Octubre 8, 2023

Novedades en el tratamiento de la infección por *Helicobacter pylori*

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Universidad Nacional de Colombia
Hospital Universitario Nacional de Colombia

Profesores Universales

Novedades en el tratamiento de la infección por *Helicobacter pylori*

Agenda

1. **Epidemiolgia e impacto**
2. **Generalidades tratamiento**
3. **Terapias guiadas vs ”empìricas”**
4. **Tratamiento toda la familia?**
5. **Tratamiento adulto mayor ?**
6. **Probióticos?**
7. **Opciones para LATAM**

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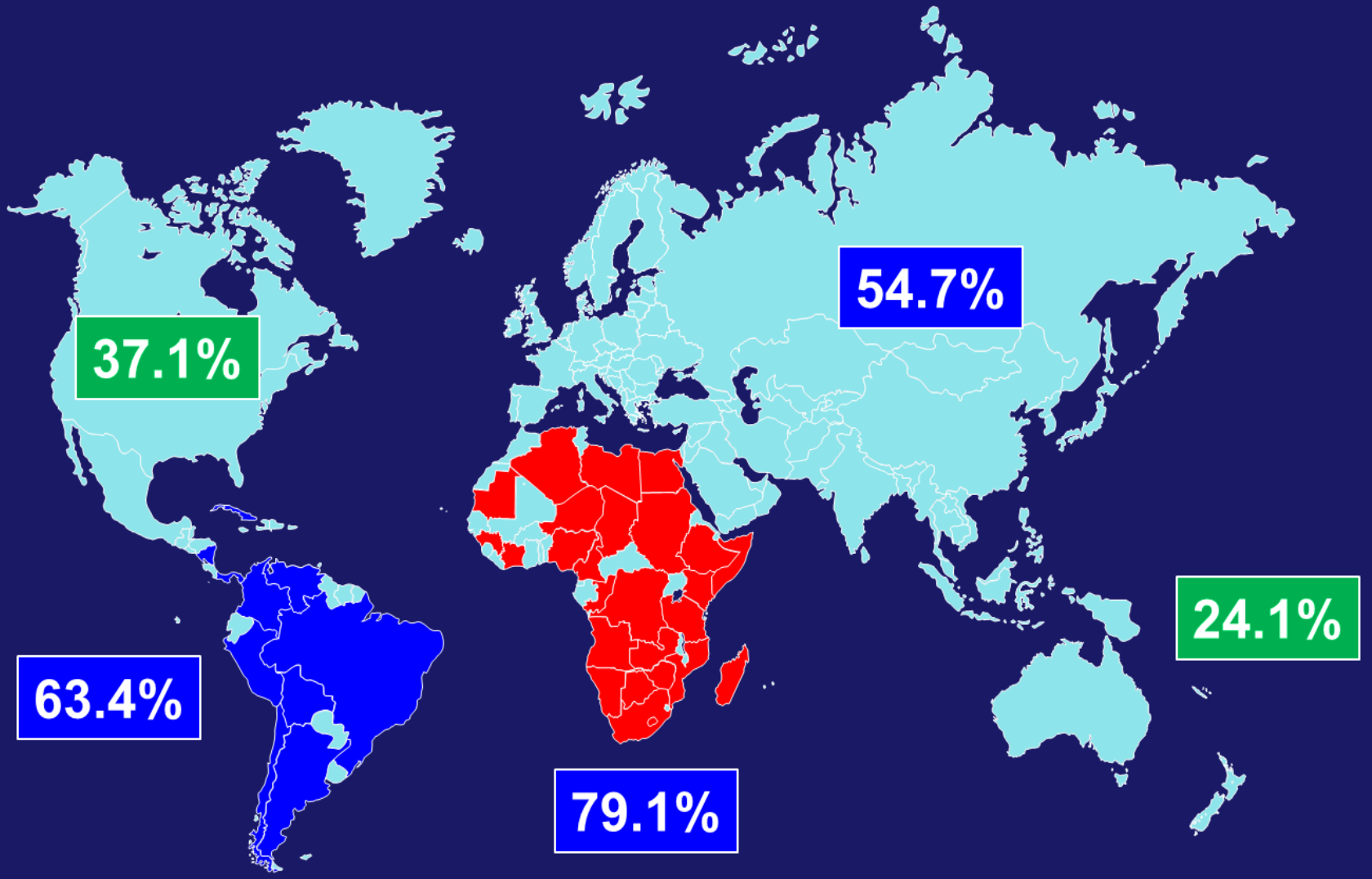
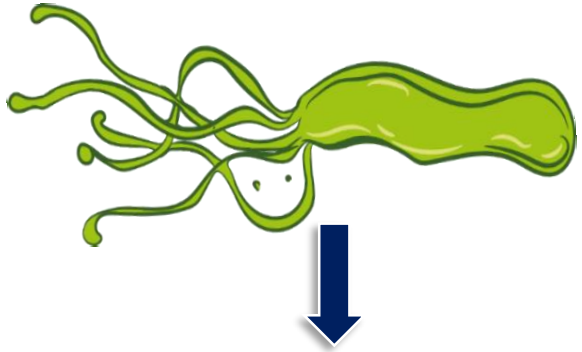
Prevalencia mundial *H.pylori* 60% 40%



Hooi JKY, Gastroenterology 2017;153:420-9
Li Y, et al. Lancet Gastroenterol Hepatol 2023; 8: 553–64

Carcinogeno tipo I /IARC 1994, 2009

Gastritis Crónica



Ulceras Pèpticas

Cáncer Gástrico
1-3% infectados
85-90 % riesgo atribuible

2017, 1.220.000 casos
800.000 muertes

Lancet Gastroenterol Hepatol 2020;5:42-54
Global Burden Disease. JAMA Oncol 2017;3:524-41

Malfertheiner P, et al. Gut 2022;71:1724-62
Liou J-M, et al. Gut 2020;69:2093–2112
Malertheiner P, Nat Rev Dis Primers. 2023;9:19

Siempre debe recibir tratamiento

Houston Consensus Conference on Testing for *Helicobacter pylori* Infection in the United States

Hashem B. El-Serag,[*,‡] John Y. Kao,[§] Fasiha Kanwal,[*,‡,‖] Mark Gilger,[¶,#] Frank LoVecchio,[**] Steven F. Moss,[‡‡] Sheila Crowe,[§§] Adam Elfant,[‖‖] Thomas Haas,[¶¶] Ronald J. Hapke,[##] and David Y. Graham[*,‡]

Clin Gastroenterol Hepatol 2018;16:992–1002

Statement 1: We recommend that all patients with active *H pylori* infection be treated (100% agree/strongly agree, Grade 1A).

Kyoto global consensus report on *Helicobacter pylori* gastritis

Sugano K, et al. Gut 2015;64:1353–1367.

Kentaro Sugano,[1] Jan Tack,[2] Ernst J Kuipers,[3] David Y Graham,[4] Emad M El-Omar,[5] Soichiro Miura,[6] Ken Haruma,[7] Masahiro Asaka,[8] Naomi Uemura,[9] Peter Malfertheiner,[10] on behalf of faculty members of Kyoto Global Consensus Conference

Received: 7 February 2019 | Revised: 8 April 2019 | Accepted: 14 April 2019
DOI: 10.1111/hel.12597

Helicobacter. 2019;24:e1259

Helicobacter WILEY

Guidelines for the management of *Helicobacter pylori* infection in Japan: 2016 Revised Edition

Mototsugu Kato[1] | Hiroyoshi Ota[2] | Masumi Okuda[3] | Shogo Kikuchi[4] | Kiichi Satoh[5] | Tadashi Shimoyama[6] | Hidekazu Suzuki[7] | Osamu Handa[8] | Takahisa Furuta[9] | Katsuhiro Mabe[1] | Kazunari Murakami[10] | Toshiro Sugiyama[11] | Naomi Uemura[12] | Shin'ichi Takahashi[13]

Fifth Chinese National Consensus Report on the management of *Helicobacter pylori* infection

Helicobacter 2018;e12475

Wen Zhong Liu[1] | Yong Xie[2] | Hong Lu[1] | Hong Cheng[3] | Zhi Rong Zeng[4] | Li Ya Zhou[5] | Ye Chen[6] | Jiang Bin Wang[7] | Yi Qi Du[8] | Nong Hua Lu[2] | on behalf of Chinese Society of Gastroenterology, Chinese Study Group on *Helicobacter pylori* and Peptic Ulcer

Screening and eradication of *Helicobacter pylori* for gastric cancer prevention: the Taipei global consensus

Jyh-Ming Liou ,[1,2,3] Peter Malfertheiner,[4,5] Yi-Chia Lee ,[1,2,6] Bor-Shyang Sheu ,[7,8] Kentaro Sugano,[9] Hsiu-Chi Cheng,[7,10] Khay-Guan Yeoh ,[11] Ping-I Hsu,[12] Khean-Lee Goh,[13] Varocha Mahachai,[14] Takuji Gotoda ,[15] Wei-Lun Chang,[7] Mei-Jyh Chen,[1,2,16] Tsung-Hsien Chiang,[1,2,16] Chieh-Chang Chen,[1,2] Chun-Ying Wu ,[17,18] Alex Hwong-Ruey Leow,[13] Jeng-Yih Wu,[8] Deng-Chyang Wu,[8] Tzu-Chan Hong,[1,2,19] Hong Lu ,[20] Yoshio Yamaoka ,[21,22] Francis Megraud,[23] Francis K L Chan ,[24,25] Joseph JY Sung,[24,25] Jaw-Town Lin ,[1,26] David Y Graham ,[22] Ming-Shiang Wu ,[1,2] Emad M El-Omar ,[27,28] Asian Pacific Alliance on Helicobacter and Microbiota (APAHAM)

Liou J-M, et al. Gut 2020;69:2093–2112

Management of *Helicobacter pylori* infection: the Maastricht VI/Florence consensus report

Peter Malfertheiner ,[1,2] Francis Megraud ,[3] Theodore Rokkas ,[4,5] Javier P Gisbert ,[6,7] Jyh-Ming Liou ,[8] Christian Schulz ,[1,9] Antonio Gasbarrini,[10] Richard H Hunt,[11,12] Marcis Leja ,[13,14] Colm O'Morain,[15] Massimo Rugge ,[16,17] Sebastian Suerbaum,[9,18] Herbert Tilg ,[19] Kentaro Sugano ,[20] Emad M El-Omar ,[21] On behalf of the European Helicobacter and

