Novedades del consenso de Lyon 2.0 de ERGE

Daniel Cisternas
Julio 2024

CURSO DE AVANCES EN GASTROENTEROLOGÍA
PERSPECTIVAS FUTURAS EN GASTROENTEROLOGÍA
17 - 19 Julio 2024 - Hotel InterContinental, Stgo.
SChGE

ERGE
diagnosticando

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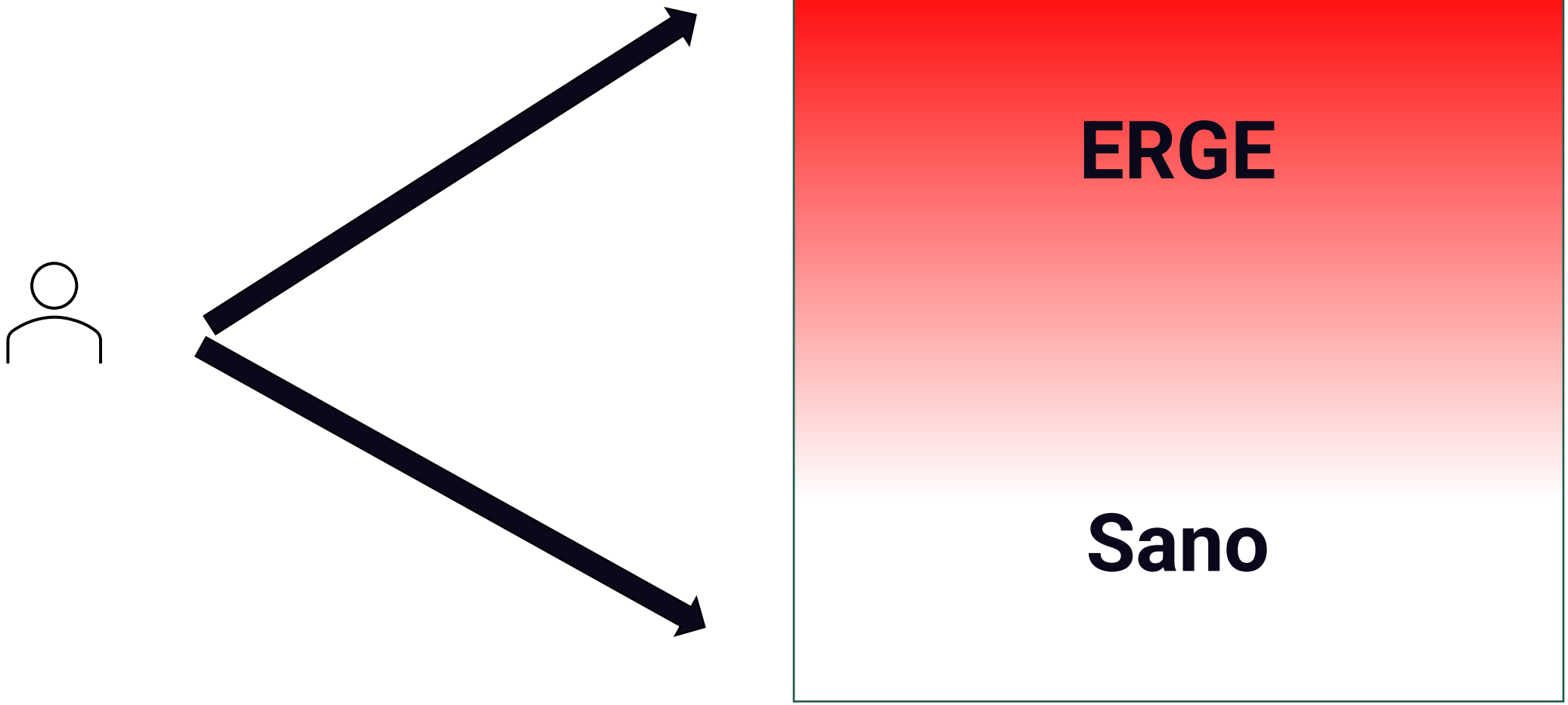
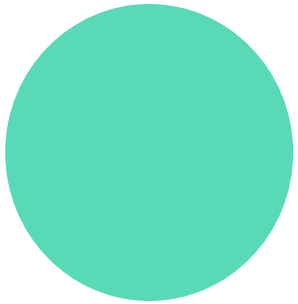
ERGE
diagnosticando

ERGE
diagnosticando

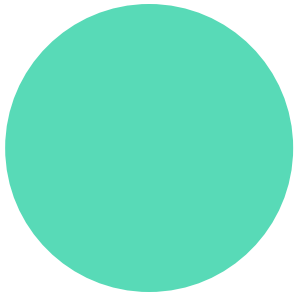


Diagnosticando ERGE



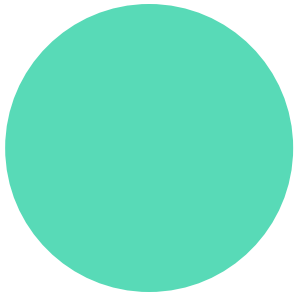
Síntomas típicos

S 70%
E 67%



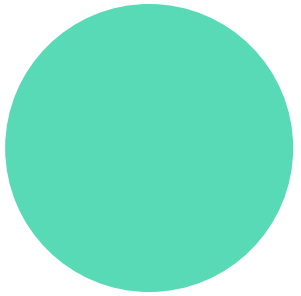
Test IBP

S 78%
E 54%.



Endoscopía

S 25%
E 100% (?)

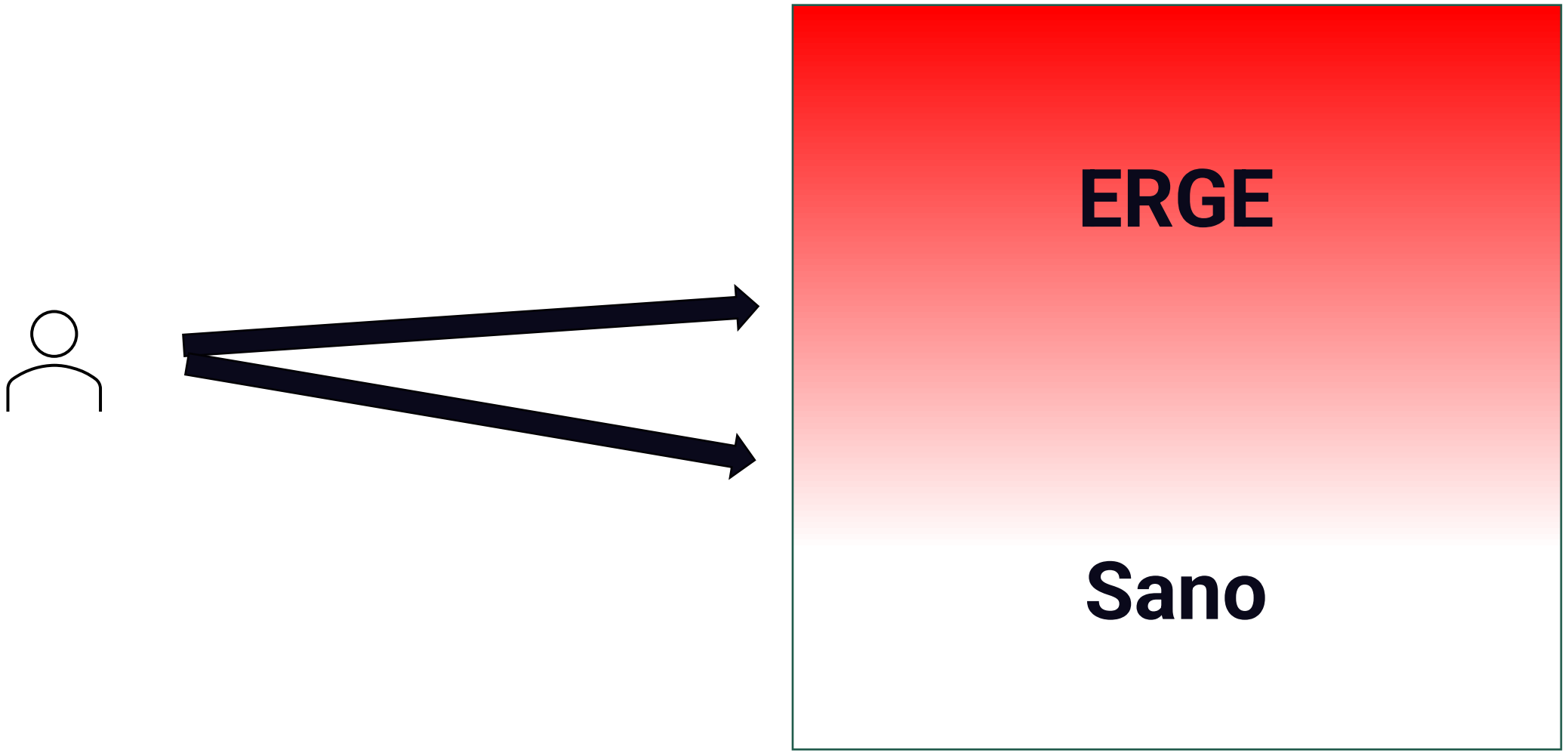


monitorizacion

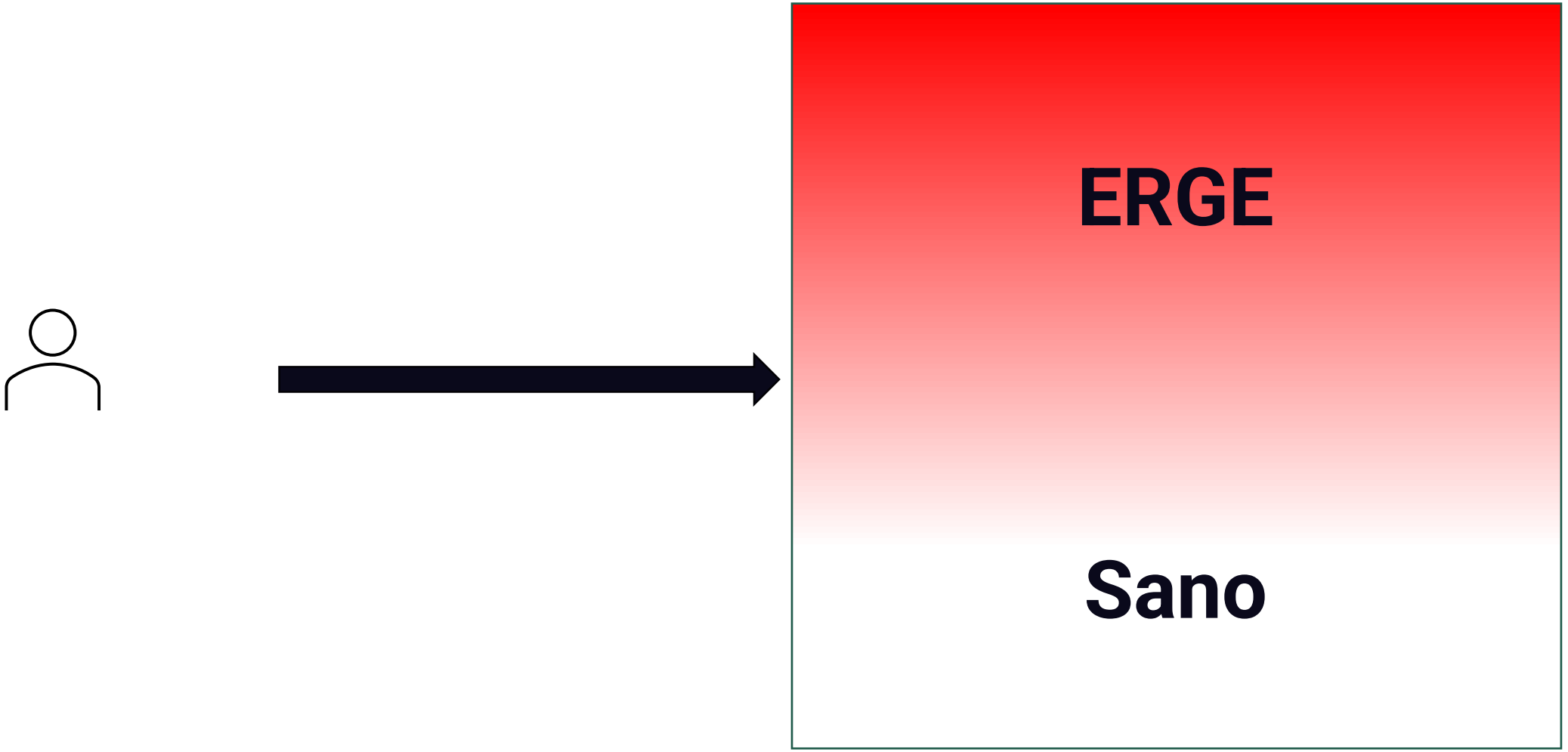
S 90%
E 100%

Gyawali CP, et al. Gut 2018;0:1
Dent J, et al. Gut 2010;59:714
Numans et al Ann Intern Med. 2004;140:518-527.

