

Virginia Rural Health Association

June 2, 2026
Staunton, VA



AI | The New Landscape

Improve Systems | Increase Safety | Decrease Errors

Virginia Rural Health Association
Critical Access Hospital Summit | 2026
Staunton, VA
Tuesday | June 2, 2026, | 09:00

Kayur V. Patel, MD, MRO, FACP, FACPE, FACHE, FACEP





The image shows a close-up, low-angle view of the Mayo Clinic logo on a building's facade. The logo is rendered in a light blue, three-dimensional style against a darker background. The words "MAYO" and "CLINIC" are stacked vertically in a serif font. Below the text is a shield-shaped emblem containing a caduceus (a staff with two snakes entwined around it). The entire scene is set against a dark, blue-tinted background, possibly a night sky or a dark interior.

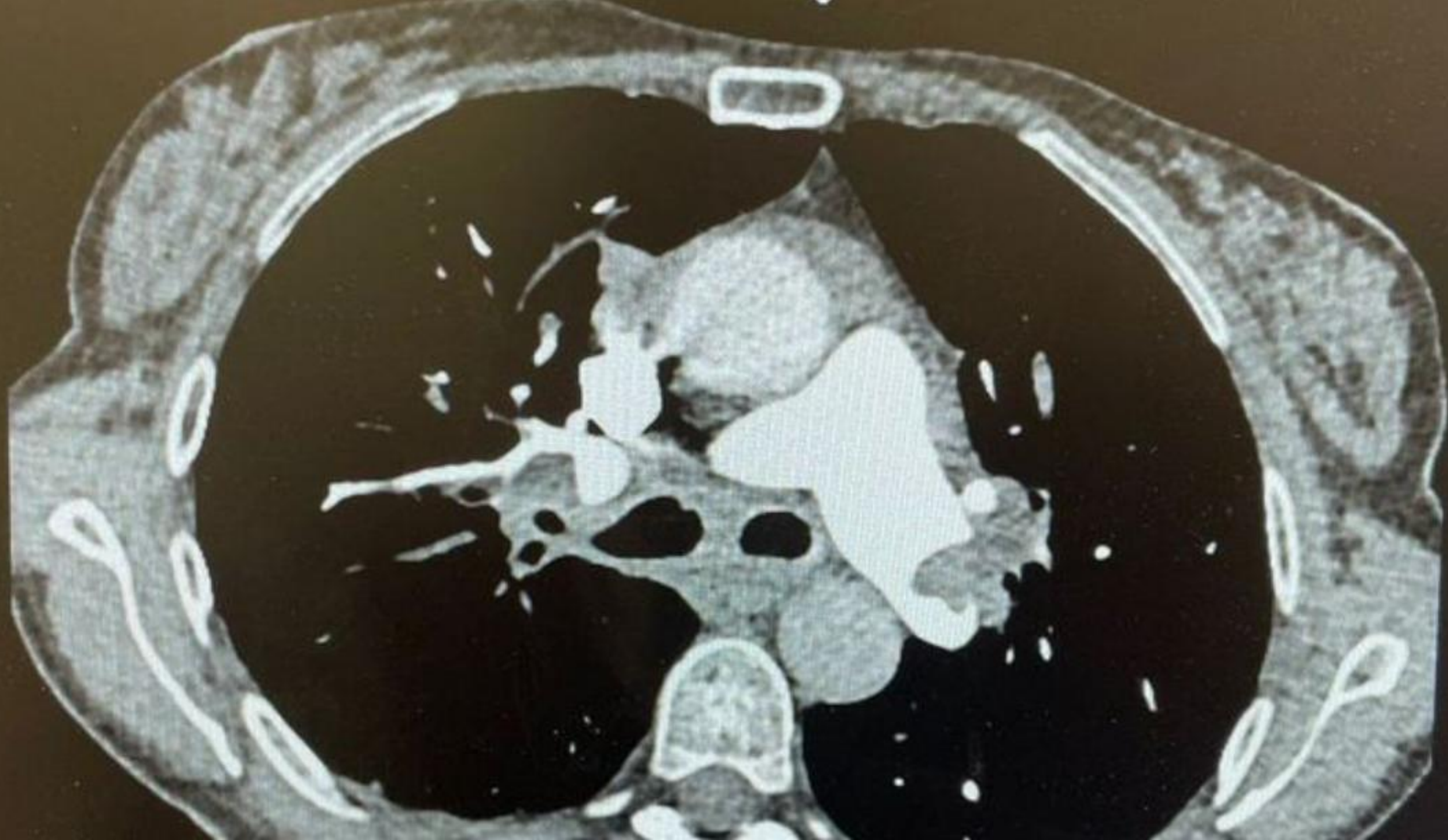
Customized | Tailored | Care





A blurred photograph of a hospital hallway. In the foreground, a person in a bright orange jacket with a reflective stripe is walking. In the center, a person in blue scrubs is pushing a stretcher. Other medical staff in white coats and blue scrubs are visible in the background, all appearing to be in motion. The scene is brightly lit by overhead fluorescent lights.

