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Project #06: Lung Cancer Screening in Patients Prescribed Smoking Cessation Therapy at an Integrated Health System

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Lung Cancer Screening in Patients Prescribed Smoking Cessation Therapy at an Integrated Health System

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Background

- Smoking is one of the leading causes of lung cancer and, per the CDC, within 10 to 15 years after quitting smoking, the risk of lung cancer decreases by 50%.
- The National Comprehensive Cancer Network (NCCN) guidelines recommend that high risk patients be screened for lung cancer with low-dose CT after shared patient and provider decision making.
- The Centers for Medicare and Medicaid Services recommends annual screening for lung cancer in adults aged 50-77, who have a 20-pack year history and currently smoke or have quit within the past 15 years.
- Additionally, social determinants of health (SDOH) play a large role in smoking cessation and access to lung cancer screening (LCS).

Purpose

Describe the population of qualifying patients at Henry Ford Hospital Detroit who were prescribed smoking cessation therapy who were referred to LCS, a smoking cessation clinic, or both within the Henry Ford Health System (HFHS).

Primary Endpoints

- Describe the patient population prescribed smoking cessation and quantify the number of patients eligible for LCS within this patient population

Secondary Endpoints

- Describe the number of patients referred for LCS and/or smoking cessation clinics
- Evaluate the difference in SDOH between those being referred for LCS and those who are not

Methods

This is an IRB approved retrospective cross-sectional study describing patients prescribed smoking cessation therapies who are eligible for LCS. Data was collected through retrospective chart review of the electronic medical record (EMR).

