KHC Monthly Webinar
November 18, 2020

Lung Cancer Screening
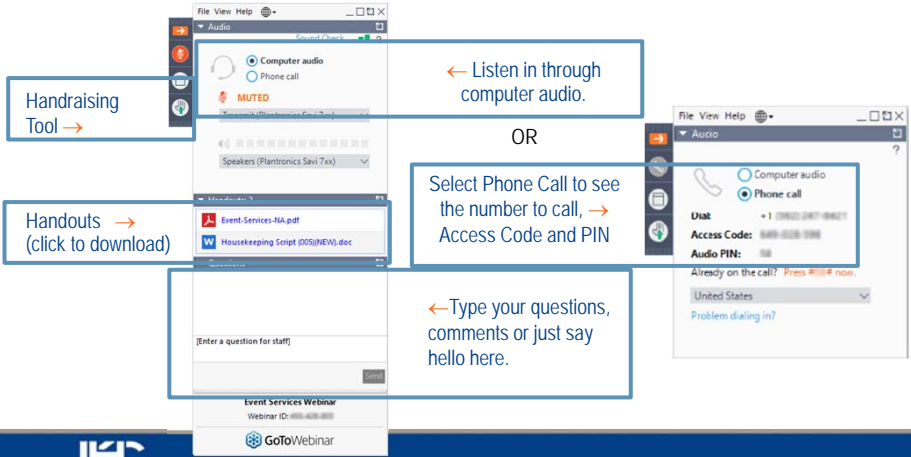### *The evidence and*
How to reliably improve health outcomes

KANSAS MEDICAL SOCIETY
Established 1859

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KHA
Kansas Hospital
ASSOCIATION

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GoToWebinar

Attendee Control Panel

Handraising Tool →

Handouts →
(click to download)

← Listen in through computer audio.

OR

Select Phone Call to see the number to call, →
Access Code and PIN

←Type your questions, comments or just say hello here.

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Agenda

- Welcome
- Featured topic:

  Lung Cancer Screening
- Resources
- Wrap-up /evaluation

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Special Guests

American College of Radiology	
Debra S. Dyer, MD, FACR Cardiothoracic Radiologist National Jewish Health *Chair, ACR LCS 2.0 Steering Committee*	**Neville Irani, MD** Founder HQUIP

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Polling Question #1

Let us know where you are joining us from:

- ❑ Hospital
- ❑ Clinic or ambulatory setting
- ❑ Partner organization
- ❑ Other

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Polling Question #2

What is your role at your facility?
(check all that apply)

- ❑ Quality/patient safety
- ❑ Nursing
- ❑ Physician/mid-level
- ❑ Radiology
- ❑ Other

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Lung Cancer Screening: The Evidence

Debra S. Dyer MD FACR
Cardiothoracic Radiologist
National Jewish Health
Chair, ACR LCS 2.0 Steering Committee

National Jewish Health

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I will address…

- The Evidence for LCS
- The perspective of the oncologist, the pulmonologist, the primary care provider and the patient
- Provider outreach and PCP Engagement
- The barriers to LCS
- LCS Logistics
- Smoking cessation services
- Patient care and managing the care continuum
- Lung cancer stigma
- Kansas statistics and rural outreach will be covered by Dr. Irani
- Best practices and looking ahead

National Jewish Health

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No disclosures

National Jewish Health

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Objectives

- Describe current Lung Cancer Statistics
- Review the Evidence supporting Lung Cancer Screening
- Describe the current status of LCS reimbursement
- Outline the benefits of LCS
- Identify current barriers to LCS

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Lung Cancer Statistics

- #1 cause of cancer deaths in men and women
- 135,000 deaths per year, more than breast, colon and prostate cancers combined
- Most patients have advanced stage disease at time of diagnosis with 5 year survival rate of 15.9%

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Lung Cancer

Early stage   Late stage

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The Evidence

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The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

