resulting in the follow-up low-dose CT scan not being completed.
Patients H and I completed a community care low-dose CT scan. The results showed abnormalities that required follow-up in six months. The patients were not notified of the abnormal scan results within the time frame required by VHA policy.	VHA policy is to notify patients of abnormal studies within seven days.

Source: OIG analysis of EHR review.
Note: Patient H and I notifications were delayed approximately five months and two months, respectively.

Community care consults serve a critical role in providing comprehensive healthcare for patients. Use of community care in some circumstances may introduce inefficiencies that unnecessarily cause delays in the process for screening for lung lesions. The OIG concluded clinical outcomes for patients who were referred to community providers for low-dose CT scans can be improved by

- obtaining completed community care low-dose CT scan results from the community provider,
- timely notification of low-dose CT scan results to VHA providers,
- notifying patients of low-dose CT scan results, and
- developing timely care plans.

The OIG made five recommendations to the Under Secretary for Health that would promote coordination, management of community care consults, and timely and quality screening for patients who depend on obtaining LCS through the VA community care program.

Comments

The Under Secretary for Health concurred with the recommendations and provided acceptable action plans (see appendix B). The OIG will follow up on the planned actions until they are completed.

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Contents

Abbreviations

CT scan	computed tomography scan
EHR	electronic health record
LCS	lung cancer screening
OIG	Office of Inspector General
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network

Introduction

The VA Office of Inspector General (OIG) conducted a national review to evaluate Veterans Health Administration (VHA) lung cancer screening (LCS) with low-dose computed tomography scan (CT scan) provided through the VA community care program. The OIG reviewed the resources and processes for management of community care low-dose CT scans and identified barriers impacting timely and quality screening for patients.

In the course of conducting this review, the OIG initiated a separate focused review to assess VHA's guidance for establishing LCS programs at VHA facilities. Findings from that review were published in the OIG report, *Concern with Veterans Health Administration's Lung Cancer Screening Program Requirements*.[1]

Background

Lung cancer is the third most diagnosed type of cancer and is the leading cause of cancer-related death in the United States.[2] The American Cancer Society estimates that in 2023, the United States will have 238,340 new cases of lung cancer, and 127,070 people will die from the disease.[3] When compared to the general population, veterans have a higher rate of lung cancer.[4] VA reports diagnosing 7,700 veterans with lung cancer each year.[5] The use of tobacco products such as cigarettes is the number one cause of lung cancer and veterans are more likely to use tobacco products than civilians.[6] A 2021 VA survey of enrolled veterans found that 1.1 million enrollees (12.9 percent) reported being a current cigarette smoker.[7] In addition to the history of smoking, about 900,000 veterans are at risk of developing lung cancer due to age and

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[1] VA OIG, *Concern with Veterans Health Administration's Lung Cancer Screening Program Requirements*, Report No. 22-01511-174, August 16, 2023.

[2] Centers for Disease Control and Prevention, *Lung Cancer-What is Lung Cancer*, accessed September 29, 2022, https://www.cdc.gov/cancer/lung/basic_info/what-is-lung-cancer.htm. Lung cancer is an abnormal growth of cells that begins in the lungs; National Institutes of Health, National Cancer Institute, *Cancer Stat Facts: Common Cancer Sites*, accessed September 29, 2022, https://seer.cancer.gov/statfacts/html/common.html; American Cancer Society, *Key Statistics for Lung Cancer*, accessed March 6, 2023, https://www.cancer.org/cancer/lung-cancer/about/key-statistics.html.

[3] American Cancer Society, *Key Statistics for Lung Cancer*.

[4] William Grier, et.al., "Military Exposures and Lung Cancer in United States Veterans," Seminars in Oncology 49 (2022): 241-246.

[5] VA Office of Research and Development, *VA works to raise awareness for lung cancer screening in Veterans*, accessed February 2, 2023, https://www.research.va.gov/currents/0720-VA-works-to-raise-awareness-for-lung-cancer-screening-in-Veterans.cfm.

[6] Centers for Disease Control and Prevention, *Military Service Members and Veterans*, accessed November 9, 2022, https://www.cdc.gov/tobacco/campaign/tips/groups/military.html.

[7] Advance Survey Design, LLC, 2021 *Survey of Veteran Enrollees' Health and Use of Health Care – Data Findings Report*, VA245-17-C-0178, September 24, 2021.

environmental factors.[8] Military exposure to lung cancer causing substances such as agent orange, burn pits, chromium, ionizing radiation, asbestos, and mustard gas may also increase lung cancer risks.

Because cigarette smoking remains the number one risk factor, avoiding the use of tobacco products is the most effective method to prevent lung cancer.[9] After quitting for 10 years, the risk of lung cancer decreases 30 to 60 percent.[10] For those diagnosed with lung cancer, the overall five-year survival rate is approximately 23 percent.[11] Studies show that the survival rate is higher in those with lung cancer that is found while the cancer is localized to the lungs and before it spreads to other parts of the body.[12] Lung cancer often does not cause symptoms until it spreads to other parts of the body, making the prognosis after cancer diagnosis poor.[13]

Recommendations for Lung Cancer Screening with Low-Dose CT Scan

Low-dose CT scan is the only recommended screening test for lung cancer. As described by the Centers for Disease Control and Prevention, "during an LDCT [low-dose CT scan], you lie on a table and an X-ray machine uses a low-dose (amount) of radiation to make detailed images of your lungs. The scan only takes a few minutes and is not painful."[14]

LCS with low-dose CT scan helps identify lung cancer prior to the development of symptoms and reduces mortality. A US clinical trial showed that low-dose CT scan screening contributed to a 20 percent decrease in lung cancer deaths among patients who were at high risk for lung cancer.[15] Since 2013, the US Preventive Services Task Force recommended annual screening for lung cancer with low-dose CT scan for current and former adult smokers who have quit within

[8] VA Office of Research and Development, *VA works to raise awareness for lung cancer screening in Veterans*.

[9] Centers for Disease Control and Prevention, *Lung Cancer-What Are the Risk Factors for Lung Cancer?*, accessed June 6, 2023; Centers for Disease Control and Prevention, *Lung Cancer-What Can I Do to Reduce My Risk for Lung Cancer?,* accessed June 6, 2023.

[10] National Institutes of Health, National Cancer Institute, *Lung Cancer Prevention*.

[11] National Institutes of Health, National Cancer Institute, *Cancer Stat Facts: Lung and Bronchus Cancer*, accessed September 29, 2022, https://seer.cancer.gov/statfacts/html/lungb.html.

[12] National Institutes of Health, National Cancer Institute, *Cancer Stat Facts: Lung and Bronchus Cancer*.

[13] American Cancer Society, *Lung Cancer Early Detection, Diagnosis, and Staging*, accessed November 9, 2022, https://www.cancer.org/cancer/lung-cancer/detection-diagnosis-staging/signs-symptoms.html.

[14] Centers for Disease Control and Prevention, *Who Should be Screened for Lung Cancer*, accessed September 22, 2022, https://www.cdc.gov/cancer/lung/basic_info/screening.htm.

[15] National Institutes of Health, National Cancer Institute, *Lung Cancer Screening (PDQ®)–Health Professional Version,* accessed October 25, 2022, https://www.cancer.gov/types/lung/hp/lung-screening-pdq; American Cancer Society, *Cancer Facts and Figures 2021*, accessed October 20, 2022, https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2021/cancer-facts-and-figures-2021.pdf.

the past 15 years.[16] In March 2021, the US Preventive Services Task Force expanded LCS guidelines to include adults who[17]

- are 50–80 years old,
- have a 20 pack-year smoking history,[18] and
- currently smoke or have quit within the past 15 years.

The US Preventive Services Task Force recommends annual screening for a person in the above group, until that "person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery."[19] Additionally, the American Cancer Society recommends facilities that conduct LCS with low-dose CT scan have a team of specialists that can provide patients appropriate care and follow-up after abnormal scan results.[20]

VHA Lung Cancer Screening

The VHA National Center for Health Promotion and Disease Prevention guidance for LCS is consistent with the US Preventive Services Task Force recommendation.[21] In November 2017, VHA issued an initial memorandum providing implementation recommendations for LCS with low-dose CT scan at VHA facilities and provided requirements if community care is used for LCS. Per the memorandum,

> If a facility decides to use community LDCT [low-dose CT scan] through local contracts instead of VA resources for their appropriate patients, they are required to confirm and document that these community providers/systems meet all lung

[16] US Preventive Services Task Force, *Final Recommendation Statement, Lung Cancer: Screening,* December 31, 2013, accessed October 10, 2022, https://uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening-december-2013.

[17] US Preventive Services Task Force, *Final Recommendation Statement, Lung Cancer: Screening*, March 9, 2021, accessed October 10, 2022, https://uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening.

[18] National Institutes of Health, National Cancer Institute, *NCI's Dictionary of Cancer Terms, Pack Year,* accessed September 30, 2022, https://www.cancer.gov/publications/dictionaries/cancer-terms/def/pack-year. Pack-year is a measurement of the amount a person has smoked over time, "calculated by multiplying the number of packs of cigarettes smoked per day by the number of years the person has smoked. For example, 1 pack year is equal to smoking 1 pack per day for 1 year, or 2 packs per day for half a year, and so on." The US Preventive Services Task Force LCS guidance on smoking history refers to tobacco cigarettes.