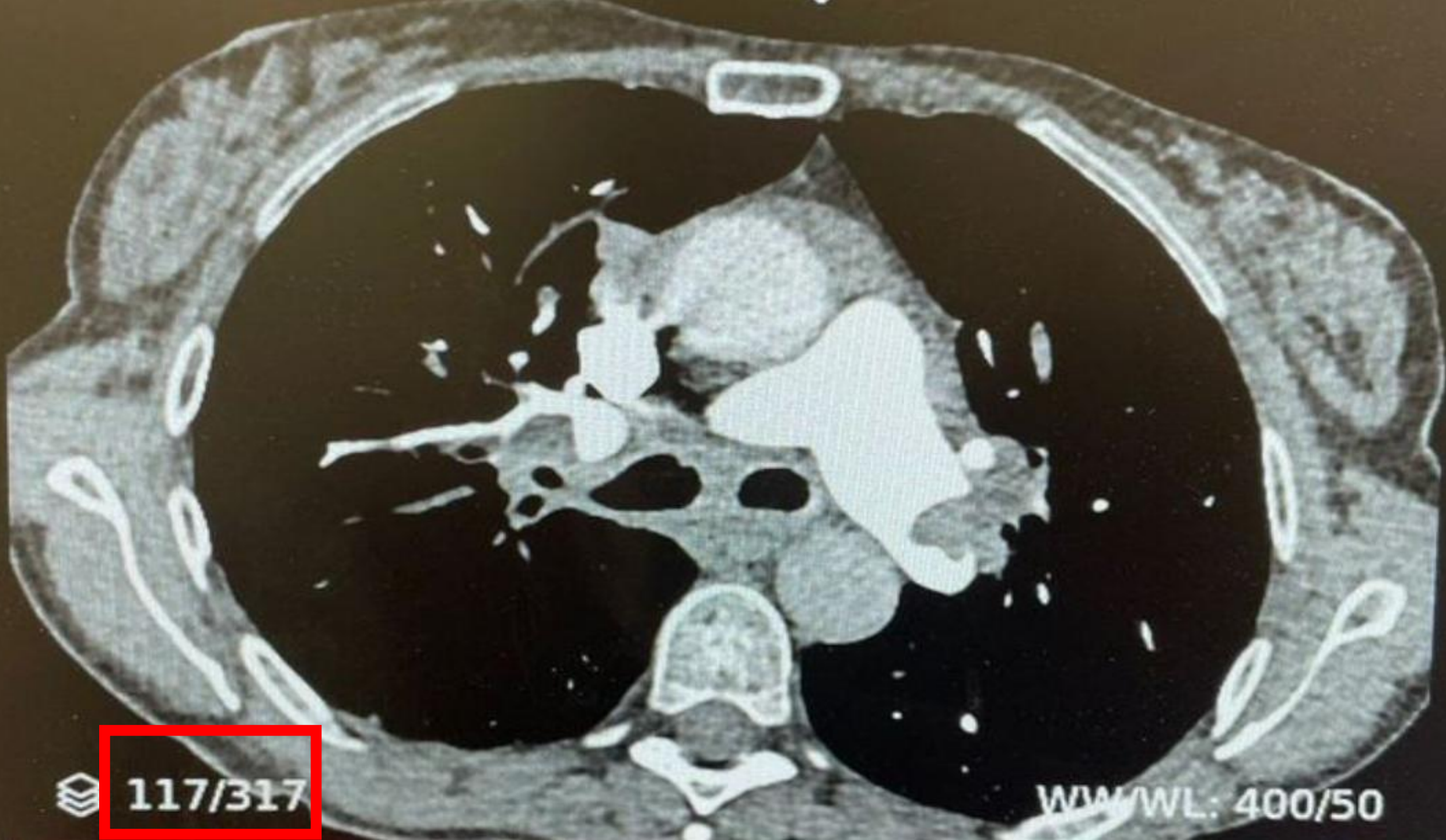
61-year-old | SOB





Suspected PE

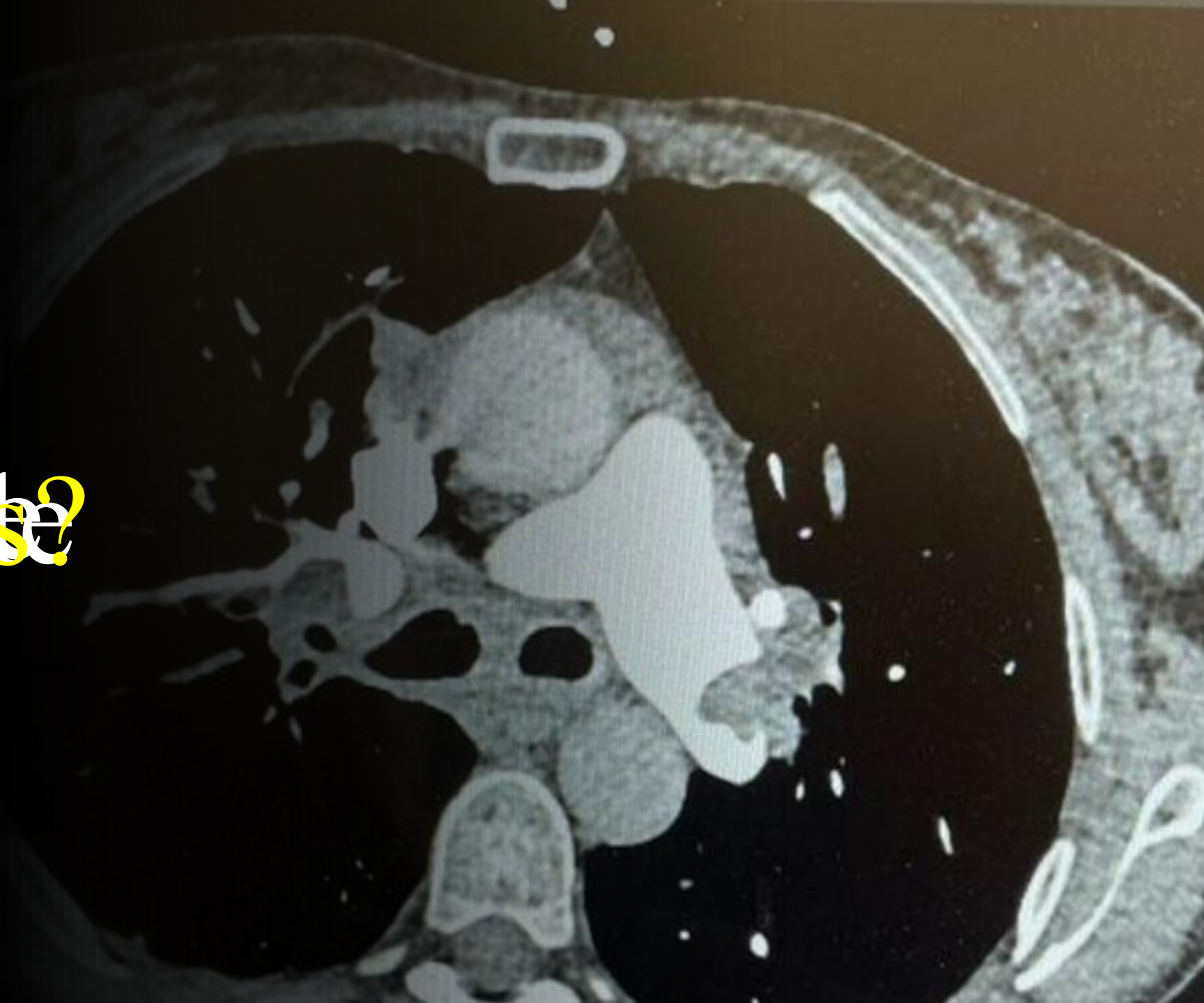
RECORD. INFORMATIONAL PURPOSES ONLY. NOT FOR DIAGNOSTIC USE.



117/317

WW/WL: 400/50

11. Final
Breast
Outcomes?





An aerial photograph of a city street grid. A yellow line outlines a specific area, and a purple shaded region is visible within and around it. The text 'Augmented Reality Intelligence' is overlaid in white, with 'Cost' highlighted in yellow.