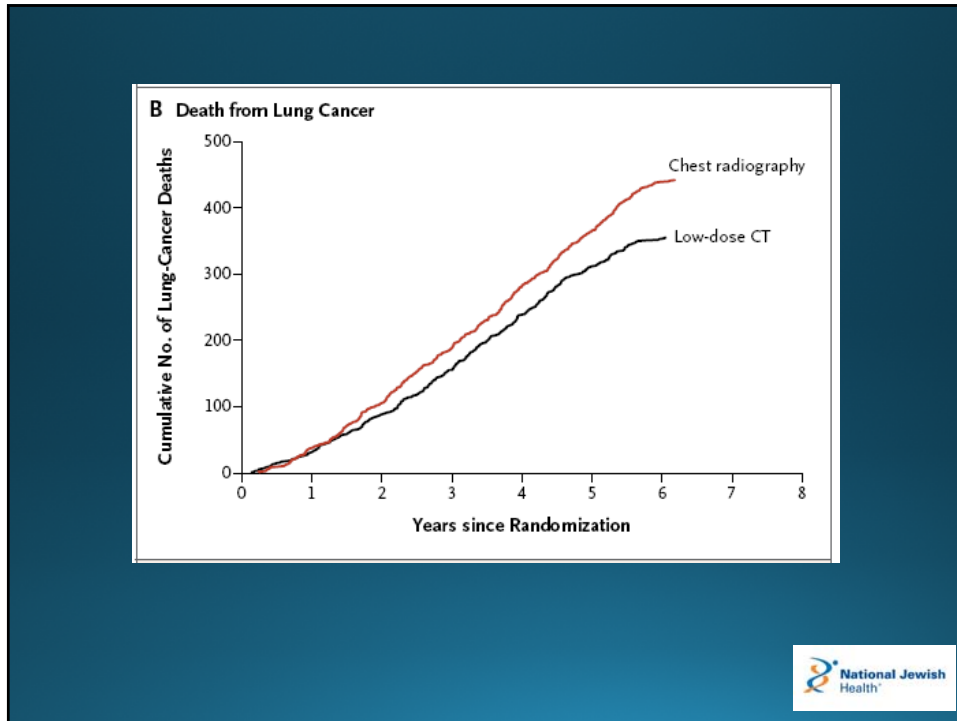Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening

Results National Lung Screening Trial
Published August 2011

53,000 patients
20% reduction in lung cancer mortality in
patients who received LDCT

National Jewish Health

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B Death from Lung Cancer
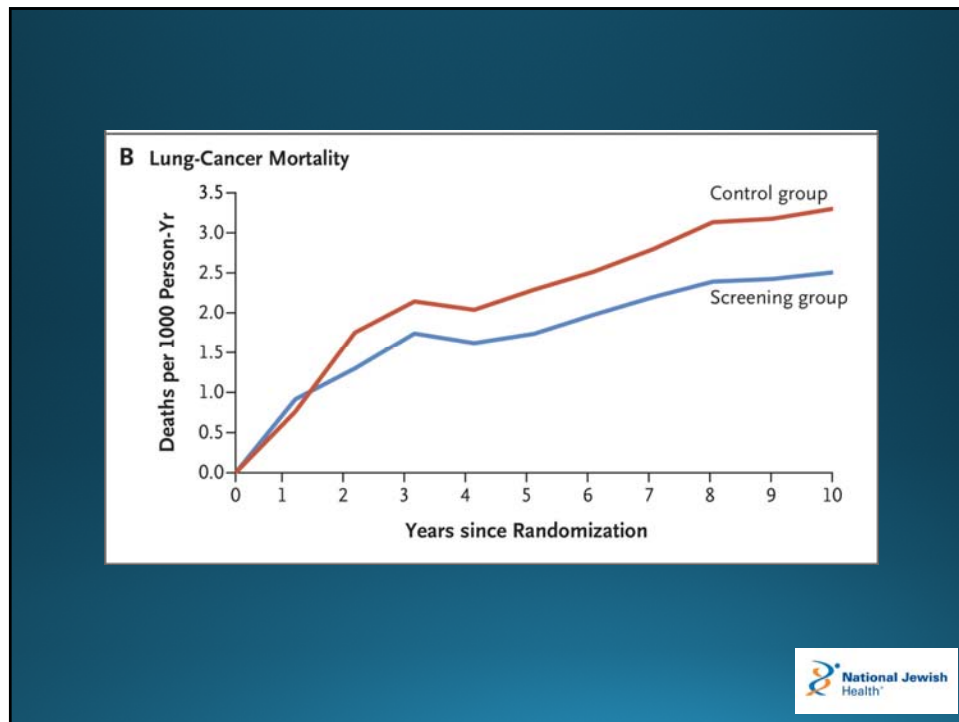
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Dutch-Belgium NELSON Trial

