

Increasing Lung Cancer Screening in Patients Using a Patient Questionnaire

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INTRODUCTION

Lung cancer is a leading cause of death for Americans and screening can be used to detect lung cancer early. When lung cancer is detected early it is more likely to be curable.¹ Lung cancer screening is done by way of Low-Dose CT (LDCT) Scanning. During the scan, an X-ray machine takes a detailed image of a patient's lungs. The imaging is reviewed by a radiologist who determines if there are any lesions suspicious for lung cancer. Patients who are greater than 50 years old, have a greater than 20 pack year history of smoking, and are currently smoking or have quit within the last 15 years qualify for LDCT scanning. The goal of the QI project was to increase the amount of lung cancer screening done at our office. The study used a patient questionnaire about smoking history. The questionnaire was integrated into the medical assistant workflow, and patients were asked to complete the questionnaire at the beginning of each visit. Patients who qualified for LDCT scanning had the test ordered. For patients who did not have insurance, there were lost cost or free options available for them to pursue screening.

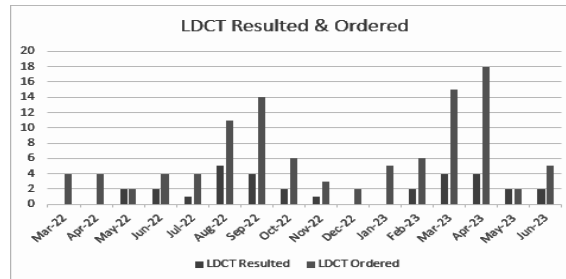
METHODS

We started our quality improvement project with a medical records review looking at patients with documented smoking histories who had presented to the clinic for an office visit 3 months before the start of our intervention in March 2023. If the patient qualified for LDCT scanning, and it was not clear in the electronic medical record if they had been ordered LDCT scanning, they were contacted by phone to determine if they had been screened for lung cancer. This established an initial percentage of patients at our office who had been correctly screened for lung cancer. We coordinated with the practice manager and lead medical assistant staff to integrate a questionnaire into patient intake workflow. Medical assistants were asked to provide questionnaires to patients who were greater than 50 years old and endorsed a smoking history. Data collection ran from March 2023 through mid-July 2023.

RESULTS

Date Adjusted Results		
Time Period	LDCT Ordered	LDCT Resulted
3/1/22-7/31/22	18	5
3/1/23-7/31/23	71	16*

Yearly Results		
Time Period	LDCT Ordered	LDCT Resulted
3/1/22-2/28/23	65	19
3/1/23-7/31/23	71	16*



DISCUSSION

Introducing a screening tool to identify patients eligible for lung cancer screening increased the number of LDCT scans ordered by our practice. Offering low-cost screening options for uninsured patients helped make screening more accessible and more likely to be completed. More smoking-cessation discussions were possible due to increased recognition of patients who smoke.

Future investigation should include translation of the questionnaire into additional languages. For our study, the questionnaire was offered in English and Spanish. We were not able to fully capture all the patients who speak different languages at our office.

A future study could have aims to find ways to increase the amount of completed scans by eligible patients. We focused on finding a way to increase the number of scans properly ordered. More investigation into scan completion rates is an important additional end point.

Introduction of new EMR while implementing the screening tool limited the total number of scans that were correctly given to patients. Future efforts should be made to integrate the questionnaire into the medical assistant workflow once staff is fully familiar with the workings of the new EMR.

CONCLUSION

When detected early, lung cancer is more likely to be curable. Our QI project focused on finding a way to increase proper ordering of LDCT scans. Our questionnaire proved effective in increasing the amount of scans ordered.

REFERENCES

1. Association, A. L. (n.d.). *Lung cancer basics*. American Lung Association. Retrieved March 1, 2023, from <https://www.lung.org/lung-health-diseases/lung-disease-lookup/lung-cancer/basics>