

Supplementary Materials

Table S1. Effectiveness detailed by prescription year in non-allergic to penicillin patients, overall effectiveness and disaggregated by first line therapy.

Anual effectiveness	TOTAL n=1644	PCA n=686	PLA n=123	PCAM n=737	PPylera® n=87	Other n=11
2010 ITT	102/161 63.4%	76 /127 59.8%	25 /32 78.1%	1 /1 100%	-	-
PP	102/157 65%	76/125 60.8%	25/31 80.6%	1/1 100%	-	-
2011 ITT	156/247 63.2%	124/203 61.1%	31/40 77.5%			1/4 25%
PP	156/239 65.3%	124/198 62.6%	31/38 81.6%	-	-	1/3 33.3%
2013 ITT	140/200 70%	110/160 68.8%	12/20 60%	18/20 90%		
PP	140/198 70.7%	110/159 69.2%	12/20 60%	18/19 94.7%	-	-
2014 ITT	178/264 67.4%	115/177 65%	5/13 38.5%	57/73 78.1%		1/1 100%
PP	178/261 68.2%	115/176 65.3%	5/13 38.5%	57/71 80.3%	-	
2015 ITT	161/199 80.9%	4/11 36.4%	6/9 66.7%	151/178 84.8%		0/1 0%
PP	161/190 84.7%	4/11 36.4%	6/9 66.7%	151/169 89.3%	-	0/1 0%
2016 ITT	113/158 71.5%	6/7 85.7%	3/4 75%	100/141 70.9%	4/4 100%	0/2 0%
PP	113/155 72.9%	6/7 85.7%	3/4 75%	100/138 72.5%	4/4 100%	0/2 0%
2017 ITT	145/196 74%	0/1 0%	3/5 60%	125/170 73.5%	15/18 83.3%	2/2 100%
PP	145/193 75.1%	-	3/5 60%	125/168 74.4%	15/18 83.3%	2/2 100%
2018 ITT	111/144	-	-	87/115	24/29	-

	77.1%			75.7%	82.8%	
PP	111/143 77.6%	-	-	87/114 76.3%	24/29 82.8%	-
2019 ITT	56/75 74.7%	-	-	28/39 71.8%	28/36 77.8%	-
PP	56/75 74.7%	-	-	28/39 71.8%	28/36 77.8%	-

Expressed as number of successful eradications and percentage: n (%). ITT: Intention To Treat. PCA: classic triple therapy (PPI + Clarithromycin + Amoxicillin). PCAM: concomitant non-bismuth quadruple therapy (PPI + Clarithromycin + Amoxicillin + Metronidazole). PLA: levofloxacin based triple therapy (PPI + Levofloxacin + Amoxicillin). PP: Per Protocol. PPylera®: single capsule bismuth quadruple therapy (PPI + Pylera®). PPI: Proton Pump Inhibitor.

Table S2. Effectiveness of first line treatments with PCAM (PPI + Clarithromycin + Amoxicillin + Metronidazole) in non-penicillin-allergic patients: detailed analysis by variables.

PCAM	Categories	ITT			PP		
		N	%	95% CI	N	%	95% CI
Duration	7 days	0	-	-	0	-	-
	10 days	260	78.5%	73.1-83.0	248	82.3%	77.0-86.5
	14 days	297	84.5%	80.0-88.2	294	85.4%	80.9-89.0
	<i>p-value</i>	0.065			0.325		
PPI	Omeprazole	68	86.8%	76.7-92.9	67	88.1%	78.2-93.8
	Esomeprazole	74	89.2%	80.1-94.4	74	89.2%	80.1-94.4
	Other PPI	22	81.8%	61.5-92.7	22	81.8%	61.5-92.7
	<i>p-value</i>	0.656			0.648		
Sex	Female	451	74.9%	70.7-78.7	440	76.8%	72.7-80.5
	Male	286	80.1%	75.1-84.3	279	82.1%	77.2-86.1
	<i>p-value</i>	0.107			0.092		
Center	Center 1 (Z)	381	77.7%	73.2-81.6	371	79.8%	75.4-83.6
	Center 2 (T)	356	76.1%	71.4-80.3	348	77.9%	73.2-81.9
	<i>p-value</i>	0.614			0.531		
Age	<55 years	435	73.8%	69.5-77.7	421	76.2%	72.0-80.1
	≥55 years	302	81.5%	76.7-85.4	298	82.6%	77.8-86.4
	<i>p-value</i>	0.015			0.041		
Appropriateness	No	1	100.0%	-	1	100.0%	-
	Yes	736	76.9%	73,7-79,8	718	78.8%	75,7-81,7
	<i>p-value</i>	0.584			0.604		
Total		737	76.9%	73.8-79.8	719	78.9%	75.7-81.7

