Tobacco Smoking Management

Trevor Austin, MD
Hematology and Medical Oncology
Cancer Care of Western North Carolina
Mission Health System
Asheville, NC

Disclosure

- None

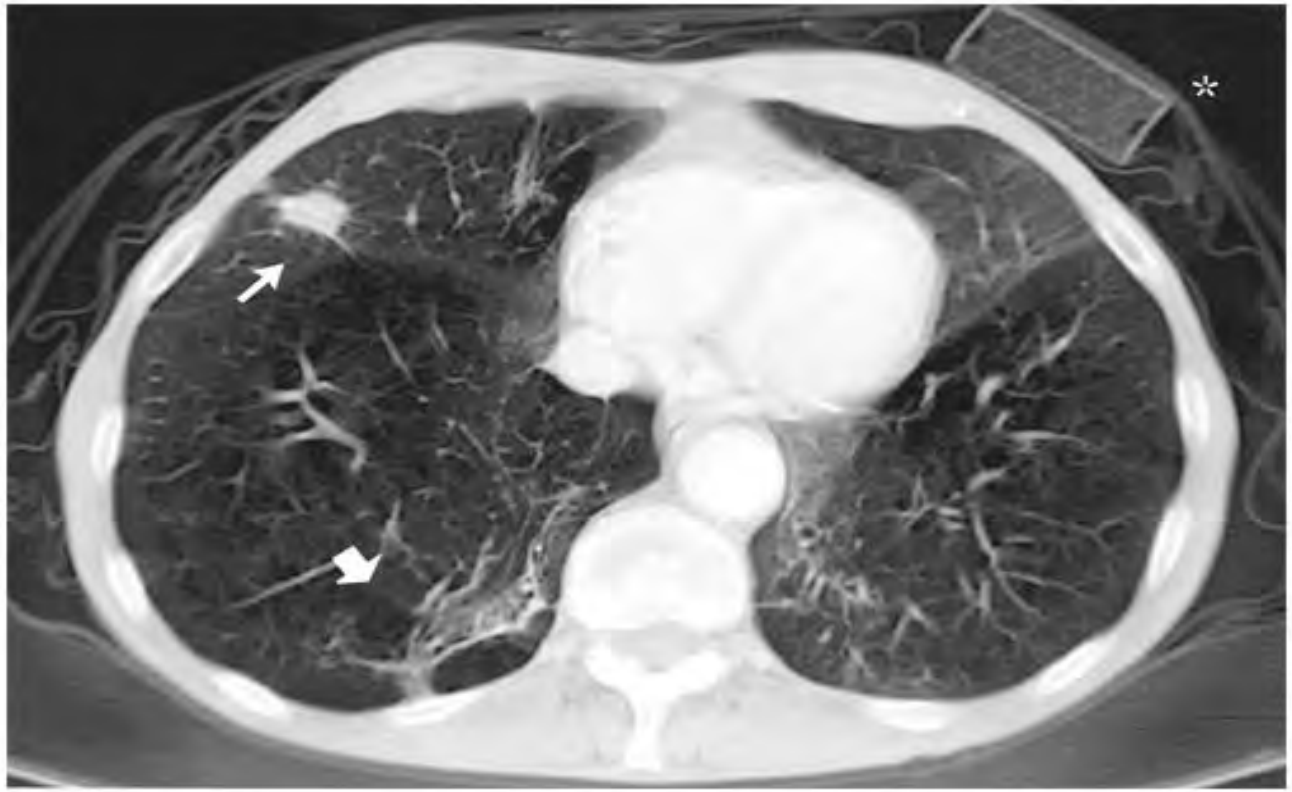
Objectives

- Review effects of smoking tobacco.
- How to approach smoking cessation with patients.
- Identify appropriate patients for lung cancer screening with LDCT.

Smoking

- In 2015 - 15% of U.S. adults smoke cigarettes
- Men 16.7%
- Women 13.6%

Effects from smoking

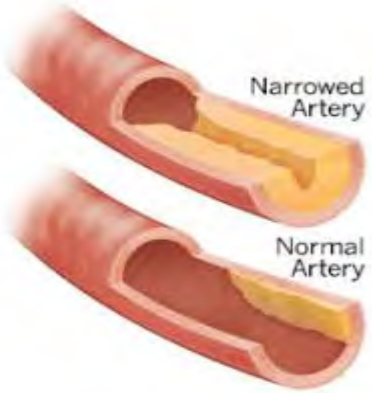


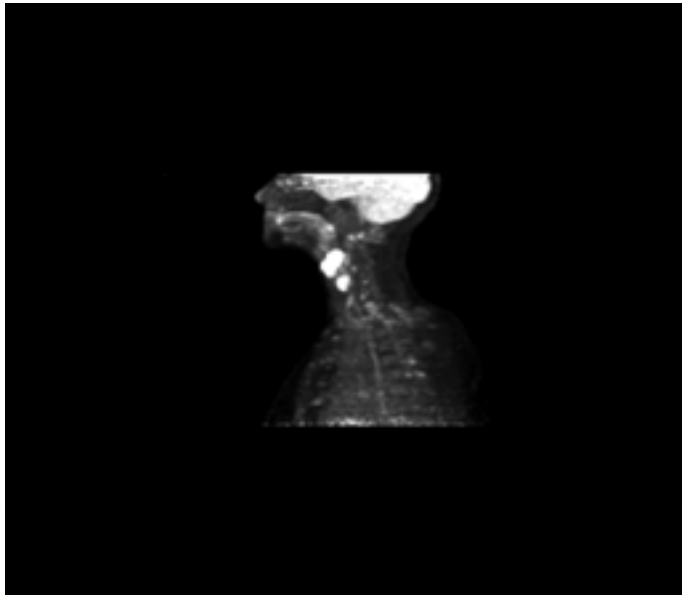
Effects of smoking

- Largest single risk to develop cancer
- Mouth, lips, nose, sinuses, larynx, pharynx, esophagus, stomach, pancreas, kidney, bladder, uterus, cervix, colon/rectum, ovary, myeloid leukemia, lung
- Cancers linked to tobacco use comprise 40% of all cancer diagnoses
- Smoking is linked to 30% of cancer deaths in the U.S.
- Lung cancer is the leading cause of cancer death in men and women

Effects from smoking

- Most of us already know about many of the health effects of smoking.
- Emphysema, coronary artery disease, stroke, cancer, diabetes, autoimmune diseases
- We still don’t want to quit.
- Or maybe we tried to quit and it was difficult.





Consider this:

- Many tobacco users will tell you that they don’t want to quit.
- Yet most of them would agree they would rather be free of tobacco.
- Maybe it is the quitting part that is the real problem.
- How do we approach it?

The 5A's Approach

- This has been the recommended approach since 2008 (U.S. Preventive Services Task Force Guidelines)
- Ask- about tobacco use
- Advise- to quit
- Assess- readiness to quit
- Assist- in quitting if ready
- Arrange- follow up

AAR Approach

- Ask about tobacco use
- Assist- advice to quit and give plan
- Refer to behavioral support resources.

Example:

Do you smoke or do you have any history of smoking?

The best thing you can do to improve your health is to quit smoking. We can help you.

What I hate about smoking

- Smell
- Expensive ($200 month) 1ppd
- Health problems
- Influencing youth to smoke
- Higher life insurance premiums
- Motivations to quit

What I love about smoking

- Acknowledge what we like about tobacco
- Social time
- Relieve stress
- Take a break during busy day
- Remove the anxious, tense feeling of nicotine withdrawal
- Barriers to quit

Triggers

- On the computer
- Morning coffee
- With friends
- Driving
- After Lunch

Coping Skills

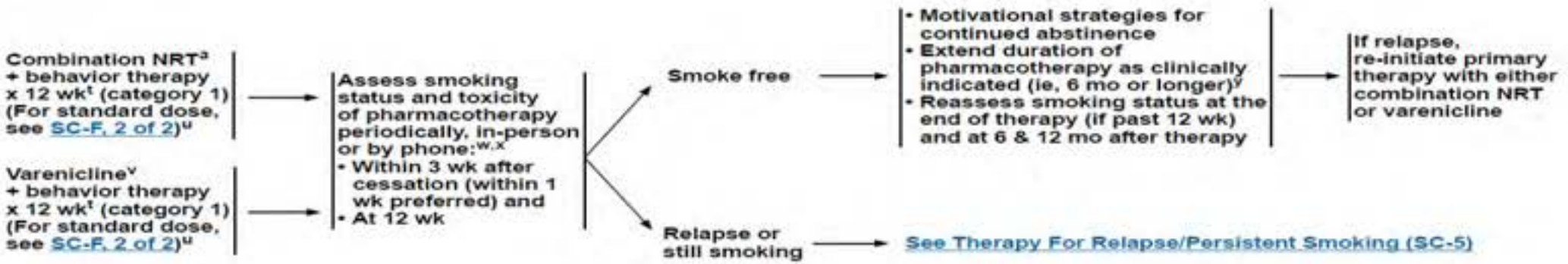
- Morning exercise
- Play my instrument
- Nicotine gum after lunch
- Deep Breathing
- Meditation
- Have to find what works for you.