[19] US Preventive Services Task Force, *Final Recommendation Statement, Lung Cancer: Screening*, March 9, 2021.

[20] American Cancer Society, *Can Lung Cancer Be Found Early*, accessed October 25, 2022, https://www.cancer.org/cancer/lung-cancer/detection-diagnosis-staging/detection.html.

[21] US Preventive Services Task Force, *Final Recommendation Statement, Lung Cancer: Screening*, March 9, 2021.

cancer screening program criteria as set forth by the Centers for Medicare and Medicaid Services.[22]

On July 15, 2022, VHA issued a revised memorandum stating that "the Medical Facility Director should coordinate with the Office of Community Care to ensure that appropriate LCS procedures are in place for Veteran care coordination, management, and quality assurance."[23] Both memoranda denote the mandatory elements of an LCS program at VHA facilities. According to VHA guidelines, VA medical facilities may perform LCS "only when all the following criteria for components of a high-quality LCS program are met"(see table 1).[24] Absent of an LCS program structure that is adherent to the memorandum, facilities can offer the low-dose CT scan portion of LCS through community care. However, whether all or part of the 10 elements are available at the facility, there is no requirement for VHA to use facility LCS resources, such as LCS coordinator and tracking system if available when patients are sent for low-dose CT scan through community care.

Table 1. Mandatory Elements of a VHA LCS program

Program Element
Standardized, evidence-based criteria for eligibility, frequency, and duration of LCS.
Processes to facilitate identification of patients who meet VHA lung cancer screening eligibility criteria.
Provision of patient education materials and shared decision-making for patients regarding participation in a program of lung cancer screening.
Clinical LCS coordinator(s) to coordinate the care and management of patients in the program.
Access to an effective, evidence-based smoking cessation program.
[An] LCS Program Oversight Board responsible for the oversight of the conduct and management of the LCS program.
Access to a multidisciplinary Lung Nodule Management Board with clinical expertise in lung nodule management and diagnostic pathways.
Access to a Tumor Board with expertise in lung cancer treatment.

[22] VHA Deputy Under Secretary for Health for Operations and Management, "Lung Cancer Screening with Low Dose Computed Tomography," November 27, 2017. An operational memorandum provides guidance but is not considered VHA national policy. On March 24, 2022, the Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer updated the VHA's memorandum on LCS. The memorandum was released again on July 15, 2022.

[23] VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum, "Guidelines for Lung Cancer Screening in Veterans Health Administration," July 15, 2022. An operational memorandum provides guidance but is not considered VHA national policy. The memorandum served as a revision memorandum, replacing prior guidance from a March 24, 2022, memorandum.

[24] VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum.

Program Element
Optimized radiology CT protocols and standardized procedure names, along with standardized reporting methodology/codes and lung nodule management guidelines (i.e., Lung CT Screening Reporting & Data System [Lung-RADS]).[25]
A patient management tool/registry to rigorously track and manage patients to ensure high levels of adherence to LCS management guidelines.

Source: VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum, "Revision Memorandum: Guidelines for Lung Cancer Screening in Veterans Health Administration (VHA)," July 15, 2022.
Note: Program elements quoted from the memorandum have been truncated.

VA Community Care

In June 2018, the VA Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act was established to give eligible veterans greater access and choice in health care either at VA or through a community provider.[26] In 2020, VA authorized 2.3 million veterans to use community care.[27]

Once community care has been authorized and a veteran receives the requested service, VHA facility community care staff works with community providers to obtain clinical documentation associated with the visit.[28] If no clinical documentation is received from the community provider within 14 days of the veteran's initial appointment, facility community care staff may close the consult after confirming the veteran received the requested service, and after making and documenting one attempt to obtain clinical documentation. [29] VHA requires that facility community care staff make two additional attempts to obtain the clinical documentation within 90 days of the appointment.[30]

[25] Lung Imaging Reporting and Data System (Lung-RADS) was developed by the American College of Radiology to "standardize lung cancer screening CT reporting and management recommendations, reduce confusion in lung cancer screening CT interpretations, and facilitate outcome monitoring. American College of Radiology, *Lung CT Screening Reporting & Data System (Lung RADS®)*, accessed October 28, 2022, https://www.acr.org/Clinical-Resources/Reporting-and-Data-Systems/Lung-Rads.

[26] The Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act of 2018, Pub. L. No. 115-182, § 132 (2018).

[27] Congressional Budget Office, *The Veterans Community Care Program: Background and Early Effects*, October 2021.

[28] VHA Office of Community Care Field Guidebook, *Chapter 4: Consult Completion and Medical Records Management*. The Office of Community Care Field Guidebook "contains 'live' documents that are consistently updated with new and updated information."

[29] VHA Assistant Under Secretary for Health for Community Care memorandum, "Revised Administrative Closure of Community Care Consults Process," October 1, 2021; VHA Office of Community Care Field Guidebook, *Chapter 4: Consult Completion and Medical Records Management.*

[30] VHA Assistant Under Secretary for Health for Community Care memorandum.

When the clinical documentation is received from the community provider, the results are scanned and attached to the consult by Health Information Management or community care staff, and the ordering provider receives an alert.[31] Once the results are available, VHA policy requires that the ordering provider, or designee, communicates the results to patients within seven calendar days for results that require action, and 14 calendar days for results that do not require action.[32]

The OIG has frequently reported on gaps in care coordination between VHA and community providers.[33] These reports cite failures in coordinating care for veterans requiring multidisciplinary clinical teams to manage complex diseases, such as lung cancer.[34]

Prior OIG Report

On December 16, 2021, the OIG published a report, *Deficiencies in a Patient's Lung Cancer Screening, Renal Nodule Follow-Up, and Prostate Cancer Surveillance at the VA Southern Nevada Healthcare System in Las Vegas.*[35] The OIG substantiated providers failed to make a cancer diagnosis and treat the patient's cancer. Providers did not take steps that would have allowed them to make a diagnosis, including ordering screening tests. The patient had known lung cancer risk factors that warranted annual screening. The OIG did not find evidence beyond 2013 that pulmonology staff followed up, or that after 2017, primary care providers ensured completion of annual screening. The OIG made five recommendations to the Facility Director; all recommendations were closed as of May 1, 2023.

[31] VHA Office of Community Care Field Guidebook, *Chapter 4*: Consult Completion and Medical Records Management.

[32] VHA Directive 1088(1), *Communicating Test Results to Providers and Patients*, October 7, 2015, amended January 24, 2022. The 2022 amended directive clarified "the need to send a certified letter for test results requiring action when communication attempts have failed."

[33] VA OIG, *Multiple Failures in Test Results Follow-up for a Patient Diagnosed with Prostate Cancer at the Hampton VA Medical Center in Virginia*, Report No. 21-03349-186, June 28, 2022; VA OIG, *Community Care Coordination Delays for a Patient with Oral Cancer at the Veterans Health Care System of the Ozarks in Fayetteville, Arkansas*, Report No. 21-02326-233, September 12, 2022; VA OIG, *Inadequate Coordination of Care for a Patient at the West Palm Beach VA Healthcare System in Florida*, Report No. 22-01594-86, March 30, 2023.

[34] VHA Handbook 1101.10(1) *Patient Aligned Care Team (PACT) Handbook*, February 5, 2014, amended May 26, 2017. VHA defines care coordination as "the administrative process that facilitates integration of health care services and navigation through complex health care systems. . . involves working across care settings, accessing health care providers, and other services such as community programs. . . ."

[35] VA OIG, *Deficiencies in a Patient's Lung Cancer Screening, Renal Nodule Follow-Up, and Prostate Cancer Surveillance at the VA Southern Nevada Healthcare System in Las Vegas*, Report No. 21-01038-49, December 16, 2021.

Scope and Methodology

The OIG initiated a national review of low-dose CT scans for LCS provided through community resources on January 27, 2022.

The OIG reviewed relevant VHA directives, VHA memoranda, VHA guidance specific to LCS, and relevant external standards. The OIG team interviewed subject matter experts from the National Center for LCS and the VHA National Center for Health Promotion and Disease Prevention.

The OIG team developed a questionnaire related to LCS practices and procedures at VHA facilities (see appendix A for the list of questions and response options that were used for this report). The OIG requested 139 of 140 VHA medical facilities provide a point of contact responsible for coordinating with facility subject matter experts and completing the electronic OIG questionnaire on behalf of the facility.[36]

The questionnaire focused on how facilities completed LCS from October 1, 2018, through March 31, 2022, under the requirements delineated in VHA's operational memorandum for LCS.[37] The OIG confirmed receipt of questionnaire responses from all 139 facilities as of May 5, 2022. The OIG reviewed all 139 responses and provided respondents opportunities to amend their responses based on OIG's determination that answers required clarification.

For those facilities where the point of contact indicated that the facility did not complete any low-dose CT scans for LCS, the OIG interviewed facility staff to gain information about the current state of community care LCS and any identified barriers to screening.

The OIG did not independently verify VHA responses and data for accuracy or completeness. The OIG evaluated the questionnaire responses after trending and aggregating by question. Information gathered from questionnaire results was used to assess the utilization of community care for LCS and VHA LCS program resources for management of community care low-dose CT scans, and barriers in managing LCS consults to community care.