ERGE
diagnosticando



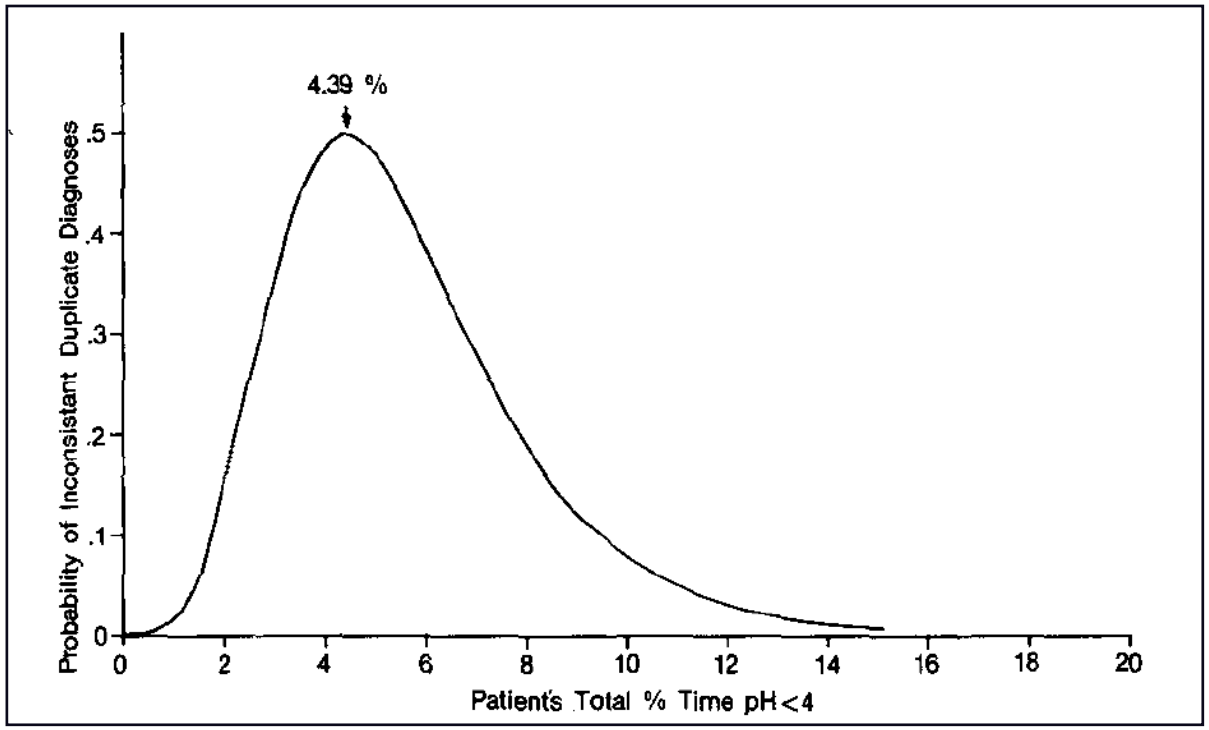
ERGE
diagnosticando



AET
Reproducibilidad

Ambulatory 24-Hour Esophageal pH Monitoring
Reproducibility and Variability of pH Parameters

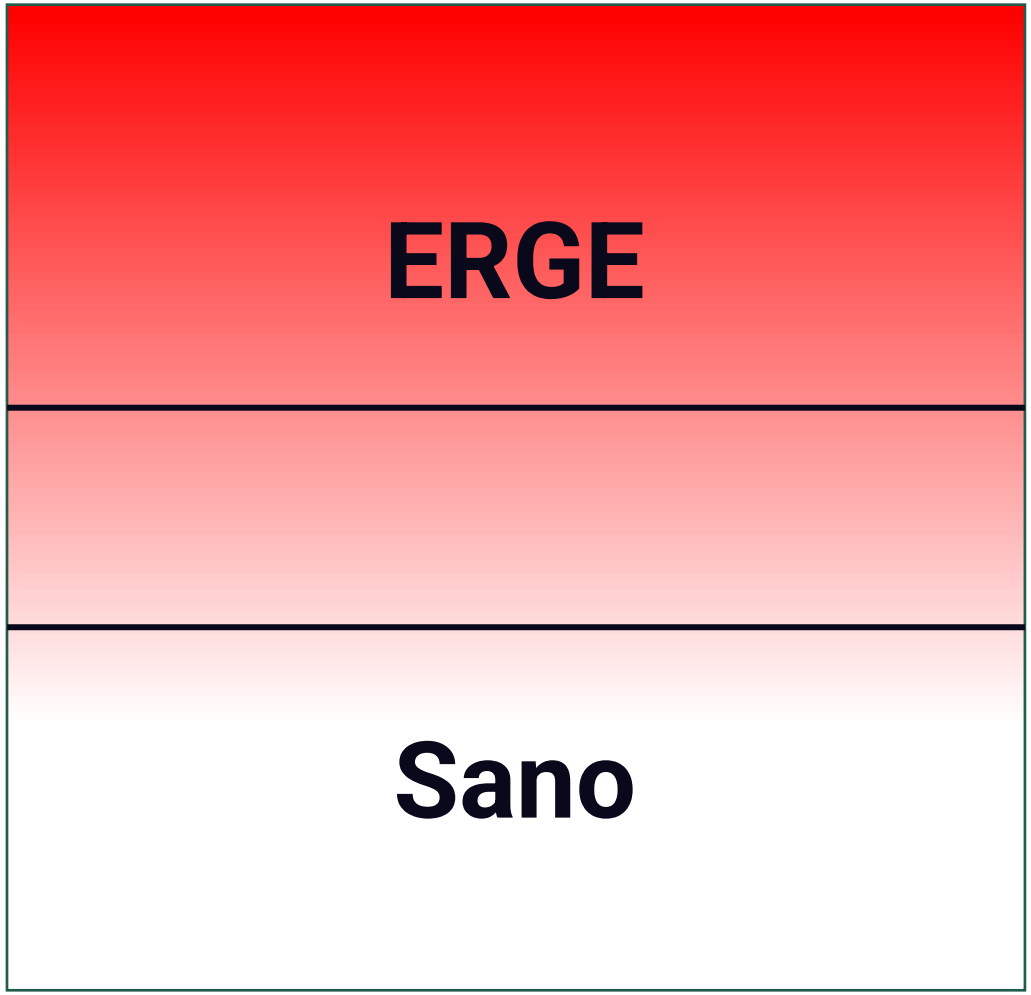
G.J. WIENER, MD, T.M. MORGAN, PhD, J.B. COPPER, PA, W.C. WU, MB, BS, D.O. CASTELL, MD, J.W. SINCLAIR, PA, and J.E. RICHTER, MD



AET 3-7%=30-50% redg
AET<1.8% ò >9.4%=<10% redg

Digestive Diseases and Sciences, Vol. 33, No. 9 (September 1988), pp. 1127–1133

ERGE
diagnosticando



ERGE
diagnosticando

Accionable

Adyuvantes

ERGE concluyente

No concluyente

Sano

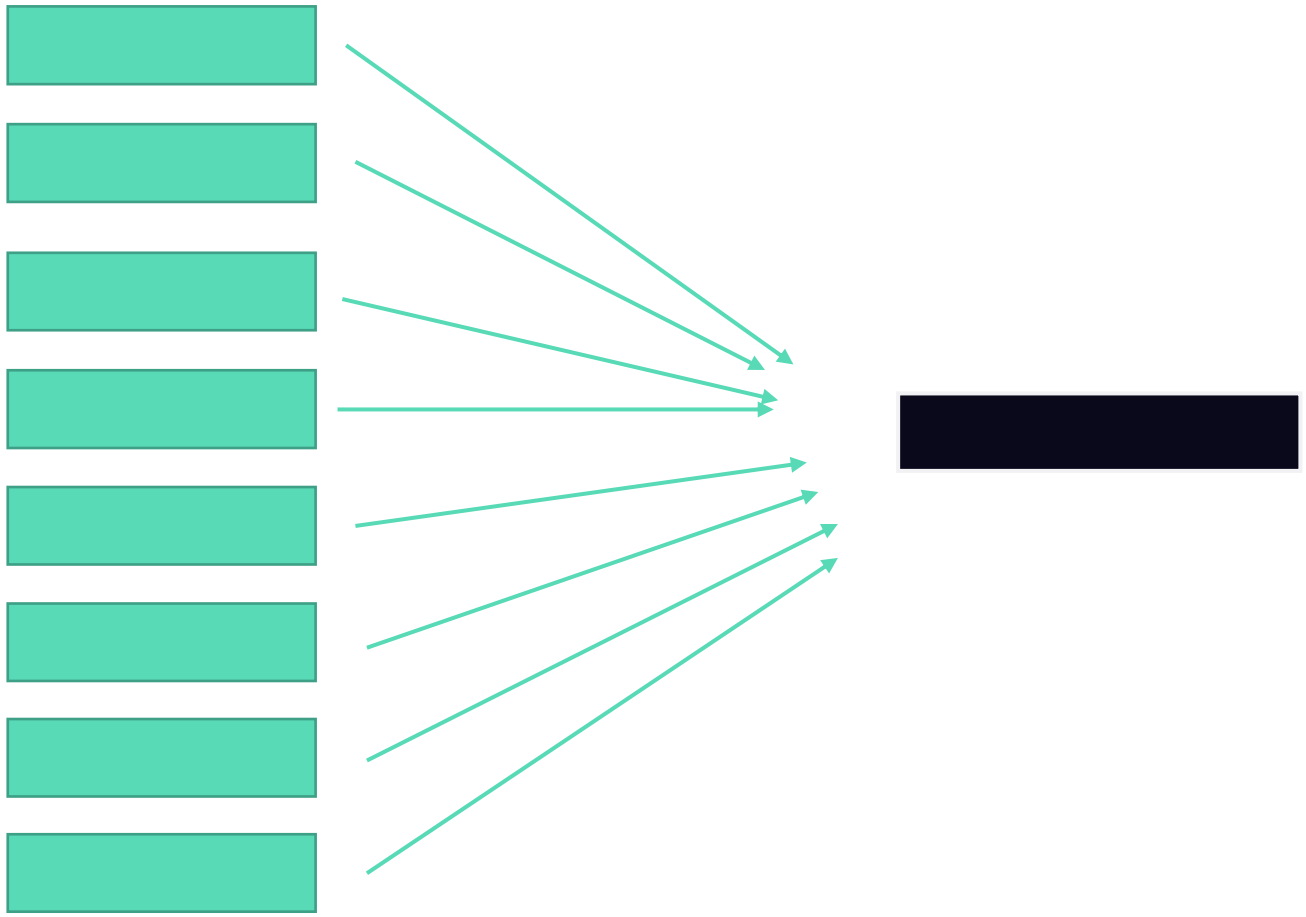
ERGE
estados de diagnostico

Recent advances in clinical practice

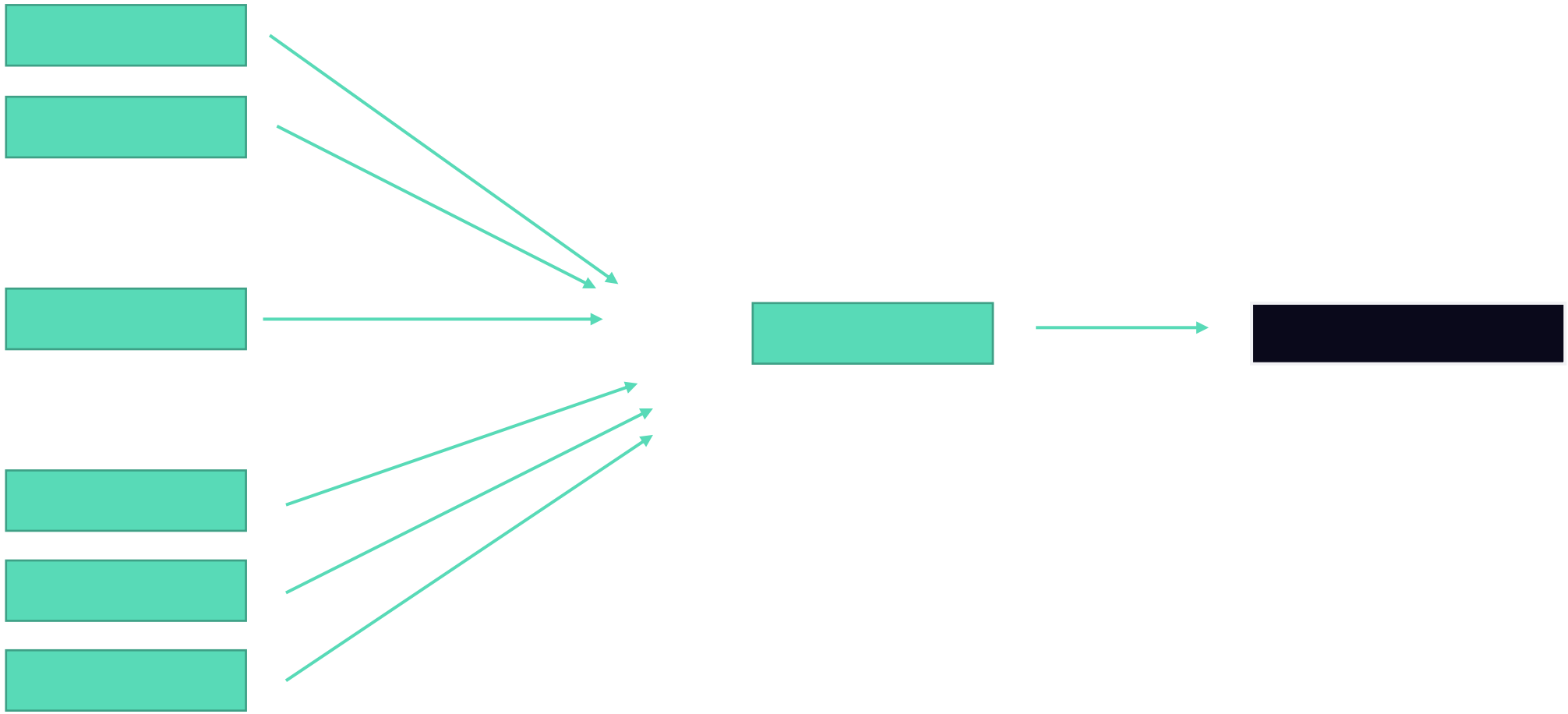
Updates to the modern diagnosis of GERD: Lyon consensus 2.0