National Comprehensive Cancer Network®

NCCN Guidelines Version 1.2018
Smoking Cessation

NCCN Guidelines Index
Table of Contents
Discussion

GENERAL APPROACH TO SMOKING CESSATION FOR PATIENTS WITH CANCER AND SURVIVORS



[a]Combination NRT = Nicotine patch + short-acting NRT (gum/lozenge/inhaler).
[n]See Principles of Smoking Cessation Pharmacotherapy (SC-F).
[p]See Principles of Behavioral Strategies (SC-E).
[q]Efficacy data are lacking for the use of e-cigarettes and alternative therapies (eg, hypnosis, acupuncture, nutritional supplements). Use of evidence-based cessation methods should be encouraged to avoid delay in achieving smoking abstinence. See Principles of Alternative Approaches to Smoking Cessation (SC-A).
[r]The use of marijuana, or other substances associated with smoking relapse, is discouraged for those attempting to quit smoking.
[t]A minimum of 4 sessions of individual/group therapy in 12 weeks is preferred, but at least brief counseling is required. See Principles of Behavioral Strategies (SC-E).
[u]Patient assistance programs may be available.
[v]Nausea is a common side effect of varenicline and may need to be managed for patients with cancer, especially during chemotherapy.
[w]Nicotine withdrawal symptoms typically peak within 2 weeks of quitting. Encourage continued therapy through brief slips.
[x]Adjust behavior therapy frequency as needed, and adjust pharmacotherapy dose for undesirable side effects or if high risk of relapse is suspected.
[y]Varenicline can be used up to 1 year for continued abstinence.

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

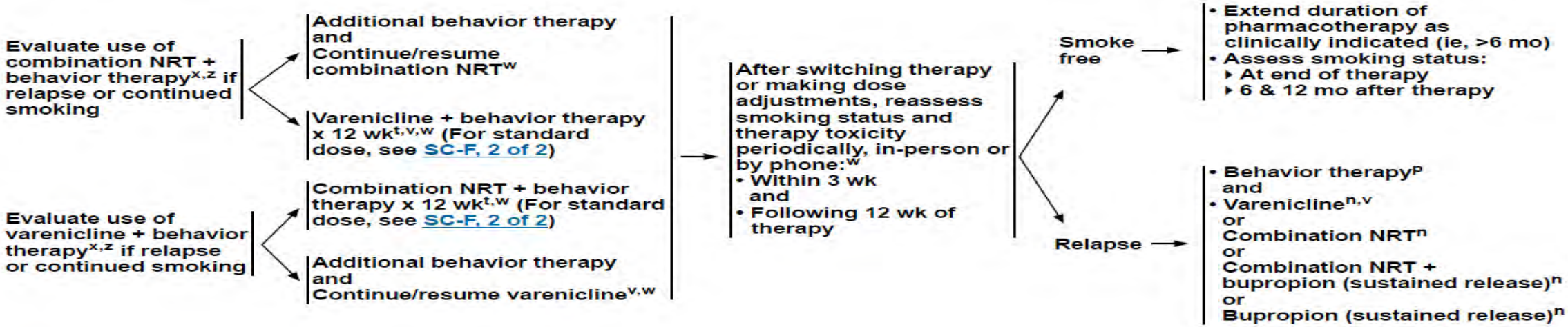
Mission Health

National Comprehensive Cancer Network®

NCCN Guidelines Version 1.2018
Smoking Cessation

NCCN Guidelines Index
Table of Contents
Discussion

GENERAL APPROACH TO SMOKING CESSATION FOR PATIENTS WITH CANCER AND SURVIVORS



[n] See Principles of Smoking Cessation Pharmacotherapy (SC-F).
[p] See Principles of Behavioral Strategies (SC-E).
[q] Efficacy data are lacking for the use of e-cigarettes and alternative therapies (eg, hypnosis, acupuncture, nutritional supplements). Use of evidence-based cessation methods should be encouraged to avoid delay in achieving smoking abstinence. See Principles of Alternative Approaches to Smoking Cessation (SC-A).
[r] The use of marijuana, or other substances associated with smoking relapse, is discouraged for those attempting to quit smoking.
[t] A minimum of 4 sessions of individual/group therapy in 12 weeks is preferred, but at least brief counseling is required. See Principles of Behavioral Strategies (SC-E).
[v] Nausea is a common side effect of varenicline and may need to be managed for patients with cancer, especially during chemotherapy.
[w] Nicotine withdrawal symptoms typically peak within 2 weeks of quitting. Encourage continued therapy through brief slips.
[x] Adjust behavior therapy frequency as needed, and adjust pharmacotherapy dose for undesirable side effects or if high risk of relapse is suspected.
[z] Decision to continue or switch therapy should be based on prior cessation success, patient preference, toxicity, and/or a change in clinical status (eg, upcoming surgery).

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

Mission Health

PRINCIPLES OF ALTERNATIVE APPROACHES TO SMOKING CESSATION

- Offer motivational and behavioral support to all patients attempting to quit smoking, regardless of what smoking cessation method(s) is/are being used. See Principles of Behavioral Strategies (SC-E)
- For patients who are unable or unwilling to quit, one potential strategy is smoking reduction with a goal of quitting. (See SC-2)
- Encourage the use of evidence-based cessation methods to avoid delays in achieving abstinence.
- For patients using alternative approaches, including electronic cigarettes, continue to provide support during quit attempts.
- Relapse and smoking slips are common. Remind patients that repeated attempts with evidence-based methods are frequently needed to achieve longer-term abstinence.

Electronic Nicotine Delivery Systems (ENDS) or "E-Cigarettes"

- ENDS are not FDA-approved smoking cessation devices.
- There is currently insufficient evidence to support the use of e-cigarettes in smoking cessation, alone or in combination with evidence-based smoking cessation methods. There is also insufficient evidence regarding the safety and efficacy of e-cigarette use in patients with cancer.
  - The American Heart Association, American Association for Cancer Research (AACR), and American Society of Clinical Oncology (ASCO) recognize the potential for ENDS to alter existing smoking behaviors, as well as the lack of definitive data regarding associated benefits and harms.[1,2] However, ENDS are not recommended by these associations because of the insufficient data on efficacy and safety.
  - According to the US Preventive Services Task Force (USPSTF), "Current evidence is insufficient to recommend electronic nicotine delivery systems (ENDS) for tobacco cessation in adults, including pregnant women. The USPSTF recommends that clinicians direct patients who smoke tobacco to other cessation interventions with established effectiveness and safety."[3]

Other Alternative Methods

- There is currently insufficient evidence to support the use of alternative methods (eg, hypnosis, acupuncture, nutritional supplements) when used alone and in combination with standard smoking cessation methods.[4,5]
- Prior unsuccessful quit attempts with conventional therapies do not justify the use of unproven alternative cessation methods because multiple attempts with evidence-based methods may be necessary to achieve abstinence.
- There are very limited, low-quality data regarding the efficacy of exercise-based interventions.[6]

[1]Brandon TH, Goniewicz ML, Hanna NH, et al. Electronic nicotine delivery systems: a policy statement from the American Association for Cancer Research and the American Society of Clinical Oncology. J Clin Oncol 2015;33:952-963.
[2]Bhatnagar A, Whitsel LP, Ribisl KM, et al. Electronic cigarettes: a policy statement from the American Heart Association. Circulation 2014;130:1418-1436.
[3]Final Update Summary: Tobacco Smoking Cessation in Adults, Including Pregnant Women: Behavioral and Pharmacotherapy Interventions. U.S. Preventive Services Task Force. September 2015. http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/tobacco-use-in-adults-and-pregnant-women-counseling-and-interventions1?ds=1&s=tobacco
[4]Barnes J, Dong CY, McRobbie H, et al. Hypnotherapy for smoking cessation. Cochrane Database Syst Rev 2010:CD001008.
[5]White AR, Rampes H, Liu JP, et al. Acupuncture and related interventions for smoking cessation. Cochrane Database Syst Rev 2014;1:CD000009.
[6]Ussher MH, Taylor AH, Faulkner GE. Exercise interventions for smoking cessation. Cochrane Database Syst Rev 2014;8:CD002295.