In addition, the OIG reviewed electronic health records (EHRs) for veterans that had a community care consult for LCS with low-dose CT scans submitted June 6, 2019–September 30, 2021, and subsequently completed.[38] The OIG's EHR review evaluated elements of care coordination to include receipt, communication, and follow-up of scan results. Using the VHA

[36] The VA Manila Outpatient Clinic in Pasay City, Philippines was excluded due to its unique status as the only VA healthcare facility located in a foreign country. Services available to service-connected veterans are limited. Services and costs related to the treatment of non-service-connected disabilities are the veteran's responsibility.

[37] The OIG did not find that the July 15, 2022, VHA "revision memorandum" changed the results and conclusions from the questionnaire.

[38] The OIG chose the start date for review of community care low-dose CT scan consults to coincide with VA MISSION ACT new eligibility criteria that took effect on June 6, 2019.

corporate data warehouse, the OIG identified the review's population of veterans referred for community care low-dose CT scans. The final review data included 241 community care consults for LCS with low-dose CT scans covering 94 VHA facilities.[39]

In the absence of current VA or VHA policy, the OIG considered previous guidance to be in effect until superseded by an updated or recertified directive, handbook, or other policy document on the same or similar issue(s).

Oversight authority to review the programs and operations of VA medical facilities is authorized by the Inspector General Act of 1978, as amended, 5 U.S.C. §§ 401–424. The OIG reviews available evidence within a specified scope and methodology and makes recommendations to VA leaders, if warranted. Findings and recommendations do not define a standard of care or establish legal liability.

The OIG conducted the review in accordance with *Quality Standards for Inspection and Evaluation* published by the Council of the Inspectors General on Integrity and Efficiency.

Review Results

Through an OIG questionnaire of 139 VHA facilities and EHR reviews of 241 community care consults, the OIG assessed VHA's management of community care consults for LCS with low-dose CT scan.

OIG Questionnaire Results

Where Does VHA Provide Veterans with Low-Dose CT Scans for Lung Cancer Screening?

The OIG asked questionnaire respondents to identify where the facility completed LCS with low-dose CT scans. Ninety-two (66 percent) VHA facilities responded that they use community care for LCS. Seven (5 percent) of the 139 facilities indicated they did not utilize either in-house (facility) services or community care for LCS.[40] Among these seven facilities, three reported using other VHA facilities for LCS, while the remaining four reported not conducting in-house LCS or offering LCS through community care. The four facilities reported not offering LCS due to lack of an established VHA LCS program, lack of VHA resources, inability to ensure that

[39] The OIG sampled 287 consults from 95 facilities for EHR review. The OIG excluded 46 consults when it was found that the consult was not for LCS, the patient already had a chest or lung abnormality (needs follow-up not screening), patient was already diagnosed with lung cancer, the consult was discontinued per patient request, or consult was for low-dose CT scan education. After exclusions, 241 consults from 94 facilities remained in the dataset.

[40] Since completion of the OIG questionnaire, five of the seven facilities have initiated the development of LCS programs. In a concurrent review of in-house lung cancer screening, the OIG recommended patients be offered lung cancer screening at all VHA facilities.

community care programs were adhering to the VHA standards for LCS, lack of community care providers, and concerns that low-dose CT scans were not completed appropriately at community care facilities.

Figure 1 provides further explanation of where facilities complete LCS with low-dose CT scan.

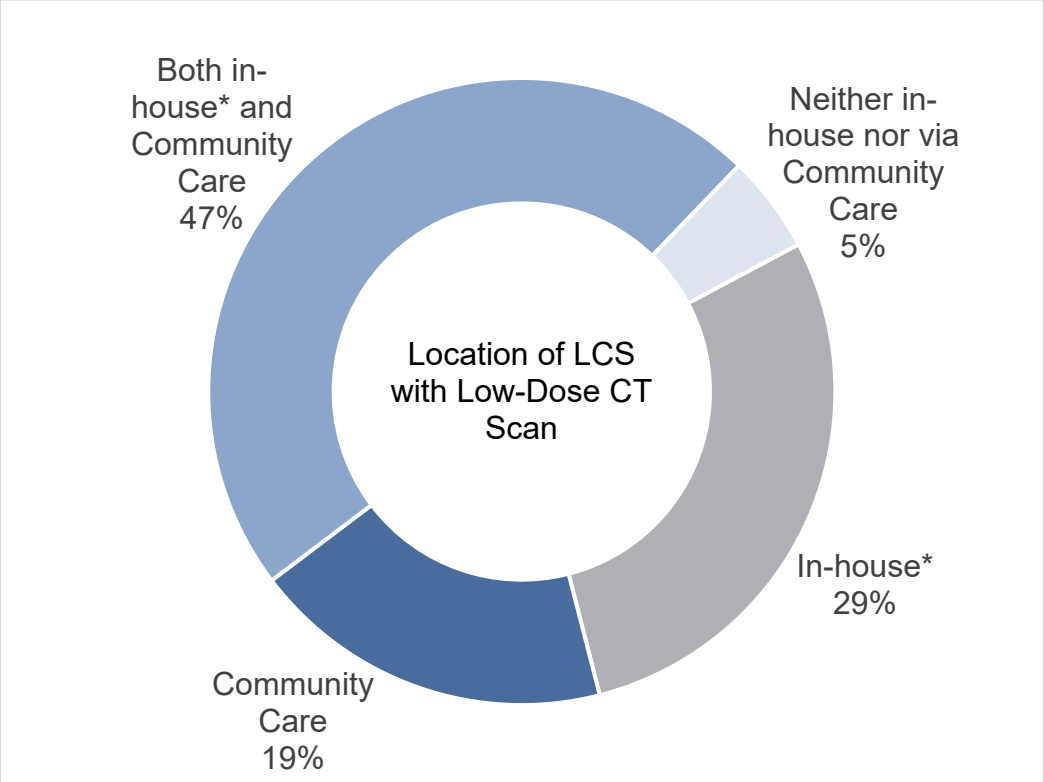

Figure 1. *Location of VHA lung cancer screening.*
**In-house refers to LCS with low-dose CT scan completed at the facility or community-based outpatient clinic radiology department.*
Source: OIG analysis of OIG LCS questionnaire data.

Does VHA Track Community Care Low-Dose CT Scan Results?

According to the July 2022 VHA memorandum on LCS, there are several components of a high-quality LCS program, which include a standardized reporting methodology, the use of nodule management guidelines (such as Lung-RADS), and a patient management tool/registry to track and manage patients "to ensure high levels of adherence to LCS management guidelines."[41]

Questionnaire respondents were asked whether the facility tracks and trends community care low-dose CT scans for abnormal results, lung cancer diagnosis, and follow-up care. For the 92 facilities that utilized community care or both community care and facility services for LCS,

[41] VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum.

figure 2 shows the percent that track and trend community care abnormal low-dose CT scan results, lung cancer diagnoses, and follow-up care.