C Prakash Gyawali [1], Rena Yadlapati,[2] Ronnie Fass,[3] David Katzka,[4] John Pandolfino,[5] Edoardo Savarino,[6] Daniel Sifrim [7], Stuart Spechler,[8] Frank Zerbib [9], Mark R Fox [10], Shobna Bhatia,[11] Nicola de Bortoli,[12] Yu Kyung Cho,[13] Daniel Cisternas,[14] Chien-Lin Chen [15], Charles Cock,[16] Albis Hani,[17] Jose Maria Remes Troche,[18] Yinglian Xiao,[19] Michael F Vaezi,[20] Sabine Roman [21]

Múltiples variables



Múltiples variables
Asociación independiente



TEA
Predice

Alimentary Tract

Predictors of clinical response of acid suppression in Chinese patients with gastroesophageal reflux disease

An Jiang Wang[1], He Wang[1], Long Xu, Nong Hua Lv, Xing Xing He, Jun Bo Hong, Yu You, Xuan Zhu*

	Responders (n = 95)	Non-responders (n = 58)	P
Characteristics of reflux profile (n, %)			
Presence of PAR	51 (53.7%)	17 (29.3%)	0.003
Positive SI	29 (30.5%)	10 (17.2%)	0.07
Positive SAP	21 (22.1%)	10 (17.2%)	0.21
Abnormal total reflux	22 (23.2%)	10 (17.2%)	0.38
Abnormal acid reflux	20 (21.1%)	9 (15.5%)	0.40
Abnormal weakly acidic reflux	7 (7.4%)	7 (12.1%)	0.33
Abnormal weakly alkaline reflux	7 (7.4%)	10 (17.2%)	0.06
Abnormal mixed reflux	14 (14.7%)	3 (5.2%)	0.07
Abnormal liquid reflux	19 (20.0%)	19 (32.8%)	0.08
Abnormal gas reflux	26 (27.4%)	22 (37.9%)	0.17
Abnormal proximal GER	26 (27.4%)	9 (15.5%)	0.09
Abnormal BCT	37 (38.9%)	13 (22.4%)	0.03
Abnormal ACT	13 (13.7%)	7 (12.1%)	0.77
Abnormal bolus exposure	81 (85.3%)	44 (75.9%)	0.15

153 pacientes
62% respuesta a Esomeprazol 20x2

Table 2
Multivariate logistic regression analyses of predictors of clinical response of acid suppression in patients with gastroesophageal reflux disease.

	β	OR	95% CI	P
Overlap of IBS and FD	−1.92	0.15	0.04–0.50	0.002
Overlap of IBS alone	−1.88	0.15	0.04–0.58	0.006
Depression	−1.22	0.30	0.13–0.69	0.005
PAR	1.41	4.11	1.81–9.35	0.001

IBS, irritable bowel syndrome; FD, functional dyspepsia; PAR, pathological acid reflux; OR, odds ratio; CI, confidence interval.

ERGE
estados de diagnostico

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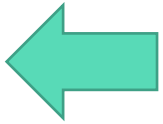
TEA

Lyon
Corte TEA



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GRIS

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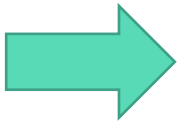
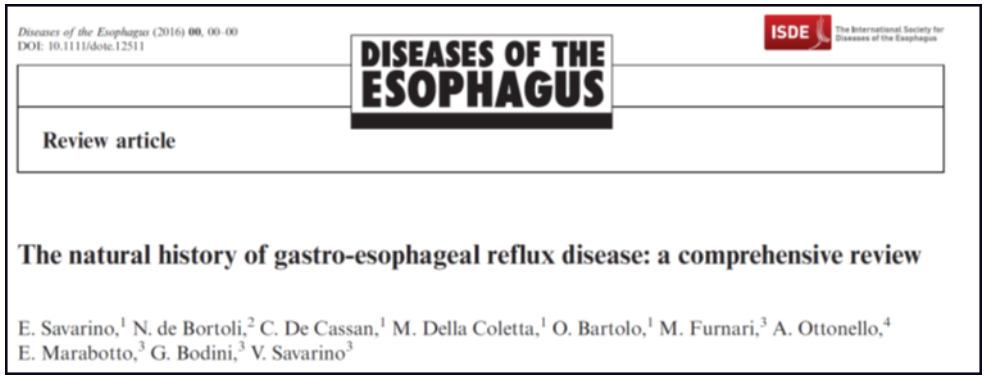


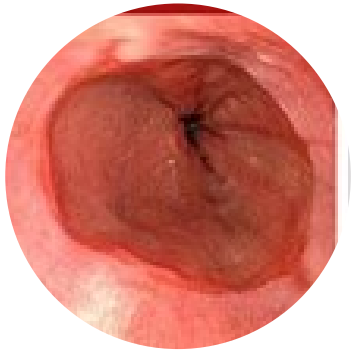
A total AET value of <4% is consistently normal (GRADE moderate) and >6% is consistently abnormal (GRADE high)

ERGE dg
Esofagitis



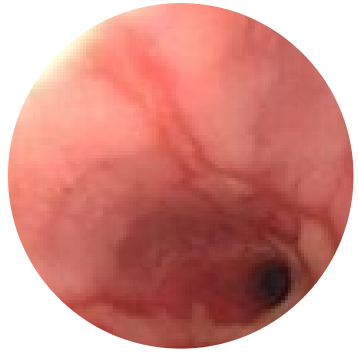
Normal

20-60%



Esofagitis A/B

1-6%



Esofagitis C/D

5.7% de 600 sanos ASINTOMATICOS tenía esofagitis A/B

Ronkainen et al. Scandinavian Journal of Gastroenterology, 2005; 40: 275

Dg ERGE
esophagitis A-LA

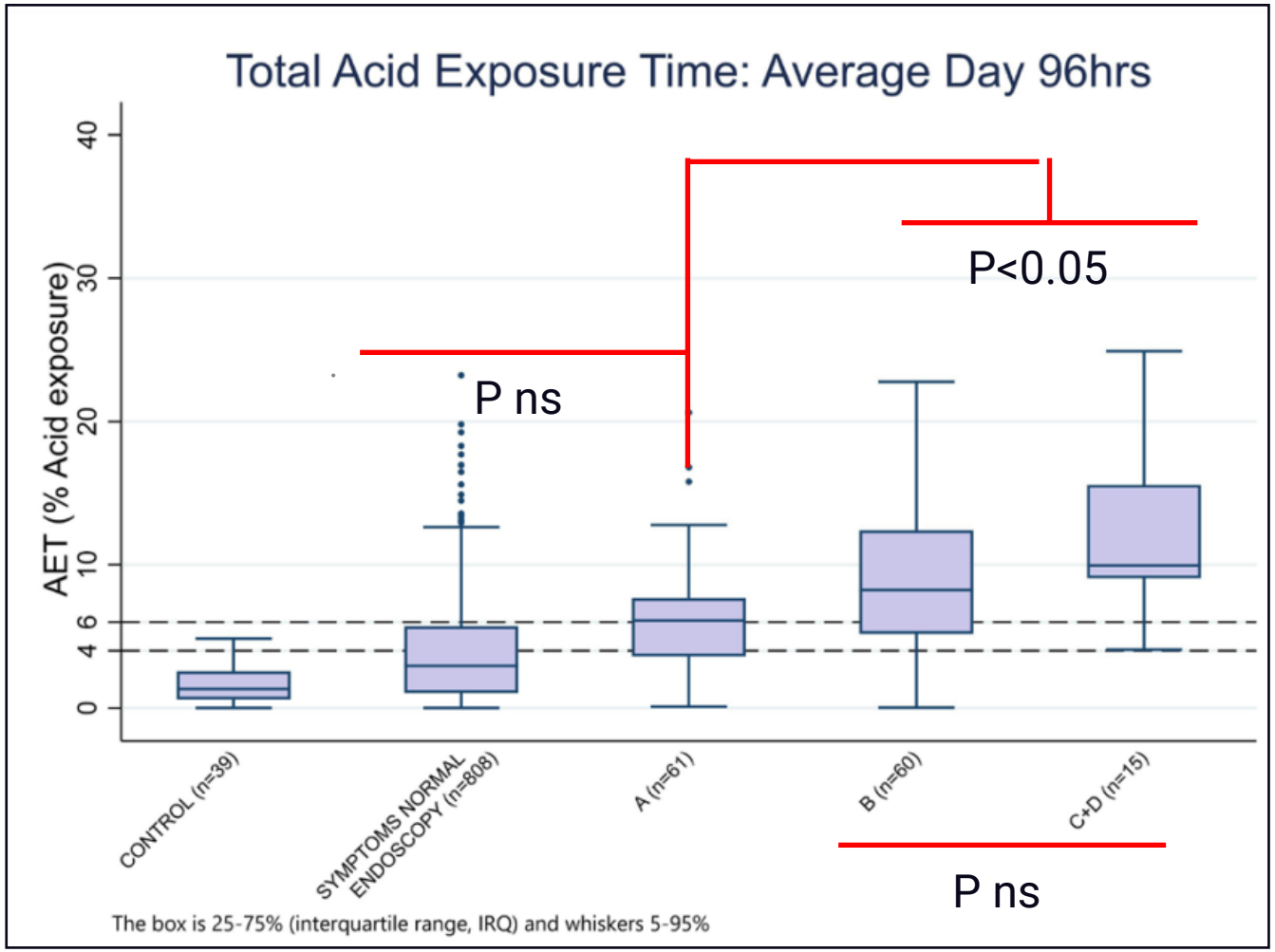
K 0.65

5-7%

sanos

Armstrong D, et al.Gastroenterology 1996;111:85.
Rusu R-I, et al. Gut 2021;70:2230
Takashima T et al. Digestion 2012;86:55
Zagari RM, et al. Gut 2008;57:1354

TEA a lo largo de LA



TEA
B=C-D/LA

Respuesta sintomática
B=C/LA

Rusu et al. Gut. 2021 Dec;70(12):2230
Armstrong D, et al.Gastroenterology 1996;111:85.
Visaggi P, et al. Am J Gastroenterol 2023;118:794

ERGE
esofagitis

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B-C-D

Concluyente

A

Adyuvante

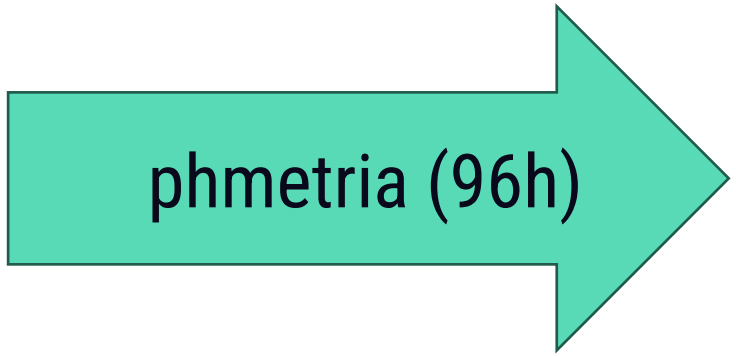
Monitorizacion reflujo

ph 24 vs prolongado

38

Sintomaticos

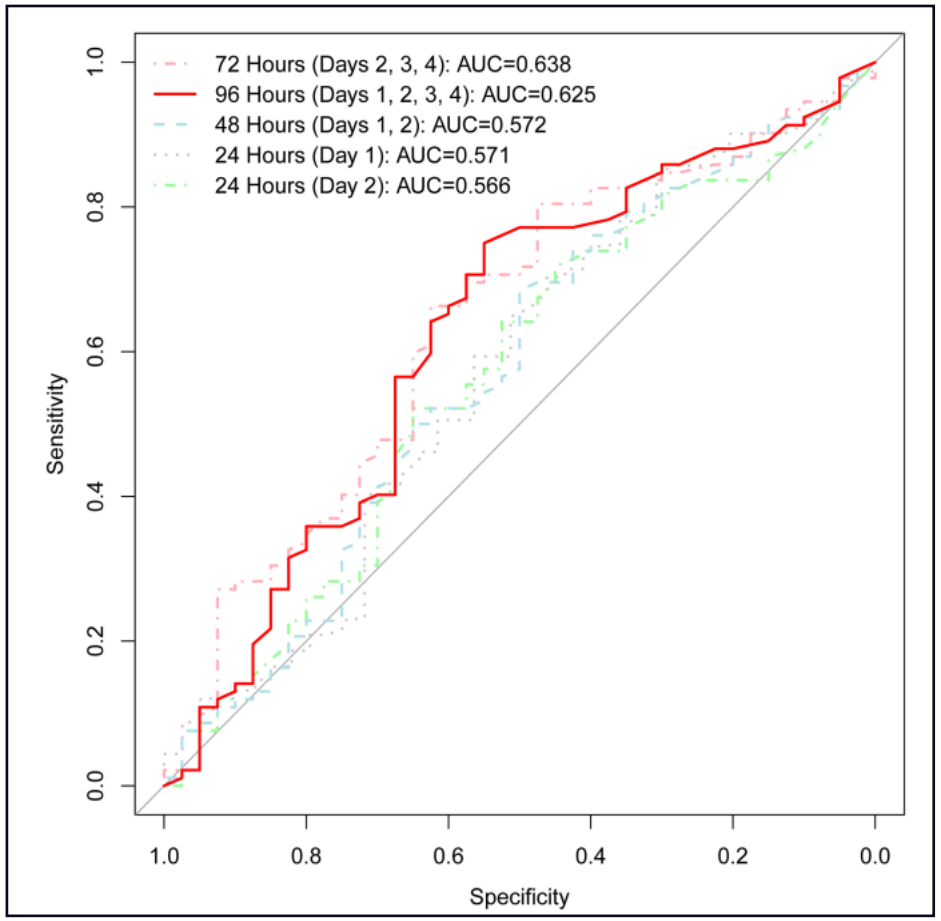
Ph 24 h NEG



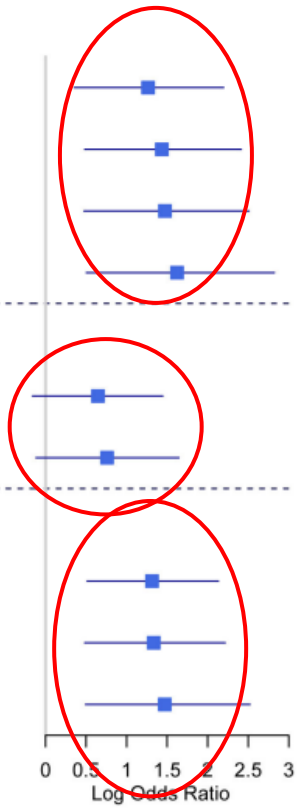
37% (+)

