**Search Strategy**

[PICO 1. Should bismuth quadruple therapy be used as initial and second line eradication treatments in people with](#_Toc99572483) *[H. pylori](#_Toc99572483)* [infection? 1](#_Toc99572483)

[PICO 2. Should high dose dual therapy or quadruple therapy be recommended as initial and second line eradication treatments for people with](#_Toc99572484) *[H. pylori](#_Toc99572484)* [infection? 9](#_Toc99572484)

[PICO 4. In bismuth quadruple therapy, should PPI or potassium-competitive acid blockers (P-CABs) be recommended? 12](#_Toc99572485)

[PICO 5. In empirical treatment for people with](#_Toc99572486) *[H. pylori](#_Toc99572486)*[, should treatment plan be guided by history of antibiotic use? 15](#_Toc99572486)

[PICO 6: Relative to empirical treatment, should antibiotic susceptibility test (AST) be recommended to guide the treatment? 18](#_Toc99572487)

[PICO 7. Should Chinese herbal medicine be augmented to bismuth quadruple therapy in initial and second eradication treatments for people with](#_Toc99572488) *[H. pylori](#_Toc99572488)* [infection? 21](#_Toc99572488)

[PICO 8 & 9. Should probiotics be augmented to bismuth quadruple therapy in initial and second eradication treatments for people with](#_Toc99572489) *[H. pylori](#_Toc99572489)* [infection? 26](#_Toc99572489)

[PICO 10. Relative to bismuth quadruple therapy, should triple therapy combined with gastric mucosal protective agents be recommended for initial and second line eradication treatments? 31](#_Toc99572490)

[Search strategy for stakeholder values and preferences 36](#_Toc99572491)

# **PICO 1. Should bismuth quadruple therapy be used as initial and second line eradication treatments in people with *H. pylori* infection?**

**Supplementary Table 1: Summary of PICO 1 search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RCT** | **CNKI** | **WanFang** | **CBM** | **VIP** | **Pubmed** | **Embase** | **WoS** | **Cochrane** |
| Initial results | 1836 | 2139 | 1851 | 1483 | 729 | 1371 | 1091 | 1097 |
| After duplicate removal | 1834 | 935 | 439 | 53 | 729 | 737 | 500 | 269 |
| Total | 5496 |

Search date: 19-05-2021

**1. CNKI search strategy**

1. (SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染)
2. (SU%=四联 OR TKA=四联)
3. (SU%=铋剂+枸橼酸铋钾+丽珠得乐+德诺+枸橼酸铋+金得乐+果胶铋+安特+酒石酸铋+久铋+铝碳酸铋+铝酸铋+得必泰+次水杨酸铋+次柳酸铋 OR TKA=铋剂+枸橼酸铋钾+丽珠得乐+德诺+枸橼酸铋+金得乐+果胶铋+安特+酒石酸铋+久铋+铝碳酸铋+铝酸铋+得必泰+次水杨酸铋+次柳酸铋)
4. (SU%=阿莫西林+安莫西林+安默西林+羟氨苄青霉素 OR TKA=阿莫西林+安莫西林+安默西林+羟氨苄青霉素)
5. (SU%=甲硝唑+奥硝唑+替硝唑 OR TKA=甲硝唑+奥硝唑+替硝唑)
6. (SU%=克拉霉素+克拉红霉素+甲红霉素+甲氧基红霉素+克红霉素+阿奇霉素+阿奇红霉素 OR TKA=克拉霉素+克拉红霉素+甲红霉素+甲氧基红霉素+克红霉素+阿奇霉素+阿奇红霉素)
7. (SU%=左氧氟沙星+莫西沙星 OR TKA=左氧氟沙星+莫西沙星)
8. (SU%=四环素 OR TKA=四环素)
9. (SU%=头孢 OR TKA=头孢)
10. (SU%=呋喃唑酮+痢特灵 OR TKA=呋喃唑酮+痢特灵)
11. #1 AND #2 3115
12. #1 AND #3 AND #4 AND #5 585
13. #1 AND #3 AND (#4 OR #5) AND (#6 OR #7 OR #8) 1436
14. #1 AND #3 AND #6 AND (#7 OR #8) 303
15. #1 AND #3 AND #7 AND #8 55
16. #1 AND #3 AND #10 AND (#4 OR #5 OR #8) 480
17. #1 AND #3 AND #9 14
18. #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17
19. #18 AND (SU%=随机+盲法+双盲+单盲+三盲+交叉+RCT OR TKA=随机+盲法+双盲+单盲+三盲+交叉+RCT)

**2. WanFang search strategy**

1. 主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) and 主题:(四联) 1799
2. 主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") or "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("阿莫西林" OR "安莫西林" OR "安默西林" OR "羟氨苄青霉素") and 主题:("甲硝唑" OR "奥硝唑" OR "替硝唑") and 主题:(铋) and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) 331
3. 主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") or "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:(铋) and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) and 主题:("阿莫西林" OR "安莫西林" OR "安默西林" OR "羟氨苄青霉素" OR "甲硝唑" OR "奥硝唑" OR "替硝唑") and 主题:("克拉霉素" OR "克拉红霉素" OR "甲红霉素" OR "甲氧基红霉素" OR "克红霉素" OR "阿奇霉素" OR "阿奇红霉素" OR "左氧氟沙星" OR "莫西沙星" OR "四环素") 878
4. 主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") or "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:(铋) and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) and 主题:("克拉霉素" OR "克拉红霉素" OR "甲红霉素" OR "甲氧基红霉素" OR "克红霉素" OR "阿奇霉素" OR "阿奇红霉素") and 主题:("左氧氟沙星" OR "莫西沙星" OR "四环素") 149
5. 主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") or "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:(铋) and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) and 主题:("左氧氟沙星" OR "莫西沙星") and 主题:("四环素") 27
6. 主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") or "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:(铋) and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) and 主题:("呋喃唑酮" OR "痢特灵") and 主题:("阿莫西林" OR "安莫西林" OR "安默西林" OR "羟氨苄青霉素" OR "甲硝唑" OR "奥硝唑" OR "替硝唑" OR "四环素") 271
7. 主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") or "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:(铋) and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) and 主题:("头孢") 4
8. #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7