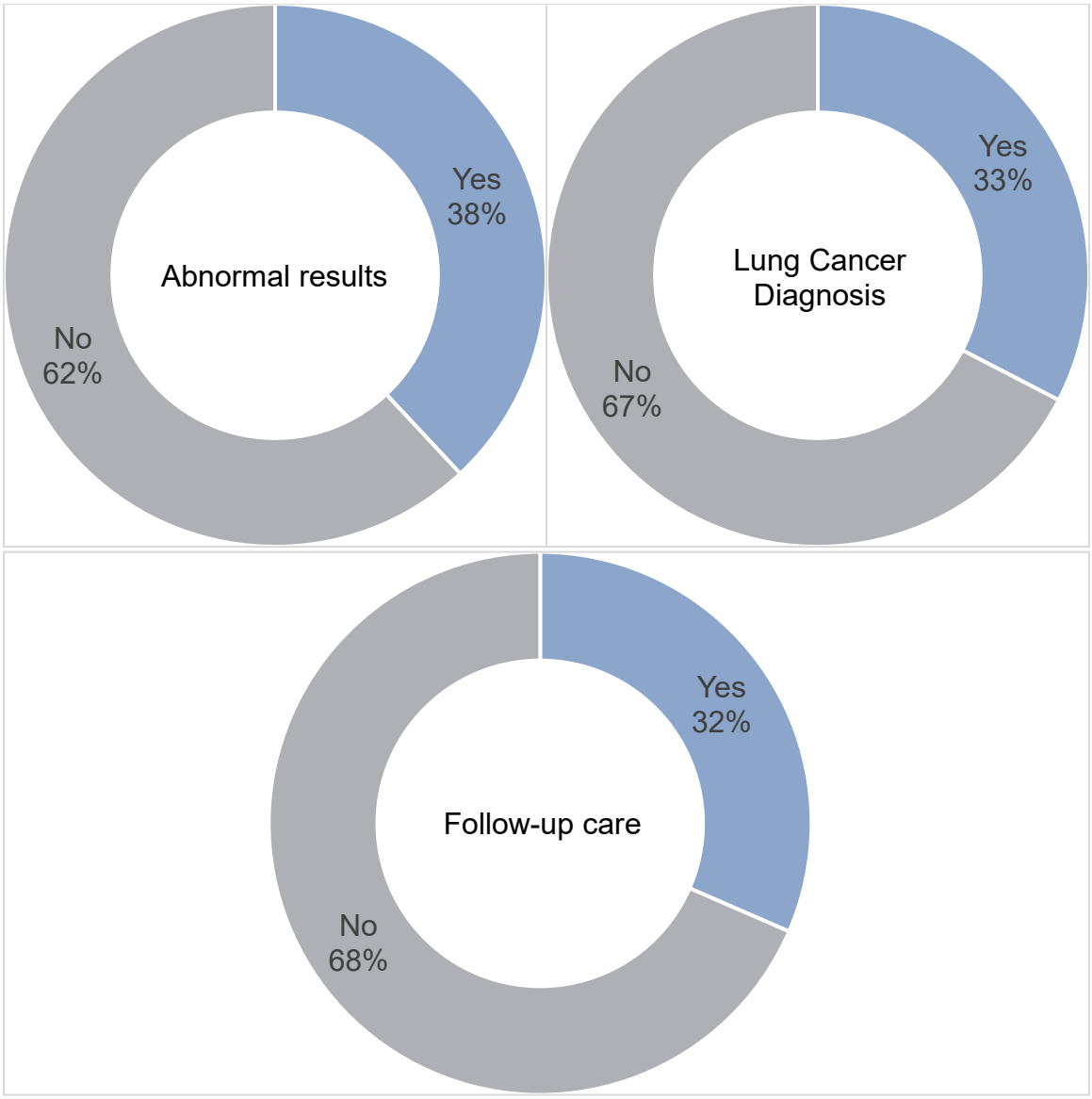

***Figure 2**. Tracking community care low-dose CT scan results.*
Source: OIG analysis of OIG LCS questionnaire data.

Data collected from tracking and trending patient results, follow-up, and cancer diagnoses over time can inform VHA leaders of the effectiveness of community care LCS at VHA facilities. Obtaining relevant quality data is paramount to making systematic improvements in community care LCS.

Does VHA Use Lung Cancer Screening Coordinator and Registry/Tracking System for Community Care Low-Dose CT Scan Consults?

VHA requires facilities that conduct LCS with low-dose CT scan have a clinical LCS coordinator to manage and coordinate the care of patients in the program.[42] In addition, VHA facilities are required to use a patient management tool/registry to track and manage patients to ensure adherence to LCS management guidelines.[43] However, when a veteran is referred to the community for LCS, these same services are not required.[44]

Figure 3 shows the percent of VHA facilities that use existing care coordination and registry/tracking system resources for community care low-dose CT scan consults.

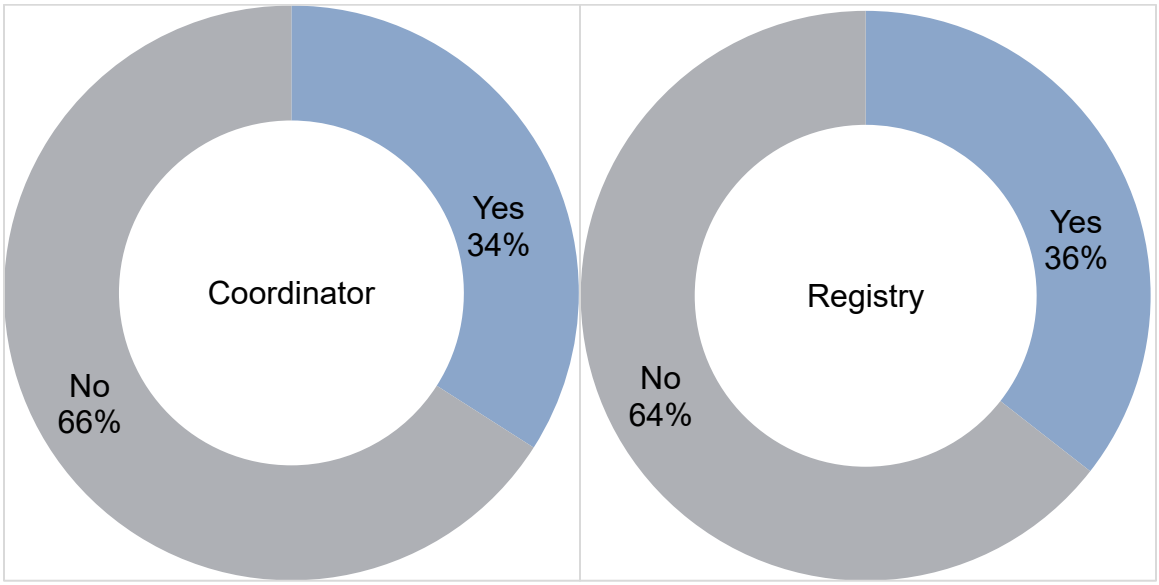

Figure 3. *Use of LCS Coordinator and LCS registry/tracking system to coordinate care of patients referred to community care for low-dose CT scan.*
Source: OIG analysis of OIG LCS questionnaire data.

VHA recognized that a clinical coordinator and a patient management registry are two of the required elements of a high-quality LCS program. Using an LCS coordinator and a registry/tracking system helps ensure timely and appropriate follow-up that may not be ensured when patients are referred to community care providers.

[42] VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum.
[43] VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum.
[44] VHA Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer (CMO) memorandum.

What Are the Barriers to VHA Effectively Managing Community Care Low-Dose CT Scan Consults?

For community care LCS, delays in care coordination have the potential to result in delays in transfer of medical documentation, delays in follow-up care, and potentially delays in cancer diagnosis. The OIG asked questionnaire respondents to indicate what barriers, if any, hinder the facility's management of community care low-dose CT scan consults. Frequently identified barriers are displayed in figure 4.

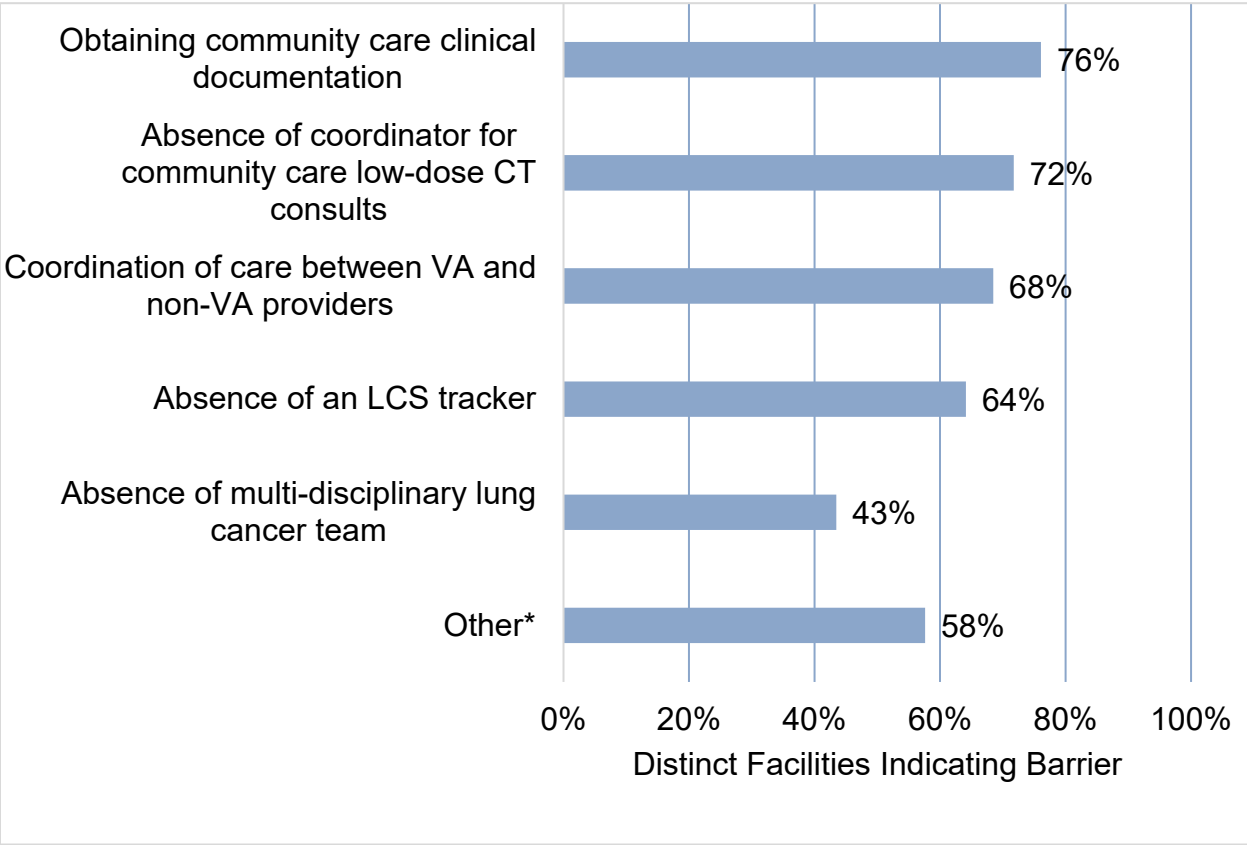

Figure 4. *Barriers to community care management.*

Note: Facility points of contact could select more than one barrier.
**"Other" barriers included: primary care physician buy-in (15), veteran's level of interest (14), lack of documentation (9), lack of supportive leadership (8), administrative barriers (8), staffing (6), access to care (4), quality of care (4), no identified barriers (2), provider education (1), lack of need (1), and Office of Information Technology issues (1).*
Source: OIG analysis of OIG LCS questionnaire data.