- 16000 participants, ages 50 -74
- Patients scanned at baseline, year 1, year 3, year 5.5
- Showed LDCT can reduce deaths from lung cancer by 24% in men and 33% in women

NEJM Jan 2020

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MILD Trial

- "Multicentric Italian Lung Detection" Trial
- 4099 participants
- 39% reduced risk of lung cancer mortality after 10 years in patients who underwent LDCT

Published on line Annals of Thoracic Oncology, April 2019

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German LUSI

- German Lung Cancer Screening Intervention Trial
- 4,000 Participants
- 26% decrease in lung cancer mortality overall with 69% decrease in mortality in woman

Int J Cancer, June 4, 2019

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USPSTF Recommendation

U.S. Preventive Services Task Force

Screening for Lung Cancer

This topic page summarizes the U.S. Preventive Services Task Force (USPSTF) recommendations on screening for lung cancer.

Current Recommendation

Release Date: December 2013

- The USPSTF recommends annual screening for lung cancer with low-dose computed tomography in adults ages 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a 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.

Grade: B recommendation.

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Draft USPSTF Recommendation Summary

Population	Recommendation	Grade
Adults ages 50 to 80 years who have a 20 pack-year smoking history, currently smoke, or have quit within the past 15 years	The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults ages 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a 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.	B

From: https://www.uspreventiveservicestaskforce.org/uspstf/draft-recommendation/lung-cancer-screening-2020#fullrecommendationstart

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Medicare coverage

- As of Feb 5, 2015, Medicare has covered LCS CT

- Eligibility criteria:
  - Age 55 – 77
  - At least 30 pack yr Hx smoking
  - Current smoker or quit within past 15 yrs
  - Absence of signs/symptoms of lung cancer

- Requires
  - Shared Decision Making visit
  - Patient be offered Smoking Cessation services
  - Order for CT
  - Structured reporting system such as LungRADS
  - Patient and exam data must be entered into CMS approved LCS Registry

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The Benefits

- Fewer people dying of lung cancer due to stage shift from late to early stage
- Early detection of lung cancer when it is small and curable
- Identify other smoking related disease
- Lung Cancer Screening is a **Teachable Moment** for smoking cessation
- LCS is cost effective

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The Barriers

- Lack of Awareness
- Guilt and Stigma about smoking
- Complex eligibility requirements and identifying eligible patients
- Shared Decision Making
- Provider concerns about how to deal with positive results and incidental findings
- Need IT infrastructure for patient tracking
- Financial
  - Low reimbursement
  - Pre-auth requirement for commercial insurance and Medicaid
  - High deductible health plans and co-pays for interval diagnostic CTs or other workup

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The Challenge

- It is estimated that 9 Million Americans are eligible for LCS
- This number is will considerably increase if new USPSTF recommendations of age 50 and 20 pack years are adopted
- Only 4 – 12% eligible patients currently getting screened likely due to the significant barriers to LCS

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Summary

- Evidence shows LCS is clearly efficacious in decreasing lung cancer mortality
- The benefits of LCS are clear
- The barriers to LCS are considerable
- The uptake of LCS is disappointingly low

National Jewish Health

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Questions

National Jewish Health

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Polling Question #3

Does your facility have a lung screening Program?

- ❑ No
- ❑ Yes – We screen **up to 100** patients annually
- ❑ Yes – We screen **100 to 500** patients annually
- ❑ Yes – We screen **>500** patients annually

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Healthcare Quality Improvement Platform

How Can We Reliably Improve Health Outcomes?

Learning from Lung Cancer

Neville Irani, MD;
Founder
Director

Michael Fitzmorris, MBA;
Outreach

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Our Shared Goal: Eliminate Preventable Diagnostic Errors!

IMPROVING DIAGNOSIS IN HEALTH CARE

Did you know?