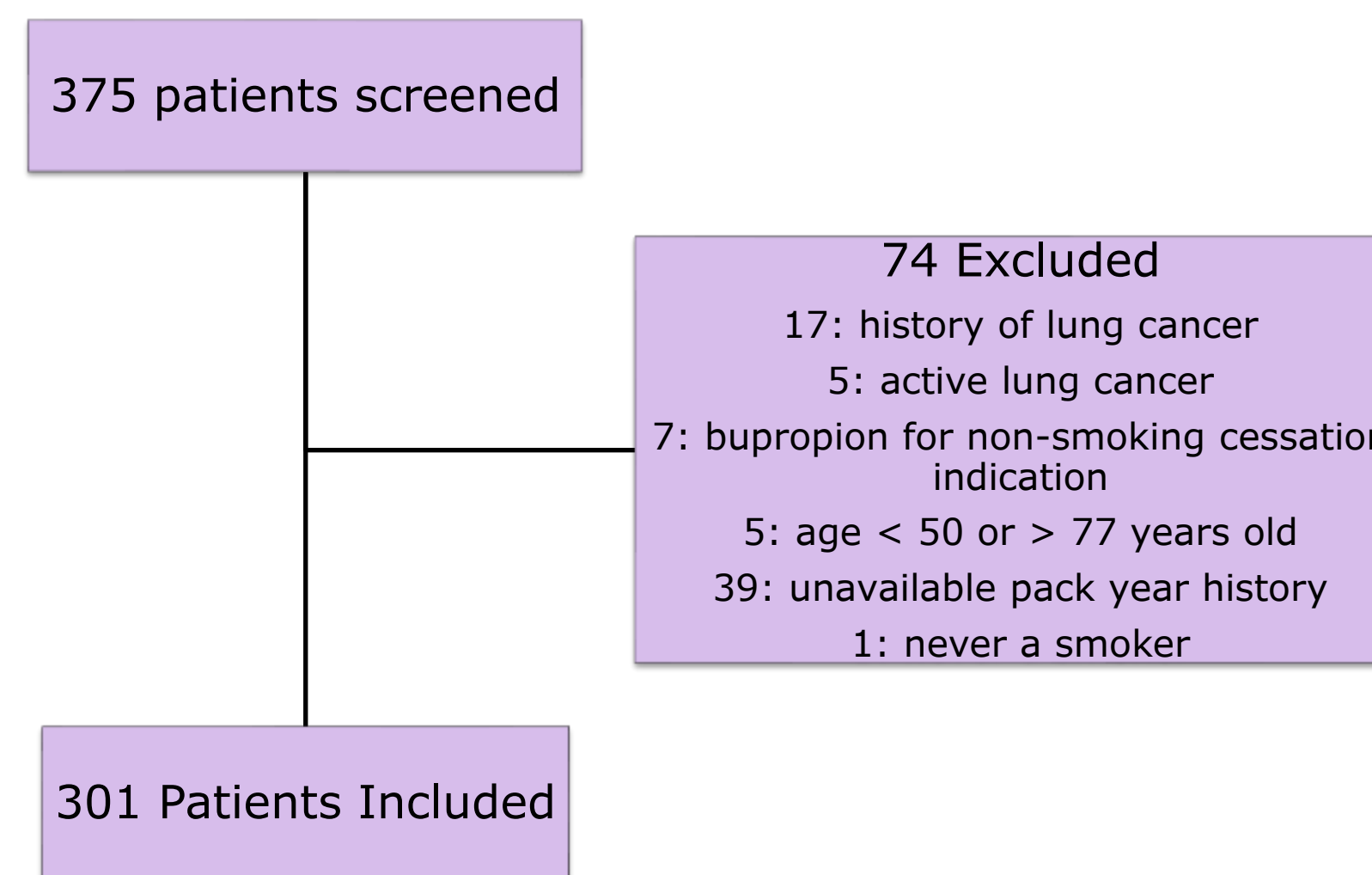
Inclusion Criteria

- 50 to 77 years old
- Prescribed smoking cessation therapy, including nicotine replacement, varenicline, and bupropion, from 06/01/2022 to 06/01/2023

Exclusion Criteria

- Patients with active lung cancer or history of lung cancer
- Prescribed bupropion for indications other than smoking cessation

Results



Primary Endpoint

- Lung Cancer Screening
 - 196 patients were eligible for LCS
 - 74 were eligible and referred for LCS
- Baseline characteristics are in the table below

Category	Characteristics	N=301 n (%)	Eligible for LCS N=196 N (%)	Eligible and received referral for LCS N=74 n (%)
Sex	Female	154 (51.2)	99 (50.5)	36 (48.6)
	Male	147 (48.8)	97 (49.5)	38 (51.4)
Race	Black	245 (81.4)	153 (78.1)	62 (83.8)
	White	47 (15.6)	36 (18.4)	8 (10.8)
	American Indian/Alaska Native	1 (0.3%)	1 (0.5)	0 (0)
	Other	8 (2.7%)	6 (3.1)	4 (5.4)
Cancer History	Personal cancer	35 (11.6)	26 (13.3)	9 (12.2)
	Family cancer	144 (47.8)	95 (48.5)	43 (58.1)
Insurance	Medicare	142 (47.2)	100 (51)	40 (54)
	Medicaid	63 (20.9)	38 (19.4)	12 (16.2)
	Other	96 (31.8)	58 (29.6)	22 (29.7)

Results Cont.

