

SUPPLEMENTARY DATA

Study ID	Randomization process	Deviations from intended interventions	Missing outcome data	Measurement of the outcome	Selection of the reported result	Overall
Ashida (2019)	High risk	Low risk	Some concerns	Low risk	Low risk	High risk
Bunchorntavakul (2021)	Low risk	Some concerns	Low risk	Low risk	Low risk	Some concerns
Cheung (2024)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Chiu (2023)	High risk	Some concerns	Low risk	Low risk	Low risk	High risk
Han (2025)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hou (2022)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hu (2022)	Some concerns	Low risk	Low risk	Low risk	Low risk	Some concerns
Hu (2023)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hu (2025)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Li (2023)	Low risk	Some concerns	Low risk	Low risk	Low risk	Some concerns
Li (2025)	High risk	Some concerns	Low risk	Low risk	Low risk	High risk
Lu (2022)	Some concerns	Some concerns	Low risk	Low risk	Low risk	Some concerns
Maruyama (2017)	Some concerns	Some concerns	Low risk	Low risk	Some concerns	Some concerns
Murakami (2016)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Peng (2023)	Low risk	Low risk	Some concerns	Low risk	Low risk	Low risk
Sue (2017)	Low risk	Low risk	Some concerns	Low risk	Low risk	Some concerns
Suzuki (2016)	High risk	Some concerns	Some concerns	Low risk	Low risk	High risk
Tanabe (2018)	Some concerns	Some concerns	Low risk	Low risk	Some concerns	Some concerns
Yang (2025)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Yu (2024)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Zhou (2024)	Some concerns	Low risk	Low risk	Low risk	Some concerns	Some concerns
Zuberi (2022)	Low risk	Some concerns	Some concerns	Low risk	Low risk	Some concerns

Fig. 1. Risk of bias analysis result

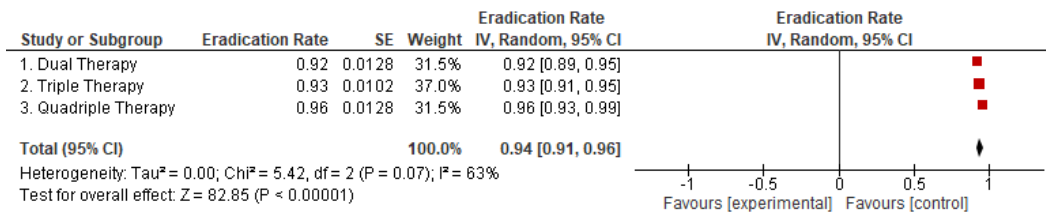


Fig. 2. Forest plot analysis of vonoprazan-amoxicillin first-line therapy on eradicating *Helicobacter pylori* based on treatment regiments

