Lucid™ diagnostics

INVESTOR DAY

Welcome

Lishan Aklog, MD
Chairman & CEO

Shaun O'Neil, MBA
President & COO

December 13, 2023

Agenda

10:00–10:20am	**The Lucid Diagnostics Story** *Lishan Aklog, MD*
10:20–10:30am	**A Lifetime of Preventing Cancer Deaths** *Stan Lapidus*
10:30–10:50am	**Esophageal Cancer: A Surgeon's Perspective** *Philip Woodworth, MD*
10:50–11:20am	**Realizing EsoGuard's Commercial Opportunity** *Shaun O'Neil, MBA*
11:20–11:35am	**EsoGuard: Unprecedented Precancer Detection** *Lishan Aklog, MD*
11:35am–12:15pm	**Lunch Break**
12:15–12:35pm	**EsoGuard in My Practice** *Seper Dezfoli, MD*
12:35–1:00pm	**Pathway to Profitability** *Dennis McGrath*
1:00–1:20pm	**Fireside Chat with Lucid Executive Leaders** *Suman Verma, MD, PhD, Deepika Lakhani, PhD, Victoria Lee, MD, Natalie Carfora*
1:20–1:40pm	**Fireside Chat with Physician Experts** *Seper Dezfoli, MD, Philip Woodworth, MD, Brian deGuzman, MD*
1:40–3:00pm	**Meet & Greet Reception** *Gordon Reading Room*

Lucid™ diagnostics

INVESTOR DAY

The Lucid Diagnostics Story

Lishan Aklog, M.D.
Chairman & CEO

December 13, 2023


40

40

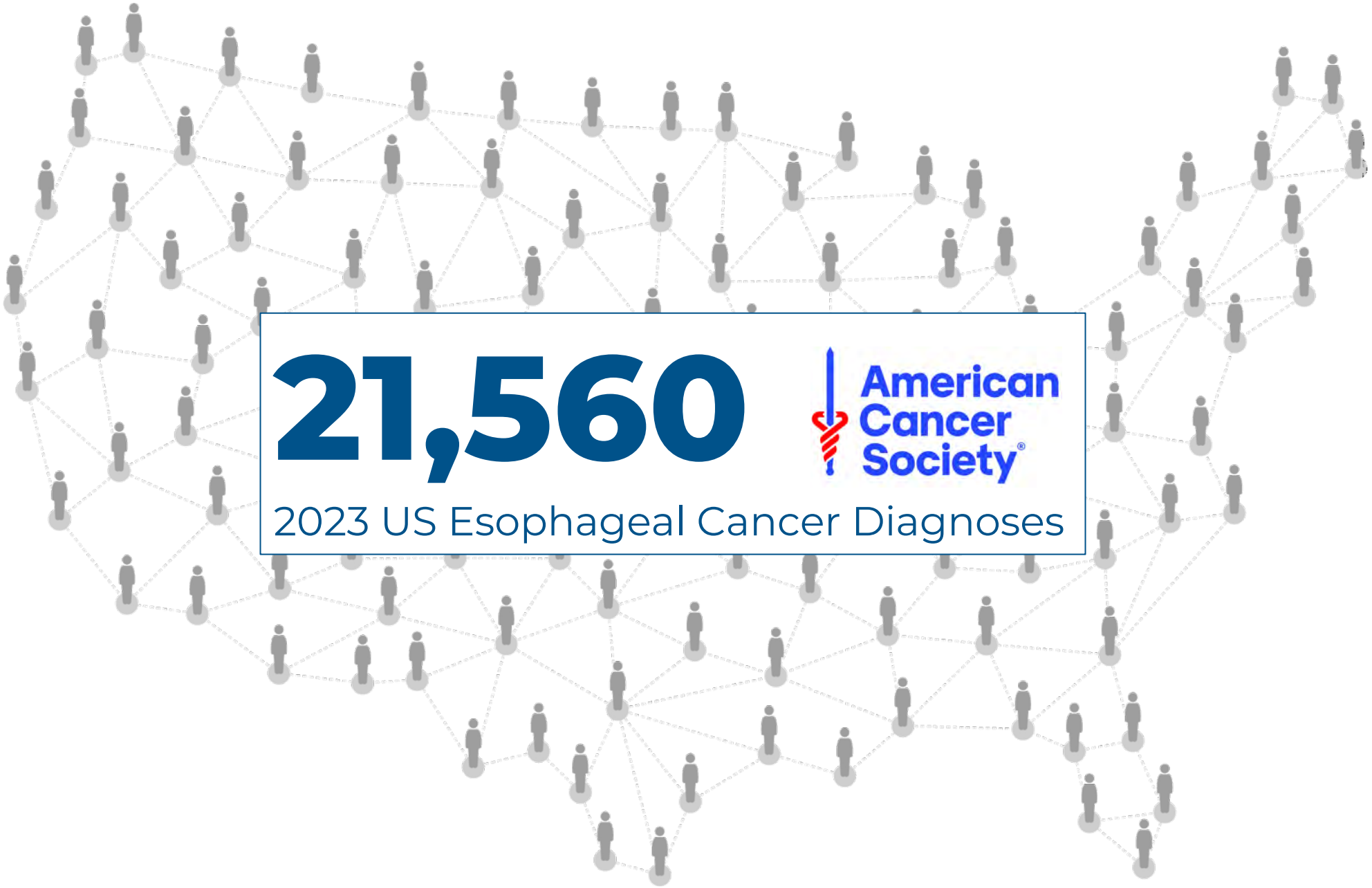
Near death sentences

10 of 40

Dead in one year

8 of 40

Still alive after five years


21,560
American Cancer Society®
2023 US Esophageal Cancer Diagnoses

What if...

What if...

Cancer

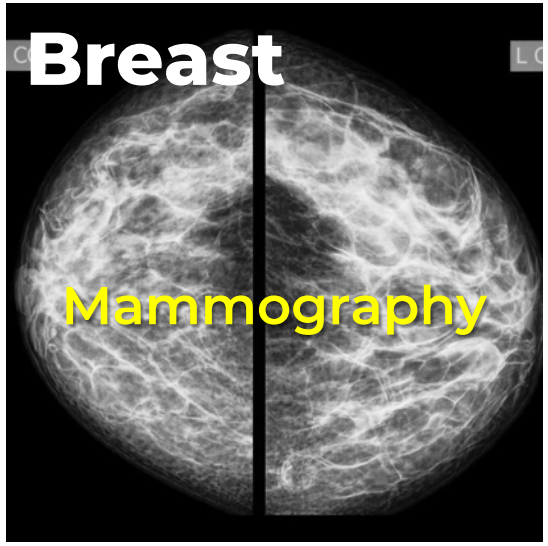
What if...

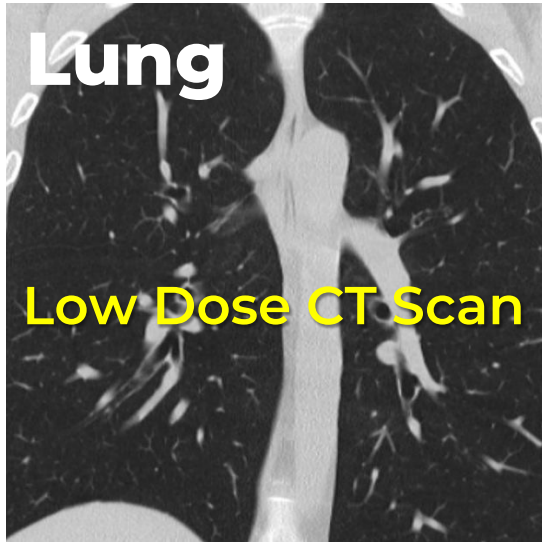
Cancer

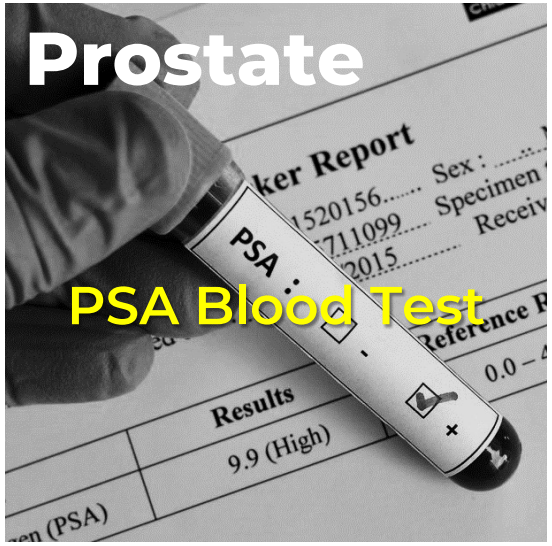
could be...

PREVENTED

Early Cancer Detection



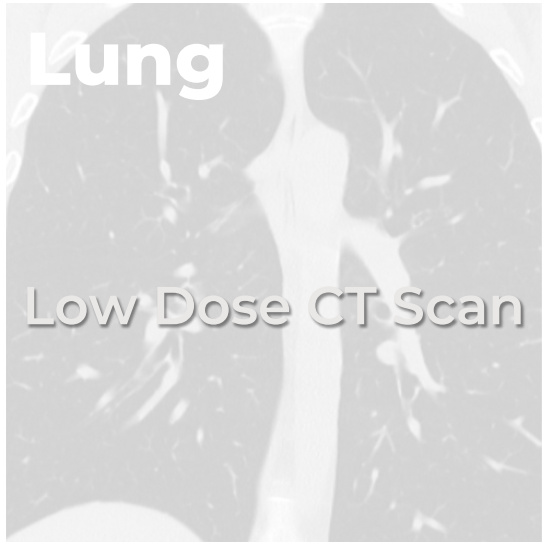


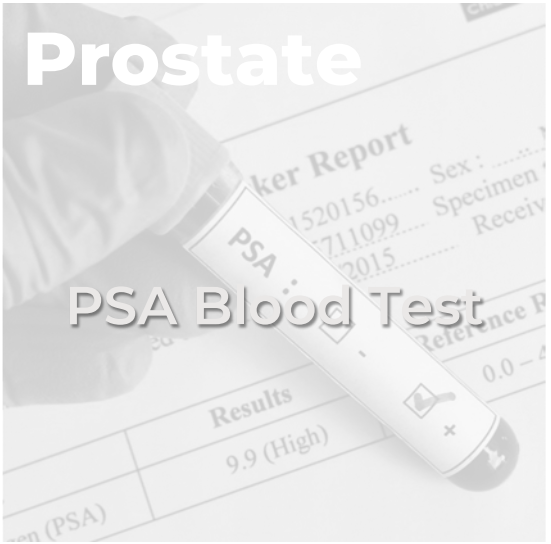


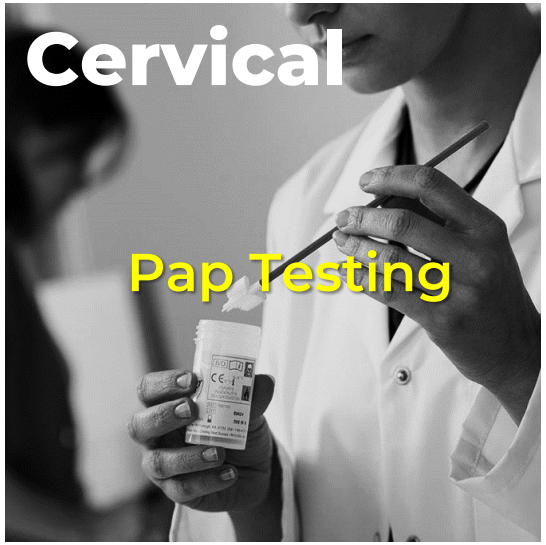
Early Cancer Detection

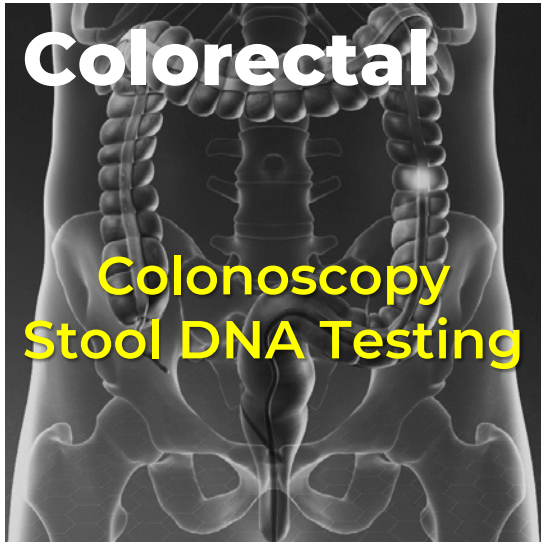
vs.

Cancer PREVENTION

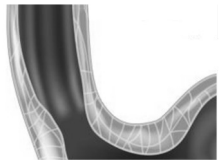
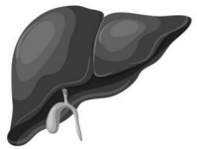








The Deadly Three

	5-Year Cancer Survival	
	Overall	Early Stage
 **Pancreatic**	13%	44%
 **Esophageal**	22%	49%
 **Liver**	22%	37%

More 2023 deaths than Colorectal and Breast Cancer Combined

American Cancer Society

NIH NATIONAL CANCER INSTITUTE Surveillance, Epidemiology, and End Results Program

The Deadly Three

	5-Year Cancer Survival	
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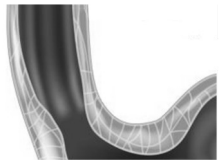
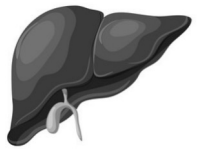
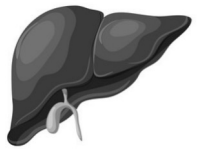
 **Pancreatic**	13%	44%
 **Esophageal**	22%	49%
 **Liver**	22%	37%

Need to PREVENT cancer through PRECANCER DETECTION to impact survival

American Cancer Society

NIH NATIONAL CANCER INSTITUTE Surveillance, Epidemiology, and End Results Program

The Deadly Three

	5-Year Cancer Survival	
	Overall	Early Stage
 Pancreatic	13%	44%
 **Esophageal**	**22%**	**49%**
 Liver	22%	37%

Esophageal PRECANCER can now be detected

American Cancer Society

NIH NATIONAL CANCER INSTITUTE Surveillance, Epidemiology, and End Results Program

Esophageal Cancer

CAN be...

PREVENTED

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diagnostics

Our Roots

CASE WESTERN RESERVE UNIVERSITY EST. 1826

University Hospitals Cleveland Medical Center

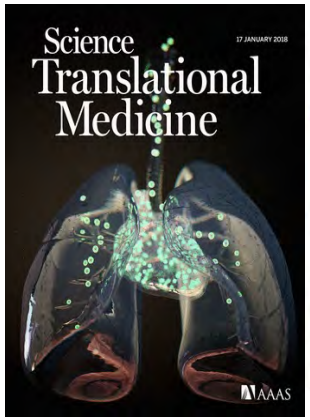
NIH NATIONAL CANCER INSTITUTE Division of Cancer Prevention

Sanford Markowitz, MD, PhD

Amitabh Chak, MD

Joseph Willis, MD

Helen Moinova, PhD



SCIENCE TRANSLATIONAL MEDICINE | RESEARCH ARTICLE

CANCER

Identifying DNA methylation biomarkers for non-endoscopic detection of Barrett's esophagus

Helen R. Moinova,[1] Thomas LaFramboise,[2,3] James D. Lutterbaugh,[1] Apoorva Krishna Chandar,[1] John Dumot,[1] Ashley Faulx,[1] Wendy Brock,[1] Omar De la Cruz Cabrera,[4] Kishore Guda,[2] Jill S. Barnholtz-Sloan,[2] Prasad G. Iyer,[5] Marcia I. Canto,[6] Jean S. Wang,[7] Nicholas J. Shaheen,[8] Prashanti N. Thota,[9] Joseph E. Willis,[2,10,11*†] Amitabh Chak,[1,2,11*†] Sanford D. Markowitz[1,2,3,11*†]

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diagnostics

Who are we?

High margin asset with massive market opportunity

Well-honed multi-faceted commercial strategy

World-class leadership team and board

Operationally excellent multidisciplinary field and laboratory team

Committed and passionate physician ambassadors

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EsoGuard
esophageal DNA test

EsoCheck
cell collection device

30 Million

30 Million

At-Risk Patients Recommended for Precancer Testing

30 Million

At-Risk Patients Recommended for Precancer Testing

$1,938

30 Million

At-Risk Patients Recommended for Precancer Testing

$1,938

Medicare Payment

30 Million

At-Risk Patients Recommended for Precancer Testing

$1,938

Medicare Payment

~$60 Billion

Total Addressable Market Opportunity

30 Million

At-Risk Patients Recommended for Precancer Testing

$1,938

Medicare Payment

~$60 Billion

Total Addressable Market Opportunity

30 Million

At-Risk Patients Recommended for Precancer Testing

$1,938

Medicare Payment

~$60 Billion

90 Percent

Gross Margin

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What have we done and what's left to do?

Lucid Accomplishments and Near-Term Goals

COMMERCIAL

☑ **Sales And Marketing Processes**	Locked down sales and marketing process to secure physician adoption
☑ **Patient Acquisition Strategy**	Designed and implemented multipronged patient acquisition strategy (LTC, sLTC, mLTC, CYFT)
☑ **Cell Collection Strategy**	Optimized cell collection training and execution (99% technical success)

LABORATORY

☑ **CLIA/CAP Laboratory**	Acquired CLIA/CAP laboratory and successfully transferred assay from contracted lab
☑ **EsoGuard Performance & Efficiency**	Optimized EsoGuard assay performance and efficiency (<5% QNS, <10d TAT)
☑ **Target Gross Margin**	Optimized assay and device COGs to achieve 90% GM

Lucid Accomplishments and Near-Term Goals

CLINICAL EVIDENCE

☑ **Clinical Validity**	Expanded Clinical Validity evidence beyond STM (BETRNet, Cleveland VA, BE-1) with unprecedented precancer detection
☑ **Clinical Utility**	Published three peer-reviewed Clinical Utility studies with near-perfect concordance

REIMBURSEMENT

☑ **Revenue Cycle Management**	Upgraded RCM infrastructure resulting in dramatic improvements in claims processing and payment
☑ **Market Access Team**	Strengthened team with new VP, Market Access and VP, Employer Markets
☐ **Medical Policy Coverage**	Leverage CU data to drive medical policy coverage, including pilot programs such as Coverage with Evidence Development (CED)
☐ **Direct Contracting**	Drive direct contracting with self-insured employers and entities to offer EsoGuard as a benefit

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Lucid Surgical Perspective

diagnostics

december 2023

Philip Woodworth, MD FACS

Esophageal Cancer

IER Surgery
Denver, CO

Institute of Esophageal and Reflux Surgery

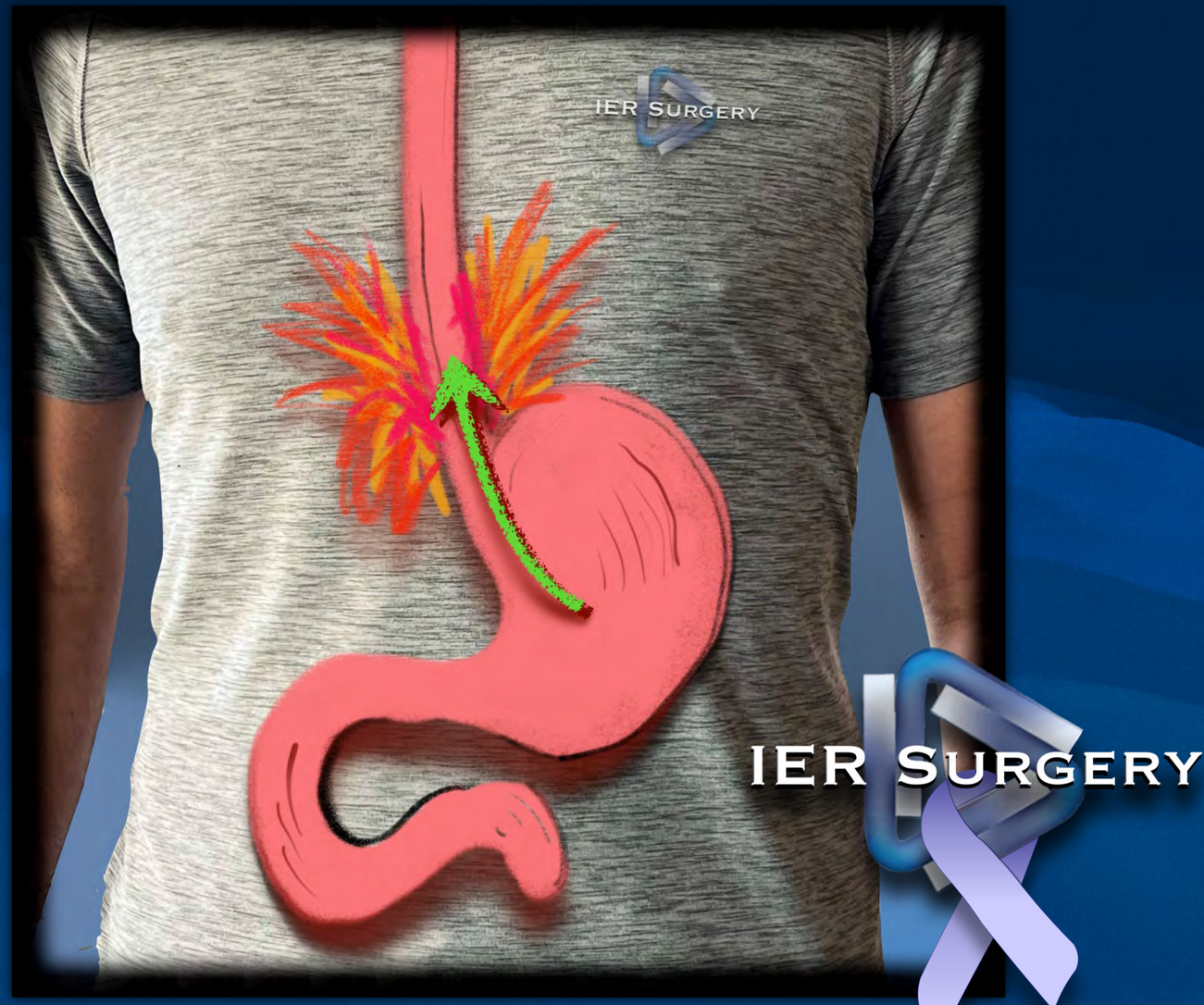
Denver, CO

Center for Robotic Surgery™

At Sky Ridge Medical Center

Institute of Esophageal and Reflux Surgery

Partnership of
Surgeons,
Advanced Practitioners, &
Researchers
focused on
FOREGUT DISEASE

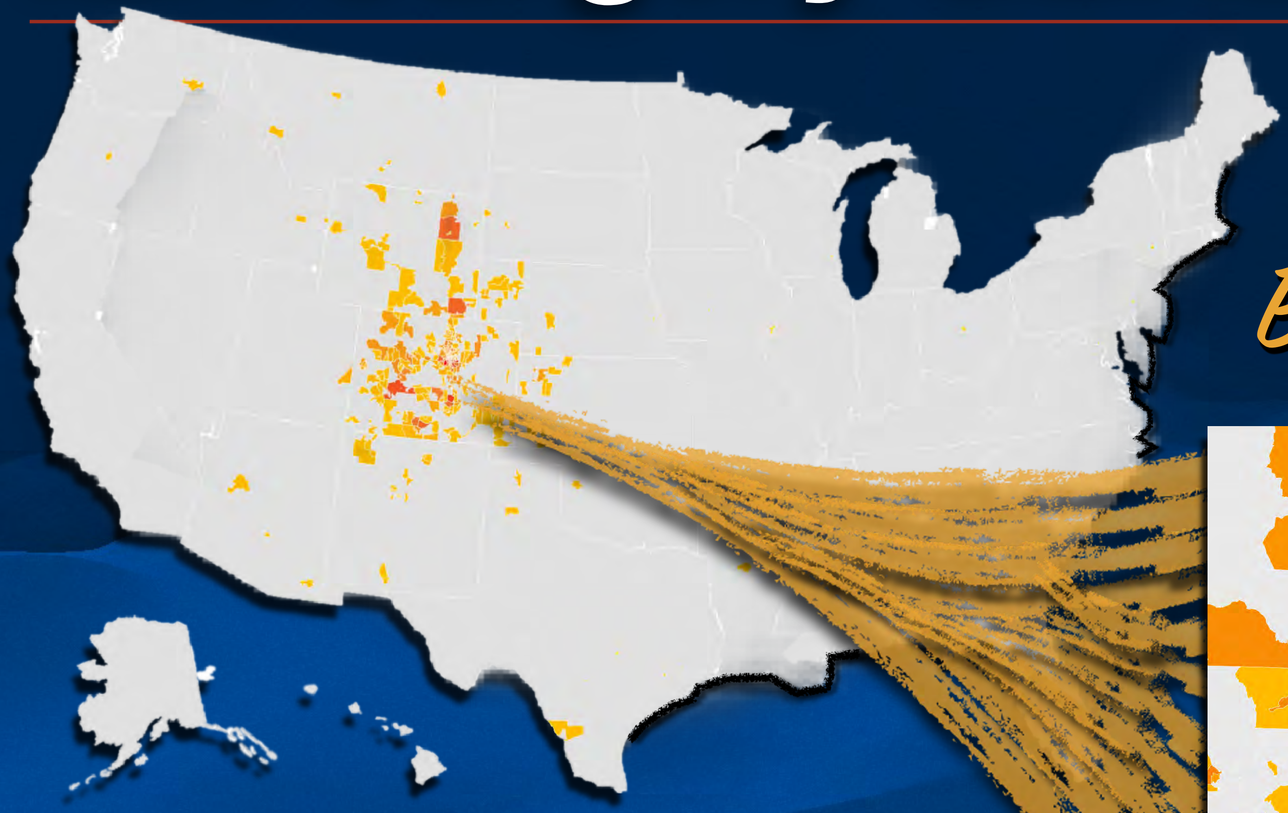


Institute of Esophageal and Reflux Surgery

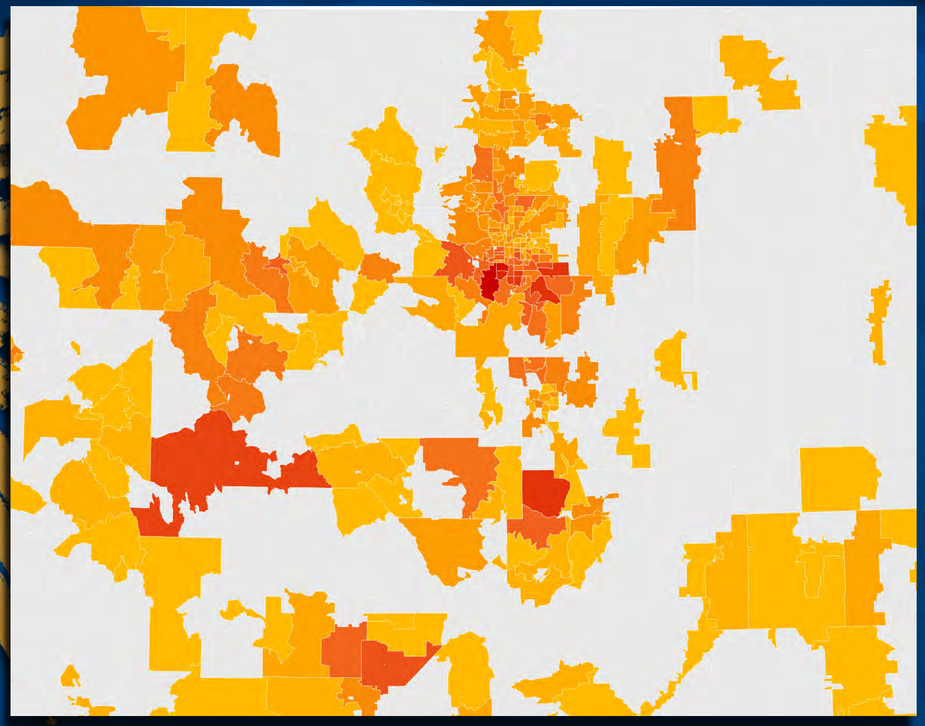
…there is also a therapy dog Sienna.