Less than half of patients referred to a Lung Screening Program have all their annual follow-up exams

High Level Contributing Factors

- Guidelines not routinely reviewed during acute care visits
- Multiple Requirements to have exam covered
- No awareness that patient is overdue after baseline screen
- Order placed but appointment never scheduled
- Care across different health systems
- Cancelled appointments are not rescheduled

HQUIP Platform with connections

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The State of Kansas ... 2019

- 7378 patients were scanned

  [4576 were baseline screening]

- 1 Institution: 1385 exams

- 27 Rural Facilities: 891 exams

... 54 active facilities

A Call to Action:
Double the number of patients screened in 2 years

HQUIP Platform Rural community

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Lung Cancer Screening ...

- 90% of eligible patients are not screened!

- Program requires follow-up every year.

- 'Gap years' lead to preventable death more frequently than mammography!

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Annual Follow-up can be a Matter of Life or Death ...

Baseline -Jan 2016   Aug 2016   Sep 2018

Lung-RADS 3   Lung-RADS 2

IMPRESSION

1. Findings compatible with advanced primary lung cancer with left lower lobe polylobular nodule, extensive ipsilateral and contralateral mediastinal and hilar lymphadenopathy and left supraclavicular lymphadenopathy compatible with lymph node metastases.
2. Enlarged left axillary lymph nodes also suspicious for distant nodal metastatic disease. Consider ultrasound-guided biopsy of the left supraclavicular lymph node or axillary lymph nodes to help in staging purposes and diagnosis.
3. Subacute right posterior 10th rib fracture with associated adjacent soft tissue. This could reflect nonpathologic or potentially pathologic fracture.

Hematology/Oncology History:
Cancer Staging
Malignant neoplasm of lower lobe of left lung (HCC)
  Staging form: Lung, AJCC 8th Edition
   - Clinical: Stage IIIB (cT1b, cN3, cM0) - Unsigned

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The Barriers

- Lack of Awareness

- Guilt and stigma about smoking

- Complex eligibility requirements and identifying eligible patients

- **Shared Decision Making (Now has a Telehealth option)**

- Provider concerns about how to deal with positive results and incidental findings

- Need IT infrastructure for patient tracking

- Financial

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Lung Cancer Screening …

Did you know?

- **40,000 Preventable Deaths** Annually

- Largest Patient Outcome improvement opportunity

- Significant reduction in cost for Stage 1 vs Late Stage

What are the components of your program?
How do you know you have a reliable program?

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Baseline assessment …
Setting the Stage for Improvement

LDCTs Performed Per Month
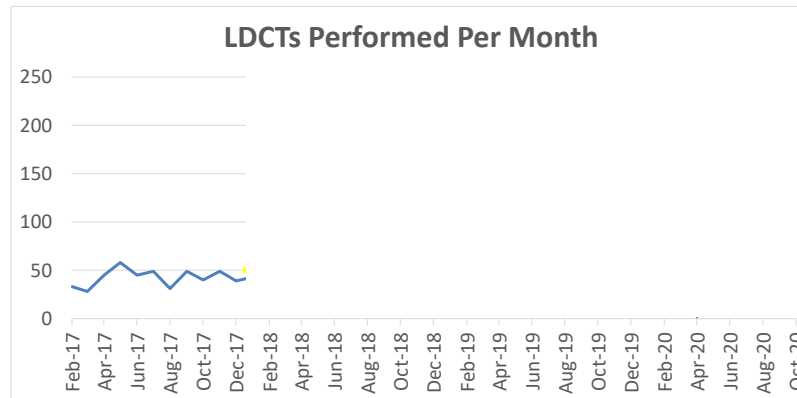
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Healthcare is a team Sport!

- Communication & Processes need to be connected

- There has to be a process owner (ie. Where does this program 'live'?)

- Multidisciplinary approach needed to guide diagnostic workup

New Patients   Annual Follow-up
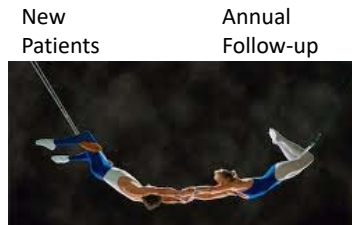
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Lung Cancer Screening Program Models ...