Augmented Reality Intelligence

Cost

lass General Brigham





A hand is holding a camera lens, with the lens's internal elements visible. The background is a blurred, dark blue-grey color. The text 'System Safety' is overlaid on the lens, with 'System' in yellow and 'Safety' in white, separated by a vertical line.

System Safety



SECOND EDITION

THE TOYOTA HEALTH EXCEL

Increase Efficiency
Improve Quality

LEARN

JOHN I
with DAVID MILLEF

High-Reliability HEALTH

IMPROVING PATIENT AND OUTCOMES WITH SIX SIGMA

Robert Barry
Clifford E

MANAGING UNEXPECTED

THIRD EDITION

Sustained Performance in Complex

KARL E. WEINSTEIN
KATHLEEN M. HAYES

MATTHEW MEYER
Author of BOULDER

Black Box Thinking

WHY MOST PEOPLE DON'T LEARN FROM THEIR MISTAKES—BUT HOW TO

READ BY SIMON

UNABRIDGED

JEFFREY "LENO" KUHLMAN, MD, MPH
ROBERT "NAVY BOB" KUHLMAN, MD

HIGH RELIABILITY HEALTH

APPLYING THE LESSONS OF THE NUCLEAR INDUSTRY TO SAVE PATIENTS

StuderGroup



The HCAHPS Handbook

Hardwire Your Hospital
Pay-for-Performance

By
Quint Studer
Brian C. Robinson & Kar

The High Reliability Organizations

HRO

A Healthcare Handbook
for Patient Safety & Quality

Cynthia A. Oster | Jane S. Braaten

Foreword by Jane Barrsteiner

Safety Culture

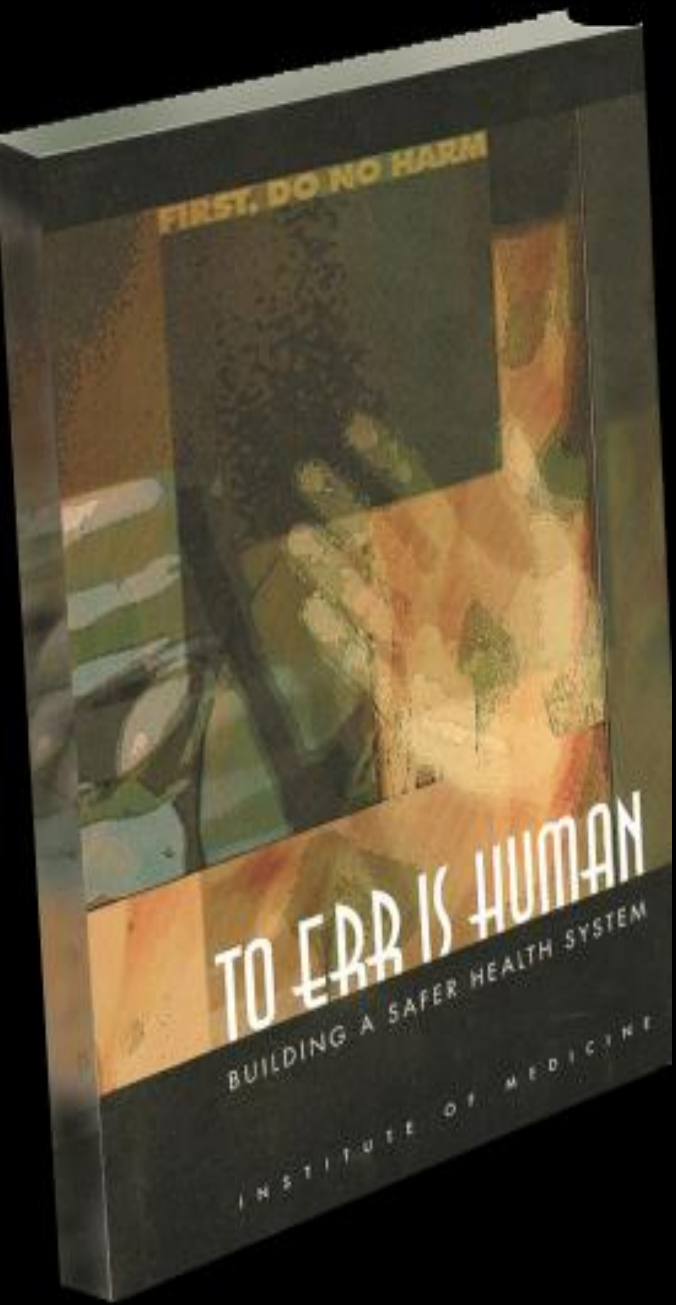


A hand holding a red pill against a background of interlocking puzzle pieces. The puzzle pieces are in shades of blue and yellow, and the hand is holding a red pill. The text "Medical Errors" is overlaid in the center.

Medical Errors

T-1

Insert Clip Here | Night Prior



“....*To Err Is Human* asserts that the **problem is not bad people in health care rather it is that good people are working in bad systems** that need to be made safer. A realization that most errors are out of the clinician’s control. Hospitals are obligated to facilitate, identify and establish root cause analysis of healthcare related errors. Disclosure of medical errors is considered an ethical duty and is required by JCAHO. Institutions must make sure that patients harmed by adverse events do not face additional financial burdens; conduct a root cause analysis; and develop an action plan if necessary. If an actual error transpired, the appropriate institutional representative should apologize to the patient. Institutions should also adopt policies that encourage smooth transitions to new technologies, and foster communication as the key to improving patient safety. Despite all efforts current study from John Hopkins revealed number of healthcare related errors have not changed from first reported in 1999 by Institute of Medicine (IOM). This accounts for our third leading cause of death in the US..