Similar to other cancer screenings, coordinating follow-up actions for normal and abnormal results is potentially complex for LCS. While VHA has requirements for tracking and care coordination of cancer screenings such as breast and cervical cancer screenings, there are no current requirements for LCS completed in the community. For example, VHA requires facility-

based Women's Health coordinators to ensure coordination of care for cervical and breast cancer screening performed in the community."[45]

Electronic Health Record Review Results

The seamless transmission of information between community care and facility providers is one of VHA's care coordination principles that ensures veterans receive high quality, personalized care.[46] The timely transmission of community care low-dose CT scan results from community providers to VHA providers is a necessary component for effective LCS and is essential in the formulation of patient treatment plans.

The OIG reviewed EHRs of veterans that completed LCS through community care to evaluate elements of care coordination and timeliness of community care low-dose CT scan consults (see figure 5).

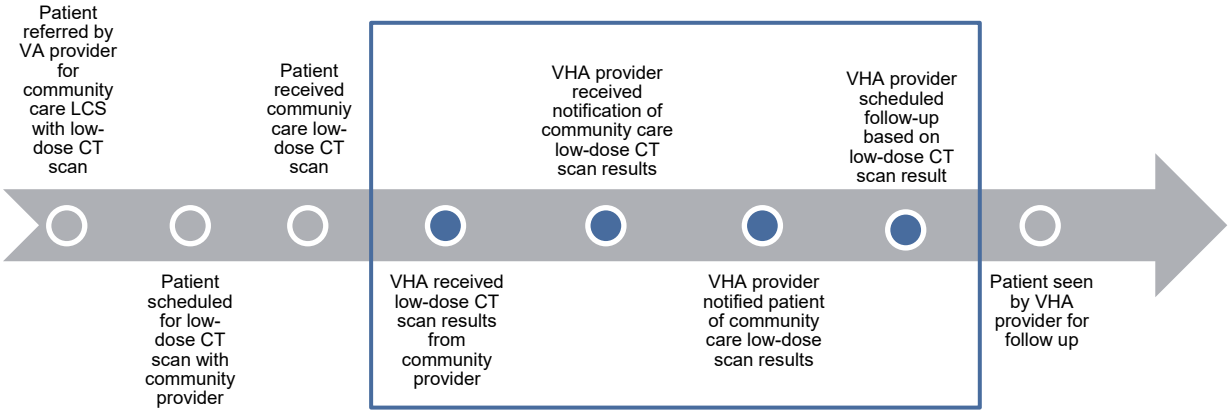

Figure 5. *Elements of care coordination for community care low-dose CT scan consults. Items in blue were evaluated by OIG.*
Source: OIG analysis.

[45] VHA Directive 1330.01(6), *Health Care Services for Women Veterans*, February 15, 2017, amended September 9, 2022. Women's Health Program care coordination duties include tracking breast and cervical screening, ensuring patient provider communication, assisting patients with navigating appointments, ensuring communication between community care and VHA providers, ensuring community care records are obtained, and ensuring availability of travel resources for the veteran.

[46] VHA Office of Community Care Field Guidebook, *Chapter 3: How to Perform Care Coordination.* The Office of Community Care Field Guidebook "contains 'live' documents that are consistently updated with new and updated information."

Acquiring Low-Dose CT Scan Results from Community Providers

VHA community care staff must work with community care providers to obtain clinical documentation associated with a veteran's visit.[47] VHA requires that community care staff make three attempts to obtain results from community provider consults within 90 days of an appointment. If results were not obtained after the first attempt, facility community care staff may close the consult, however community care staff are required to make two additional attempts to obtain the clinical documentation.[48] While consult closure without clinical documentation is consistent with VHA policy, the failure to obtain community care low-dose CT scan clinical documentation could result in negative patient outcomes.

In the sample of community care low-dose CT scan consults, the OIG's EHR review found 11 of 94 (12 percent) VHA facilities had consults with missing scan results.[49] Of the 11 facilities with missing scan results, 5 facilities had consults that were closed without making three attempts to obtain the results.

Provider Notification of Low-Dose CT Scan Results

VHA does not define a required time frame for VHA providers to receive notification of test results after completion of a test. For the purpose of this review, the OIG used the time frame of 14 days for the facility to obtain clinical documentation from the community provider as this is the time frame within which community care staff may initiate consult closure.[50]

VHA policy requires providers to "initiat[e] appropriate clinical action and follow-up for any orders that they have placed."[51] The first task after completing community care low-dose CT scan is to ensure that the VHA facility receives the results, and that the ordering provider is notified of the results in order to take appropriate clinical action. Once received, community care results are scanned and attached to the consult, and the ordering provider receives an alert.

The OIG's EHR review included an examination of community care low-dose CT scan consults to determine the timeliness of provider notification of results after appointment completion. The OIG found that at 97 percent of the VHA facilities, providers were notified of all community

[47] VHA Office of Community Care Field Guidebook, *Chapter 4: Consult Completion and Medical Records Management.*

[48] VHA Assistant Under Secretary for Health for Community Care memorandum.

[49] Ninety-two facilities answered the OIG questionnaire as using community care for low-dose CT scans; however, OIG's data for community care consults represented 94 facilities after exclusion and inclusion criteria were applied.

[50] VHA Office of Community Care Field Guidebook, *Chapter 4*: *Consult Completion and Medical Records Management*.

[51] VHA Directive 1088(1), *Communicating Test Results to Providers and Patients*, October 7, 2015, amended January 24, 2022. The 2022 amended directive clarified "the need to send a certified letter for test results requiring action when communication attempts have failed."

care low-dose CT scan results. However, 57 percent of VHA facilities had results that were not relayed to providers within 14 days of appointment completion.

The OIG team also analyzed the sampled consults based on provider notification for normal and abnormal results. Figure 6 displays the percentage of VHA facilities where providers were not notified within 14 days of appointment completion for normal and abnormal low-dose CT scan results.

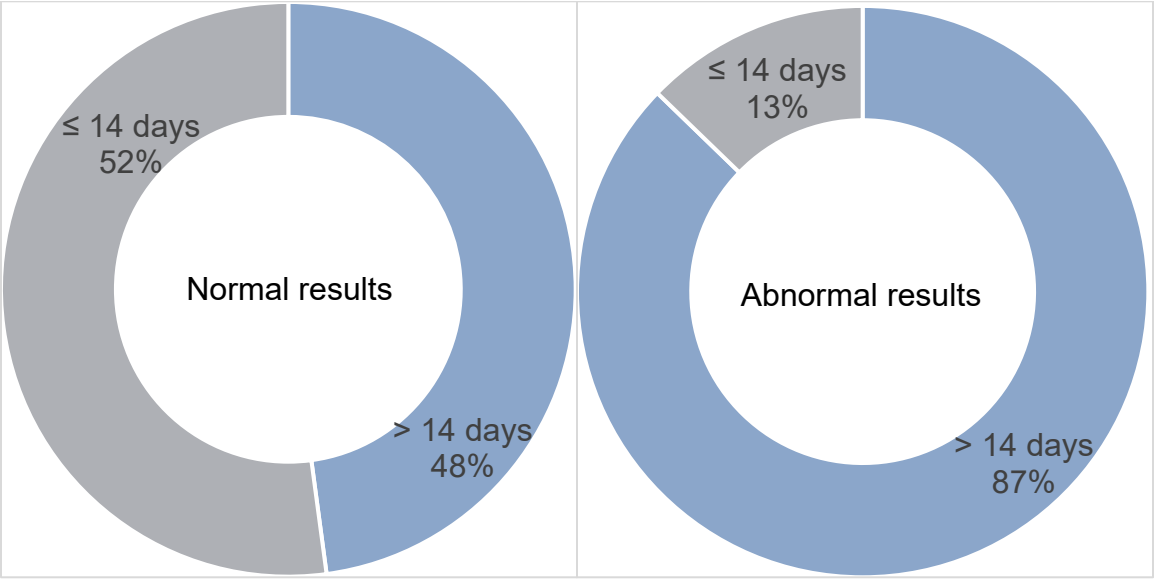

Figure 6. *Percent of VHA facilities where all providers notified of patient's low-dose CT scan results within 14 days (excluding not notified).*
**Note: When normal and abnormal results were considered separately, the facility that did not have a patient in the specific category was assumed to have met the requirement for a conservative estimate. N = 94 VHA facilities.*
Source: VA OIG analysis of community care LCS EHR review data.

The OIG concluded that the failure or delays in provider notification of community care low-dose CT scan results may result in delays that may negatively impact the care for patients who have lung lesions identified on screening.[52] The prompt identification of lesions as suspicious and confirmed as cancerous results in timely diagnosis, leading to a potentially better prognosis. VHA has recognized lack of timely follow-up on abnormal test results as a contributing factor to poor patient outcomes; ordering providers must follow notification standards as set forth in VHA Directive 1088(1), *Communicating Test Results to Providers and Patients*.[53]

[52] *Merriam-Webster.com Dictionary*, "lesion," accessed January 18, 2023, https://www.merriam-webster.com/dictionary/lesion. "An abnormal change in structure of an organ or part due to injury or disease."
[53] VHA Directive 1088(1).