1. **Decentralized**
   - SDM and orders by PCP with limited centralized verification, scheduling or tracking
   - [Low Cost, Low Reliability]

2. **Centralized**
   - SDM and orders performed by dedicated LCS program personnel
   - [High Cost, Moderate Reliability]

3. **Hybrid**
   - Decentralized ordering and SDM / centralized tracking and scheduling
   - [Moderate Cost, ? Reliability]

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Example Program
used a Centralized Program …

LDCTs Performed Per Month

BPA Goes Live

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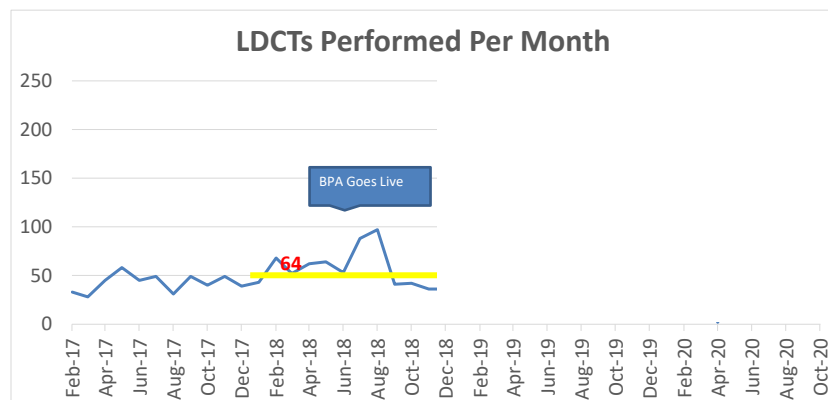# TEAMWORK to Close Loops -

- Track patients and communicate when due for follow-up
- Measure Performance on Biopsies, Cancer Staging, Outcomes
- Feedback to reinforce success with:
  - Referring physicians
  - Radiologists
  - Pulmonologists
  - Facility Leadership
- Develop standard referral pathways

Improvement Team

Centralized Program

Design A High Reliability System with Analytics & Experience

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LOCAL High Reliability System Design

1. **Reconnect with ALL patients who had a Lung-Rads exam**

2. **Set goals for growth based upon imaging volume and smoking histories**

3. **Have consistent pathways for "Incidental Findings"**

4. **Track other cancers (non-Lung)**

The Complete Program View

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A **Huge** Improvement!

LDCTs Performed Per Month

High Reliability Program Redesign [January 2019]

BPA Goes Live

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COVID Chasm
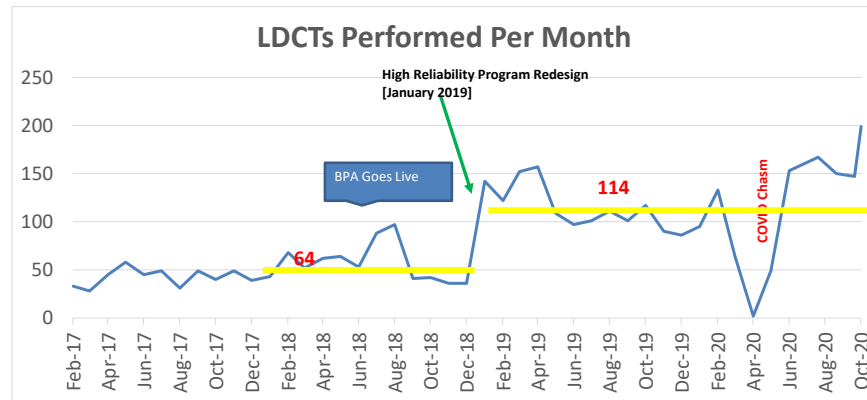
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Every Patient Deserves Their Best Chance for a Cure!

6x More likely to survive at 5 yrs with the program
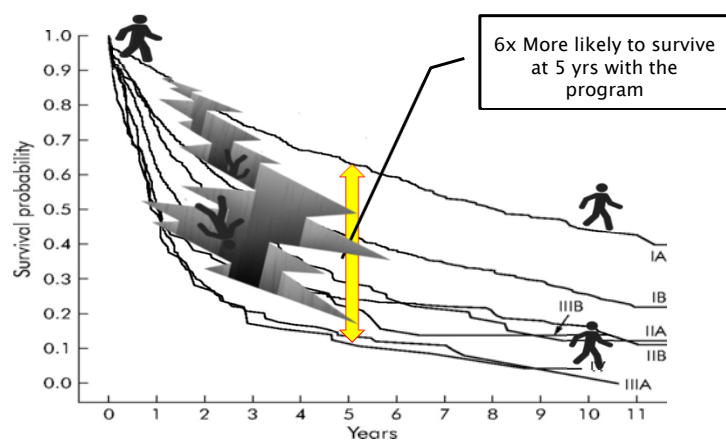
* Courtesy, Dr. Wandtke; Univ of Rochester

