

# INPLASY PROTOCOL

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**Support:** None.

**Review Stage at time of this submission:** Completed but not published.

**Conflicts of interest:**  
None declared.

## INTRODUCTION

**Review question / Objective:** The purpose of this study is to comprehensively evaluate primary drug resistance of *Helicobacter pylori* (HP) in China.

**Condition being studied:** (1) Researches on antibiotic resistance of *Helicobacter pylori*;

## Primary antibiotic resistance in *Helicobacter pylori* in China: a systematic review and meta-analysis

Wang, YX<sup>4</sup>; Du, JR<sup>2</sup>; Zhang, DY<sup>3</sup>; Jin, C<sup>4</sup>; Chen, JP<sup>5</sup>; Wang, ZY<sup>6</sup>; Mei, TL<sup>7</sup>; Fu, KL<sup>8</sup>; Qian, QZ<sup>9</sup>; Pang, TL<sup>10</sup>.

**Review question / Objective:** The purpose of this study is to comprehensively evaluate primary drug resistance of *Helicobacter pylori* (HP) in China.

**Condition being studied:** (1) Researches on antibiotic resistance of *Helicobacter pylori*; (2) Study sites are in China; (3) Containing indicators evaluating the prevalence of HP drug resistance; (4) Available in full text.

**Information sources:** (PubMed, Web of science, Evimed ([www.evimed.com](http://www.evimed.com)), Cochrane library and China National Knowledge Internet (CNKI)).

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 03 March 2023 and was last updated on 03 March 2023 (registration number INPLASY202330005).

(2) Study sites are in China; (3) Containing indicators evaluating the prevalence of HP drug resistance; (4) Available in full text.

## METHODS

**Participant or population:** Patients with HP drug resistance.

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**Intervention:** HP drug resistanceNone.

**Comparator:** None.

**Study designs to be included:** Case-control studies.

**Eligibility criteria:** (1) Researches on antibiotic resistance of *Helicobacter pylori*; (2) Study sites are in China;(3) Containing indicators evaluating the prevalence of HP drug resistance;(4) Available in full text.

**Information sources:** (PubMed, Web of science, Evimed ([www.evimed.com](http://www.evimed.com)), Cochrane library and China National Knowledge Internet (CNKI).

**Main outcome(s):** Overall prevalence of amoxicillin (AMO) resistance of HP in the adults was (Mean difference (MD)=1.35%, 95%CI [1.03%, 1.68%], P for overall effect < 0.0001,  $I^2 = 97%$  with random effect model), HP clarithromycin (CLA) resistance (MD was MD=23.76%, 95%CI [20.23%, 27.3%],  $I^2=100%$ ), metronidazole (MTZ) resistance (MD=69.32% with 95%CI [64.85%, 73.8%],  $I^2 = 100%$ ) and HP levofloxacin (LEV) resistance (MD = 29.45% with 95%CI[4.90, 176.96],  $I^2=76%$ ).

**Quality assessment / Risk of bias analysis:** Newcastle-Ottawa Scale (NOS scale) was used to assess the article quality.

**Strategy of data synthesis:** To measure the consistency of the effect size (Mean difference), prevalence meta-analyses were performed with random effects model to calculate the pooled estimates of MD with 95% CIs of direct overall estimate.

**Subgroup analysis:** None.

**Sensitivity analysis:** When Bai 2015 was removed,  $I^2$  showed a significant change of 98%, which indicates the robustness of the included studies.

**Country(ies) involved:** China.

**Keywords:** *Helicobacter pylori*; resistance; China; meta.

**Contributions of each author:**

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