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

SMOKING-ASSOCIATED RISKS FOR PATIENTS WITH CANCER

- The 2014 Surgeon General's Report[1] stated that:
  - Sufficient evidence exists to support a causal relationship between smoking and adverse health outcomes, increased all-cause mortality and cancer-specific mortality, and increased risk for secondary primary cancers.
  - Existing evidence is suggestive of a link between smoking and increased risk of cancer recurrence, poor treatment response, and increased treatment-related toxicity.
- Providers should:
  - Inform patients of the potential benefits of smoking cessation, including improved survival, treatment outcomes, and health-related quality of life, as well as decreased treatment-related toxicity, drug side effects, and surgical complications.
  - Educate patients on the specific risks of smoking during treatment for their particular cancer.
  - Encourage smoking cessation as far in advance as possible before initiating cancer treatment.
  - Consider patient smoking status prior to initiating treatment and when making decisions regarding treatment selection, dosage, and timing of initiation.
  - Discuss smoking cessation with all patients who smoke. Patient satisfaction is enhanced when smoking cessation is offered by providers.
  - Encourage smoking cessation among all members of the household for the benefit of the patient.

<u>Treatment-Specific Risks</u> (see Discussion for additional information)
- Smoking can impact the metabolism of chemotherapy and targeted therapy.
  - Smoking effects on cytochrome P450 enzymes may include altered drug clearance time and plasma concentration, potentially impacting the efficacy of certain drugs. Providers should consider whether patients are at risk for altered drug metabolism due to smoking and determine if medication or dose adjustments may be required. Drugs whose metabolisms are known to be affected include erlotinib, irinotecan, and bendamustine.[2-6]
- Smoking increases risk of radiation therapy (RT)-associated treatment complications during RT and may decrease treatment response.[7-9] Patients who receive RT and continue to smoke may also have an increased risk of developing second primary cancer.[10-13]
- Smoking is associated with increased rates of postoperative complications and mortality after cancer surgery.
  - Compared with nonsmokers, patients who smoke may experience decreased health-related quality of life after cancer surgery (eg, dyspnea, fatigue, pain).[14-16]
  - Smoking may impair wound healing following surgery for cancer.[17,18]
  - Increased infection rates, cardiovascular and pulmonary complications, and longer postoperative hospital stays are more commonly observed in patients who smoke.[19]
  - Postoperative mortality rates are higher among patients who smoke.[20]

<u>Potential Nicotine Effects on Cancer and Cardiovascular Risks</u> (see Discussion for additional information)
- Blood nicotine levels from NRT, including combination NRT, are significantly less than from smoking cigarettes. Therefore, providers and smokers should not be dissuaded from using NRT to foster quitting and long-term cessation.
- There is insufficient evidence that NRT causes cancer in humans.[21-25]
- There is insufficient evidence that NRT increases the risk of myocardial infarction or cardiovascular disease.

References on next page

Medications and behavioral therapy

- Nicotine patch (Nicoderm CQ)
- Nicotine gum (Nicorette, Nicotrol)
- Nicotine lozenge (Commit)
- Nicotine inhaler (Nicotrol)
- Bupropion (Zyban)
- Varenicline (Chantix)

MISSION HEALTH

Partnership with Respiratory Therapists for Inpatient Cessation

Gretchen Heacock, M. Eng
Mission Health System

Introduction

Mission Hospital is an 800 bed facility that employs 2.5 Tobacco Treatment Specialists who are responsible for inpatient nicotine cessation consults, as well as an outpatient nicotine cessation clinic. The Respiratory Therapists work in conjunction with the Nicotine Dependence Program to assess tobacco use and willingness for cessation counseling and medication. A quality improvement project team was formed to review the inpatient cessation processes and look for areas of improvement and increased collaboration with in the process.

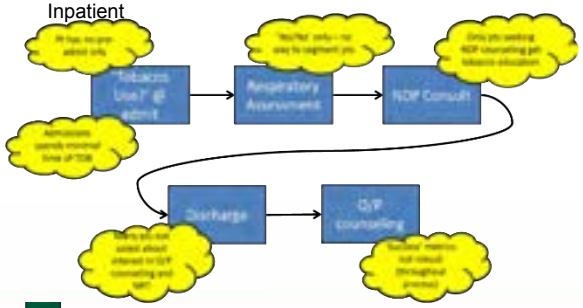
Objectives

Objectives of this work are to standardize non-behavioral health unit inpatient tobacco processes so that we can improve the number of patients receiving a consult for nicotine cessation (baseline CY 2016: 2,693 consults ordered, 57% completed with patient), implement follow- up post discharge and increase medications given to help manage withdrawal for inpatient.

This particular poster will focus on the process change of partnership with respiratory therapy to increase patient consults, while maintaining or increasing attempted and completed consult rates.

Process

High Level Current State Process Map from 2016 Inpatient



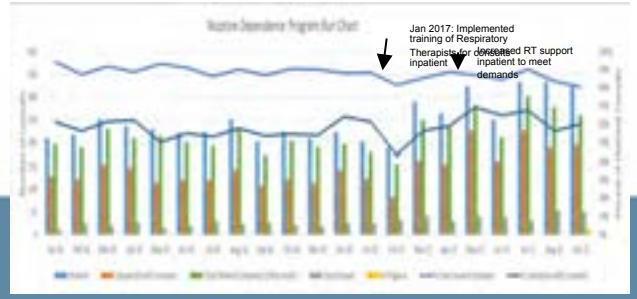
Methods

One of the first plans of actions to test for increased efficiencies was to train a team of respiratory therapists to deliver a more in-depth nicotine dependence consult so that the Nicotine Dependence Program (NDP) has more support than the 2.5 FTE to be able grow the number of consults inpatient, while giving the NDP the ability to grow other processes such as the inpatient follow up calls and outpatient clinic. Historical baseline data was collected and compared to when the intervention took place.

A Tobacco Task Force was also formed consisting of a multi-disciplinary team to educate on the process, inform of the process gaps, and support our work throughout the system.

Data Collected

A component of the work was to develop a tracking log that pulled data directly from Cerner to improve our data collection methods. From there, we were able to assess number of consults ordered, attempted, and completed. The increased data has also allowed for more in-depth metrics on discharge data and why we may be missing consults.



Results

Partnership with the Respiratory Therapists and education to the physicians/clinical personal about the consult has increased the number of nicotine dependence consults ordered, while at the same time maintaining high levels of consults attempted (86% of consults ordered) or completed (61% of consults ordered) given the increase in demand.

We also found through our analysis that there is a need for increased weekend coverage to help close the gap on attempts and completion rates. Thirty-six percent of consults that are either attempted but not completed or the patient discharges before attempted are discharged on Saturday or Sunday.

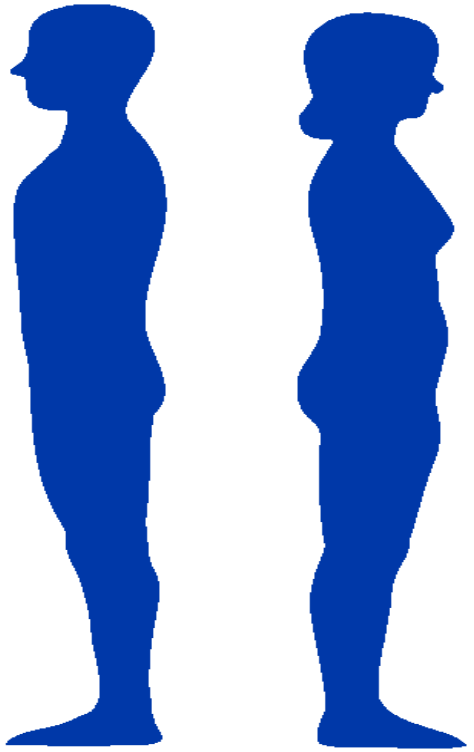
Metric	Baseline Jan-Sept 2016	Post-Intervention Jan-Sept 2017	Change from Baseline
# Consults ordered	2,037	2,509	↑ 23%
# Attempted Consults	1,838	2,151	↑ 17%
# Consults Completed	1,158	1,519	↑ 31%

