



Supplementary Figure 1 Flow chart.

Supplementary Table 1 Comparison of *H. pylori* eradication rates before and after training

Physician No.	ITT analysis		PP analysis	
	Before training	After training	Before training	After training
1	68.0% (17/25)	80.0% (20/25)	85.0% (17/20)	90.9% (20/22)
2	88.0% (22/25)	92.0% (23/25)	88.0% (22/25)	92.0% (23/25)
3	56.0% (14/25)	80.0% (20/25)	87.5% (14/16)	95.2% (20/21)
4	84.0% (21/25)	76.0% (19/25)	87.5% (21/24)	79.2% (19/24)
5	44.0% (11/25)	68.0% (17/25)	84.6% (11/13)	94.4% (17/18)
6	52.0% (13/25)	87.5% (21/24)	65.0% (13/20)	95.5% (21/22)
7	92.0% (23/25)	88.0% (22/25)	92.0% (23/25)	95.7% (22/23)
8	52.0% (13/25)	32.0% (8/25)	86.7% (13/15)	66.7% (8/12)
9	44.0% (11/25)	96.0% (24/25)	61.1% (11/18)	96.0% (24/25)
10	76.0% (19/25)	76.0% (19/25)	79.2% (19/24)	76.0% (19/25)
11	26.1% (6/23)	44.0% (11/25)	60.0% (6/10)	100.0% (11/11)
12	70.8% (17/24)	58.3% (14/24)	81.0% (17/21)	77.8% (14/18)
13	64.0% (16/25)	76.0% (19/25)	88.9% (16/18)	90.5% (19/21)
14	52.0% (13/25)	76.0% (19/25)	86.7% (13/15)	90.5% (19/21)
15	32.0% (8/25)	66.7% (16/24)	72.7% (8/11)	88.9% (16/18)
16	72.0% (18/25)	92.0% (23/25)	85.7% (18/21)	95.8% (23/24)
17	60.9% (14/23)	72.0% (18/25)	70.0% (14/20)	75.0% (18/24)
18	84.0% (21/25)	84.0% (21/25)	87.5% (21/24)	91.3% (21/23)
19	32.0% (8/25)	48.0% (12/25)	72.7% (8/11)	92.3% (12/13)
20	20.0% (5/25)	40.0% (10/25)	83.3% (5/6)	83.3% (10/12)

Supplementary Table 2 Standardization rates of *H. pylori* eradication therapies before and after training

Physician No.	Before training	After training
1	28.0% (7/25)	44.0% (11/25)
2	100.0% (25/25)	100.0% (25/25)
3	52.0% (13/25)	84.0% (21/25)
4	100.0% (25/25)	100.0% (25/25)
5	88.0% (22/25)	96.0% (24/25)
6	0.0% (0/25)	96.0% (24/25)
7	48.0% (12/25)	96.0% (24/25)
8	96.0% (24/25)	96.0% (24/25)
9	20.0% (5/25)	100.0% (25/25)
10	60.0% (15/25)	100.0% (25/25)
11	0.0% (0/25)	24.0% (6/25)
12	96.0% (24/25)	100.0% (25/25)
13	96.0% (24/25)	88.0% (22/25)
14	84.0% (21/25)	96.0% (24/25)
15	100.0% (25/25)	96.0% (24/25)
16	84.0% (21/25)	84.0% (21/25)
17	100.0% (25/25)	100.0% (25/25)
18	100.0% (25/25)	100.0% (25/25)
19	84.0% (21/25)	100.0% (25/25)
20	84.0% (21/25)	92.0% (23/25)

Supplementary Table 3 Acid suppressants in bismuth-containing quadruple therapy before and after training

Acid suppressant	Before training	After training
	(n = 478)	(n = 495)
Esomeprazole	120 (25.1%)	90 (18.2%)
Omeprazole	77 (16.1%)	56 (11.3%)
Rabeprazole	102 (21.3%)	121 (24.4%)
Ilaprazole	59 (12.3%)	49 (9.9%)
Lansoprazole	84 (17.6%)	52 (10.5%)
Pantoprazole	31 (6.5%)	33 (6.7%)
Vonoprazan	5 (1.1%)	94 (19.0%)