Patient Notification of Low-Dose CT Scan Results

Per VHA policy, from the date on which the results are available, the ordering provider or designee must notify patients of test results within 14 days for normal results and 7 days for abnormal results.[54] If, despite best efforts, VHA staff is unable to notify the patient of test results, VHA requires that all attempts to contact the patient should be documented in the EHR and a certified letter be sent to the patient for test results that require action.[55]Although results may be relayed to the patient from the community care radiologist, the ordering provider is responsible for coordinating the follow-up care for abnormal and normal results. There is no assurance that community providers have notified the patient.

The OIG team analyzed the sampled consults for patient notification of test results with 14 days for normal results and 7 days for abnormal results. The OIG found instances at 36 percent of VHA facilities where patients were not notified of community care low-dose CT scan results by the VHA provider or designee (this includes six patients with abnormal results).[56]The OIG team analyzed the sampled consults for patient notification of normal and abnormal scan results within the recommended time frames for facilities where patients were notified of scan results. Figure 7 displays the percentage of facilities where patients were notified within 14 days for normal results and 7 days for abnormal scan results.

[54] VHA Directive 1088(1). The OIG used the date the provider was notified of scan results as the date the results were available. The OIG team defined normal results as those results not requiring follow-up action other than routine annual screening and abnormal results as those results requiring follow-up action sooner than one year.

[55] VHA Directive 1088(1).

[56] The OIG EHR review of the six patients found that follow-up was completed after notification from community provider, radiologist, or clinician; the OIG did not identify any clinical concerns.

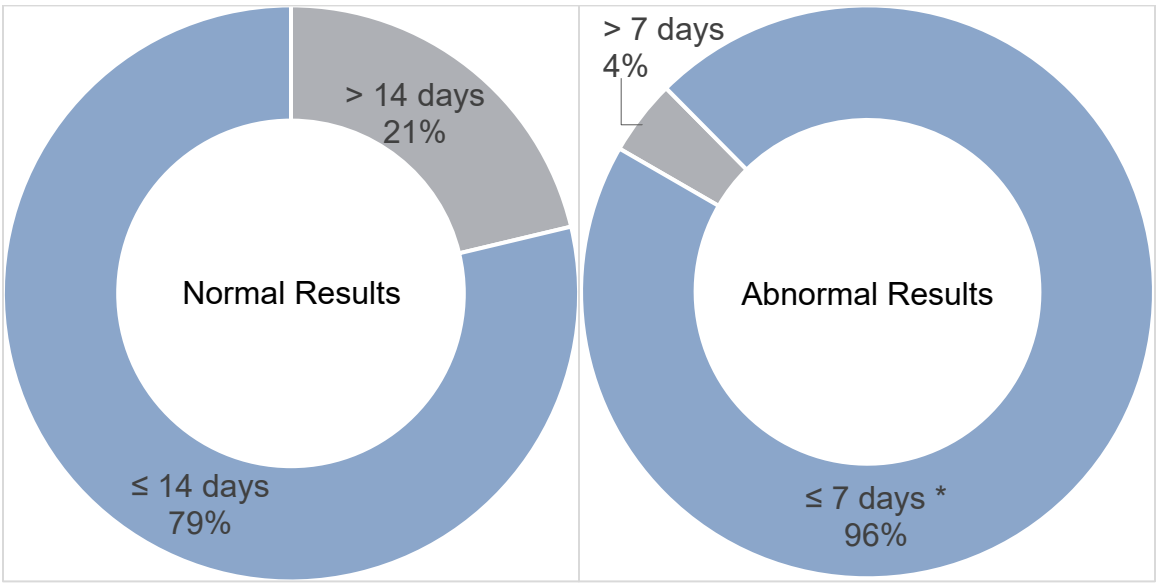

Figure 7. *Percent of facilities where all patients were notified of low-dose CT scan results within the required time frame. (excluding not notified).*
**Note: When normal and abnormal results were considered separately, the facility that did not have a patient in the specific category was assumed to have met the requirement for a conservative estimate. N = 94 VHA facilities.*
Source: OIG analysis of community care LCS EHR review data.

According to VHA, delays in following up on abnormal test results "can be a source of considerable anxiety to patients and families."[57] Further, shared decision-making involves the patient who should understand and participate in the plan of care based on the results. VHA states that "patient involvement in test result follow-up is fundamental to improve safety. . . ."[58]

Follow-up for Normal Low-Dose CT Scan Results

VHA guidance, based on the US Preventive Services Task Force, recommends current and former adult smokers receive annual low-dose CT scans for LCS to be effective.[59] Patients should understand the pros and cons of this screening test. For normal low-dose CT scan results, when a one-year follow-up is recommended, this should be acted upon. Exclusions to this would be if the patient develops a medical condition that substantially limits life expectancy or the ability or willingness for curative lung surgery, or patient has not smoked for 15 years.

[57] VHA Directive 1088(1).

[58] VHA Directive 1088(1).

[59] VA National Center for Health Promotion and Disease Prevention, *Screening for Lung Cancer*, accessed November 17, 2022, https://www.prevention.va.gov/preventing_diseases/screening_for_lung_cancer.asp. US Preventive Services Task Force, *Final Recommendation Statement, Lung Cancer: Screening*, March 9, 2021.

The OIG conducted EHR reviews of the sampled consults to determine if VHA facilities ordered follow-up low-dose CT scans for patients with normal scan results. The OIG found that during the review period, 37 percent of VHA facilities had patients in the sample that did not have one-year follow-up scans ordered or did not have documentation of why an annual low-dose CT scan was not ordered.[60] Inconsistency in conducting follow-up low-dose CT scans limits the effectiveness of LCS.

Follow-up for Abnormal Low-Dose CT Scan Results

Abnormal low-dose CT scans may represent abnormalities that could indicate cancer. When radiologists identify abnormalities in the low-dose CT scan, recommendations for follow-up may require a repeat low-dose CT scan in several months, critical follow-up with another study, or prompt specialty care for lesions graded as highly suspicious for malignancy.

The OIG reviewed community care low-dose CT scan medical documentation to determine whether patients completed a follow-up appointment as recommended in the community care low-dose CT scan report. The OIG found that in 23 percent of VHA facilities, providers did not schedule a follow-up appointment for patients with abnormal scan results within 28 days of the recommended time frame or there was no documented justification for not ordering a follow-up test.[61]

Based on the consults sampled, the OIG team found seven patients with abnormal low-dose CT scan results who did not receive follow-up per radiologist recommendations. The OIG's EHR review of these seven patients are included in table 2.[62]

Examples of OIG Concerns

Receiving completed community care low-dose CT scan results from the community care provider, notifying providers and patients of results, and developing care plans in a timely manner serve as critical pathways to improve clinical outcomes for high- risk patients. Table 2 provides cases that exemplify the complexities of managing community care low-dose CT scans.

[60] The OIG completed this review during the COVID-19 pandemic. The OIG acknowledges that the COVID-19 pandemic decreased preventive medicine screening rates throughout the country, including LCS.

[61] The OIG team defined the follow-up date as the date recommended by the community care radiologist. For the purpose of this report, the OIG team selected 28-days beyond the follow-up due date to represent timeliness in addition to codifying the data using successive 14-day intervals for scheduled follow-up of the low-dose CT scans.

[62] One of the seven patients decided to discuss and follow-up with a non-VA pulmonologist outside of the VA community care program and is not included in the table.

Table 2. Examples of Process Failures with Low-Dose CT Scans using Community Care

Issue	Risks and Concerns
Patient A completed a community care low-dose CT scan. VA staff closed the consult after one unsuccessful attempt to obtain clinical documentation. No further attempts to obtain the CT scan results were documented.	The low-dose CT scan results were unknown to VHA staff and care plans for the patient could not occur without the results. Abnormal results may represent lung cancer.
Patients B and C had recommendations for six-month follow-up following a low-dose CT scan. VHA primary care team failed to coordinate further testing for abnormal results despite the patients being seen by the ordering provider several months after the low-dose CT scan.	Abnormal low-dose CT scan results required follow-up for possible lung cancer. The providers missed an opportunity to engage the patients on the importance of the follow-up during a medical appointment.
Patient D had a left upper lung abnormality on a community care low-dose CT scan with recommendation for a six-month follow-up. The VHA provider attempted to schedule a community care low-dose CT scan for the follow-up. The facility's community care program did not accommodate a provider's orders six months in advance.	As the follow-up low-dose CT scan order could not be completed that far in advance, the provider was required to order the test closer to the six-month date. Instead of the six-month follow-up, the provider ordered the CT two years later and the results showed cancer.
Patient E had recommendations for six-month follow-up following a low-dose CT scan. The veteran's primary care provider forwarded the patient's case to the facility's LCS program staff to follow the patient. The facility declined to use the lung cancer coordinator to track tests completed in the community.	Although the facility had an established lung cancer coordinator, the request by the provider to the lung cancer coordinator to follow the patient was denied. The response noted, "When Veterans decide to go out in the community they can not (sic) be followed by the Lung Cancer Screening Program. He will need to be followed by his PCP unless he decides to screen through the VA."
Patients F and G completed a community care low-dose CT scan with recommendation to follow up in six months. Efforts to obtain a follow-up were problematic due to no availability of low-dose CT scan in the community or specialist.	Patients depended on the VA's Community Care, which had no availability, resulting in the follow-up low-dose CT scan not being completed.
Patients H and I completed a community care low-dose CT scan. The results showed abnormalities that required follow-up in six months. The patients were not notified of the abnormal scan results within the time frame required by VHA policy.	VHA Policy is to notify patients of abnormal studies within 7 days.