IER Surgery

IER Surgery GERD Referrals



Beautiful Colorado



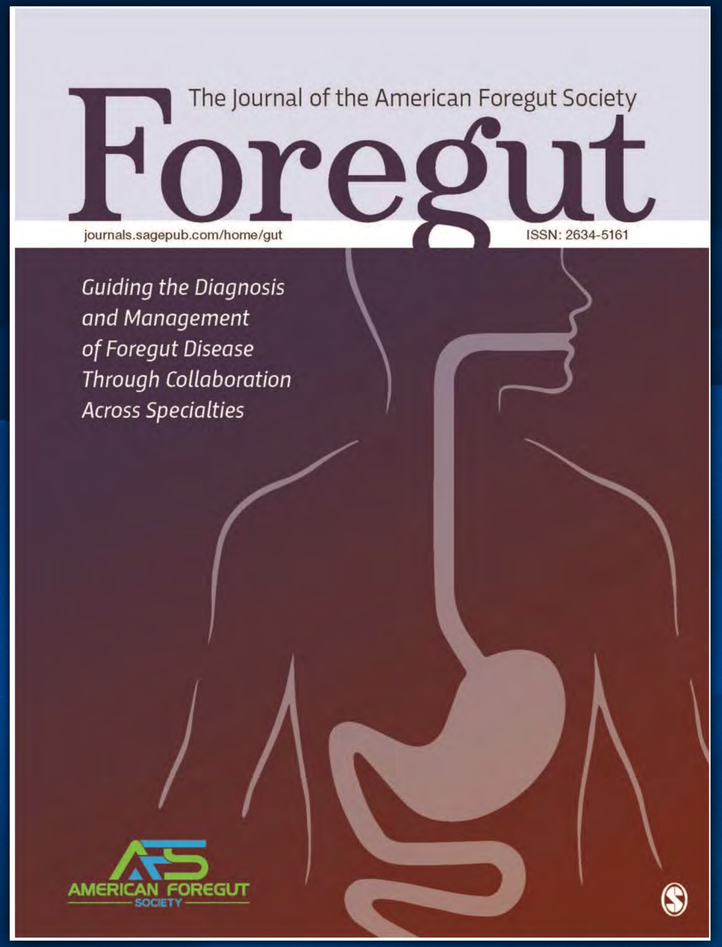
IER Surgery

Objectives

1. To explain the basics of GERD / Esophageal Cancer
2. To appreciate incidence of GERD / Esophageal Cancer
3. To understand issues with the GERD treatment algorithm
4. To identify an opportunity to improve the algorithm
5. To know the value EsoGuard provides

What is GERD ?

GERD is a FOREGUT Disease



- The **Foregut** is the anterior part of the alimentary canal, from the mouth to the second portion of the duodenum.
- The most common condition driving people to seek health care evaluation is **GERD**.

GERD Definition

Gastroesophageal reflux disease (**GERD**) — a digestive disorder that occurs when acidic stomach juices, or food and fluids back up from the stomach into the esophagus.

GERD Definition

Key issues is when:
-regurgitation of stomach (gastric) contents into the esophagus becomes frequent & severe enough to **impact daily life**.

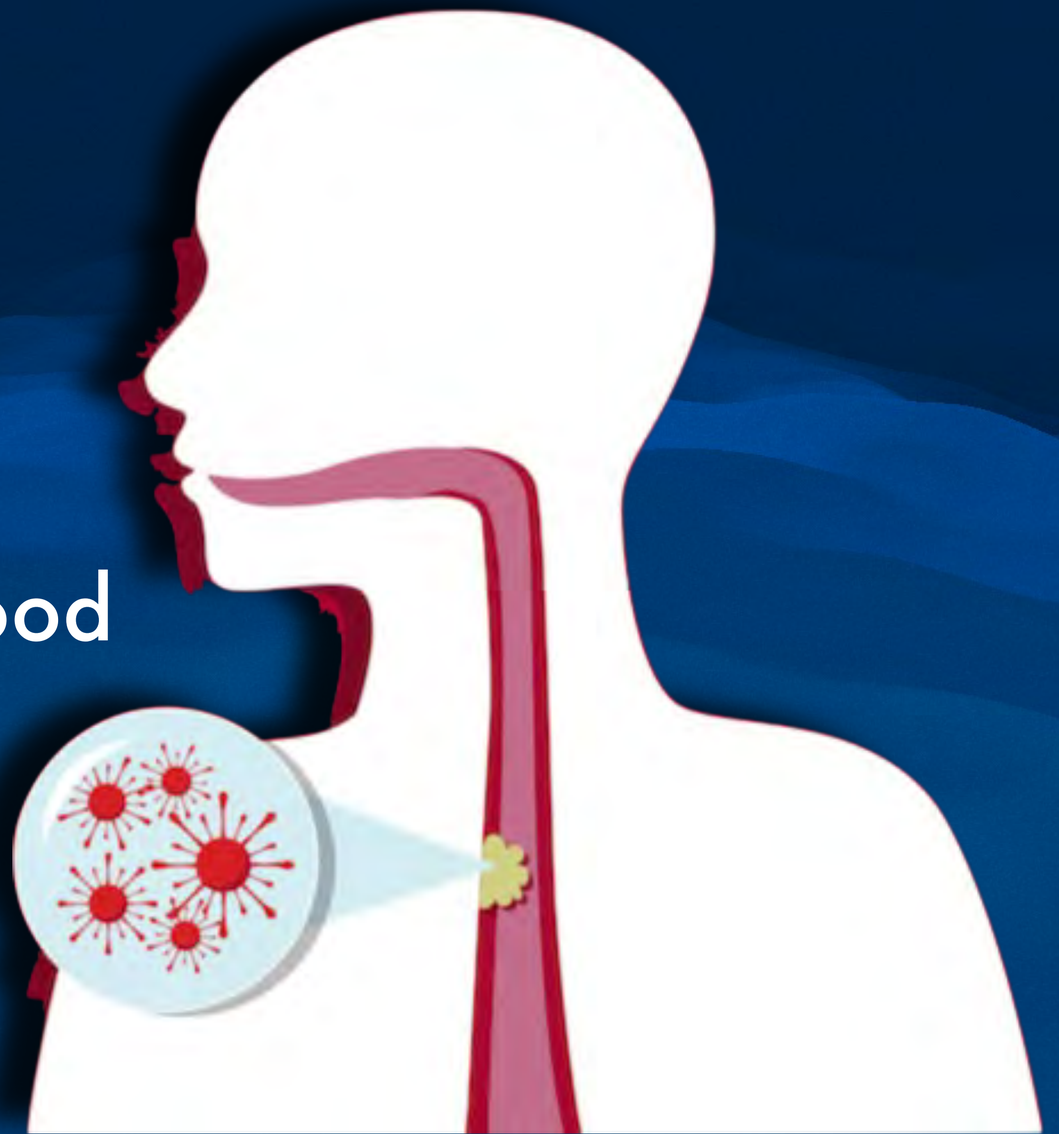
Classic Symptoms

- Heartburn - burning under the breastbone
- Regurgitation or bitter taste in back of mouth
- Problem swallowing - food sticking
- Indigestion
- Chest pain

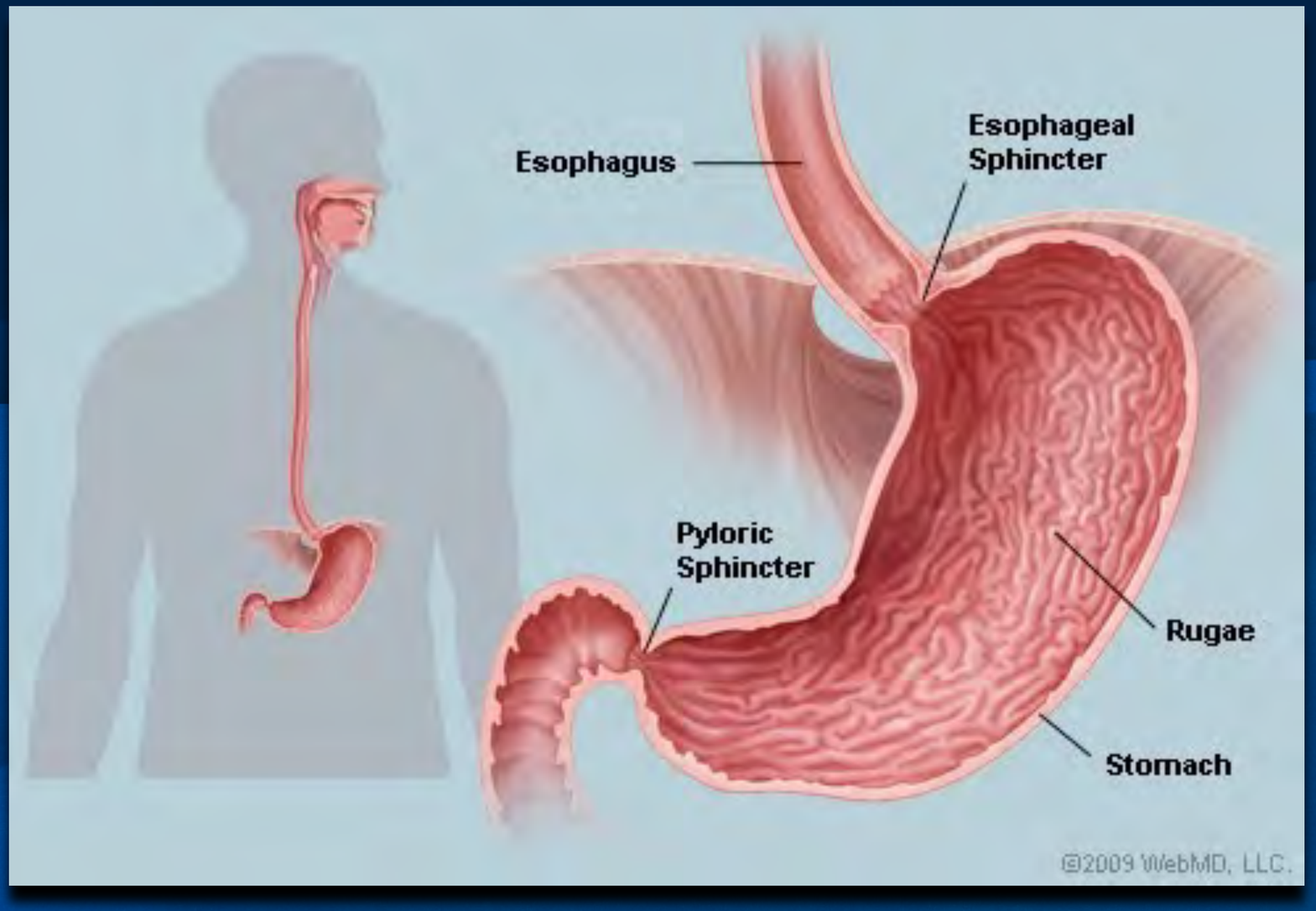
Worrisome Signs

- Unexplained weight loss
- Blood in saliva
- Severe problems swallowing food

★ Think - Esophageal Cancer
★ LATE signs = poor prognosis



Anatomy Lesson



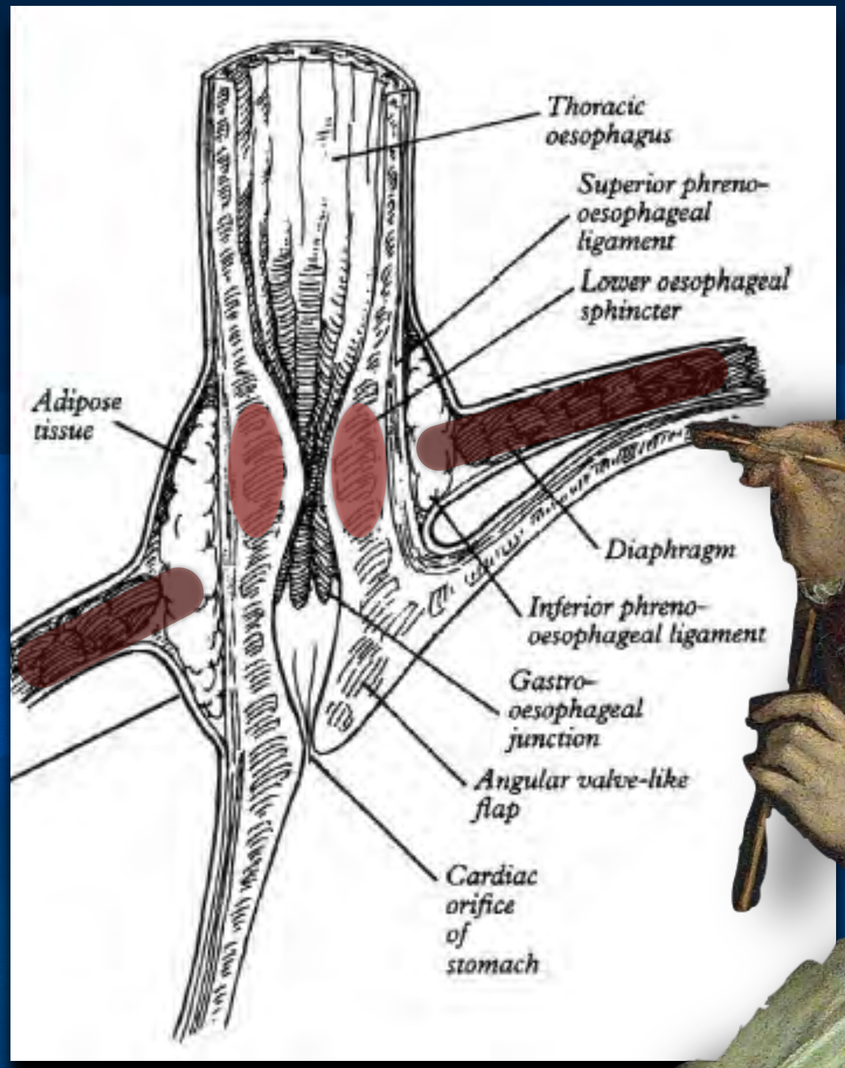
Anatomy Lesson

Lower Esophageal Sphincter Mechanism

Two Parts:

1) Lower Esophageal Sphincter (LES)

2) Diaphragm Pinch

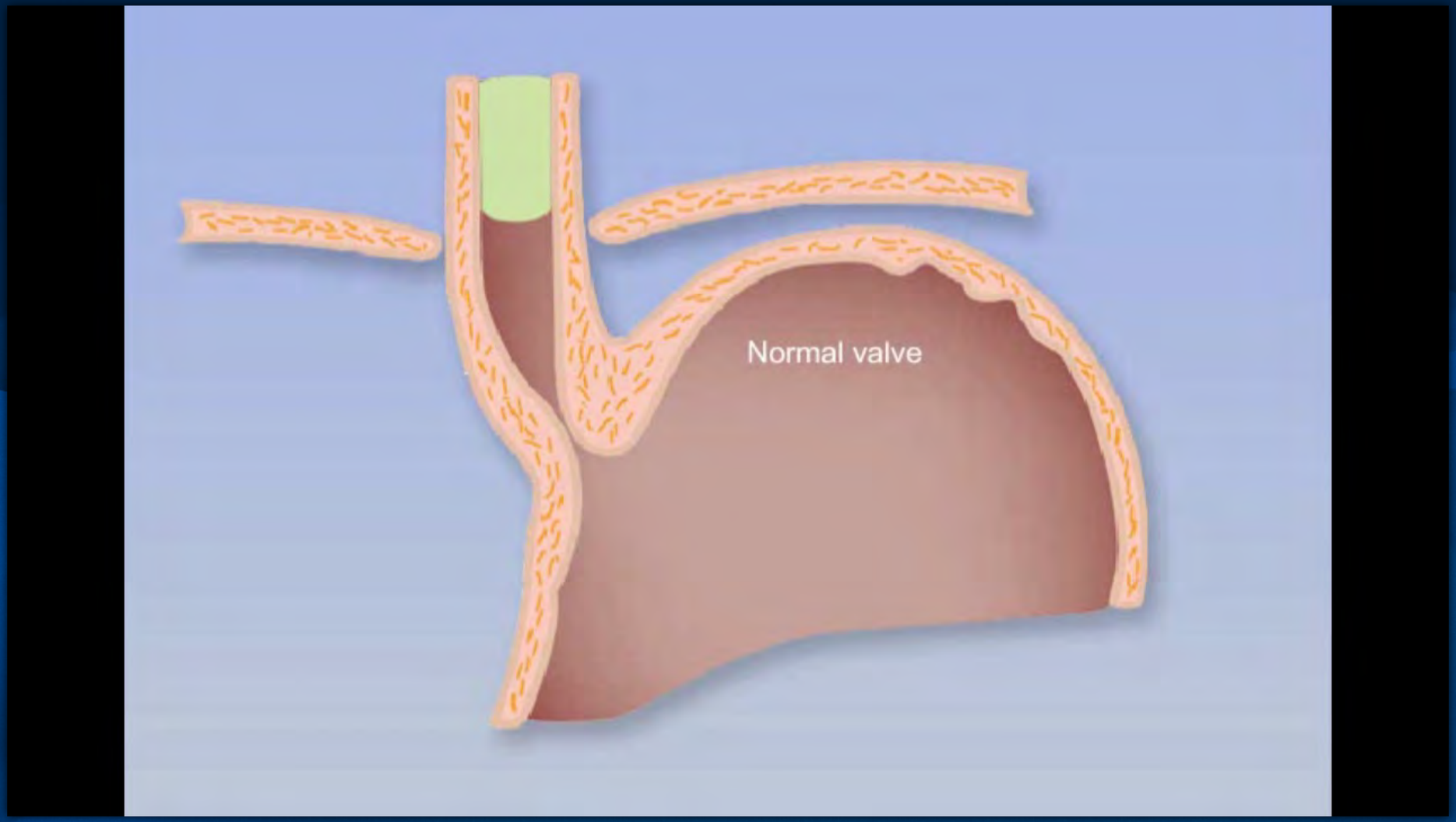


GERD = Valve Failure

LES Valve Works

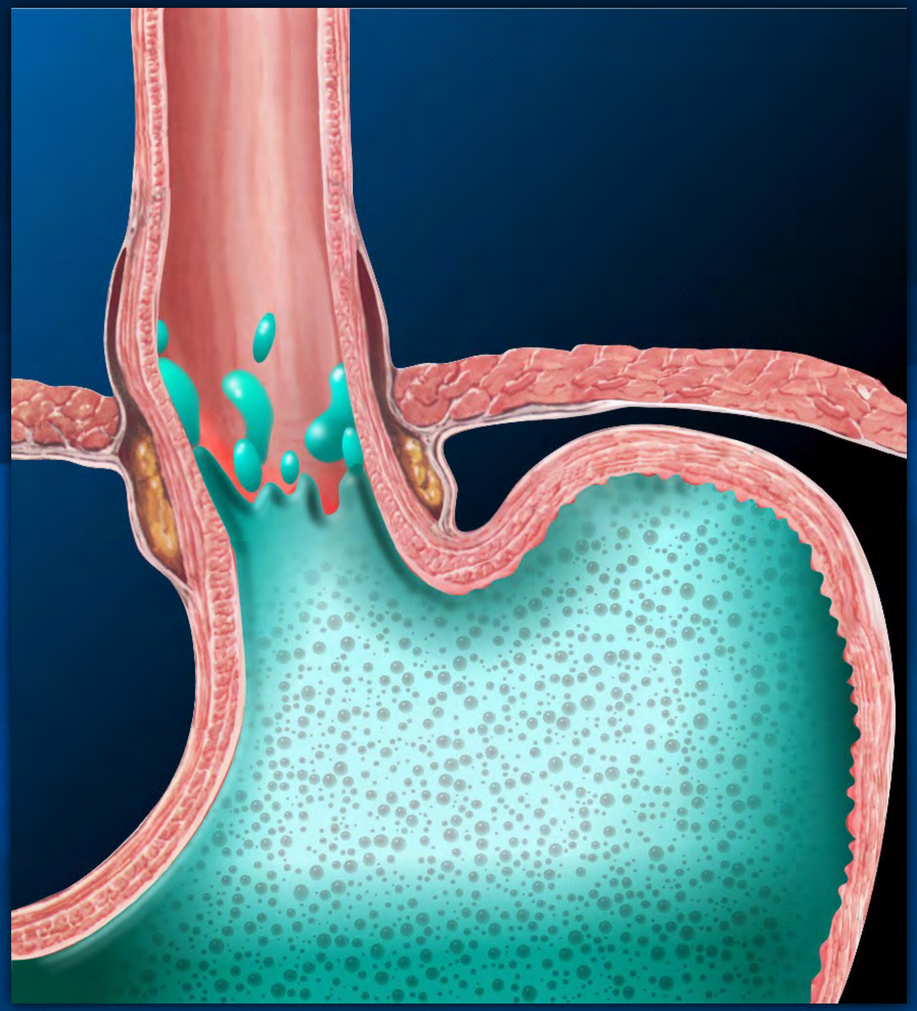
Normal

LES Valve: Good



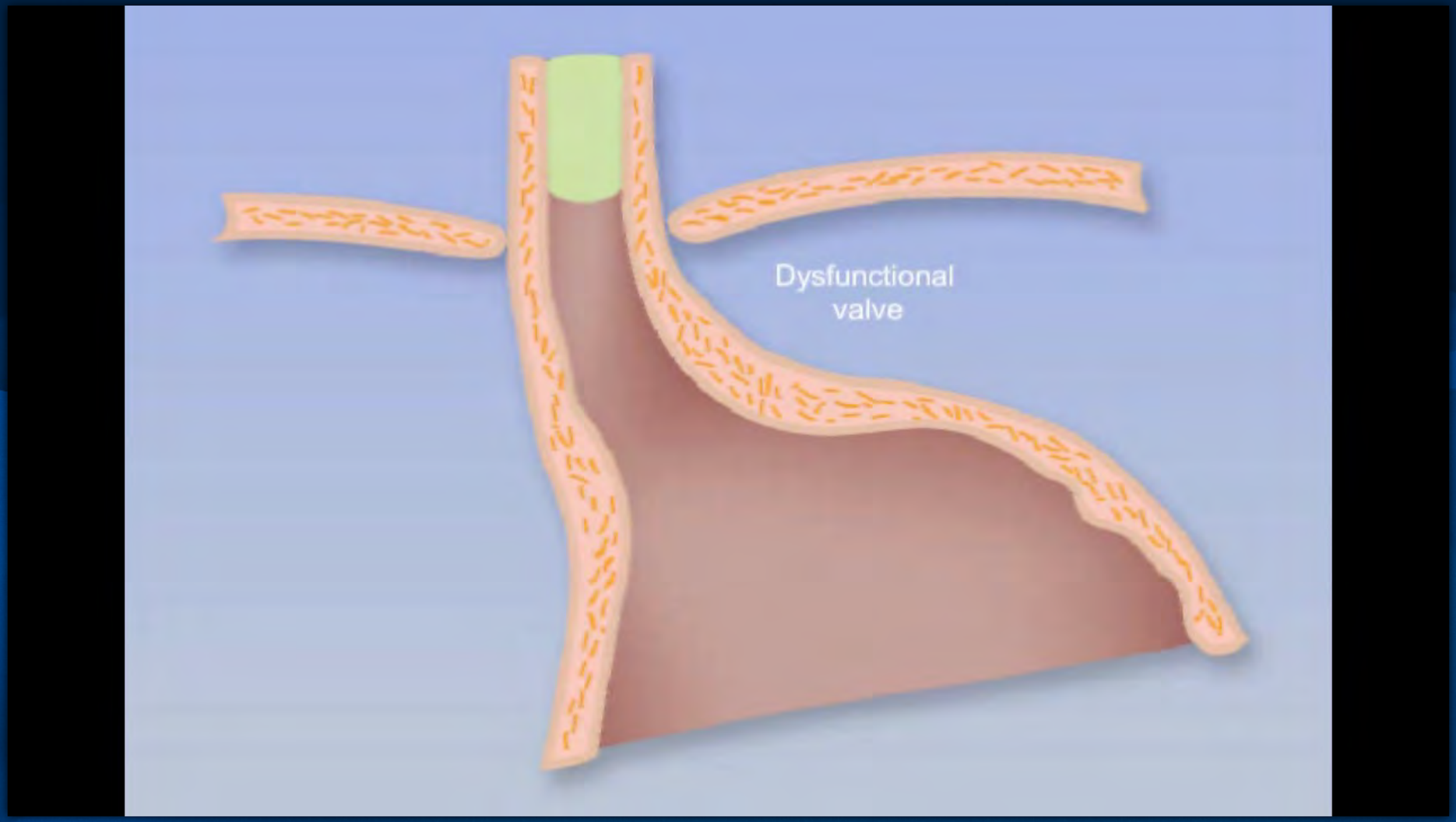
Normal - Lower Esophageal Sphincter

LES Valve Fails - Reflux



GERD

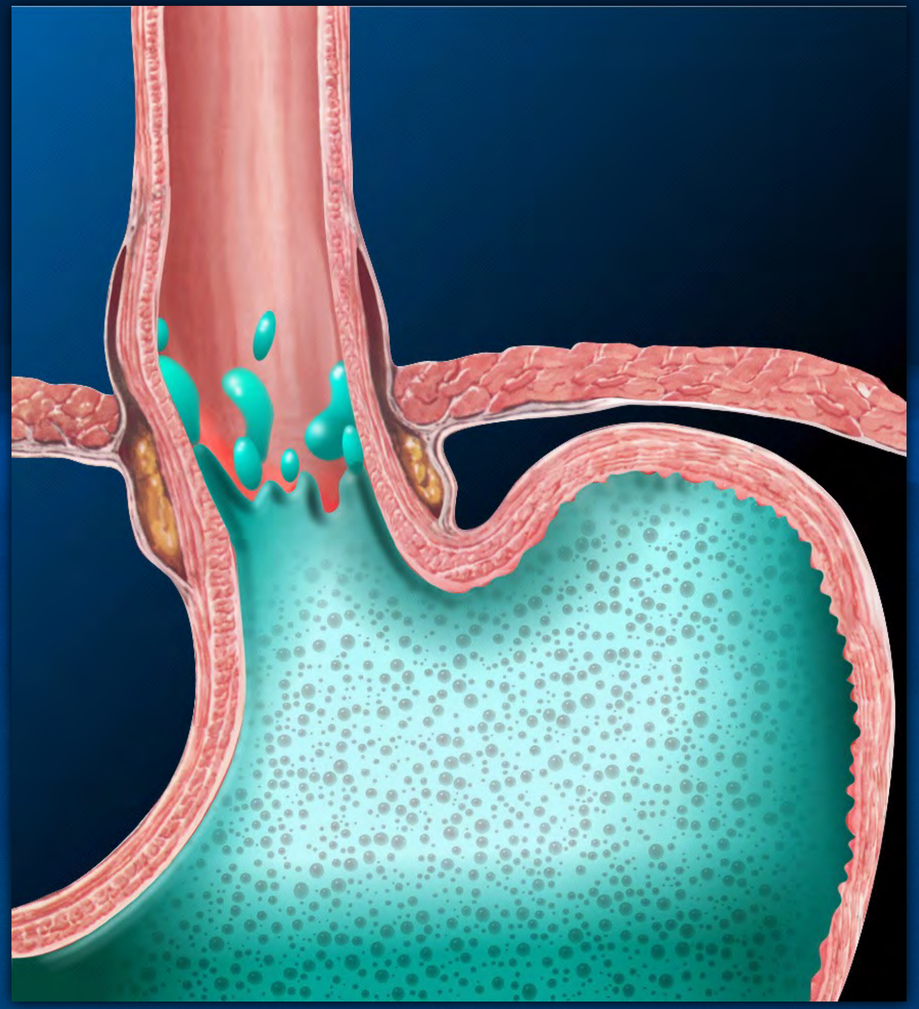
LES Valve: Bad



Compromised - Lower Esophageal Sphincter

Side by Side

Normal



GERD patient

Where is GERD ?

GERD is Everywhere

GERD is Everywhere

North America

Only one of the 15 studies published since the original review reported GERD prevalence in the USA. This was a survey carried out in 2003 among residents aged 20–95 years in Olmsted County, Minnesota, USA (table 1).8 A bowel-disease questionnaire that included questions assessing reflux symptoms was sent to 4194 individuals, and 2273 questionnaires (54.2%) were completed and returned. A total of 411 individuals (18.1%) had GERD, defined as at least weekly heartburn and/or regurgitation. This prevalence estimate is similar to that reported in papers published in 1997 and 1999 assessing the same underlying population (approximately 20% in both

…prevalence of GERD in the USA to be 18.1-27.8%…

80% overall in the USA12), and is sociodemographically similar to the US white population. Another paper included in the 2005 review reported the prevalence of at least weekly heart-burn and/or regurgitation in an employed population in the southern USA to be 27.8%.13 Taken together, the four studies that reported the prevalence of GERD defined as at least weekly heartburn and/or regurgitation (not heartburn and regurgitation separately) in the original review and the updated searches show the prevalence of GERD in the USA to be 18.1%–27.8% (sample size-weighted mean 19.8%).”

El-Serag HB, Sweet S, Winchester C, et al. Update on the epidemiology of gastro-oesophageal reflux disease: a systematic review. Gut. 2014. 63(6): 871-80.