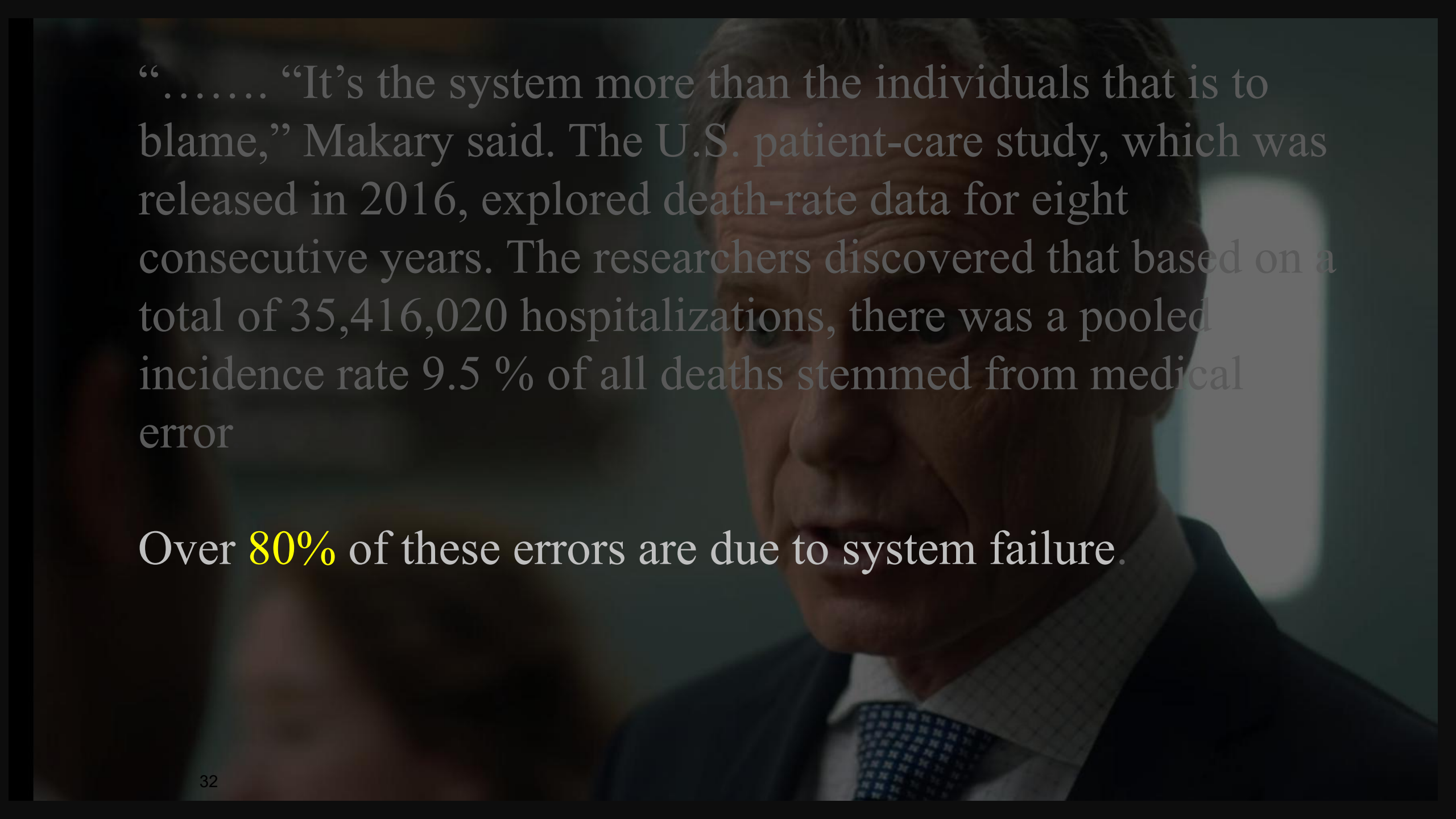


IMPROVING DIAGNOSIS IN HEALTH CARE

QUALITY CHASM SERIES
The National Academies of
SCIENCES • ENGINEERING • MEDICINE

“Getting the right diagnosis is a key aspect of health care - it provides an explanation of a patient's health problem and informs subsequent health care decisions. The diagnostic process is a complex, collaborative activity that involves clinical reasoning and information gathering to determine a patient's health problem. According to *Improving Diagnosis in Health Care*, diagnostic errors-inaccurate or delayed diagnoses-persist throughout all settings of care and continue to harm an unacceptable number of patients. *It is likely that most people will experience at least one diagnostic error in their lifetime*, sometimes with devastating consequences. Diagnostic errors may cause harm to patients by preventing or delaying appropriate treatment, providing unnecessary or harmful treatment, or resulting in psychological or financial repercussions. The committee concluded that improving the diagnostic process is not only possible, but also represents a moral, professional, and public health imperative.”...National Academy of Medicine, 2015

“..... “It’s the system more than the individuals that is to blame,” Makary said. The U.S. patient-care study, which was released in 2016, explored death-rate data for eight consecutive years. The researchers discovered that based on a total of **35,416,020** hospitalizations, there was a pooled incidence rate **9.5 %** of all deaths stemmed from medical error.



“..... “It’s the system more than the individuals that is to blame,” Makary said. The U.S. patient-care study, which was released in 2016, explored death-rate data for eight consecutive years. The researchers discovered that based on a total of 35,416,020 hospitalizations, there was a pooled incidence rate 9.5 % of all deaths stemmed from medical error

Over **80%** of these errors are due to system failure.

T-1

Insert Clip Here | Night Prior

A stylized world map with a blue background and yellow and red landmasses. The text "Maternal Mortality" is overlaid in yellow.

Maternal Mortality

US is the most dangerous place to give birth among developed countries

“...It’s the system more than the individuals that is to blame,”
Makary said. The U.S. patient-care study, which was released in 2016, explored death-rate data for eight consecutive years. The researchers discovered that based on a total of...

Precision | Accuracy

Hardwiring with AI

Improve Systems | Increase Safety | Decrease Errors

Safety Culture



Trust Board Meeting

Agenda PART A (in public)

Date: Thursday 6 June 2013 at 1:30 pm.

Venue: Board Room,

Members of the public are welcome to attend so as to observe the meeting. Questions about any aspects of the running of Trust are welcome and should be addressed to the Chair at the end of the meeting

Item	Subject	Report From	Time
1	Welcome and Procedural Information	Chair - verbal	1330
2	Patient's Story To hear a patient story and reflect on the learning outcomes	Director of Nursing - presentation	1330-1400
3	Reflection on Actions From Previous Stories	Director of Nursing – attached	1400-1415
3	Apologies for Absence	Chair - verbal	
4	Declaration of Interests To receive any new or amended declarations of interest from Board Members To receive updated written declarations from members	Chair – verbal	1415-1420
5	Minutes of the Previous Meeting To confirm and sign the minutes of the meeting held on 4 April 2013	Chair - attached	1420-1425
6	Matters Arising from the Minutes	Chair - verbal	1425-1430
7	Action Points (Log) To review progress against previous actions	Chair – attached	1430-1445
8	Chief Executive's Report To receive a written report from the CEO on issues to be brought to the Board's attention	CEO – attached	1445-1500
9	Chair's Report	Chair – attached	