Supplementary Table 4 Antibiotic combination in bismuth-containing quadruple therapy before and after training

Before training		After training	
Antibiotic combination	n = 478	Antibiotic combination	n = 495
AMO-CLA	327 (68.4%)	AMO-CLA	253 (51.1%)
AMO-LEV	44 (9.2%)	AMO-FLU	60 (12.1%)
AMO-MET	26 (5.4%)	AMO-LEV	55 (11.1%)
AMO-FLU	24 (5.0%)	AMO-MET	50 (10.1%)
AMO-QRN	19 (4.0%)	AMO-TET	23 (4.6%)
ACP-MET	18 (3.8%)	FLU-TET	17 (3.4%)
CLA-FLU	6 (1.3%)	AMO-MIN	16 (3.2%)
FLU-TET	4 (0.8%)	CLA-LEV	10 (2.0%)
CLA-LEV	3 (0.6%)	CLA-MET	5 (1.0%)
LEV-MET	3 (0.6%)	MET-TET	3 (0.6%)
LEV-QRN	2 (0.4%)	AMO-QRN	1 (0.2%)
AMO-TET	1 (0.2%)	CLA-TET	1 (0.2%)
LEV-FLU	1 (0.2%)	CLA-MIN	1 (0.2%)

AMO: Amoxicillin; ACP: Amoxicillin and Clavulanate Potassium; CLA: Clarithromycin; FLU: Furazolidone; LEV: Levofloxacin; MET: Metronidazole; MIN: Minocycline; QRN: Ornidazole; TET: Tetracycline.

Supplementary Table 5 Review rate of patients before and after training

Physician No.	Before training	After training
1	80.0% (20/25)	88.0% (22/25)
2	100.0% (25/25)	100.0% (25/25)
3	64.0% (16/25)	84.0% (21/25)
4	96.0% (24/25)	96.0% (24/25)
5	52.0% (13/25)	72.0% (18/25)
6	80.0% (20/25)	88.0% (22/25)
7	100.0% (25/25)	92.0% (23/25)
8	60.0% (15/25)	48.0% (12/25)
9	72.0% (18/25)	100.0% (25/25)
10	96.0% (24/25)	100.0% (25/25)
11	40.0% (10/25)	44.0% (11/25)
12	84.0% (21/25)	72.0% (18/25)
13	72.0% (18/25)	84.0% (21/25)
14	60.0% (15/25)	84.0% (21/25)
15	44.0% (11/25)	72.0% (18/25)
16	84.0% (21/25)	96.0% (24/25)
17	80.0% (20/25)	96.0% (24/25)
18	96.0% (24/25)	92.0% (23/25)
19	44.0% (11/25)	52.0% (13/25)
20	24.0% (6/25)	48.0% (12/25)

Supplementary Table 6. Adverse reaction documentation rates before and after training

Physician No.	Before training	After training
1	8.3% (2/24)	20.0% (5/25)
2	12.0% (3/25)	8.0% (2/25)
3	16.0% (4/25)	12.0% (3/25)
4	48.0% (12/25)	40.0% (10/25)
5	8.0% (2/25)	4.3% (1/23)
6	44.0% (11/25)	50.0% (12/24)
7	56.0% (14/25)	40.0% (10/25)
8	20.8% (5/24)	48.0% (12/25)
9	0.0% (0/25)	20.0% (5/25)
10	32.0% (8/25)	12.0% (3/25)
11	4.5% (1/22)	12.5% (3/24)
12	0.0% (0/24)	0.0% (0/24)
13	36.0% (9/25)	28.0% (7/25)
14	0.0% (0/25)	0.0% (0/23)
15	34.8% (8/23)	34.8% (8/23)
16	4.0% (1/25)	0.0% (0/25)
17	73.9% (17/23)	76.0% (19/25)
18	12.0% (3/25)	4.0% (1/25)
19	8.0% (2/25)	12.0% (3/25)
20	4.0% (1/25)	0.0% (0/25)