Secondary Endpoints

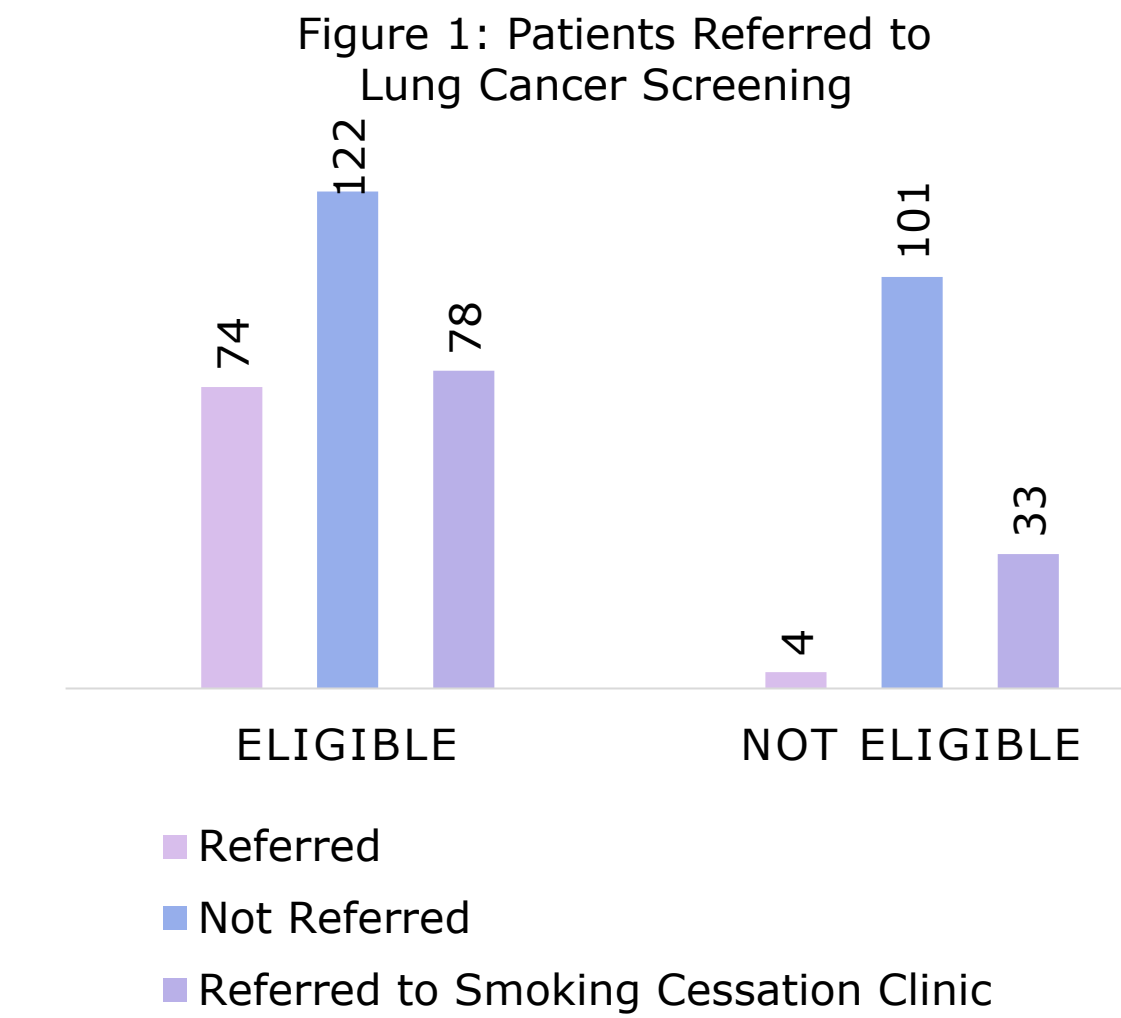
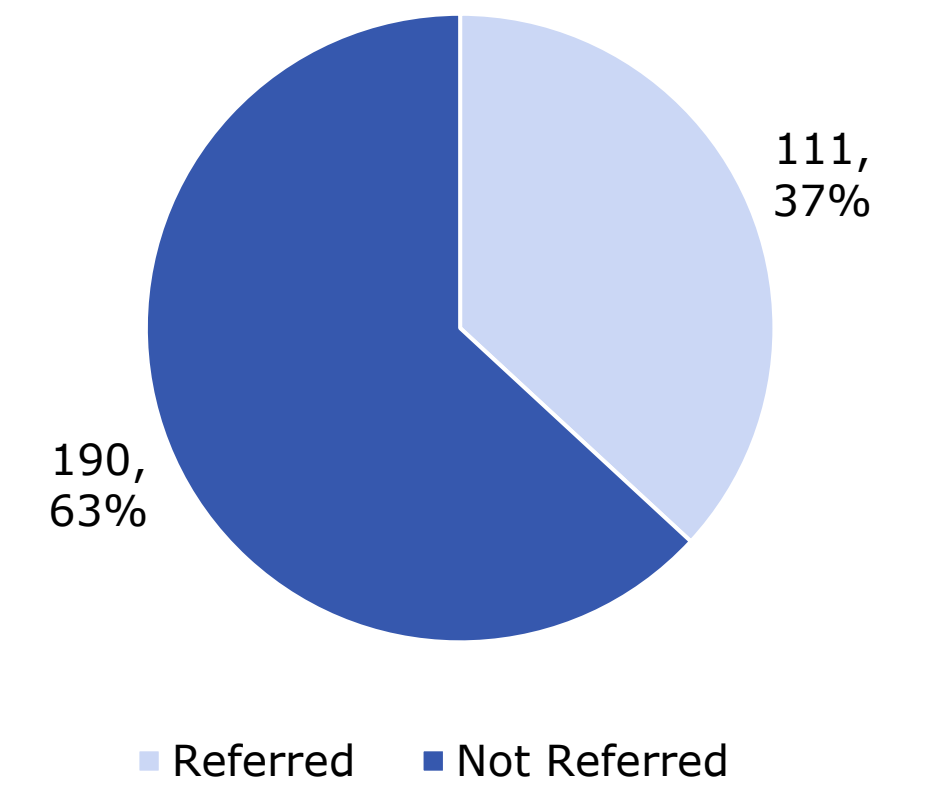


Figure 2: Patients Referred to Smoking Cessation Program



- Patients referred for smoking cessation were primarily African American females without a family history of cancer
- 196 (65%) of patients prescribed smoking cessation therapy were eligible for LCS.
- 42 (21%) of patients who were referred to LCS were also referred to a smoking cessation program

Conclusion

- Patients that were more likely to be referred for LCS were African American males with a history of cancer; however, most patients that were eligible for LCS were not referred
- There may be opportunities to refer patients for LCS that are referred to smoking cessation clinic (see Figure 1)

Future Directions

- Pharmacists should work with providers to ensure patients prescribed smoking cessation therapy are referred for LCS, if eligible.
- Health systems should leverage health information technology to assess lung cancer risk and screening when providers place prescriptions for smoking cessation therapy.
- Pharmacy leaders should partner with information technology to ensure SDOH information can be easily collected from the electronic medical record in order to study the impact of SDOH on smoking cessation and lung cancer risk assessment.