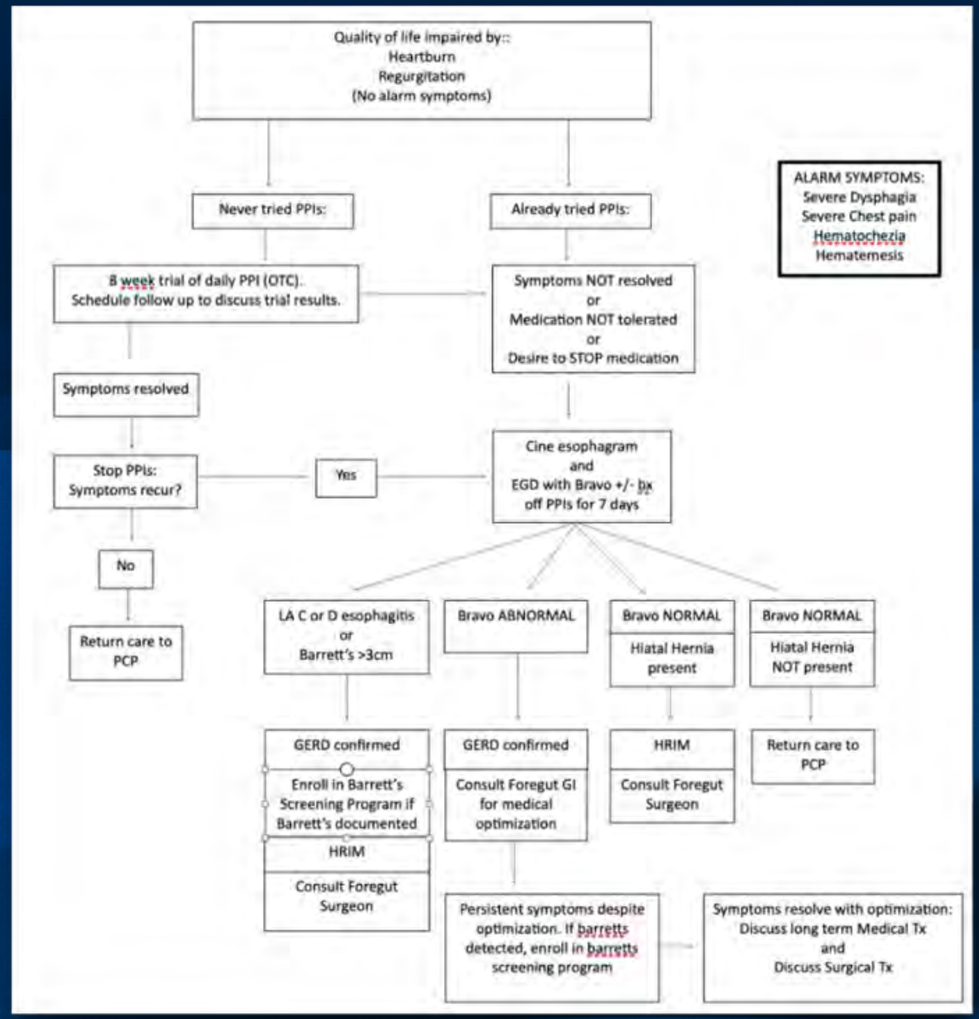
GERD is Everywhere

GERD is Everywhere

How are we managing GERD ?

We’re NOT !

GERD Algorithm



GERD is Complex to Navigate

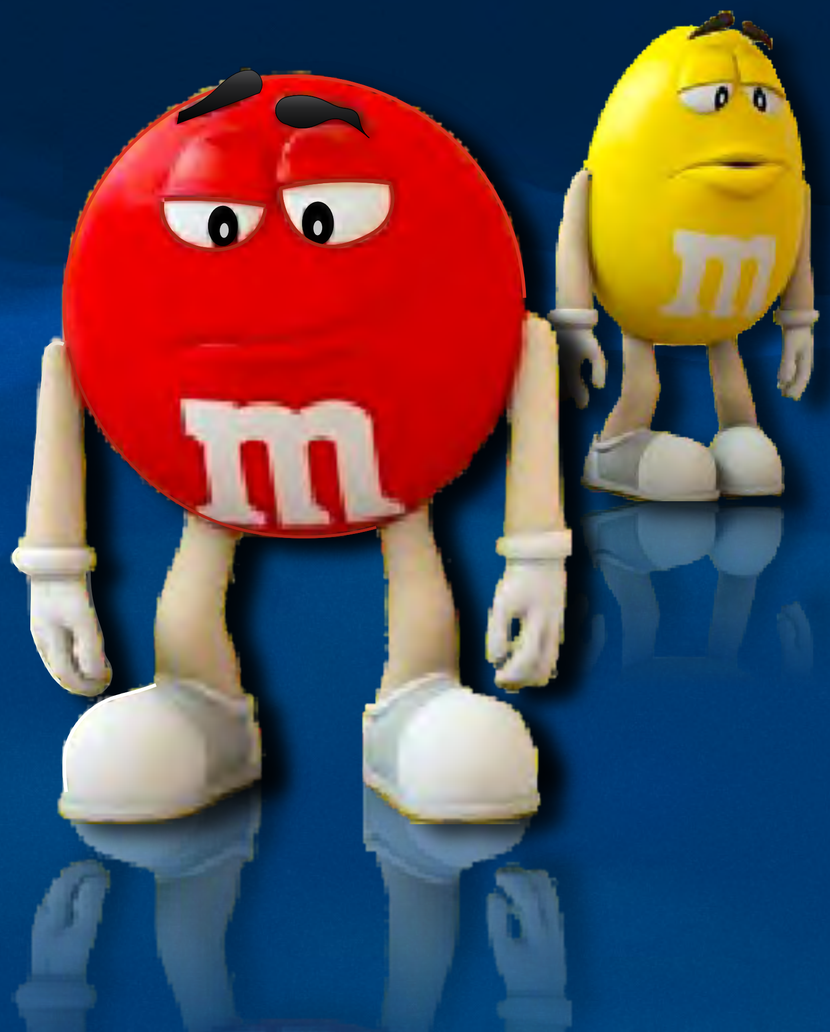
Patients - Self Directed

OTC Medications

Primary Care Physicians

Lifestyle Modifications

- NO Alcohol
- NO Caffeine
- NO Chocolate
- Don’t eat late
- Sleep Sitting Up
- Lose Weight
- Stop Smoking



Long wait for GI

Easier to write a Rx

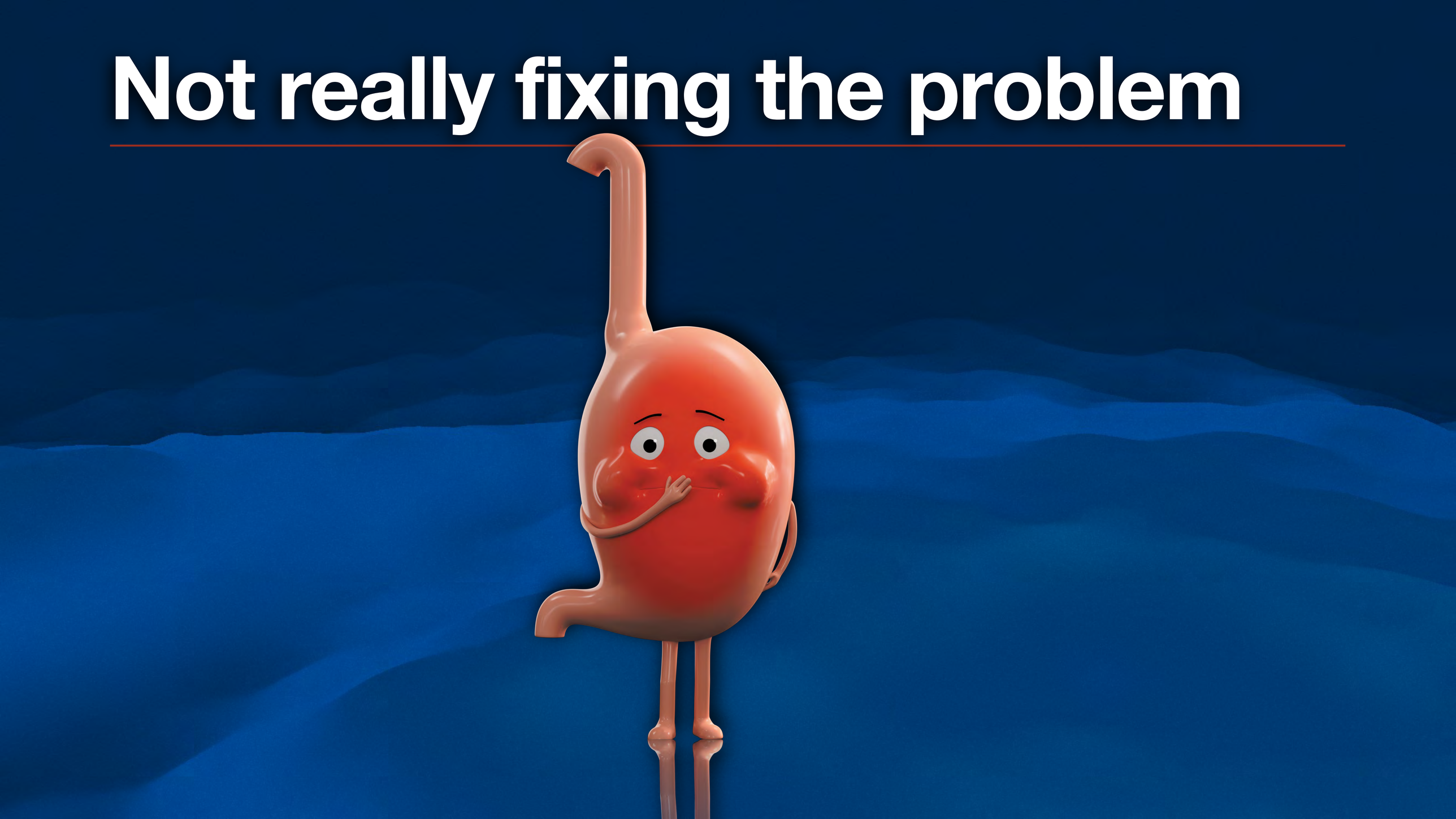
GERD is HUGE Drug Market

AT a minimum:

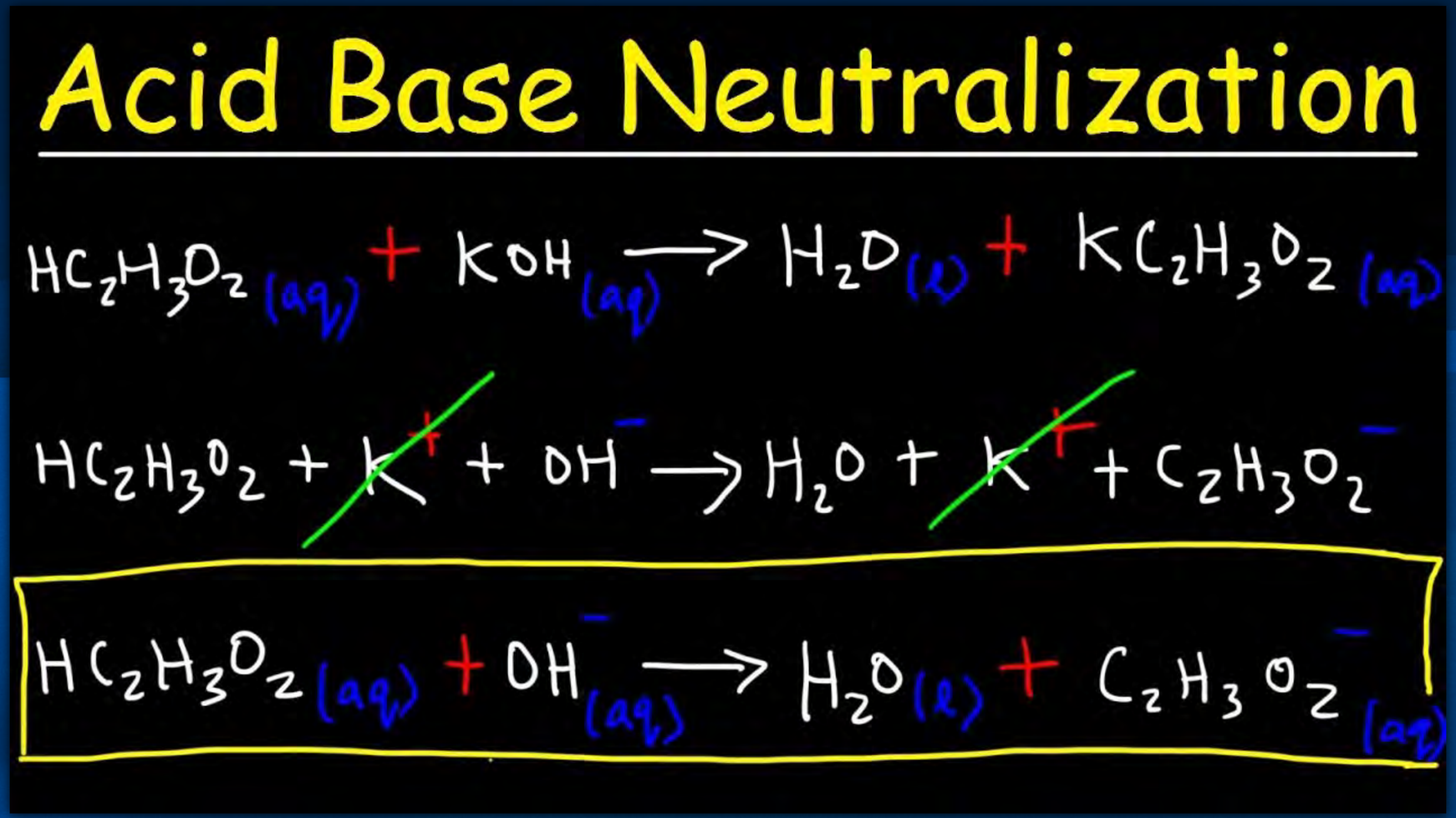
- 113 million PPI Rx's filled globally[1]
- $13 billion sales worldwide[2]
- US alone - 21 million people[3]

1. Madanick RD. Proton pump inhibitor side effects and drug interactions: much ado about nothing? Cleve Clin J Med, 2011. 78(1): p. 39–49.
2. Katz MH. Failing the acid test: benefits of proton pump inhibitors may not justify the risks for many users. Arch Intern Med, 2010. 170(9): p. 747–8.
3. El-Serag HB, Sweet S, Winchester CC, Dent J. Update on the epidemiology of gastroesophageal reflux disease: a systematic review. Gut. 2014;63(6):871–880.

Not really fixing the problem



Better Living via Chemistry

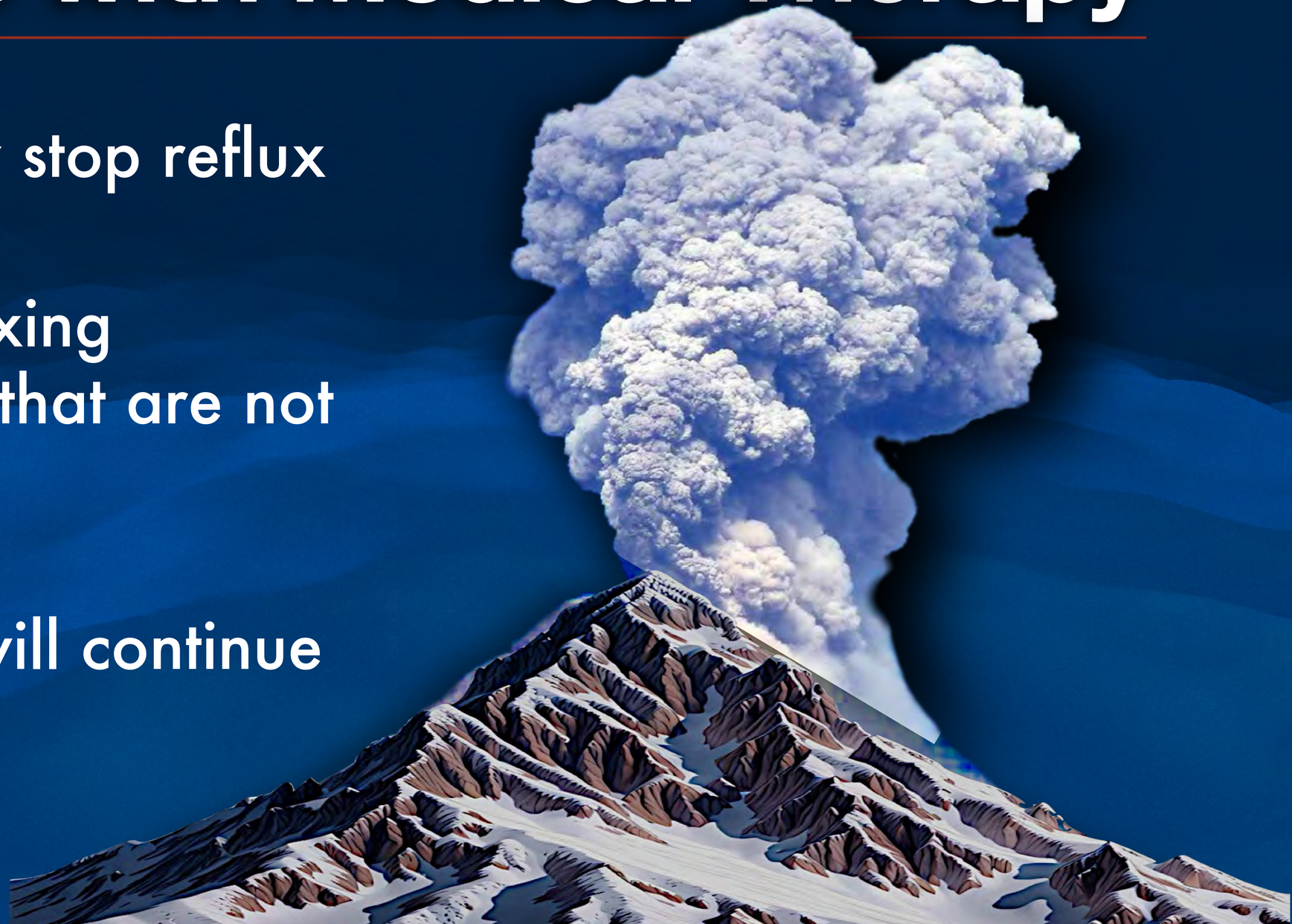


Problems with Medical Therapy

Doesn't actually stop reflux

- you keep refluxing stomach liquids that are not acidic

- regurgitation will continue



High Dissatisfaction

American Gastrointestinal Association Clinical Guidelines 2022 - as many as **half** of suspected GERD **patients get no relief** from acid suppression.

Studies also indicate that **40-50%** of patients are **dissatisfied** with the results of medical therapy for GERD.

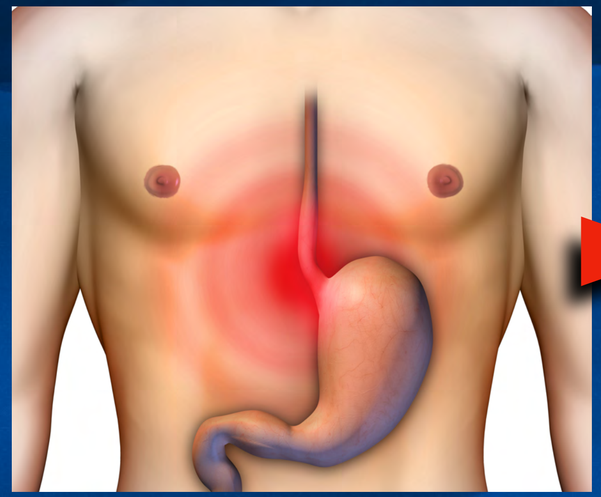
Problems with Medical Therapy

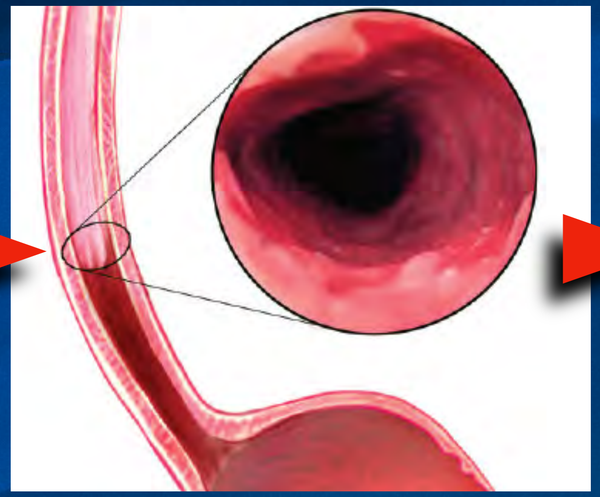
Doesn’t stop progression to Esophageal Cancer

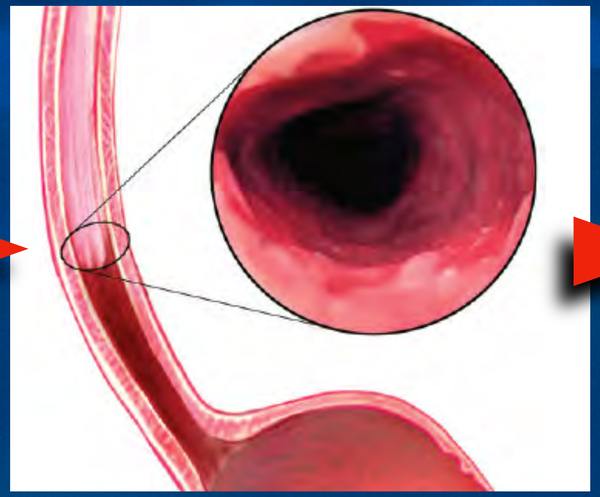
Progression to Cancer

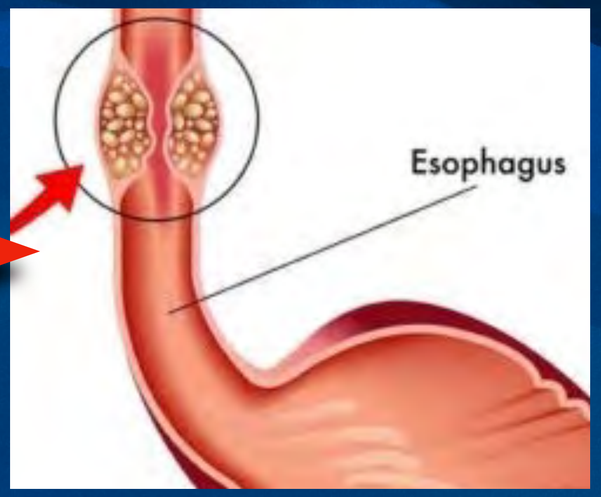
Gastroesophageal Reflux (GERD) → Nondysplastic Barrett's Esophagus (NDBE) → Dysplastic Barrett's Esophagus (LGD, HGD) → Esophageal Adenocarcinoma (EAC)

PRECANCER → CANCER

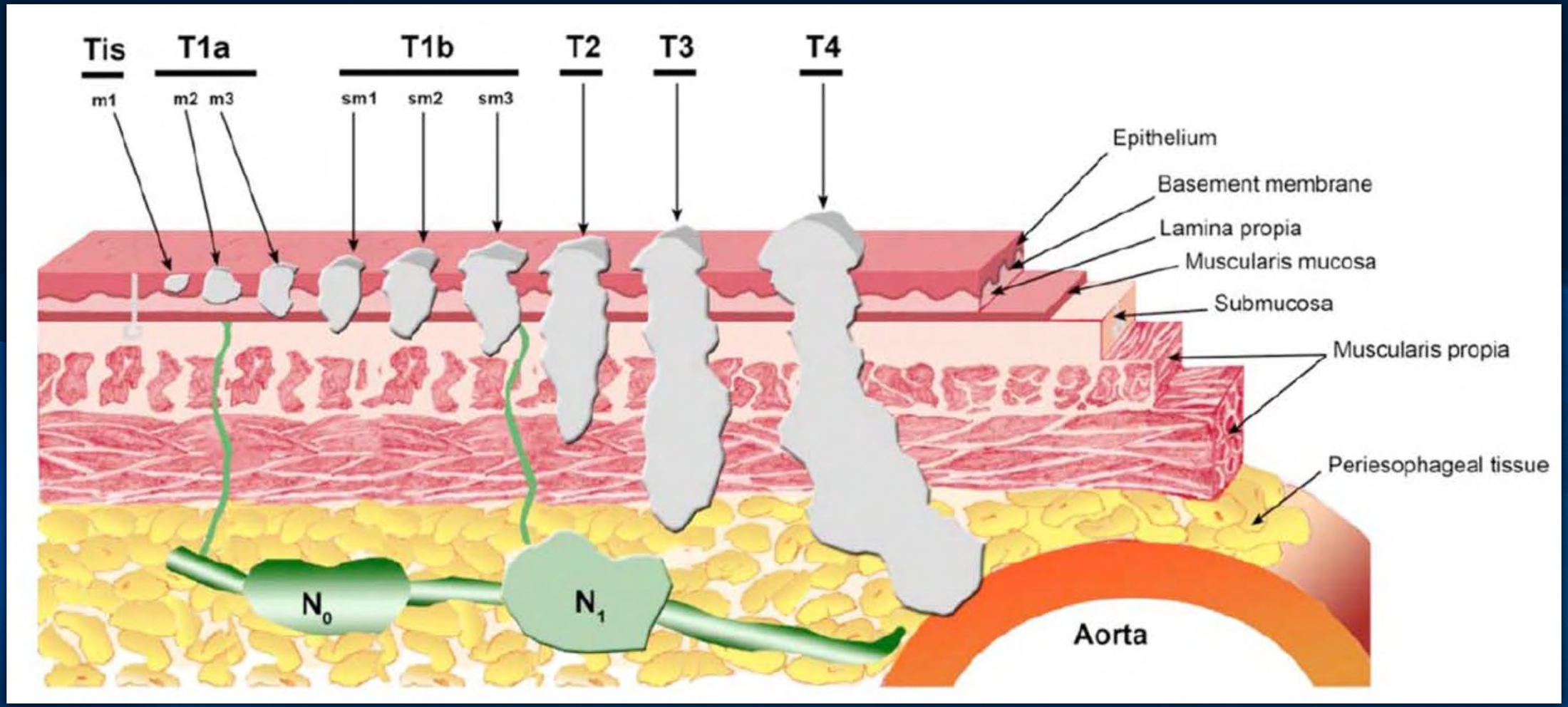






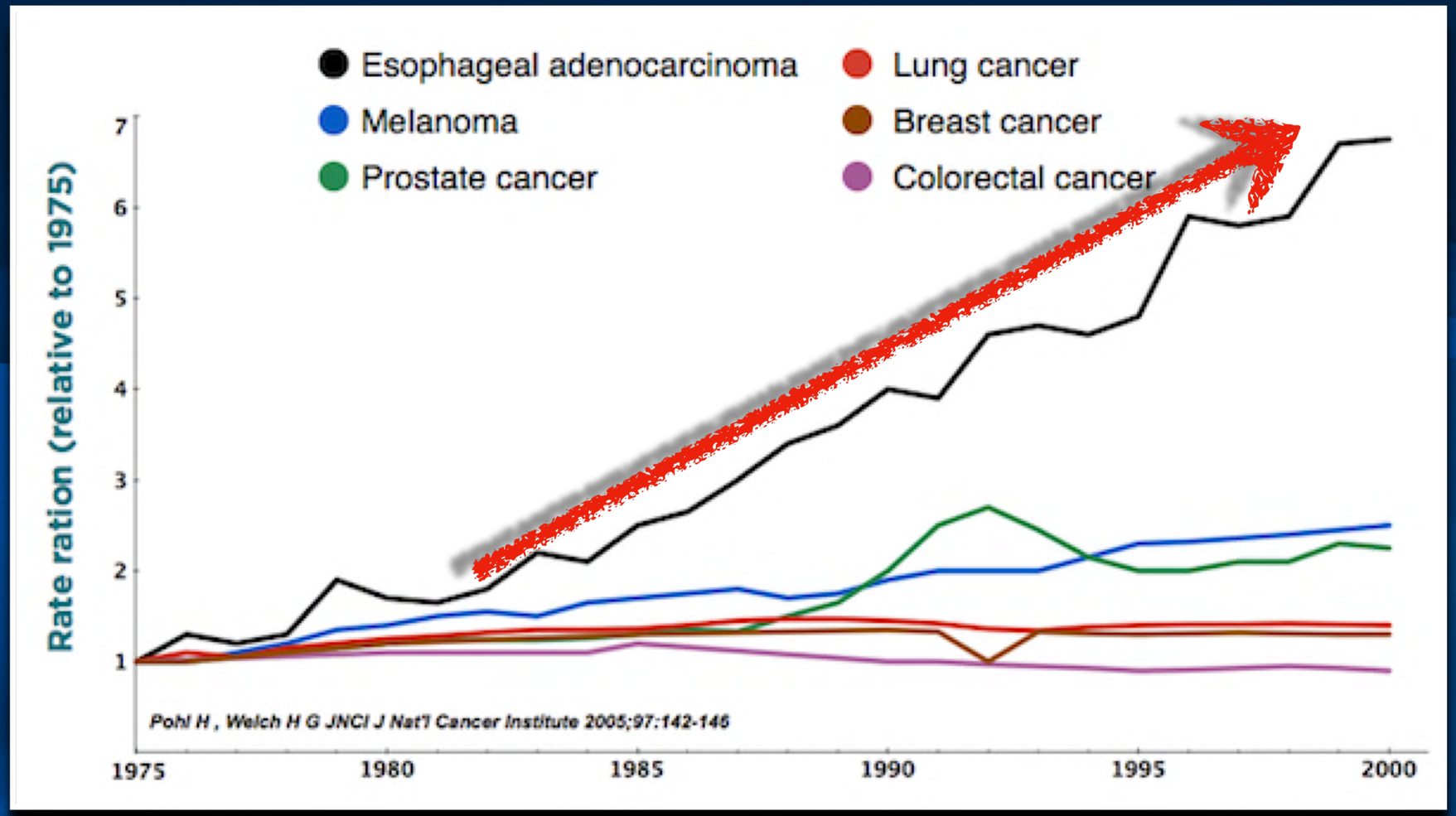


Progression of Cancer



Gamboa et al. Cancer 2016;122:2150

Incidence of Esophageal Cancer



Esophageal Cancer

Estimated New Cases in 2023	**21,560**
% of All New Cancer Cases	**1.1%**
Estimated Deaths in 2023	**16,120**
% of All Cancer Deaths	**2.6%**