Malfertheiner P, et al. Gut 2022;71:1724–1762

H.pylori 1982

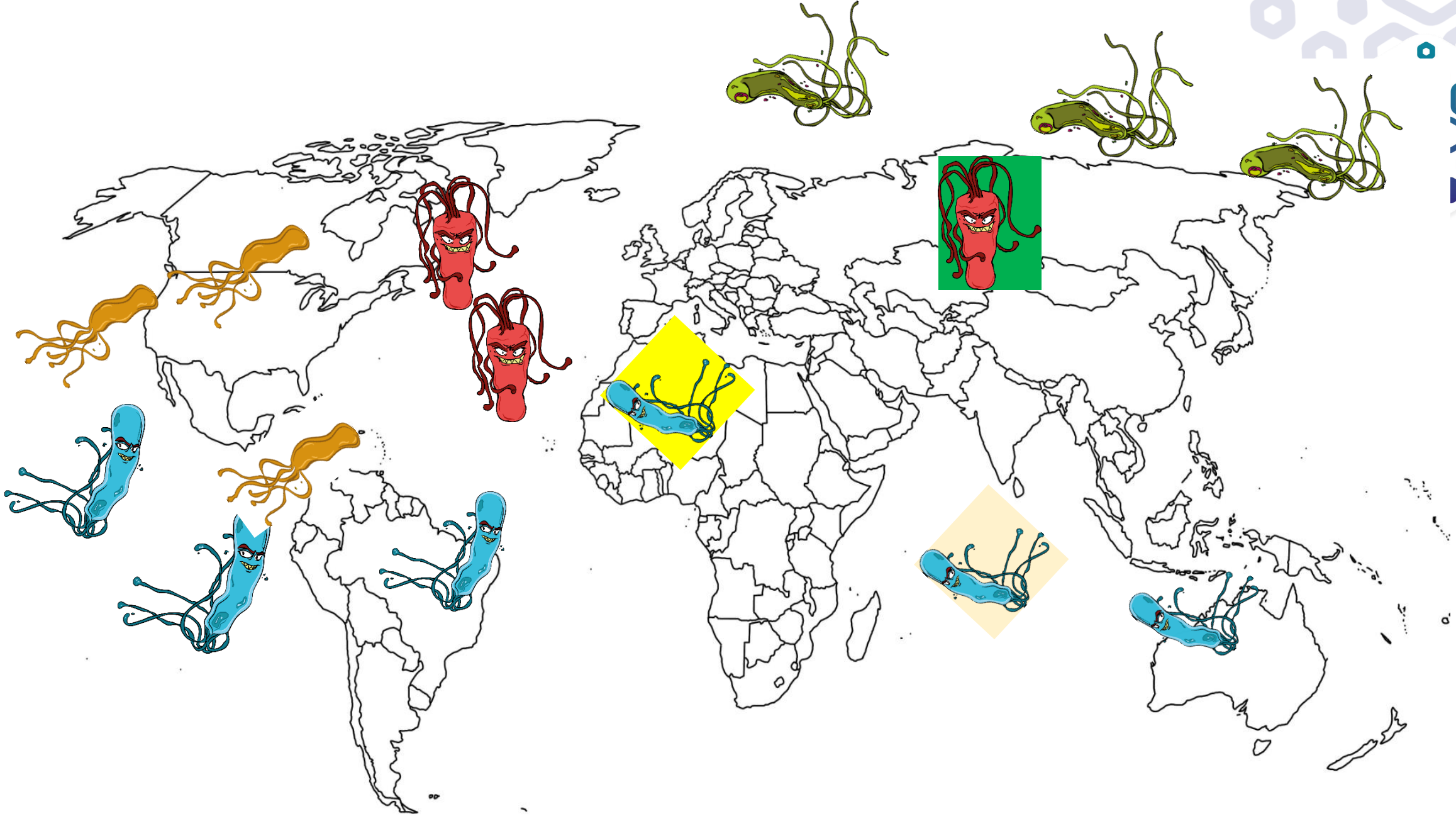
Después de > 40 años

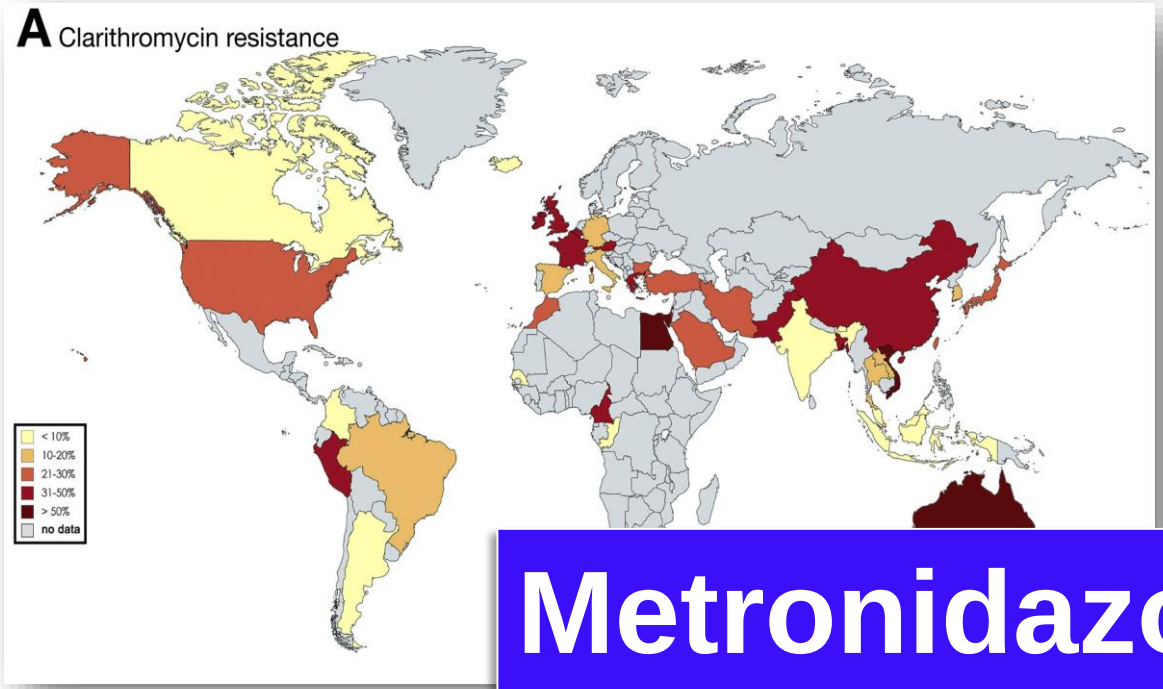
No hay tratamiento universal

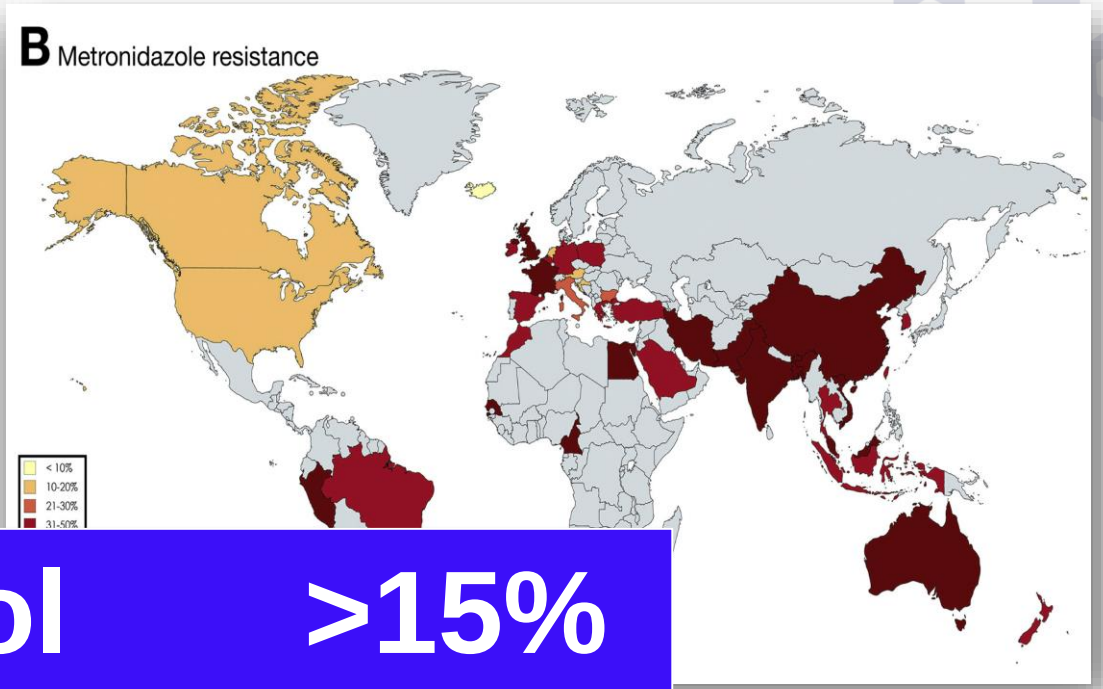
Guías

Guías	Primera línea	Rescate
Maastricht 2022	Claritromicina <15% Triple terapia 14 d Claritromicina ≥ 15%	Cuádruple bismuto 14 días ple o cuádruple 14d sceptibilidad
ACG 2016	terapia 14 d Claritromicina ≥ 15% Cuádruple bismuto Cuádruple concomitante 14 d	Cuádruple bismuto 14 d Quinolona Triple o cuádruple 14d Cuádruple concomitante 14d Rifabutina triple 10 d Dual altas dosis 14 d
Corea 2021	Triple terapia 14 d Concomitante cuádruple 1d Secuencial cuádruple 14 d	Cuádruple bismuto 14 d Quinolona triple 14 d.

Guías generales

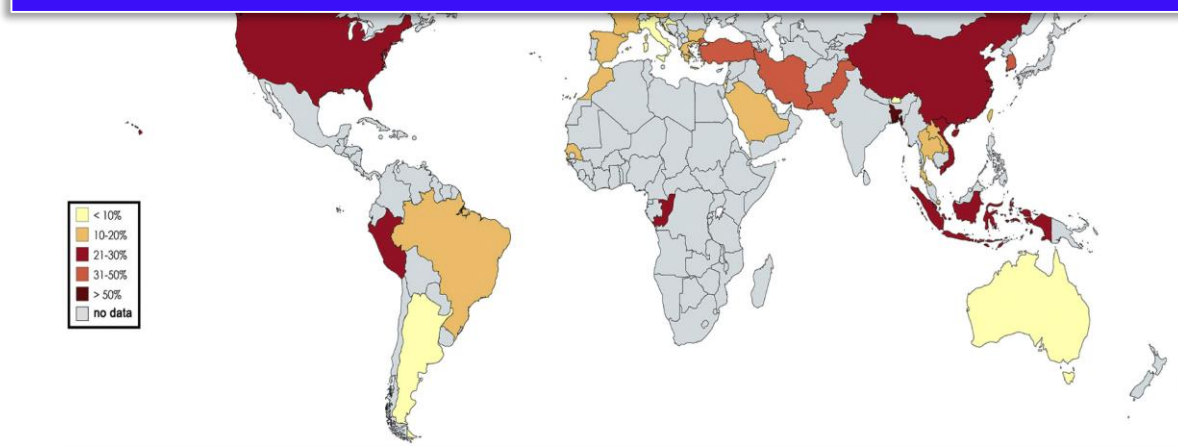






Semana Panamericana de Enfermedades Digestivas
SPED 2023
Santiago de Chile

Metronidazol >15%
Claritromicina >15%
Levofloxacina >15%



Gastroenterology 2018;155:1372-82

Prevalence of Antibiotic Resistance in *Helicobacter pylori*: A Systematic Review and Meta-analysis in World Health Organization Regions

Alessia Savoldi,[1] Elena Carrara,[2] David Y. Graham,[3] Michela Conti,[2] and Evelina Tacconelli[1,2]

Resistencia in vitro	Probabilidad falla Terapéutica
Claritromicina	7.0 (IC 95% 5.2-9.3)
Levofloxacina	8.2 (IC 95% 3.8-17.6)
Metronidazol	2.5 (IC 95%1.8-3.5)

Gastroenterology 2018;155:1372-82

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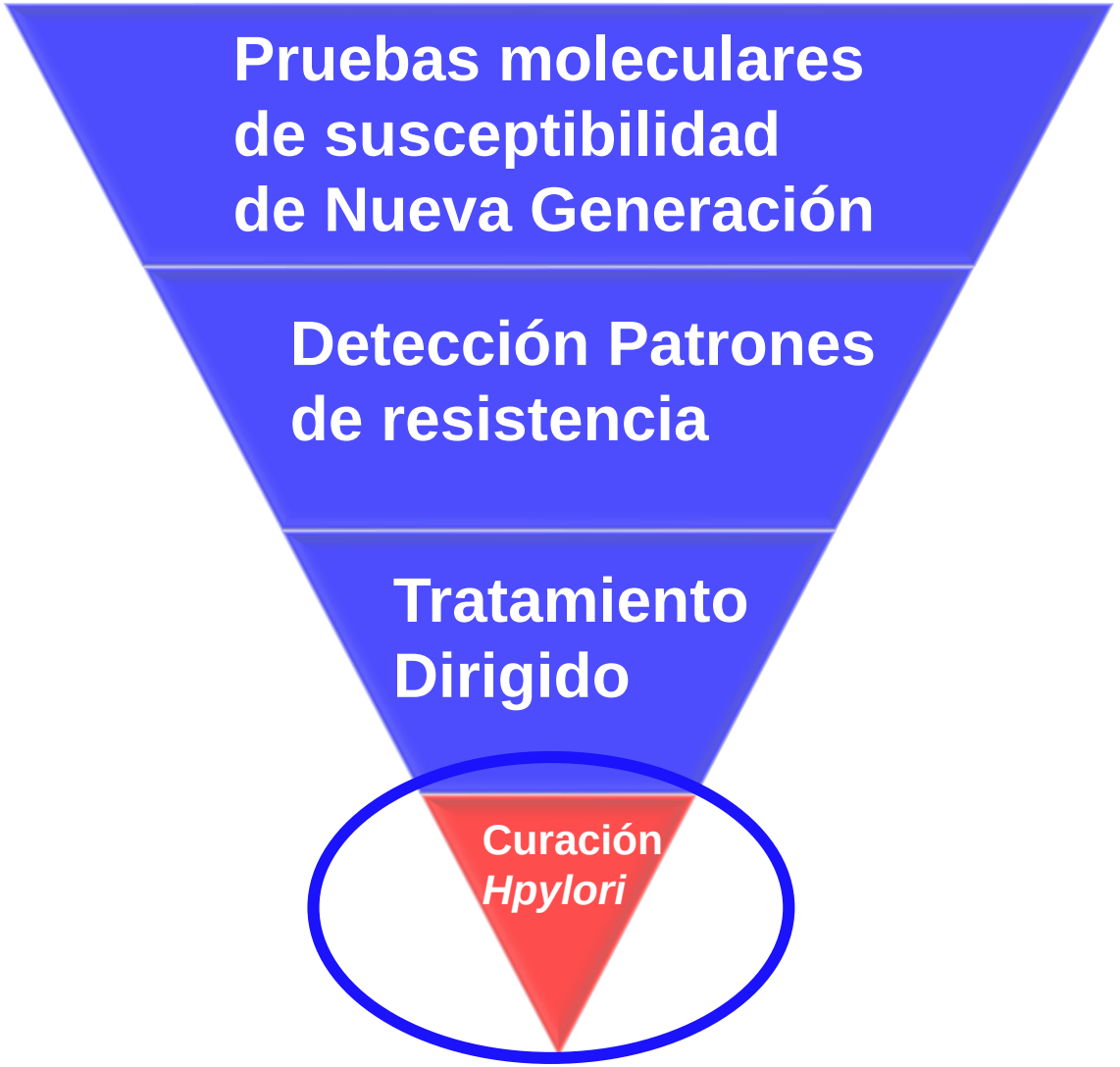
Como toda infección Pruebas susceptibilidad

Nuevo paradigma



Tratamiento *Helicobacter pylori*

?

Randomised controlled trial: susceptibility-guided therapy versus empiric bismuth quadruple therapy for first-line *Helicobacter pylori* treatment

Qi Chen[1] | Xiaohua Long[1] | Yingjie Ji[1] | Xiao Liang[1] | Dongping Li[1] | Hong Gao[1] | Beili Xu[1] | Ming Liu[1] | Ying Chen[1] | Yunwei Sun[1] | Yan Zhao[1] | Gang Xu[1] | Yanyan Song[1] | Lou Yu[1] | Wei Zhang[1] | Wenzhong Liu[1] | David Y. Graham[2] | Hong Lu[1]

Empírica	
Bismuto	220 mg 2v/d
Esomeprazol	20 mg 2v/d
Amoxicilina	1g 2v/d
Metronidazol	400 mg 3v/d

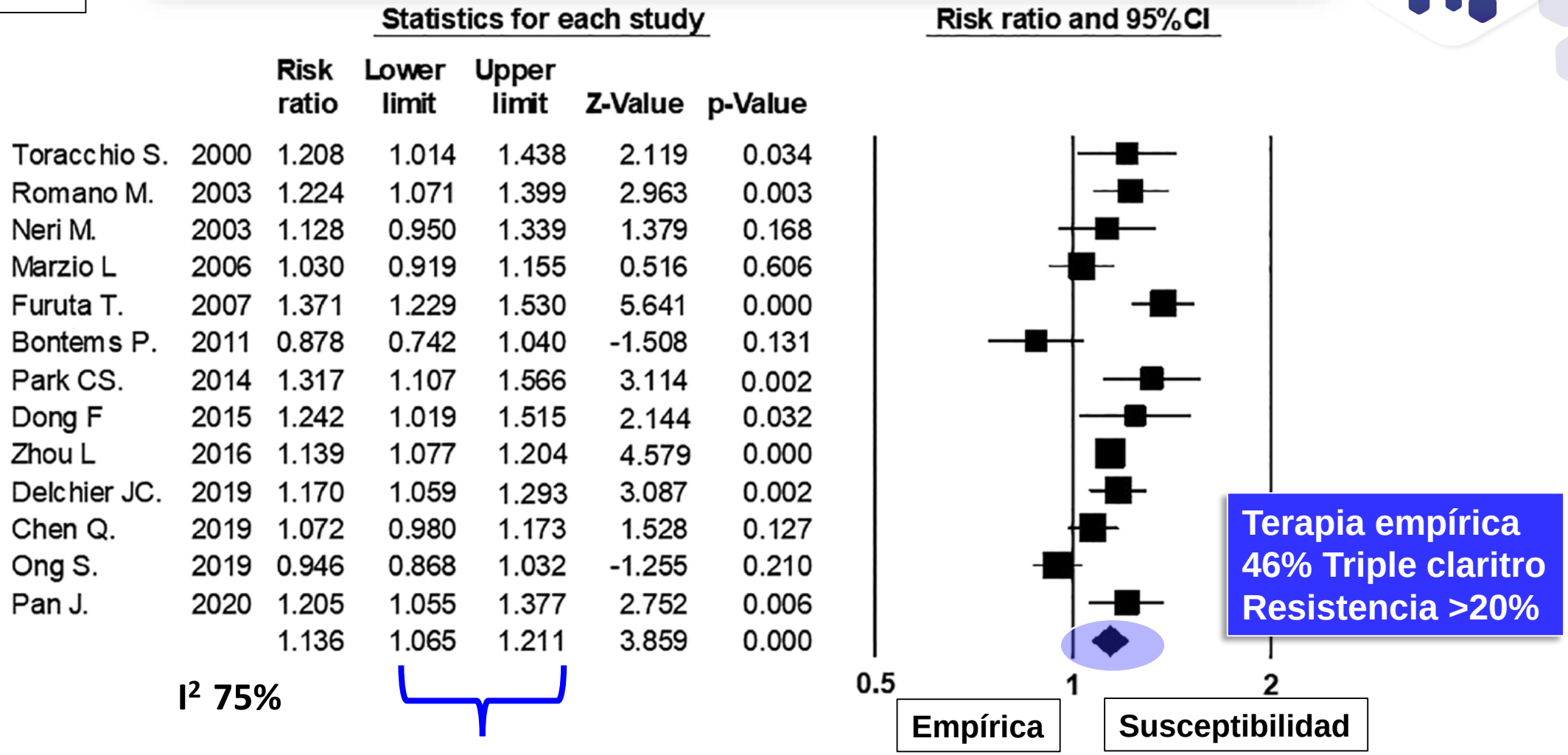
Analysis	Susceptibility-guided therapy	Empiric therapy	Difference	*P* value
ITT (%, n/N)	91.6% (262/286)	85.4% (82/96)	6.2%	0.12[a]
95% CI	88.4%-94.8%	78.4%-92.5%	−0.3% to 12.7%	
PP (%, n/N)	97.7% (250/256)	97.6% (81/83)	0.1%	1.00[b]
95% CI	95.8%-99.5%	94.3%-100%	−3.1% to 3.2%	
MITT (%, n/N)	97.0% (262/270)	94.3% (82/87)	2.8%	0.32[b]
95% CI	95.0%-99.1%	89.4%-99.1%	−1.7% to 7.2%	

Chen Qi, et al. Aliment Pharmacol Ther. 2019;49:1385-94.