**3. CBM search strategy**

1. (("幽门螺杆菌"[不加权:扩展] OR "幽门螺杆菌"[常用字段:智能] OR "幽门螺旋杆菌"[常用字段:智能] OR "幽门螺旋菌"[常用字段:智能]) AND "感染"[常用字段:智能]) OR ( "hp感染"[常用字段:智能] OR "HP阳性"[常用字段:智能] OR "螺旋菌阳性"[常用字段:智能] OR "螺杆菌阳性"[常用字段:智能] OR "螺旋菌感染"[常用字段:智能] OR "螺杆菌感染"[常用字段:智能])
2. "四联"[常用字段:智能]
3. ( "铋剂"[常用字段:智能] OR "枸橼酸铋钾"[常用字段:智能] OR "丽珠得乐"[常用字段:智能] OR "德诺"[常用字段:智能] OR "枸橼酸铋"[常用字段:智能] OR "金得乐"[常用字段:智能] OR "果胶铋"[常用字段:智能] OR "安特"[常用字段:智能] OR "酒石酸铋"[常用字段:智能] OR "久铋"[常用字段:智能] OR "铝碳酸铋"[常用字段:智能] OR "铝酸铋"[常用字段:智能] OR "得必泰"[常用字段:智能] OR "次水杨酸铋"[常用字段:智能] OR "次柳酸铋"[常用字段:智能])
4. "阿莫西林"[常用字段:智能] OR "安莫西林"[常用字段:智能] OR "安默西林"[常用字段:智能] OR "羟氨苄青霉素"[常用字段:智能]
5. ( "甲硝唑"[常用字段:智能] OR "奥硝唑"[常用字段:智能] OR "替硝唑"[常用字段:智能])
6. ( "克拉霉素"[常用字段:智能] OR "克拉红霉素"[常用字段:智能] OR "甲红霉素"[常用字段:智能] OR "甲氧基红霉素"[常用字段:智能] OR "克红霉素"[常用字段:智能] OR "阿奇霉素"[常用字段:智能] OR "阿奇红霉素"[常用字段:智能])
7. ( "左氧氟沙星"[常用字段:智能] OR "莫西沙星"[常用字段:智能])
8. "四环素"[常用字段:智能]
9. "头孢"[常用字段:智能]
10. "呋喃唑酮"[常用字段:智能] OR "痢特灵"[常用字段:智能]
11. #1 AND #2 2354
12. #1 AND #3 AND #4 AND #5 494
13. #1 AND #3 AND (#4 OR #5) AND (#6 OR #7 OR #8) 1150
14. #1 AND #3 AND #6 AND (#7 OR #8) 190
15. #1 AND #3 AND #7 AND #8 35
16. #1 AND #3 AND #10 AND (#4 OR #5 OR #8) 339
17. #1 AND #3 AND #9 4
18. #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 2915
19. ("随机对照试验"[不加权:扩展] OR "随机对照试验(主题)"[不加权:扩展] OR "非随机对照试验(主题)"[不加权:扩展] OR "随机"[常用字段:智能] OR "盲法"[常用字段:智能] OR "双盲"[常用字段:智能] OR "单盲"[常用字段:智能] OR "三盲"[常用字段:智能] OR "交叉"[常用字段:智能] OR "RCT"[常用字段:智能])
20. ("Meta分析"[不加权:扩展] OR "Meta分析(主题)"[不加权:扩展] OR "META"[常用字段:智能] OR "荟萃"[常用字段:智能] OR "系统综述"[常用字段:智能] OR "系统评价"[常用字段:智能] OR "评价综述"[常用字段:智能])
21. #18 AND #19 1851

**4. VIP search strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=四联 OR R=四联) AND (M=随机+盲法+双盲+单盲+三盲+交叉+RCT OR R=随机+盲法+双盲+单盲+三盲+交叉+RCT) 1483

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=四联 OR R=四联) AND (M=META+荟萃+系统综述+系统评价+评价综述 OR R=META+荟萃+系统综述+系统评价+评价综述) 33