Conclusion

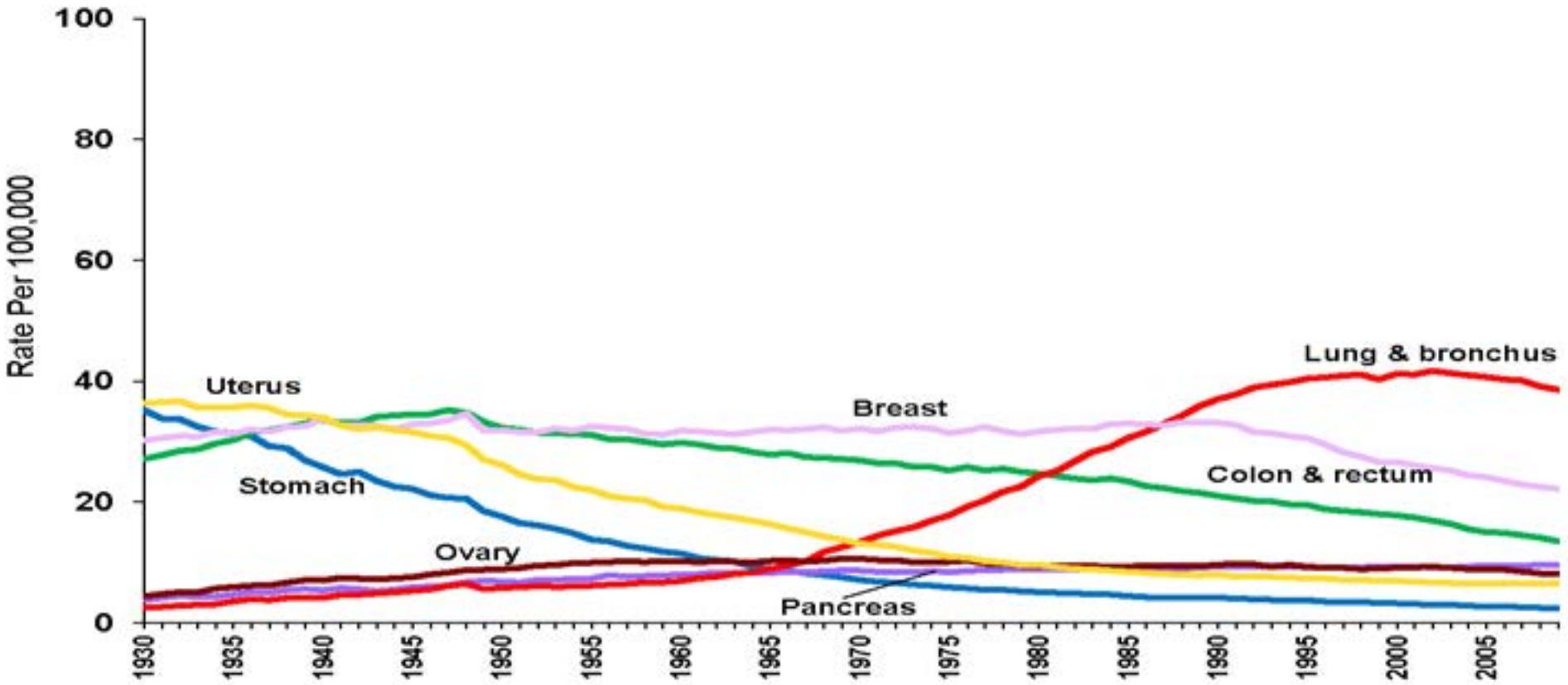
Increased collaboration with the Respiratory Therapy team allowed for the ability to increase consults ordered while still maintaining a high level of completion rates or attempts for consultation. This partnership has allowed growth in other areas of Nicotine Dependence programming, as well as a cross-functional approach to inpatient nicotine cessation.

Estimated Cancer Deaths in the US in 2013

Men 306,920		Women 273,430	
Lung & bronchus	28%	26%	Lung & bronchus
Prostate	10%	14%	Breast
Colon & rectum	9%	9%	Colon & rectum
Pancreas	6%	7%	Pancreas
Liver & intrahepatic bile duct	5%	5%	Ovary
Leukemia	4%	4%	Leukemia
Esophagus	4%	3%	Non-Hodgkin lymphoma
Urinary bladder	4%	3%	Uterine corpus
Non-Hodgkin lymphoma	3%	2%	Liver & intrahepatic bile duct
Kidney & renal pelvis	3%	2%	Brain/other nervous system
All other sites	24%	25%	All other sites

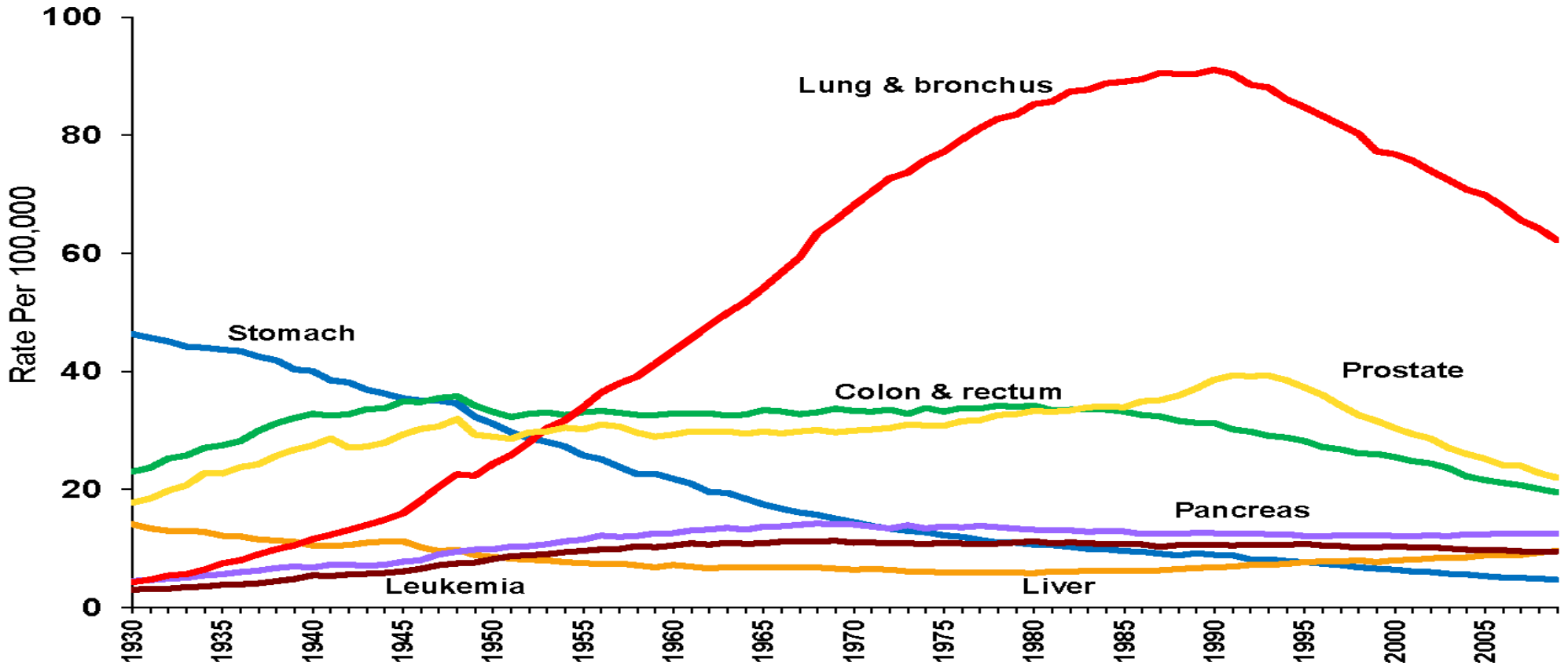


Cancer Death Rates* Among Women, US,1930-2009



*Age-adjusted to the 2000 US standard population.
Source: US Mortality Data 1960-2009, US Mortality Volumes 1930-1959,
National Center for Health Statistics, Centers for Disease Control and Prevention.

Cancer Death Rates* Among Men, US,1930-2009



*Age-adjusted to the 2000 US standard population.
Source: US Mortality Data 1960-2009, US Mortality Volumes 1930-1959,
National Center for Health Statistics, Centers for Disease Control and Prevention.

Lung Cancer Incidence/Mortality: US

- Primary Prevention (Smoking Cessation) Success
  - Decreased number of overall lung cancer deaths in US
  - Despite success 160K still die every year from lung cancer
  - Most people who die from lung cancer now are FORMER SMOKERS
    - 35% of Lung Cancer Diagnosis → Current Smokers
    - 50% of Lung Cancer Diagnosis → Former Smokers
    - 15% of Lung Cancer Diagnosis → Never Smokers
- Lung Cancer 5-Year Overall Survival Remains Unchanged
  - 1975 → 12%, Current → 15%

National Lung Screening Trial (NLST): 6/29/2011

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

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

The National Lung Screening Trial Research Team*

CONCLUSIONS

Screening with the use of low-dose CT reduces mortality from lung cancer. (Funded by the National Cancer Institute; National Lung Screening Trial ClinicalTrials.gov number, NCT00047385.)

