

# Lung Cancer Screening and Billing and Coding



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UNIVERSITY OF  
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MEDICAL SYSTEM

The Homer Gudelsky Building

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TO  
SOUTH  
295





# Disclosures

None related to the topic of presentation



# Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening

The National Lung Screening Trial Research Team\*

- 53,454 persons at high-risk for lung cancer at 33 US medical centers
- Randomized to undergo 3 annual screenings [T0, T1, T2]
- Cases of lung cancer and deaths from lung cancer

# Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening

The National Lung Screening Trial Research Team\*

**> 95% positive screening in both LDCT and Chest X-ray group**

High-risk patients  
underwent LCS



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graph LR; A[High-risk patients underwent LCS] --> B[Rate of positive screen – 24.6% in LDCT, 6.9% X-ray]; B --> C[LDCT Group had 20% reduction in relative risk of Death];
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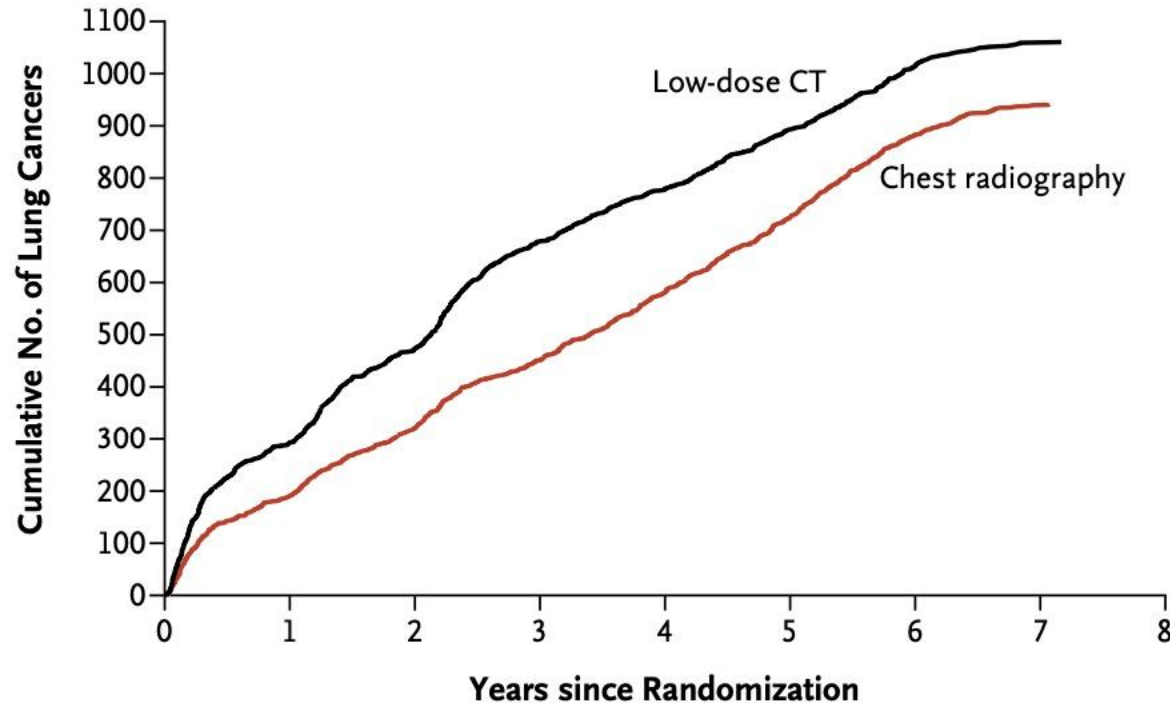
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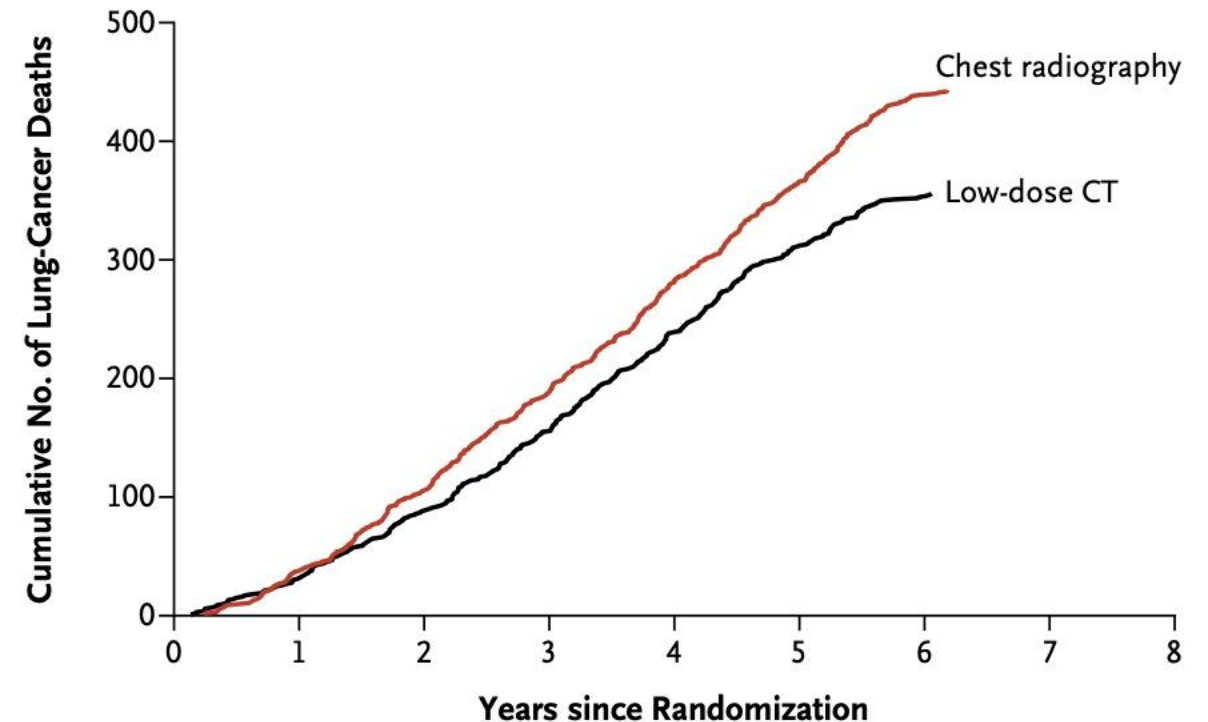
# Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening