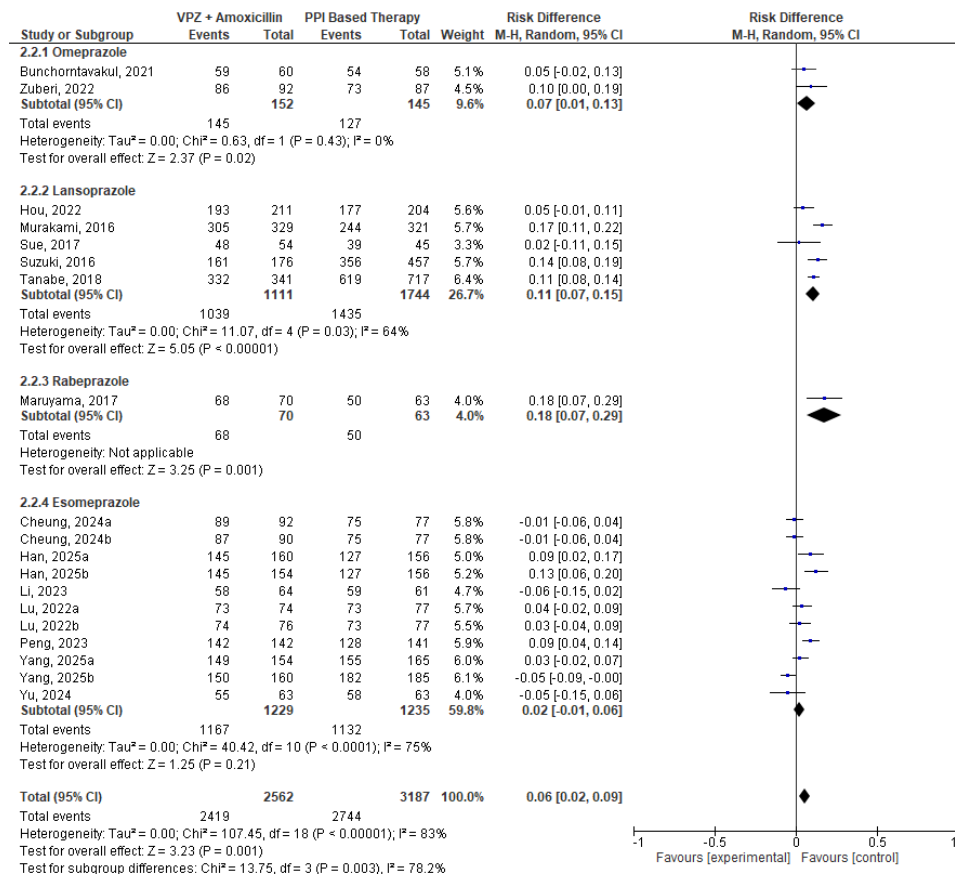


Fig. 3. Forest plot analysis of vonoprazan-amoxicillin first-line therapy on eradicating *Helicobacter pylori* compare to PPI-based therapy based on PPIs regiments

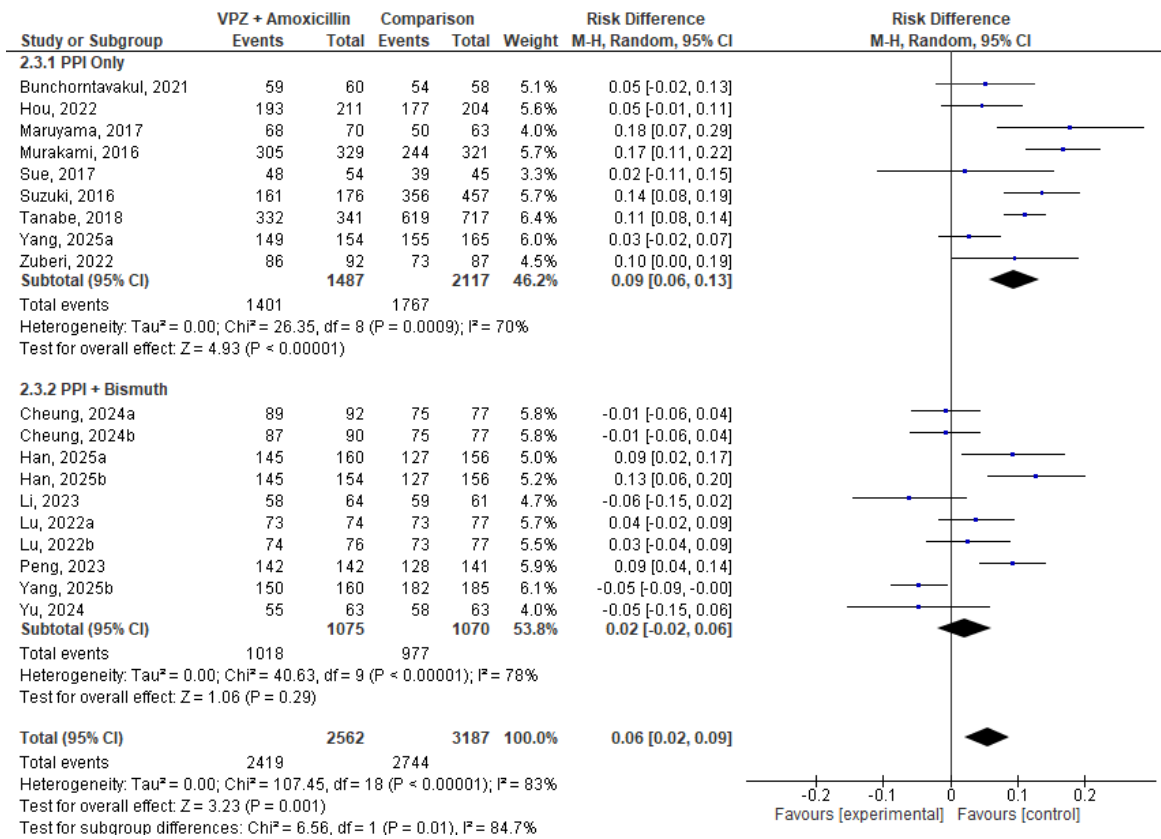


Fig. 4. Forest plot analysis of vonoprazan-amoxicillin first-line therapy on eradicating *Helicobacter pylori* compare to PPI only-based therapy and PPI + bismuth-based therapy