16 estudios
2374 pacientes

Susceptibility-guided versus empirical treatment for *Helicobacter pylori* infection: A systematic review and meta-analysis

Rachel Gingold-Belfer,*,† Yaron Niv,‡ Hemda Schmilovitz-Weiss,*,† Zohar Levi*,† and Doron Boltin*,†



I^2 75%

Terapia empírica
46% Triple claritro
Resistencia >20%

Gingold-Belfer R, J Gastroenterol Hepatol 2021;36:2649-58

Susceptibility-guided versus empirical treatment for *Helicobacter pylori* infection: A systematic review and meta-analysis

Rachel Gingold-Belfer,*,† Yaron Niv,‡ Hemda Schmilovitz-Weiss,*,† Zohar Levi*,† and Doron Boltin*,†

Semana Panamericana de Enfermedades Digestivas SPED 2023 Santiago de Chile

Tiple terapia con Claritro resistencia <20% → **Similares**

Terapia cuádruple → **Similares**

Gingold-Belfer R, J Gastroenterol Hepatol 2021;36:2649-58

Empirical vs. Susceptibility-Guided Treatment of *Helicobacter pylori* Infection: A Systematic Review and Meta-Analysis

Olga P. Nyssen [1,2,3], *Marta Espada* [1,2,3] *and Javier P. Gisbert* [1,2,3]*

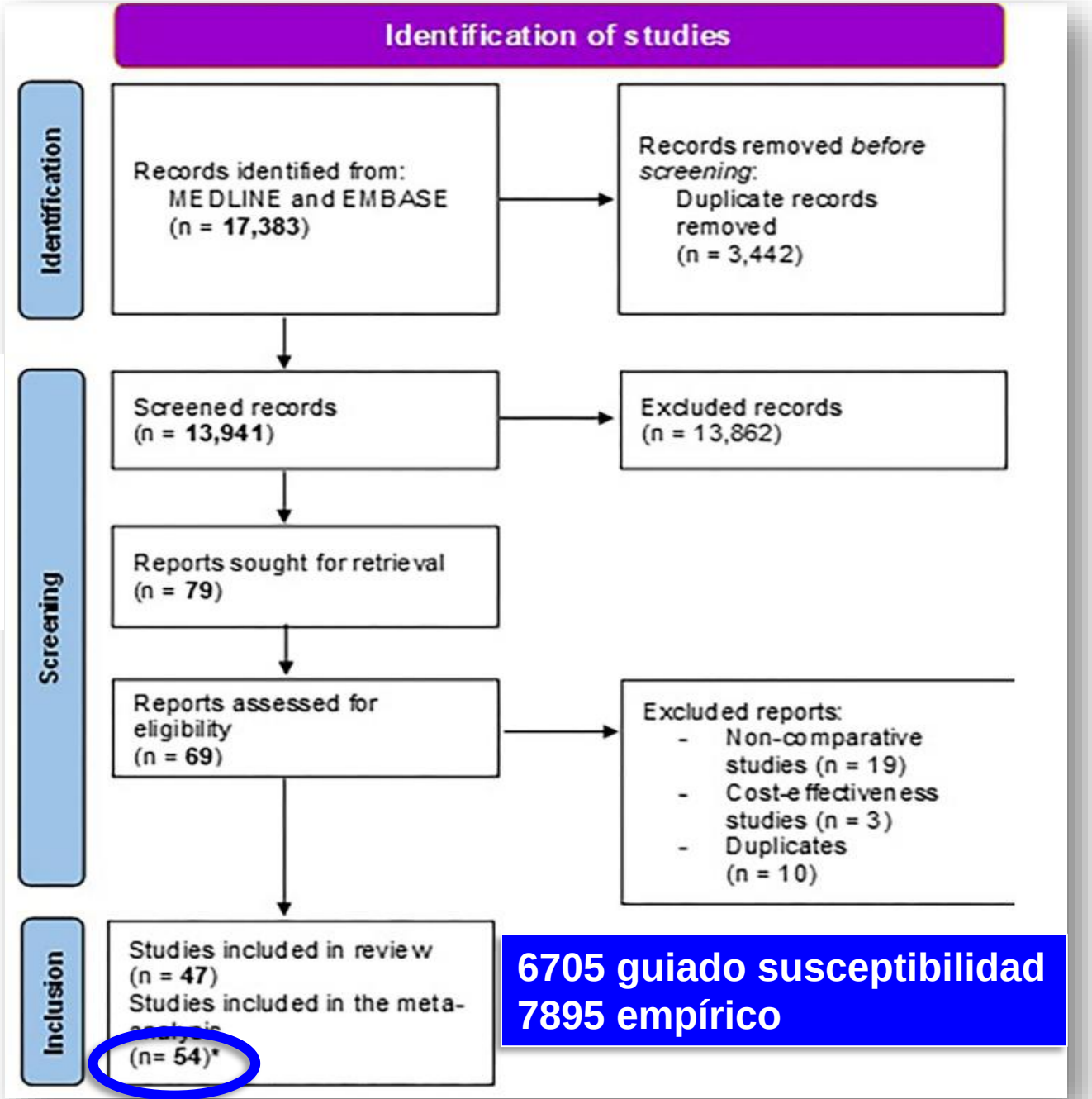
[1] *Gastroenterology Unit, Instituto de Investigación Sanitaria Princesa (IIS-Princesa), Hospital Universitario de La Princesa, Madrid, Spain,* [2] *Universidad Autónoma de Madrid (UAM), Madrid, Spain,* [3] *Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas (CIBEREHD), Madrid, Spain*

Nyssen OP, Front Microbiol 2022;13: Article 913436

Empirical vs. Susceptibility-Guided Treatment of *Helicobacter pylori* Infection: A Systematic Review and Meta-Analysis

*Olga P. Nyssen [1,2,3], Marta Espada [1,2,3] and Javier P. Gisbert [1,2,3]**

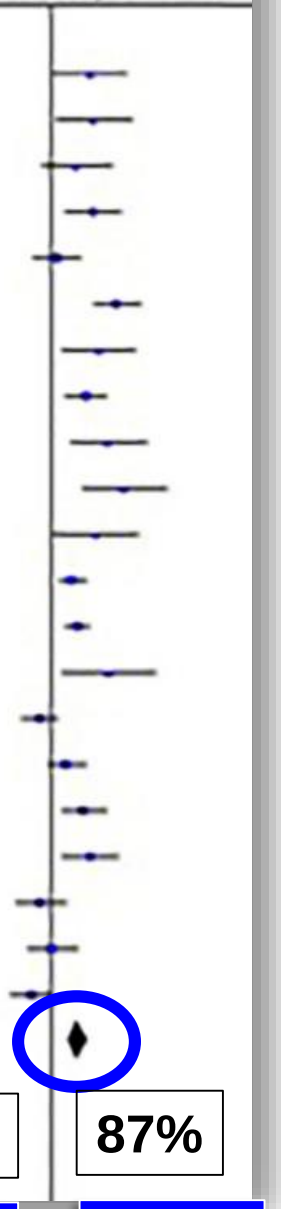
[1] Gastroenterology Unit, Instituto de Investigación Sanitaria Princesa (IIS-Princesa), Hospital Universitario de La Princesa, Madrid, Spain, [2] Universidad Autónoma de Madrid (UAM), Madrid, Spain, [3] Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas (CIBEREHD), Madrid, Spain



Nyssen OP, Front Microbiol 2022;13: Article 913436

Primera Línea

Study or Subgroup	Susceptibility-guided Events	Total	Empiric regimen Events	Total	Weight	Risk Ratio M-H, Random, 95% CI	Year
1.5.1 First-line							
Toracchio 2000	48	53	42	56	2.6%	1.21 [1.01, 1.44]	2000
Romano 2000	38	40	31	40	2.5%	1.23 [1.02, 1.47]	2000
Neri 2003	88	116	78	116	2.8%	1.13 [0.96, 1.33]	2003
Romano 2003	71	75	58	75	3.2%	1.22 [1.07, 1.40]	2003
Marzio (a) 2006	39	41	36	39	3.5%	1.03 [0.92, 1.16]	2006
Furuta 2007	144	150	105	150	3.5%	1.37 [1.23, 1.53]	2007
Wang 2008	36	40	57	80	2.6%	1.26 [1.06, 1.50]	2008
Zhou 2010	117	125	107	135	3.7%	1.18 [1.07, 1.30]	2010
Park 2014	54	57	41	57	2.6%	1.32 [1.11, 1.57]	2014
Martos 2014	52	55	36	54	2.3%	1.42 [1.16, 1.73]	2014
Dong 2015	41	45	33	45	2.3%	1.24 [1.02, 1.52]	2015
Zhuo 2015	281	313	405	500	4.2%	1.11 [1.05, 1.17]	2015
Zhou 2016	282	318	545	700	4.2%	1.14 [1.08, 1.20]	2016
Kawai 2018	33	35	25	35	2.1%	1.32 [1.05, 1.65]	2018
Ong 2019	164	201	169	196	3.8%	0.95 [0.87, 1.03]	2019
Chen 2019	262	286	82	96	3.8%	1.07 [0.98, 1.17]	2019
Delchier 2019	177	207	152	208	3.7%	1.17 [1.06, 1.29]	2019
Pan 2020	238	310	100	157	3.2%	1.21 [1.06, 1.38]	2020
Bonoso (a) 2021	39	43	43	45	3.4%	0.95 [0.85, 1.06]	2021
Choi 2021	91	110	88	107	3.3%	1.01 [0.89, 1.14]	2021
Cha 2021	118	147	142	161	3.7%	[illegible]	2021
Subtotal (95% CI)		**2767**		**3052**	**67.1%**	**1.14 [1.08, 1.20]**	
Total events	2413		2375				
Heterogeneity: Tau² = 0.01; Chi² = [illegible], df = 20 (P < 0.00001); I² = 75%							
Test for overall effect: Z = 5.03 (P < 0.00001)							



Nyssen OP,et al. Front Microbiol 2022;13:Art 913436.

Empirical vs. Susceptibility-Guided Treatment of *Helicobacter pylori* Infection: A Systematic Review and Meta-Analysis

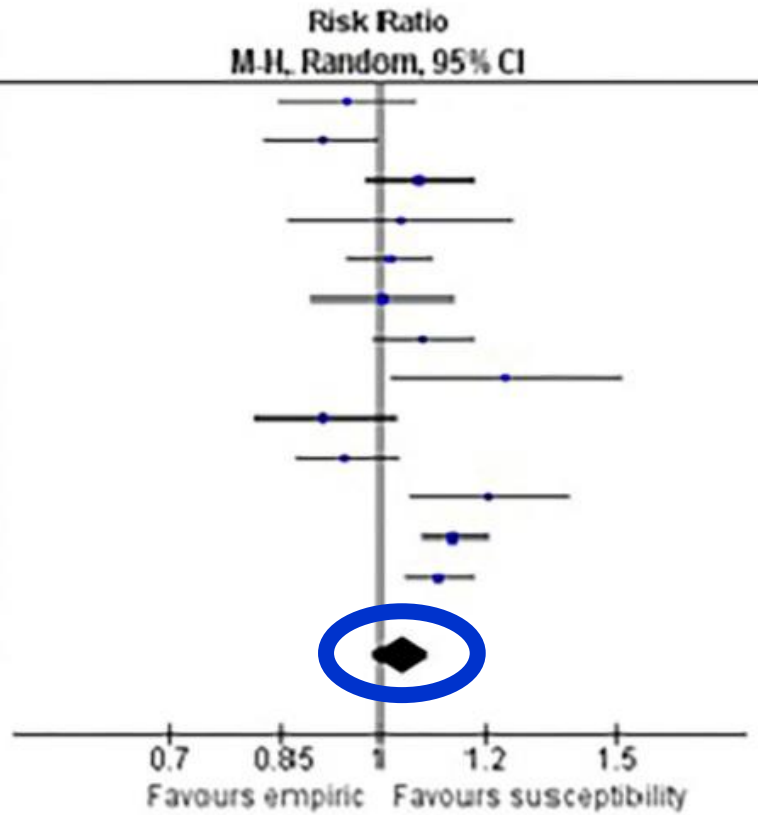
*Olga P. Nyssen [1,2,3], Marta Espada [1,2,3] and Javier P. Gisbert [1,2,3]**

Cuádruple con o sin Bismuto

Study or Subgroup	Susceptibility-guided Events	Total	Empiric regimen Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
Bonoso (a) 2021	39	43	43	45	7.3%	0.95 [0.85, 1.06]
Cha 2021	118	147	142	161	8.1%	0.91 [0.83, 1.00]
Chen 2019	262	286	82	96	8.5%	1.07 [0.98, 1.17]
Choe (c) 2021	55	60	15	17	4.4%	1.04 [0.86, 1.26]
Choi 2019	48	50	98	104	9.3%	1.02 [0.95, 1.10]
Choi 2021	91	110	88	107	6.9%	1.01 [0.89, 1.14]
Cosme 2016	98	104	103	118	8.8%	1.08 [0.99, 1.17]
Dong 2015	41	45	33	45	4.1%	1.24 [1.02, 1.52]
Molina-Infante 2012	69	87	182	209	7.0%	0.91 [0.81, 1.03]
Ong 2019	164	201	169	196	8.7%	0.95 [0.87, 1.03]
Pan 2020	238	310	100	157	6.4%	1.21 [1.06, 1.38]
Zhou 2016	282	318	545	700	10.3%	1.14 [1.08, 1.20]
Zhuo 2015	281	313	405	500	10.2%	1.11 [1.05, 1.17]
Total (95% CI)		**2074**		**2455**	**100.0%**	**1.04 [0.99, 1.09]**
Total events	1786		2005			

Heterogeneity: Tau² = 0.01; Chi² = 42.74, df = 12 (P < 0.0001); I² = 72%

Test for overall effect: Z = 1.51 (P = 0.13)

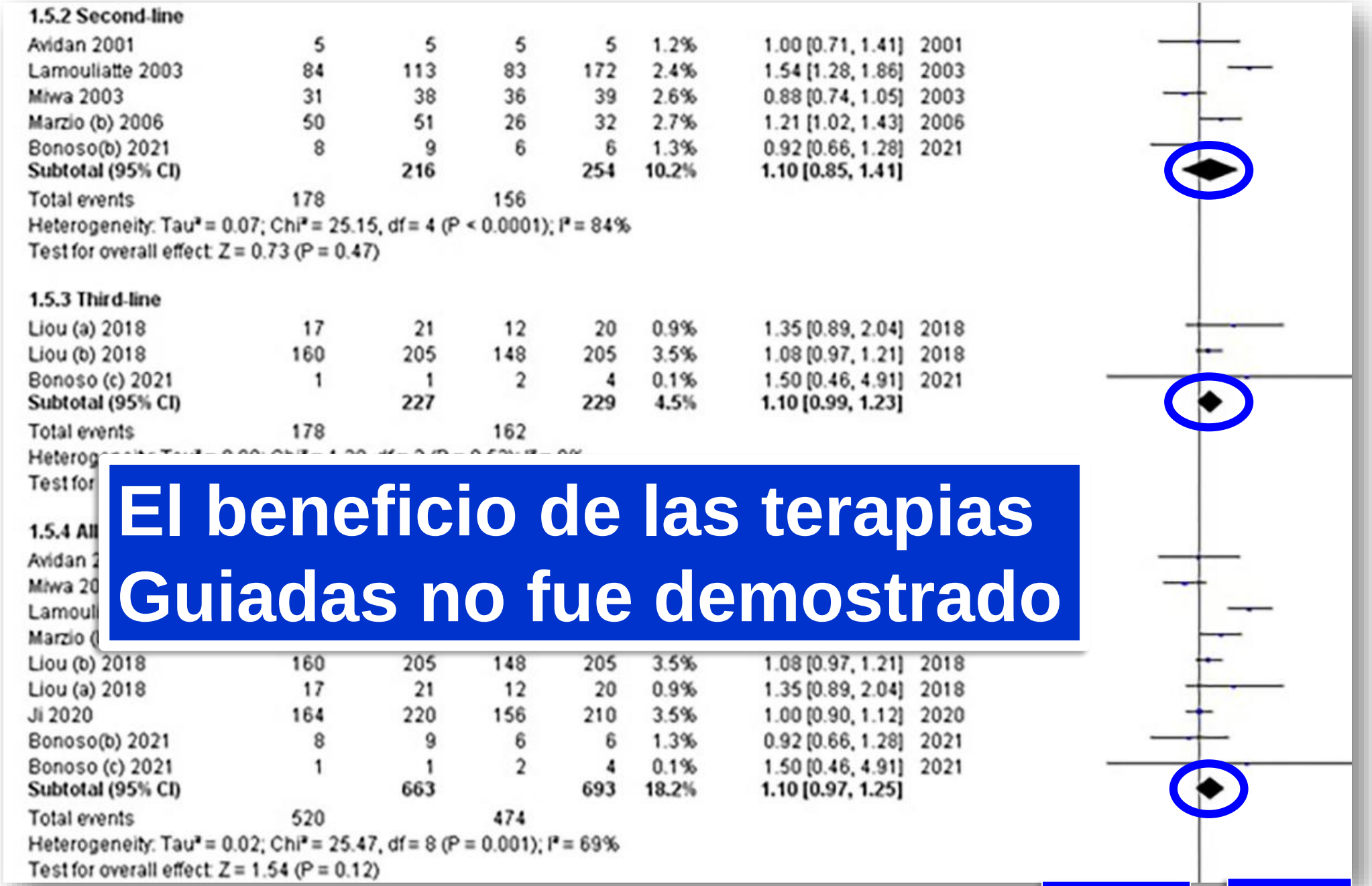


Nyssen OP,et al. Front Microbiol 2022;13:Art 913436.