The National Lung Screening Trial Research Team\*

**A Lung Cancer**



**B Death from Lung Cancer**

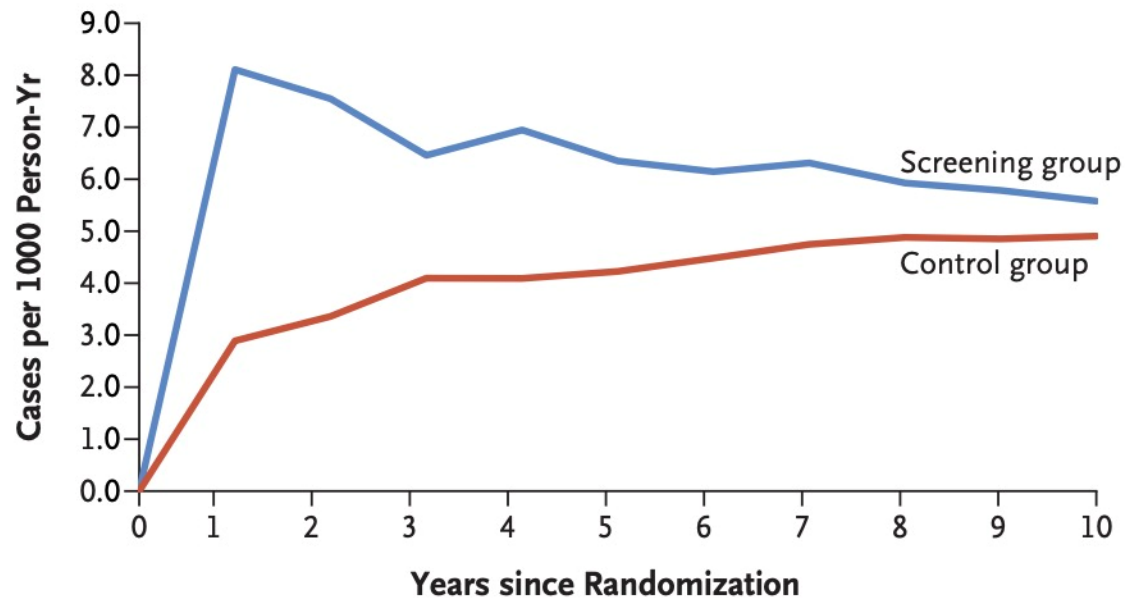


National Lung Screening Trial Research Team; Aberle DR, Adams AM, Berg CD, Black WC, Clapp JD, Fagerstrom RM, Gareen IF, Gatsonis C, Marcus PM, Sicks JD. Reduced lung-cancer mortality with low-dose computed tomographic screening. N Engl J Med. 2011 Aug 4;365(5):395-409. PMID: 21714641

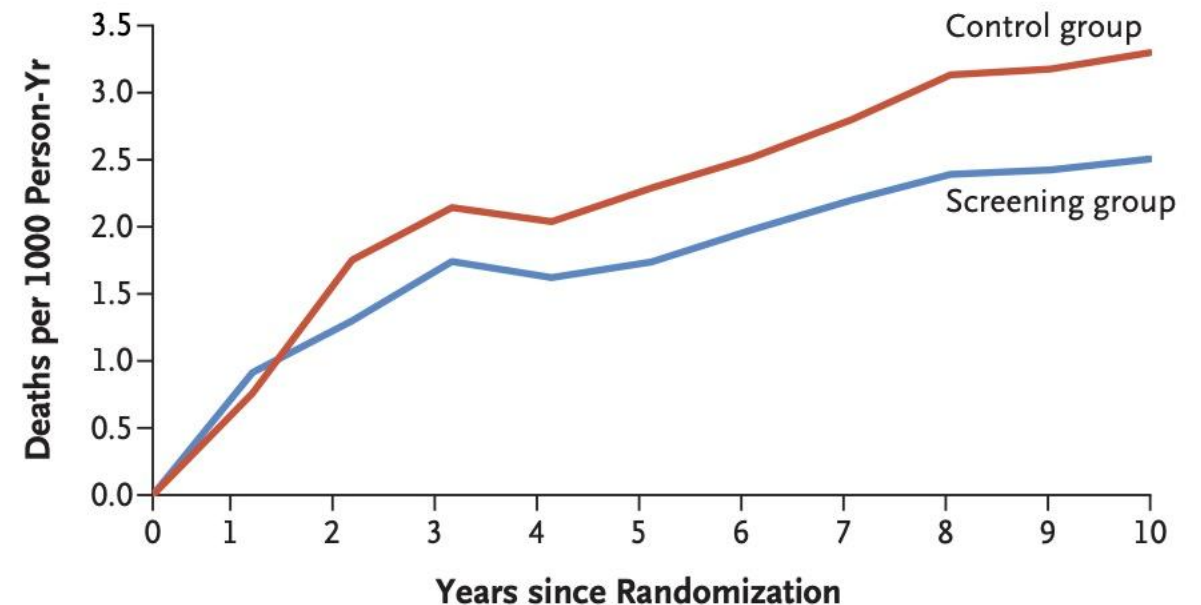
# Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial

H.J. de Koning, C.M. van der Aalst, P.A. de Jong, E.T. Scholten, K. Nackaerts, M.A. Heuvelmans, J.-W.J. Lammers,