Diagnostico ERGE
días de monitorización

132
Suspender IBP



Days Included	Days with AET > 4.0%	PPI Discontinued N (%)	PPI Resumed N (%)	log(OR)
96 hours (Days 1, 2, 3 & 4)	0 days (n 24)	13 (54%)	11 (46%)	
	1 day or more (n 108)	27 (25%)	81 (75%)	1.27
	2 days or more (n 82)	18 (22%)	64 (78%)	1.44
	3 days or more (n 61)	13 (21%)	48 (79%)	1.47
	4 days (n 37)	7 (19%)	30 (81%)	1.62
48 hours (Days 1 & 2)	0 days (n 37)	15 (41%)	22 (59%)	
	1 day or more (n 95)	25 (26%)	70 (74%)	0.65
	2 days (n 62)	15 (24%)	47 (76%)	0.76
72 hours (Days 2, 3 & 4) [Day 1 excluded]	0 days (n 37)	19 (51%)	18 (49%)	
	1 day or more (n 95)	21 (22%)	74 (78%)	1.31
	2 days or more (69)	15 (22%)	54 (78%)	1.34
	3 days (n 41)	8 (20%)	33 (80%)	1.47



Yadlapati et al. Am J Gastroenterol 2022 1;117(10):1573

ERGE
monitorizacion

Recent advances in clinical practice

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Prolongada

However, wireless pH monitoring is not available, feasible or affordable worldwide.

<u>Ambulatory catheter-based reflux monitoring remains a viable alternative</u>,

ERGE. Lyon 2.0

diagnosticando

Dg ERGE

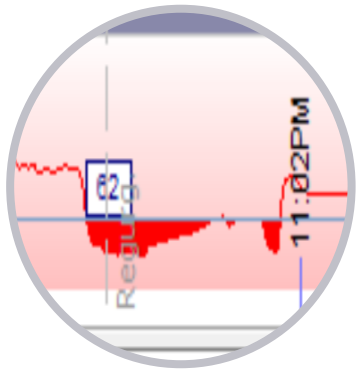
Lyon 2.0

Dg ERGE
Lyon 2.0

3 estados

TEA

Variable independiente



Prolongada

Dg ERGE
Lyon 2.0

B-C-D

Adyuvantes

- Asociacion sintomatica
- MNBI
- >80
- HH

Gracias

Consenso
TEA

REVIEW ARTICLE

WILEY Neurogastroenterology & Motility NGM

Ambulatory reflux monitoring for diagnosis of gastro-esophageal reflux disease: Update of the Porto consensus and recommendations from an international consensus group

S. Roman[1] | C. P. Gyawali[2] | E. Savarino[3] | R. Yadlapati[4] | F. Zerbib[5] | J. Wu[6] | M. Vela[7] | R. Tutuian[8] | R. Tatum[9] | D. Sifrim[10] | J. Keller[11] | M. Fox[12] | J. E. Pandolfino[4] | A. J. Bredenoord[13] | the GERD consensus group[a]

By consensus, the AET is favored as the metric used to designate esophageal acid burden

Lyon 2.0
Wireless

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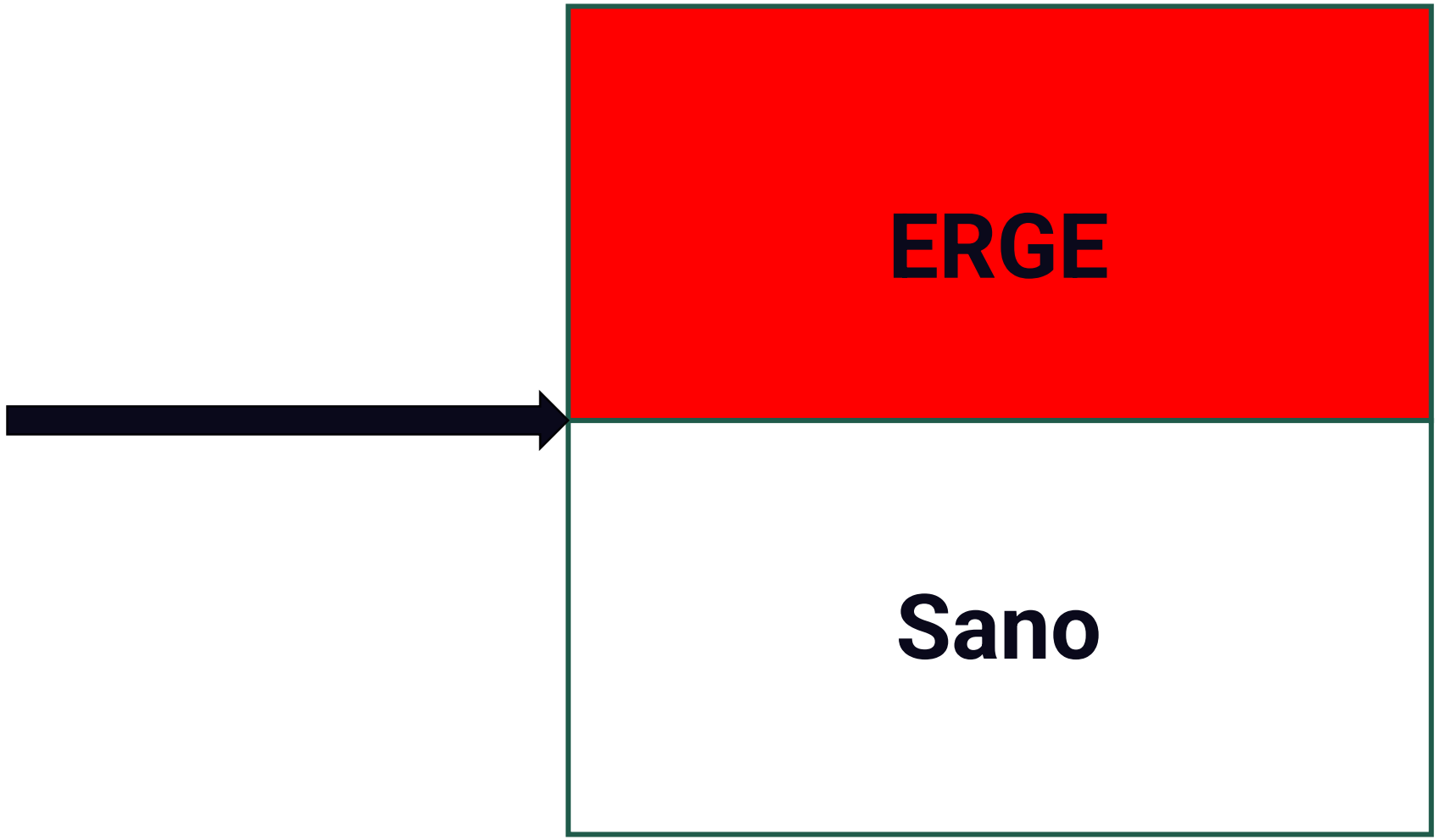
96h mejor que 24h
Mas cómodo
Endoscopia índice

Choice of ambulatory reflux monitoring methodology

Prolonged wireless pH-monitoring off antisecretory therapy is the preferred diagnostic tool in unproven GERD when available and may provide highest diagnostic yield with study duration of 96 hours.

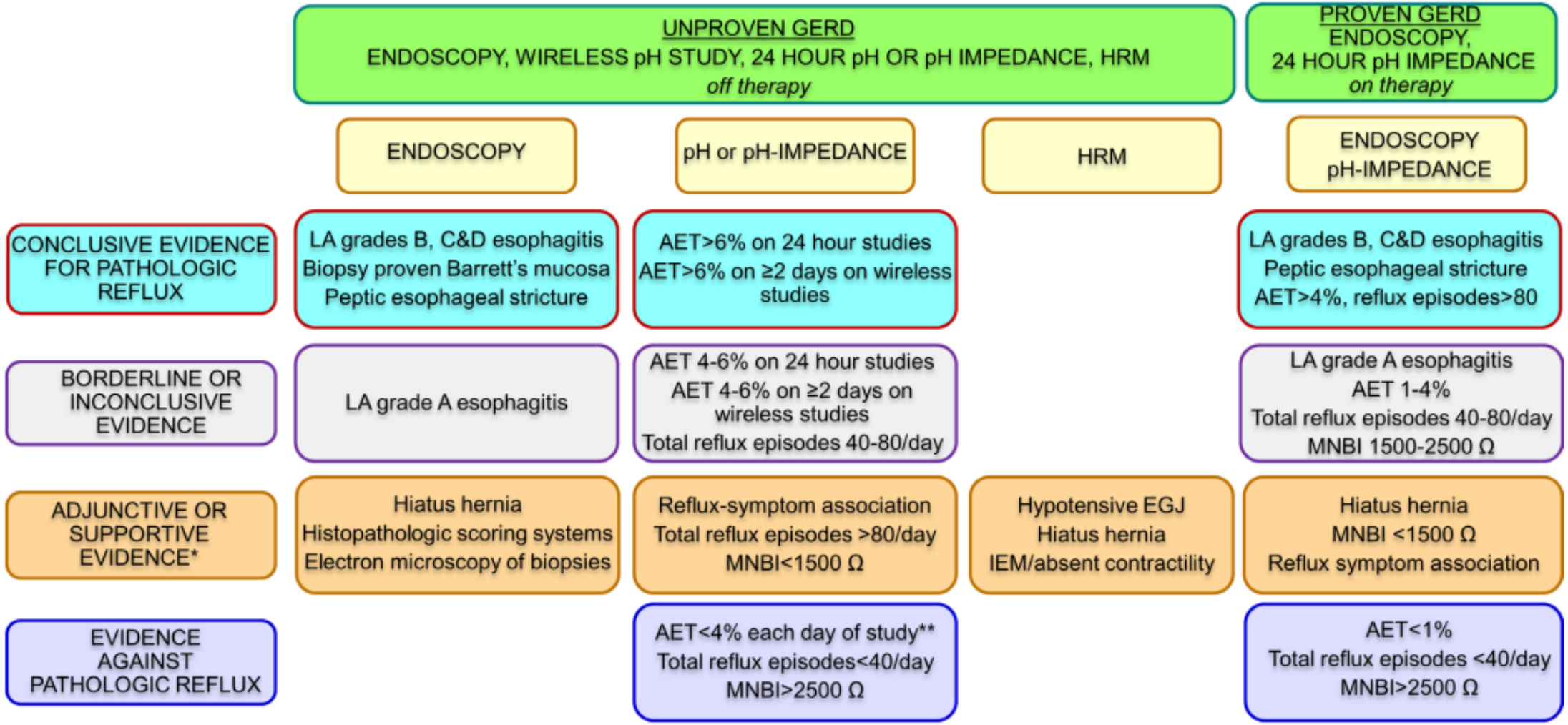
However, wireless pH monitoring is not available, feasible or affordable worldwide.