Segunda Línea

Tercera Línea

Todas rescate



1.5.2 Second-line							
Avidan 2001	5	5	5	5	1.2%	1.00 [0.71, 1.41]	2001
Lamouliatte 2003	84	113	83	172	2.4%	1.54 [1.28, 1.86]	2003
Miwa 2003	31	38	36	39	2.6%	0.88 [0.74, 1.05]	2003
Marzio (b) 2006	50	51	26	32	2.7%	1.21 [1.02, 1.43]	2006
Bonoso(b) 2021	8	9	6	6	1.3%	0.92 [0.66, 1.28]	2021
Subtotal (95% CI)		**216**		**254**	**10.2%**	**1.10 [0.85, 1.41]**	
Total events	178		156				
Heterogeneity: Tau² = 0.07; Chi² = 25.15, df = 4 (P < 0.0001); I² = 84%							
Test for overall effect: Z = 0.73 (P = 0.47)							
1.5.3 Third-line							
Liou (a) 2018	17	21	12	20	0.9%	1.35 [0.89, 2.04]	2018
Liou (b) 2018	160	205	148	205	3.5%	1.08 [0.97, 1.21]	2018
Bonoso (c) 2021	1	1	2	4	0.1%	1.50 [0.46, 4.91]	2021
Subtotal (95% CI)		**227**		**229**	**4.5%**	**1.10 [0.99, 1.23]**	
Total events	178		162				
Heterog							
Test for							
1.5.4 All							
Avidan 2							
Miwa 20							
Lamouli							
Marzio (							
Liou (b) 2018	160	205	148	205	3.5%	1.08 [0.97, 1.21]	2018
Liou (a) 2018	17	21	12	20	0.9%	1.35 [0.89, 2.04]	2018
Ji 2020	164	220	156	210	3.5%	1.00 [0.90, 1.12]	2020
Bonoso(b) 2021	8	9	6	6	1.3%	0.92 [0.66, 1.28]	2021
Bonoso (c) 2021	1	1	2	4	0.1%	1.50 [0.46, 4.91]	2021
Subtotal (95% CI)		**663**		**693**	**18.2%**	**1.10 [0.97, 1.25]**	
Total events	520		474				
Heterogeneity: Tau² = 0.02; Chi² = 25.47, df = 8 (P = 0.001); I² = 69%							
Test for overall effect: Z = 1.54 (P = 0.12)							

El beneficio de las terapias Guiadas no fue demostrado

Empírica

Guiada

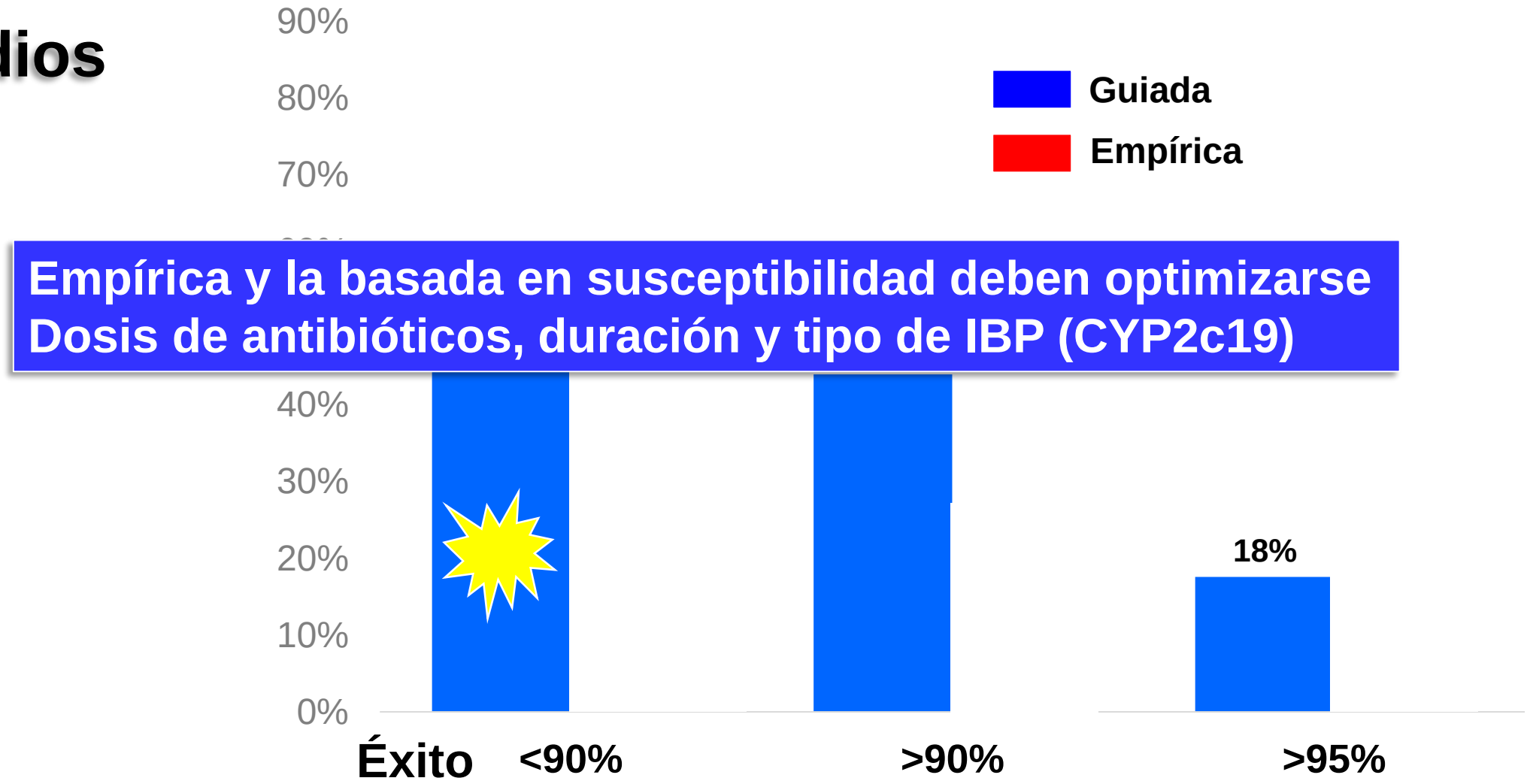
Nyssen OP,et al. Front Microbiol 2022;13:Art 913436.

Current role of tailored therapy in treating *Helicobacter pylori* infections. A systematic review, meta-analysis and critical analysis

Theodore Rokkas[1,2] | Konstantine Ekmektzoglou[1,2] | David Y. Graham[3]

Rokkas T, Helicobacter 2023;28:e12936

34 estudios

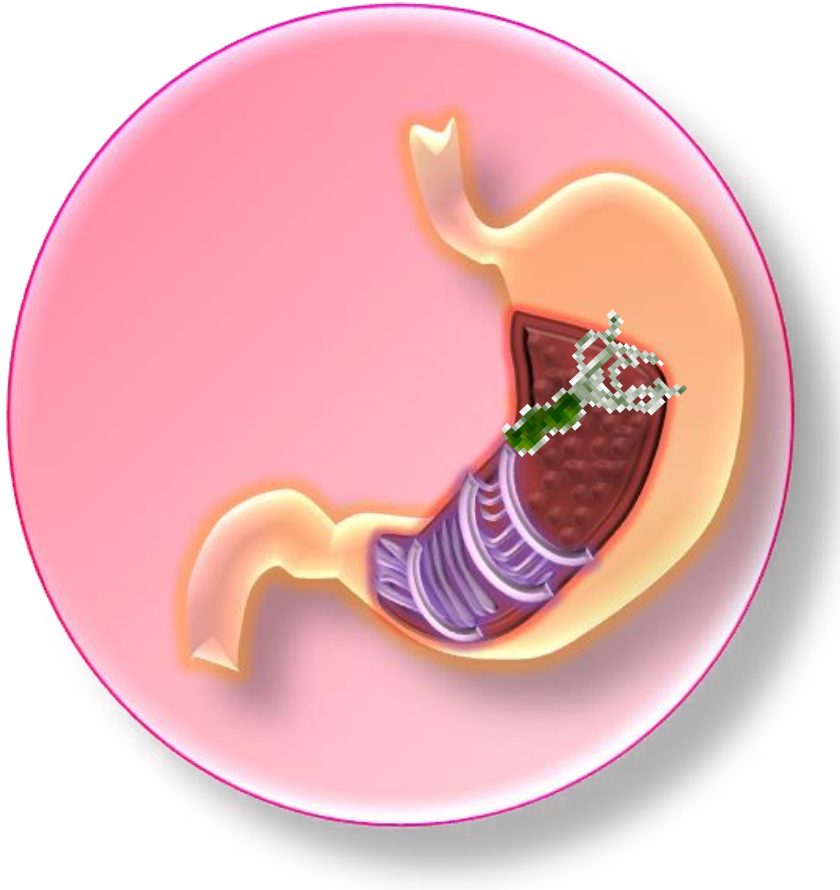


Empírica y la basada en susceptibilidad deben optimizarse
Dosis de antibióticos, duración y tipo de IBP (CYP2c19)

Tratamiento *Helicobacter pylori*

Susceptibilidad in vitro

≠



Niveles antibiótico
Dosis antibiótico
Duración
Tabaquismo
Heteroresistencia
Inadecuada supresiòn HCL
Tipo de IBP, Farmacogenètica

Shah SC, Gastroenterology 2021;161:1443–1459
Gisbert JP, Ther Adv Gastroenterol 2020;13:1-16
Graham DY, Helicobacter 2023;28:e12936

Host Genetic Determinants Associated With *Helicobacter pylori* Eradication Treatment Failure: A Systematic Review and Meta-analysis

Shailja C. Shah,[1,2,3,4] Adam Tepler,[5] Cecilia P. Chung,[6,7] Giovanni Suarez,[3] Richard M. Peek Jr,[3] Adriana Hung,[8,9] Christianne Roumie,[8,10] and Neeraj Narula[11]

57 estudios
Pacífico Asiático (Japón 24, Taiwan 6, Korea 5, Tailandia 1)
Europa (Alemania 3, Polonia 3, Italia 1)
Sur américa (Brazil 2)

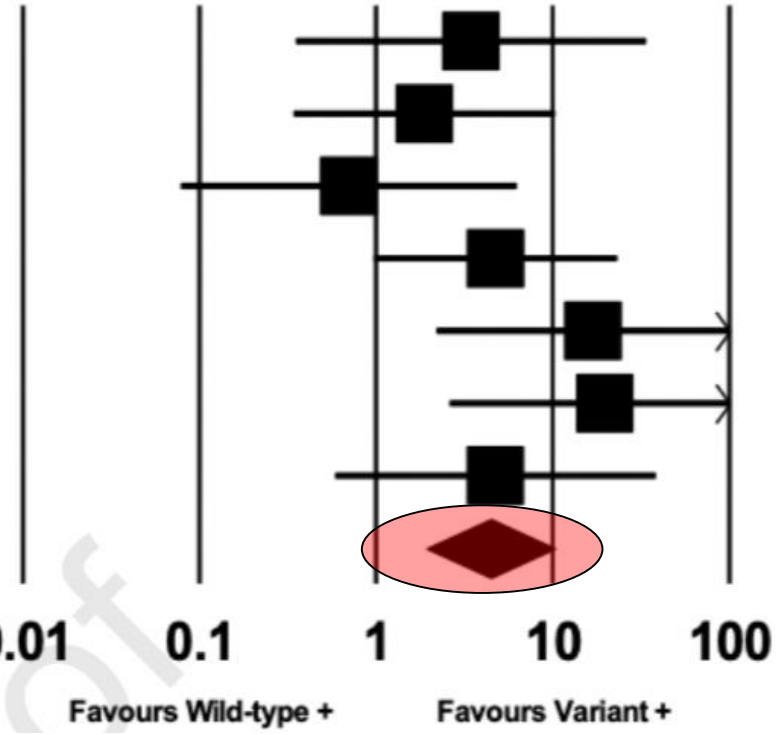
Shah SC, et al. Gastroenterology 2021;161:1443–1459

Hpylori sensible a claritromicina o resistencia < 15%
IBP Primera Generaciòn Lansoprazol, Omeprazol Pantoprazol
Metabolizadores ràpidos

Study name	Odds ratio	Lower limit	Upper limit	Z-Value	p-Value
Isomoto, 2003	3.438	0.352	33.612	1.061	0.289
Kawabata, 2004	1.875	0.342	10.269	0.725	0.469
Miki, 2003	0.700	0.079	6.224	-0.320	0.749
Sheu, 2005	4.742	0.975	23.062	1.929	0.054
Furuta, 2001	16.875	2.202	129.312	2.720	0.007
Furuta, 2004	19.753	2.617	149.103	2.893	0.004
Kang, 2008	4.738	0.589	38.140	1.462	0.144
	4.443	1.944	10.157	3.535	0.000

Statistics for each study

Odds ratio and 95% CI



Riesgo de Falla terapùtica

Shah SC, Gastroenterology 2021;161:1443–1459

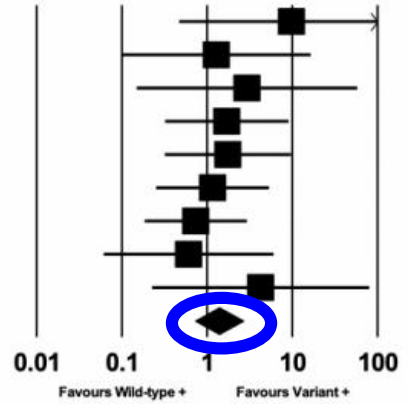
Rápidos versus Pobres metabolizadores

Esomeprazol 9 estudios

Rabeprazol 18 estudios

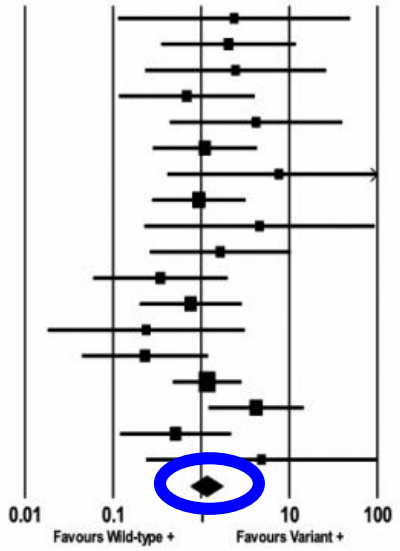
2B.

Study name	Odds ratio	Lower limit	Upper limit	Z-Value	p-Value
Pan, 2010	9.783	0.473	202.374	1.475	0.140
Pan*, 2010	1.286	0.101	16.340	0.194	0.846
Miehlke, 2008	2.941	0.150	57.555	0.711	0.477
Sheu, 2005	1.705	0.323	9.007	0.628	0.530
Wu, 2011	1.750	0.321	9.554	0.646	0.518
Song, 2016	1.159	0.253	5.304	0.191	0.849
Okimoto, 2016	0.735	0.186	2.908	-0.438	0.661
Liou, 2011	0.606	0.061	5.985	-0.429	0.668
Kang, 2008	4.248	0.227	79.518	0.968	0.333
	1.387	0.723	2.662	0.984	0.325



2C.

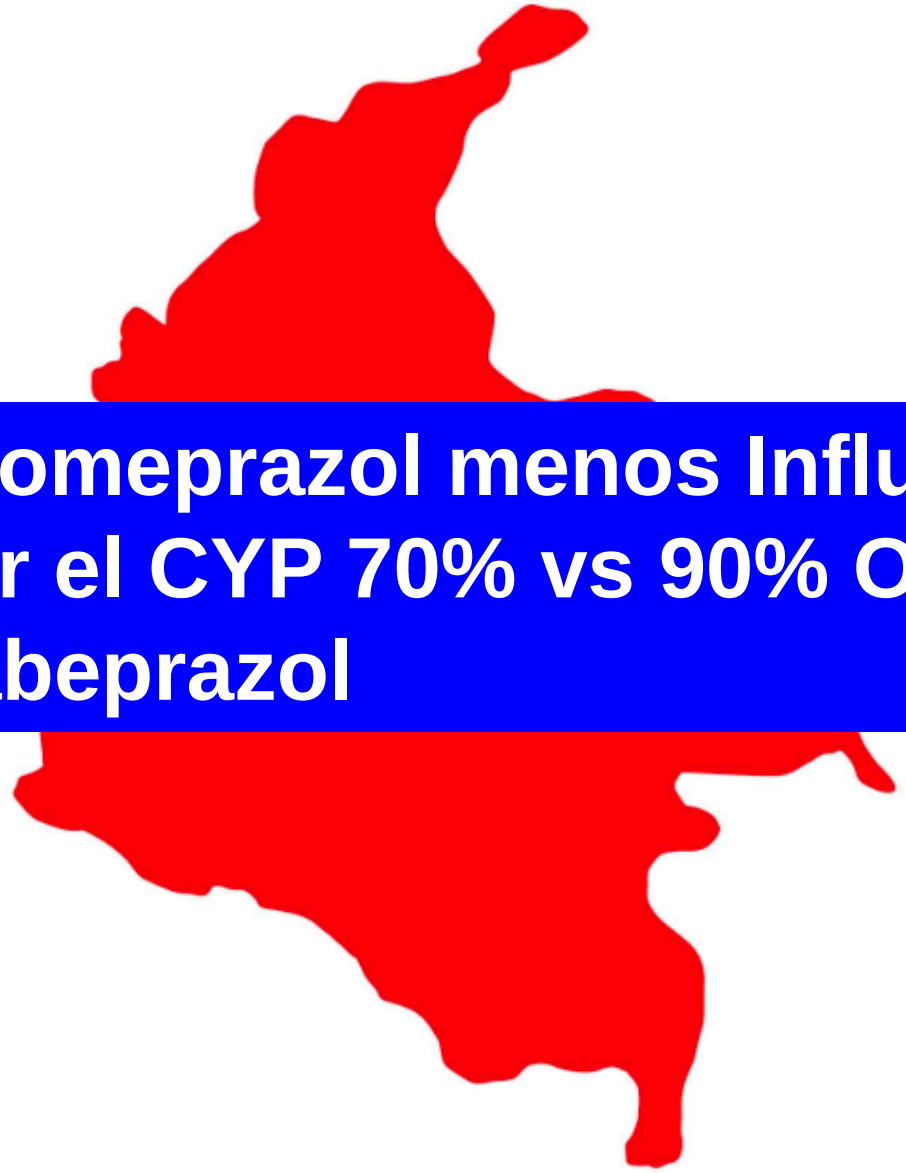
Study name	Odds ratio	Lower limit	Upper limit	Z-Value	p-Value
Isomoto*, 2003 - 7 days	2.368	0.114	49.041	0.558	0.577
Isomoto*, 2003 - 14 days	2.045	0.354	11.820	0.800	0.424
Yang, 2009	2.462	0.232	26.114	0.748	0.455
Pan, 2010	0.688	0.117	4.056	-0.414	0.679
Inaba, 2002	4.200	0.442	39.943	1.249	0.212
Miyoshi, 2001	1.100	0.283	4.282	0.137	0.891
Lay, 2010	7.638	0.414	140.829	1.367	0.172
Okimoto, 2016	0.942	0.278	3.189	-0.096	0.924
Lin, 2017	4.600	0.227	93.032	0.995	0.320
Dojo, 2001	1.647	0.262	10.359	0.532	0.595
Miki, 2003	0.345	0.060	1.993	-1.190	0.234
Lee, 2003	0.762	0.201	2.884	-0.400	0.689
Phiphatpatthamaamphan, 2016	0.238	0.018	3.121	-1.093	0.274
Kawabata, 2003	0.231	0.045	1.197	-1.746	0.081
Lee, 2010*	1.169	0.478	2.862	0.343	0.732
Kuwayama, 2007	4.211	1.216	14.585	2.268	0.023
Hokari, 2001	0.513	0.120	2.190	-0.902	0.367
Jiang, 2005	4.846	0.237	98.960	1.025	0.305
	1.153	0.761	1.748	0.674	0.501