**Lung-Cancer Incidence**

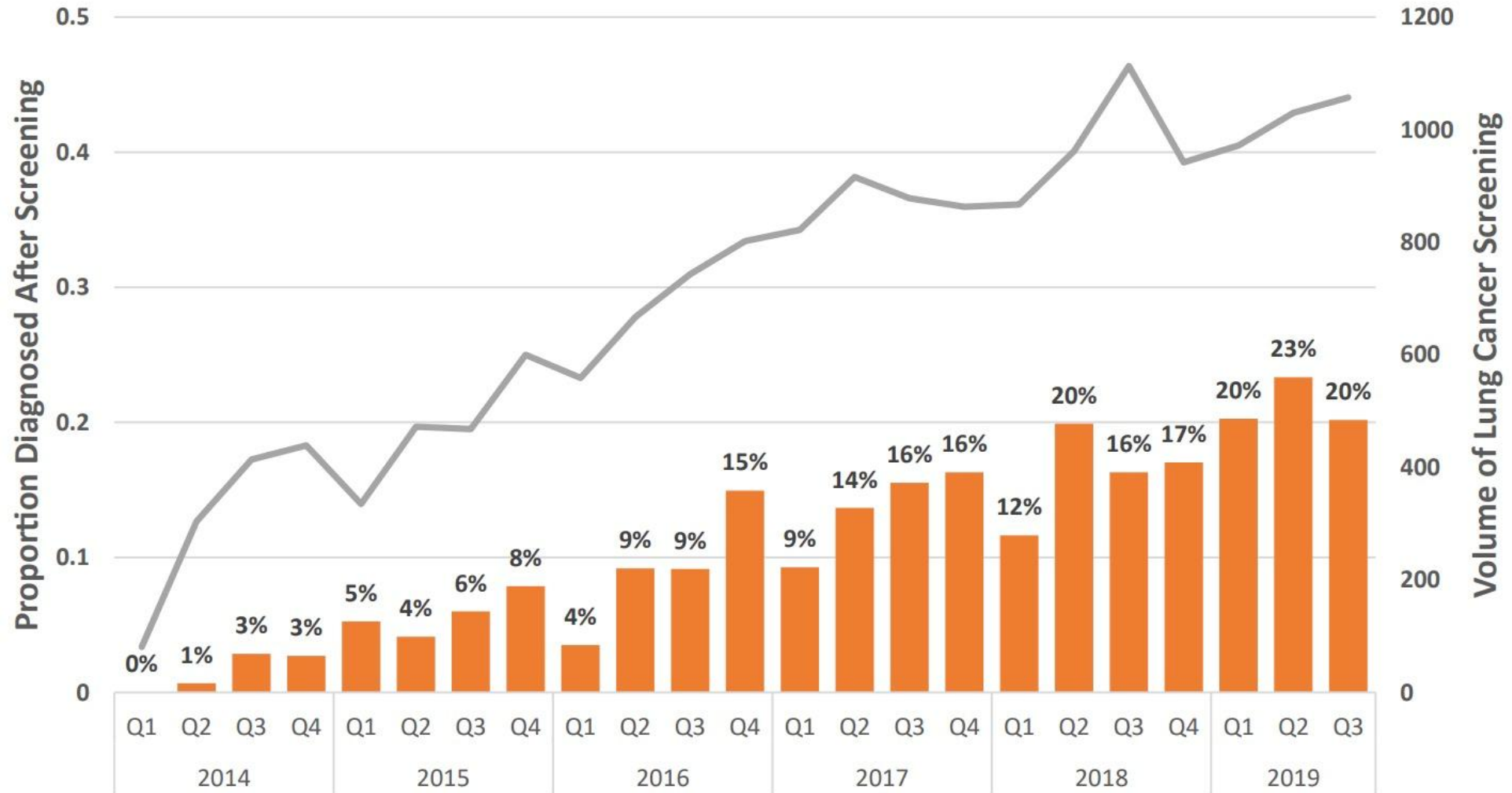


**Lung-Cancer Mortality**



de Koning HJ, van der Aalst CM, de Jong PA, Scholten ET, Nackaerts K, Heuvelmans MA, Lammers JJ, Weenink C, Yousaf-Khan U, Horeweg N, van 't Westeinde S, Prokop M, Mali WP, Mohamed Hoesein FAA, van Ooijen PMA, Aerts JGJV, den Bakker MA, Thunnissen E, Verschakelen J, Vliegenthart R, Walter JE, Ten Haaf K, Groen HJM, Oudkerk M. Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. N Engl J Med. 2020 Feb 6;382(6):503-513. PMID: 31995683.

# Stage Migration and Lung Cancer Incidence



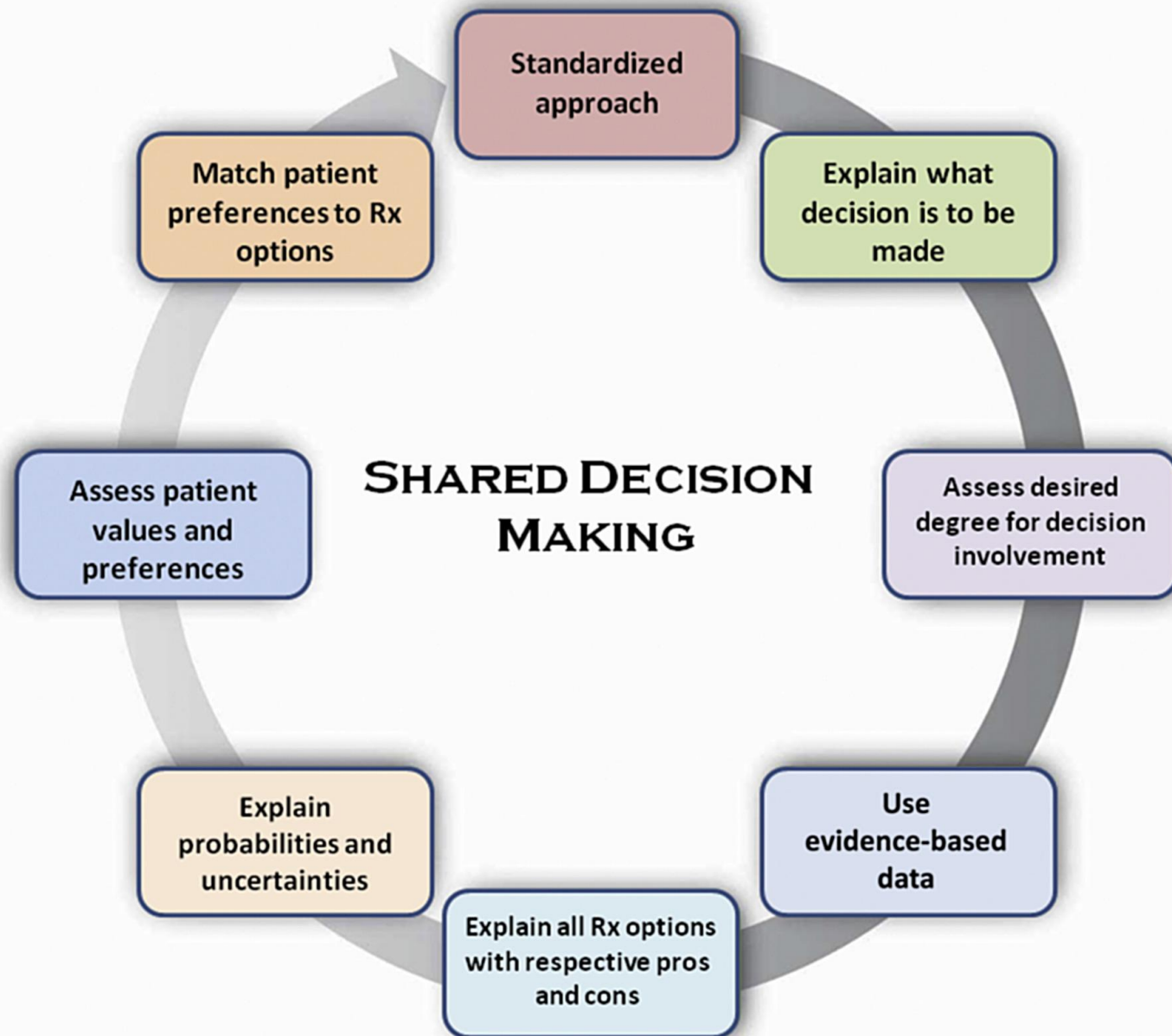


# Case Discussion

79-year-old woman, former smoker [41-pack-year], CKD, HTN, DM, Hypercholesterolemia, Osteopenia, history of cervical cancer, and peripheral neuropathy presents for follow up on HTN

Patient reports exertional dyspnea with walking around one city block (~ 600 feet)

Should we offer Lung Health check up?