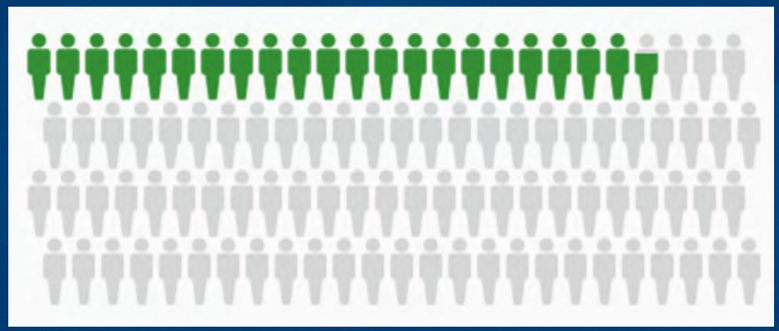
NIH NATIONAL CANCER INSTITUTE
Surveillance, Epidemiology, and End Results Program

*https://seer.cancer.gov/statfacts/html/esoph.html December 9,.2023

5-Year
Relative Survival

21.7%

2013-2019



Gray figures = died from esophageal cancer
Green figures = those who have survived 5 years or more

Breast Cancer

Estimated New Cases in 2023	**297,790**
% of All New Cancer Cases	**15.2%**
Estimated Deaths in 2023	**43,170**
% of All Cancer Deaths	**7.1%**

5-Year
Relative Survival

90.8%

2013-2019

Gray figures = died from breast cancer
Green figures = those who have survived 5 years or more

NIH NATIONAL CANCER INSTITUTE
Surveillance, Epidemiology, and End Results Program

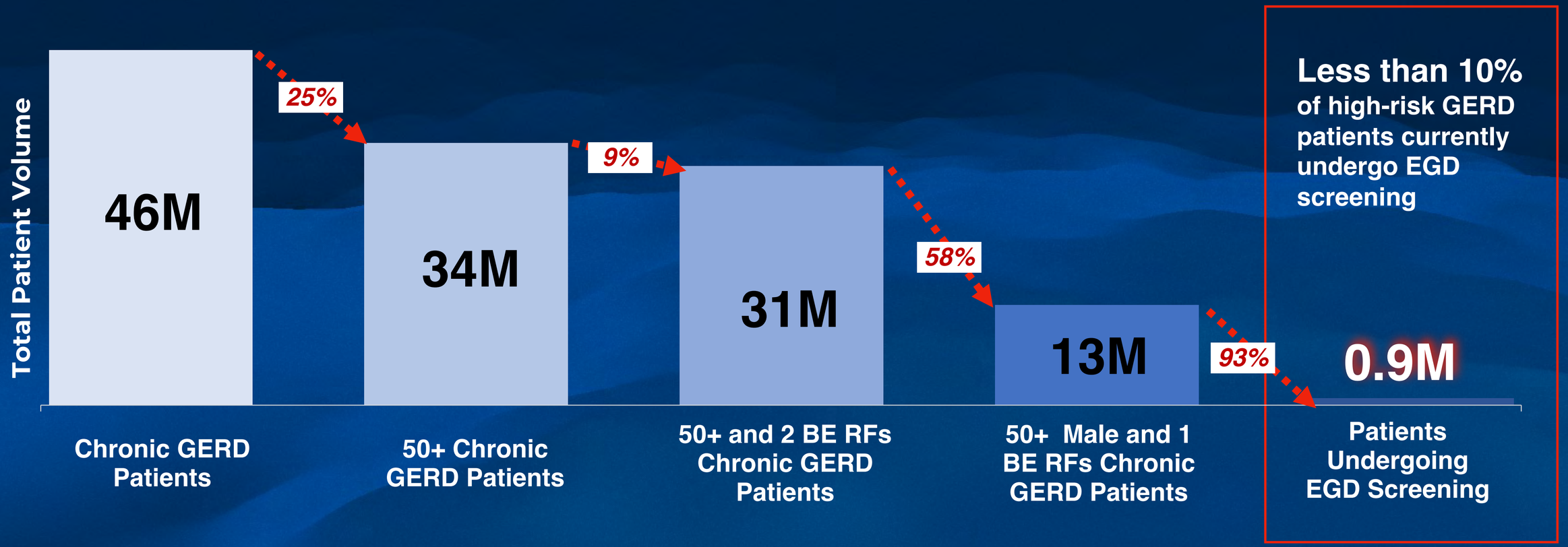
*https://seer.cancer.gov/statfacts/html/breast.html December 9,.2023

Are Meds Helping ?

- Increase in esophageal cancer parallels the use of acid-suppressive medications

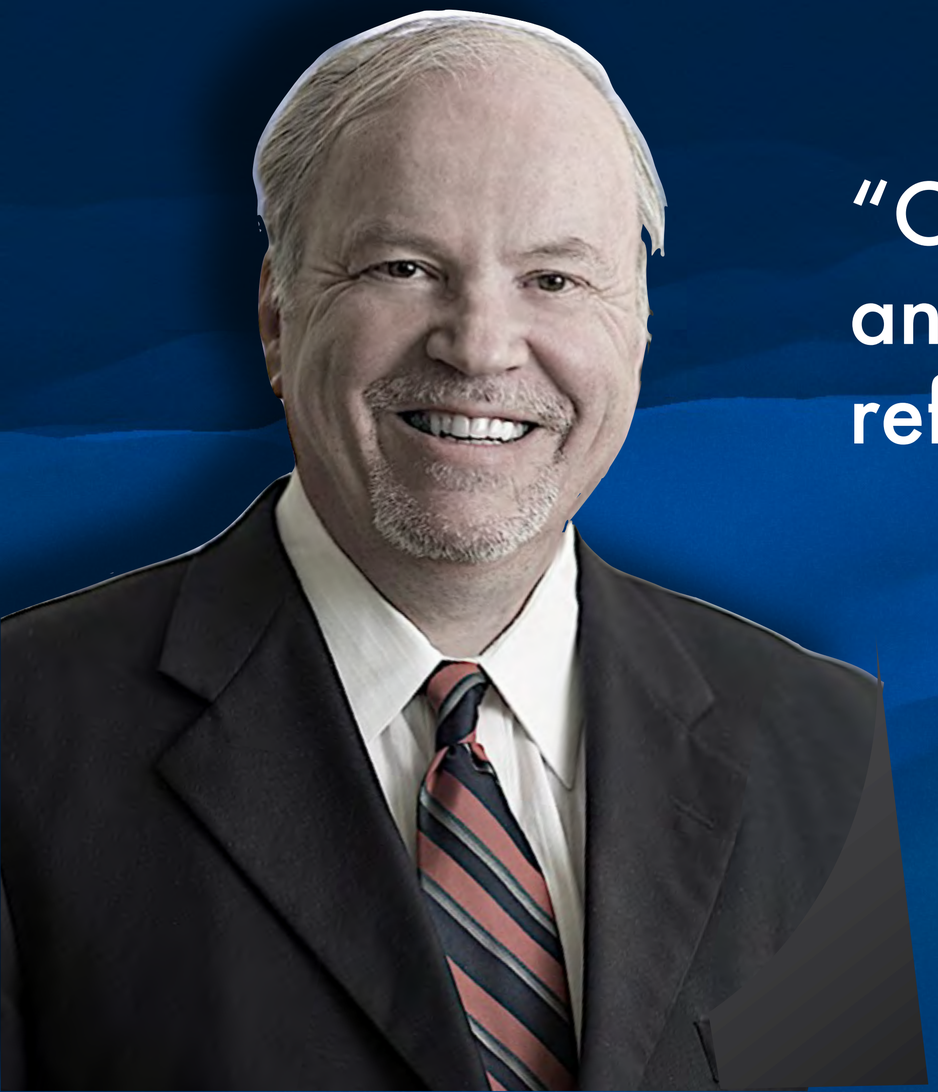
- Even if PPIs aren’t causing cancer (and some think they may be), they certainly aren’t stopping it

Inadequate Screening



Sources: DRG; GIE Journal ; Deloitte Analysis, on file Lucid Dx

Esophageal Cancer



"Our current approach to the prevention and management of gastroesophageal reflux disease is an abstract failure."

Jeff H. Peters, MD

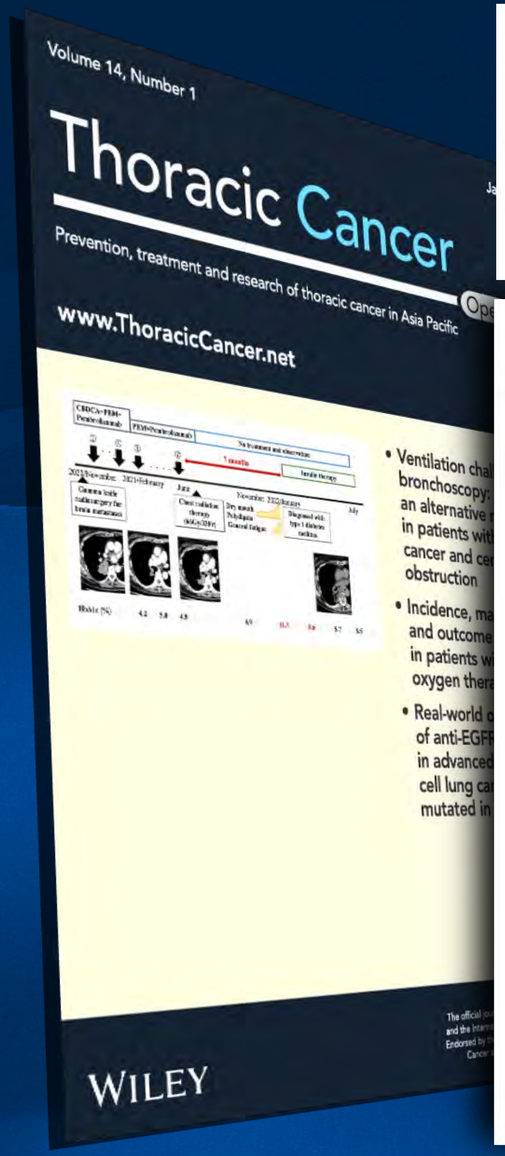
Quick Story

“EsoCheck® & Heartburn Chef ”

Perspective of the Future

Patients are Everywhere

Things are going to get worse

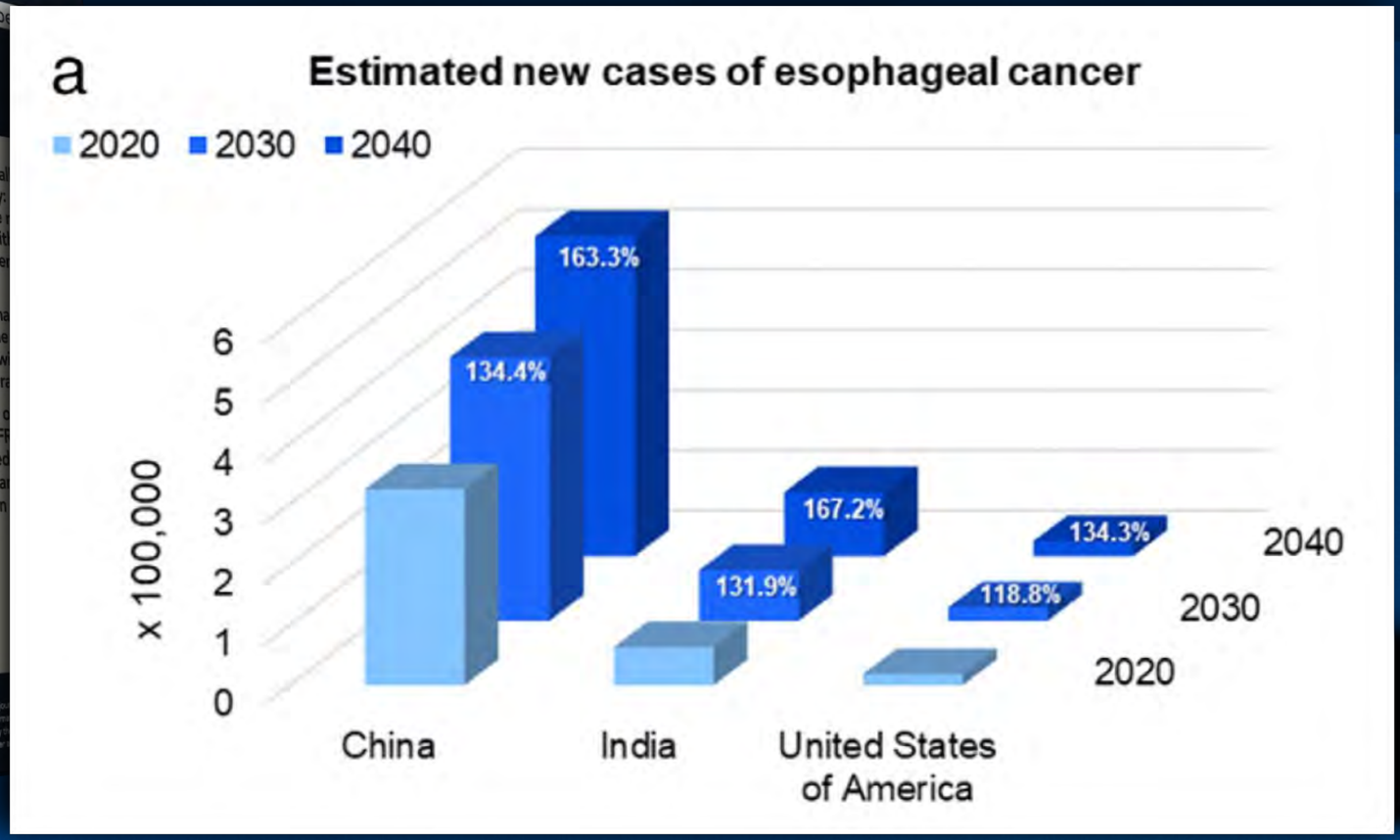


REVIEW

WILEY

Epidemiology of esophageal cancer in 2020 and projections to 2030 and 2040

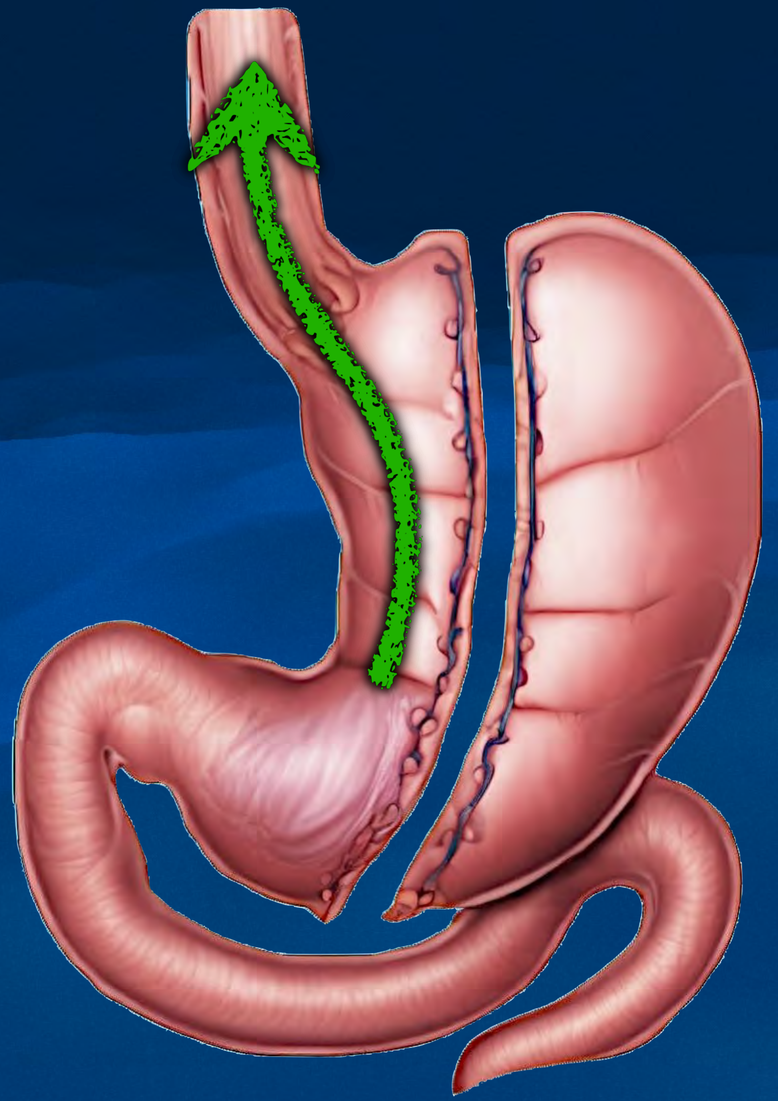
Thorac Cancer. 2023 Jan; 14(1): 3–11.



PCABs


kolmar
전문의약품
50mg
300정/병
케이캡정 50밀리그램
(테고프라잔)
RFID
씨제이헬스케어주식회사
제조·판매자 씨제이헬스케어주식회사
충청북도 청주시 흥덕구 오송읍 오송생명2로 239
고객상담센터 : 080-700-6802
http://www.cjp.co.kr
공동판매자 (주)종근당
본사: 서울특별시 서대문구 충정로 8 (충정로 3가)
50mg
30정

Sleeve Gastrectomy



Aging Population

ACID REFLUX

I read in the news that long-term use of the proton pump inhibitors I take for acid reflux may be linked to dementia. What else I can do for digestive relief?

WHILE THERE IS no definite science showing that proton pump inhibitors (PPIs) cause dementia, some studies have shown that the longer you take them, the greater your dementia risk. Though PPIs are a powerful tool in fighting reflux and its negative health consequences, it might make sense to explore other long-term options.

Progression to Cancer

EARLY DETECTION

TOO LATE

Gastroesophageal Reflux (GERD)

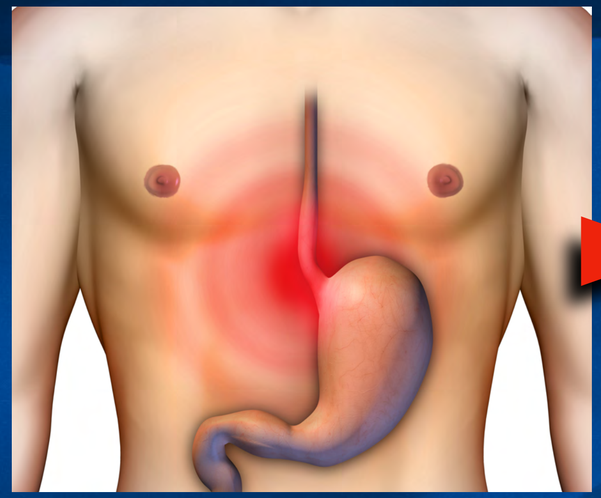
Nondysplastic Barrett's Esophagus (NDBE)

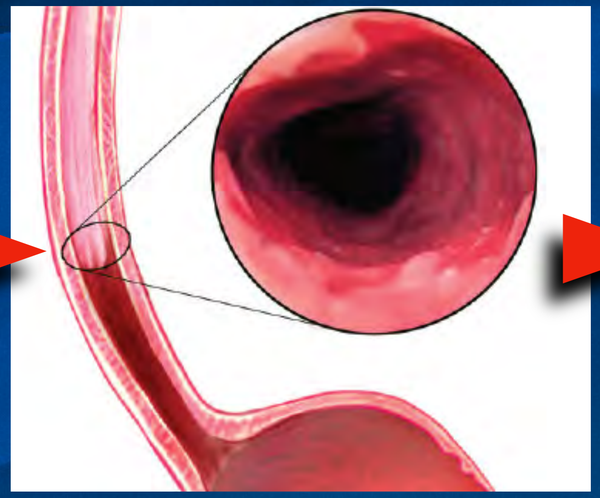
Dysplastic Barrett's Esophagus (LGD, HGD)

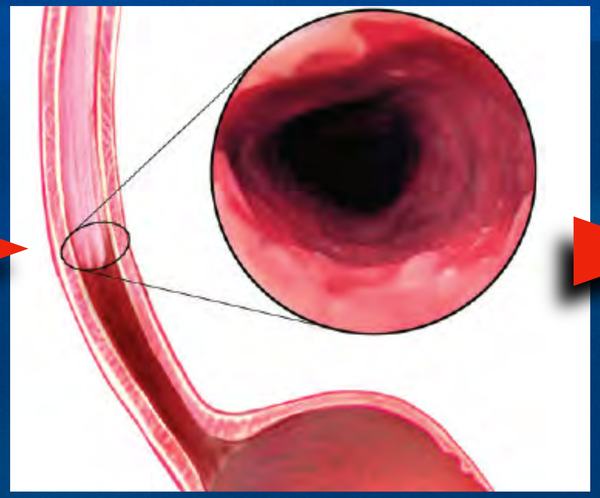
Esophageal Adenocarcinoma (EAC)

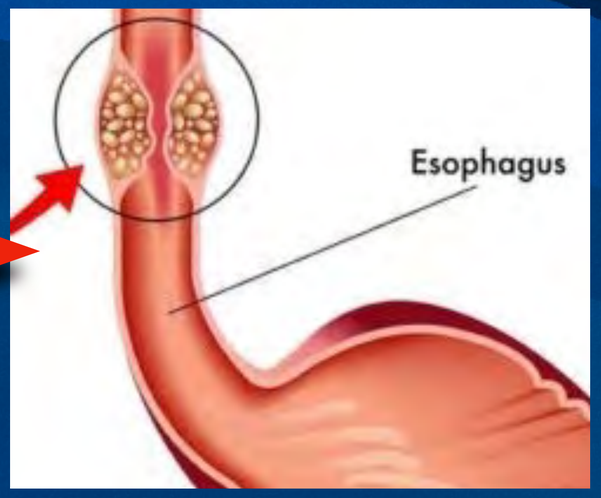
PRECANCER

CANCER









Window of Opportunity

EARLY DETECTION

TOO LATE

Gastroesophageal Reflux (GERD)

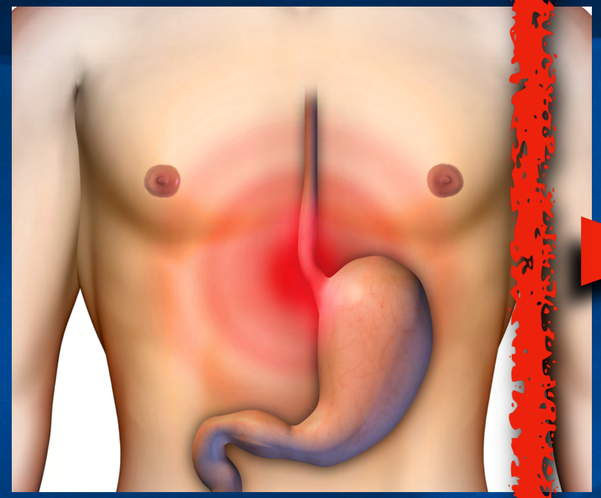
Nondysplastic Barrett's Esophagus (NDBE)

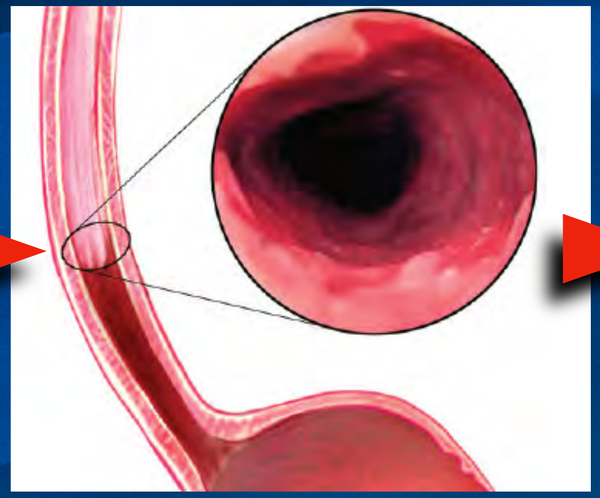
Dysplastic Barrett's Esophagus (LGD, HGD)

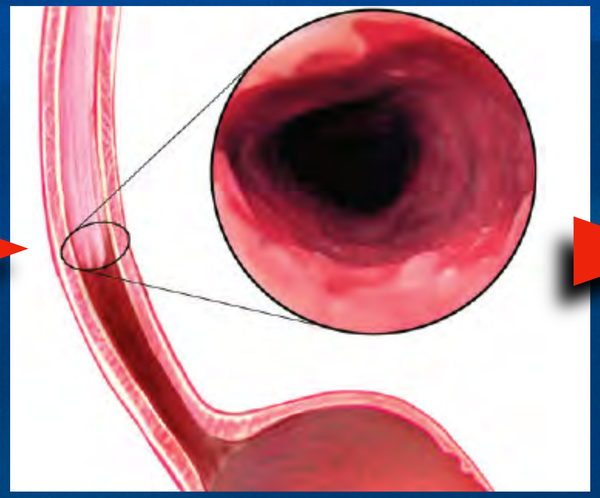
Esophageal Adenocarcinoma (EAC)