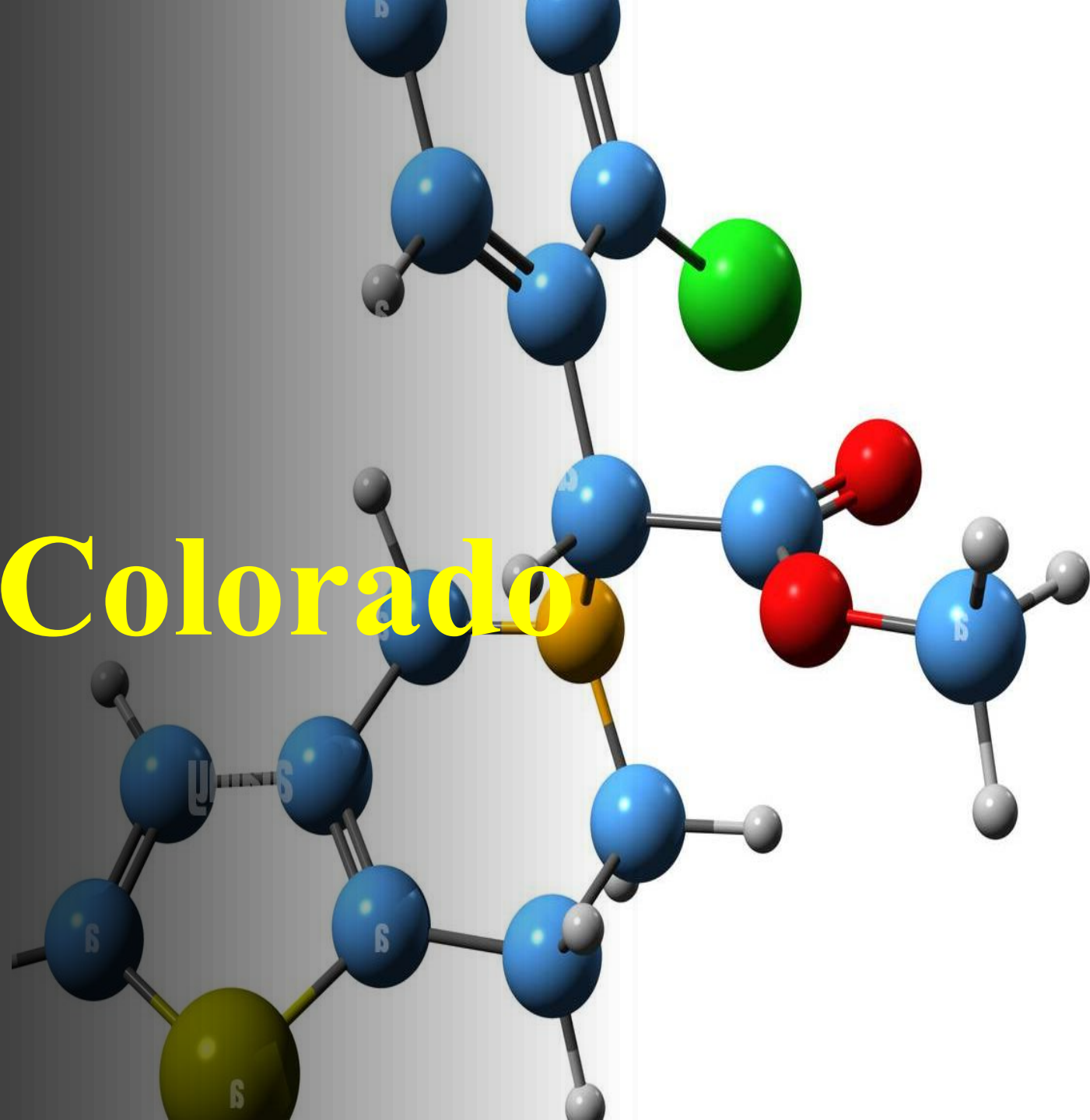
T-1

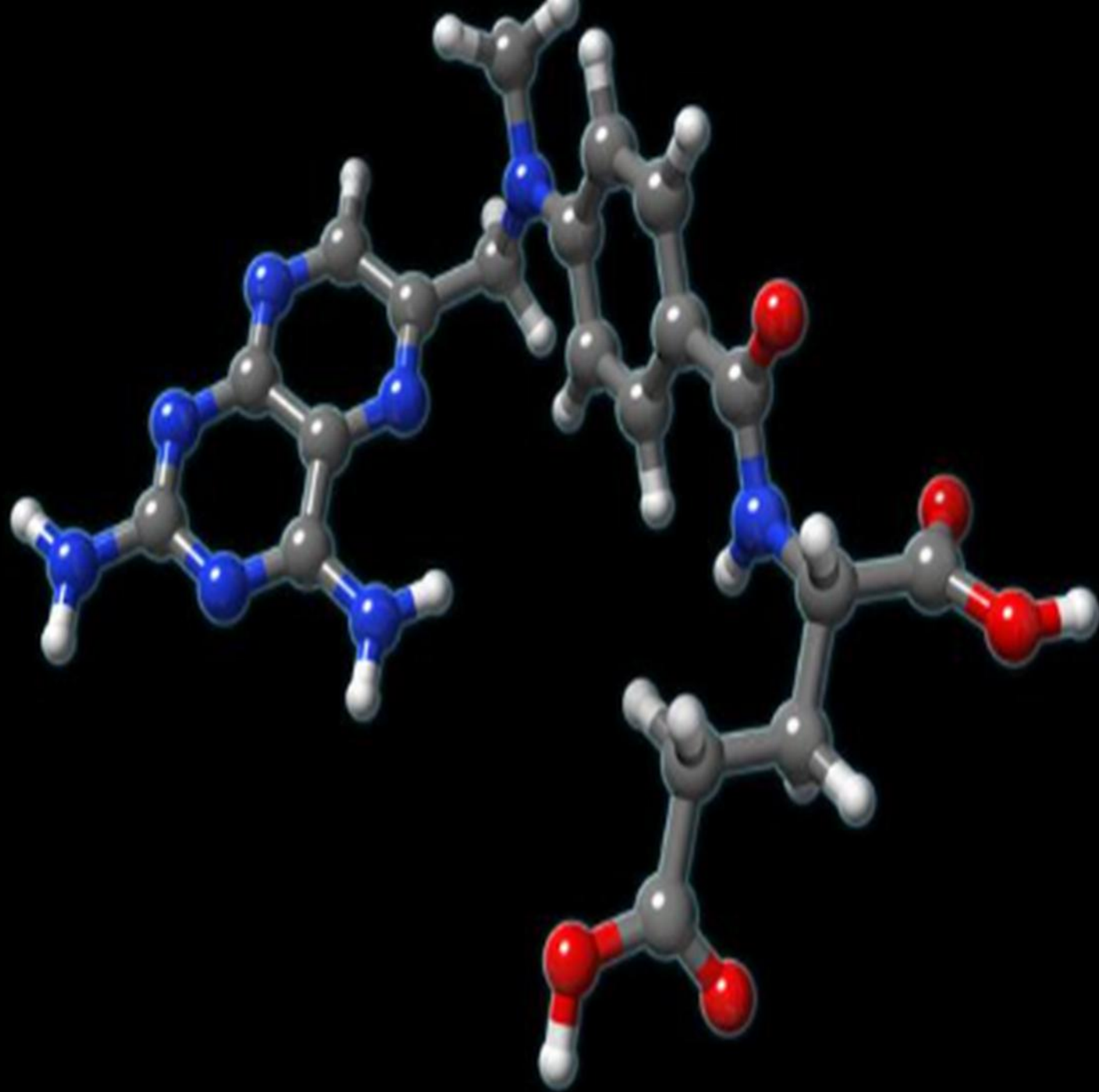
Insert Clip Here | Night Prior



52-year-old | Chest Pain

University of Colorado







A doctor in a white coat is standing in a hospital hallway, looking at a tablet. The hallway has a wooden railing and a door in the background. The image is dimly lit and has a dark overlay.