# Medicare Coverage

## USPTF

- Age 50 to 80
- 20 pack-year, current or have quit < 15 years

## Medicare

- Age 50-77
- 20 pack-year, current or have quit < 15 years

Screening should be discontinued if patient develops a health problem that substantially limits life expectancy or curative intent treatment

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Beneficiary  
must  
receive a  
counseling  
and shared-  
decision  
making visit

Eligibility

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Shared-decision making, decision aids

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Counseling – Adherence, Impact of co-morbidities

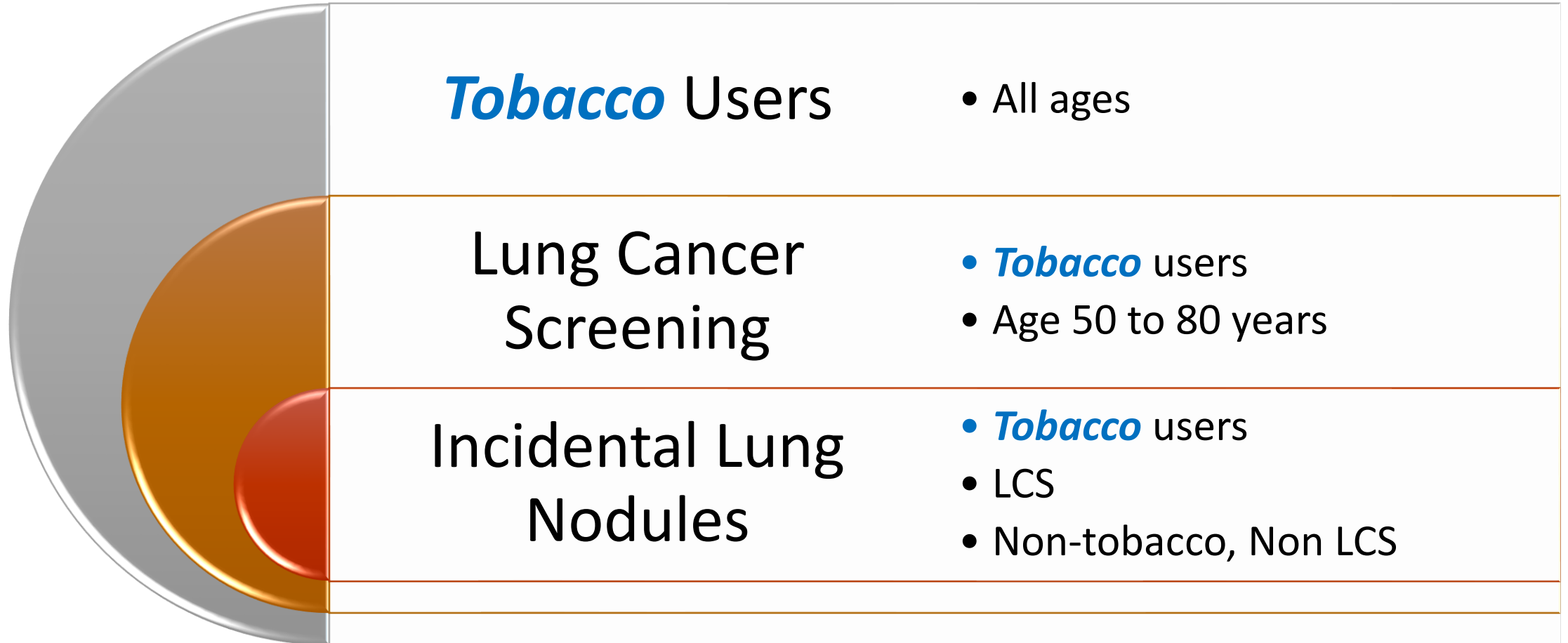
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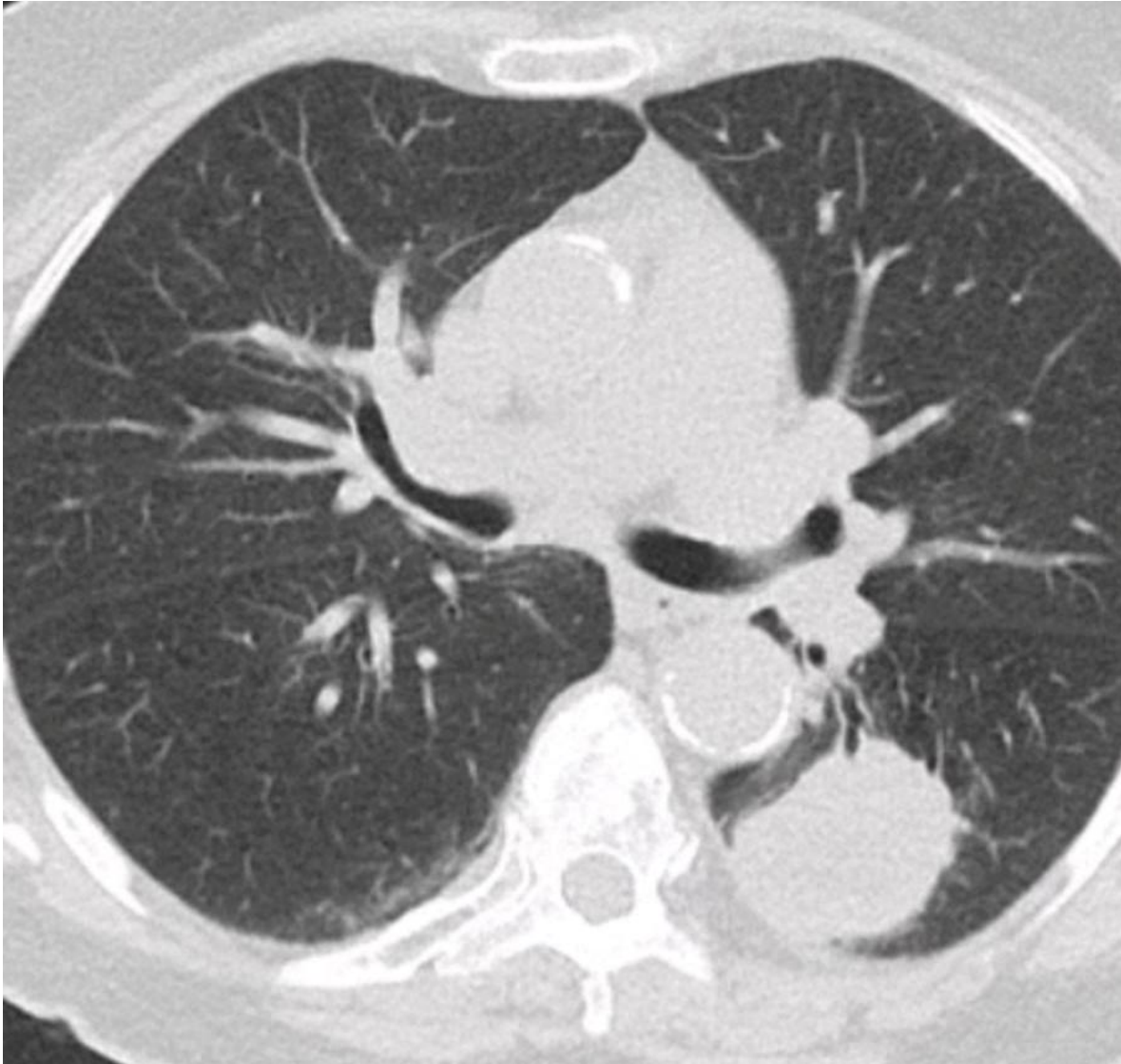
Importance of cigarette smoking abstinence