Source: OIG analysis of EHR review.

Note: Patient H and I notifications were delayed approximately five months and two months, respectively.

Conclusion

The OIG conducted a national review to evaluate VHA LCS with low-dose CT scan provided through the VA community care program. According to the VHA facility questionnaire results, 92 facilities responded that they use community care for LCS. Seven facilities indicated they did not utilize either in-house (facility) services or community care for LCS. Among these seven facilities, three reported using other VHA facilities for LCS, while the remaining four reported not conducting in-house LCS or offering LCS through community care.

Of the 92 facilities that use community care for LCS, 62 percent reported that the facility did not track and trend community care abnormal low-dose CT scan results, and 67 percent and 68 percent did not track and trend subsequent lung cancer diagnoses or follow-up care, respectively. Additionally, 66 percent of VHA facilities with an LCS coordinator and 64 percent with an LCS registry/tracking system indicated they did not use the LCS coordinator or an LCS registry/tracking system to manage the care of patients referred for low-dose CT scan through community care. Questionnaire respondents identified the following top five barriers that hinder the facility's management of community care low-dose CT consults: obtaining community care clinical documentation, absence of a clinical coordinator to manage low-dose CT consults, coordination of care, absence of a tracking system, and absence of a multidisciplinary lung cancer team.

To evaluate the elements of care coordination and timeliness for community care low-dose CT scan consults, the OIG reviewed EHRs for veterans that had a community care consult for LCS with low-dose CT scan. In the sample of 241 community care consults from 94 VHA facilities, the OIG found 11 VHA facilities had consults with missing scan results. Additionally, five of the 11 facilities with missing scan results had consults that were closed without making three attempts to obtain the results.

The OIG found that at 97 percent of VHA facilities providers were notified of all community care low-dose CT scan results in the sample. However, 57 percent of VHA facilities had results that were not relayed to providers within 14 days of appointment completion. The OIG also found that 52 percent of VHA facilities had normal low-dose CT scan results that were not relayed to providers within 14 days of appointment completion. More importantly, 13 percent of VHA facilities had abnormal results that were not relayed to providers within 14 days of the appointment.

The OIG found instances at 36 percent of VHA facilities where patients were not notified of community care low-dose CT scan results by the VHA provider or designee (this includes six patients with abnormal results). Additionally, 21 percent of facilities with normal community care low-dose CT scan results in the sample did not have documented patient notification within 14 days, and 4 percent of facilities with abnormal low-dose CT results did not have documentation of patient notification by the provider within 7 days as required by VHA policy.

During the review period, 37 percent of VHA facilities had patients in the sample that did not have their one-year follow-up scans ordered or did not have documentation of why an annual low-dose CT scan was not ordered. The OIG found 23 percent of VHA facilities did not schedule a follow-up appointment for patients with abnormal scan results within 28 days of the recommended time frame or there was no justification documented for not ordering a follow-up test. Additionally, seven patients with abnormal scan results did not receive follow-up per radiologist recommendations. Abnormal lesions may represent lung cancer; timely follow-up is necessary to determine the best course of action.

The OIG made five recommendations to the Under Secretary for Health that would promote coordination, management of community care consults, and timely and quality screening for patients who depend on obtaining LCS through the VA community care program.

Recommendations 1–5

1. The Under Secretary for Health evaluates whether low-dose computed tomography lung cancer screenings sent through VA community care have quality assurance practices in place that ensure timely reporting of results to VA facilities consistent with other cancer screenings that are sent through the community care program and takes corrective action to address any identified deficiencies.
2. The Under Secretary for Health ensures the Veterans Health Administration Office of Integrated Veteran Care reevaluates whether the minimum number of attempts prior to administratively closing consults for community care lung cancer screening with low-dose computed tomography scans should continue as an ongoing process, and takes action as warranted.
3. The Under Secretary for Health reiterates expectations for providers to comply with the Veterans Health Administration directive regarding communication of test results to patients, including required time frames.
4. The Under Secretary for Health evaluates whether low-dose computed tomography lung cancer screenings sent through VA community care have quality assurance practices in place that ensure follow-up on scan results consistent with other cancer screenings that are sent through the community care program and takes corrective action to address any identified deficiencies.
5. The Under Secretary for Health facilitates a comprehensive review of the patient cases provided by the Office of Inspector General, assesses these patients for adverse clinical outcomes, and implements action plans as needed.

Appendix A: National Review of Community Care Lung Cancer Screening with Low-Dose Computed Tomography Questionnaire[63]

(1) From Fiscal Year 2019 to current, did staff utilize facility services or Community Care for Lung Cancer Screening?
[ ] Yes (Go to Q2)
[ ] No (End survey)

(2) Is your facility equipped to complete low-dose computed tomography (LDCT) scans?
[ ] Yes (Go to Q2A-D)
[ ] No (Go to Q3)

If Yes to Q2:

(A) Is there a radiologist credentialled and privileged in reading LDCT at your facility?
[ ] Yes [ ] No

(B) Is there a tele-radiologist credentialled and privileged in reading LDCT for your facility (either agreement with other VA facility or national teleradiology)?
[ ] Yes [ ] No

(C) Does your facility participate in the American College of Radiology LCS registry?
[ ] Yes [ ] No

(D) Is the Lung-RADS reporting system being used?
[ ] Yes [ ] No

(3) Which LCS guideline(s) does your facility follow? (Select all that apply)
[ ] US Preventive Services Task Force (USPSTF)
[ ] American College of Radiology (ACR)
[ ] American Lung Association
[ ] American Cancer Society
[ ] None
[ ] Other _____

(4) Has your facility established a LCS program as described in the Deputy Under Secretary for Health for Operations and Management (DUSHOM) Memorandum, Lung Cancer Screening with Low-Dose Computed Tomography, November 27, 2017, rescinded

[63] Questions that were not used in this report were removed; question numbering was not changed.

and replaced by Assistant Under Secretary for Health for Clinical Services/Chief Medical Officer memorandum, Guidelines for Lung Cancer Screening in Veterans Health Administration, March 24, 2022? (See email attachments)
[ ] Yes (Go to Q4A-B)
[ ] No (Go to Q4C)

If Yes to Q4:

(A) Approximately when was your LCS program established? (mm.yyyy)
_____

(B) What department oversees the LCS program?
[ ] Pulmonary
[ ] Radiology
[ ] Oncology
[ ] Primary Care
[ ] Thoracic Surgery
[ ] Other _____

If No to Q4:

(C) What barriers hinder the establishment of a LCS program as described in the DUSHOM Memorandum? (Select all that apply)
[ ] Possible availability of a LCS tracker
[ ] Availability of coordinator
[ ] Supportive leadership
[ ] Presence of multi-disciplinary lung cancer team
[ ] Adequate CT scan availability
[ ] Adequate interpreting radiologist support
[ ] Primary care physician buy-in
[ ] Veteran's level of interest
[ ] Sufficient staff/personnel
[ ] Sufficient infrastructure
[ ] None
[ ] Other _____

(5) How are patients that need LCS identified? (Select all that apply)
[ ] Referral based on clinical reminder
[ ] Screening navigator/coordinator
[ ] Patient request
[ ] Provider referral without use of clinical reminder
[ ] Other _____

(6) Where does your facility complete LCS with LDCT? (Select all that apply)

[ ] In-house (completed at the facility/CBOC radiology department)

[ ] Community Care
[ ] Both

If Yes to Q6 Community Care

Community Care Lung Cancer Screening

(14) What is the facility's determining factor for using Community Care LDCT LCS? (Select all that apply)
[ ] Limited access at facility
[ ] On site LDCT not available
[ ] Other _____

(15) What is the title of the consult(s) you select when ordering community care LCS LDCT (examples: Community Care-LDCT, Community Care Imaging LDCT, Community Care-CT for LCS, Community Care Radiology-CT)? Please list all consult titles used for Community Care LCS LDCT:

_____

(16) Does your facility utilize a LCS registry/tracking system for Community Care LDCTs (see DUSHOM memo attached to email)?
[ ] Yes [ ] No

If Yes to Q16:

(A) What type of registry/tracking system/tool does your facility use for the Community Care LCS LDCT scans?
[ ] VISN 23 program
[ ] Commercial application
[ ] Spreadsheet
[ ] Other _____

(17) Does your facility utilize a navigator/clinical coordinator to manage Community Care LDCT LCS activities?