Ambulatory catheter-based reflux monitoring remains a viable alternative,

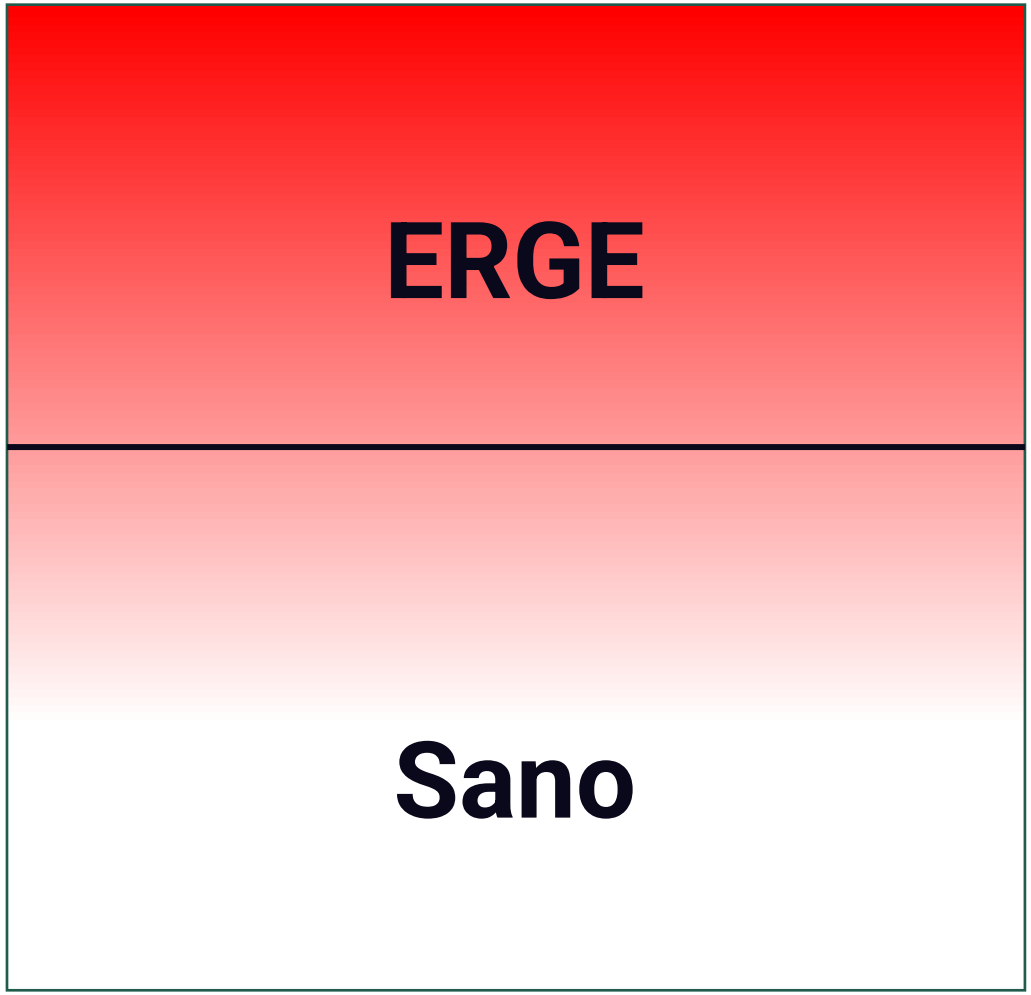

ERGE
Sano

ERGE
diagnosticando

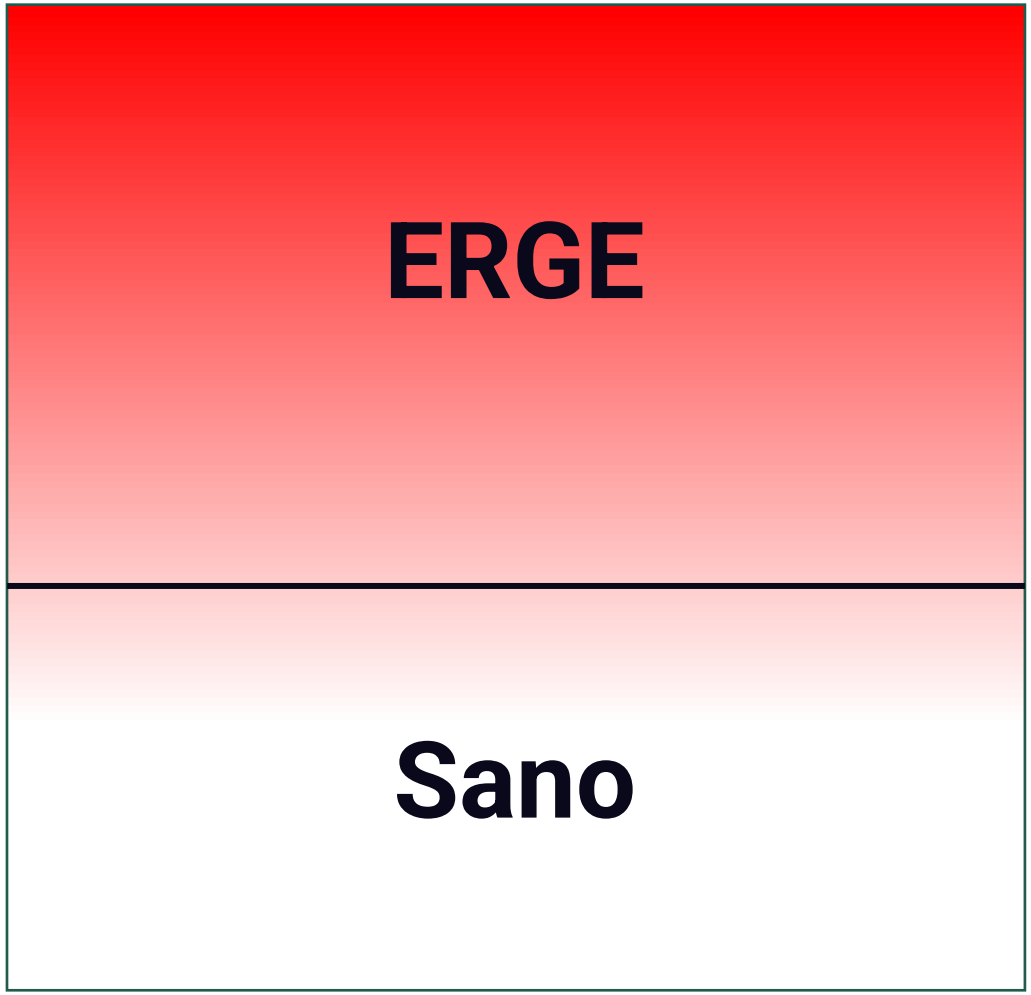
ERGE
diagnosticando


UNPROVEN GERD
ENDOSCOPY, WIRELESS pH STUDY, 24 HOUR pH OR pH IMPEDANCE, HRM
off therapy
PROVEN GERD
ENDOSCOPY,
24 HOUR pH IMPEDANCE
on therapy
ENDOSCOPY
pH or pH-IMPEDANCE
HRM
ENDOSCOPY
pH-IMPEDANCE
CONCLUSIVE EVIDENCE FOR PATHOLOGIC REFLUX
LA grades B, C&D esophagitis
Biopsy proven Barrett's mucosa
Peptic esophageal stricture
AET>6% on 24 hour studies
AET>6% on ≥2 days on wireless studies
LA grades B, C&D esophagitis
Peptic esophageal stricture
AET>4%, reflux episodes>80
BORDERLINE OR INCONCLUSIVE EVIDENCE
LA grade A esophagitis
AET 4-6% on 24 hour studies
AET 4-6% on ≥2 days on wireless studies
Total reflux episodes 40-80/day
LA grade A esophagitis
AET 1-4%
Total reflux episodes 40-80/day
MNBI 1500-2500 Ω
ADJUNCTIVE OR SUPPORTIVE EVIDENCE*
Hiatus hernia
Histopathologic scoring systems
Electron microscopy of biopsies
Reflux-symptom association
Total reflux episodes >80/day
MNBI<1500 Ω
Hypotensive EGJ
Hiatus hernia
IEM/absent contractility
Hiatus hernia
MNBI <1500 Ω
Reflux symptom association
EVIDENCE AGAINST PATHOLOGIC REFLUX
AET<4% each day of study**
Total reflux episodes<40/day
MNBI>2500 Ω
AET<1%
Total reflux episodes <40/day
MNBI>2500 Ω

ERGE
diagnosticando



ERGE
diagnosticando




HARDY CREEK TRAIL
HAMILTON MTN. DIFFICULT
HAMILTON MTN.
MORE DIFFICULT

NO ES FACIL

2023

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AET y síntomas
Predicen respuesta tratamiento

Acid-Based Parameters on pH-Impedance Testing Predict Symptom Improvement With Medical Management Better Than Impedance Parameters

Amit Patel, MD[1], Gregory S. Sayuk, MD, MPH[1] and C. Prakash Gyawali, MD, MRCP[1]

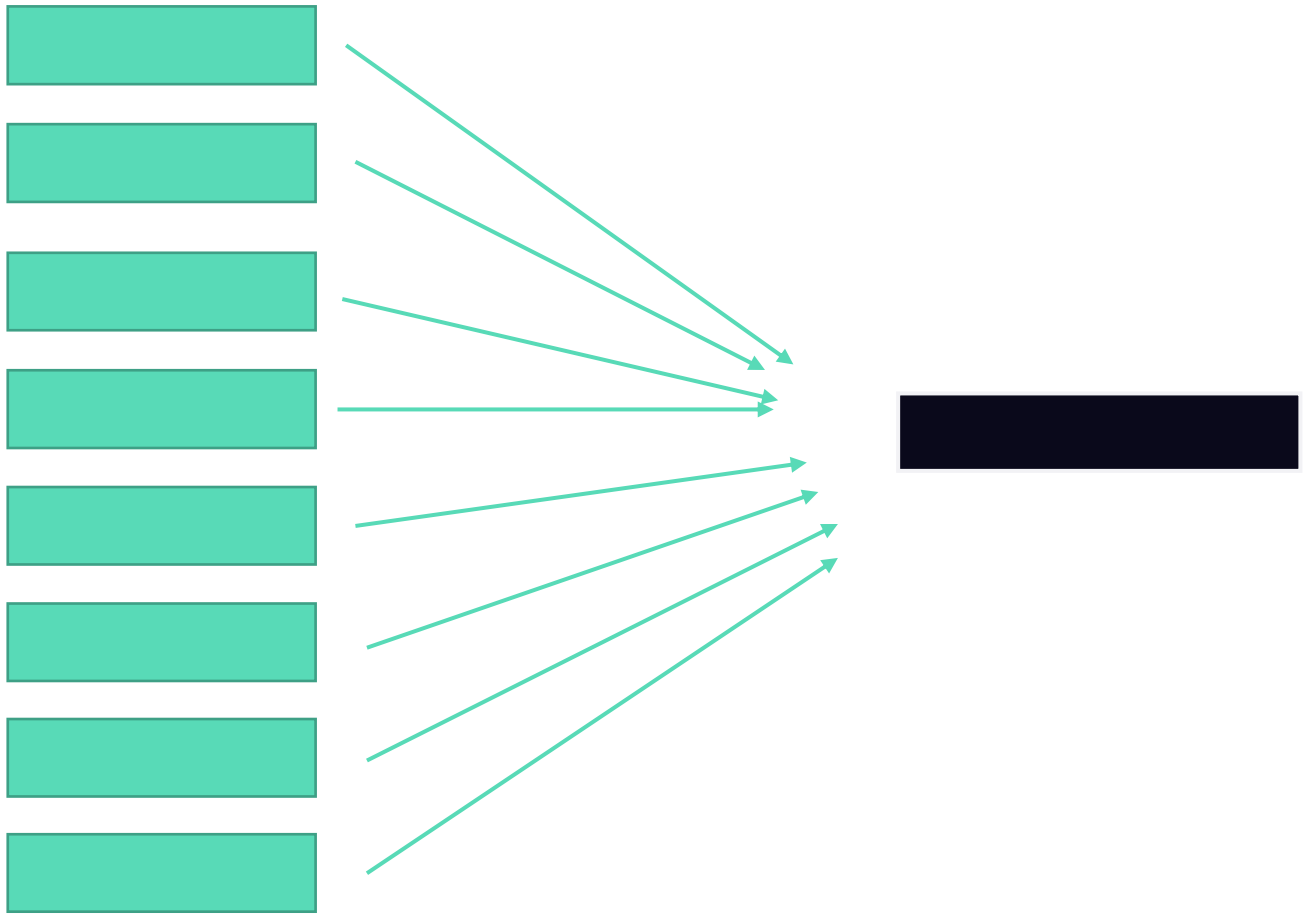
Table 4. Predictors of global symptom improvement by univariate analysis, reported as *P* values from individual comparisons

	Linear GSS change			≥50% GSS improvement		
	All (*n*=128)	On PPI (*n*=69)	Off PPI (*n*=59)	All (*n*=128)	On PPI (*n*=69)	Off PPI (*n*=59)
Acid parameters						
AET total, %	0.03	0.21	0.04	0.03	0.24	0.10
AET ≥4.0%	0.01	0.11	0.05	0.003	0.049	0.06
SI (acid) ≥50%	0.58	0.45	0.78	0.25	0.44	0.70
SAP (acid) ≥50%	0.47	0.52	0.47	0.78	0.31	0.61
Impedance parameters						
RET total, %	0.18	0.23	0.21	0.25	0.22	0.29
RET ≥1.4%	0.91	0.83	0.75	0.84	0.49	0.47
SI (impedance) ≥50%	0.96	0.36	0.94	0.68	0.75	0.87
SAP (impedance) ≥50%	0.008	0.01	0.23	0.06	0.24	0.35
Total reflux events ≥48	0.73	0.58	0.91	0.87	0.85	0.87
Total reflux events ≥73	0.87	0.57	0.42	0.82	0.40	0.32

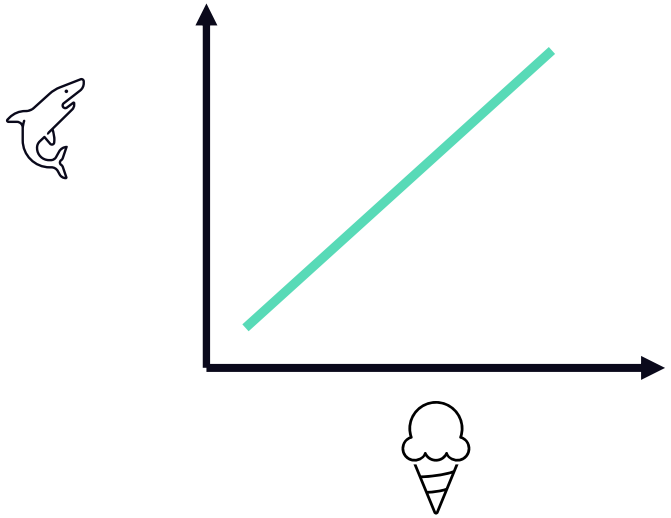
AET, acid exposure time; GSS, global symptomatic status; PPI, proton pump inhibitor; RET, reflux exposure time; SAP, symptom association probability measured by Ghillebert probability estimate; SI, symptom index.

