

Supplementary Table S1. The selected *H. pylori* strains for genotyping study by whole-genome sequencing.

Patterns	No.	Strains	AMX	CAM	LVX	MNZ	TCN
All sensitive	1	MMM 8	S	S	S	S	S
	2	MMM 23	S	S	S	S	S
	3	MMM 26	S	S	S	S	S
	4	MMM 58	S	S	S	S	S
	5	MMM 90	S	S	S	S	S
Single-drug resistance	6	MMM 44	S	S	R	S	S
	7	MMM 54	S	S	R	S	S
	8	MMM 74	S	S	S	R	S
	9	MMM 84	S	S	S	R	S
	10	MMM 86	S	R	S	S	S
	11	MMM 108	S	S	S	R	S
	12	MMM 137	S	S	S	R	S
Double-drug resistance	13	MMM 3	R	R	S	S	S
	14	MMM 25	R	S	S	R	S
	15	MMM 33	S	S	R	R	S
	16	MMM 37	R	S	R	S	S
	17	MMM 47	S	S	R	R	S
	18	MMM 62	S	S	R	R	S
	19	MMM 135	S	S	R	R	S
	20	MMM 145	S	S	R	R	S
Triple-drug resistance	21	MMM 43	S	R	R	R	S
	22	MMM 131	S	R	R	R	S
	23	MMM 149	S	R	R	R	S

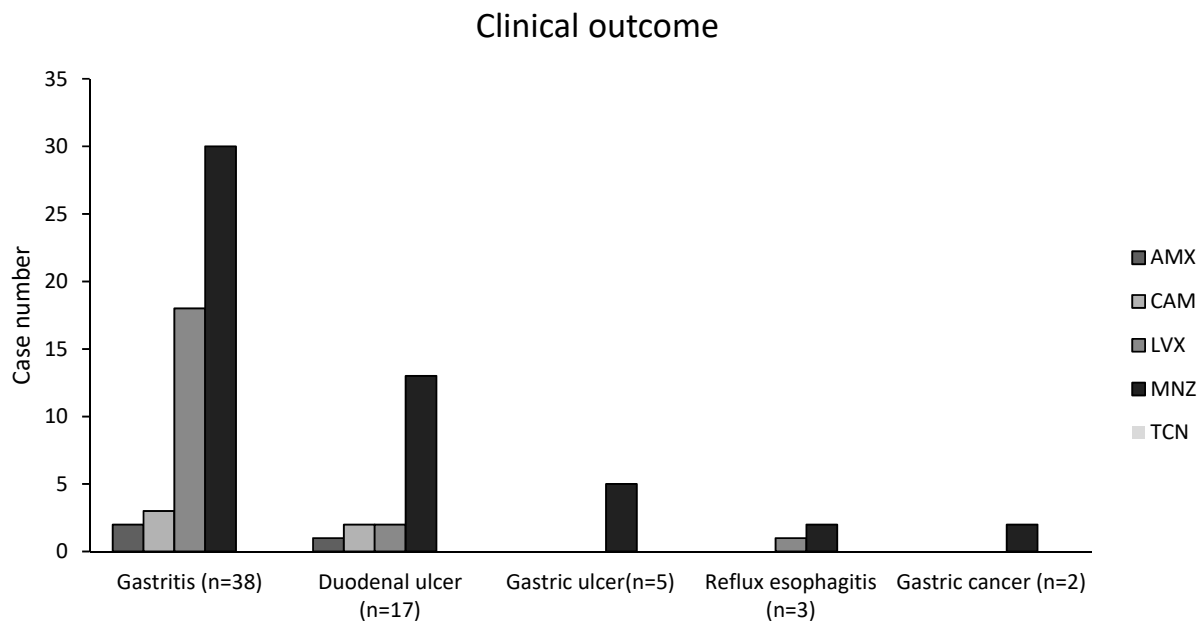
R; Resistance S; Sensitive

Supplementary Table S2. Mutations in *rdxA* and *frxA* that were associated with MNZ-resistance.

Gene	Strain	MMM25	MMM33	MMM43	MMM47	MMM62	MMM74	MM84	MMM108	MMM131	MMM135	MMM137	MMM145	MMM149		
	MIC (mg/L)	256	>256	16	96	96	>256	128	16	128	>256	>256	32	24		
<i>rdxA</i>	Position		Could not obtain the sequence													
	6										R/H					
	16								R/H	R/H		R/C	R/H			
	56					H/R							H/R			
	65									L/V			L/V	L/V		
	70														A/V	
	71							A/V								
	83									A/S						
	91								S/P	S/P		S/P	S/P	S/P		
	97				L/F											
	98				L/V											
	99				P/A											
	116							V/M								
	121					A/F							A/S			
	122					A/L										
	143						C/*									
	170										L/C					
	171										K/*					
	175	V/I				V/I				V/I	V/I		V/I	V/I	V/I	V/I
	196								A/T							
	209	A/T														
	212												W/*			
<i>frxA</i>	19	No mutation detected									Y/T					
	20										D/I					
	23										R/V					
	24										R/V					
	25										I/F					
	26										S/P					
	27										Q/K					
	28										K/R					
	29										D/I					
	30										W/G					
	31										E/K					
	33		L/M									L/M			L/M	
	37										G/R					
	40														A/S	
	43												S/A			
	60					K/R	K/R									
	83							Y/S								

85					A/V									
98												K/E		
101												H/M		
102												E/R		
103												V/L		
110											T/A			
117											I/M		I/M	
154													A/T	
184			A/V								A/M			
192														
193														

A; Alanine, C; Cysteine, D; Aspartic acid, E; Glutamic acid, F; Phenylalanine, G; Glycine, H; Histidine, I; Isoleucine, K; Lysine, L; Leucine, M; Methionine, P; Proline, Q; Glutamine, R; Arginine, S; Serine, T; Threonine, V; Valine, W; Tryptophan, Y; Tyrosine, *; Translation stop, MMM; bacteria strain



Supplementary Figure S1. Distribution of antibiotic resistance based on the clinical outcome. AMX; amoxicillin, CAM; clarithromycin, LVX; levofloxacin, MNZ; metronidazole, TCN; tetracycline.