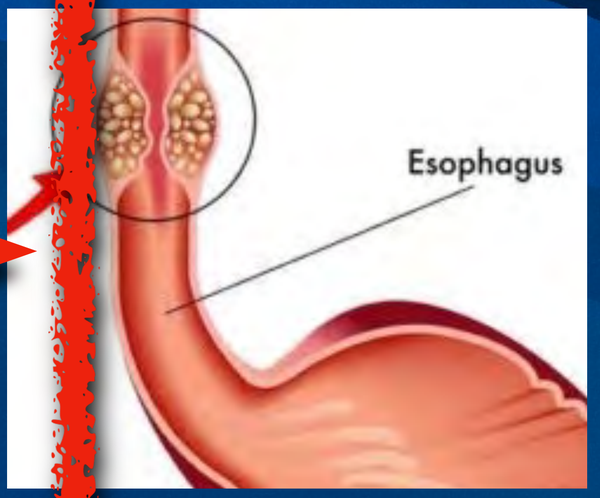
PRECANCER

CANCER

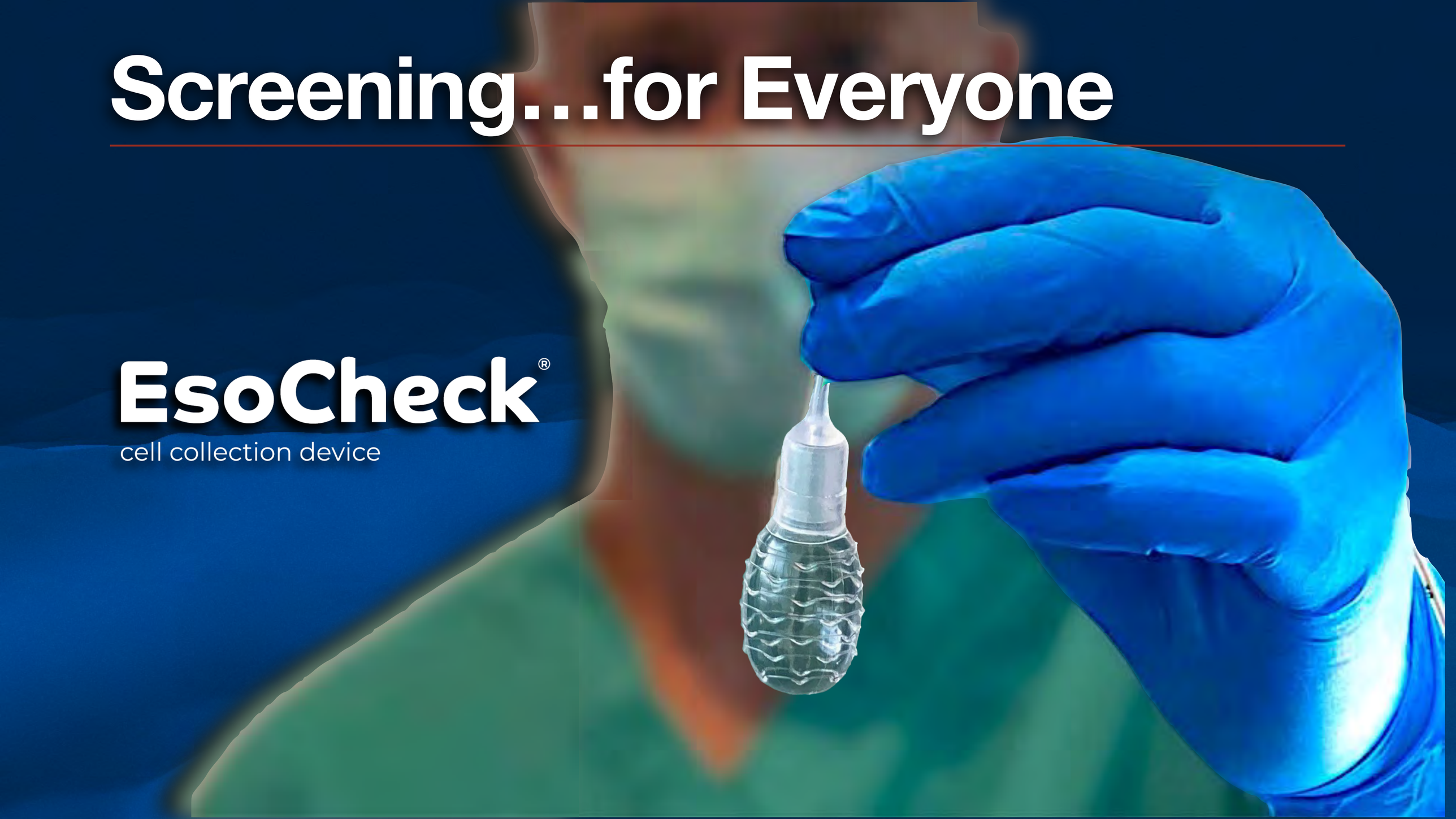








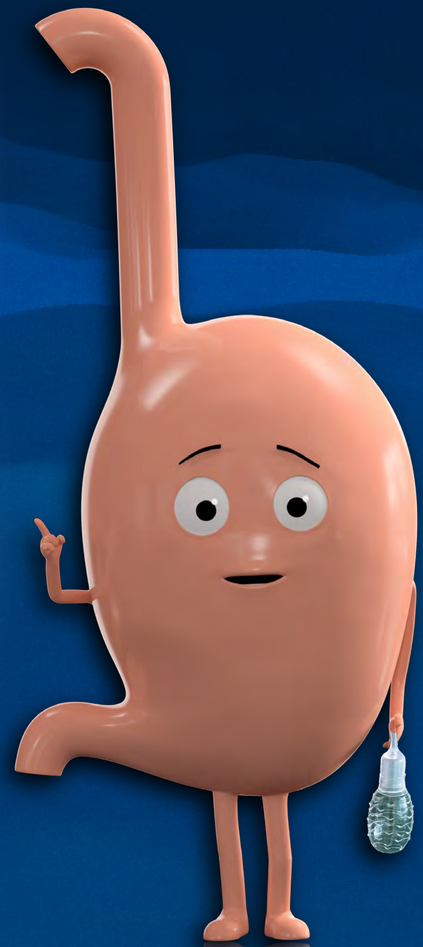
Screening…for Everyone



Referral is Easy for PCP

EsoCheck™
cell collection device

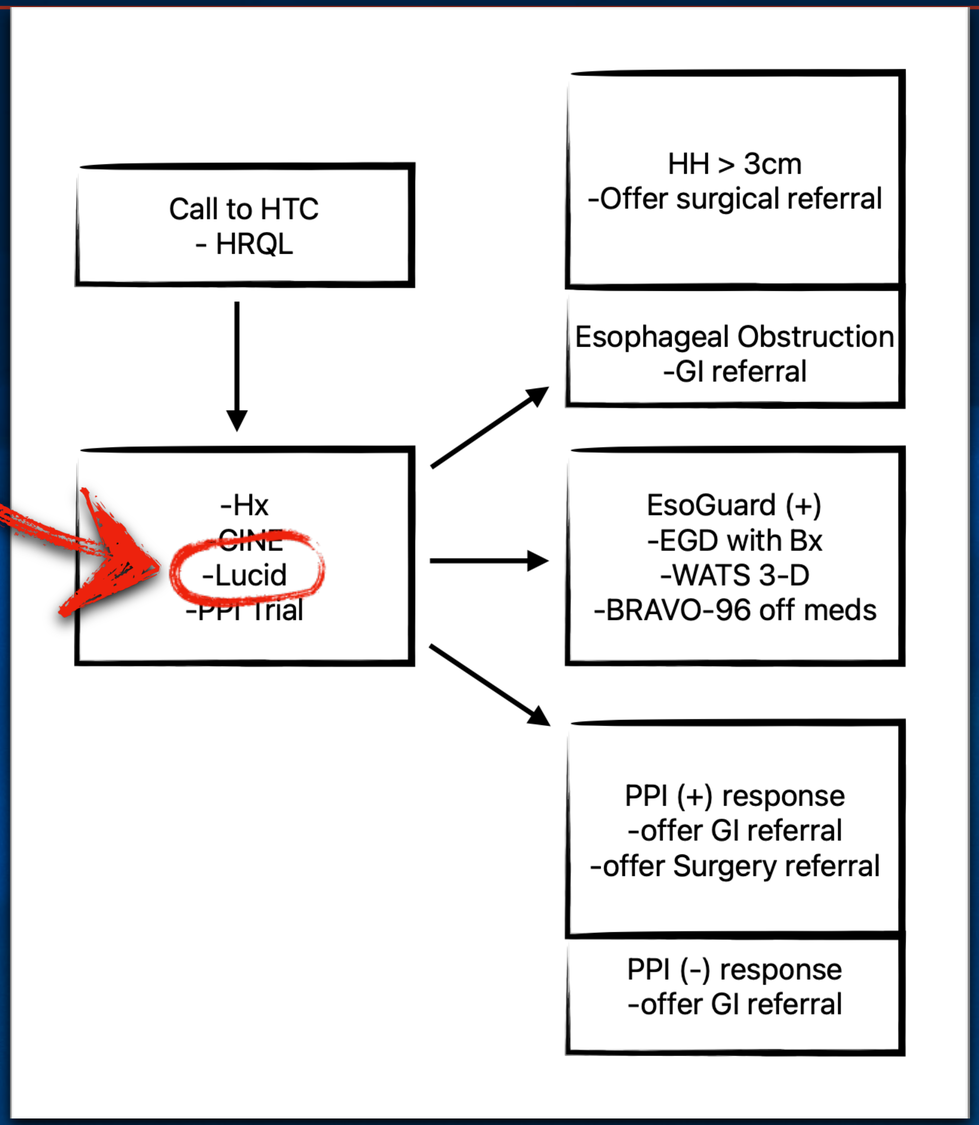
EsoGuard™
esophageal DNA test



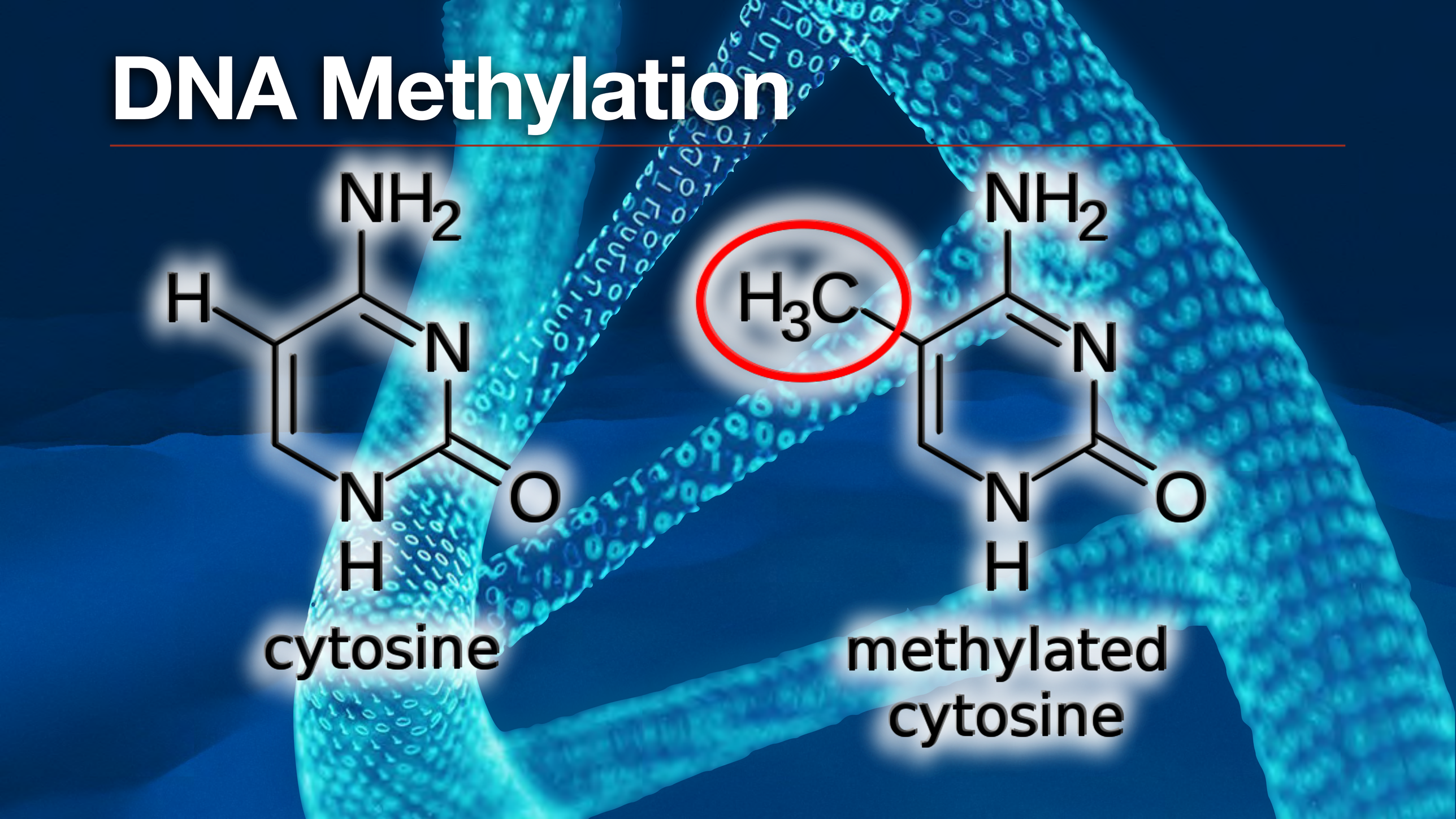
Lucid is well Positioned

Lucid Test Center
Lone Tree,
Colorado

Denver Heartburn Center

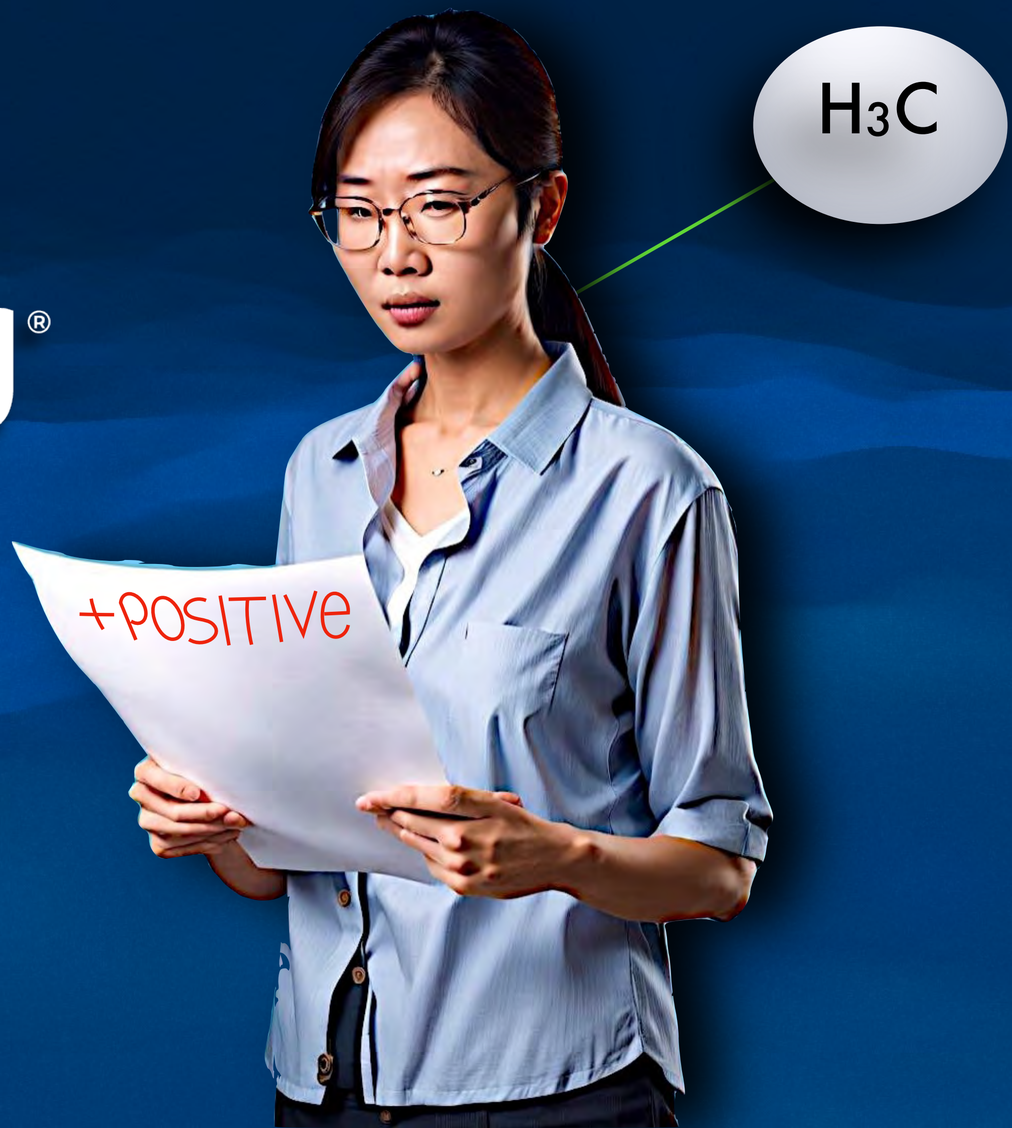


DNA Methylation

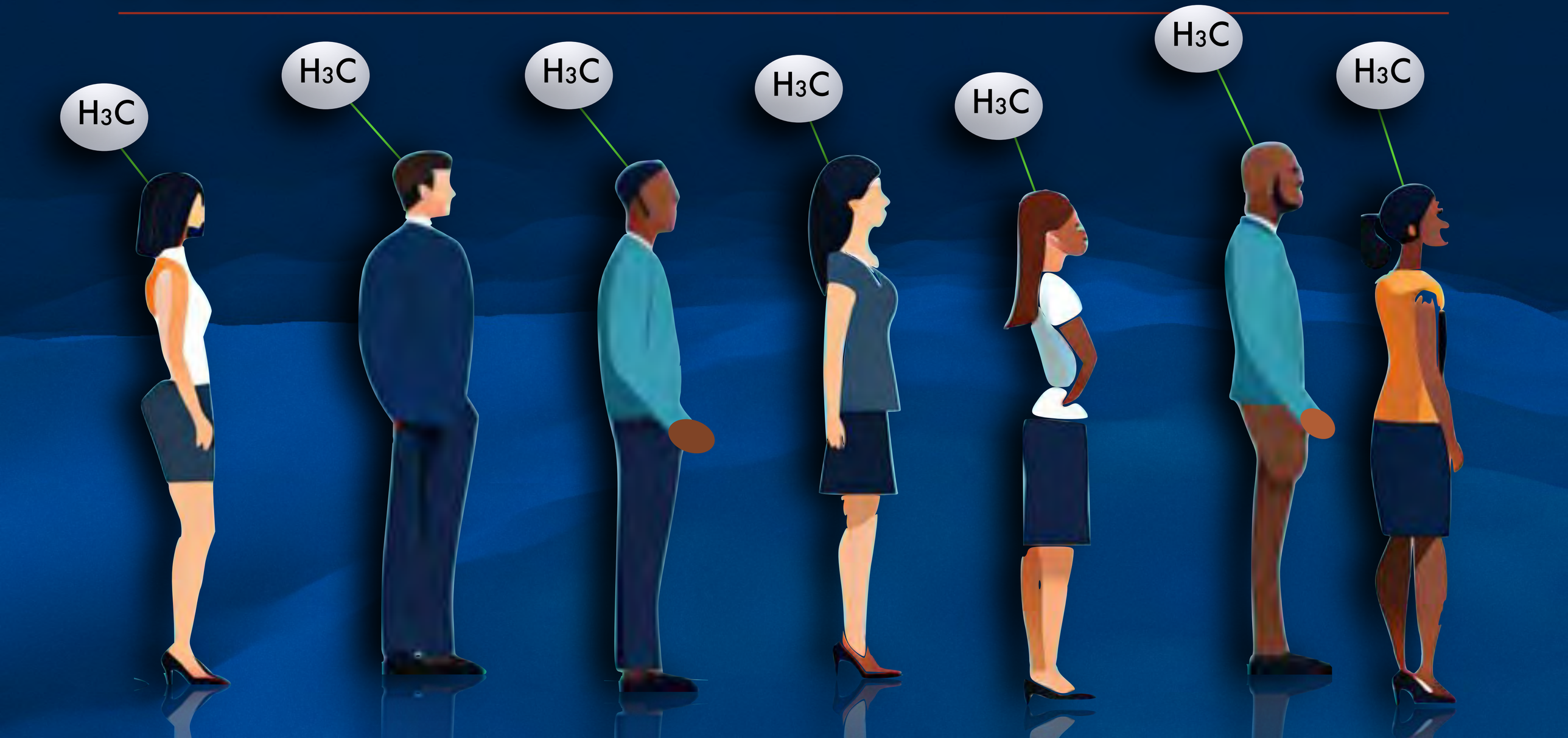


Identify Critical Patients

EsoGuard®
esophageal DNA test

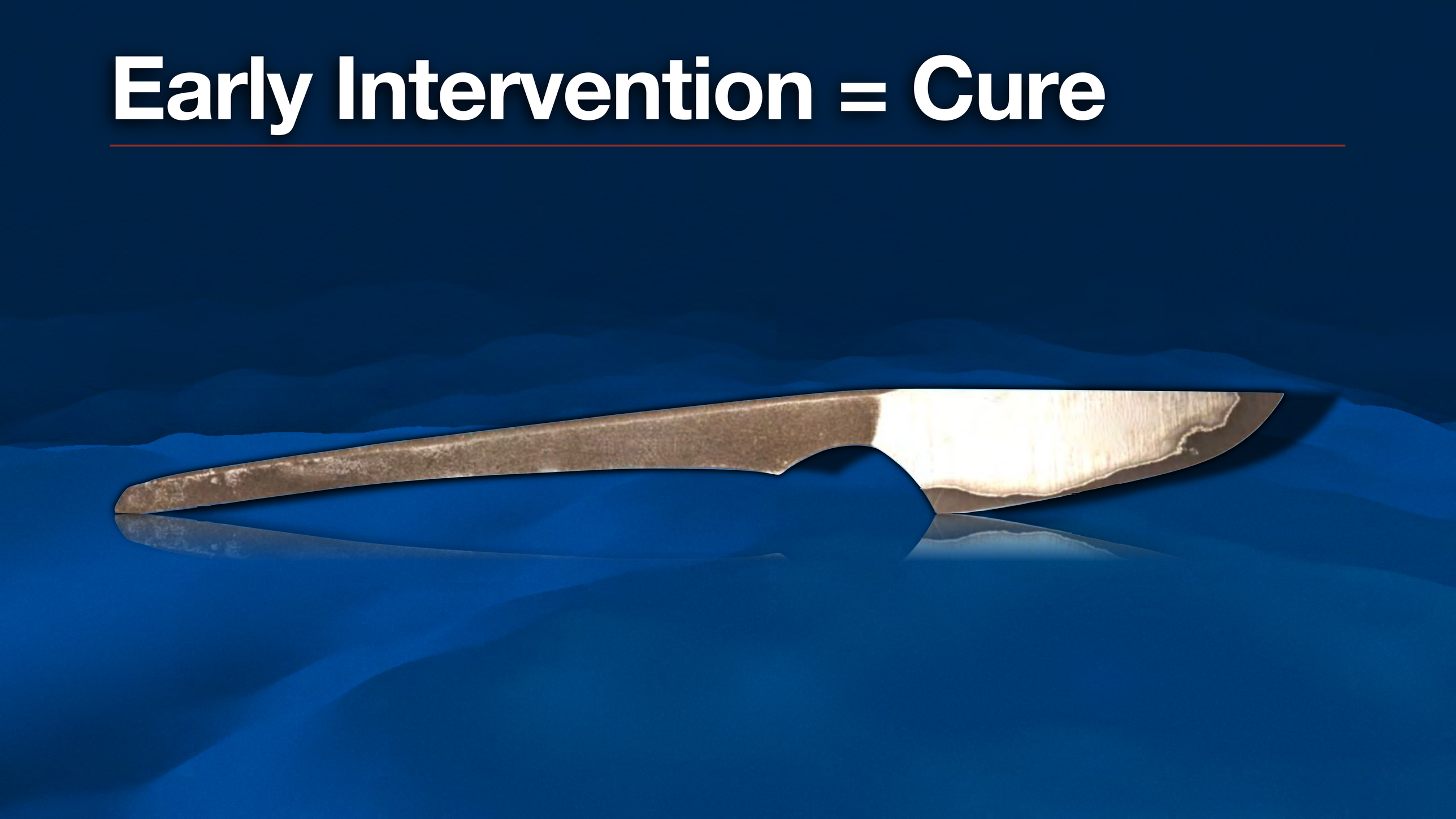


Patient Enrollment / Retention



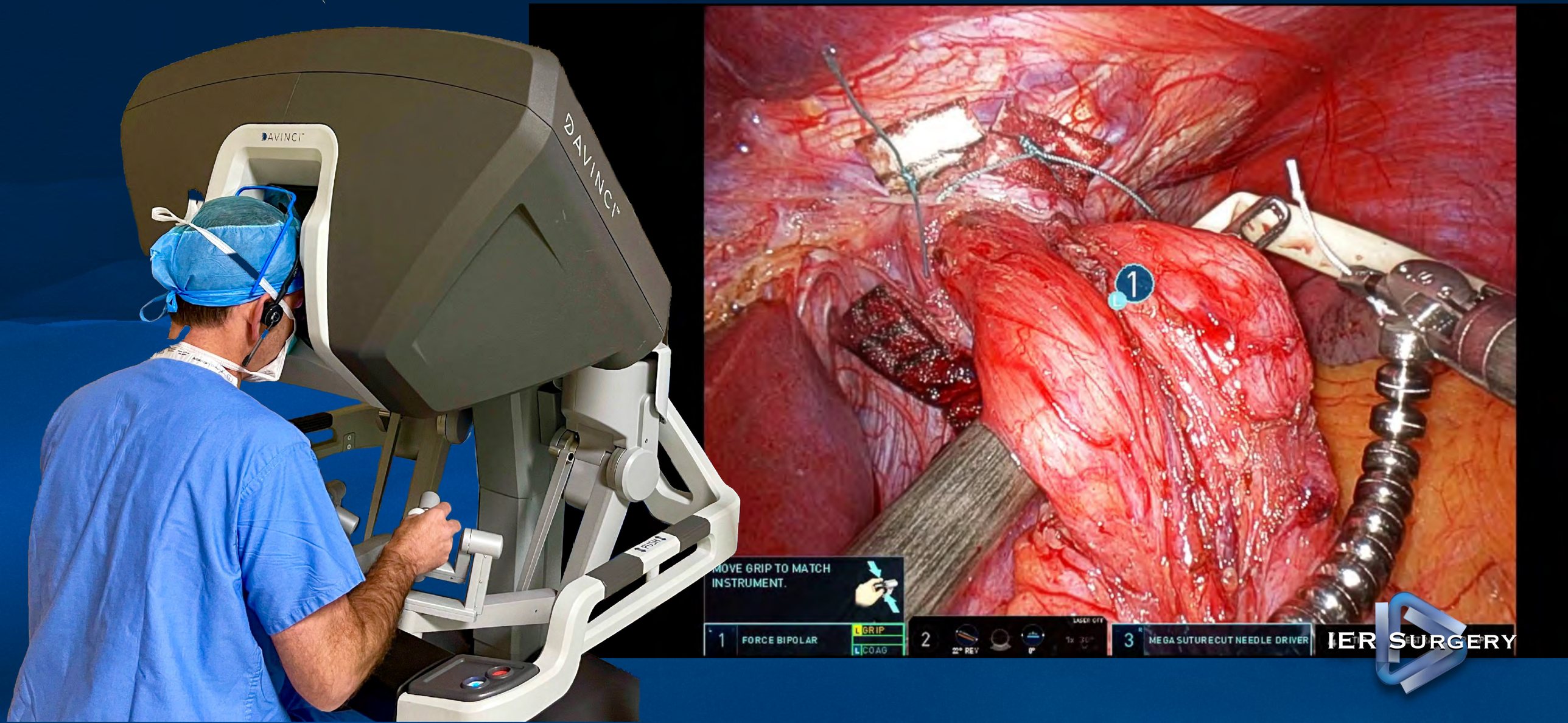
Diagnostic Endoscopy

Early Intervention = Cure



Hospitals want Patient Volume

Make me Happy…



Surgery Stops GERD

Let’s wrap this up.

What do we want ?

We want a Parade

We Gather when we Succeed

Esophageal Cancer Kills

ESOPHAGEAL CANCER AWARENESS

Lucid diagnostics is Leading the Way


Lucid
diagnostics

Lucid™ diagnostics

INVESTOR DAY

Realizing EsoGuard's Commercial Opportunity

Shaun O'Neil, MBA
President and Chief Operating Officer

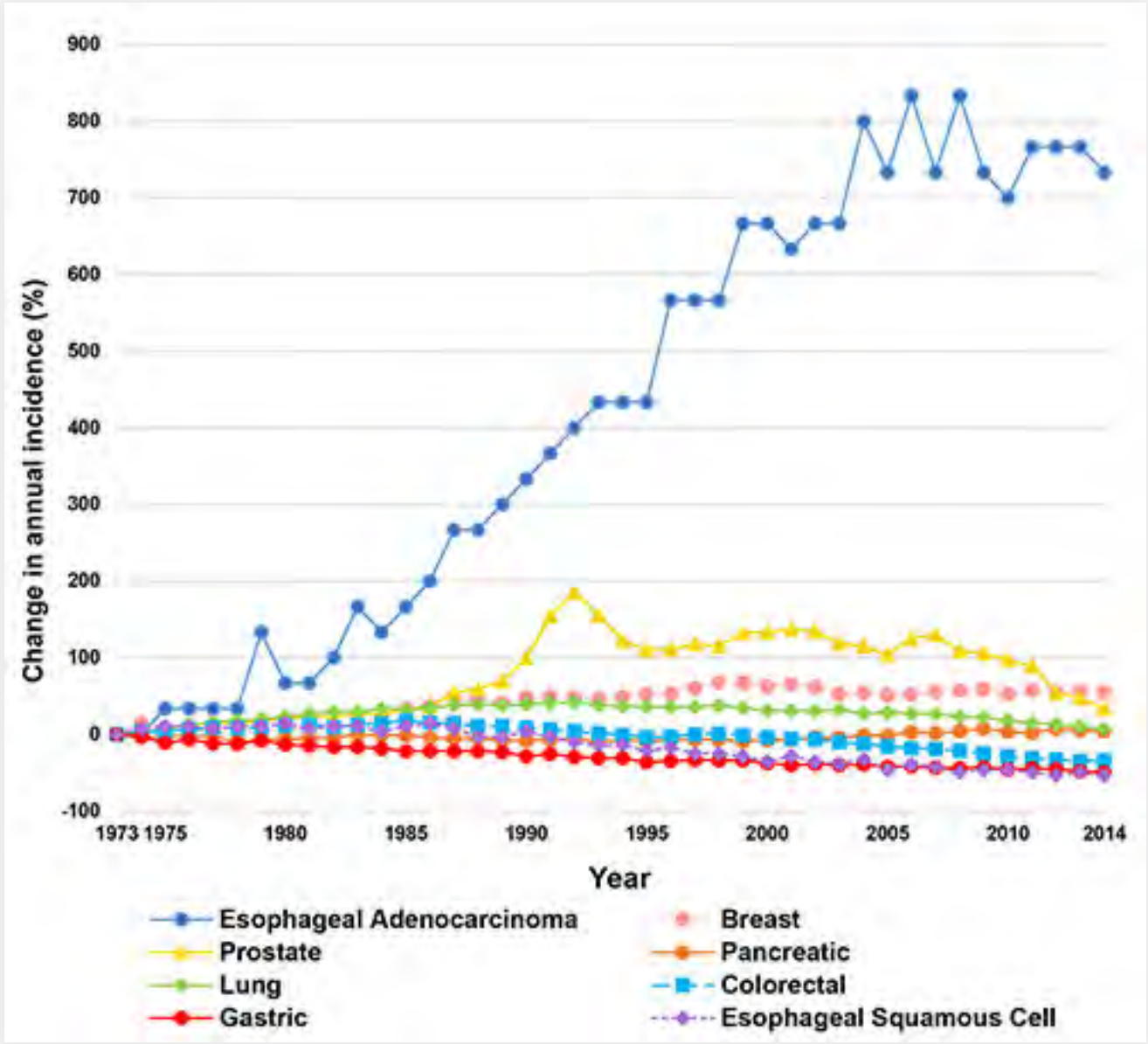
December 13, 2023

Nasdaq: LUCD

Esophageal Adenocarcinoma (EAC) has increased **over 500%**

in the past 4 decades

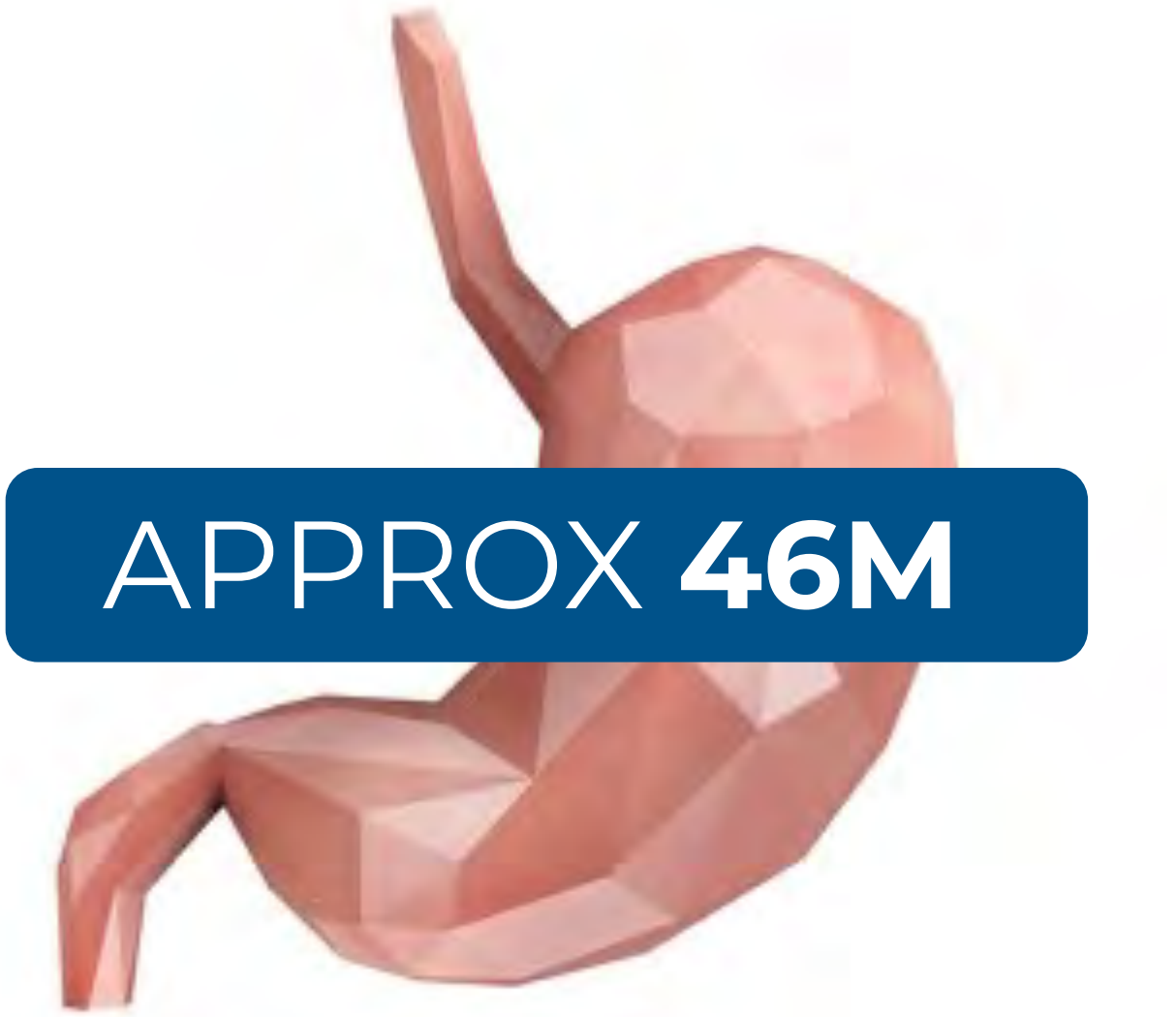
#1 rate of increase of any cancer



Thuy-Van P. Hang, MD; Zachary Spiritos, MD, MPH; Anthony Gamboa, MD; Zhengjia Chen, PhD; Seth Force, MD; Steve Keilin, MD; Nabil Saba, MD; Bassel El-Rayes, MD; Qiang Cai, MD, PhD; Field Willingham, MD, MPH. THE EPIDEMIOLOGY OF ESOPHAGEAL ADENOCARCINOMA IN THE UNITED STATES. Program No. P0265. *ACG 2018 Annual Scientific Meeting Abstracts.* Philadelphia, Pennsylvania: American College of Gastroenterology.