Strand T.
Thorax 2006;**61**:710–715

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ACR Lung Cancer Resources

ACR Lung Cancer Resources
https://www.acr.org/Clinical-Resources/Lung-Cancer-Screening-Resources/LCS-Resumption-of-Screening-Toolkit

Quality Assurance Links

- ACR-STR Practice Parameter for the Performance and Reporting of Lung Cancer Screening Thoracic Computed Tomagraphy (CT)

- ACR Appropriateness Criteria for Lung Cancer Screening

- American Thoracic Society & American Lung Association Implementation Guide for Lung Cancer Screening

- CT Quality Control Manual

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ACR Lung Cancer Resources

ACR Myth-Busting Lung Cancer Screening

Features Debra S. Dyer, MD, chair, in conversation with key members of the Lung Cancer Screening 2.0 Subcommittee team: the referring clinician, the pulmonologist, and the radiologist (6.5 min.)

HQUIP: A Collaborative, Multi-Institutional Approach to Screening
- Better outcomes for patients
- Obtain support from referral centers
- Reduce Healthcare Disparities
- Provide MOC Part IV Credit for primary care providers!

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Questions?

To follow up on this conversation

Neville Irani, MD
Neville@hquip.org

Debra Dyer, MD
DyerD@NJHealth.org

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Resources and Upcoming Events

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Sign up for KHC Updates

Monthly emails compiling information from KHC and other sources of interest to hospitals and practices in Kansas.

→ www.KHConline.org/updates

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Reminders

- **KHC Office Hours**
  1:00 to 2:00 p.m. CST, Nov. 19
  Introduction to KHIN Analytic Dashboard and Acute Alerts

- **Complete Compass Hospital Readiness Assessment** (due today)

- **Complete Getting Started Checklist** (due Nov. 30)

  For info, contact Michele Clark at mclark@khconline.org.

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Upcoming Events

Advance Care Planning Series	
(Continued)	
January 27 10:00 to 11:00 a.m.	**ACP 201** Important principles guiding clinicians in carrying out ACPs.
March 24 10:00 to 11:00 a.m.	**ACP Medical Orders** Role of standardized medical order sets in ACPs.

Save the dates!
Registration to open soon at www.khconline.org.

In Partnership with

HQIN
Health Quality Innovation Network

CENTER FOR PRACTICAL
BIOETHICS
GUIDANCE AT THE CROSSROADS OF DECISION

Advance Care Planning 101
Conducted 9/23/2020
Recording and handout available in KHC Education Archive:
www.khconline.org/archive

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Upcoming Events

Date	Event
November 18 2:00 to 3:00 p.m.	*CDC Webinar:* **Implementation of Abx Stewardship Activities in CAHs** Event registration
November 19 1:00 to 2:00 p.m.	*Sepsis Alliance Webinar:* **Developing Systems for Rural Sepsis Care** Event registration
November 23 9:00 a.m.	*Patient Safety Movement Webinar:* **Pressure Ulcer Prevention and Management** Event registration

Times listed are in Central Standard Time.

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QHi Training Session

Thursday, December 10
1:00 to 2:00 p.m. CT

This session will cover:
- Selecting measures
- Adding users
- Entering and uploading data
- Running/scheduling reports
- Highlight enhancements to reports

Here is the link to register:
https://cc.readytalk.com/r/3j0eikmot1c3&eom

KHA Kansas Hospital ASSOCIATION   **KHERF**   www.qualityhealthindicators.org

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KHC Education Archive

Topic- and date-based archive for KHC education

→ *www.KHConline.org/archive*

Education Archive - By Topic

Click on a topic in the table below to be taken to archived educational resources