Shah SC, Gastroenterology 2021;161:1443–1459

Cyp2C19

Rápido, Ultrarrápido
80-84%



Esomeprazol menos Influido por el CYP 70% vs 90% OME Rabeprazol

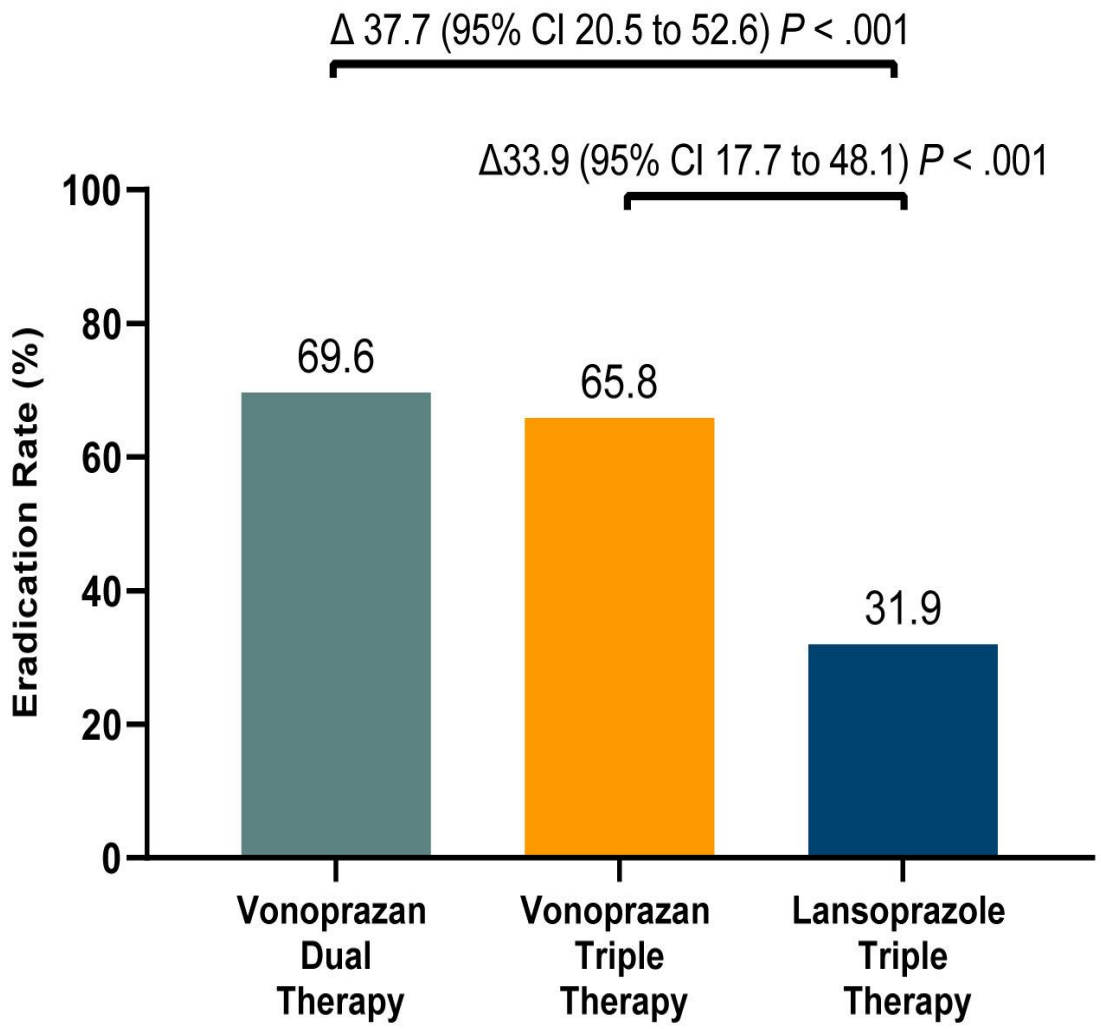
Isaza C, BMC Clin Pharmacol. 2007;7:6.
Arévalo A, Tresplacios A, Otero W, Helicobacter 2019;24:e12574
Arevalo A, Otero W PLoS One. 2021;16:e0245401

Vonoprazan Triple and Dual Therapy for *Helicobacter pylori* Infection in the United States and Europe: Randomized Clinical Trial

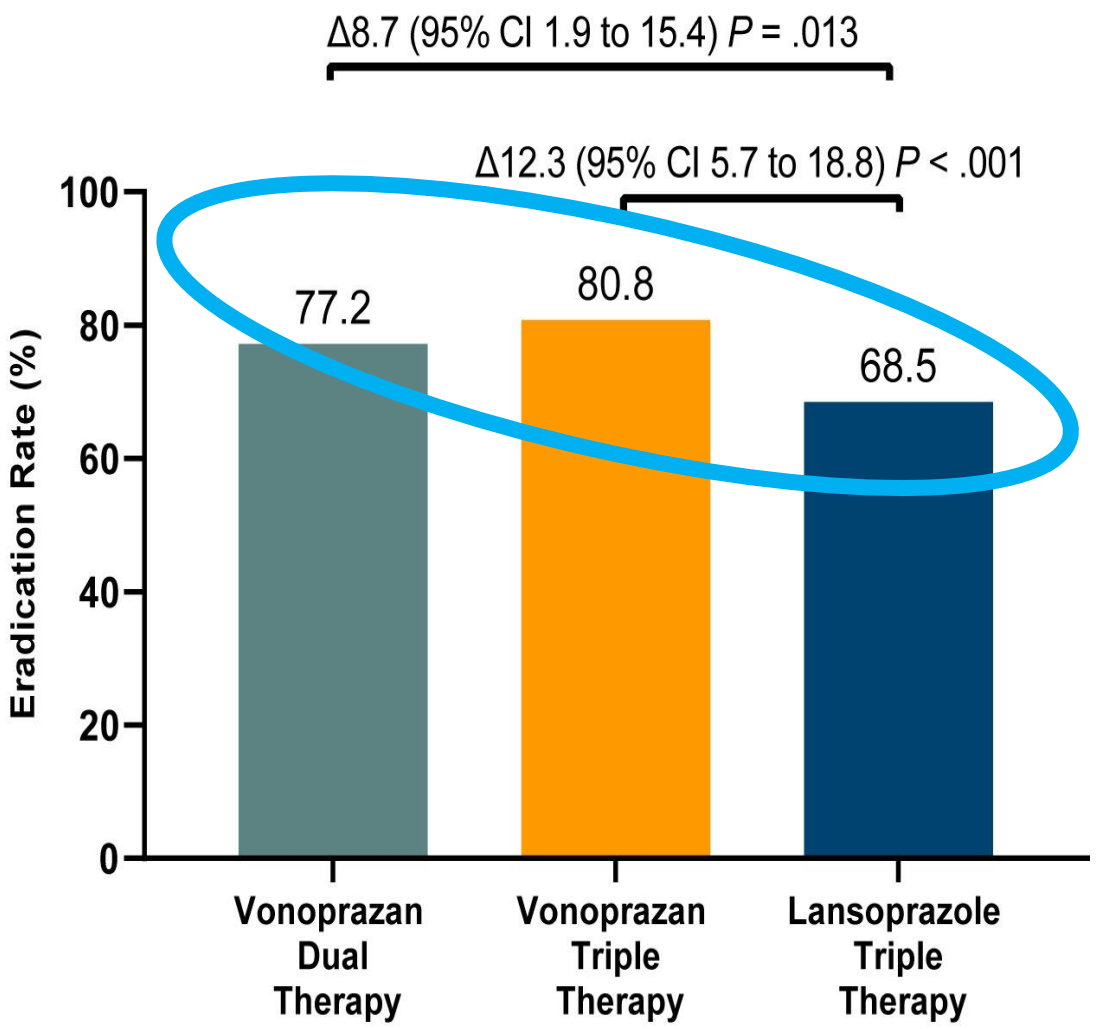
William D. Chey,[1] Francis Mégraud,[2] Loren Laine,[3,4] Luis J. López,[5] Barbara J. Hunt,[6] and Colin W. Howden[7]

Chey W, Gastroenterology 2022;163:608–619

Patients with Clarithromycin-Resistant Strains



All patients



Vonoprazan FDA

HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use VOQUEZNA™ TRIPLE PAK™ and VOQUEZNA™ DUAL PAK™ safely and effectively. See full prescribing information for VOQUEZNA TRIPLE PAK and VOQUEZNA DUAL PAK.

VOQUEZNA TRIPLE PAK (vonoprazan tablets; amoxicillin capsules; clarithromycin tablets), co-packaged for oral use
VOQUEZNA DUAL PAK (vonoprazan tablets; amoxicillin capsules) co-packaged for oral use
Initial U.S. Approval: 2022

Éxito Cepas susceptibles 78.5-84.7%

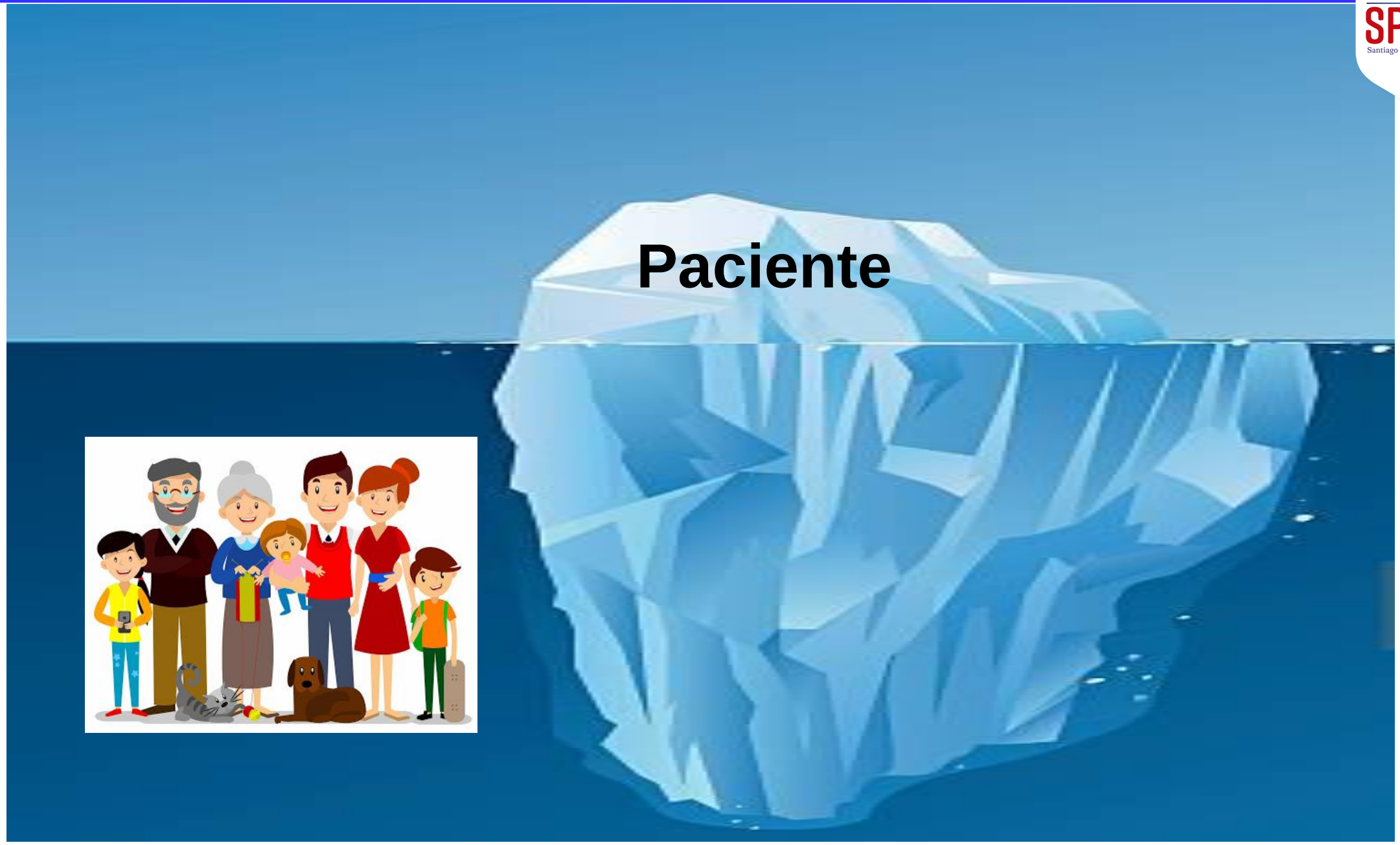
A. Vonoprazan Package Insert: FDA; 2022 [cited 2022 6/10/2022]. Available at: http://www.phathompharma.com/wp-content/uploads/VOQUEZNA-TRIPLE-PAK-and-VOQUEZNA-DUAL-PAK-FDA-Final-Label-3.pdf#page=38. [Accessed 28 Sept 2023]

Novedades en el tratamiento de la infección por *Helicobacter pylori*

Agenda

1. Epidemiolgia e impacto
2. Generalidades tratamiento
3. Terapias guiadas vs ”empìricas”
4. **Tratamiento toda la familia?**
5. Tratamiento adulto mayor ?
6. Probióticos?
7. Opciones para LATAM

Tratamiento de *H.ylori*



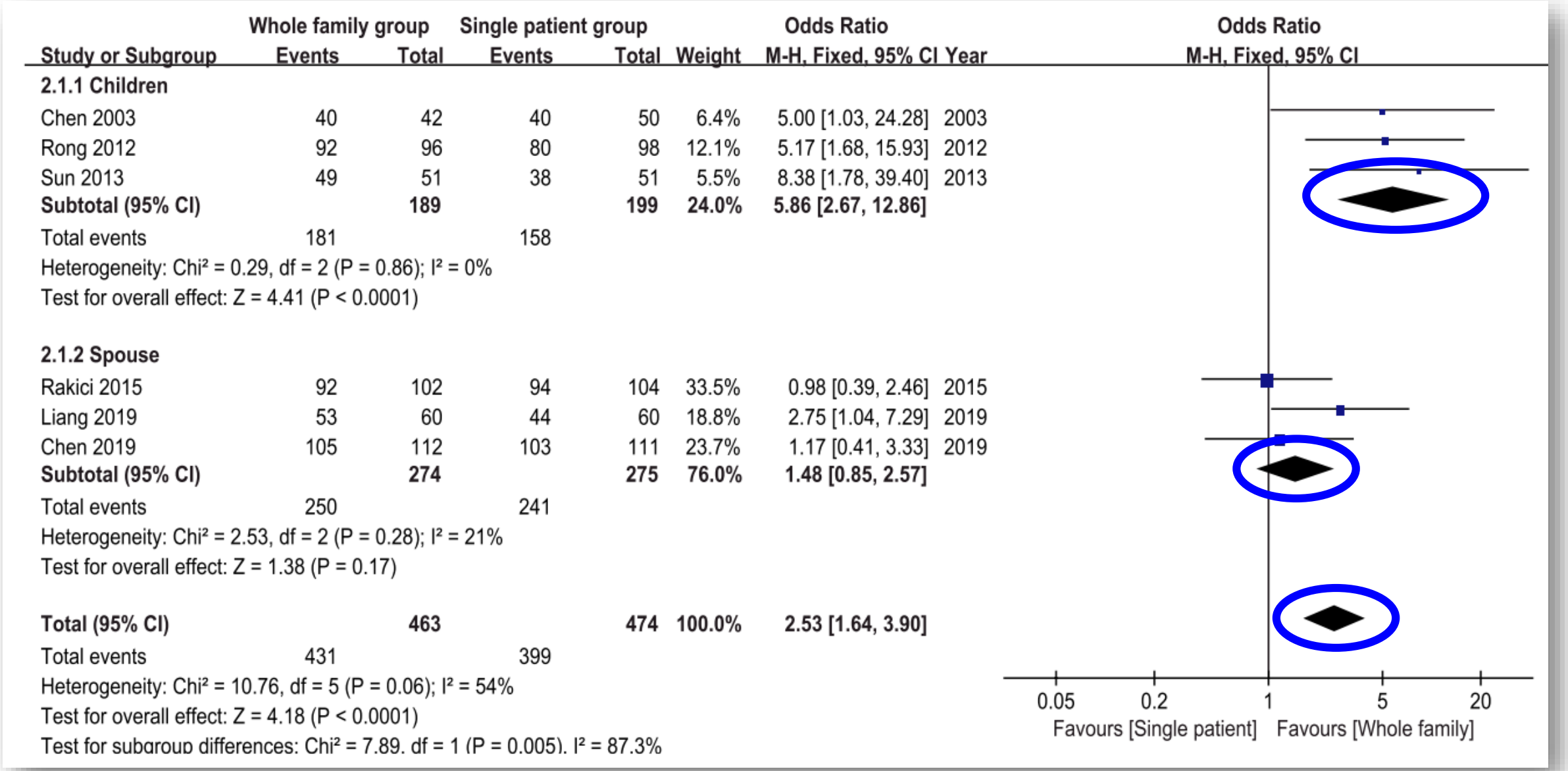
ORIGINAL ARTICLE

Helicobacter WILEY

Whole family—based *Helicobacter pylori* eradication is a superior strategy to single-infected patient treatment approach: A systematic review and meta-analysis