[ ] Yes [ ] No

If Yes to Q17:

(A) What responsibilities does your navigator/clinical coordinator have to coordinate Community Care LDCT LCS activities? (Select all that apply)
[ ] Reminders to providers to order annual scans
[ ] Reminders to providers to order follow-up scans
[ ] Ordering annual scans
[ ] Ordering follow-up scans
[ ] Contact to patients for annual screening

[ ] Contact to patients for follow-up exams
[ ] Tracking scan results
[ ] Notifying providers of abnormal results
[ ] Contacts patients with results
[ ] Submitting consults for abnormal results
[ ] Tracking screening compliance (annual screens)
[ ] Trending screening compliance (annual screens)
[ ] Tracking abnormal results
[ ] Trending abnormal results
[ ] Tracking follow-up care
[ ] Trending follow-up care
[ ] Tracking lung cancer diagnosis
[ ] Trending lung cancer diagnosis
[ ] Other _____
[ ] N/A

(B) Estimated number of hours per week the navigator/clinical coordinator devotes to Community Care LCS LDCT activities (number field):

_____

(18) Does your facility track and trend Community Care LDCT for

(A) abnormal results? [ ] Yes [ ] No

(B) follow-up care? [ ] Yes [ ] No

(C) lung cancer? [ ] Yes [ ] No

(19) How are Community Care patients notified that they are DUE for ANNUAL LCS LDCT scan? (Select all that apply)
[ ] During clinic visit with provider
[ ] Navigator/Coordinator/PACT telephone contact to patients
[ ] Letter mailed to patient
[ ] Other _____

(20) How are Community Care patients notified of NORMAL LCS LDCT scan results? (Select all that apply)
[ ] During clinic visit with provider
[ ] Navigator/Coordinator/PACT telephone contact to patients
[ ] Letter mailed to patient
[ ] Other _____

(21) How are Community Care patients notified of ABNORMAL LCS LDCT scan results? (Select all that apply)
[ ] During clinic visit with provider

[ ] Navigator/Coordinator/PACT telephone contact to patients
[ ] Letter mailed to patient
[ ] Other _____

(22) How are ordering providers notified of Community Care LDCT scan results? (Select all that apply)
[ ] Alert/Comment on consult
[ ] Note in EHR
[ ] Call to provider
[ ] Other _____

(23) How does the facility ensure Community Care LDCT consults results are uploaded into patients' EHR in a timely manner? Please explain.

_____

(24) Is the process for ensuring Community Care LDCT results transferred into the VA medical record different for abnormal versus normal results?
[ ] Yes [ ] No

(A) If Yes, please explain:

_____

(25) For Community Care LDCT results, does your facility have a required timeframe for receiving results from community provider (i.e. before calling for results based on date of LDCT appointment)?
[ ] Yes [ ] No

(A) If yes, number of days:

_____

(26) For Community Care LDCT results, does your facility have a required timeframe for scanning results (once received from community provider)?
[ ] Yes [ ] No

(A) If yes, number of days:

_____

(27) For Community Care LDCT results, does your facility have a required timeframe for notifying ordering provider of results (once received from community provider)?
[ ] Yes [ ] No

(A) If yes, number of days:

_____

(28) If required attempts are made to obtain Community Care LDCT scans results are unsuccessful, are these consults administratively closed without scan results?
[ ] Yes [ ] No

(29) Who has primary responsibility for coordinating appropriate follow-up for Community Care patients' LDCT scan results?

(A) Normal LDCT scan results
[ ] LCS Navigator/Coordinator [ ] Referring provider [ ] Other facility staff

(B) Abnormal LDCT scan results
[ ] LCS Navigator/Coordinator [ ] Referring provider [ ] Other facility staff

(30) What barriers, if any hinder the management of Community Care LDCT LCS consults? (Select all that apply)
[ ] Possible availability of a LCS tracker
[ ] Availability of coordinator for community care LDCT consults
[ ] Supportive leadership
[ ] Presence of multi-disciplinary lung cancer team
[ ] Primary care physician buy-in
[ ] Veteran's level of interest
[ ] Coordination of care between VA and non-VA providers
[ ] Obtaining community care clinical documentation
[ ] None
[ ] Other _____

Appendix B: Office of the Under Secretary for Health Memorandum

Department of Veterans Affairs Memorandum

Date: September 28, 2023

From: Under Secretary for Health (10)

Subj: Office of Inspector General (OIG) Draft Report, Improvements Needed in Lung Cancer Screening Through Use of Community Care (VIEWS 10823502)

To: Assistant Inspector General for Healthcare Inspections (54)

1. Thank you for the opportunity to review and comment on OIG draft report, Improvements Needed in Lung Cancer Screening Through Use of Community Care. The Veterans Health Administration concurs with recommendations 1-5 and provides an action plan in the attachment.
2. Comments regarding the contents of this memorandum may be directed to the GAO OIG Accountability Liaison Office at VHA10BGOALACTION@va.gov.

(Original signed by:)

Shereef Elnahal M.D., MBA

VETERANS HEALTH ADMINISTRATION (VHA)
Action Plan
OIG Draft Report, Improvements Needed in Lung Cancer Screening Through Use of Community Care
(OIG 2022-00416-HI-1223)

Recommendation 1. The Under Secretary for Health evaluates whether low-dose computed tomography lung cancer screenings sent through VA community care have quality assurance practices in place that ensure timely reporting of results to VA facilities consistent with other cancer screenings that are sent through the community care program and takes corrective action to address any identified deficiencies.

VHA Comments: Concur. VHA's Office of Integrated Veteran Care (IVC) evaluated and confirms that quality assurance practices in place for return of medical documentation apply to reporting of low-dose computed tomography (CT) lung cancer screening results, just as for all types of care and results that are sent through the community care program. IVC will review current processes and evaluate for opportunities to improve timely reporting of results from community care providers. IVC has initiated an "Optimizing Community Care Medical Documentation" project aimed to optimize medical documentation exchange capabilities between community providers and VHA and related medical review processes.

Status: In progress Target Completion Date: February 2024

Recommendation 2. The Under Secretary for Health ensures the Veterans Health Administration Office of Integrated Veteran Care reevaluates whether the minimum number of attempts prior to administratively closing consults for community care lung cancer screening with low-dose computed tomography scan should continue as an ongoing process, and takes action as warranted.

VHA Comments: Concur. IVC will review the administrative closure process and reevaluate whether this process is appropriate to use for closure of community care lung cancer screening with low dose computed tomography scans and take action as warranted.

Status: In progress Target Completion Date: December 2023

Recommendation 3. The Under Secretary for Health reiterates expectations for providers to comply with the Veterans Health Administration directive regarding communication of test results to patients, including required time frames.

VHA Comments: Concur. There are different requirements for communicating test results to patients depending on whether the tests were ordered by the Department of Veterans Affairs (VA) Community Care Program providers or VA providers. Veterans are to receive test results in accordance with the requirements in the contracts or policies used by their VA Community Care Program providers. Veterans are to received results in accordance with the requirements in VHA Directive 1088, *Communicating Test Results to Providers and Patients*, for tests ordered by VA providers.

Tests ordered by VA Community Care Program providers: Per VHA Directive 1088, VA Community Care Program providers who order tests for Veterans are responsible for communicating those test results to the patient and addressing results that require action, including incidental findings. For such tests, Veterans receive test results according to the contracts or policies used by their VA Community Care Program providers and according to their specified methods (e.g., phone, letter, certified letter) and timing. After completion of an episode of care, VA Community Care Program providers are required to provide medical documentation (including lab results, radiology reports and images) to the VA medical facility that referred the Veteran to the VA Community Care Program provider.

Tests ordered by VA providers: All test results requiring action must be communicated by the VA medical facility ordering provider or designee to patients within 7 calendar days from the date on which the results are available to the ordering provider or designee. For test results that require no action, results must be communicated by the VA medical facility ordering provider or designee to patients within 14 calendar days from the date on which the results are available to the ordering provider or designee.

The National Office of Primary Care will provide informational briefs related to VHA Directive 1088 to applicable front-line staff, Veterans Integrated Service Network (VISN) and program offices through national community of practice calls, governance meetings, program offices meetings and VISN office meetings.

Status: In progress Target Completion Date: December 2023

Recommendation 4. The Under Secretary for Health evaluates whether low-dose computed tomography lung cancer screenings sent through VA community care have quality assurance practices in place that ensure follow-up on scan results consistent with other cancer screenings that are sent through the community care program and takes corrective action to address any identified deficiencies.

VHA Comments: Concur. The National Center for Lung Cancer Screening will lead an interdisciplinary group to evaluate whether low-dose computed tomography lung cancer screenings sent through VA community care have quality assurance practices in place that ensure follow up on scan results. The group will include representatives from the Office of Primary Care, IVC, National Radiology Program, Office of Quality and Patient Safety, VHA Health Information Management, VISNs, VA medical centers and other experts as appropriate. VHA expects that thorough evaluation and development of proposed corrective actions to resolve any identified deficiencies will take approximately 1 year to complete. Timelines for completion of any approved corrective actions will be established within individual action plans.

Status: In progress Target Completion Date: October 2024

Recommendation 5. The Under Secretary for Health facilitates a comprehensive review of the patient cases provided by the Office of Inspector General, assesses these patients for adverse clinical outcomes, and implements action plans as needed.

VHA Comments: Concur. The Lung Cancer Screening Program, in collaboration with relevant program offices, as needed, will facilitate a comprehensive review of the cases to assess these patients for adverse clinical outcomes, and implement action plans as appropriate.

Status: In progress Target Completion Date: December 2023

OIG Contact and Staff Acknowledgments

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