Adverse Drug Events	Health Equity/Disparities
Age-Friendly Health Care	Patient and Family Engagement
Antimicrobial Stewardship	Pressure Injuries
Culture of Safety	Readmissions
Data	Sepsis
Fall Prevention	Workplace Violence
Hand Hygiene	

Adverse Drug Events
- KHC Anticoagulation Safety Mini-Sprint (2/4/2020)
  Webinar recording | Webinar handout | INR Discovery Tool (fillable pdf)
- Anticoagulation Safety: Avoiding High INRs – What's the Secret? (12/18/2019)
  Featuring hospital sharing by Newton Medical Center
  Webinar recording | Webinar handout (topic begins slide #18) | INR Discovery Tool (fillable pdf)
- Hypoglycemic Management: Diabetes Care in the Hospital – Implementing ADA's Top 10 List
  Webinar recording | Webinar handout (topic begins slide #17)

Age-Friendly Health Care
- Age-Friendly Health Initiative and the 4M Framework (9/25/2019)
  Webinar recording | Webinar handout (topic begins slide #24)

Antimicrobial Stewardship
- Antimicrobial Stewardship in Kansas – Part 1 of 2: Statewide Hospital Progress (10/23/2019)

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Questions?
Comments?

Thank you for joining us.
We invite your feedback.
https://www.surveymonkey.com/r/khc-nov-2020

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→ *Find contact info, bios, and more at:* **www.KHConline.org/staff**

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Addendum:

Several of these resources were shared by the American College of Radiology through the chat window.

General

Low-Dose CT Lung Cancer Screening FAQs: https://www.acr.org/Clinical-Resources/Lung-Cancer-Screening-Resources/FAQ

Lung Cancer Screening collection from the *Journal of the American College of Radiology:* https://www.jacr.org/content/collection_lung_cancer

Relationships Between Health Care Disparities and Coverage Policies for Breast, Colon, and Lung Cancer Screening: https://www.jacr.org/action/showPdf?pii=S1546-1440%2818%2931590-4

The Evidence for LCS

NLST: https://en.wikipedia.org/wiki/National_Lung_Screening_Trial

The perspective of the oncologist, the pulmonologist, the primary care provider and the patient

ACR Bulletin podcast series: Mythbusting LCS: https://www.acr.org/Practice-Management-Quality-Informatics/ACR-Bulletin/Podcasts/Mythbusting-Lung-Cancer-Screening

The barriers to LCS

ACR *Bulletin* article: https://www.acr.org/Practice-Management-Quality-Informatics/ACR-Bulletin/Articles/August-2019/Clearing-the-Barriers

LCS Logistics

What You Need to Know About Logistics of Lung Cancer Screening | Kim Sandler, MD watch on demand | download slides

Smoking cessation services

Counsel to Quit FAQs: https://www.acr.org/-/media/ACR/Files/Lung-Cancer-Screening-Resources/Counsel-to-Quit-Webinar-FAQs.pdf

Patient care and managing the care continuum

Patient Forward: A multidisciplinary team invites patients and their families to a weekly thoracic oncology clinic at Elkhart General Hospital, Indiana. https://www.acr.org/Practice-Management-Quality-Informatics/Imaging-3/Case-Studies/Patient-Engagement/Patient-Forward

Lung cancer stigma

Conversation with Michael Gieske, MD, primary care physician in Kentucky: https://www.acr.org/Practice-Management-Quality-Informatics/ACR-Bulletin/Podcasts/Mythbusting-Lung-Cancer-Screening/Michael-Gieske

Coping with stigma: https://lungcancer.net/coping/stigma/

Kansas statistics and rural outreach will be covered by Dr. Irani

Challenges and Opportunities for Lung Cancer Screening in Rural America https://www.jacr.org/action/showPdf?pii=S1546-1440%2819%2930018-3

Lung Cancer Screening Facility Locator Tool https://www.acr.org/Practice-Management-Quality-Informatics/Quality-Care-News/Newsletter/Quality-and-Safety-eNews-September-2020/LCS-Facility-Locator

Best practices and looking ahead

LCS: Winning Strategies for Program Development: https://www.acr.org/Practice-Management-Quality-Informatics/Imaging-3/Case-Studies/Imaging-3-in-Practice/Lung-Cancer-Screening