

**Supplementary Table 8. Categorization of salvage regimens from overall 36 randomized controlled trials with 77 intervention arms**

Category	Previous failed regimen	Interventions (number of intervention arms)		
2nd line, 23 studies, 47 arms	PAC fail, 15 studies, 31 arms	Bismuth quadruple (n = 12)	PBTM (n = 9) <sup>a</sup> PBTA (n = 2) PBMA (n = 2)	
		Quinolone triple (n = 9)	PAL (n = 8) <sup>a</sup> PML (n = 1)	
		Quinolone quadruple (n = 5)	Levo-bismuth + AMX (PBLA) (n = 2) Levo-bismuth + tetra (PBLT) (n = 1) Levo-sequential (PA-PML) (n = 2)	
		Others (n = 4)	PAM (n = 2) PAT (n = 1) PATM (n = 1) Concomitant (PACM) (n = 1)	
		PAM fail, 1 study, 2 arms	PB + furazolidone + levofloxacin (n = 1) PB + furazolidone + rufloxacin (n = 1)	
		PAC/M fail, 2 studies, 4 arms	Levo-bismuth (PBLA) (n = 1) PBTM (n = 1) Furazolidone + PL (n = 1) Furazolidone + PB + doxycycline (n = 1)	
		Triple, n-s, 2 studies, 4 arms	Sequential (PA-PC + tinidazole) (n = 1) PBTM (tetracycline/doxycycline) (n = 1) PBTM (n = 1) PM + moxifloxacin (n = 1)	
		PBAC/M, 2 studies, 4 arms	Quintuple: PBTM + oxifloxacin (n = 1) Quintuple: PBAC + tinidazole (n = 1) PBAC (n = 1) PB + ofloxacin + azithromycin (n = 1)	
		N-S, 2 studies, 5 arms	PAL (n = 2) Levo-sequential (PA-PML) (n = 1) High dose dual (PA) (n = 1) Sequential (PA-PCM) (n = 1)	
	3rd line, 5 studies, 11 arms	PAC-PAM fail, 3 studies, 7 arms	Quinolone triple (n = 5)	PA + sitafloxacin (n = 2) PM + sitafloxacin (n = 1) PAL (n = 1) PA + gatifloxacin (n = 1)
			Dual (not high dose) (n = 2)	PA (n = 2) PBTM (n = 1) PBMA (n = 1) PB + minocycline + tinidazole (n = 1) PB + minocycline + rifabutin (n = 1)
			PACM + Quinolone fail, 2 studies, 4 arms	

**Supplementary Table 8. Continued**

Category	Previous failed regimen	Interventions (number of intervention arms)
Duration, 5 studies, 12 arms	PAC fail, 3 studies	PBTM, 7d vs. 14d, 3 studies <sup>a</sup>
	PAC/M fail, 1 study	PAL, 7d vs. 10d, 1 study (levofloxacin 500 mg vs. 1,000 mg)
	PAC-PAM (-Sitafloxacin regimen) fail, 1 study	PA+rifabutin, 10d vs. 14d, 1 study
PPI comparison, 2 studies, 4 arms	PAC-PBTM fail, 1 study	Rifabutin+amoxicillin 1g tid + PPI standard vs. double dose bid, 1 study
	PAC fail, 1 study	PBTM: rabeprazole vs. esomeprazole, 1 study

P, proton pump inhibitor; A, amoxicillin; C, clarithromycin; B, bismuth; T, tetracycline; M, metronidazole; L, levofloxacin; n-s, not significant; PPI, proton pump inhibitor.

<sup>a</sup>Included in the meta-analysis.