**5. PubMed search strategy**

1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 64639
2. quadruple therap\*[tiab] 979
3. "Bismuth"[Mesh] OR Bismuth[tiab] 12938
4. "Amoxicillin"[Mesh] OR Amoxicillin[tw] OR Amoxicilline[tw] OR Amoxycillin[tw] OR Hydroxyampicillin[tw] OR Actimoxi[tw] OR Clamoxyl[tw] OR Polymox[tw] OR Trimox[tw] OR Wymox[tw] OR Amoxil[tw]
5. "Metronidazole"[Mesh] OR Metronidazole[tw] OR Trichazol[tw] OR Trichopol[tw] OR Trivazol[tw] OR Danizol[tw] OR "Ornidazole"[Mesh] OR Ornidazole[tw] OR Tiberal[tw] OR "Tinidazole"[Mesh] OR Tinidazole[tw] OR Tricolam[tw] OR Fasigyn[tw] OR Fasigyne[tw] OR Fasigin[tw] OR Fasygin[tw] OR Simplotan[tw]
6. "Clarithromycin"[Mesh] OR Clarithromycin[tw] OR "Azithromycin"[Mesh] OR Azithromycin[tw] OR Azythromycin[tw] OR Sumamed[tw] OR Zithromax[tw]
7. "Levofloxacin"[Mesh] OR Levofloxacin[tw] OR Levaquin[tw] OR "Moxifloxacin"[Mesh] OR Moxifloxacin[tw]
8. "Tetracycline"[Mesh] OR Tetracycline[tw] OR Topicycline[tw] OR Tetrabid[tw] OR Epitetracycline[tw] OR Hostacyclin[tw] OR Achromycin[tw] OR Sustamycin[tw]
9. "Cephalosporins"[Mesh] OR Cephalosporin\*[tw] OR Cefamandole[tw] OR Cefoperazone[tw] OR Cefazolin[tw] OR Cefdinir[tw] OR Cefepime[tw] OR Cefonicid[tw] OR Cefsulodin[tw] OR Ceftibuten[tw] OR Cefuroxime[tw] OR Cephacetrile[tw] OR Cefotaxime[tw] OR Cephalothin[tw] OR Cephapirin[tw] OR Cephalexin[tw] OR Cefaclor[tw] OR Cefadroxil[tw] OR Cephaloglycin[tw] OR Cephradine[tw] OR Cephaloridine[tw] OR Ceftazidime[tw] OR Cephamycins[tw] OR Cefmetazole[tw] OR Cefotetan[tw] OR Cefoxitin[tw]
10. "Furazolidone"[Mesh] OR Furazolidone[tw] OR Furazolidine[tw] OR Nifurazolidone[tw] OR Furoxone[tw] OR Furazol[tw]
11. #1 AND #2 801
12. #1 AND #3 AND #4 AND #5 773
13. #1 AND #3 AND (#4 OR #5) AND (#6 OR #7 OR #8) 1082
14. #1 AND #3 AND #6 AND (#7 OR #8) 431
15. #1 AND #3 AND #7 AND #8 103
16. #1 AND #3 AND #9 13
17. #1 AND #3 AND #10 AND (#4 OR #5 OR #8) 118
18. #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 1600
19. "Meta-Analysis"[pt] OR "Meta-Analysis as Topic"[Mesh] OR "Systematic Review" [pt] OR "Systematic Reviews as Topic"[Mesh] OR "Systematic Review\*"[tiab] OR "Meta-Analysis"[tiab]
20. ("controlled clinical trial"[pt] OR "Controlled Clinical Trials as Topic"[MeSH] OR "Random Allocation"[MeSH] OR "Double-Blind Method"[MeSH] OR "single-blind method"[MeSH] OR "Control Groups"[MeSH] OR "cross-over studies"[MeSH] OR random\*[tiab] OR placebo[tiab] OR trial[tiab] OR groups[tiab] OR crossover[tiab] OR cross-over[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[Mesh] AND "Animals"[Mesh]))
21. #18 AND #19 102
22. #18 AND #20 729

**6. EMBASE search strategy**

1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 92657
2. (quadruple NEAR/2 therap\*):ab,ti,kw 2041
3. 'bismuth'/exp OR Bismuth:ab,ti,kw 16576
4. 'amoxicillin'/exp OR (Amoxicillin OR Amoxicilline OR Amoxycillin OR Hydroxyampicillin OR Actimoxi OR Clamoxyl OR Polymox OR Trimox OR Wymox OR Amoxil):ab,ti,kw
5. 'Metronidazole'/exp OR 'Ornidazole'/exp OR 'Tinidazole'/exp OR (Metronidazole OR Trichazol OR Trichopol OR Trivazol OR Danizol OR Ornidazole OR Tiberal OR Tinidazole OR Tricolam OR Fasigyn OR Fasigyne OR Fasigin OR Fasygin OR Simplotan):ab,ti,kw
6. 'Clarithromycin'/exp OR 'Azithromycin'/exp OR (Clarithromycin OR Azithromycin OR Azythromycin OR Sumamed OR Zithromax):ab,ti,kw
7. 'Levofloxacin'/exp OR 'Moxifloxacin'/exp OR (Levofloxacin OR Levaquin OR Moxifloxacin):ab,ti,kw
8. 'Tetracycline'/exp OR (Tetracycline OR Topicycline OR Tetrabid OR Epitetracycline OR Hostacyclin OR Achromycin OR Sustamycin):ab,ti,kw
9. 'cephalosporin derivative'/exp OR (Cephalosporin\* OR Cefamandole OR Cefoperazone OR Cefazolin OR Cefdinir OR Cefepime OR Cefonicid OR Cefsulodin OR Ceftibuten OR Cefuroxime OR Cephacetrile OR Cefotaxime OR Cephalothin OR Cephapirin OR Cephalexin OR Cefaclor OR Cefadroxil OR Cephaloglycin OR Cephradine OR Cephaloridine OR Ceftazidime OR Cephamycins OR Cefmetazole OR Cefotetan OR Cefoxitin):ab,ti,kw
10. 'Furazolidone'/exp OR (Furazolidone OR Furazolidine OR Nifurazolidone OR Furoxone OR Furazol):ab,ti,kw
11. #1 AND #2 1498
12. #1 AND #3 AND #4 AND #5 1944
13. #1 AND #3 AND (#4 OR #5) AND (#6 OR #7 OR #8) 2437
14. #1 AND #3 AND #6 AND (#7 OR #8) 1318
15. #1 AND #3 AND #7 AND #8 427
16. #1 AND #3 AND #9 60
17. #1 AND #3 AND #10 AND (#4 OR #5 OR #8) 311
18. #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 3261
19. 'meta analysis'/exp OR 'meta analysis (topic)'/exp OR 'systematic review'/exp OR 'systematic review (topic)'/exp OR (Systemat\* NEAR/3 Review\* OR 'Meta Analysis\*'):ab,ti,kw
20. (('controlled clinical trial'/exp OR 'Controlled Clinical Trial (Topic)'/exp OR 'double blind procedure'/de OR 'control group'/de OR 'crossover procedure'/de OR 'single blind procedure'/de OR 'triple blind procedure'/de OR 'placebo'/de OR 'randomization'/exp) OR (random\* OR trial OR groups OR placebo\* OR crossover OR "cross-over"):ab,ti,kw) AND 'human'/exp
21. #18 AND #19 306
22. #18 AND #20 1371