PCAM: PPI + Clarithromycin + Amoxicillin + Metronidazole. PPI: Proton Pump Inhibitor. ITT: Intention To Treat. PP: Per Protocol. N: total of patients included. %: proportion of patients presenting effectiveness. 95%CI: Confidence Interval. Center 1 (Z): Lozano Blesa University Hospital, Zaragoza (Spain). Center 2 (T): Obispo Polanco Hospital, Teruel (Spain). Bold values denote statistical significance at the *p-value* < 0.05 level. *p-value*: Chi Square test for proportion difference was applied.

Table S3. Effectiveness of first line treatments with PCA (PPI + Clarithromycin + Amoxicillin) in non-penicillin-allergic patients: detailed analysis by variables.

PCA	Categories	ITT			PP		
		N	%	95% CI	N	%	95% CI
Duration	7 days	62	58.1%	45.7-69.5	61	59.0%	46.5-70.5
	10 days	248	64.9%	58.8-70.6	247	65.2%	59.0-70.8
	14 days	31	58.1%	40.8-73.6	30	60.0%	42.3-75.4
	<i>p-value</i>	0.506			0.610		
PPI	Omeprazole	199	69.8%	63.1-75.8	199	69.8%	63.1-75.8
	Esomeprazole	16	56.3%	33.2-76.9	16	56.3%	33.2-76.9
	Other PPI	34	61.8%	45.0-76.1	34	61.8%	45.0-76.1
	<i>p-value</i>	0.381			0.381		
Sex	Female	399	60.7%	55.8-65.3	396	61.1%	56.2-65.8
	Male	287	67.2%	61.6-72.4	280	68.9%	63.3-74.1
	<i>p-value</i>	0.077			0.037		
Center	Center 1 (Z)	258	59.7%	53.6-65.5	250	61.6%	55.4-67.4
	Center 2 (T)	428	65.7%	61.0-70.0	426	66.0%	61.3-70.3
	<i>p-value</i>	0.116			0.253		
Age	<55 years	406	63.1%	58.3-67.6	400	64.0%	59.2-68.6
	≥55 years	280	63.9%	58.2-69.3	276	64.9%	59.1-70.2
	<i>p-value</i>	0.815			0.820		
Appropriateness	No	253	65.2%	59.2-70.8	251	65.7%	59.7-71.3
	Yes	433	62.4%	57.7-66.8	425	63.5%	58.9-68.0
	<i>p-value</i>	0.453			0.563		
Total		686	63.4%	59.7-66.9	676	64.3%	60.7-67.9

PCA: PPI + Clarithromycin + Amoxicillin. PPI: Proton Pump Inhibitor. ITT: Intention To Treat. PP: Per Protocol. N: total of patients included. %: proportion of patients presenting effectiveness. 95%CI: Confidence Interval. Center 1 (Z): Lozano Blesa University Hospital, Zaragoza (Spain). Center 2 (T): Obispo Polanco Hospital, Teruel (Spain). Bold values denote statistical significance at the *p-value* < 0.05 level. *p-value*: Chi Square test for proportion difference was applied.

Table S4. Effectiveness of first line treatments with PLA (PPI + Levofloxacin + Amoxicillin) in non-penicillin-allergic patients: detailed analysis by variables.