Personalized

A doctor in a white coat is standing in a hospital hallway, looking at a tablet. The hallway has a wooden floor and a metal railing. The background is slightly blurred, showing the perspective of the hallway. The text "Harvest Data" is overlaid in the center in a white serif font.

Harvest Data

A doctor in a white coat is standing in a hospital hallway, looking at a tablet. The hallway has a wooden railing and a door in the background. The scene is dimly lit, with a dark overlay.

Meaningful Use

An aerial photograph of a city street grid. A yellow line outlines a specific, irregularly shaped area in the center of the city. The text "Your Service Area" is overlaid in yellow on this area. The surrounding city streets are visible in a dark, muted color.

Your Service Area



Alvarado Score for Acute Appendicitis

Predicts likelihood of appendicitis diagnosis.

When to Use ▾	Pearls/Pitfalls ▾	Why Use ▾
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Signs

Right lower quadrant tenderness	No 0	Yes +2
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Elevated temperature (37.3°C or 99.1°F)	No 0	Yes +1
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Rebound tenderness	No 0	Yes +1
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Symptoms

Migration of pain to the right lower quadrant	No 0	Yes +1
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Anorexia	No 0	Yes +1
----------	-------------	--------

Nausea or vomiting	No 0	Yes +1
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0 points

Unlikely appendicitis by the Alvarado Score.



Predictive Modelling

Screening Tools

		Disease		Predictive Value	
		⊕	⊖		
Test	⊕	A True Positive (TP)	B False Positive (FP)	Positive Predictive Value (PPV) $\frac{TP}{TP + FP} = \frac{A}{A + B}$	Total Positive Results (A + B)
	⊖	C False Negative (FN)	D True Negative (TN)	Negative Predictive Value (NPV) $\frac{TN}{FN + TN} = \frac{D}{C + D}$	Total Negative Results (C + D)
Sensitivity & Specificity		Sensitivity $\frac{TP}{TP + FN} = \frac{A}{A + C}$	Specificity $\frac{TN}{FP + TN} = \frac{D}{B + D}$		
		All diseased patients (A + C)	All non-diseased patients (B + D)		

Colonoscopy

		Disease		Predictive Value	
		⊕	⊖		
Test	⊕	A True Positive (TP)	B False Positive (FP)	Positive Predictive Value (PPV) $\frac{TP}{TP + FP} = \frac{A}{A + B}$	Total Positive Results (A + B)
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Sensitivity & Specificity		Sensitivity $\frac{TP}{TP + FN} = \frac{A}{A + C}$	Specificity $\frac{TN}{FP + TN} = \frac{D}{B + D}$		
		All diseased patients (A + C)	All non-diseased patients (B + D)		

Mount Sinai

		Disease		Predictive Value	
		⊕	⊖		
Test	⊕	A True Positive (TP)	B False Positive (FP)	Positive Predictive Value (PPV) $\frac{TP}{TP + FP} = \frac{A}{A + B}$	Total Positive Results (A + B)
	⊖	C False Negative (FN)	D True Negative (TN)	Negative Predictive Value (NPV) $\frac{TN}{FN + TN} = \frac{D}{C + D}$	Total Negative Results (C + D)
Sensitivity & Specificity		Sensitivity $\frac{TP}{TP + FN} = \frac{A}{A + C}$	Specificity $\frac{TN}{FP + TN} = \frac{D}{B + D}$		
		All diseased patients (A + C)	All non-diseased patients (B + D)		

2035

		Disease		Predictive Value	
		⊕	⊖		
Test	⊕	A True Positive (TP)	B False Positive (FP)	Positive Predictive Value (PPV) $\frac{TP}{TP + FP} = \frac{A}{A + B}$	Total Positive Results (A + B)
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		All diseased patients (A + C)	All non-diseased patients (B + D)		

An aerial photograph of a city street grid. A yellow line outlines a specific geographic area in the center of the image. The text "Population Health" is overlaid in a large, bold, yellow serif font across the middle of the outlined area. The background shows a dense network of streets and buildings, with some green spaces and a river or canal visible on the left side.

Population Health

A photograph showing a medical emergency scene. A patient is lying on a yellow stretcher, secured with black straps. The patient is wearing a white hospital gown and has several medical sensors attached to their chest and limbs. Two medical professionals in light blue scrubs are attending to the patient. One is leaning over the patient, and the other is standing by the head of the stretcher. The background shows a clinical setting with shelves and equipment. The text "62-year-old | Weakness" is overlaid in yellow on the image.