**7. WoS search strategy**

1. TS=(Helicobacter OR Campylobacter) 90313
2. TS=(quadruple NEAR/2 therap\*) 1613
3. TS=(Bismuth) 56782
4. TS=(Amoxicillin OR Amoxicilline OR Amoxycillin OR Hydroxyampicillin OR Actimoxi OR Clamoxyl OR Polymox OR Trimox OR Wymox OR Amoxil)
5. TS=(Metronidazole OR Trichazol OR Trichopol OR Trivazol OR Danizol OR Ornidazole OR Tiberal OR Tinidazole OR Tricolam OR Fasigyn OR Fasigyne OR Fasigin OR Fasygin OR Simplotan)
6. TS=(Clarithromycin OR Azithromycin OR Azythromycin OR Sumamed OR Zithromax)
7. TS=(Levofloxacin OR Levaquin OR Moxifloxacin)
8. TS=(Tetracycline OR Topicycline OR Tetrabid OR Epitetracycline OR Hostacyclin OR Achromycin OR Sustamycin)
9. TS=(Cephalosporin\* OR Cefamandole OR Cefoperazone OR Cefazolin OR Cefdinir OR Cefepime OR Cefonicid OR Cefsulodin OR Ceftibuten OR Cefuroxime OR Cephacetrile OR Cefotaxime OR Cephalothin OR Cephapirin OR Cephalexin OR Cefaclor OR Cefadroxil OR Cephaloglycin OR Cephradine OR Cephaloridine OR Ceftazidime OR Cephamycins OR Cefmetazole OR Cefotetan OR Cefoxitin)
10. TS=(Furazolidone OR Furazolidine OR Nifurazolidone OR Furoxone OR Furazol)
11. #1 AND #2 1224
12. #1 AND #3 AND #4 AND #5 730
13. #1 AND #3 AND (#4 OR #5) AND (#6 OR #7 OR #8) 997
14. #1 AND #3 AND #6 AND (#7 OR #8) 453
15. #1 AND #3 AND #7 AND #8 108
16. #1 AND #3 AND #9 7
17. #1 AND #3 AND #10 AND (#4 OR #5 OR #8) 111
18. #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 1850
19. TS=("Meta-Analysis" OR "Meta Analysis" OR "Systematic Review" OR "Systematic Review\*" OR "Meta-Analysis" OR "Meta-Analy\*" OR "Metaanalysis" OR "Metaanaly\*" OR ("systematic\*" NEAR/4 "Review\*"))
20. TS=("controlled trial" OR "Clinical Trial" OR (Random\* NEAR/5 Trial) OR "Random Allocation" OR Randomization OR "Double Blind" OR "single blind" OR "Control Group" OR "Control Groups" OR "cross over" OR placebo\* OR crossover OR random\* OR trial OR groups) OR TI=("RCT" OR "groups" OR "group")
21. #18 AND #19 357
22. #18 AND #20 1091

**8. Cochrane Library search strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 1995

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1982

#3 (Helicobacter OR Campylobacter):ti,ab,kw 5691

#4 #1 OR #2 OR #3 5691

#5 (quadruple NEAR/2 therap\*):ti,ab,kw 742

#6 (Bismuth):ti,ab,kw 1803

#7 Amoxicillin OR Amoxicilline OR Amoxycillin OR Hydroxyampicillin OR Actimoxi OR Clamoxyl OR Polymox OR Trimox OR Wymox OR Amoxil 6401

#8 Metronidazole OR Trichazol OR Trichopol OR Trivazol OR Danizol OR Ornidazole OR Tiberal OR Tinidazole OR Tricolam OR Fasigyn OR Fasigyne OR Fasigin OR Fasygin OR Simplotan 5552

#9 Clarithromycin OR Azithromycin OR Azythromycin OR Sumamed OR Zithromax 6227

#10 Levofloxacin OR Levaquin OR Moxifloxacin 3290

#11 Tetracycline OR Topicycline OR Tetrabid OR Epitetracycline OR Hostacyclin OR Achromycin OR Sustamycin 2229

#12 Cephalosporin\* OR Cefamandole OR Cefoperazone OR Cefazolin OR Cefdinir OR Cefepime OR Cefonicid OR Cefsulodin OR Ceftibuten OR Cefuroxime OR Cephacetrile OR Cefotaxime OR Cephalothin OR Cephapirin OR Cephalexin OR Cefaclor OR Cefadroxil OR Cephaloglycin OR Cephradine OR Cephaloridine OR Ceftazidime OR Cephamycins OR Cefmetazole OR Cefotetan OR Cefoxitin 7852

#13 Furazolidone OR Furazolidine OR Nifurazolidone OR Furoxone OR Furazol 285

#14 #4 and #5 630

#15 #4 AND #6 AND #7 AND #8 506

#16 #4 AND #6 AND (#7 OR #8) AND (#9 OR #10 OR #11) 794

#17 #4 AND #6 AND #9 AND (#10 OR #11) 259

#18 #4 AND #6 AND #10 AND #11 73

#19 #4 AND #6 AND #12 7

#20 #4 AND #6 AND #13 AND (#7 OR #8 OR #11) 111

#21 #14 or #15 or #16 or #17 or #18 or #19 or #20 1099

# **PICO 2. Should high dose dual therapy or quadruple therapy be recommended as initial and second line eradication treatments for people with *H. pylori* infection?**

**Supplementary Table 2: Summary of PICO 2 search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RCT** | **CNKI** | **WanFang** | **CBM** | **VIP** | **PubMed** | **Embase** | **WoS** | **Cochrane** |
| Initial results | 254 | 202 | 132 | 136 | 189 | 391 | 690 | 309 |
| After duplicate removal | 251 | 54 | 25 | 21 | 148 | 203 | 458 | 86 |
| Total | 1246 |
| SR |
| Initial results |  |  |  |  | 34 | 77 | 130 | 2 |
| After duplicate removal |  |  |  |  | 34 | 47 | 91 | 1 |
| Total | 173 |

Search date: 20-05-2021

**1. CNKI Search Strategy**

1. (SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染)
2. (SU%=大剂量+高剂量+双倍剂量+增加次数+增加用药次数+增加剂量+增大剂量 OR TKA=大剂量+高剂量+双倍剂量+增加次数+增加用药次数+增加剂量+增大剂量)
3. #1 and #2 254

**2. WanFang Search Strategy**

1. 主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("大剂量" OR "高剂量" OR "双倍剂量" OR "增加次数" OR "增加用药次数" OR "增加剂量" OR "增大剂量") 202