The Opportunity


APPROX 340M



Source: Deloitte Research, DRG, GIE Journal

Guidelines

Guidelines support screening for Barrett's esophagus, the only known precursor to esophageal cancer

Diagnosis and Management of Barrett's Esophagus: An Updated ACG Guideline

Nicholas J. Shaheen, MD, MPH[1], Gary W. Falk, MD, MS[2], Prasad G. Iyer, MD, MS[3], Rhonda F. Souza, MD[4], Rena H. Yadlapati, MD, MHS (GRADE Methodologist)[5], Bryan G. Sauer, MD, MSc (GRADE Methodologist)[6] and Sachin Wani, MD[7]

Barrett's esophagus (BE) is a common condition associated with chronic gastroesophageal reflux disease. BE is the only known precursor to esophageal adenocarcinoma, a highly lethal cancer with an increasing incidence over the last 5 decades. These revised guidelines implement Grading of Recommendations, Assessment, Development, and Evaluation methodology to propose recommendations for the definition and diagnosis of BE, screening for BE and esophageal adenocarcinoma, surveillance of patients with known BE, and the medical and endoscopic treatment of BE and its associated early neoplasia. Important changes since the previous iteration of this guideline include a broadening of acceptable screening modalities for BE to include nonendoscopic methods, liberalized intervals for surveillance of short-segment BE, and volume criteria for endoscopic therapy centers for BE. We recommend endoscopic eradication therapy for patients with BE and high-grade dysplasia and those with BE and low-grade dysplasia. We propose structured surveillance intervals for patients with dysplastic BE after successful ablation based on the baseline degree of dysplasia. We could not make recommendations regarding chemoprevention or use of biomarkers in routine practice due to insufficient data.

Figure 3. Nonendoscopic Barrett's esophagus detection devices. (**a**) Encapsulated and expanded Cytosponge device. (**b** and **c**) Encapsulated and expanded EsophaCap device. (**d** and **e**) Retracted and inflated Esocheck device.

6. We suggest that a swallowable, nonendoscopic capsule device combined with a biomarker is an acceptable alternative to endoscopy for screening for BE

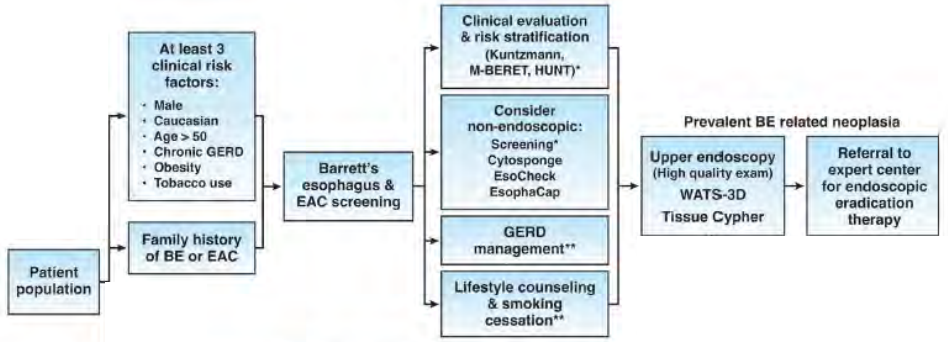
AGA Clinical Practice Update on New Technology and Innovation for Surveillance and Screening in Barrett's Esophagus: Expert Review

V. Raman Muthusamy,[1] Sachin Wani,[2] C. Prakash Gyawali,[3] and Srinadh Komanduri,[4] for the CGIT Barrett's Esophagus Consensus Conference Participants

[1]Vatche and Tamar Manoukian Division of Digestive Diseases, University of California, Los Angeles, Los Angeles, California; [2]Division of Gastroenterology and Hepatology, University of Colorado School of Medicine, Denver, Colorado; [3]Division of

BEST PRACTICE ADVICE STATEMENTS:

1. **Screening with standard upper endoscopy may be considered in individuals with at least 3 established risk factors for Barrett's esophagus (BE) and esophageal adenocarcinoma, including individuals who are male, non-Hispanic white, age >50 years, have a history of smoking, chronic gastroesophageal reflux disease, obesity, or a family history of BE or esophageal adenocarcinoma.**
2. **Nonendoscopic cell-collection devices may be considered as an option to screen for BE.**



2022 American College of Gastroenterology Guidelines Recommends BE Screening in High-Risk Patients with:

Chronic GERD

5-Year History or Severe Symptoms

+

3 of 6 Additional Risk Factors

Male Sex

Age Over 50

White Race

Central Obesity

Family History of BE/EAC

Smoker

1. Shaheen, N.J., et al., *Diagnosis and Management of Barrett's Esophagus: An Updated ACG Guideline.* Am J Gastroenterol, 2022

Source: Deloitte Research, DRG, GIE Journal

EsoGuard Commercial Opportunity

~30 Million
At-Risk Chronic GERD Patients Recommended for Screening

x

$1938
Medicare Payment

=

~$60 Billion
Total Addressable US Market

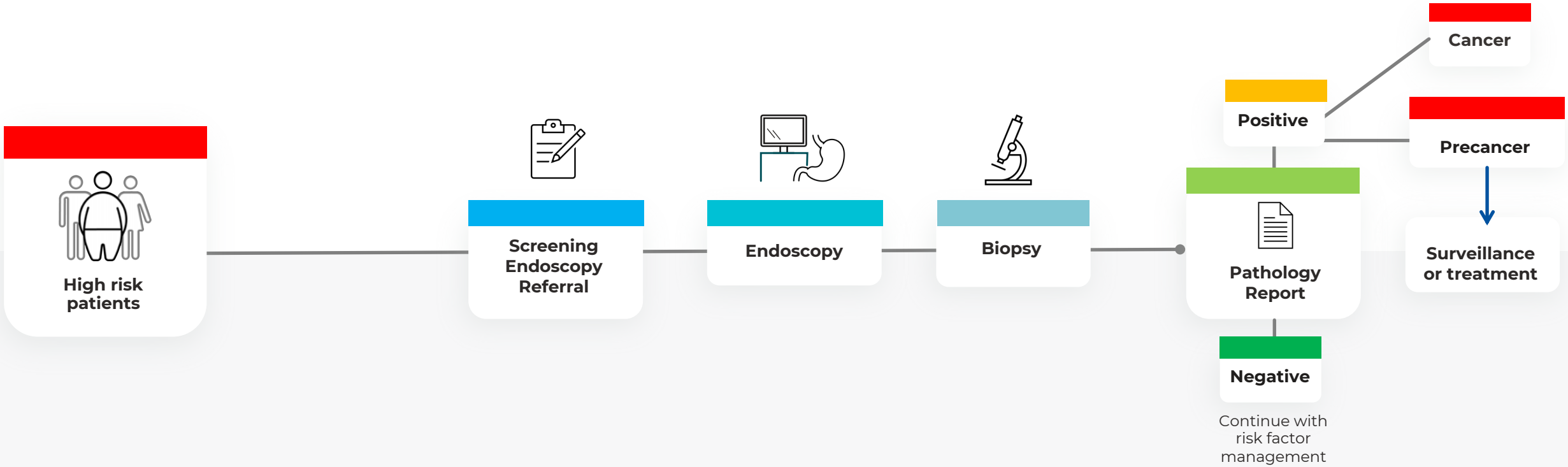
EsoGuard Estimated Gross Margin at Volume

Over 90%

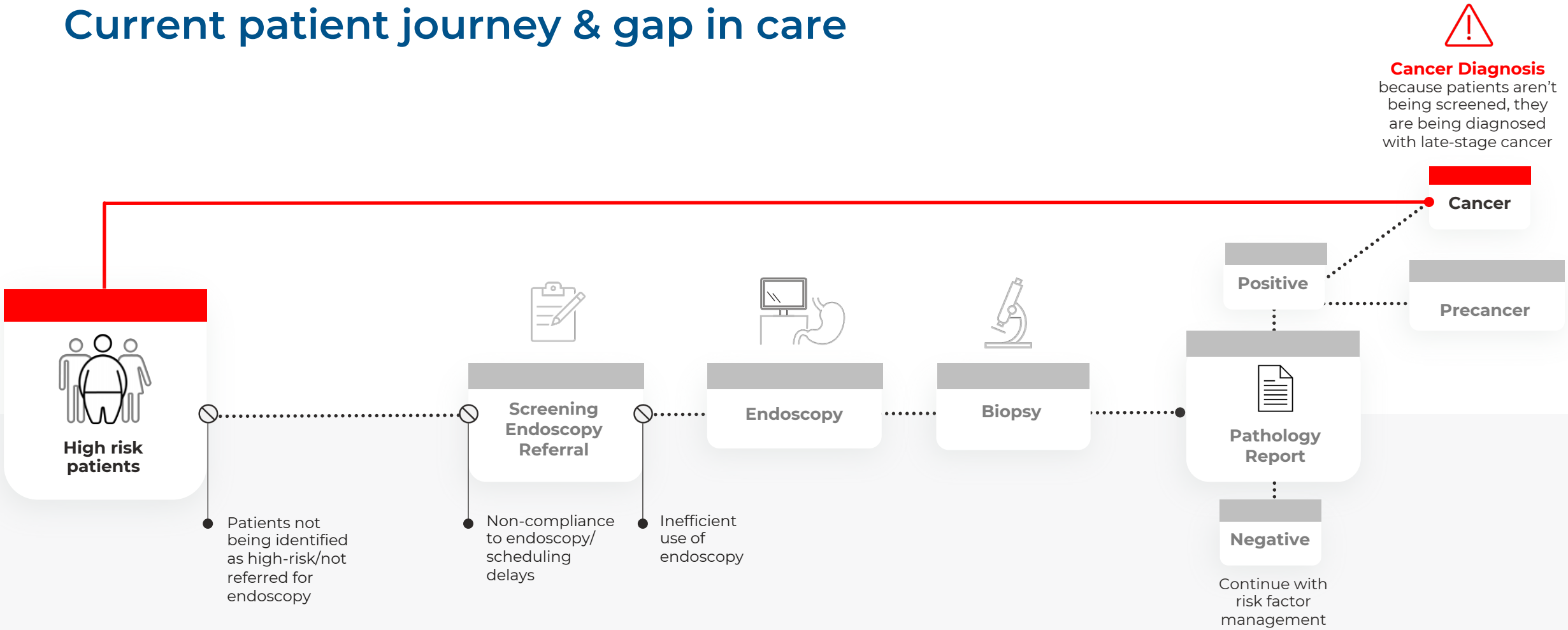
Source: Deloitte Research, DRG, GIE Journal

The Patient Journey

Ideal patient journey



Current patient journey & gap in care



Patient journey with the EsoGuard solution

With improved screening of high-risk patients more BE would be diagnosed would be diagnosed and treated avoiding malignant disease progression

High risk patients

EsoGuard
esophageal DNA test

Confirmatory ~~Screening~~ Endoscopy Referral

Endoscopy

Biopsy

Pathology Report

Positive

Cancer

Precancer

Surveillance or treatment

Negative

Continue with risk factor management

Patients not being identified as high-risk/not referred for endoscopy

Better identification of high-risk patients

Triage

Non-compliance to endoscopy/ scheduling delays

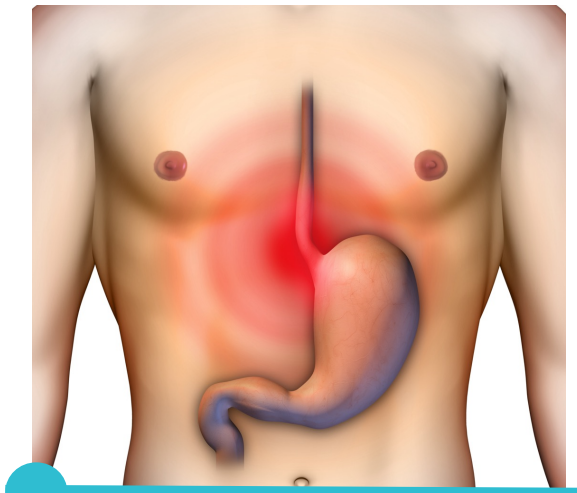
Only confirmatory patients referred for endoscopy

Inefficient use of endoscopy

Enriched patient population increased the positivity rate of endoscopy

EsoGuard

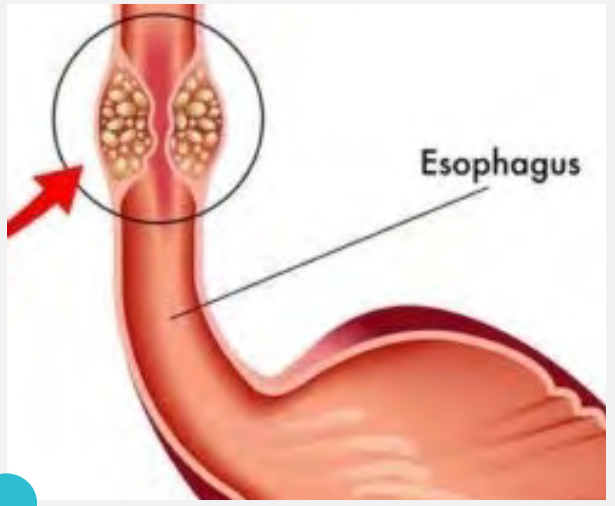
Disease State — GERD / Barrett's Esophagus



GASTROESOPHAGEAL REFLUX (GERD)

BARRETT'S ESOPHAGUS (BE)

Cancer prevention —
Diagnose and treat BE before it progresses



ESOPHAGEAL ADENOCARCINOMA

Revenue Opportunity

Patient Acquisition

Clinician

EsoCheck

Lucid Test Center (LTC)

EsoCheck

Satellite LTC

Mobile Test Unit

EsoCheck

Health Fair (CYFT)

Revenue Opportunity

Traditional Claim Submission

Corporate Entity

EsoCheck

CYFT

Revenue Opportunity

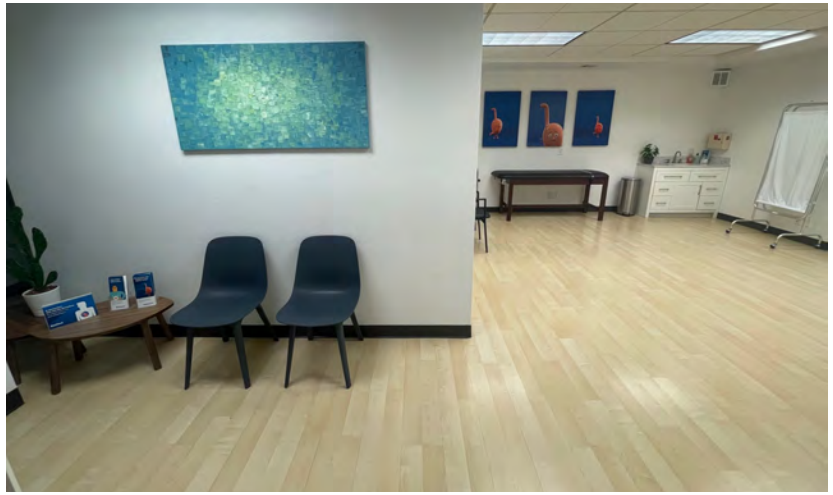
Traditional Claim Submission

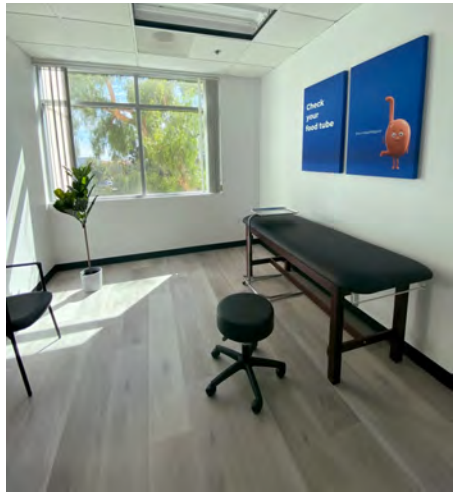
Revenue Opportunity

Self Insured

LTC Operations

LTCs




Check
your
food tube


Check
your
food tube


Check your
food tube.


Welcome
to the
Lucid Test
Center

sLTC

LTC

sLTC

EsoGuard Mobile Test Unit

Firefighters are at increased risk for esophageal cancer[1]

62% higher risk
of developing esophageal cancer[2]

39% increased risk
of dying from esophageal cancer[2]

1. Daniels RD, et al. Occup Environ Med 2014;71:388–397. doi:10.1136/oemed-2013-101662
2. IAFF date 1.1.2002 to 3.31.2017 - NIOSH Research

#CheckYourFoodTube
Esophageal Precancer Testing Events

Field Operations (Education)

People

Process

Performance

Prospecting

Present & Action

Validation

Won-Advocate

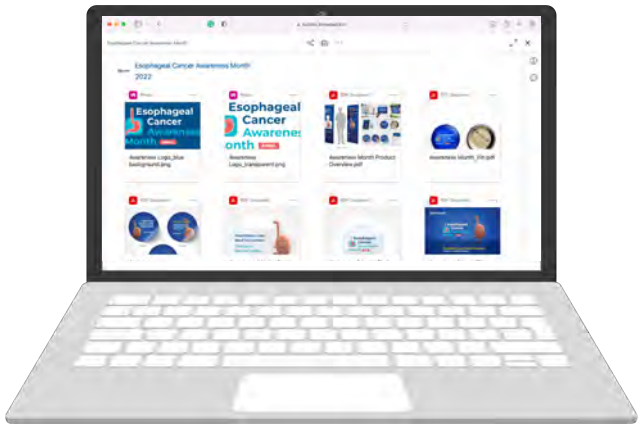
SFDC Leads

SFDC Opportunities

Dabblers

Lost

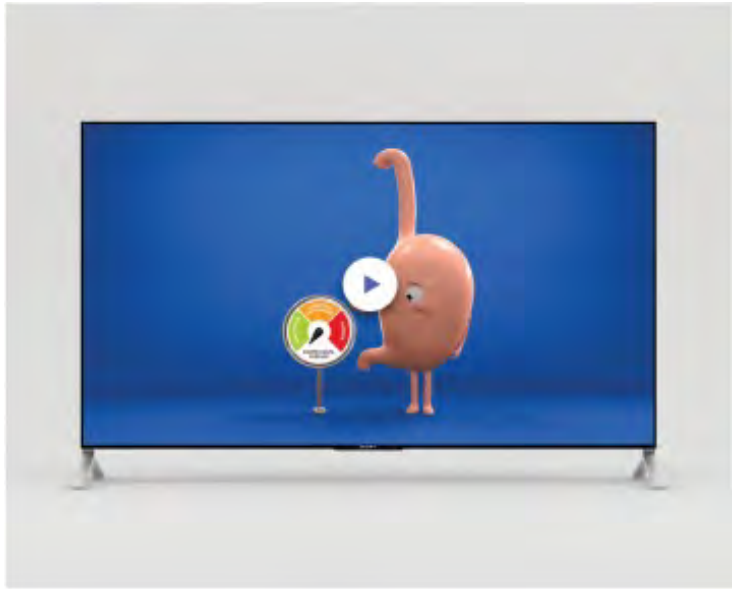
Showpad

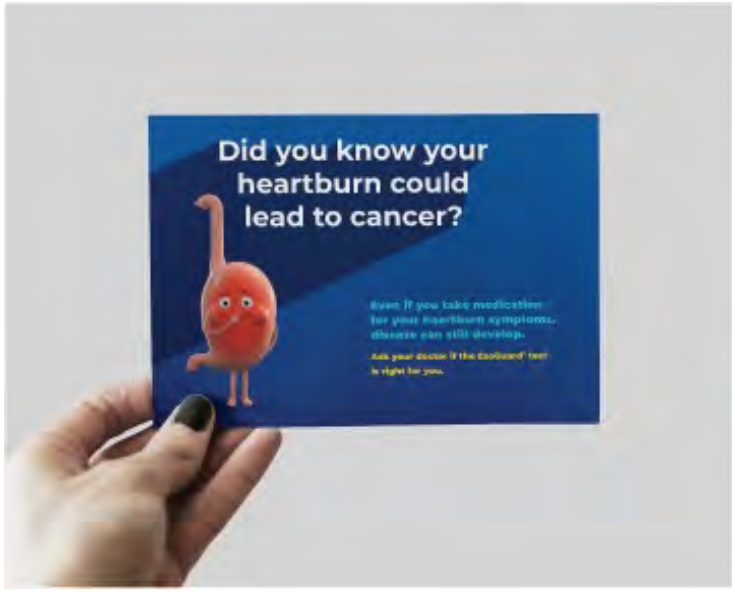


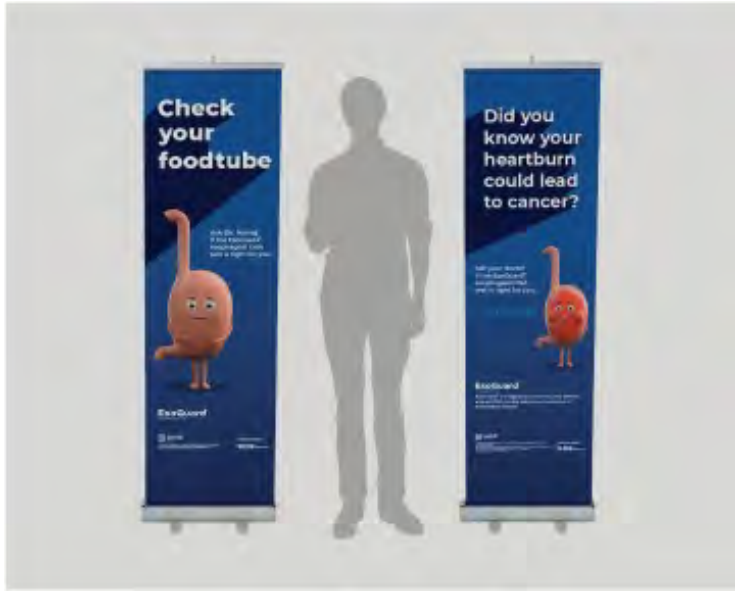
salesforce

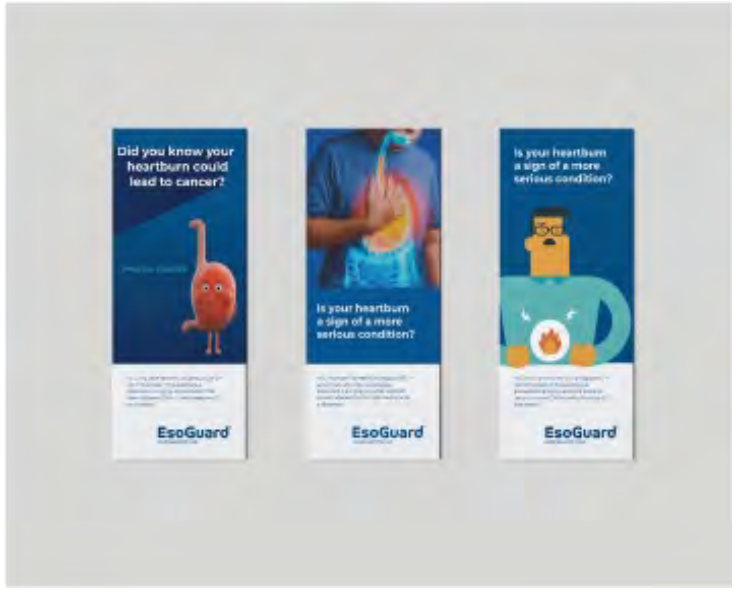

EsoGuard.c

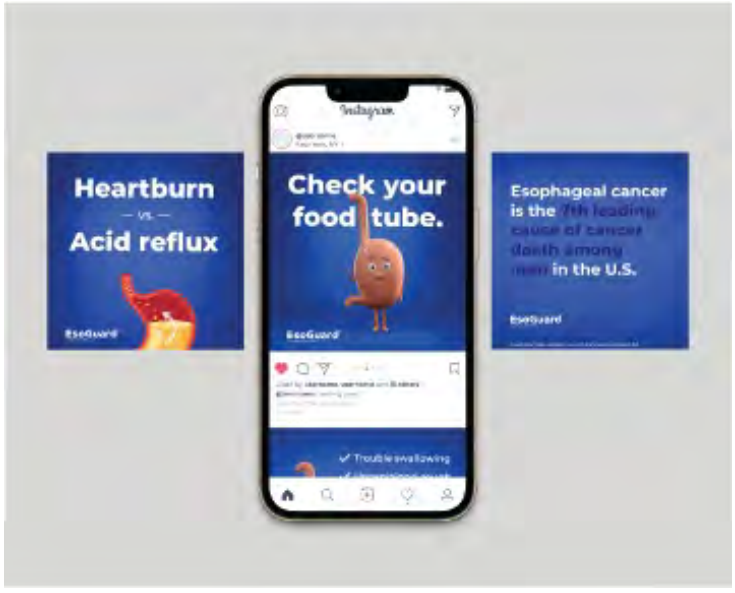

ARE YOU AT RISK?
ARE YOU AT RISK?
EsoGuard



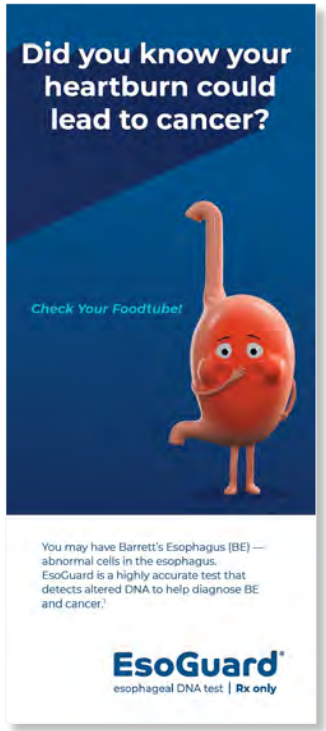

Did you know your heartburn could lead to cancer?
Even if you take medication for your heartburn symptoms, disease can still develop.
Ask your doctor if the EsoGuard test is right for you.