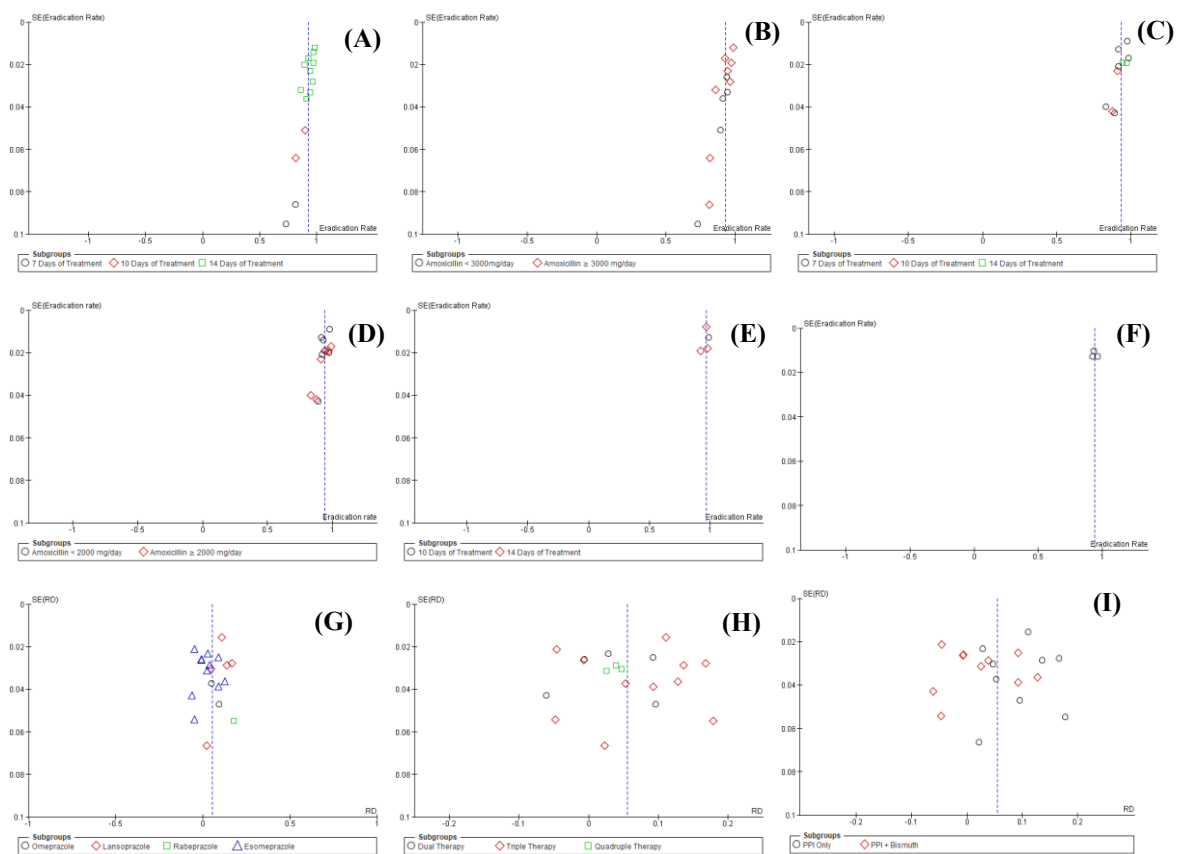


Fig. 5. Analysis of potential publication bias displayed in a funnel plot. Results of the analysis of single-arm dual therapy based on duration of therapy (A) and amoxicillin dose (B); triple therapy based on duration of therapy (C) and amoxicillin dose (D); quadruple therapy (E), and the combined effect (F). Results of the analysis comparing the effectiveness of VPZ-AMX vs. PPI based on PPI type (G); VPZ-AMX therapy regimen (H); and comparator therapy regimen (I).