**3. CBM Search Strategy**

1. ((("幽门螺杆菌"[不加权:扩展] OR "幽门螺杆菌"[常用字段:智能] OR "幽门螺旋杆菌"[常用字段:智能] OR "幽门螺旋菌"[常用字段:智能]) AND "感染"[常用字段:智能]) OR ( "hp感染"[常用字段:智能] OR "HP阳性"[常用字段:智能] OR "螺旋菌阳性"[常用字段:智能] OR "螺杆菌阳性"[常用字段:智能] OR "螺旋菌感染"[常用字段:智能] OR "螺杆菌感染"[常用字段:智能])) AND ("大剂量"[常用字段:智能] OR "高剂量"[常用字段:智能] OR "双倍剂量"[常用字段:智能] OR "增加次数"[常用字段:智能] OR "增加用药次数"[常用字段:智能] OR "增加剂量"[常用字段:智能] OR "增大剂量"[常用字段:智能]) 132

**4. VIP Search Strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=大剂量+高剂量+双倍剂量+增加次数+增加用药次数+增加剂量+增大剂量 OR R=大剂量+高剂量+双倍剂量+增加次数+增加用药次数+增加剂量+增大剂量) 136

**5. PubMed Search Strategy**

1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 64605
2. "high-dose\*"[tiab] OR "Large dose\*"[tiab] OR "Large dosage"[tiab] OR "high dosage"[tiab] OR "maximal dose\*"[tiab] OR "maximal dosage"[tiab] OR "maximum dose\*"[tiab] OR "maximum dosage"[tiab] OR "double dose\*"[tiab] OR "double dosage"[tiab] OR increase dose\*[tiab] OR increase times[tiab] OR increase dosage[tiab]
3. #1 and #2 457
4. "Meta-Analysis"[pt] OR "Meta-Analysis as Topic"[Mesh] OR "Systematic Review" [pt] OR "Systematic Reviews as Topic"[Mesh] OR "Systematic Review\*"[tiab] OR "Meta-Analysis"[tiab]
5. #3 AND #4 34
6. ("controlled clinical trial"[pt] OR "Controlled Clinical Trials as Topic"[MeSH] OR "Random Allocation"[MeSH] OR "Double-Blind Method"[MeSH] OR "single-blind method"[MeSH] OR "Control Groups"[MeSH] OR "cross-over studies"[MeSH] OR random\*[tiab] OR placebo[tiab] OR trial[tiab] OR groups[tiab] OR crossover[tiab] OR cross-over[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[Mesh] AND "Animals"[Mesh]))
7. #3 AND #6 189

**6. EMBASE Search Strategy**

#1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 92661

#2. ((High OR Large OR maximal OR maximum OR double OR increase\*) NEAR/3 (dose\* OR dosage OR times)):ab,ti,kw

#3. #1 and #2 1045

#4. 'meta analysis'/exp OR 'meta analysis (topic)'/exp OR 'systematic review'/exp OR 'systematic review (topic)'/exp OR (Systemat\* NEAR/3 Review\* OR 'Meta Analysis\*'):ab,ti,kw

#5. (('controlled clinical trial'/exp OR 'Controlled Clinical Trial (Topic)'/exp OR 'double blind procedure'/de OR 'control group'/de OR 'crossover procedure'/de OR 'single blind procedure'/de OR 'triple blind procedure'/de OR 'placebo'/de OR 'randomization'/exp) OR (random\* OR trial OR groups OR placebo\* OR crossover OR "cross-over"):ab,ti,kw) AND 'human'/exp

#6. #3 and #4 77

#7. #3 and #5 391

**7. WOS Search Strategy**

#1. TS=(Helicobacter OR Campylobacter) 90313

#2. TS=((High OR Large OR maximal OR maximum OR double OR increase\*) NEAR/3 (dose\* OR dosage OR times))

#3. #1 AND #2 1564

#4. TS=("Meta-Analysis" OR "Meta Analysis" OR "Systematic Review" OR "Systematic Review\*" OR "Meta-Analysis" OR "Meta-Analy\*" OR "Metaanalysis" OR "Metaanaly\*" OR ("systematic\*" NEAR/4 "Review\*"))

#5. TS=("controlled trial" OR "Clinical Trial" OR (Random\* NEAR/5 Trial) OR "Random Allocation" OR Randomization OR "Double Blind" OR "single blind" OR "Control Group" OR "Control Groups" OR "cross over" OR placebo\* OR crossover OR random\* OR trial OR groups) OR TI=("RCT" OR "groups" OR "group")

#6. #3 and #4 130

#7. #3 and #5 690

**8. Cochrane Library Search Strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 1995

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1982

#3 (Helicobacter OR Campylobacter):ti,ab,kw 5691

#4 #1 or #2 or #3 5691

#5 ((High OR Large OR maximal OR maximum OR double OR increase\*) NEAR/3 (dose\* OR dosage OR times)):ti,ab,kw 61882

#6 #4 and #5 311

# **PICO 4. In bismuth quadruple therapy, should PPI or potassium-competitive acid blockers (P-CABs) be recommended?**

**Supplementary Table 3: Summary of PICO 4 search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **CNKI** | **WanFang** | **CBM** | **VIP** | **PubMed** | **Embase** | **WoS** | **Cochrane** |
| Initial search | 39 | 7 | 8 | 9 | 150 | 383 | 214 | 102 |
| After duplicate removal | 34 | 1 | 1 | 0 | 150 | 245 | 43 | 50 |
| Total | 524 |

Search date: 20-05-2021

**1. CNKI search strategy**

(SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (SU%=钾泵抑制剂+钾通道阻滞剂+钾竞争性酸泵抑制剂+钾酸泵拮抗剂+钾酸泵抑制剂+钾离子竞争性酸阻滞剂+”P-CABs”+PCBs+沃诺拉赞+瑞伐拉赞+柯诺拉赞 OR TKA=钾泵抑制剂+钾通道阻滞剂+钾竞争性酸泵抑制剂+钾酸泵拮抗剂+钾酸泵抑制剂+钾离子竞争性酸阻滞剂+”P-CABs”+PCBs+沃诺拉赞+瑞伐拉赞+柯诺拉赞)