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# Lung Health & Early Detection of Lung Cancer





## LCS CT Imaging

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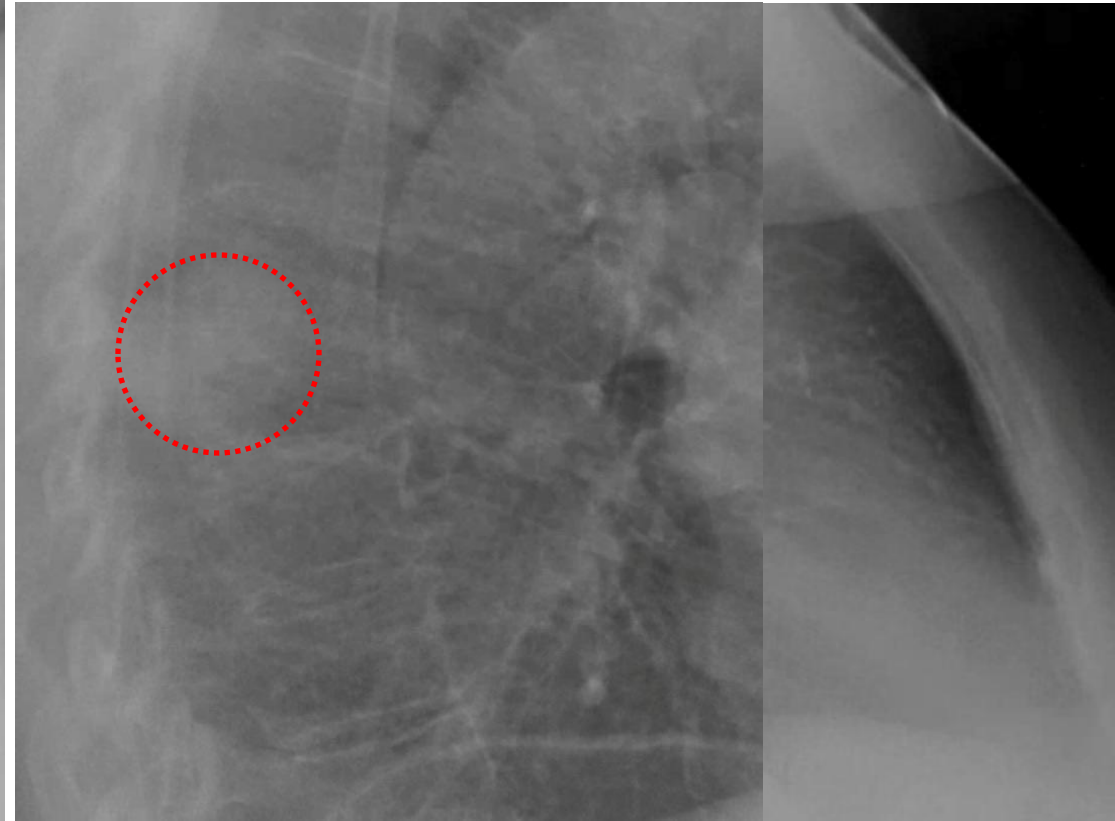
Tumor Size