Jun-Bo Zhao[1] | Lin Yuan[1] | Xue-Chun Yu[1] | Qiao-Qiao Shao[1] | Jing Ma[1] | Miao Yu[1] | Yue Wu[1] | Ya-Bin Qi[1] | Ruo-Bing Hu[1] | Pei-Ru Wei[1] | Bai-Ling Jia[1] | Lian-Zhong Zhang[2] | Yan-Rui Zhang[1] | Song-Ze Ding[1]

Helicobacter. 2021;00:e12793


Whole family group
Single patient group
Odds Ratio
Odds Ratio
Study or Subgroup Events Total Events Total Weight M-H, Fixed, 95% CI Year
M-H, Fixed, 95% CI
2.1.1 Children
Chen 2003 40 42 40 50 6.4% 5.00 [1.03, 24.28] 2003
Rong 2012 92 96 80 98 12.1% 5.17 [1.68, 15.93] 2012
Sun 2013 49 51 38 51 5.5% 8.38 [1.78, 39.40] 2013
Subtotal (95% CI) 189 199 24.0% 5.86 [2.67, 12.86]
Total events 181 158
Heterogeneity: Chi² = 0.29, df = 2 (P = 0.86); I² = 0%
Test for overall effect: Z = 4.41 (P < 0.0001)
2.1.2 Spouse
Rakici 2015 92 102 94 104 33.5% 0.98 [0.39, 2.46] 2015
Liang 2019 53 60 44 60 18.8% 2.75 [1.04, 7.29] 2019
Chen 2019 105 112 103 111 23.7% 1.17 [0.41, 3.33] 2019
Subtotal (95% CI) 274 275 76.0% 1.48 [0.85, 2.57]
Total events 250 241
Heterogeneity: Chi² = 2.53, df = 2 (P = 0.28); I² = 21%
Test for overall effect: Z = 1.38 (P = 0.17)
Total (95% CI) 463 474 100.0% 2.53 [1.64, 3.90]
Total events 431 399
Heterogeneity: Chi² = 10.76, df = 5 (P = 0.06); I² = 54%
Test for overall effect: Z = 4.18 (P < 0.0001)
Test for subgroup differences: Chi² = 7.89, df = 1 (P = 0.005), I² = 87.3%
0.05
0.2
1
5
20
Favours [Single patient]
Favours [Whole family]

Chinese Consensus Report on Family-Based *Helicobacter pylori* Infection Control and Management (2021 Edition)

Song-Ze Ding [1,2] Yi-Qi Du [3] Hong Lu [4] Wei-Hong Wang [5] Hong Cheng,[5] Shi-Yao Chen,[6] Min-Hu Chen,[7] Wei-Chang Chen,[8] Ye Chen,[9] Jing-Yuan Fang [10] Heng-Jun Gao,[11] Ming-Zhou Guo [12] Ying Han,[13] Xiao-Hua Hou [14] Fu-Lian Hu,[5] Bo Jiang,[15] Hai-Xing Jiang,[16] Chun-Hui Lan [17] Jing-Nan Li,[18] Yan Li,[19] Yan-Qing Li [20] Jie Liu,[21] You-Ming LI,[22] Bin Lyu,[23] You-Yong Lu,[24] Ying-Lei Miao,[25] Yong-Zhan Nie [26] Jia-Ming Qian,[18] Jian-Qiu Sheng [27] Cheng-Wei Tang [28] Fen Wang [29,30] Hua-Hong Wang,[5] Jiang-Bin Wang,[31] Jing-Tong Wang,[32] Jun-Ping Wang,[33] Xue-Hong Wang,[34] Kai-Chun Wu,[35] Xing-Zhou Xia,[36] Wei-Fen Xie [37] Yong Xie [38] Jian-Ming Xu,[39] Chang-Qing Yang,[40] Gui-Bin Yang [41] Yuan Yuan,[42] Zhi-Rong Zeng,[43] Bing-Yong Zhang,[1] Gui-Ying Zhang,[44] Guo-Xin Zhang [45] Jian-Zhong Zhang [46] Zhen-Yu Zhang [47] Peng-Yuan Zheng,[36] Yin Zhu,[48] Xiu-Li Zuo,[49] Li-Ya Zhou,[32] Nong-Hua Lyu,[38] Yun-Sheng Yang [12] Zhao-Shen Li [50] On behalf of the National Clinical Research Center for Digestive Diseases (Shanghai), Gastrointestinal Early Cancer Prevention & Treatment Alliance of China (GECA), Helicobacter pylori Study Group of Chinese Society of Gastroenterology, and Chinese Alliance for Helicobacter pylori Study

CQ5. *Should all H. pylori-infected adult family members be treated to eliminate the infection?*
Statement 5: *For all H. pylori-infected adult family members In a household, eradication should be considered.*
Evidence quality: *moderate. Recommendation strength: strong recommendation 52.6%, conditional recommendation 47.4%.Consensus level: 81.5%.*

Ding SZ, et al. Gut 2022;71: 238–253.

Novedades en el tratamiento de la infección por *Helicobacter pylori*

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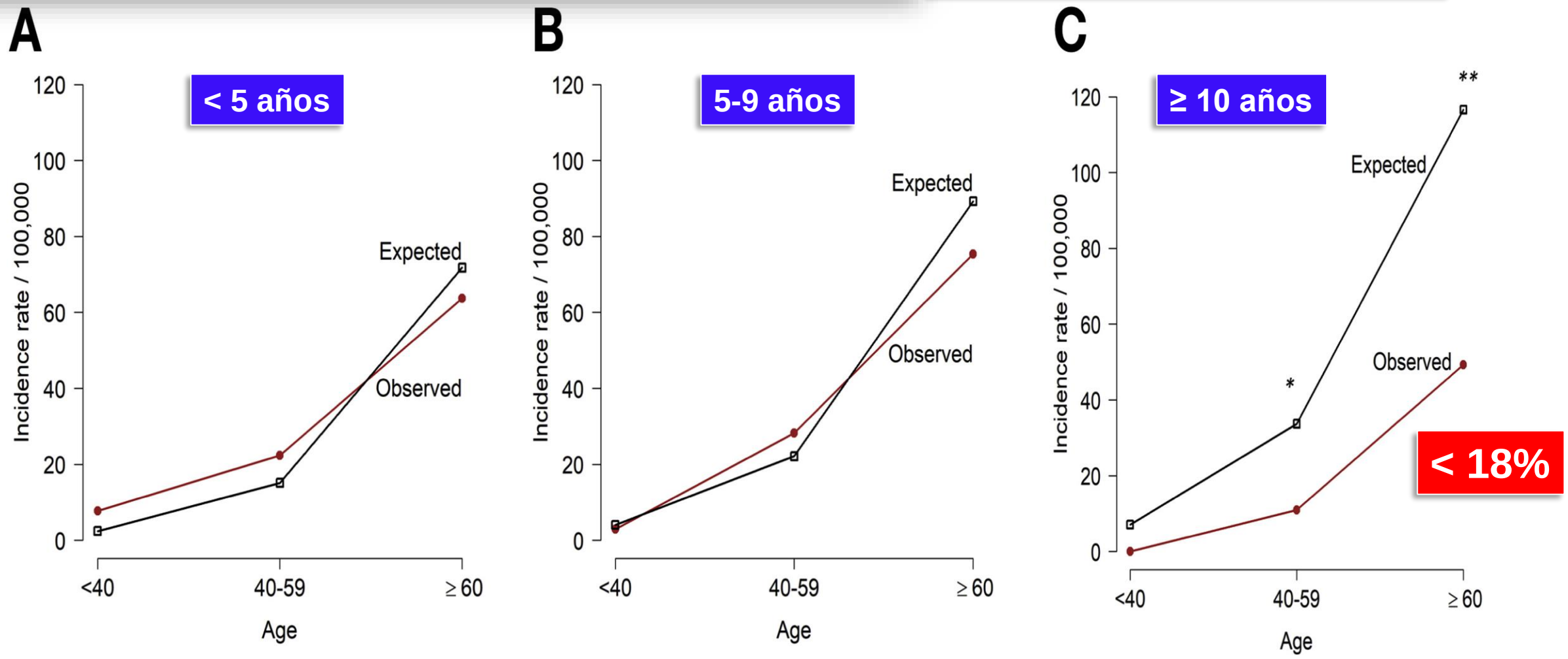
5. **Tratamiento adulto mayor ?**
6. Probióticos?
7. Opciones para LATAM

?

Effects of *Helicobacter pylori* Treatment on Incidence of Gastric Cancer in Older Individuals

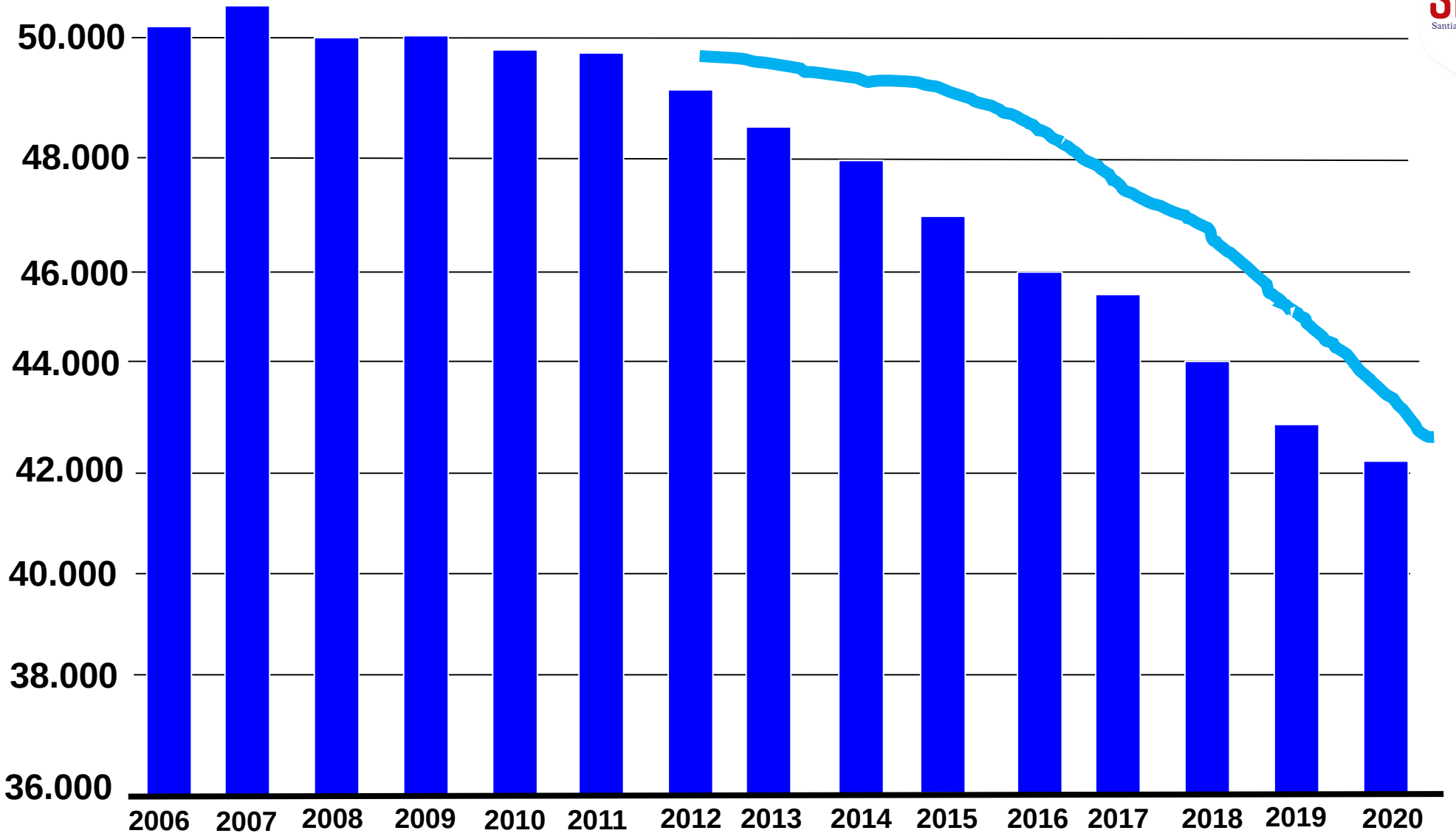
Wai K. Leung,[1] Irene O. L. Wong,[2] Ka Shing Cheung,[1] Kar Fu Yeung,[2] Esther W. Chan,[3] Angel Y. S. Wong,[3,4] Lijia Chen,[1] Ian C. K. Wong,[3,5] and David Y. Graham[6]

2003 – 2012 Hong Kong,
73237 2rradicación
200 desarrollaron cáncer (0.27%)
Incidencia esperada 0.82%



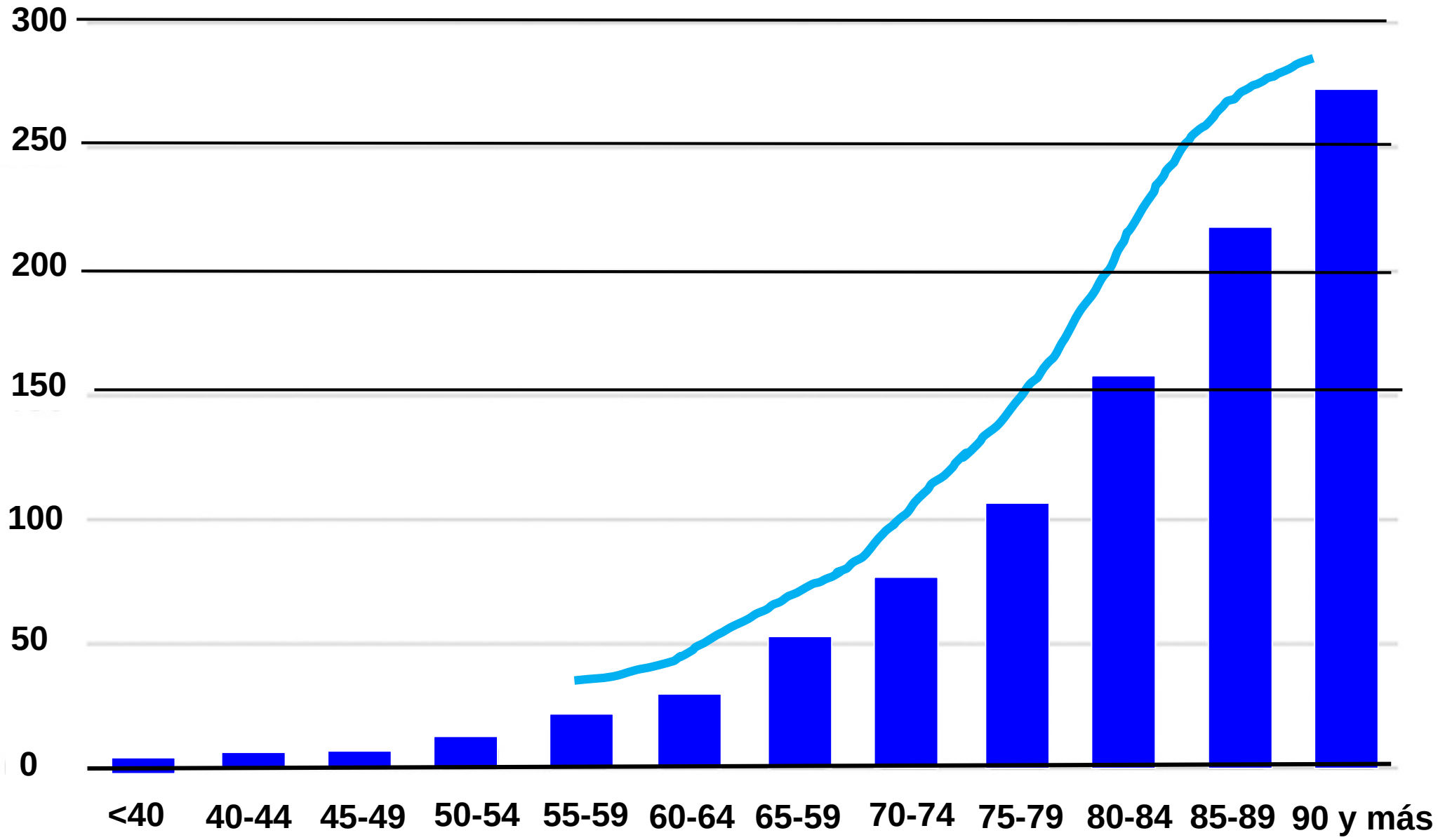
Leung WK, Gastroenterology 2018;155:67–75

Tendencia de muerte por Cáncer Gástrico 2005-2020
Con el tratamiento de *H.pylori*



Matsushima , et al. Helicobacter. 2023;28:e12988.