National Lung Screening Trial Research Team (2011) Reduced lung-cancer mortality with low-dose computed tomographic screening. N Engl J Med 365(5):395–409.

National Lung Screening Trial (NLST)

- Randomized multicenter study launched 2002
- Study conducted by the NCI
- Data collected at 33 U.S. medical centers (8/2002- 4/2004)
- Compared screening LDCT to CXR in current and former heavy smokers
- Largest randomized study of lung cancer screening ever with over 53,000 enrolled
- First study ever to show reduced mortality benefit from screening for lung cancer
- LDCT reduced lung cancer deaths by 20% P=0.004

Coverage

- February 2015 Medicare approves payment for LDCT for lung cancer screening
  - age 55-77
  - current smokers or former smokers stopped within 15yrs
  - 30 pk/yr history of smoking
  - A pk/yr is calculated by multiplying the number of packs of cigarettes smoked per day by the number of years you have smoked
  - asymptomatic for lung cancer
  - shared decision visit prior to initial screening
  - national data registry

Shared Decision Visit

- Shared decision making with the patient by the ordering provider is required for CMS coverage for the first CT screening encounter
- http://www.shouldiscreen.com/ is a web based publically available shared decision making aid with a risk calculator

Smoking Cessation

- A key element of any lung cancer screening program
- Screening for lung cancer is a teachable moment
  - Smoking cessation is the best way to decrease risk
  - makes screening more cost effective
  - improves health and reduces other leading causes of death including cardiovascular disease and COPD

LDCT Technique

- No preparation. No iv contrast.
- Single breath hold
- Avg. effective dose <1mSv (typical Chest CT 8mSv)

Radiation Exposure

LDCT	<1 mSv	Years of annual lung screening
Mammogram	.7 mSv	
Lumbar Spine Films	2 mSv	2
Diagnostic Chest CT	10 mSv	10
Triphasic CT AB/P	25 mSv	25
Background Exposure Colorado	3 mSv/year 4.5 mSv/year	3 4.5
Occupational Exposure	50 mSv/year	50
Transatlantic Flight	.1 mSv	7 flights = 1 LDCT

Interpretation of CT Lung-Rads

- Lung-Rads: Standardized categorization methodology for lung nodules

- Negative/Benign – Category 1 & 2 (90% of patients)
  - No findings suspicious for lung cancer
  - prob. of cancer <1%, f/u ct in 1 yr
- Probably Benign – Category 3 (5% of patients)
  - prob. of cancer 1-2%, f/u CT in 6 months
- Suspicious– Category 4 (4% of patients)
  - review by multidisciplinary team
  - prob. of cancer 5-15%
  - f/u CT in 3 months, PET CT now, biopsy

Lung Cancer Screening

- Mission Imaging Services
- Order from your physician
- Shared decision visit prior to your first scan
- Age 55-77
- 30 pk/yr history of smoking
- current smoker or former smoker quit within the past 15yrs

What sets us apart?

- Certified Lung Cancer Screening Center by the American College of Radiology
- Operated by Mission Health Care with direct affiliation to SECU Cancer Center
- Multidisciplinary approach including pulmonologists, radiologists, thoracic surgeons, radiation oncologists, medical oncologists and pathologists
- All suspicious findings are reviewed by Multidisciplinary team at weekly Thoracic Conference

Lung Cancer Screening Care Process Model

- Promote awareness of Lung Cancer Screening and Smoking Cessation Program
- Provide WNC easy access to Low-Dose CT Screening for Lung Cancer
- Identify appropriate patients for screening through primary care providers (PCPs) and other clinicians
- Track appropriate patients long term to ensure that they receive annual screening and appropriate follow-up when applicable

Standard 4.2 (3/20/18)

Cancer Screening Program

"Each calendar year, the cancer committee organizes and offers at least one cancer screening program that is designed to decrease the number of patients with late-stage disease and is targeted to meet the screening needs of the community. Each screening program is consistent with evidence-based national guidelines and must have a formal process developed to follow up on all positive findings?

Goal: Increase the number of patients screened with Low Dose CT by 10%, screen 1678 patients

Compliant: 13.9% of our goal achieved, 233 patscreened

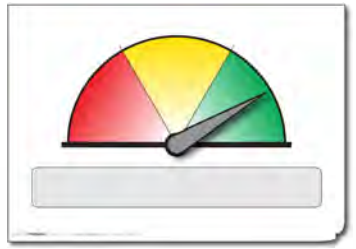
Standard 4.2 (5/20/18)

Cancer Screening Program

"Each calendar year, the cancer committee organizes and offers at least one cancer screening program that is designed to decrease the number of patients with late-stage disease and is targeted to meet the screening needs of the community. Each screening program is consistent with evidence-based national guidelines and must have a formal process developed to follow up on all positive findings?

Goal: Increase the number of patients screened with Low Dose CT by 10%, screen 1678 patients

Compliant: 28.6 % of our goal achieved, 480 patients screened



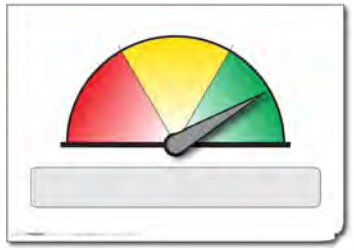
Standard 4.2 (6/12/18)

Cancer Screening Program

"Each calendar year, the cancer committee organizes and offers at least one cancer screening program that is designed to decrease the number of patients with late-stage disease and is targeted to meet the screening needs of the community. Each screening program is consistent with evidence-based national guidelines and must have a formal process developed to follow up on all positive findings?

Goal: Increase the number of patients screened with Low Dose CT by 10%, screen 1678 patients

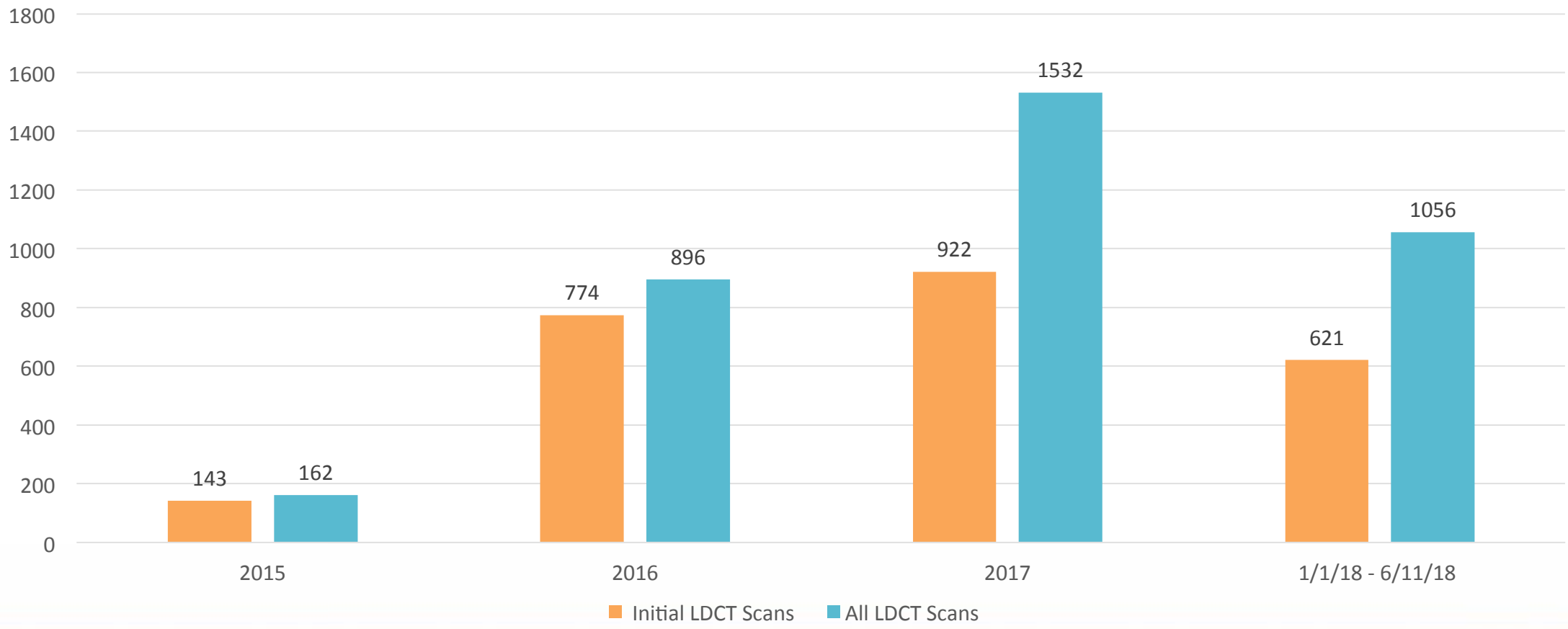
Compliant: 37 % of our goal achieved, 621 patients screened