Lymph Node

Metastasis

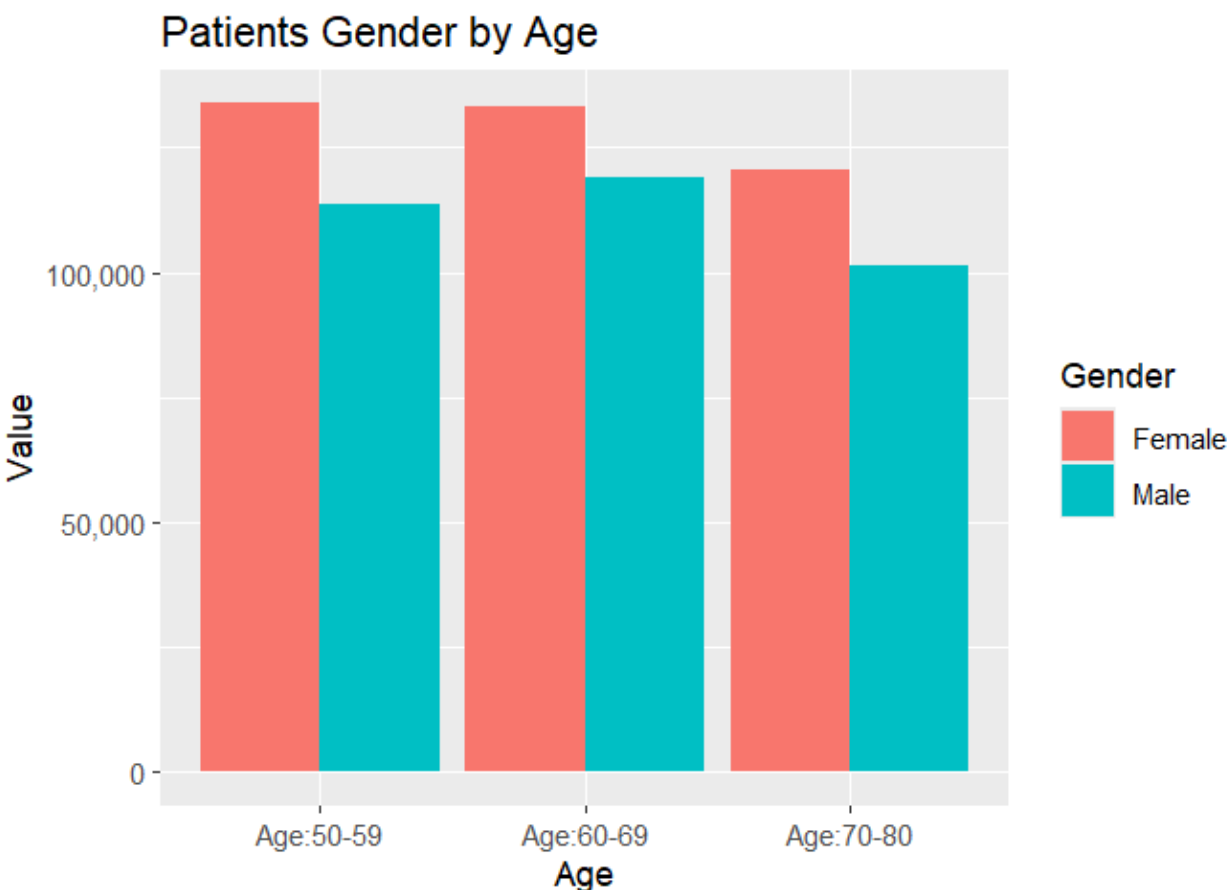


Chest X-ray 6 months ago...



# Smokers at UMMS - Demographics

Patient population at UMMS from Jan 1, 2016 - Jan 31, 2025, Ages 50 – 80 = **721,766**