Mortalidad por CCR de acuerdo a la edad



Matsushima , et al. Helicobacter. 2023;28:e12988.

An increasing trend of gastric cancer deaths and inadequate preventive measures in elderly adults

Rumiko Matsushima[1] | Shouji Matsushima[2] | Masanobu Kobayashi[3] | Kenji Fujimori[4]
Naoya Sakamoto[1] | Masahiro Asaka[3]

2013: Tratamiento universal de *H.pylori* en Japón
Cáncer gástrico disminuido globalmente
Mayores de 80 años *aumento!*
Mayores de 80 años 9% de la población
Contribuyen con 50% de las muertes por CG 2020

Matsushima , et al. Helicobacter. 2023;28:e12988.

Novedades en el tratamiento de la infección por *Helicobacter pylori*

Agenda

1. Epidemiolgia e impacto
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3. Terapias guiadas vs ”empìricas”
4. Tratamiento toda la familia?
5. Tratamiento adulto mayor ?
6. Probióticos?
7. Opciones para LATAM

SYSTEMATIC REVIEW

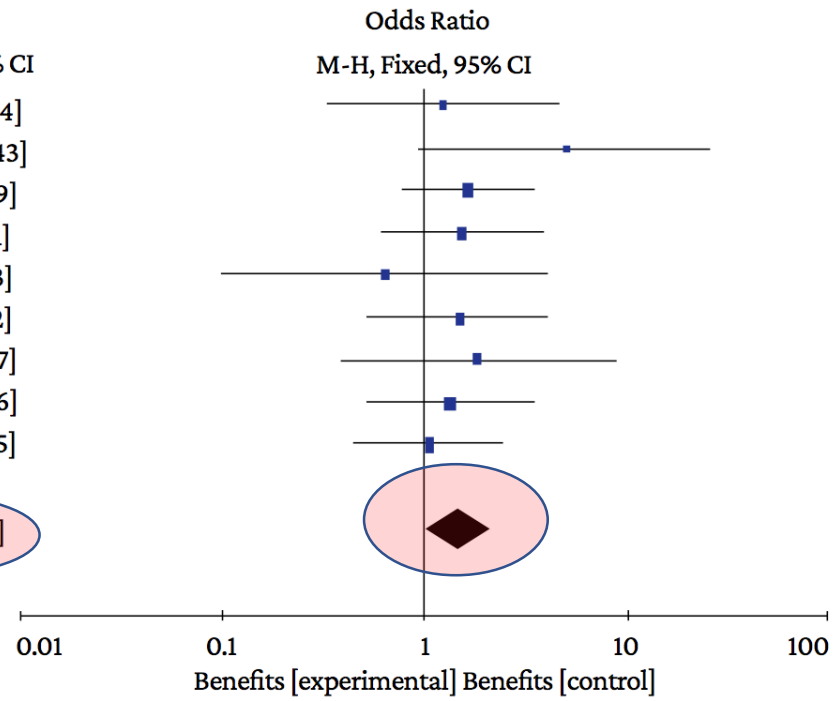
Effectiveness and safety of probiotics as adjuvants in the eradication of *Helicobacter pylori*. Systematic review and meta-analysis

Efectividad y seguridad del uso de probióticos como adyuvantes en la erradicación de Helicobacter pylori. Revisión sistemática y metaanálisis

Gilberto Jaramillo-Trujillo[1] William Alberto Otero-Regino[1] Kelly Patricia Estrada-Orozco[2]

Triple terpia

Study or subgroup	PROBIOTICS Events	Total	PLACEBO Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI
Armuzzi *et al.*[22] 2001	25	30	24	30	7.6%	1.25[0.34, 4.64]
Chitapanarux *et al.*[23] 2015	28	30	22	30	2.8%	5.09[0.98, 6.43]
Cindoruk *et al.*[24] 2007	44	62	37	62	20.5%	1.65[0.78, 3.49]
Francavilla *et al.*[25] 2014	33	44	29	44	13.8%	1.55[0.62, 3.91]
McNicholl *et al.*[26] 2018	31	34	32	34	5.4%	0.65[0.10, 4.13]
Emara *et al.*[27] 2014	26	35	23	35	11.3%	1.51[0.54, 4.22]
Myllyluoma *et al.*[28] 2005	21	24	19	24	4.5%	1.84[0.39, 8.77]
Navarro-Rodríguez *et al.*[29] 2013	45	55	40	52	14.2%	1.35[0.53, 3.46]
Nista *et al.*[30] 2004	39	54	37	52	19.9%	1.05[0.45, 2.45]
Total (95% CI)		368		363	100.0%	1.48[1.05, 2.09]
Total events	292		263			
Heterogeneity: Chi²= 3.82, df=8 (P=0.87); F=0%						
Test for overall effect Z=2.21 (P=0.03)						



Aumento de efectividad 8.3% 71.1%. Vs 79.4%
NO logró 90-95%

Jaramillo-Trujillo G, Rev. Fac. Med. 2023;71:e98018.

SYSTEMATIC REVIEW

Effectiveness and safety of probiotics as adjuvants in the eradication of *Helicobacter pylori*. Systematic review and meta-analysis

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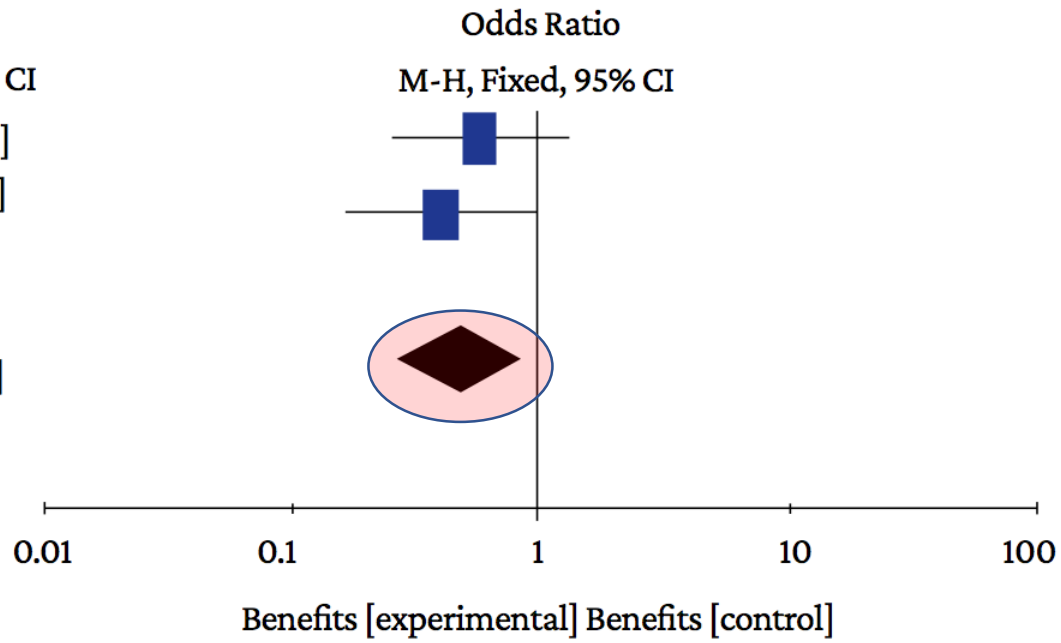
Gilberto Jaramillo-Trujillo[1] William Alberto Otero-Regino[1] Kelly Patricia Estrada-Orozco[2]

Efectos adveros

Study or subgroup	PROBIOTICS Events	Total	PLACEBO Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI
Navarro-Rodríguez *et al.*[29] 2013	32	54	37	52	48.8%	0.59[0.26, 1.32]
Francavilla *et al.*[25] 2014	18	44	27	43	51.2%	0.41[0.17, 0.97]
Total (95% CI)		98		95	100.0%	0.50[0.28, 0.90]
Total events	50		64			
Heterogeneity: Chi²= 0.36, df=1 (P=0.55); I²=0%						
Test for overall effect Z=2.32 (P=0.03)						



Jaramillo-Trujillo G, Rev. Fac. Med. 2023;71:e98018.

SYSTEMATIC REVIEW

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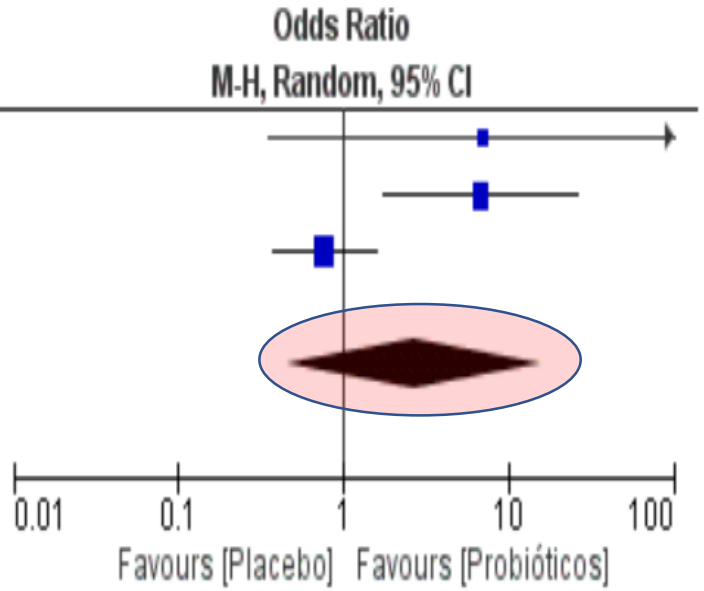
Gilberto Jaramillo-Trujillo[1] William Alberto Otero-Regino[1] Kelly Patricia Estrada-Orozco[2]

Terapia cuàdruple

Study or Subgroup	Experimental Events	Experimental Total	Control Events	Control Total	Weight	Odds Ratio M-H, Random, 95% CI
McNicholl, 2018	67	67	67	70	20.3%	7.00 [0.35, 138.14]
Shafaghi, 2016	35	38	24	38	36.6%	6.81 [1.76, 26.27]
Shavakhi, 2013	69	90	73	90	43.0%	0.77 [0.37, 1.57]
Total (95% CI)		**195**		**198**	**100.0%**	**2.67 [0.44, 16.14]**
Total events	171		164			

Heterogeneity: Tau² = 1.82; Chi² = 9.22, df = 2 (P = 0.010); I² = 78%

Test for overall effect: Z = 1.07 (P = 0.28)



Jaramillo-Trujillo G, Rev. Fac. Med. 2023;71:e98018.

The Toronto Consensus for the Treatment of *Helicobacter pylori* Infection in Adults

2016

Carlo A. Fallone,[1] Naoki Chiba,[2,3] Sander Veldhuyzen van Zanten,[4] Lori Fischbach,
Javier P. Gisbert,[6] Richard H. Hunt,[3,7] Nicola L. Jones,[8] Craig Render,[9]
Grigorios I. Leontiadis,[3,7] Paul Moayyedi,[3,7] and John K. Marshall[3,7]

Management of *Helicobacter pylori* infection: the Maastricht VI/Florence consensus report

2022

Peter Malfertheiner ,[1,2] Francis Megraud ,[3] Theodore Rokkas
Javier P Gisbert ,[6,7] Jyh-Ming Liou [8]
Antonio Gasbarrini [10]

Ninguna guìa los Recomienda por ahora

Fifth … of *Hel…*

2017

Wen Zho… | Hong Cheng[3] | Zhi Rong Zeng[4] |
Li Ya Zhou… | Jiang Bin Wang[7] | Yi Qi Du[8] | Nong Hua Lu[2] | on behalf
of Chinese Society of Gastroenterology, Chinese Study Group on *Helicobacter pylori* and Peptic Ulcer

…nfección por *Helicobacter pylori*

2021

Javier P. Gisbert[1], Javier Alcedo[2], Javier Amador[3], Luis Bujanda[4], Xavier Calvet[5], Manuel Castro-Fernández[6], Luis Fernández-Salazar[7], Emili Gené[8], Ángel Lanas[9], Alfredo J. Lucendo[10], Javier Molina-Infante[11], Olga P. Nyssen[1], A. Pérez-Aisa[12] e Ignasi Puig[13]

Gastroenterology 2021;160:1831–1841

CLINICAL PRACTICE UPDATE

AGA Clinical Practice Update on the Management of Refractory *Helicobacter pylori* Infection: Expert Review

Shailja C. Shah,[1,2,3] Prasad G. Iyer,[4] and Steven F. Moss[5]

Best Practice Advice 12: Proposed adjunctive therapies, including probiotics, are of unproven benefit as treatment for refractory *H pylori* infection, and thus, their use should be considered experimental.

Shah SC, et al. Gastroenterology 2021;160:1831–1841

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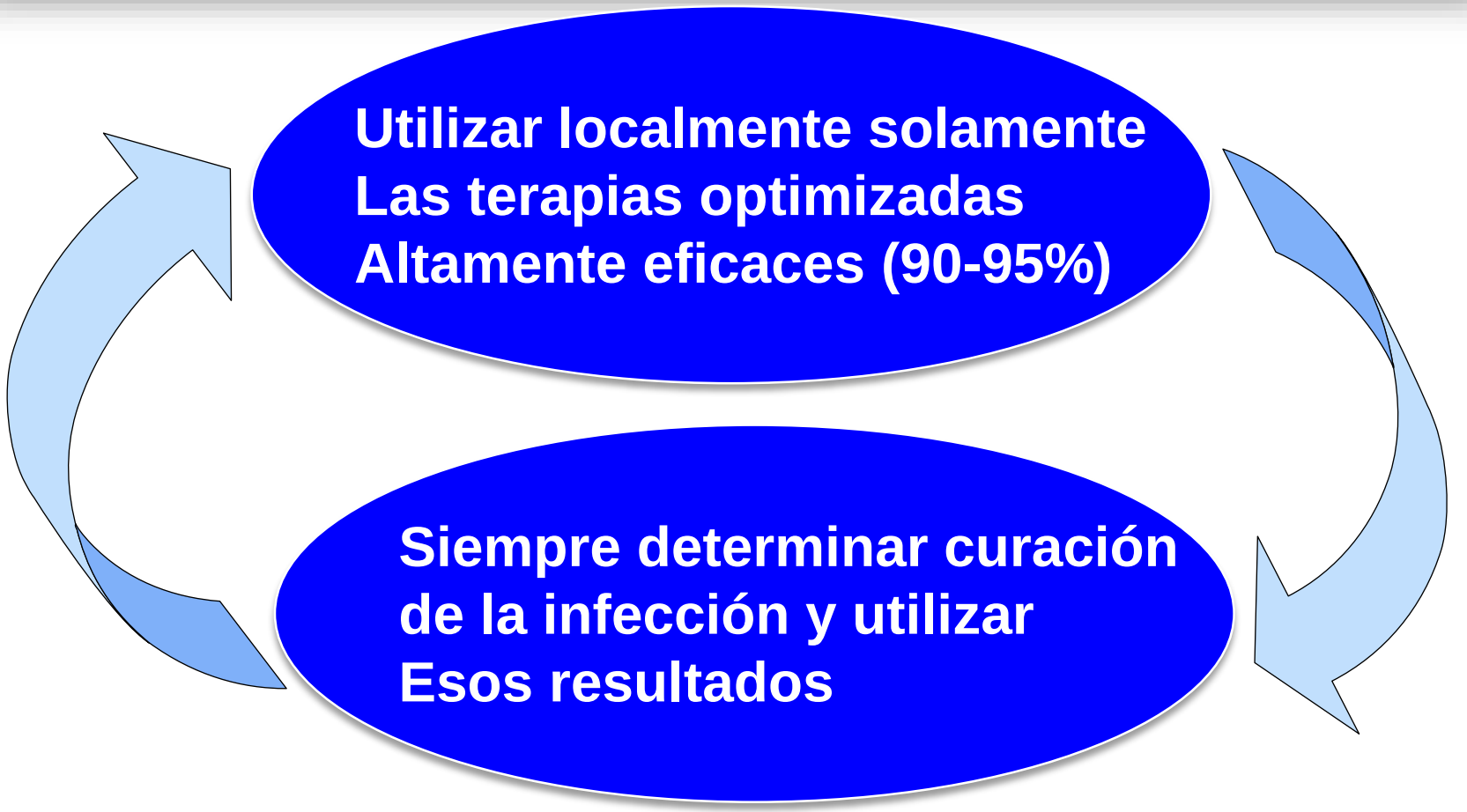
Recent advances in clinical practice

Cross-roads for meta-analysis and network meta-analysis of *H. pylori* therapy

David Y Graham [1,2], Ruben Hernaez [1,2,3], Theodore Rokkas [4]



Graham DY, et al., Gut 2022;71:643–650

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Hp-EuReg

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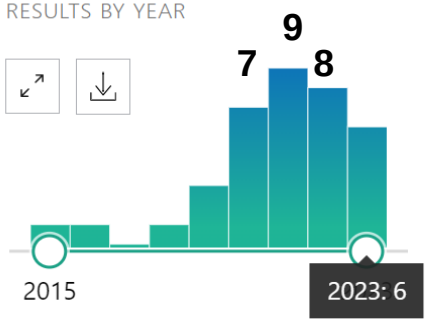
RESULTS BY YEAR



TEXT AVAILABILITY

Abstract

1

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Analysis of Clinical Phenotypes through Machine Learning of First-Line *H. pylori* Treatment in Europe during the Period 2013-2022: Data from the European Registry on *H. pylori* Management (**Hp-EuReg**).