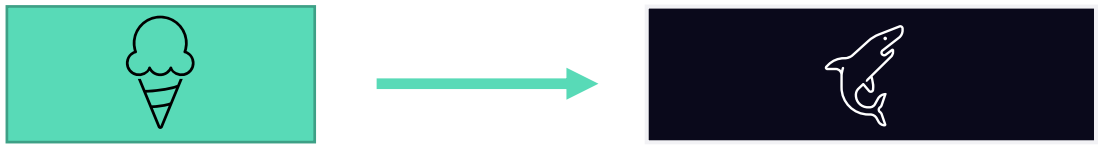
Am J Gastroenterol 2014; 109:836–844;

Múltiples variables



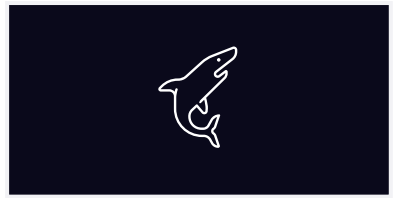

ICE CREAM SALES
SHARK ATTACKS
JAN
MAR
MAY
JUL
SEP
NOV





Múltiples variables

Múltiples variables
Asociación independiente



Regresión logística

Independientes

adyuvantes

Lyon 2.0
Wireless

Recent advances in clinical practice

Updates to the modern diagnosis of GERD: Lyon consensus 2.0

C Prakash Gyawali [1], Rena Yadlapati,[2] Ronnie Fass,[3] David Katzka,[4] John Pandolfino,[5] Edoardo Savarino,[6] Daniel Sifrim [7], Stuart Spechler,[8] Frank Zerbib [9], Mark R Fox [10], Shobna Bhatia,[11] Nicola de Bortoli,[12] Yu Kyung Cho,[13] Daniel Cisternas,[14] Chien-Lin Chen [15], Charles Cock,[16] Albis Hani,[17] Jose Maria Remes Troche,[18] Yinglian Xiao,[19] Michael F Vaezi,[20] Sabine Roman [21]

(-)

AET<4.0% on all days of wireless pH monitoring with negative reflux-symptom association excludes GERD.

AET<4.0% on all days with a positive reflux-symptom association meets criteria for reflux hypersensitivity.

(+)

AET>6.0% for ≥2 days is diagnostic of GERD and supports treatment for GERD.

Any prolonged reflux monitoring study that does not meet criteria for GERD, reflux hypersensitivity or a normal study is considered inconclusive for GERD.

Lyon 2.0

MII o ph

Recent advances in clinical practice

Updates to the modern diagnosis of GERD: Lyon consensus 2.0

C Prakash Gyawali [1], Rena Yadlapati,[2] Ronnie Fass,[3] David Katzka,[4] John Pandolfino,[5] Edoardo Savarino,[6] Daniel Sifrim [7], Stuart Spechler,[8] Frank Zerbib [9], Mark R Fox [10], Shobna Bhatia,[11] Nicola de Bortoli,[12] Yu Kyung Cho,[13] Daniel Cisternas,[14] Chien-Lin Chen [15], Charles Cock,[16] Albis Hani,[17] Jose Maria Remes Troche,[18] Yinglian Xiao,[19] Michael F Vaezi,[20] Sabine Roman [21]

Total AET>6% off PPI on ambulatory pH-impedance monitoring is diagnostic of GERD and supports treatment for GERD.

Mantiene área gris 4-6%

Es lo mismo Esofagitis A que B?

Numero reflujos

Recent advances in clinical practice

Updates to the modern diagnosis of GERD: Lyon consensus 2.0

C Prakash Gyawali [1], Rena Yadlapati [2], Ronnie Fass [3], David Katzka [4], John Pandolfino [5], Edoardo Savarino [6], Daniel Sifrim [7], Stuart Spechler [8], Frank Zerbib [9], Mark R Fox [10], Shobna Bhatia [11], Nicola de Bortoli [12], Yu Kyung Cho [13], Daniel Cisternas [14], Chien-Lin Chen [15], Charles Cock [16], [19], Michael F Vaezi [20]

Total reflux episodes <40/day is adjunctive evidence for absence of pathological GERD.

Total reflux episodes 40–80/day off PPI is inconclusive evidence for GERD as a stand-alone metric.

Total reflux episodes >80/day is adjunctive evidence for objective GERD.

There are not sufficient data regarding thresholds for upright versus supine reflux episode numbers, and acidic versus non-acidic reflux events to incorporate these findings into clinical practice.

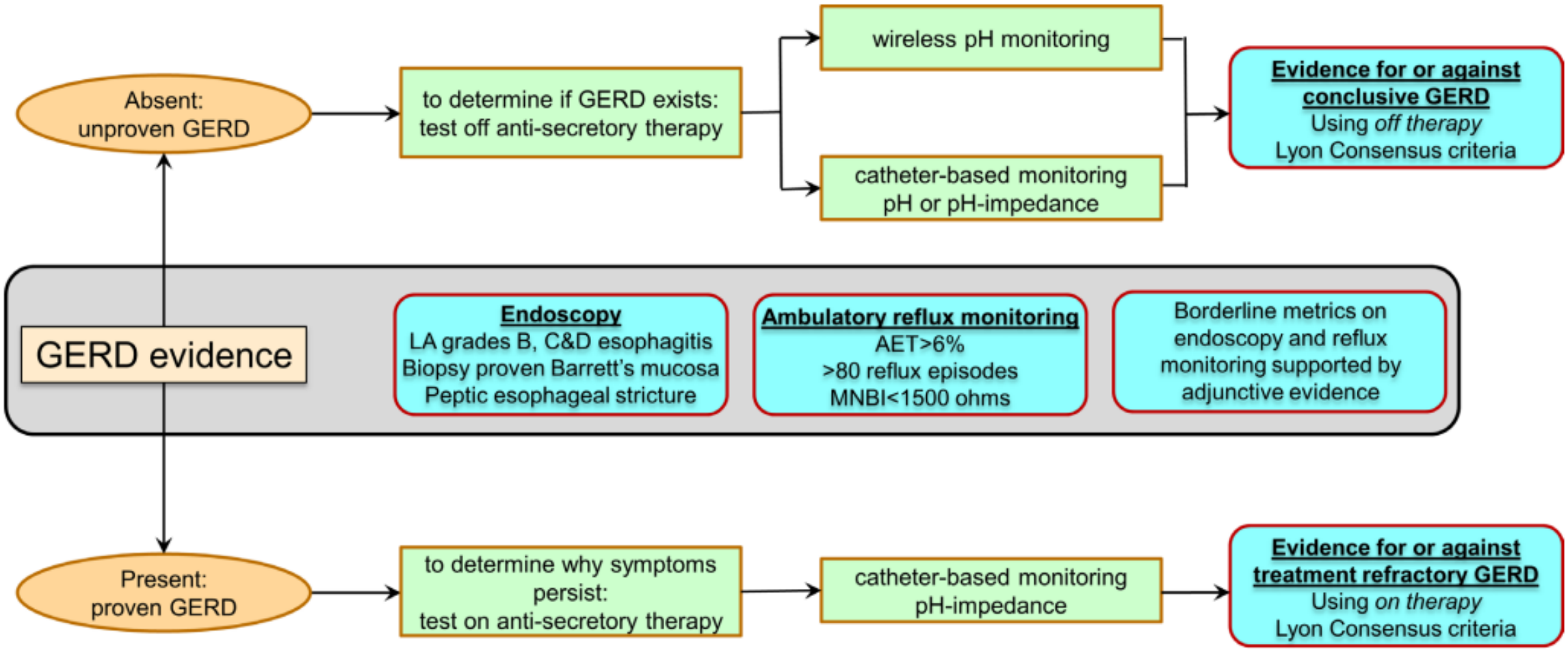
MNBI

Recent advances in clinical practice

Updates to the modern diagnosis of GERD: Lyon consensus 2.0

C Prakash Gyawali [1], Rena Yadlapati,[2] Ronnie Fass,[3] David Katzka,[4] John Pandolfino,[5] Edoardo Savarino,[6] Daniel Sifrim [7], Stuart Spechler,[8] Frank Zerbib [9], Mark R Fox [10], Shobna Bhatia,[11] Nicola de Bortoli,[12] Yu Kyung Cho,[13] Daniel Cisternas,[14] Chien-Lin Chen [15], Charles Cock,[16] Albis Hani,[17] Jose Maria Remes Troche,[18] Yinglian Xiao,[19] Michael F Vaezi,[20] Sabine Roman [21]

Baseline impedance of <1500 ohms is adjunctive evidence for GERD, while baseline impedance >2500 ohms is evidence against pathological GERD.


Absent:
unproven GERD
to determine if GERD exists:
test off anti-secretory therapy
wireless pH monitoring
catheter-based monitoring
pH or pH-impedance
Evidence for or against
conclusive GERD
Using off therapy
Lyon Consensus criteria
GERD evidence
Endoscopy
LA grades B, C&D esophagitis
Biopsy proven Barrett's mucosa
Peptic esophageal stricture
Ambulatory reflux monitoring
AET>6%
>80 reflux episodes
MNBI<1500 ohms
Borderline metrics on
endoscopy and reflux
monitoring supported by
adjunctive evidence
Present:
proven GERD
to determine why symptoms
persist:
test on anti-secretory therapy
catheter-based monitoring
pH-impedance
Evidence for or against
treatment refractory GERD
Using on therapy
Lyon Consensus criteria

Analisis de sintomas

Poto II
Qué sintomas

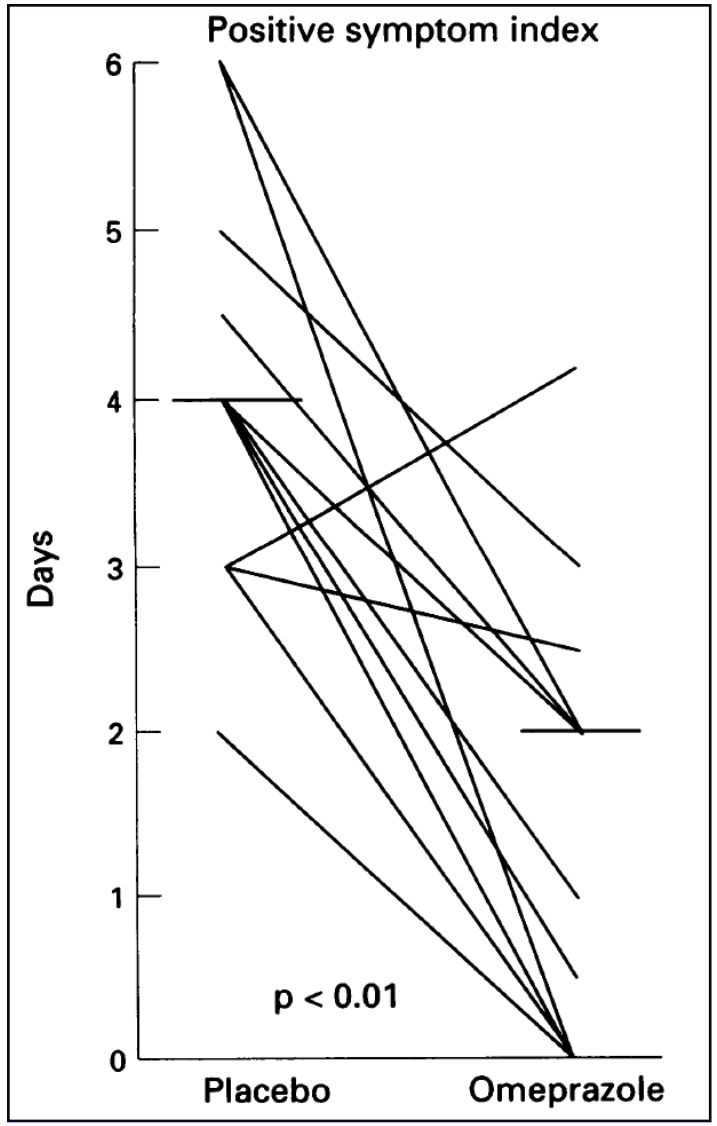
Only symptoms that can reasonably be **related to reflux episodes** such as cough, chest pain, heartburn, and regurgitation are considered for symptom reflux association analysis

It is also not possible to perform reliable symptom reflux association analysis for symptoms that lack a crisp onset and are chronically present, such as dyspnea or hoarseness.