Standard 4.2 Cancer Screening Program Data

	2015	2016	2017	Jan- June 11, 2018	Totals
Lung Rad Findings by LR Category (Totals; Initial and Follow up)	162	896	1532	1056	2015-6/11/18
# Lung Rad 1's	94 (58.02%)	423 (47.21%)	656 (42.82%)	452 (43.8%)	1625
# Lung Rad 2's	46 (28.4%)	291 (32.48%)	614 (40.08%)	412 (39.02%)	1363
#Lung Rad 3's	13 (8.02%)	81 (9.04%)	124 (8.09%)	91 (8.62%)	309
Lung Rad 4A	4 (2.47%)	75 (8.37%)	81 (5.29%)	58 (5.49%)	218
Lung Rad 4B	1 (0.62%)	13 (1.45%)	37 (2.42%)	27 (2.56%)	78
Lung Rad 4X	2 (1.23%)	10 (1.12%)	16 (1.04%)	16 (1.52%)	44
Percent of Lung	4.32%	10.94%	8.75 %	9.56%	

Number of New Patients, In Qualified Status, Initial Contact (c/ w all scans for time period)



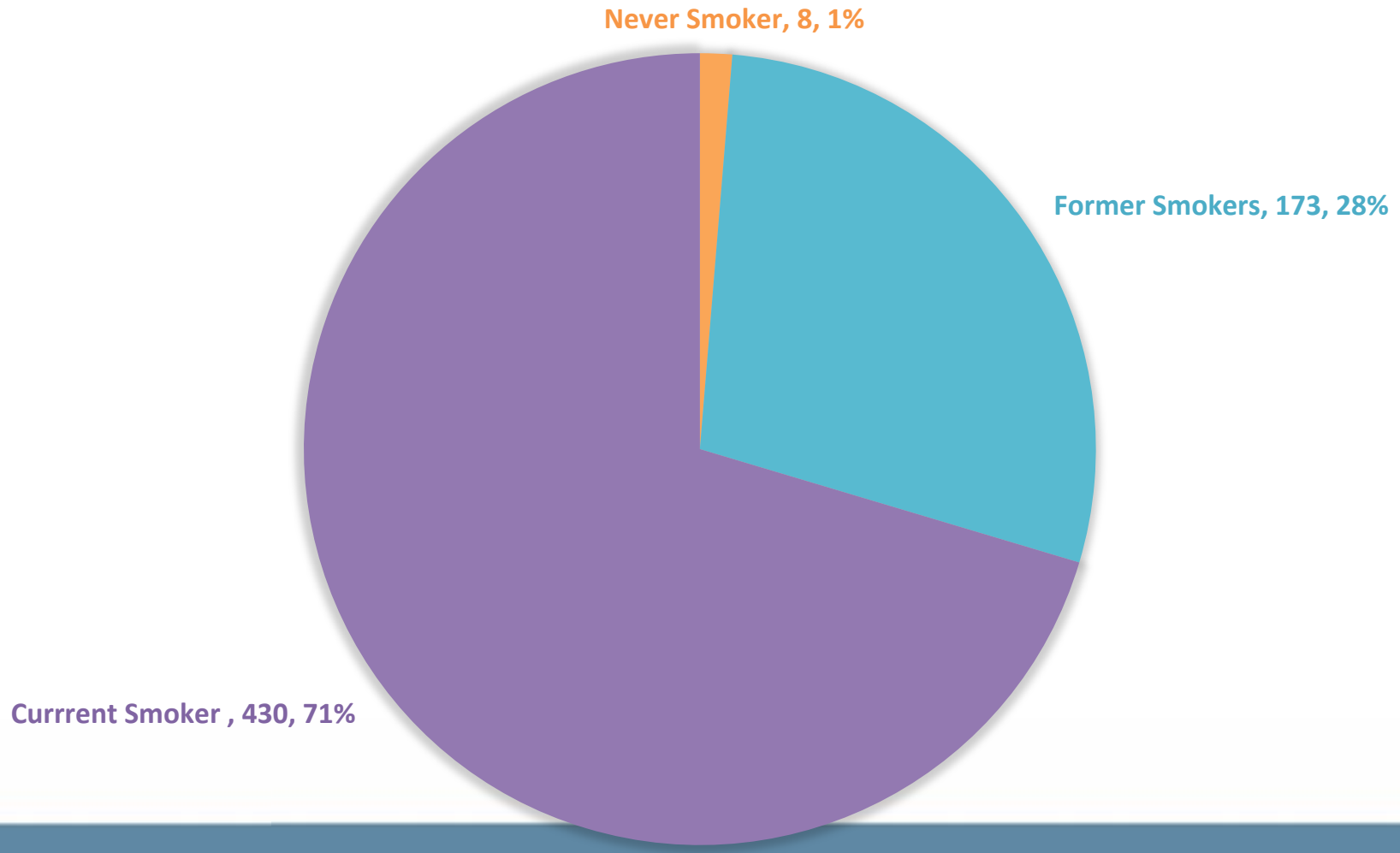
Standard 4.2 Cancer Screening Program

Stage of Cancer Detected (from exam where cancer detected)

2018 data in process

Stage of Disease	2016	2017	2018	Totals
0	1	1		
Stage 1	10	11		
Stage 2	1	4		
Stage 3	4	3		
Stage 4	2	3		
?	0	1		
Pending	0	0		
Total Cancers Detected	18	23	6	47

SMOKING STATUS /(SAMPLE)INITIAL LDCT PATIENTS 1/1/18 – 6/11/18



Standard 4.2 Cancer Screening Program
Lung Rad 4 Management
Navigator Role

"Each screening program has a process developed to follow up on all positive findings of participants"

All Low dose CT Screening patients receive a letter concerning their results specific to the Lung Rad category

- Nurse Navigators notified of Lung Rad 4 results (Patient, MRN)
- Navigators perform chart review & enter data into Nurse Nav database
- Navigators enter recommendations into Primordial database
- Navigators continue to follow until malignancy diagnosed or Lung Rad category is downgraded

Standard 4.2 Cancer Screening Program
Lung Rad 4 Management
Navigator Role (continued)

- Provides ongoing surveillance of patient EMR to ensure follow up
- Intervene when delays are noted
- Communicate with providers and patients as needed to decrease barriers
- Maintain database for accreditation of LDCT program
- Continue to follow once diagnosis confirmed to maintain continuity of care

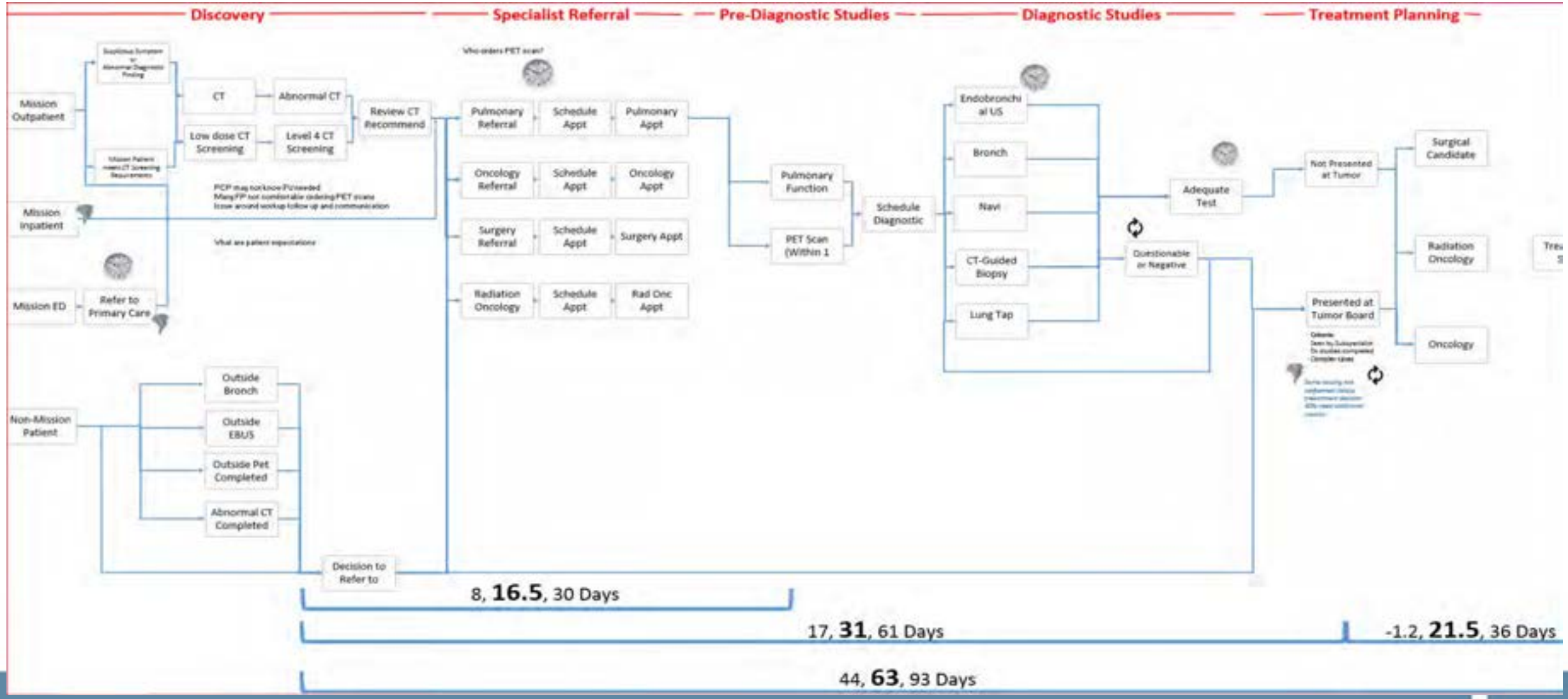
Why Focus on the Lung Cancer Diagnostic Process?