Nyssen OP, Pratesi P, Spínola MA, Jonaitis L, Pérez-Aísa Á, Vaira D, Saracino IM, Pavoni M, Fiorini G, Tepes B, Bordin DS, Voynovan I, Lanas Á, Martínez-Domínguez SJ, Alfaro E, Bujanda L, Pabón-Carrasco M, Hernández L, Gasbarrini A, Kupcinskas J, Lerang F, Smith SM, Gridnyev O, Leja M, Rokkas T, Marcos-Pinto R, Meštrović A, Marlicz W, Milivojevic V, Simsek H, Kunovsky L, Papp V, Phull PS, Venerito M, Boyanova L, Boltin D, Niv Y, Matysiak-Budnik T, Doulberis M, Dobru D, Lamy V, Capelle LG, Nikolovska Trpchevska E, Moreira L, Cano-Català A, Parra P, Mégraud F, O'Morain C, Ortega GJ, Gisbert JP, On Behalf Of The Hp-EuReg Investigators.

Antibiotics (Basel). 2023 Sep 10;12(9):1427. doi: 10.3390/antibiotics12091427.

Registro Latinoamericano de *Helicobacter pylori* (Hp-LATAM-Reg)

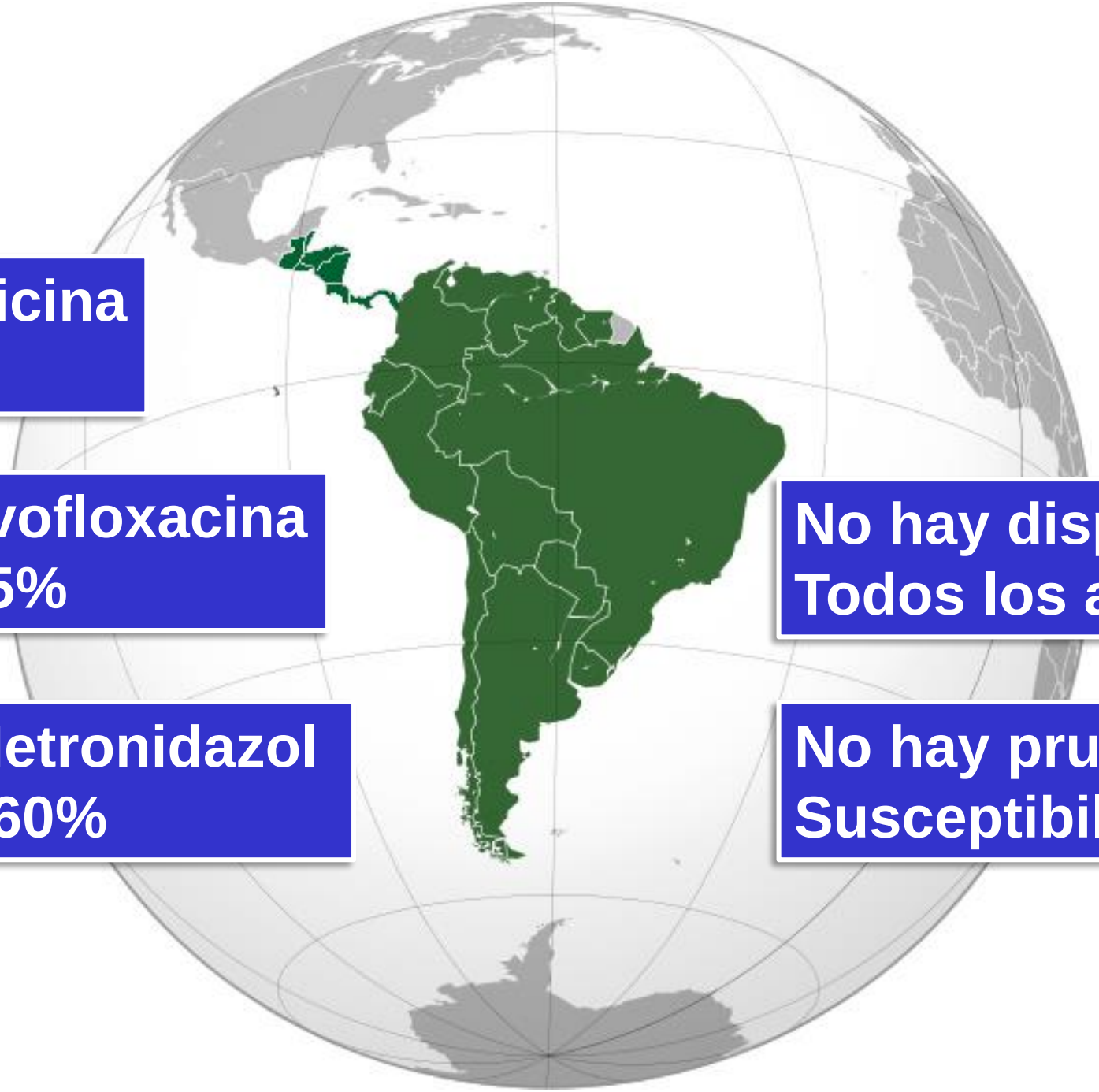
Dr Arnoldo Riquelme

Resistencias

Claritromicina
> 15%

Levofloxacina
>15%

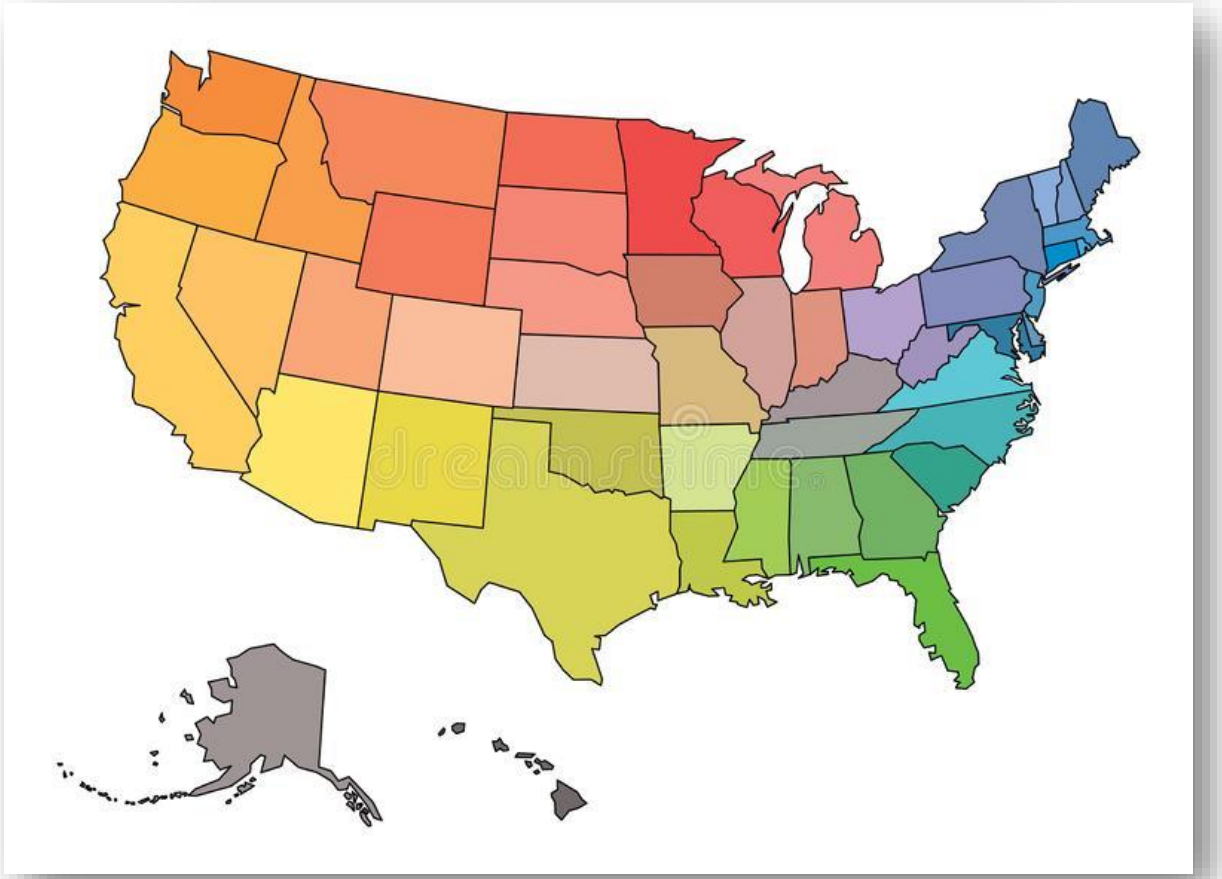
Metronidazol
>60%



No hay disponibilidad
Todos los antibióticos

No hay pruebas
Susceptibilidad

Helicobacter pylori pruebas susceptibilidad



LATAM
Mientras llegan
Resultados Regionales

H.pylori LATAM

1ª línea

Cuádruple clásica
IBP +Amox+Tetrac+Bi
Dual: IBP+ AMOX

2ª línea 10-20%

Cuádruple clásica
IBP+Amox+ Tetrac +Bi
Triple ***levofloxacina*** +Bi
Dual

3ª línea 5-10%

Cuádruple clásica
Triple ***levofloxacina*** +Bi
Dual
Concomitante ?

4ª línea

Cuádruples Furazolidona
Concomitante modificada
Triple /Cuádruple Rifabutin

Experience with Rifabutin-Containing Therapy in 500 Patients from the European Registry on *Helicobacter pylori* Management (Hp-EuReg)

Olga P. Nyssen [1], Dino Vaira [2], Ilaria Maria Saracino [2], Giulia Fiorini [2], María Caldas [1], Luis Bujanda [3], Rinaldo Pellicano [4], Alma Keco-Huerga [5], Manuel Pabón-Carrasco [5], Elida Oblitas Susanibar [6], Alfredo Di Leo [7], Giuseppe Losurdo [7], Ángeles Pérez-Aísa [8], Antonio Gasbarrini [9], Doron Boltin [10], Sinead Smith [11], Perminder Phull [12], Theodore Rokkas [13], Dominique Lamarque [14], Anna Cano-Català [15,16], Ignasi Puig [15,16], Francis Mégraud [17], Colm O'Morain [11] and Javier P. Gisbert [1,*]

Semana Panamericana de Enfermedades Digestivas 2023 SPED Santiago de Chile

500 pacientes 2013-2021
Cultivo 63%
Resistencia dual (CLA, MET): 46%
Resistencia triple (CLA, MET, LEVO) 39%

Rifabutina		Eficacia ITTm
2da línea	32%	78%
3ª línea	25%	80%
4ª línea	20%	66%
Cumplimiento		89%

1 Paciente
Leucopenia,
Trombocitopenia
Fiebre
Hospitalizado

Nyssen OP, et al. J. Clin. Med. 2022;11:1658.

Efficacy and safety of low-dose rifabutin-based 7-day triple therapy as a third- or later-line *Helicobacter pylori* eradication regimen

Kazumi Inokuchi[1] | Hideki Mori[1,2] | Juntaro Matsuzaki[1,3] | Kenro Hirata[1] | Yosuke Harada[1] | Yoshimasa Saito[1,3,4] | Hidekazu Suzuki[1,5] | Takanori Kanai[1] | Tatsuhiro Masaoka[1,6]

2ª - 6ª línea 66 pacientes
Vonoprazan 20 mg 2v/d + Amoxi 500 mg 4v/día+ Rifabutina 150 mg 1v/dia

	7-day VAR therapy	10-day EAR therapy[a]	*p*-value	14-day EAR therapy[a]	*p*-value
ITT analysis	91.2% (52/57)	83.3% (10/12)	0.60[b]	94.1% (16/17)	1.00 [b]
PP analysis	92.7% (51/55)	81.8% (9/11)	0.26[b]	91.7% (11/12)	1.00 [b]

Efectos adversos 31%
2 suspendieron tratamiento

Inokuchi K, et. Al, Helicobacter. 2022;27:e12900

Three-Drug Combo Talicia Now Available for H. pylori Infection

Diana Ernst, RPh | March 9, 2020

Talicia (omeprazole magnesium, amoxicillin and rifabutin delayed-release capsules) has been made available for the treatment of Helicobacter pylori (H. pylori) infection in adults, according to RedHill Biopharma.

Credit: RedHill

4 capsulas tres veces al día

Efficacy and safety of a 14-day modified concomitant therapy for refractory *Helicobacter pylori* infection: a pilot study

Shu-yan Zeng,[*,†1] Juan Wang,[*,†,‡1] Jing Liu,[*,†] Min-Juan Lin,[*,†] Bo-Shen Lin,[*,†] Yu-Ming Ding,[*,†] Qing-Zhou Kong,[*,†] Wen-Lin Zhang,[*,†] Miao Duan,[*,†] Zhong-Xue Han,[*,†] Yue-yue Li,[*,†] Xiu-Li Zuo[*,†] and Yan-Qing Li[*,†]

Concomitante modificada

Furazolidona 100 mg 2v/día

Tetraciclina 500 mg 4 v/día

Amoxicilina 1gr 2v/día

Esomeprazol 40 mg 2v/día

Eficacia	
ITT	**84.7 % (59/59**
PP	**89.3% (50/56)**

Zeng S, J Gastroenterol Hepatol 2023, Sept 27

Empírica

Prevalencias resistencias
Antibióticos previos utilizados
Eficacia terapias locales
Antibióticos sin resistencias

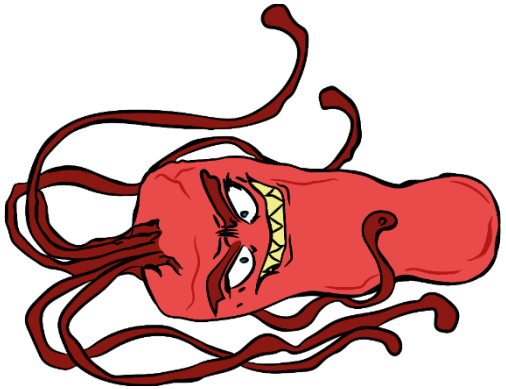
< 40% USA

Murakami TT, Prev Med 2017;100:216-22

Mensajes para la casa

No hay tratamiento universal
Mayoría Terapias guiadas < 90%
Guiadas y empíricas similares
CLART, QUINOL, MTND susceptibilidad
AMO, TETR, FURZ, RIFAB no resistencia
Utilizar terapias locales eficaces

H.pylori encontrado = *H. pylori tratado*



Muchas Gracias !

Semana Panamericana de Enfermedades Digestivas
SPED 2023
Santiago de Chile

Annals of Internal Medicine ORIGINAL RESEARCH

Rifabutin-Based Triple Therapy (RHB-105) for *Helicobacter pylori* Eradication

A Double-Blind, Randomized, Controlled Trial

David Y. Graham, MD; Yamil Canaan, MD; James Maher, MD; Gregory Wiener, MD; Kristina G. Hulten, PhD; and Ira N. Kalfus, MD

Table 3. Helicobacter pylori Eradication Rate, by Treatment Group

Analysis	RHB-105 Group	Active Comparator Group	Treatment Difference	*P* Value*
ITT analysis on the primary efficacy end point†				
Eradication rate, % (*n/N*)	83.8 (191/228)	57.7 (131/227)	26.1	<0.001
95% CI, %	78.4 to 88.0	51.2 to 64.0	18.0 to 34.1	
Sensitivity analyses on the primary efficacy end point				
mITT‡				
Eradication rate, % (*n/N*)	84.1 (191/227)	57.7 (131/227)	26.4	<0.001
95% CI, %	78.8 to 88.3	51.2 to 64.0	18.4 to 34.4	
Per protocol§				
Eradication rate, % (*n/N*)	84.4 (179/212)	58.0 (123/212)	26.4	<0.001
95% CI, %	78.9 to 88.7	51.3 to 64.5	18.2 to 34.7	
Confirmed adherent population‖				
Eradication rate, % (*n/N*)	90.3 (187/207)	64.7 (119/184)	25.6	<0.001
95% CI, %	85.5 to 93.7	57.5 to 71.2	17.7 to 33.7	

Omeprazol 120 mg/d
Rifabutina 150 mg 1v/d
Amoxicilina 1gr 3v/d

Graham DY, et al. Ann Intern Med. 2020;172:795-802.