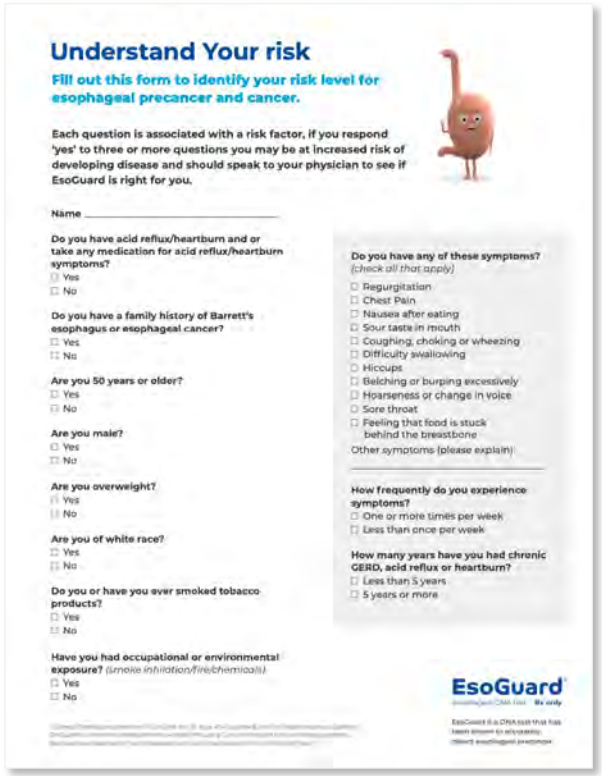

Check your foodtube
Did you know your heartburn could lead to cancer?
EsoGuard

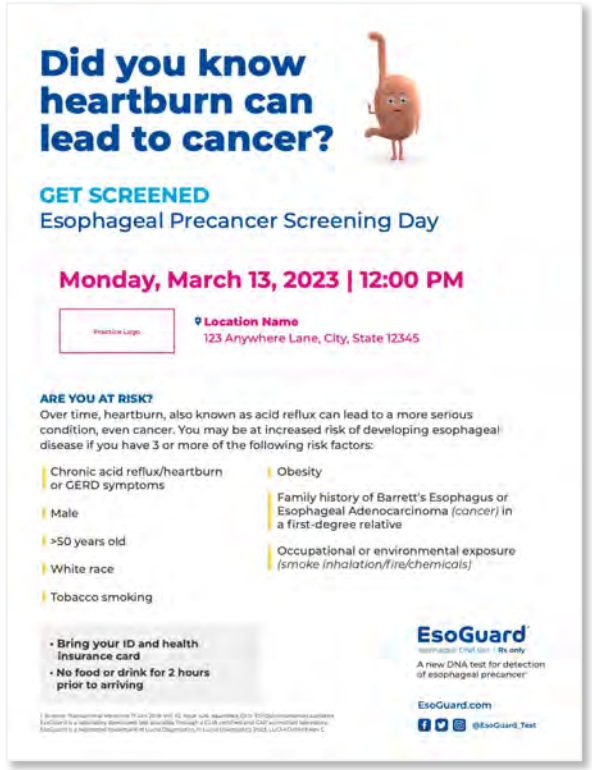

Did you know your heartburn could lead to cancer?
Is your heartburn a sign of a more serious condition?
Is your heartburn a sign of a more serious condition?
EsoGuard
EsoGuard
EsoGuard

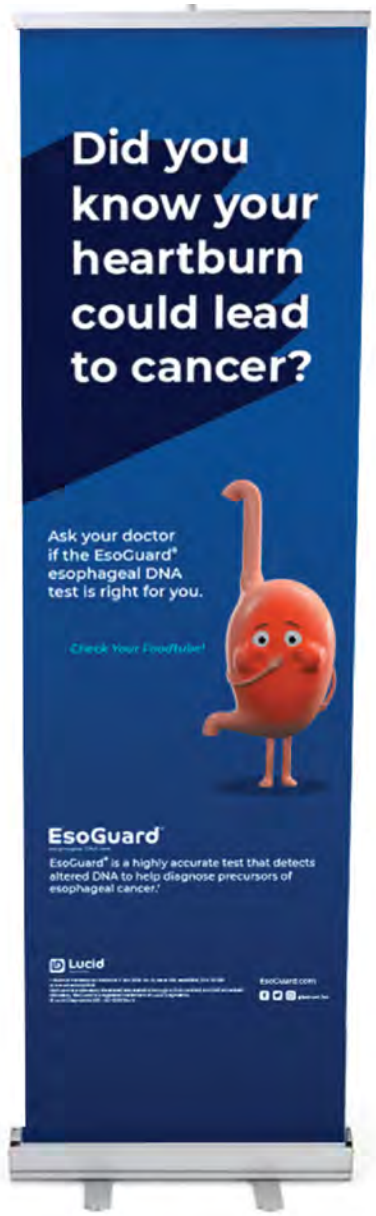

Heartburn
— vs. —
Acid reflux
EsoGuard
Check your food tube.
EsoGuard
Esophageal cancer is the 7th leading cause of cancer death among men in the U.S.
EsoGuard

Patient Education

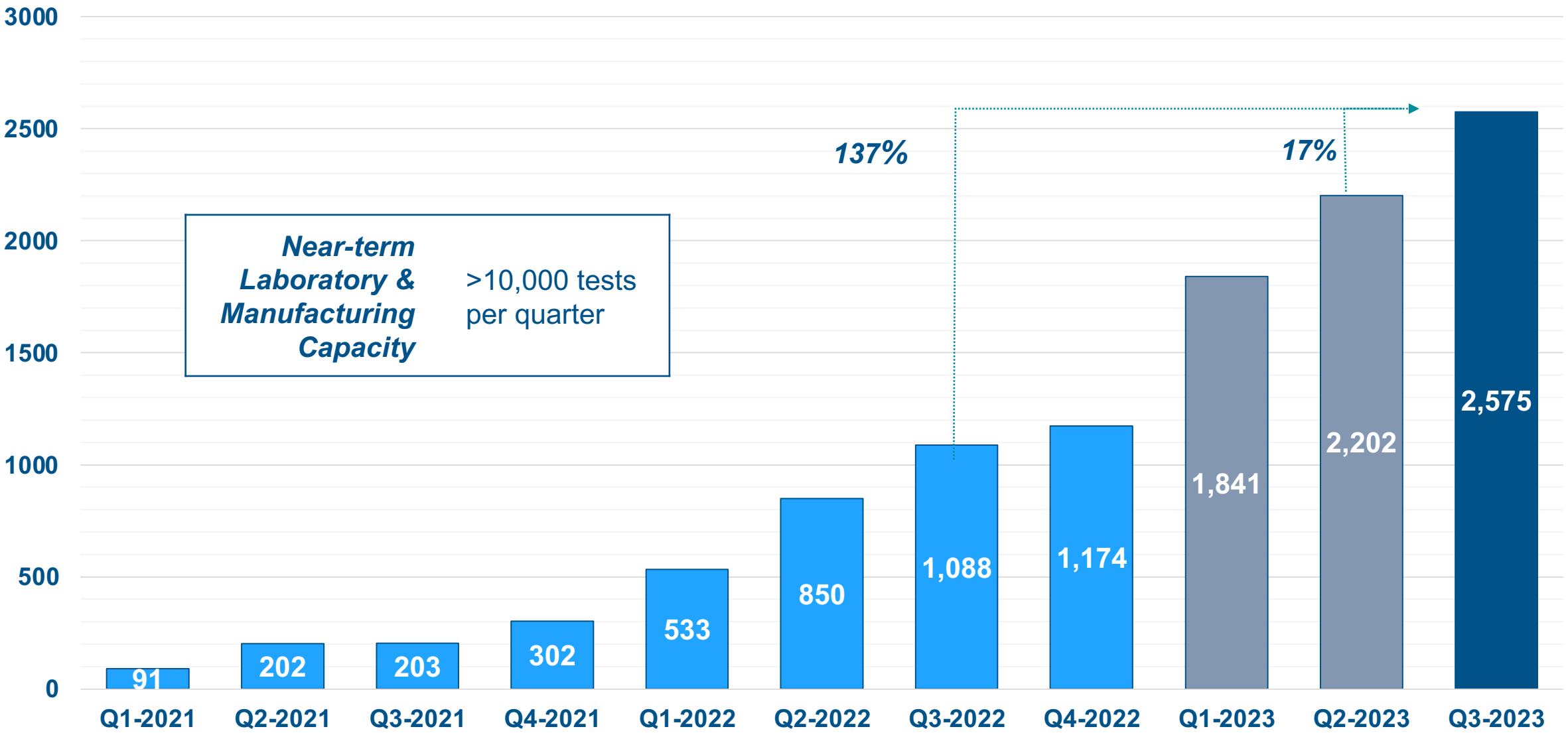








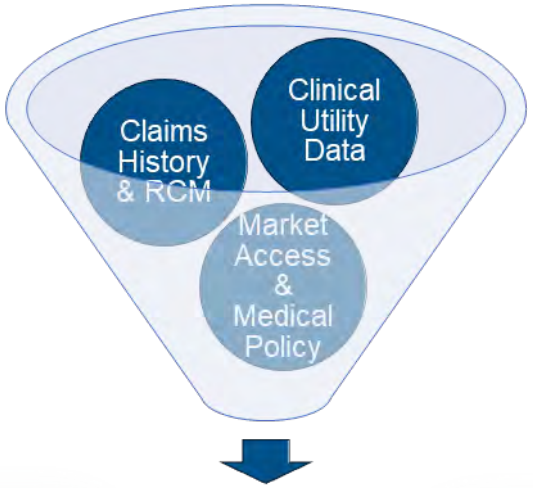
EsoGuard Testing Volume by Quarter



Market Access

Path to Revenue

Traditional Claims Submission



Revenue Cycle Management (RCM

Claim Submission
Prior Authorization
Appeals

Medical Policy

Commercial Payor (Pilot Programs)
CMS - MolDx

Direct Contracting

- Testing at first contracted employer has begun
- New VP, Employer Market with 30+ years experience in employer benefits sales
- Robust active pipeline

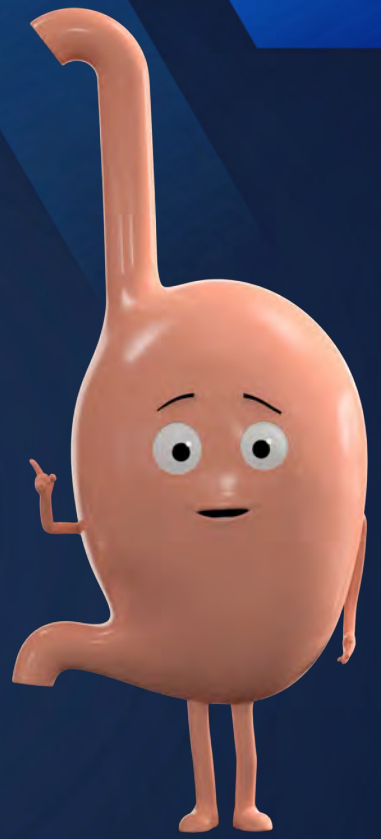
CMS


CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES


PALMETTO GBA
MolDX


noridian
Healthcare Solutions

Thank you.



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Lucid™ diagnostics

INVESTOR DAY

EsoGuard in My Practice

Seper Dezfoli, MD
Gastroenterologist

December 13, 2023

Nasdaq: LUCD

BE is the Precursor Condition to EAC

EARLY DETECTION — TOO LATE

Gastroesophageal Reflux (GERD)	Nondysplastic Barrett's Esophagus (NDBE)	Dysplastic Barrett's Esophagus (LGD, HGD)	Esophageal Adenocarcinoma (EAC)

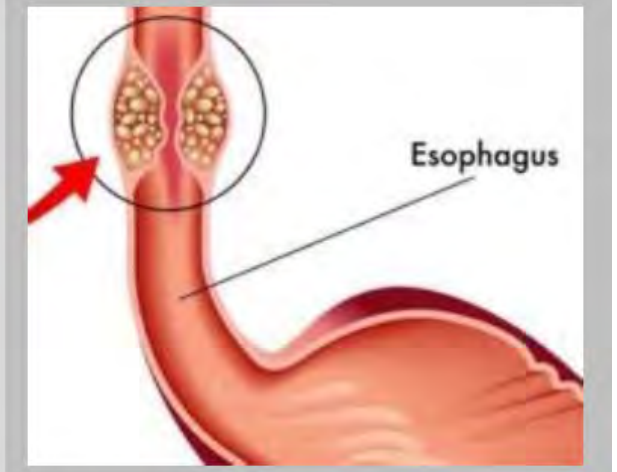
PRECANCER → CANCER

Commonly known as reflux or chronic "heartburn"

10 to 20 Million patients are deemed "High Risk" [1]

Benign metaplastic transformation of lower esophageal lining from repeated exposure to gastric fluid

Pre-cancerous progression from NDBE to low-grade dysplasia (LGD) to high-grade dysplasia (HGD)



Most common esophageal cancer, Intramucosal or Invasive

733% increase over the last 40 yrs[2]

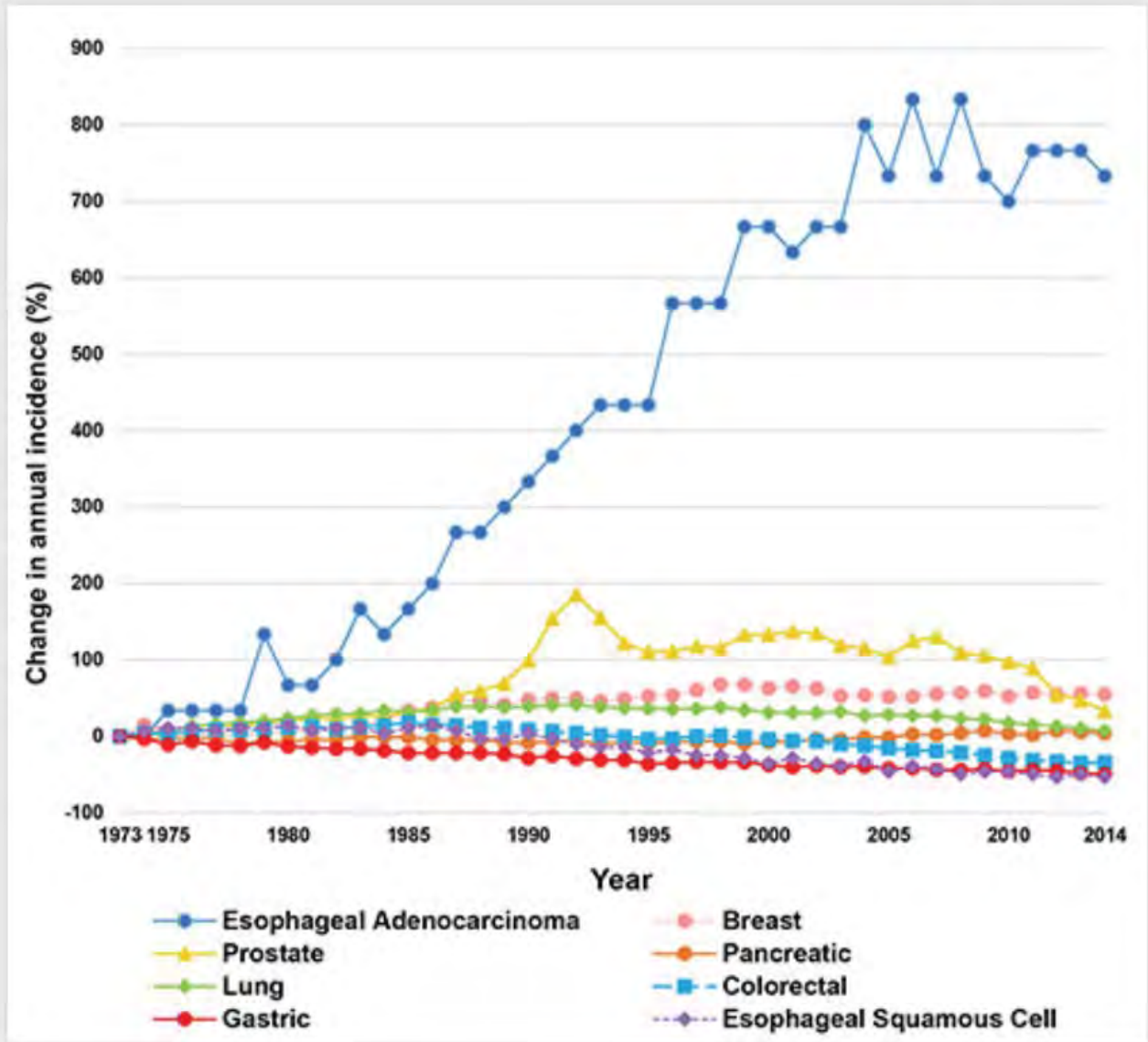
#1 rate of increase of any cancer, Highly lethal (< 20% 5-yr survival)

1 Based on ACG Screening Guidelines (Shaheen, 2022)
2(Runge, 2015)

Esophageal Adenocarcinoma (EAC) has increased **over 733%**

in the past 4 decades

#1 rate of increase of any cancer



Thuy-Van P. Hang, MD; Zachary Spiritos, MD, MPH; Anthony Gamboa, MD; Zhengjia Chen, PhD; Seth Force, MD; Steve Keilin, MD; Nabil Saba, MD; Bassel El-Rayes, MD; Qiang Cai, MD, PhD; Field Willingham, MD, MPH. THE EPIDEMIOLOGY OF ESOPHAGEAL ADENOCARCINOMA IN THE UNITED STATES. Program No. P0265. *ACG 2018 Annual Scientific Meeting Abstracts.* Philadelphia, Pennsylvania: American College of Gastroenterology.

The Unmet Clinical Need

Increasing incidence

733% Increase (EAC) has increased over 733% in the past 4 decades[1]

Highly lethal cancer

~80% of EAC patients die within 5 years of diagnosis[2]

~59 patients diagnosed with EAC per day[2]

~44 patients die of EAC per day[2]

Low screening rates, even for high-risk patients

Less than 10% of high-risk GERD patients undergo EGD screening[3]

40% EAC patients do not have a history of heartburn[4]

Over 90% of EAC patients never knew they had treatable Barrett's Esophagus[5]

Preventable

Barrett's Esophagus (BE) is the only known precursor to EAC[6]

When detected early, patients with BE can either undergo surveillance or highly effective treatment[7,8]

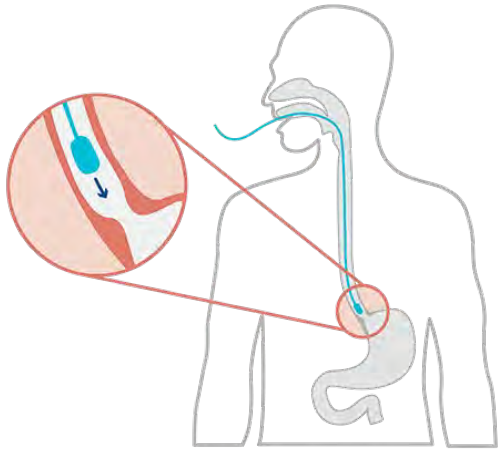
1. Thuy-Van P. Hang, MD; Zachary Spiritos, MD, MPH; Anthony Gamboa, MD; Zhengjia Chen, PhD; Seth Force, MD; Steve Keilin, MD; Nabil Saba, MD; Bassel El-Rayes, MD; Qiang Cai, MD, PhD; Field Willingham, MD, MPH. THE EPIDEMIOLOGY OF ESOPHAGEAL ADENOCARCINOMA IN THE UNITED STATES. Program No. P0265. ACG 2018 Annual Scientific Meeting Abstracts. Philadelphia, Pennsylvania: American College of Gastroenterology.
2. https://seer.cancer.gov/explorer/
3. Deloitte Analysis, on file Lucid Dx
4. Mikolašević, I., Bokun, T., & Filipec Kanižaj, T. (2018). Gastroesophageal reflux disease, Barrett esophagus, and esophageal adenocarcinoma - where do we stand?. *Croatian medical journal*, *59*(3), 97–99. https://doi.org/10.3325/cmj.2018.59.97
5. Gut 2015 Jan;64(1):20-5. doi: 10.1136/gutjnl-2013-305506. Epub 2014 Apr 3.
6. Shaheen, N.J., et al., Diagnosis and Management of Barrett's Esophagus: An Updated ACG Guideline. Am J Gastroenterol, 2022. 117(4): p. 559-587.
7. Shaheen, N.J., et al., Durability of radiofrequency ablation in Barrett's esophagus with dysplasia. Gastroenterology, 2011. 141(2): p. 460-8.
8. Qumseya, B., et al., ASGE guideline on screening and surveillance of Barrett's esophagus. Gastrointest Endosc, 2019. 90(3): p. 335-359.e2.

Similar to current in-office cancer screening

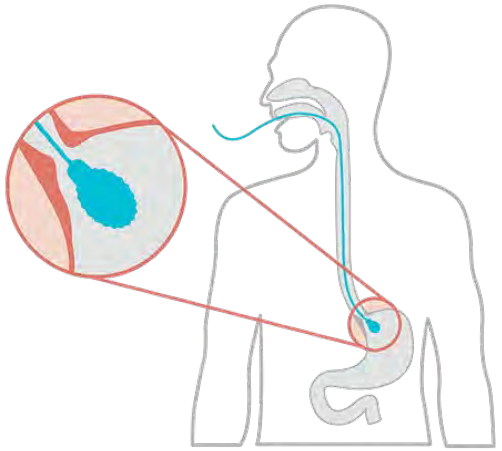
	 Cervical Cancer	 Esophageal Cancer
	Pap Test	EsoGuard esophageal DNA test
Quick, in-office cell collection (without sedation)	YES	YES
Highly accurate test	YES	YES
Binary, easy to interpret result– Positives referred to a specialist	YES	YES

A non-invasive five-minute office-based procedure to collect cells from the esophagus

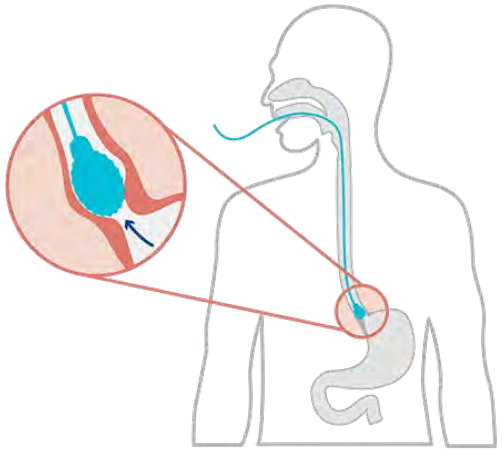
5 minutes



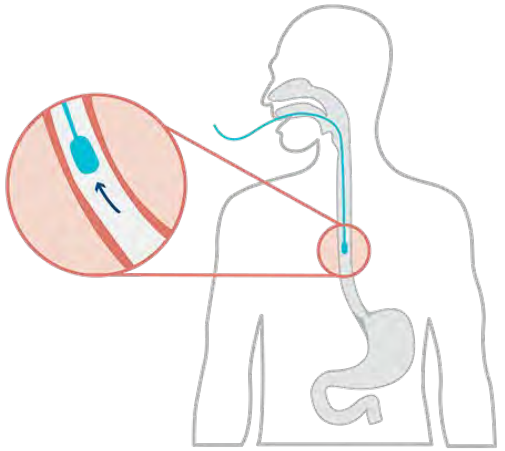
1 Swallow



2 Inflate



3 Collect



4 Protect

Paradigm Shift in Gastroenterology

COLON CANCER

CRC screening test

ESOPHAGEAL CANCER

Precancer Screening

Partnering with Lucid Diagnostics

Partnering with the commercial team for support staff in office

Satellite test center support, for easy access and test delivery

Using EsoCheck & EsoGuard

Education to clinicians on disease state and EsoGuard

PATIENT — 47-year-old man

Came in for a routine colonoscopy, inquired about his ‘occasional reflux’

Risk Factors

- ⊘ Chronic GERD
- ✓ Male sex
- ⊘ Age > 50 years
- ✓ White race
- ⊘ Tobacco smoking
- ✓ Obesity
- ⊘ Family History

Positive EsoGuard

Endoscopy ordered:
Short segment Barrett’s esophagus (precancer) visualized, *Biopsies confirmed.*

Two other incidental findings:

- H. pylori *(a Class I carcinogen that causes stomach cancer)*
- Small tumor within the wall of his stomach

IMPACT: Without EsoGuard this patient would have been left with silent undiagnosed disease. Had he not had the EsoGuard in the first place, he would have never found out about the other two, very serious, conditions.