**2. WanFang search strategy**

主题☹((“幽门螺杆菌” OR “幽门螺旋杆菌” OR “幽门螺旋菌”) AND “感染”) OR “hp感染” OR “HP阳性” OR “螺旋菌阳性” OR “螺杆菌阳性” OR “螺旋菌感染” OR “螺杆菌感染”) and 主题☹“钾泵抑制剂” OR “钾通道阻滞剂” OR “钾竞争性酸泵抑制剂” OR “钾酸泵拮抗剂” OR “钾酸泵抑制剂” OR “钾离子竞争性酸阻滞剂” OR “P-CABs” OR PCBs OR “沃诺拉赞” OR “瑞伐拉赞” OR “柯诺拉赞”)

**3. CBM search strategy**

(((“幽门螺杆菌”[不加权:扩展] OR “幽门螺杆菌”[常用字段:智能] OR “幽门螺旋杆菌”[常用字段:智能] OR “幽门螺旋菌”[常用字段:智能]) AND “感染”[常用字段:智能]) OR ( “hp感染”[常用字段:智能] OR “HP阳性”[常用字段:智能] OR “螺旋菌阳性”[常用字段:智能] OR “螺杆菌阳性”[常用字段:智能] OR “螺旋菌感染”[常用字段:智能] OR “螺杆菌感染”[常用字段:智能])) AND (“钾泵抑制剂”[常用字段:智能] OR “钾通道阻滞剂”[常用字段:智能] OR “钾竞争性酸泵抑制剂”[常用字段:智能] OR “钾酸泵拮抗剂”[常用字段:智能] OR “钾酸泵抑制剂”[常用字段:智能] OR “钾离子竞争性酸阻滞剂”[常用字段:智能] OR “”P-CABs””[常用字段:智能] OR “PCBs”[常用字段:智能] OR “沃诺拉赞”[常用字段:智能] OR “瑞伐拉赞”[常用字段:智能] OR “柯诺拉赞”[常用字段:智能])

**4. VIP search strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=钾泵抑制剂+钾通道阻滞剂+钾竞争性酸泵抑制剂+钾酸泵拮抗剂+钾酸泵抑制剂+钾离子竞争性酸阻滞剂+”P-CABs”+PCBs+沃诺拉赞+瑞伐拉赞+柯诺拉赞 OR R=钾泵抑制剂+钾通道阻滞剂+钾竞争性酸泵抑制剂+钾酸泵拮抗剂+钾酸泵抑制剂+钾离子竞争性酸阻滞剂+”P-CABs”+PCBs+沃诺拉赞+瑞伐拉赞+柯诺拉赞)

**5. PubMed search strategy**

1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 64605
2. "1-(5-(2-fluorophenyl)-1-(pyridin-3-ylsulfonyl)-1H-pyrrol-3-yl)-N-methylmethanamine" [Supplementary Concept] OR Vonoprazan[tw] OR "TAK-438"[tw] OR "YH 1885" [Supplementary Concept] OR Revaprazan[tw] OR "YH 1885"[tw] OR Tegoprazan[tw] OR "YH4808"[tw] OR "RQ-00000004"[tw] OR "HS-10220"[tw] OR X842[tw] OR "H008-D3"[tw] 351
3. #1 and #2 150

**6. EMBASE search strategy**

#1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 92661

#2. 'vonoprazan'/exp OR 'revaprazan'/exp OR 'tegoprazan'/exp OR (Vonoprazan OR "TAK-438" OR "YH 1885" OR Revaprazan OR "YH 1885" OR Tegoprazan OR "YH4808" OR "RQ-00000004" OR "HS-10220" OR X842 OR "H008-D3"):ab,ti,kw 786

#3. #1 AND #2 383

**7. WoS search strategy**

#1. TS=(Helicobacter OR Campylobacter) 90322

#2. TS=(Vonoprazan OR "TAK-438" OR "YH 1885" OR Revaprazan OR "YH 1885" OR Tegoprazan OR "YH4808" OR "RQ-00000004" OR "HS-10220" OR X842 OR "H008-D3") 509

#3. #1 AND #2 214

**8. Cochrane Library search strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 1995

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1982

#3 (Helicobacter OR Campylobacter):ti,ab,kw 5691

#4 #1 or #2 or #3 5691

#5 (Vonoprazan OR "TAK-438" OR "YH 1885" OR Revaprazan OR "YH 1885" OR Tegoprazan OR "YH4808" OR "RQ-00000004" OR "HS-10220" OR X842 OR "H008-D3") 327

#6 #4 and #5 102

# **PICO 5. In empirical treatment for people with *H. pylori*, should treatment plan be guided by history of antibiotic use?**

**Supplementary Table 4: Summary of PICO 5 search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RCT** | **CNKI** | **WanFang** | **CBM** | **VIP** | **Pubmed** | **Embase** | **WoS** | **Cochrane** |
| Initial results | 62 | 50 | 24 | 25 | 163 | 396 | 200 | 125 |
| After duplicate removal | 56 | 13 | 3 | 2 | 153 | 336 | 98 | 72 |
| Total | 733 |

Search date: 21-05-2021

**1. CNKI Search Strategy**

(SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (SU%=用药史+抗生素历史+抗生素暴露 OR TKA=用药史+抗生素历史+抗生素暴露) 62

**2. WanFang Search Strategy**

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("用药史" OR "抗生素历史" OR "抗生素暴露") 50

**3. CBM Search Strategy**

((("幽门螺杆菌"[不加权:扩展] OR "幽门螺杆菌"[常用字段:智能] OR "幽门螺旋杆菌"[常用字段:智能] OR "幽门螺旋菌"[常用字段:智能]) AND "感染"[常用字段:智能]) OR ( "hp感染"[常用字段:智能] OR "HP阳性"[常用字段:智能] OR "螺旋菌阳性"[常用字段:智能] OR "螺杆菌阳性"[常用字段:智能] OR "螺旋菌感染"[常用字段:智能] OR "螺杆菌感染"[常用字段:智能])) AND ("用药史"[常用字段:智能] OR "抗生素历史"[常用字段:智能] OR "抗生素暴露"[常用字段:智能]) 24