*Source: American Lung Association

- Timely diagnosis is important to prevent lung cancer progression
- Diagnostic process is complex with many tests, providers involved

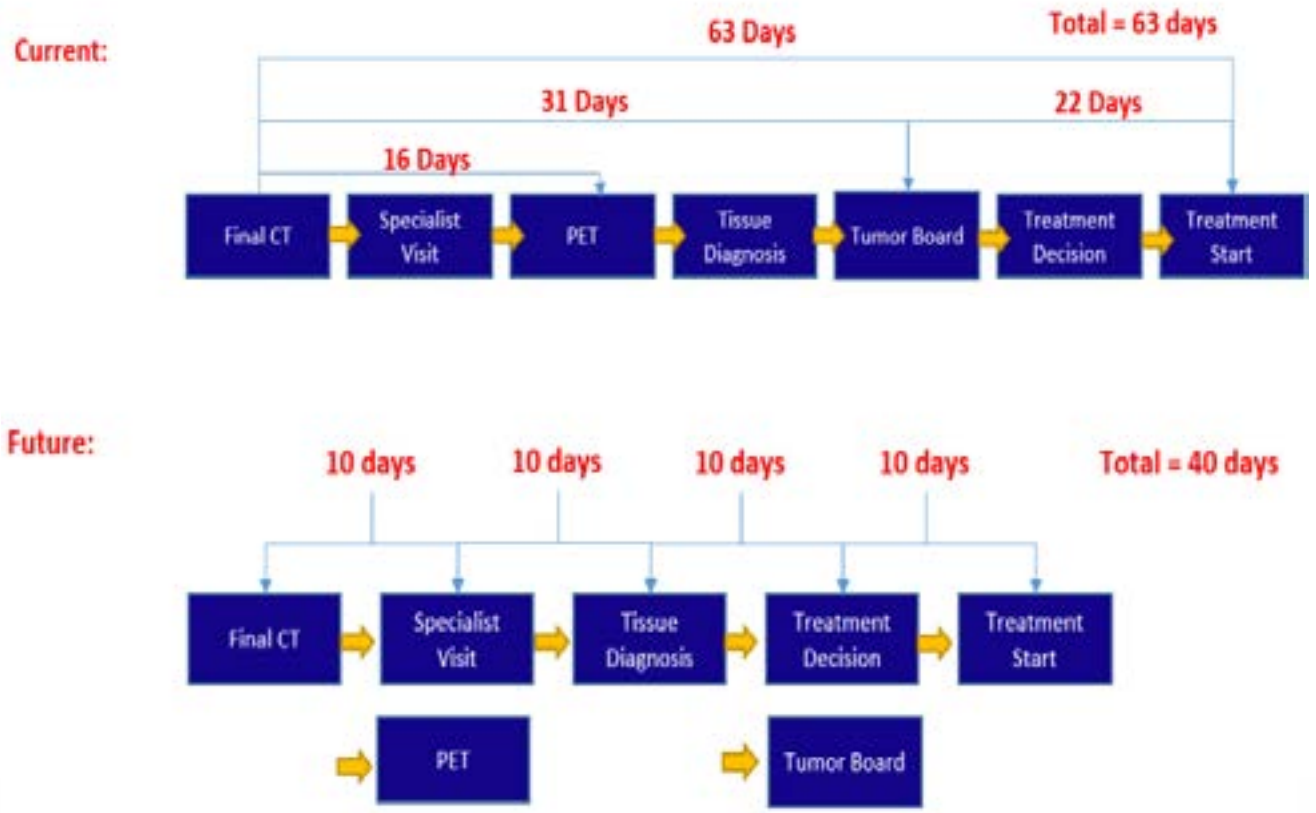
Lung Cancer Diagnosis Current State

March, 2018



MISSION HEALTH

Future State Timeframes



Why is this important?

Will allow us to measure whether patients are moving along the process

How will we do this?
Data review through Nurse Nav
Quarterly vs Bi-annual reporting to Thoracic Program Board

"What do I do with abnormal Lung Cancer Screening Results?"

Lung Cancer Diagnosis Care Process Model clarifies multiple points of confusion:

- *Who needs a specialist referral?*
- *Which specialist should I refer my patient to?*
- *What tests do patients need before they see the specialist?*
- *What are the "right" orders to use?*

Referral Process

Radiologist Impression: ***"Concern for malignancy or Lung RADS level 4 A or higher"***

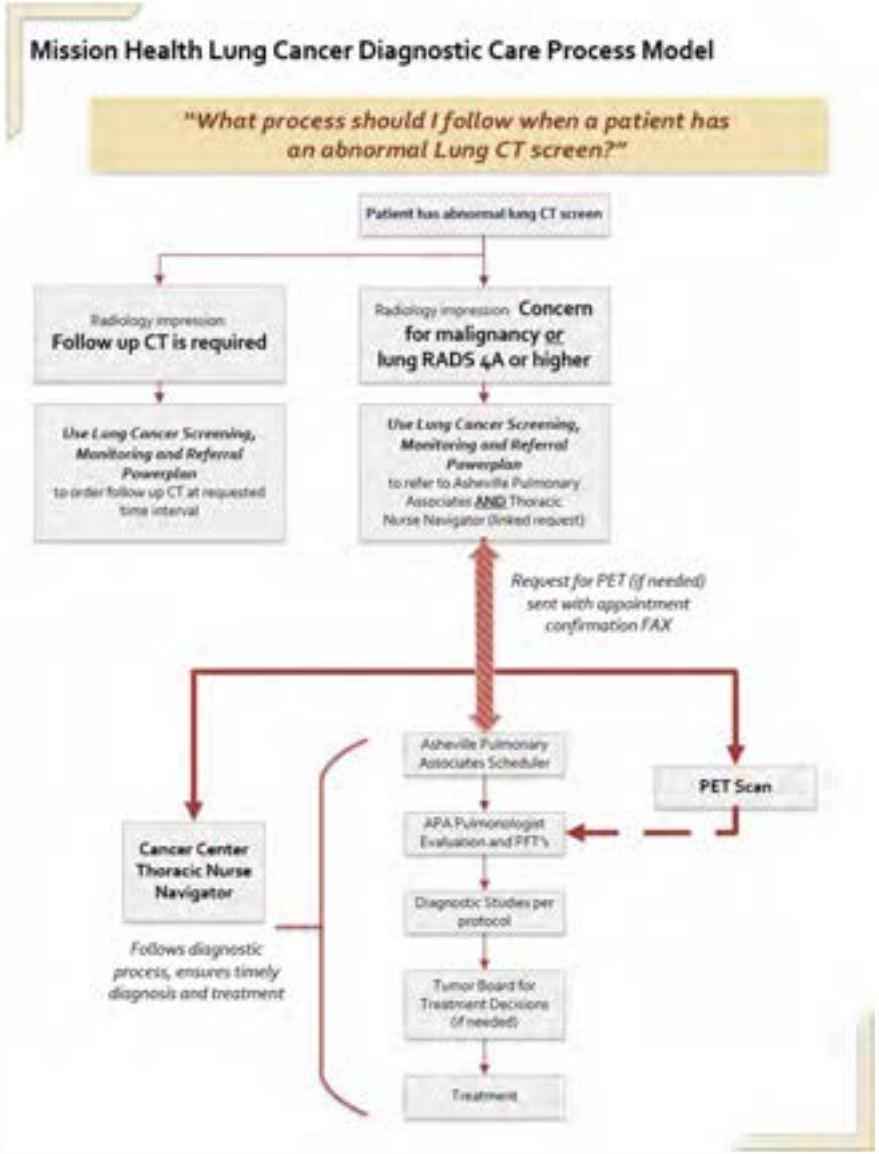
- REFER to Asheville Pulmonology Associates ***and*** Thoracic Nurse Navigator

- Appointment Confirmation will let you know if PET scan is needed

Please order using Lung Cancer Screening, Monitoring and Referral Power Plan

Once referral is made to Nurse Navigator, monitoring begins.