SI y SAP en AET(-)
Predicen respuesta a IBP

38 pacientes pirosis
AET negativo

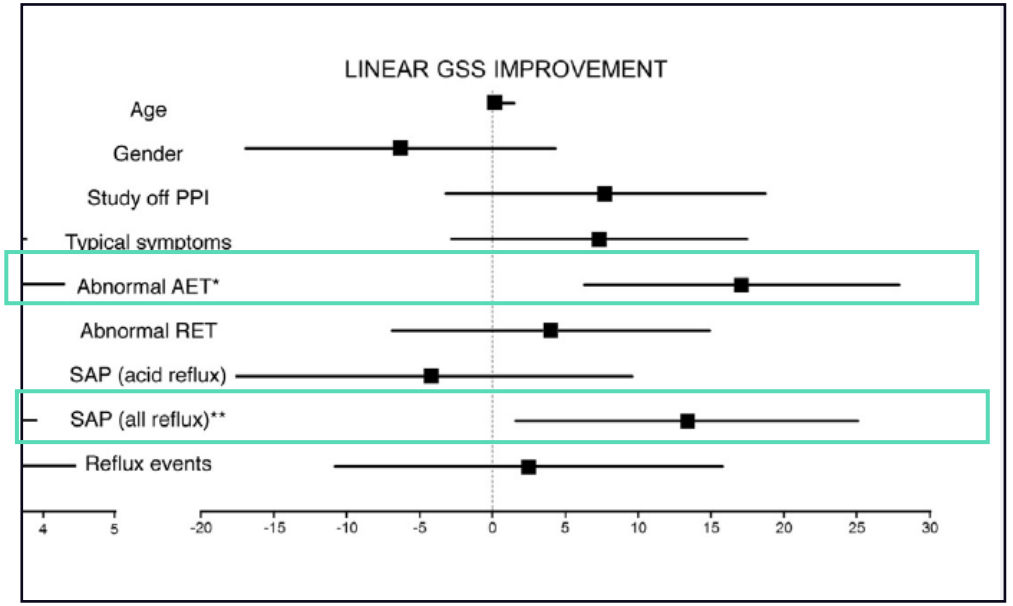
SI predice respuesta adecuada a IBP
83% vs 16%. P<0.02

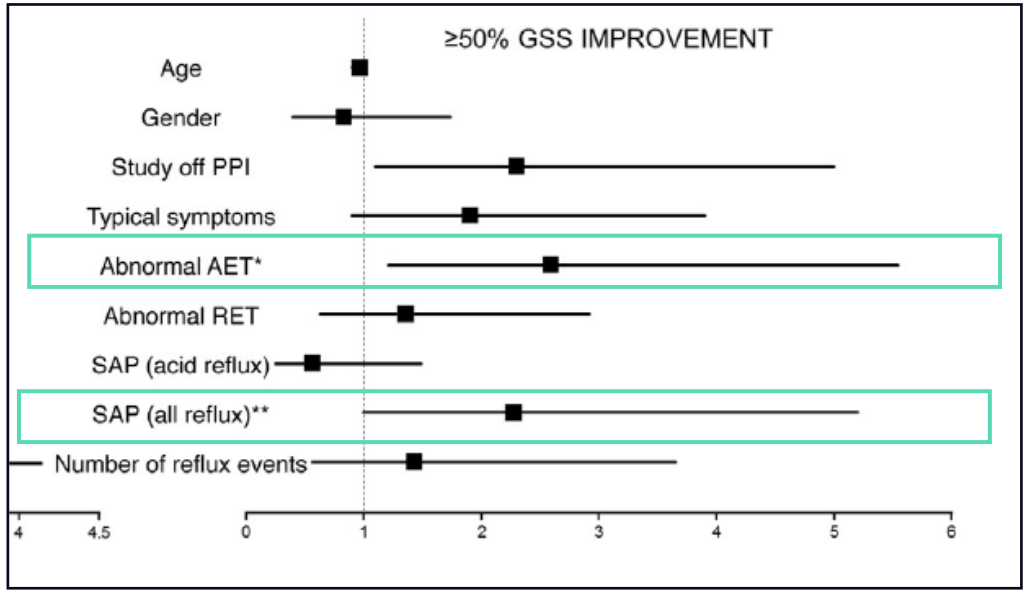


Watson et al. Gut 1997; 40: 587

Predictores independientes respuesta a tto

Multivariado





Patel et al. Clinical Gastroenterology and Hepatology 2015;13:884

Prueba IBP
Dg ERGE

Metanalisis
19 estudios
1691 pacientes

79% | **Sensibilidad**

45% | **Especificidad**

Ghoneim S, et al. J Clin Gastroenterol 2023;57:380–8

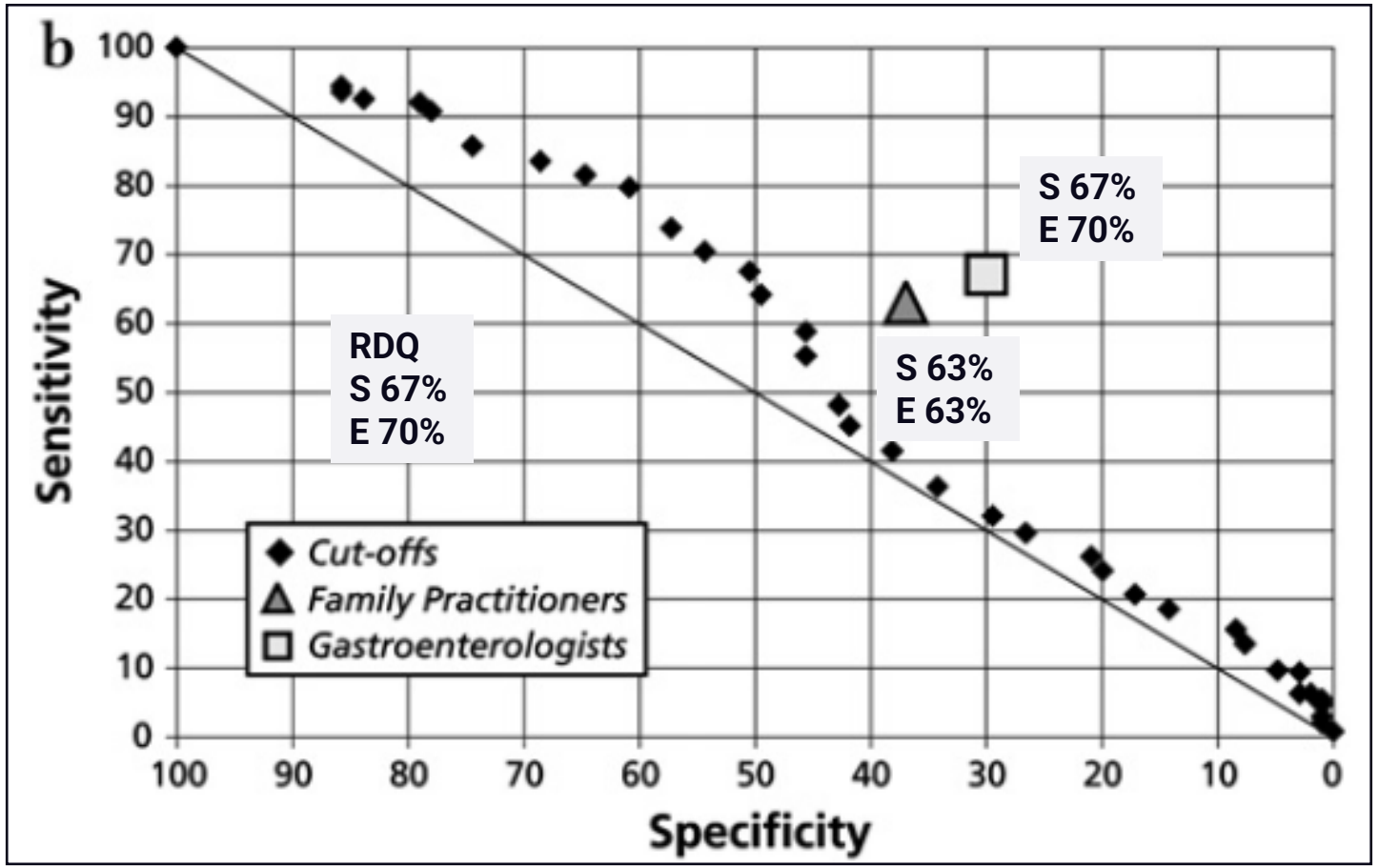
Los síntomas.

Síntomas vs phmetria

Accuracy of the diagnosis of GORD by questionnaire, physicians and a trial of proton pump inhibitor treatment: the Diamond Study

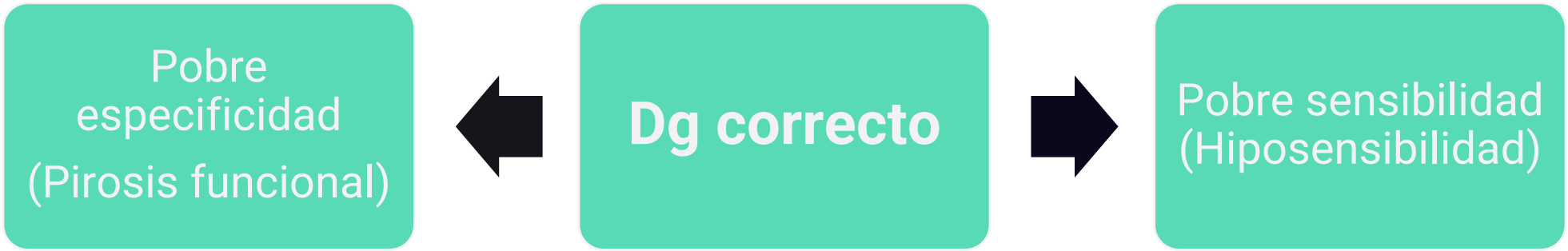
John Dent,[1] Nimish Vakil,[2] Roger Jones,[3] Peter Bytzer,[4] Uwe Schöning,[5] Katarina Halling,[6] Ola Junghard,[7] Tore Lind[8]

Gut 2010;**59**:714–721.



308 individuos

Dg de ERGE
Síntomas



Pirosis
Inespecífica

Gastroesophageal reflux is the most common cause of heartburn

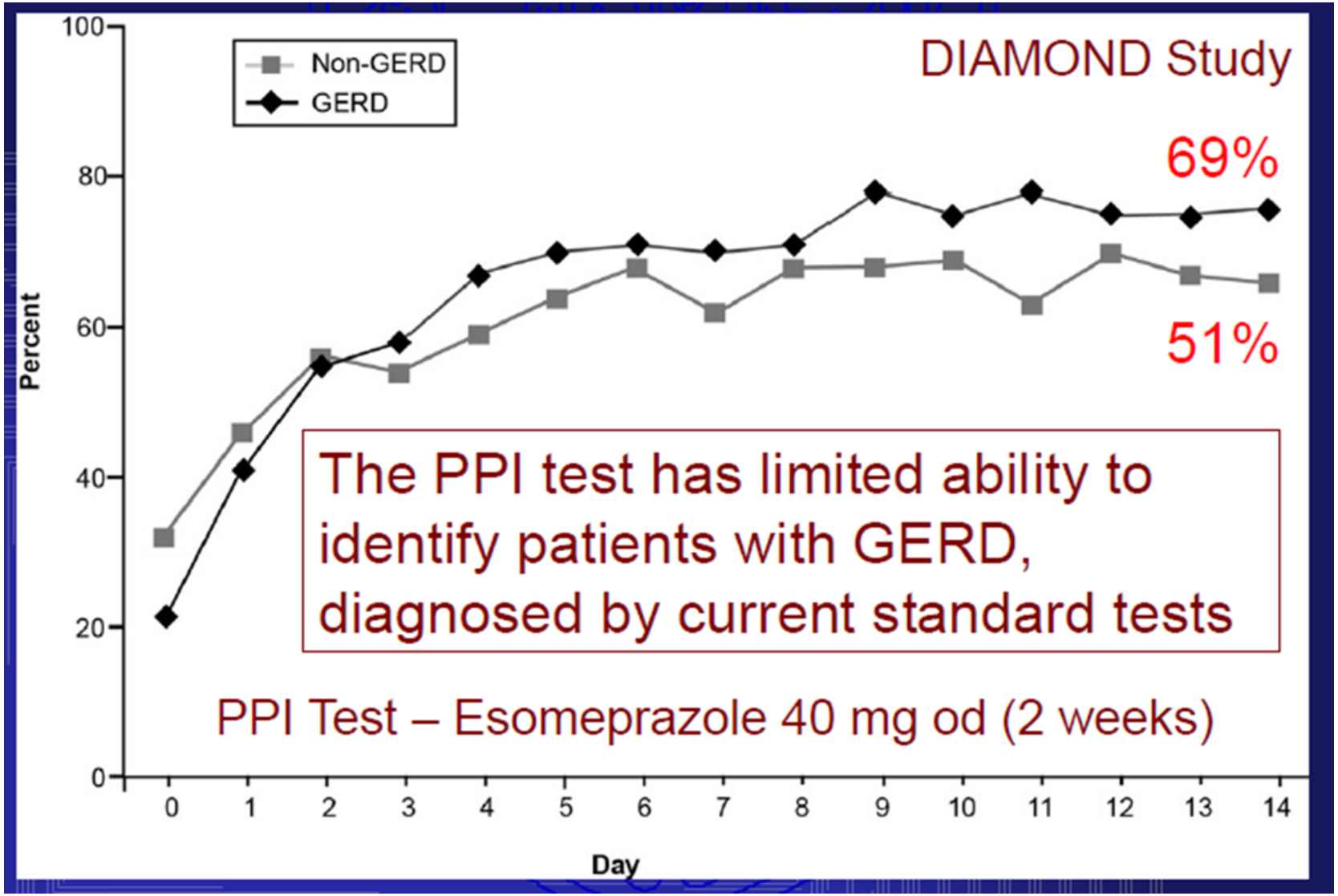
Heartburn can have a number of nonreflux related causes. The prevalence of these is unknown