**4. VIP Search Strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=用药史+抗生素历史+抗生素暴露 OR R=用药史+抗生素历史+抗生素暴露) 25

**5. PubMed Search Strategy**

1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 64656
2. "Medical History Taking"[Mesh] OR "Medication history"[tiab] OR previous Antibiotic\*[tiab] OR prior Antibiotic\*[tiab] OR Antibiotics exposure[tiab] OR Antibiotics consumption[tiab] OR anamnes\*[tiab] OR history taking[tiab] OR medical history[tiab] OR medical interview\*[tiab]
3. #1 and #2 297
4. "Meta-Analysis"[pt] OR "Meta-Analysis as Topic"[Mesh] OR "Systematic Review" [pt] OR "Systematic Reviews as Topic"[Mesh] OR "Systematic Review\*"[tiab] OR "Meta-Analysis"[tiab]
5. ("controlled clinical trial"[pt] OR "Controlled Clinical Trials as Topic"[MeSH] OR "Random Allocation"[MeSH] OR "Double-Blind Method"[MeSH] OR "single-blind method"[MeSH] OR "Control Groups"[MeSH] OR "cross-over studies"[MeSH] OR random\*[tiab] OR placebo[tiab] OR trial[tiab] OR groups[tiab] OR crossover[tiab] OR cross-over[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[Mesh] AND "Animals"[Mesh]))
6. ("Observational Study"[pt] OR "Case Reports" [pt] OR "Observational Studies as Topic"[Mesh] OR "Cohort Studies"[Mesh] OR "Case-Control Studies"[Mesh] OR "Cross-Sectional Studies"[Mesh] OR Observational Stud\*[tiab] OR Cohort[tiab] OR "Follow-Up"[tiab] OR Longitudinal\*[tiab] OR Prospectiv\*[tiab] OR Retrospectiv\*[tiab] OR "Case-Control"[tiab] OR "Cross-Sectional"[tiab] OR "case series"[tiab] OR "single arm"[tiab] OR "Case Report\*"[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[Mesh] AND "Animals"[Mesh]))
7. #3 AND #4 1
8. #3 AND #5 57
9. #3 AND #6 135
10. #8 OR #9

**6. EMBASE Search Strategy**

#1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 92691

#2. 'anamnesis'/exp OR ((history OR previous\* OR prior\* OR exposure\* OR interview\*) NEAR/4 (medical OR Medication OR Antibiotic\*)):ab,ti,kw

#3. #1 and #2 1963

#4. 'meta analysis'/exp OR 'meta analysis (topic)'/exp OR 'systematic review'/exp OR 'systematic review (topic)'/exp OR (Systemat\* NEAR/3 Review\* OR 'Meta Analysis\*'):ab,ti,kw

#5. (('controlled clinical trial'/exp OR 'Controlled Clinical Trial (Topic)'/exp OR 'double blind procedure'/de OR 'control group'/de OR 'crossover procedure'/de OR 'single blind procedure'/de OR 'triple blind procedure'/de OR 'placebo'/de OR 'randomization'/exp) OR (random\* OR trial OR groups OR placebo\* OR crossover OR "cross-over"):ab,ti,kw) AND 'human'/exp

#6. #3 AND #4 51

#7. #3 AND #5 396，RCT

**7. WOS Search Strategy**

#1. TS=(Helicobacter OR Campylobacter) 90347

#2. TS=((history OR previous\* OR prior\* OR exposure\* OR interview\*) NEAR/4 (medical OR Medication OR Antibiotic\*))

#3. #1 AND #2 527

#4. TS=("Meta-Analysis" OR "Meta Analysis" OR "Systematic Review" OR "Systematic Review\*" OR "Meta-Analysis" OR "Meta-Analy\*" OR "Metaanalysis" OR "Metaanaly\*" OR ("systematic\*" NEAR/4 "Review\*"))

#5. TS=("controlled trial" OR "Clinical Trial" OR (Random\* NEAR/5 Trial) OR "Random Allocation" OR Randomization OR "Double Blind" OR "single blind" OR "Control Group" OR "Control Groups" OR "cross over" OR placebo\* OR crossover OR random\* OR trial OR groups) OR TI=("RCT" OR "groups" OR "group")

#6. #3 AND #4 47

#7. #3 AND #5 200

**8. Cochrane Library Search Strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 1995

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1982

#3 (Helicobacter OR Campylobacter) 5798

#4 #1 OR #2 OR #3 5798

#5 MeSH descriptor: [Medical History Taking] explode all trees 308

#6 ((history OR previous\* OR prior\* OR exposure\* OR interview\*) NEAR/4 (medical OR Medication OR Antibiotic\*)):ti,ab,kw 17447

#7 #5 or #6 17472

#8 #4 and #7 128

# **PICO 6: Relative to empirical treatment, should antibiotic susceptibility test (AST) be recommended to guide the treatment?**

**Supplementary Table 5: Summary of PICO 6 search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **CNKI** | **WanFang** | **CBM** | **VIP** | **Pubmed** | **Embase** | **WoS** | **Cochrane** |
| Initial results | 323 | 185 | 247 | 146 | 352 | 346 | 426 | 224 |
| After duplicate removal | 323 | 32 | 130 | 13 | 290 | 163 | 204 | 67 |
| Total | 1222 |

Search date: 20-05-2021

**1. CNKI Search Strategy**

(SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (SU%=敏感性测试+药物敏感性+敏感性试验+敏感性分析+敏感性检测+断点测定+最小抑菌浓度+抗菌谱 OR TKA % (敏感性测试+药物敏感性+敏感性试验+敏感性分析+敏感性检测+断点测定+最小抑菌浓度+抗菌谱)) 323

**2. WanFang Search Strategy**

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("敏感性测试" OR "药物敏感性" OR "敏感性试验" OR "敏感性分析" OR "敏感性检测" OR "断点测定" OR "最小抑菌浓度" OR "抗菌谱") 185