PLA	Categories	ITT			PP		
		N	%	95% CI	N	%	95% CI
Duration	7 days	4	50.0%	15.0-85.0	4	50.0%	15.0-85.0
	10 days	39	66.7%	51.0-79.4	38	68.4%	52.5-80.9
	14 days	1	100.0%	-	1	100.0%	-
	<i>p-value</i>	0.613			0.591		
PPI	Omeprazole	14	57.1%	32.6-78.6	13	61.5%	35.5-82.3
	Esomeprazole	7	71.4%	35.9-91.8	7	71.4%	35.9-91.8
	Other PPI	5	80.0%	37.6-96.4	5	80.0%	37.6-96.4
	<i>p-value</i>	0.605			0.734		
Sex	Female	65	69.2%	57.2-79.1	65	69.2%	57.2-79.1
	Male	58	69.0%	56.2-79.4	55	72.7%	59.8-82.7
	<i>p-value</i>	0.975			0.675		
Center	Center 1 (Z)	88	68.2%	57.9-77.0	86	69.8%	59.4-78.5
	Center 2 (T)	35	71.4%	54.9-83.7	34	73.5%	56.9-85.4
	<i>p-value</i>	0.725			0.683		
Age	<55 years	70	77.1%	66.0-85.4	68	79.4%	68.4-87.3
	≥55 years	53	58.5%	45.1-70.7	52	59.6%	46.1-71.8
	<i>p-value</i>	0.027			0.018		
Appropriateness	No	123	69.1%	60.5-76.6	120	70.8%	62.2-78.2
	Yes	0	-	-	0	-	-
	<i>p-value</i>	-			-		
Total		123	69.1%	60.5-76.6	120	70.8%	62.2-78.2

PLA: PPI + Levofloxacin + Amoxicillin. PPI: Proton Pump Inhibitor. ITT: Intention To Treat. PP: Per Protocol. N: total of patients included. %: proportion of patients presenting effectiveness. 95%CI: Confidence Interval. Center 1 (Z): Lozano Blesa University Hospital, Zaragoza (Spain). Center 2 (T): Obispo Polanco Hospital, Teruel (Spain). Bold values denote statistical significance at the *p-value* < 0.05 level. *p-value*: Chi Square test for proportion difference was applied.

Table S5. Effectiveness of first line treatments with PPylera®(PPI + Pylera®). in non-penicillin-allergic patients: detailed analysis by variables.

PPylera®	Categories	ITT			PP		
		N	%	95% CI	N	%	95% CI
Duration	7 days	0	-	-	0	-	-
	10 days	64	84.4%	73.6-91.3	64	84.4%	73.6-91.3
	14 days	2	100.0%	34.2-100.0	2	100.0%	34.2-100.0
	<i>p-value</i>	0.544			0.544		
PPI	Omeprazole	3	100.0%	43.9-100.0	3	100.0	43.9-100.0
	Esomeprazole	2	100.0%	34.2-100.0	2	100.0%	34.2-100.0
	Other PPI	0	-	-	0	-	-
	<i>p-value</i>	-			-		
Sex	Female	48	75.0%	61.2-85.1	48	75.0%	61.2-85.1
	Male	39	89.7%	76.4-95.9	39	89.7%	76.4-95.9
	<i>p-value</i>	0.078			0.078		
Center	Center 1 (Z)	31	90.3%	75.1-96.7	31	90.3%	75.1-96.7
	Center 2 (T)	56	76.8%	64.2-85.9	56	76.8%	64.2-85.9
	<i>p-value</i>	0.119			0.119		
Age	<55 years	44	86.4%	73.3-93.6	44	86.4%	73.3-93.6
	≥55 years	43	76.7%	62.3-86.8	43	76.7%	62.3-86.8
	<i>p-value</i>	0.247			0.247		
Appropriateness	No	0	-	-	0	-	-
	Yes	87	81.6%	72.2-88.4	87	81.6%	72.2-88.4
	<i>p-value</i>	-			-		
Total		87	81.6%	72.2-88.4	87	81.6%	72.2-88.4

PPylera®: single capsule bismuth quadruple therapy (PPI + Pylera®). PPI: Proton Pump Inhibitor. ITT: Intention To Treat. PP: Per Protocol. N: total of patients included. %: proportion of patients presenting effectiveness. 95%CI: Confidence Interval. Center 1 (Z): Lozano Blesa University Hospital, Zaragoza (Spain). Center 2 (T): Obispo Polanco Hospital, Teruel (Spain). Bold values denote statistical significance at the *p-value* < 0.05 level. *p-value*: Chi Square test for proportion difference was applied.