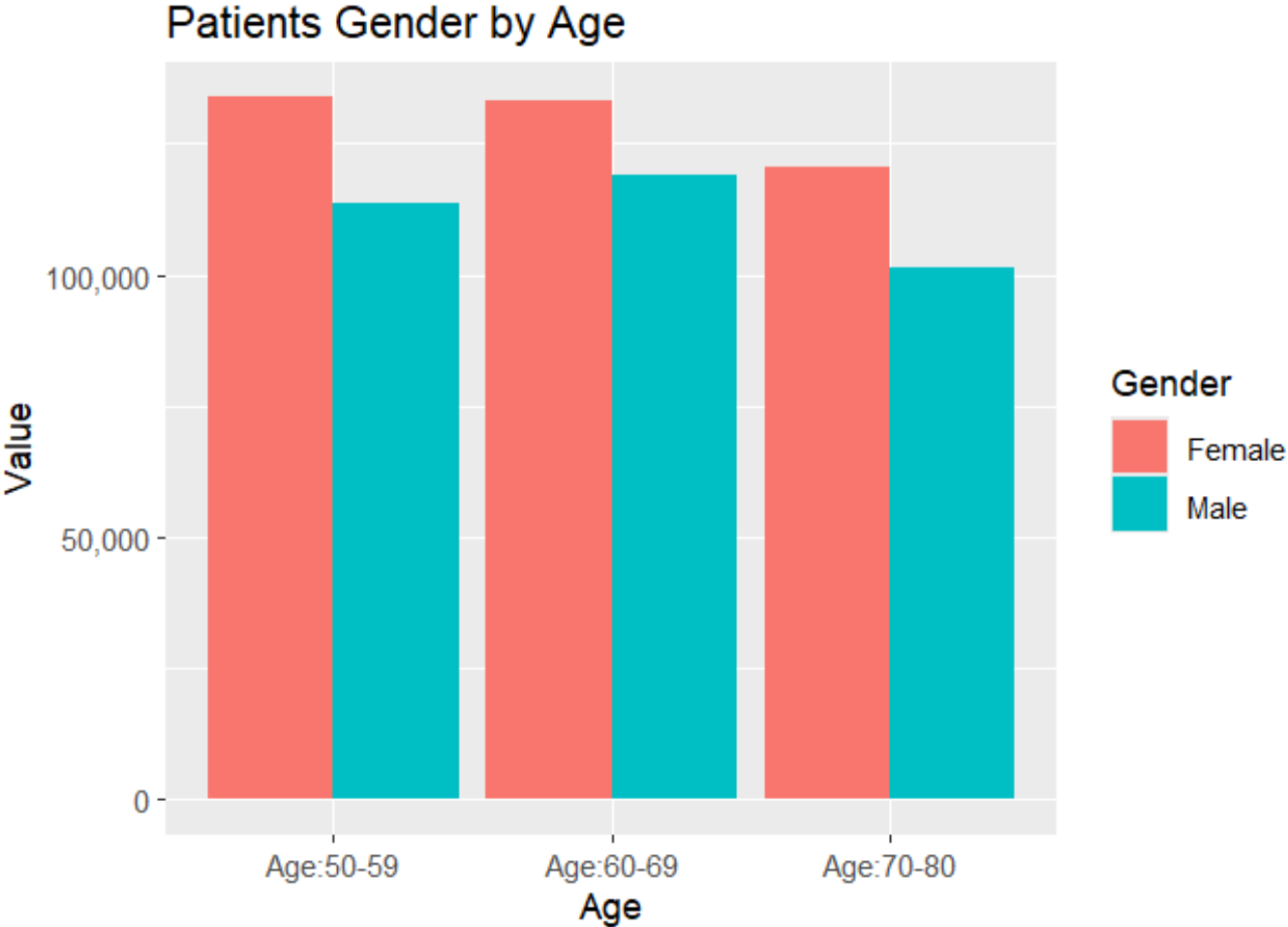


Gender	Range	Value	PCT
Female	Age:50-59	133918	19 %
Female	Age:60-69	133154	18%
Female	Age:70-80	120752	17%
Male	Age:50-59	113635	16%
Male	Age:60-69	119015	16%
Male	Age:70-80	101292	14%
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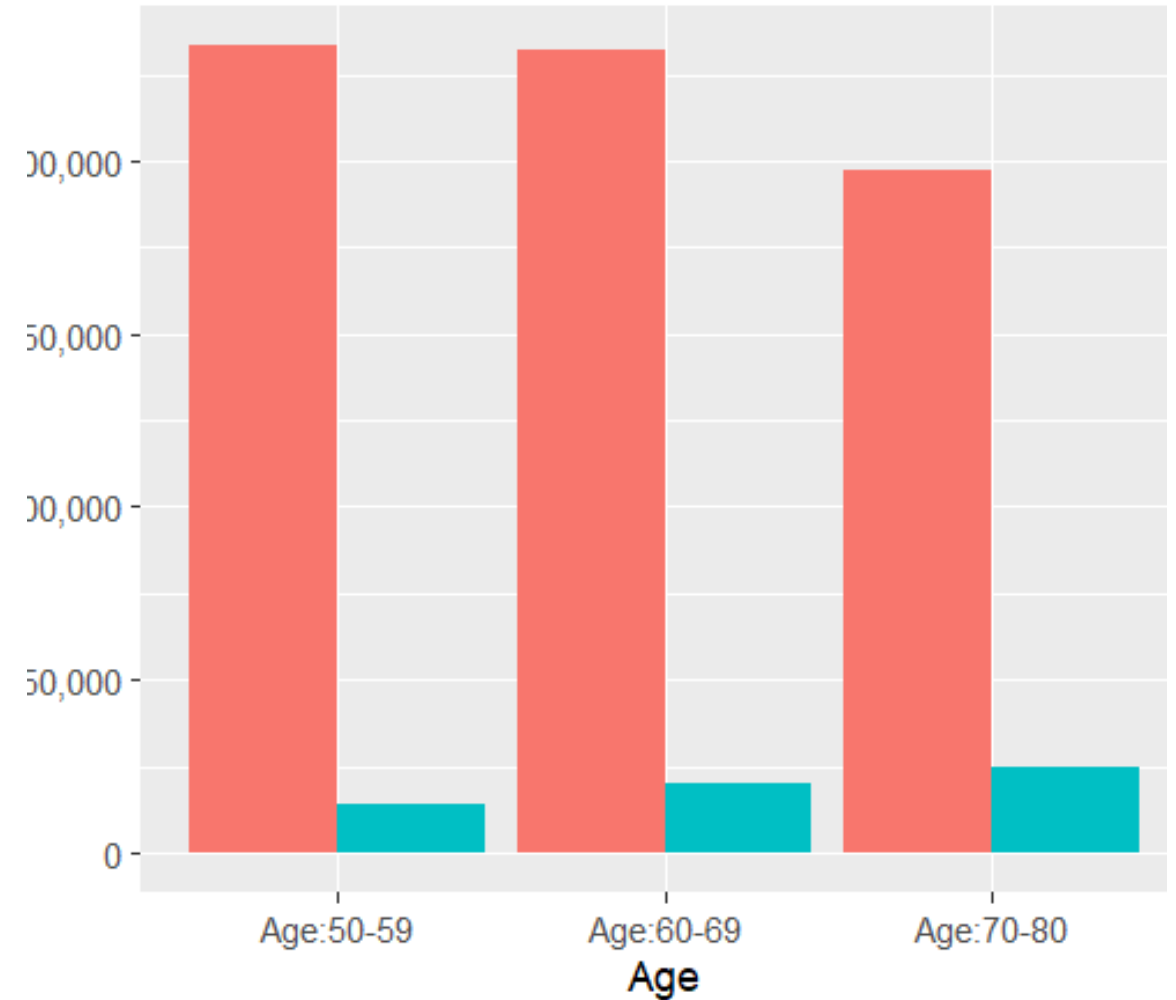
# Smokers at UMMS – LDCT Screening

Patient population at UMMS from Jan 1,  
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Screened