Montreal. ***Am J Gastroenterol 2006;101:1900–1920***

Clínica Alemana

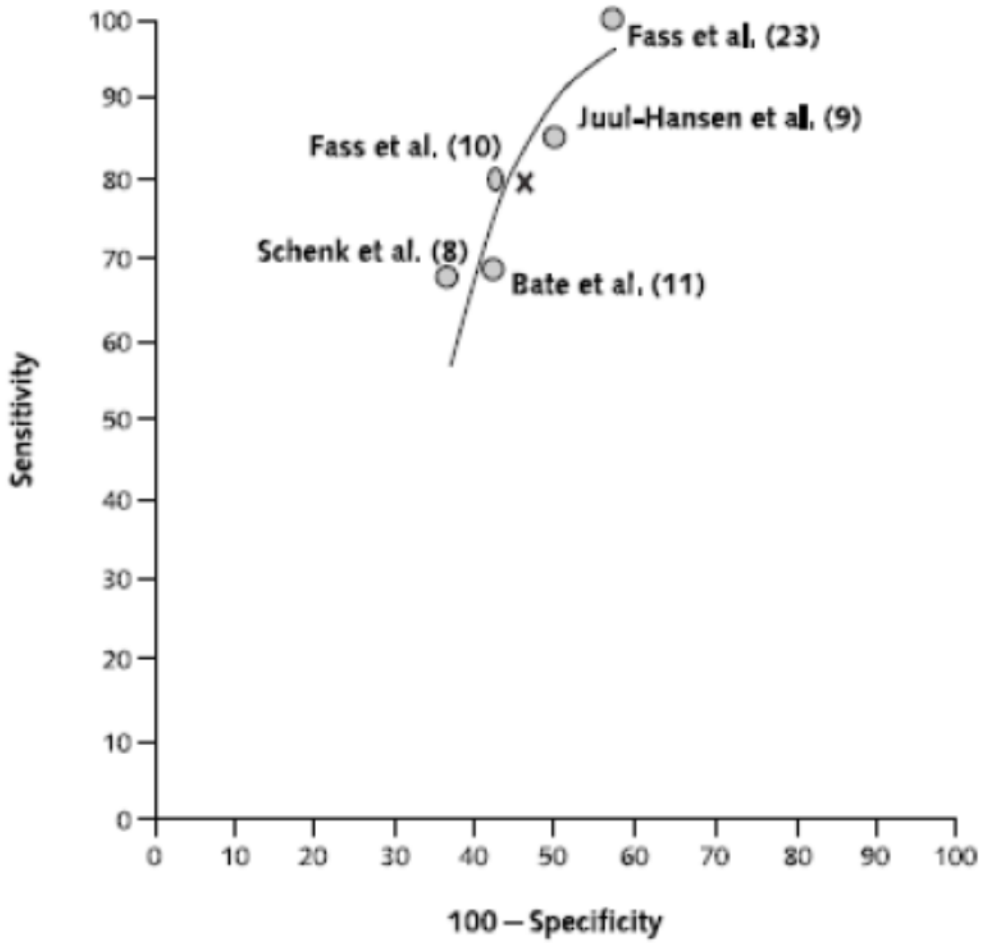
IBP.

Respuesta IBP
Inespecífico



Bytzer et al. CGH 2012;59:714

PPI trial vs. pH monitoring



Numans et al. Ann Intern Med. 2004;140:518-527.

PPI trial en la practica clinica

Lyon 2018

Nonetheless, despite **low specificity and high placebo response**, the empiric PPI treatment approach is less costly than diagnostic testing and is endorsed by societal guidelines **undoubtedly leading to the overdiagnosis of GERD and overuse of PPIs**.

Gyawali CP, et al. Gut 2018;0:1

ERGE
Definición

Gastro-esophageal reflux disease (GERD) is defined as a “condition which develops when the reflux of gastric content causes trouble- some symptoms or complications”

ERGE
Definición

Gastro-esophageal reflux disease (GERD) is defined as a "condition which develops when the reflux of gastric content causes **trouble- some symptoms** or **complications**"

PPI trial poco util

Background: A response to proton-pump inhibitors (PPIs) is commonly considered to support the diagnosis of gastroesophageal reflux disease (GERD). However, the accuracy of this diagnostic strategy has not been well established.

Objective: To estimate the diagnostic test characteristics of successful PPI treatment with objective measures of GERD by performing a meta-analysis based on the published literature.

Data Sources: English-language studies were identified by searching the Cochrane Clinical Trial Register and MEDLINE from 1 January 1980 through 1 July 2003.

Study Selection: Studies in which the clinical response to a short course (1 to 4 weeks) of normal- or high-dose PPI therapy could be compared with objective measures of GERD (24-hour pH monitoring, endoscopy findings, symptom questionnaires).

Data Extraction: Studies were screened for inclusion by 1 author. Final decisions on exclusion were made by consensus with 2 of the other authors. Two investigators independently extracted the data. Information extracted included patient characteristics, study design, setting, specific type and dose of medication, duration of treatment, and definitions of outcomes.

Data Synthesis: Sensitivity and specificity were determined by comparing a clinical response to PPIs with objective measures for GERD. The summary receiver-operating characteristic curve method was used to summarize test characteristics across studies. Sensitivity and specificity were also combined independently by using a random-effects model. Fifteen studies met the inclusion criteria and provided sufficient data. With 24-hour pH monitoring as the reference standard, the positive likelihood ratio ranged from 1.63 to 1.87, and combined estimates of sensitivity and specificity were 0.78 (95% CI, 0.66 to 0.86) and 0.54 (CI, 0.44 to 0.65), respectively. These values were lower with the other reference standards.

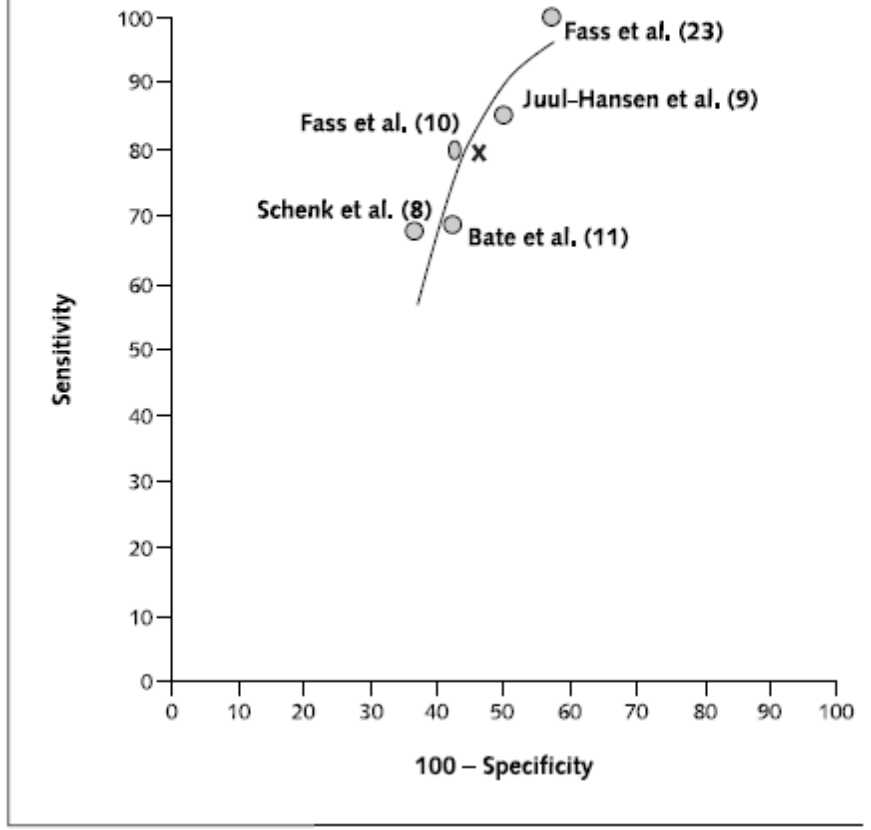
Limitations: Data were insufficient to determine the effect of various doses of PPIs and duration of therapy on test characteristics.

Conclusion: Successful short-term treatment with a PPI in patients suspected of having GERD does not confidently establish the diagnosis when GERD is defined by currently accepted reference standards.

Ann Intern Med. 2004;140:518-527. www.annals.org

For author affiliations, see end of text.

Figure 1. Summary receiver-operating characteristic curve analysis of the proton-pump inhibitor test with abnormal 24-hour pH monitoring as the reference standard (n = 232).



Numans et al *Ann Intern Med.* 2004;140:518-527

SI y SAP
Porto II

The SI and SAP are c**omplementary** and cannot be directly compared to each other (*GRADE very low*) as they measure different things.

The presence of positive SI and positive SAP together provides the best evidence of a clinically relevant association between reflux events and symptoms (*GRADE very low*).

Clínica Alemana

Patel A, et al. AJG 2014;109:836
Taghavi SA, et al. Gut. 2005;54:1067

Reproducibilidad
AET vs DeMeester

Ambulatory 24-Hour Esophageal pH Monitoring
Reproducibility and Variability of pH Parameters

G.J. WIENER, MD, T.M. MORGAN, PhD, J.B. COPPER, PA, W.C. WU, MB, BS, D.O. CASTELL, MD, J.W. SINCLAIR, PA, and J.E. RICHTER, MD

TABLE 1. INTRASUBJECT REPRODUCIBILITY OF INDIVIDUAL pH PARAMETERS IN 53 SUBJECTS

Parameter	*Percent*
Percent time pH < 4, total	85
Percent time pH < 4, recumbent	80
Longest episode, upright	80
Longest episode, total	76
Percent time pH < 4, upright	75
Episodes >5 min/hr, upright	75
Episodes >5 min/hr, recumbent	75
Episodes per hour, recumbent	73
Longest episode, recumbent	73
Episode per hour, total	69
Episodes >5 min/hr, total	69
Episodes per hour, upright	58

The mean number of positive parameters did not distinguish esophagitis patients from patients with atypical presentations of GER with normal endoscopic examinations of the esophagus

Digestive Diseases and Sciences, Vol. 33, No. 9 (September 1988), pp. 1127–1133

PPI trial se usa en la practica clinica

1. A presumptive diagnosis of GERD can be established in the setting of typical symptoms of heartburn and regurgitation. Empiric medical therapy with a proton pump inhibitor (PPI) is recommended in this setting. (Strong recommendation, moderate level of evidence)

Guidelines 2013

Lyon 2018

Nonetheless, despite **low specificity and high placebo response**, the empiric PPI treatment approach is less costly than diagnostic testing and is endorsed by societal guidelines **undoubtedly leading to the overdiagnosis of GERD and overuse of PPIs**.

Clínica Alemana

Gyawali CP, et al. Gut 2018;0:1
Katz et al. AmJ Gastro 2013;108:308

MII
Numero de eventos de reflujo

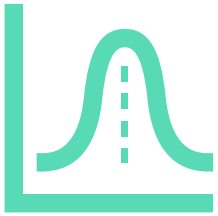
A clearly high number of reflux episodes **(above 80)** might be considered abnormal (*GRADE low*) while a number of reflux episodes on impedance-pH of **40 or fewer** are considered as normal (*GRADE low*).

Numero de eventos
Porto II

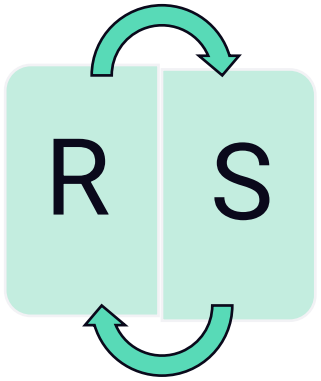
Therefore, caution should be adopted to diagnose GERD based on numbers of reflux events alone, and additional clinical and investigation findings should be considered (*GRADE low*)

Consequently, the consensus group recommends reporting number of reflux episodes detected on impedance as an adjunctive tool rather than a primary indicator of abnormal reflux burden.

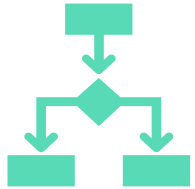
¿porqué?



reflujo
normal



relacion NO
1:1



opciones
diagnostico

Montreal

The Montreal Definition and Classification of Gastroesophageal Reflux Disease: A Global Evidence-Based Consensus

Nimish Vakil, M.D., F.A.C.G.,[1] Sander V. van Zanten, M.D.,[2] Peter Kahrilas, M.D.,[3] John Dent, M.D.,[4] Roger Jones, M.D.,[5] and the Global Consensus Group

Am J Gastroenterol 2006;101:1900

Lyon/Porto

REVIEW ARTICLE

WILEY Neurogastroenterology & Motility ENGM

Ambulatory reflux monitoring for diagnosis of gastro-esophageal reflux disease: Update of the Porto consensus and recommendations from an international consensus group

S. Roman[1] | C. P. Gyawali[2] | E. Savarino[3] | R. Yadlapati[4] | F. Zerbib[5] | J. Wu[6] | M. Vela[7] | R. Tutuian[8] | R. Tatum[9] | D. Sifrim[10] | J. Keller[11] | M. Fox[12] | J. E. Pandolfino[4] | A. J. Bredenoord[13] | the GERD consensus group[a]

Neurogastroenterol Motil. 2017;e13067.

Modern diagnosis of GERD: the Lyon Consensus

C Prakash Gyawali,[1] Peter J Kahrilas,[2] Edoardo Savarino,[3] Frank Zerbib,[4] Francois Mion,[5,6,7] André J P M Smout,[8] Michael Vaezi,[9] Daniel Sifrim,[10] Mark R Fox,[11,12] Marcelo F Vela,[13] Radu Tutuian,[14] Jan Tack,[15] Albert J Bredenoord,[8] John Pandolfino,[2] Sabine Roman[5,6,7]

Gut 2018;67:1351–1362

Endoscopia
Dg ERGE

20-30% | **Poco sensible**

E | **Específico**

Dg ERGE
esophagitis B-LA

0-2%

sanos

AET
B=C-D/LA

Respuesta sintomática
B=C/LA

Rusu et al. Gut. 2021 Dec;70(12):2230
Armstrong D, et al.Gastroenterology 1996;111:85.
Visaggi P, et al. Am J Gastroenterol 2023;118:794