62-year-old | Weakness



H4

STROKE
BED

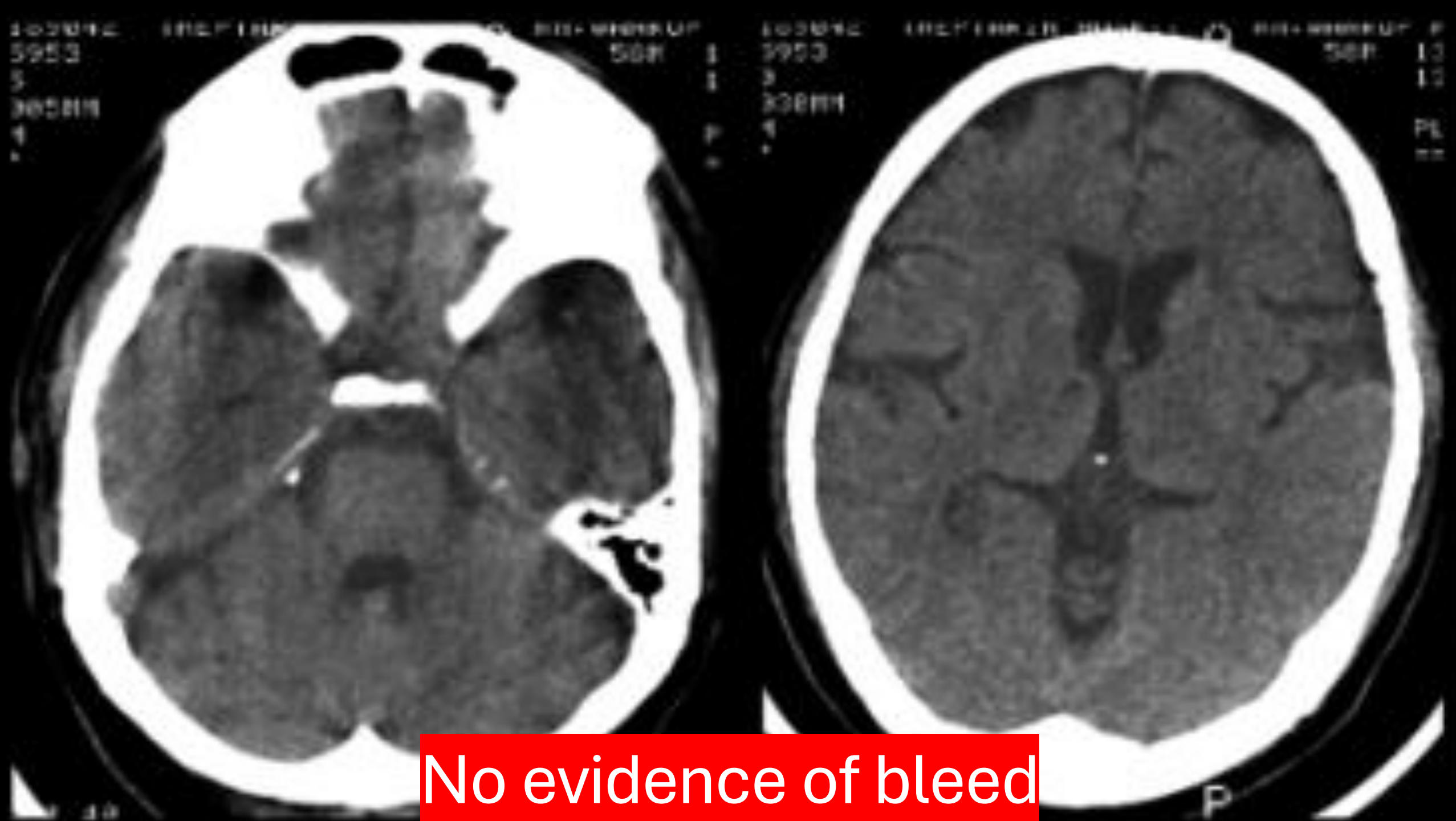
Hill-Rom



T-1

Insert Clip Here | Night Prior





No evidence of bleed

NIHSS Free Text : Answers orientation question to location correctly, but not to month, year, city, or state.

Pre-Morbid Modified Rankin Scale:
Unable to assess

Spoke with : Dr. Patel

I reviewed the available imaging via A.I. software VIZ and initiated discussion with the primary provider

This consult was conducted in real time using interactive audio and video technology. Patient was informed of the technology being used for this visit and agreed to proceed. Patient located in hospital and provider located at home/office setting.

Patient is being evaluated for possible acute neurologic impairment and high probability of imminent or life-threatening deterioration. I spent total of 30 minutes providing care to this patient, including time for face to face visit via telemedicine, review of medical records, imaging studies and discussion of findings with providers, the patient and/or family.