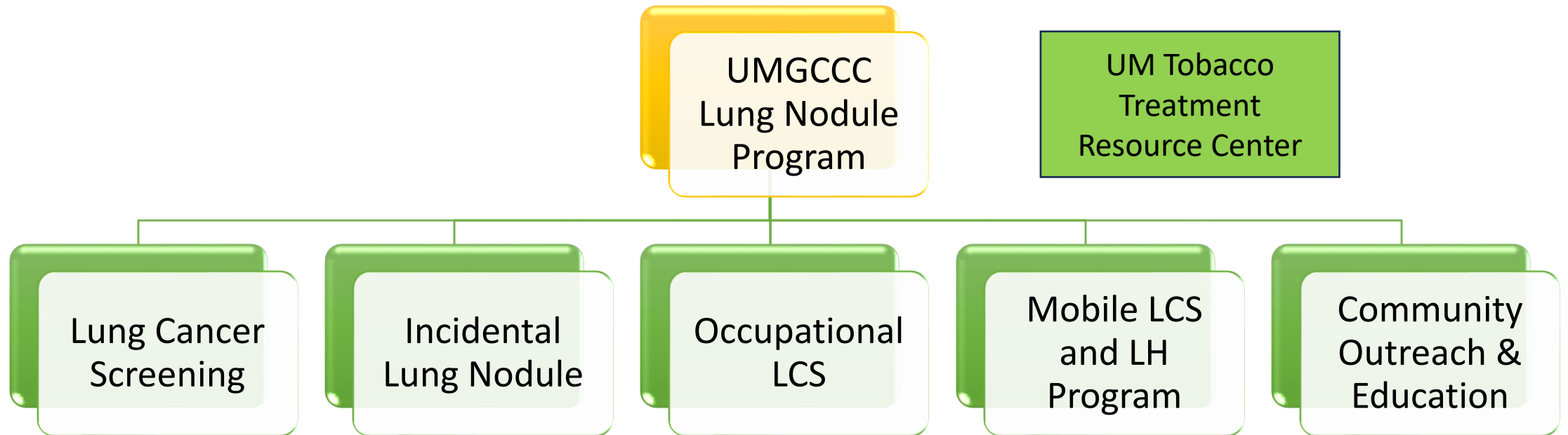


Patients Sreened for Lung Cancer by Age

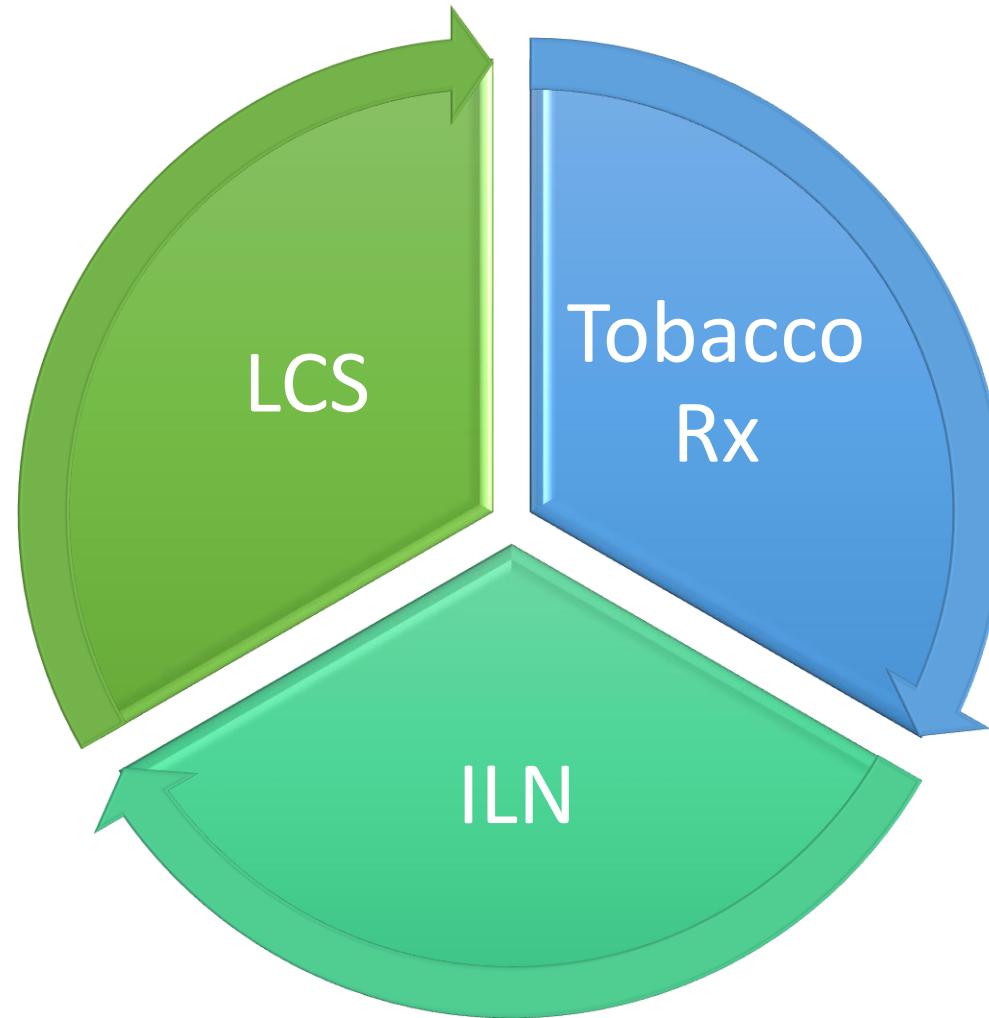


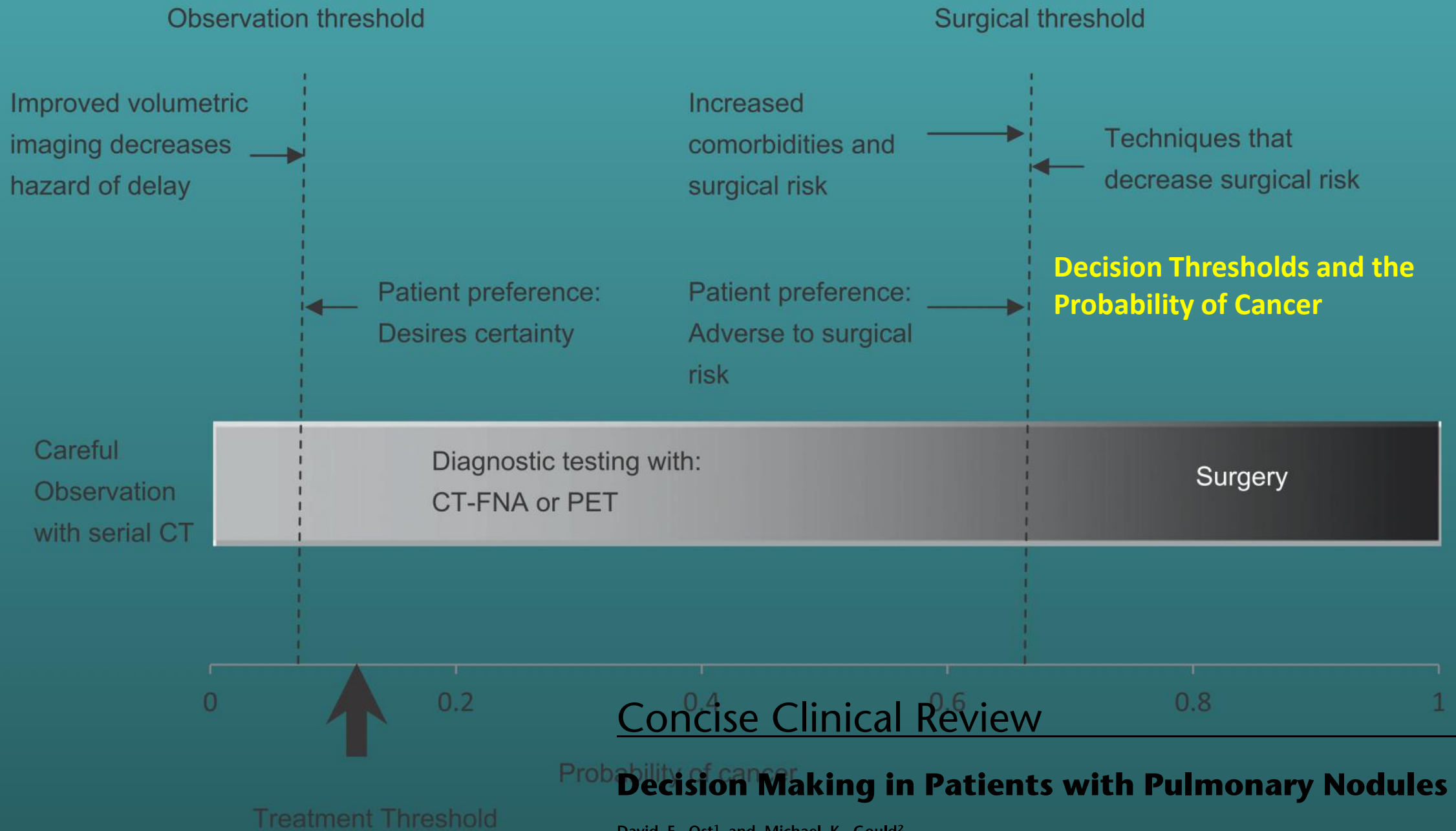


# UMGCCC Lung Nodule Program



# UMGCCC Lung Nodule Program







## Summary

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LCS reduces the relative risk of death from lung cancer

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LCS increases rate of detection of early lung cancer

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Tobacco treatment programs are integral to LCS programs

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Shared-decision making needs to be documented for with appropriate coding for billing the visit

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