Target: 40 days to first treatment



MISSION HEALTH

Draft Power plan

AMB Lung Cancer Screening, Monitoring and Referral Plan

Miscellaneous

Relevant Diagnosis/Problem: Patient meets Mission Lung CT Screening Criteria

- CT Lung Screening

Review Radiologist recommendation on CT report and order F/U per recommendation. If Radiology Report impression indicates concern for lung malignancy or Lung RADS assessment 4A or higher, refer to Asheville Pulmonary and Lung Cancer Nurse Navigator.

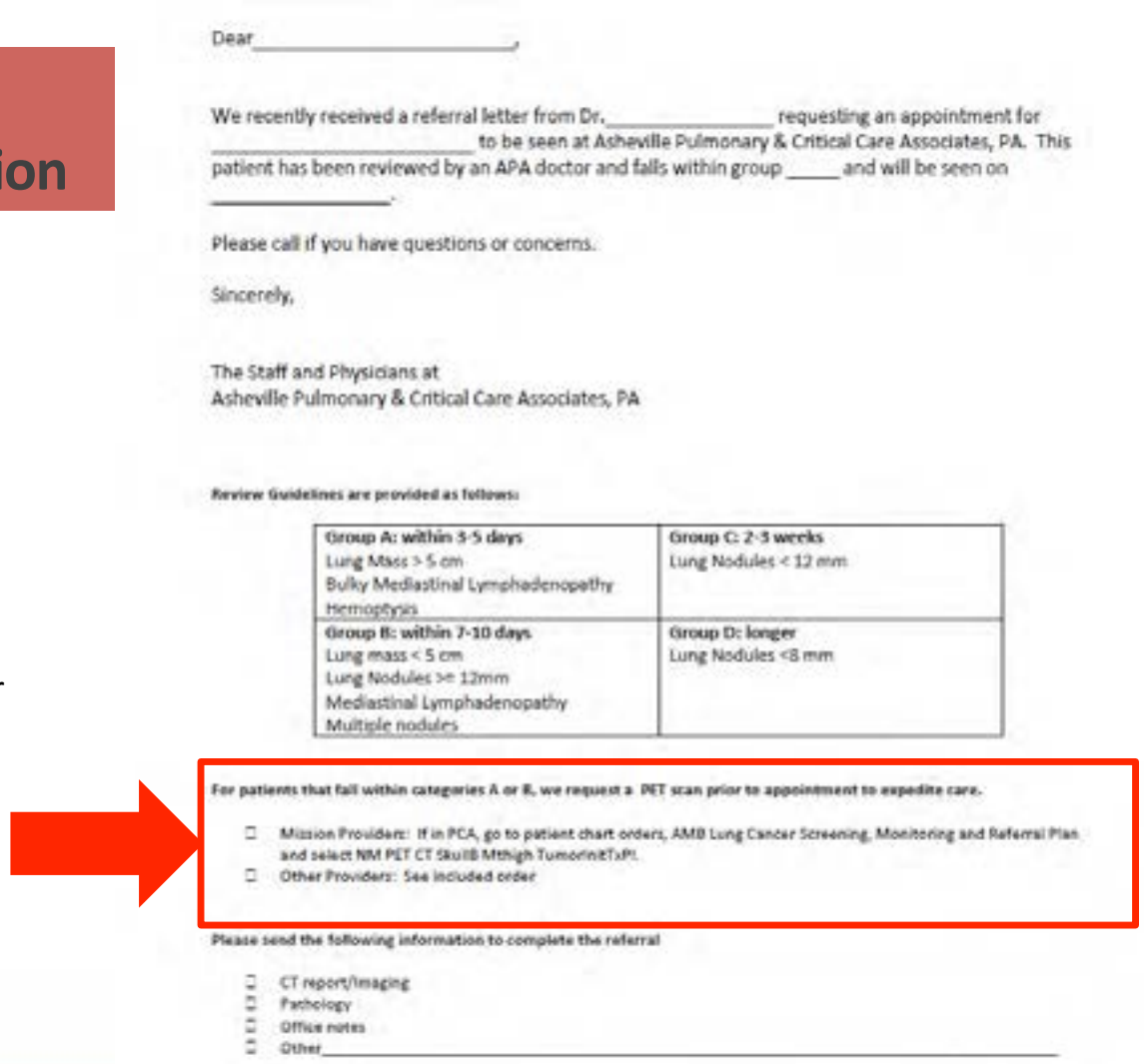
CT Lung 3 Month Follow Up	Routine, Ambulatory, No Oral Contrast/No IV Contrast
CT Lung 6 Month Follow UP	Routine, Ambulatory, No Oral Contrast/No IV Contrast
NM PET CT SkullB Mthigh TumorInitTxPl	Routine, Ambulatory
Refer to Asheville Pulmonary for diagnostic evaluation	
Refer to Thoracic Nurse Navigator	

Visit Charges

- Tobacco Use Cessation> 3 min up to 10 min 99406
- Tobacco Use Cessation > 10 minutes 99407

Asheville Pulmonary Appointment Confirmation

- ✓ If you have access to Powerchart, use Power Plan to place correct PET order.
- ✓ If you don't have Powerchart access, we will send you the order with the correct PET order included.



Dear_____,

We recently received a referral letter from Dr._____ requesting an appointment for _____ to be seen at Asheville Pulmonary & Critical Care Associates, PA. This patient has been reviewed by an APA doctor and falls within group _____ and will be seen on _____.

Please call if you have questions or concerns.

Sincerely,

The Staff and Physicians at
Asheville Pulmonary & Critical Care Associates, PA

Review Guidelines are provided as follows:

Group A: within 3-5 days Lung Mass > 5 cm Bulky Mediastinal Lymphadenopathy Hemoptysis	**Group C: 2-3 weeks** Lung Nodules < 12 mm
Group B: within 7-10 days Lung mass < 5 cm Lung Nodules >= 12mm Mediastinal Lymphadenopathy Multiple nodules	**Group D: longer** Lung Nodules <8 mm

For patients that fall within categories A or B, we request a PET scan prior to appointment to expedite care.

- ☐ Mission Providers: If in PCA, go to patient chart orders, AMB Lung Cancer Screening, Monitoring and Referral Plan and select NM PET CT Skull8 Mthigh TumorInitTxPl.
- ☐ Other Providers: See included order

Please send the following information to complete the referral

- ☐ CT report/imaging
- ☐ Pathology
- ☐ Office notes
- ☐ Other_____

CPM 2 Goals-

1. Reduce median lead time from last abnormal CT to first treatment date from 63 days to 40 days by 10/31/18.

2. Define a standard referral pathway with standard time goals identified

3. Develop tracking system with reportable metrics, including stage and plan for ongoing improvements

Team:

- Dr. Jennifer Dukowicz – Primary Care Provider Lead
- Dr. Gregory Campbell – Pulmonology Provider Lead
- Dr. John Ende – Radiology—Periodic involvement
- Ruste Wilke – QIA

Sherri Beane – Informatics

Carol Thompson – Nurse Navigator

Jessica Hansman—Nurse Navigator

Marika Loveless – Cancer Center Administration

Dr. Shannon Dowler—Mission Quality

Locations that offer LDCT Lung Cancer Screening

- Angel Medical Center – Franklin, NC
- Blue Ridge Regional Hospital – Spruce Pine, NC
- Highlands-Cashiers Hospital – Highlands, NC
- McDowell Hospital – Marion, NC
- Transylvania Regional Hospital – Brevard, NC
- Mission Pardee Health Campus – Asheville, NC
- Mission Imaging Services – Asheville, NC

Hope for the future

- For first time ever there is an effective screening method for lung cancer
- Through screening and smoking cessation there is hope for increasing survival