Bedside Medications



73%
FASTER



42%
FASTER





73%
FASTER



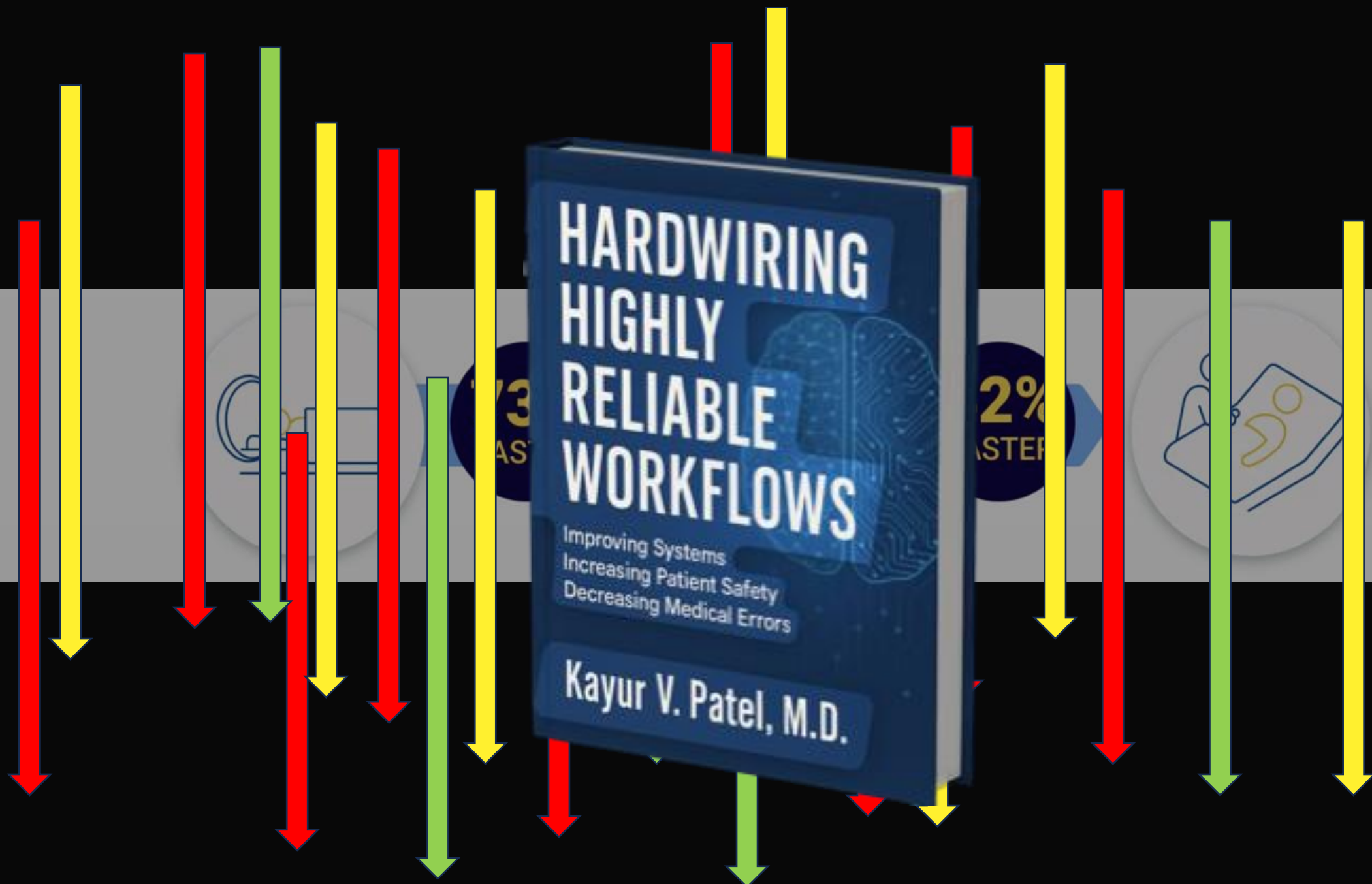
42%
FASTER




HARDWIRING HIGHLY RELIABLE WORKFLOWS

Improving Systems
Increasing Patient Safety
Decreasing Medical Errors

Kayur V. Patel, M.D.



An aerial photograph of a city street grid. A yellow line outlines a specific area, and a purple shaded region is visible within and around it. The text 'Stay Wild 1619 Study?' is overlaid in white, and 'Outcomes' is overlaid in yellow.

Stay Wild 1619 Study?
Outcomes



Algorithms



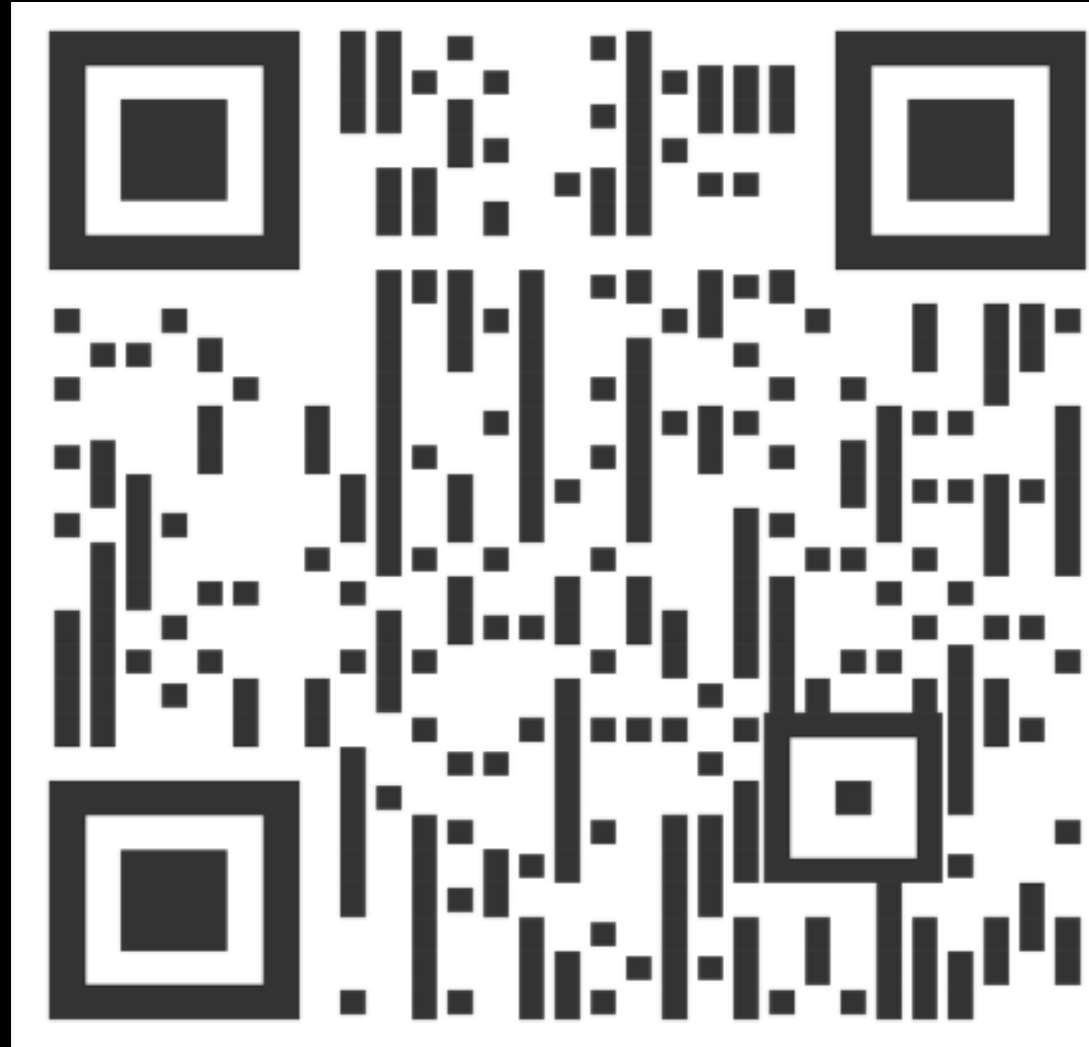
T-1

Insert Clip Here | Night Prior

“...The original research article was published July 17 by BMJ Quality & Safety. Results of the new analysis of national data found that across all clinical settings, including hospital and clinic-based care, an estimated *in the last hour* 91 Americans died or are permanently disabled by diagnostic error each year, confirming the pressing nature of the public health problem....July 2023, John Hopkins



KPatel@MyPrivate.MD



317-296-5212

A close-up photograph of a doctor in a white coat, holding a large stack of papers. A stethoscope is visible around their neck. The background is slightly blurred, focusing attention on the doctor and the papers.

Rural Health Transformation Program

Federal Goals: The CMS Rural Health Transformation Program

CMS launched the \$50 billion Rural Health Transformation Program under the federal reconciliation legislation. Every state received an award. CMS has organized the program around five priority goals:

Technology Innovation – Modernize health technology to support preventive care and data-driven decision-making.

Workforce Development – Strengthen and expand the rural health workforce to sustain local care delivery.

Sustainable Access – Improve access to primary, specialty, and maternal care close to home.

Wellness and Prevention – Advance prevention and wellness to reduce chronic disease and improve quality of life.

Sustainable Partnerships – Build the regional partnerships and program infrastructure that keep transformation work going past the five-year award period.

Each state was asked to organize its plan around these federal goals and to show how state initiatives map to them. FY 2026 funds must be expended by September 30, 2027. Half of each year's pool is distributed equally across states and the other half is competitive, recalculated annually based on each state's implementation progress and performance scores. That structure puts a premium on programs that can demonstrate measurable results inside Year 1.