Nasdaq: LUCD

Lucid™ diagnostics

INVESTOR DAY

Pathway to Profitability

An Illustrative Example

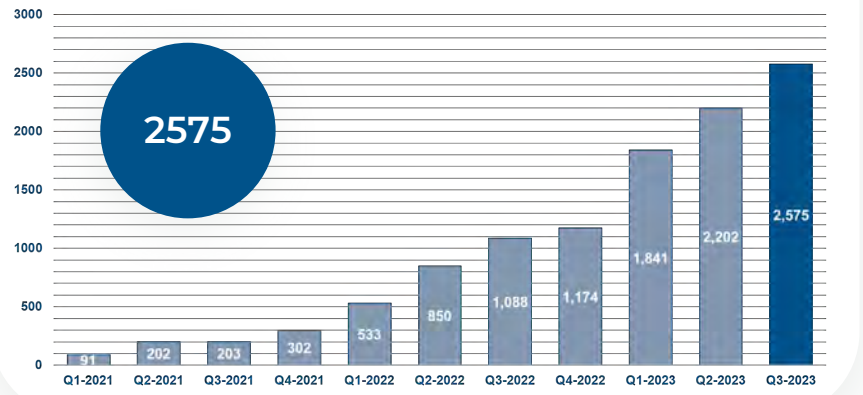
Dennis McGrath
Chief Financial Officer

December 13, 2023

Nasdaq: LUCD

Q3 2023 – Inside the Numbers

3Q23 Test Volume



3Q Test Volume	2,575
Pending Reimbursement Decision (30%)*	-773
Submitted Claims Adjudicated	1,803
Initially Denied (61%)*	-1,100
Resulting in Allowable Amt* (39%)	703
Net Allowable Payment at ~$1,863 per test	$1,310,000

* Estimated based upon RCM data for initial 5000 claims submitted thru Nov 3, 2023

3Q23 Revenue
$783k

EsoGuard ASP $2,499
Medicare Discount ($561)
Medicare Rate $1,938

Gross to Net Revenues (ooo's)

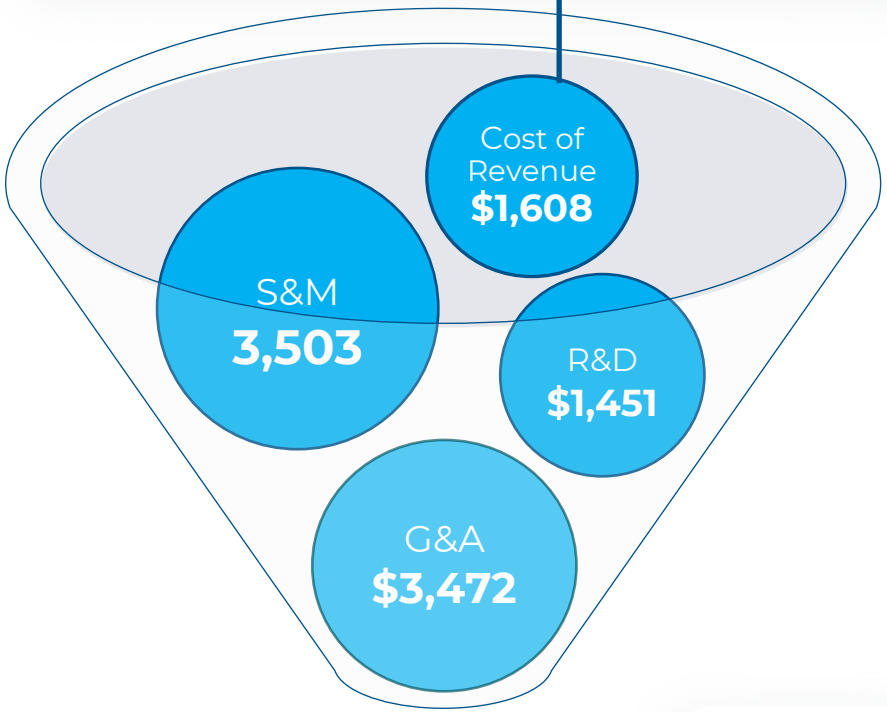
- Proforma Revenue ($1938 x 2575 tests) $4,990
- Less: Reimb decision pending (30%) ..... -$1,497
- Amount adjudicated $3,493
- Less: Initially denied (61%) pre-appeal ..... -$2,132
- Less: Disc Medicare Rate vs. Allowable ..... -$53
- Net Allowable (39% at $1,863/test) $1,310
- Paid (Recognized Revenue) $783
- Pending Payment Receipt $527

$1,310

3Q23 Non-GAAP OPEX

Fixed: $1,098

Variable: $510
(10% of Proforma revenue)



Non-GAAP Loss
<$9,251>

3Q23 Cash Burn Rate:
- Direct Operations – **$6,270**
- MSA – **$2,250**

PAVmed MSA
$2,250
- G&A – **$1,621**
- S&M – **$109**
- R&D – **$520**

Adjusted Non-GAAP Loss without MSA
$7,001

Pathway Ahead
Illustrative Examples

Static Model – Isolate Reimbursement Impact

Conservative Growth – Focus on Burn Rate

Steady Growth – Isolate Cash Flow Breakeven

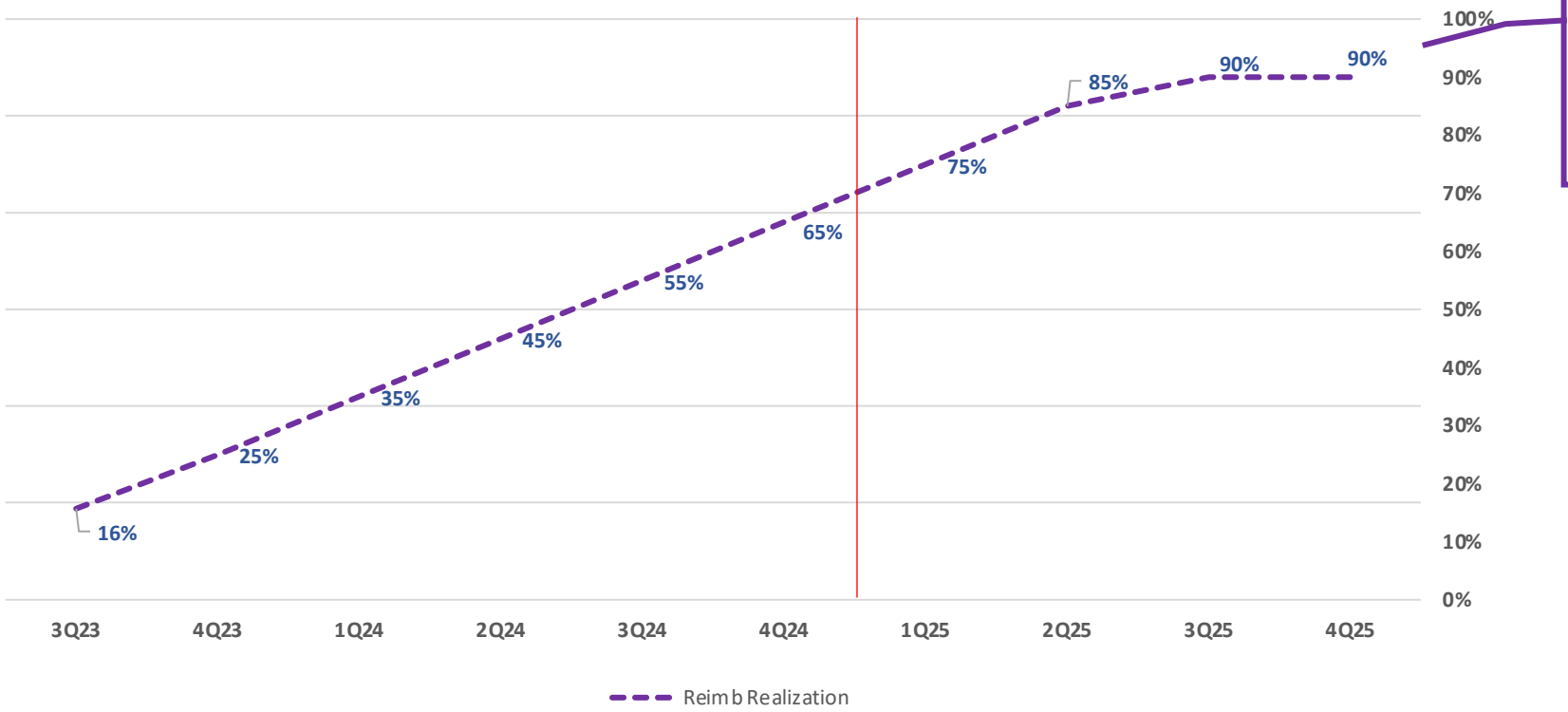
Dynamic Model – Stepping on the Gas Pedal

Pathway Ahead – Illustrative Examples

Static Model

Assumptions:

1. **Test Count Flat**
2. **Prorata Reimb Improvement over 8 quarters**
3. **OPEX Flat**
4. **MSA paid in stock**



Realization %
(Reimbursement / Collections)

Reimbursement Assumption:

3Q23 Claims Paid (Realization %) was approx. 16%

~ Collection Goal set to 90% by end of 2025.

Pathway Ahead – Illustrative Examples

Static Model

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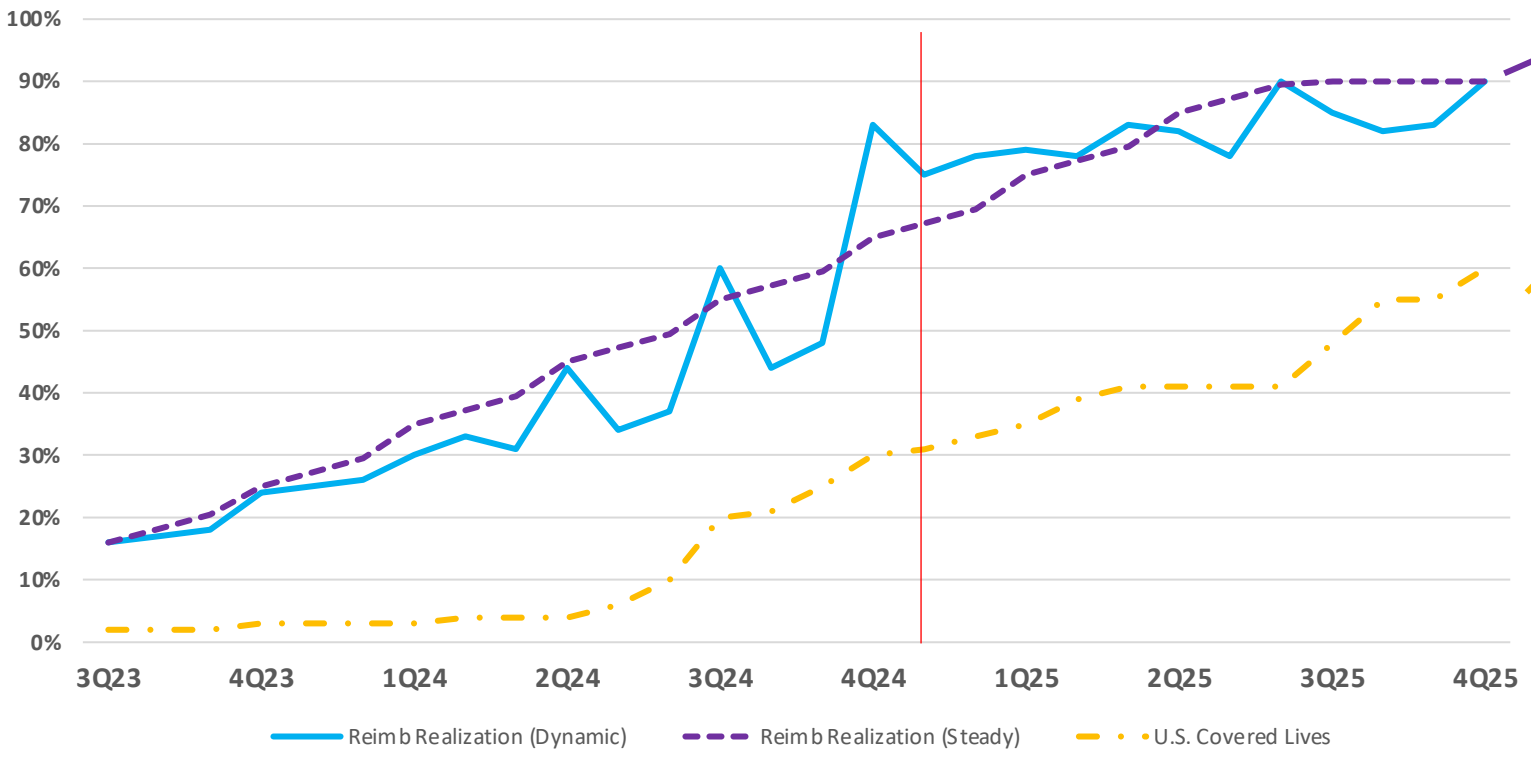
Percent of Claims Paid



Realization %
(Reimbursement / Collections)

U.S. Covered Lives

Key Takeaway:

Reimbursement timing (Cash Collection & Medical Policy) is not fully predictable. However, Clinical Data + Claims History + Appeals Persistence favors steady progress.

Pathway Ahead – Illustrative Examples

Static Model

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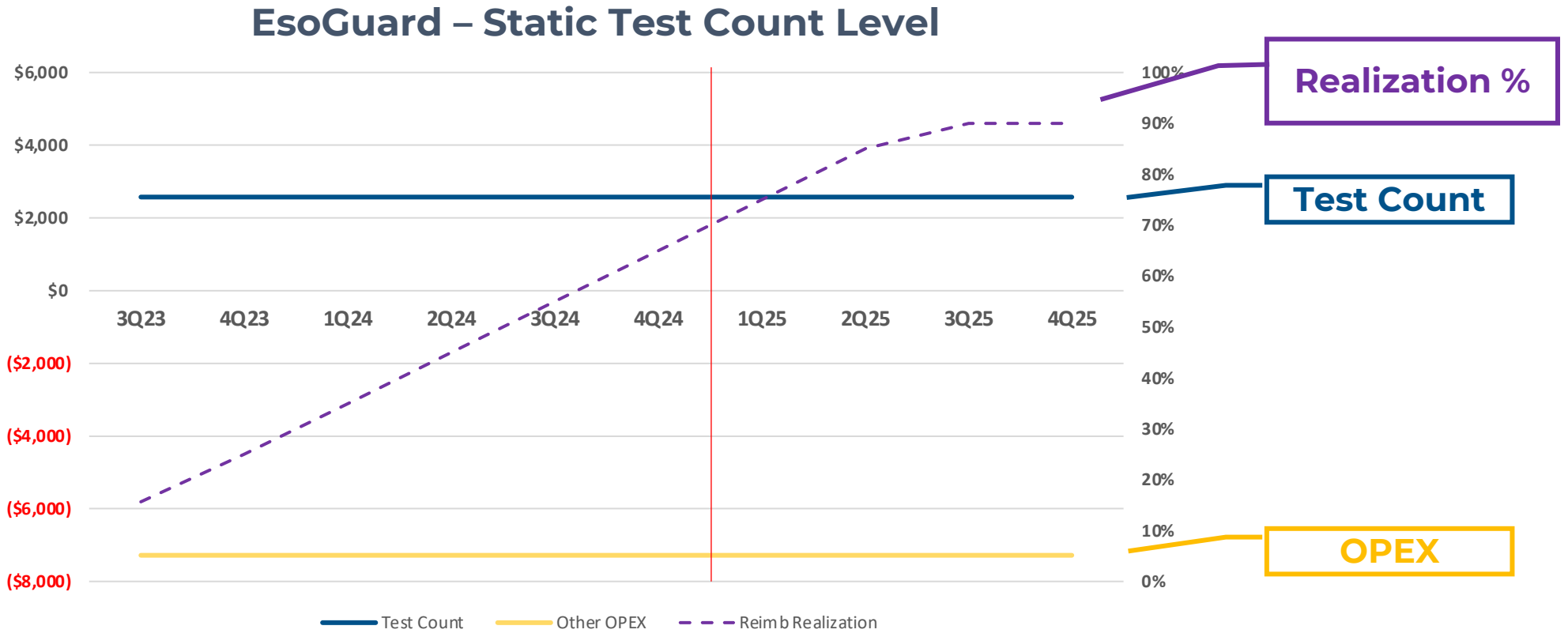

Pathway Ahead – Illustrative Examples

Static Model

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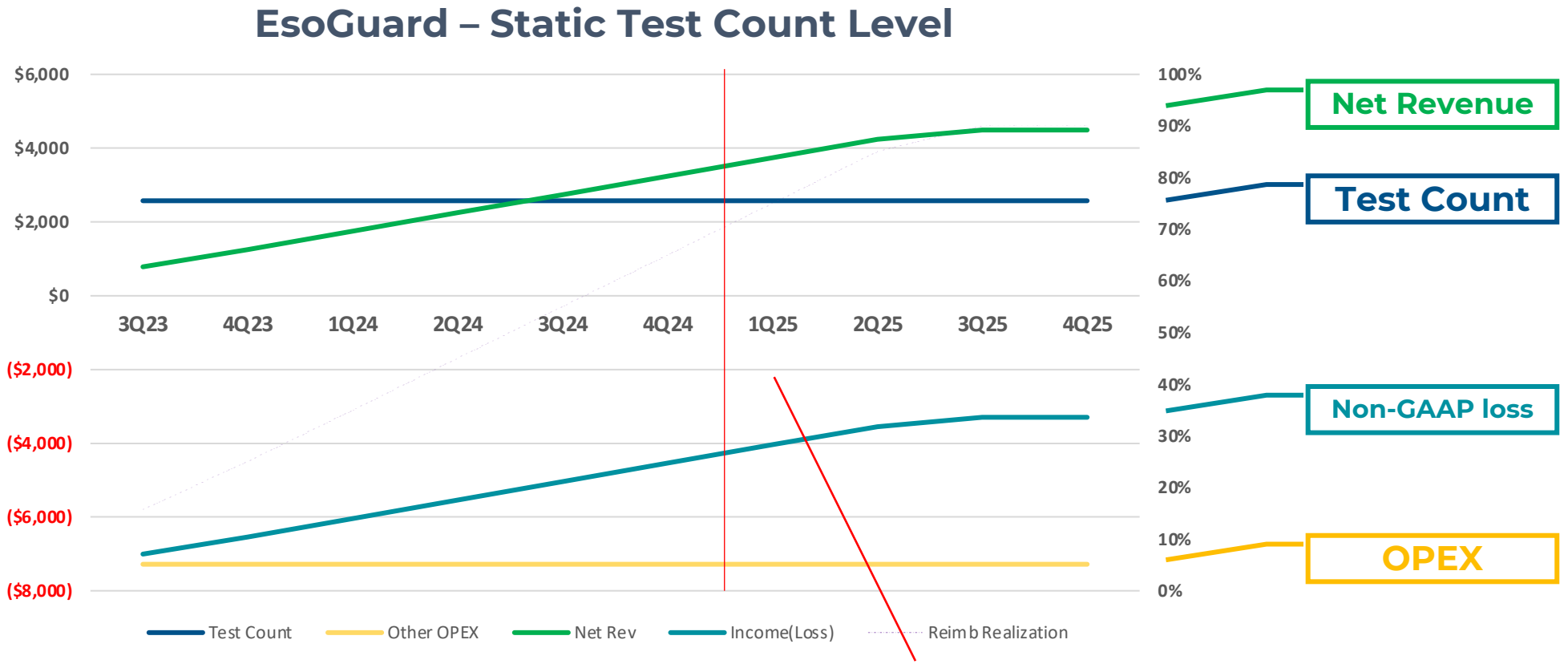


Reimbursement progress alone can cut burn rate by 42% without any change in the current quarterly test volume (2575).

Key Takeaway:

High Margin + Modest Reimbursement favors speed to cash flow breakeven.

Pathway Ahead
Illustrative Examples

Static Model – Isolate Reimbursement Impact

Conservative Growth – Focus on Burn Rate

Steady Growth – Isolate Cash Flow Breakeven

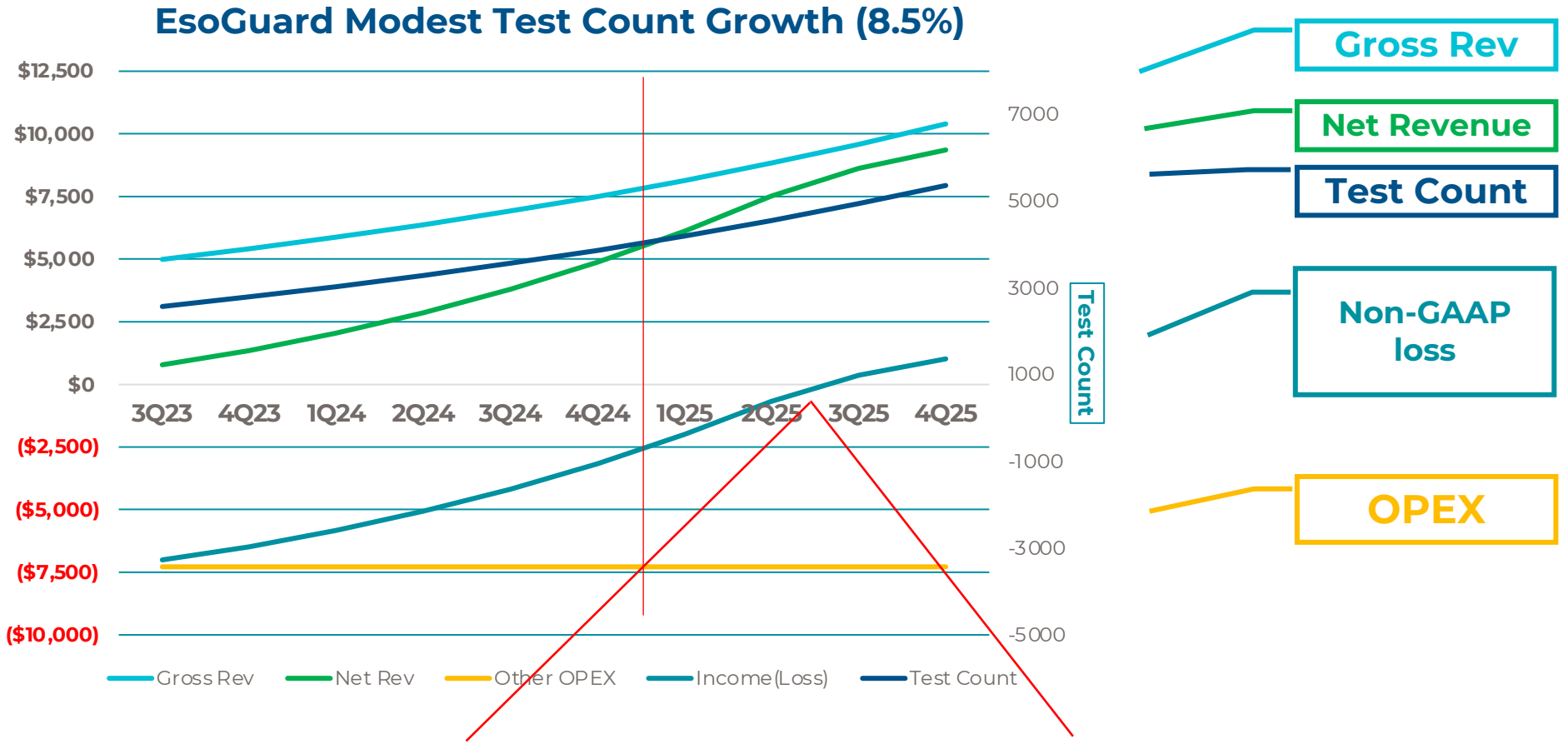
Dynamic Model – Stepping on the Gas Pedal

Pathway Ahead – Illustrative Examples

Conservative Growth

Assumptions:

1. Modest Test Growth (50% of 3Q23 rate)
2. Prorata Reimb
3. OPEX Flat
4. MSA paid in stock



Cumulative Burn Rate 4Q23 thru 2Q25 is approx. $27M
Proforma Cash at 3Q23 - $29M

Modest Quarterly Test Volume Growth (50% of 3Q23 sequential rate) illustrates breakeven cash flow at end of 2Q25

Pathway Ahead
Illustrative Examples

Static Model – Isolate Reimbursement Impact

Conservative Growth – Focus on Burn Rate

Steady Growth – Isolate Cash Flow Breakeven

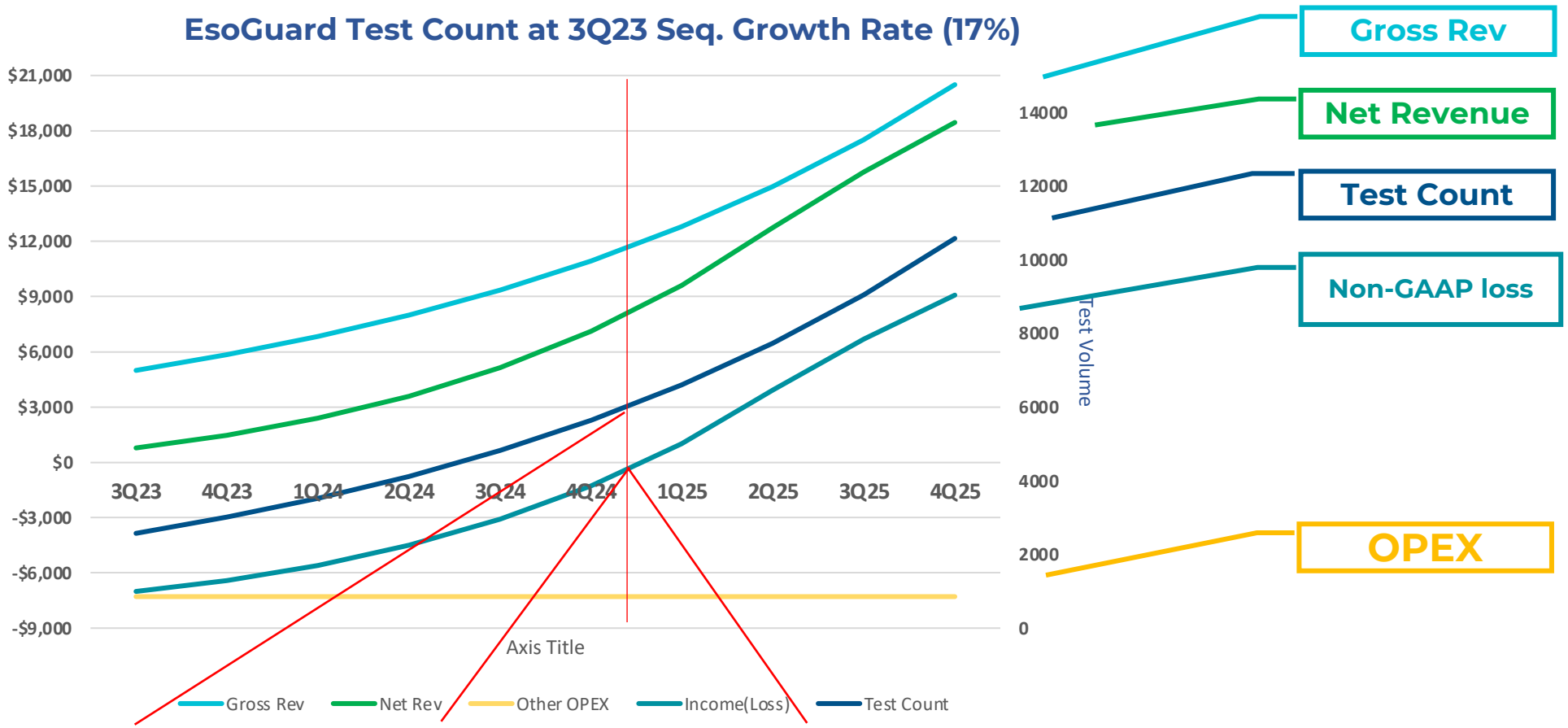
Dynamic Model – Stepping on the Gas Pedal

Pathway Ahead – Illustrative Examples

Steady Growth

Assumptions:

1. Steady Test Growth (3Q23 rate = 17%)
2. Prorata Reimb
3. OPEX Flat
4. MSA paid in stock



Test Volume ~ 6,000

Realization/Collection rate ~65%

Cumulative Burn Rate 4Q23 thru 4Q24 is approx. $21M
Proforma Cash at 3Q23 - $29M

Quarterly Test Volume Growth continues at 3Q23 sequential rate; illustrates breakeven cash flow at end of FY2024

Pathway Ahead
Illustrative Examples

Static Model – Isolate Reimbursement Impact

Conservative Growth – Focus on Burn Rate

Steady Growth – Isolate Cash Flow Breakeven

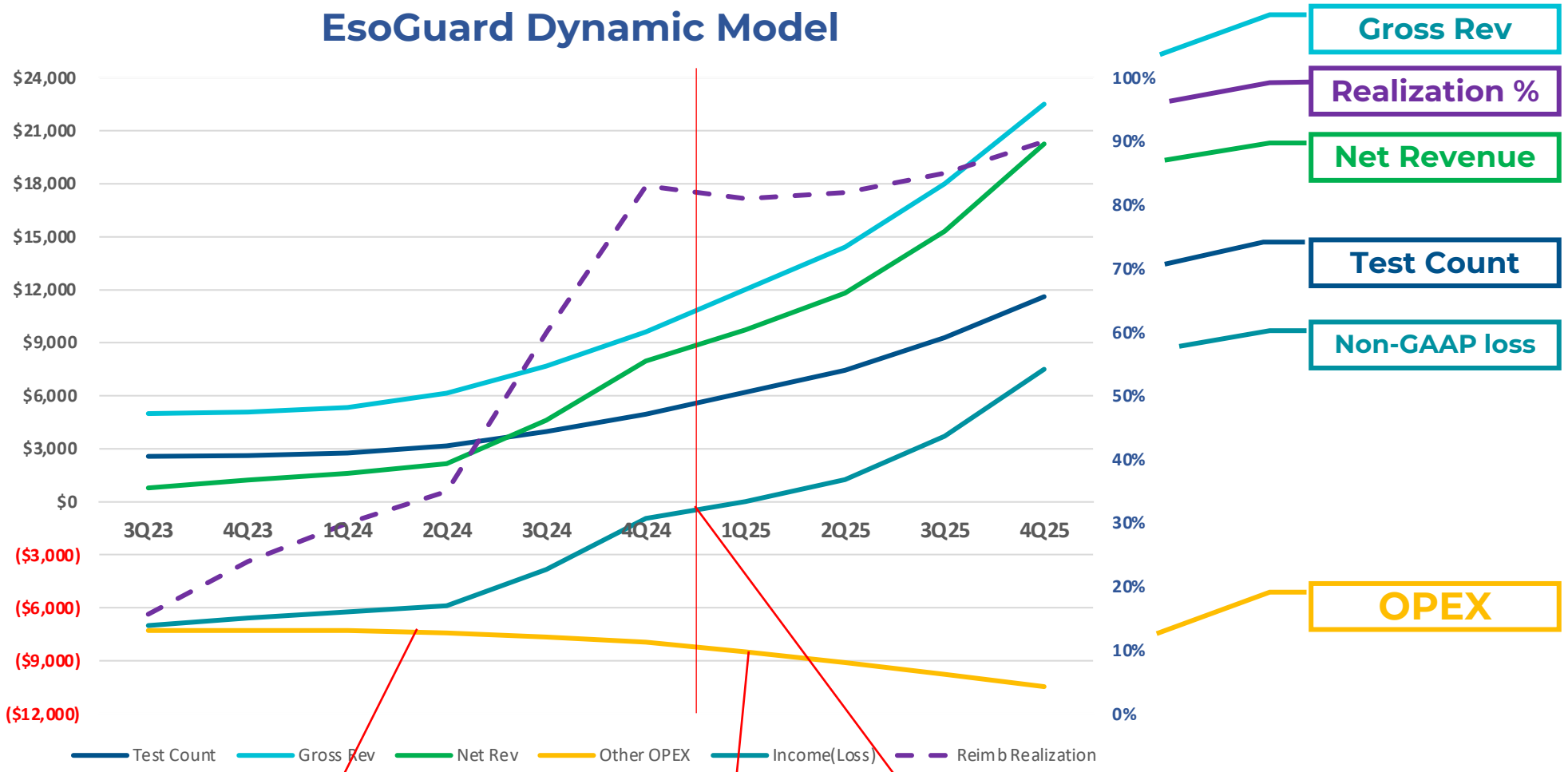
Dynamic Model – Stepping on the Gas Pedal

Pathway Ahead – Illustrative Examples

Dynamic Model

Assumptions:

1. Investment in S&M in response to Reimb changes
2. MSA paid in stock



Increase in Sales Headcount

Increase in Marketing Spend

Cash flow breakeven at end of FY2024;
Cumulative Burn Rate $23M
Proforma Cash $29M

Thank you.

Lucid
diagnostics

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