**3. CBM Search Strategy**

((("幽门螺杆菌"[不加权:扩展] OR "幽门螺杆菌"[常用字段:智能] OR "幽门螺旋杆菌"[常用字段:智能] OR "幽门螺旋菌"[常用字段:智能]) AND "感染"[常用字段:智能]) OR ( "hp感染"[常用字段:智能] OR "HP阳性"[常用字段:智能] OR "螺旋菌阳性"[常用字段:智能] OR "螺杆菌阳性"[常用字段:智能] OR "螺旋菌感染"[常用字段:智能] OR "螺杆菌感染"[常用字段:智能])) AND ("敏感性测试"[常用字段:智能] OR "药物敏感性"[常用字段:智能] OR "敏感性试验"[常用字段:智能] OR "敏感性分析"[常用字段:智能] OR "敏感性检测"[常用字段:智能] OR "断点测定"[常用字段:智能] OR "最小抑菌浓度"[常用字段:智能] OR "抗菌谱"[常用字段:智能]) 247

**4. VIP Search Strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=敏感性测试+药物敏感性+敏感性试验+敏感性分析+敏感性检测+断点测定+最小抑菌浓度+抗菌谱 OR R=敏感性测试+药物敏感性+敏感性试验+敏感性分析+敏感性检测+断点测定+最小抑菌浓度+抗菌谱) 146

**5. PubMed Search Strategy**

#1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 64609

#2. "Microbial Sensitivity Tests"[Mesh] OR "Sensitivity Test\*"[tiab] OR "Sensitivity Assay"[tiab] OR Antimicrobial Susceptibility Breakpoint Determin\*[tiab] OR Minimum Inhibitory Concentration\*[tiab] OR Antibiogram\*[tiab] OR "Sensitivity analys\*"[tiab] OR "Sensitivity determin\*"[tiab]

#3. #1 and #2 3283

#4. "Meta-Analysis"[pt] OR "Meta-Analysis as Topic"[Mesh] OR "Systematic Review" [pt] OR "Systematic Reviews as Topic"[Mesh] OR "Systematic Review\*"[tiab] OR "Meta-Analysis"[tiab]

#5. #3 AND #4 90

#6. ("controlled clinical trial"[pt] OR "Controlled Clinical Trials as Topic"[MeSH] OR "Random Allocation"[MeSH] OR "Double-Blind Method"[MeSH] OR "single-blind method"[MeSH] OR "Control Groups"[MeSH] OR "cross-over studies"[MeSH] OR random\*[tiab] OR placebo[tiab] OR trial[tiab] OR groups[tiab] OR crossover[tiab] OR cross-over[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[Mesh] AND "Animals"[Mesh]))

#7. #3 AND #6 352

**6. EMBASE Search Strategy**

#1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 92661

#2. 'microbial sensitivity test'/exp OR (Sensitivity NEAR/3 (Test\* OR Assay OR analys\* OR determin\*) OR Antimicrobial NEAR/3 Susceptibility NEAR/3 Breakpoint NEAR/3 Determin\* OR Minimum NEAR/3 Inhibitory NEAR/3 Concentration\* OR Antibiogram\*):ab,ti,kw

#3. #1 AND #2 2029

#4. 'meta analysis'/exp OR 'meta analysis (topic)'/exp OR 'systematic review'/exp OR 'systematic review (topic)'/exp OR (Systemat\* NEAR/3 Review\* OR 'Meta Analysis\*'):ab,ti,kw

#5. (('controlled clinical trial'/exp OR 'Controlled Clinical Trial (Topic)'/exp OR 'double blind procedure'/de OR 'control group'/de OR 'crossover procedure'/de OR 'single blind procedure'/de OR 'triple blind procedure'/de OR 'placebo'/de OR 'randomization'/exp) OR (random\* OR trial OR groups OR placebo\* OR crossover OR "cross-over"):ab,ti,kw) AND 'human'/exp

#6. #3 and #4 155

#7. #3 and #5 346

**7. WoS Search Strategy**

#1. TS=(Helicobacter OR Campylobacter) 90313

#2. TS=(Sensitivity NEAR/3 (Test\* OR Assay OR analys\* OR determin\*) OR Antimicrobial NEAR/3 Susceptibility NEAR/3 Breakpoint NEAR/3 Determin\* OR Minimum NEAR/3 Inhibitory NEAR/3 Concentration\* OR Antibiogram\*)

#3. #1 AND #2 1656

#4. TS=("Meta-Analysis" OR "Meta Analysis" OR "Systematic Review" OR "Systematic Review\*" OR "Meta-Analysis" OR "Meta-Analy\*" OR "Metaanalysis" OR "Metaanaly\*" OR ("systematic\*" NEAR/4 "Review\*"))

#5. TS=("controlled trial" OR "Clinical Trial" OR (Random\* NEAR/5 Trial) OR "Random Allocation" OR Randomization OR "Double Blind" OR "single blind" OR "Control Group" OR "Control Groups" OR "cross over" OR placebo\* OR crossover OR random\* OR trial OR groups) OR TI=("RCT" OR "groups" OR "group")

#6. #3 and #4 149

#7. #3 and #5 426

**8. Cochrane Library Search Strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 1995

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1982

#3 (Helicobacter OR Campylobacter) 5798

#4 #1 OR #2 OR #3 5798

#5 MeSH descriptor: [Microbial Sensitivity Tests] explode all trees 1480

#6 (Sensitivity NEAR/3 (Test\* OR Assay OR analys\* OR determin\*) OR Antimicrobial NEAR/3 Susceptibility NEAR/3 Breakpoint NEAR/3 Determin\* OR Minimum NEAR/3 Inhibitory NEAR/3 Concentration\* OR Antibiogram\*) 22505

#7 #5 OR #6 22546

#8 #4 AND #7 300

# **PICO 7. Should Chinese herbal medicine be augmented to bismuth quadruple therapy in initial and second eradication treatments for people with *H. pylori* infection?**

**Supplementary Table 6: Summary of PICO 7 search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RCT** | **CNKI** | **WanFang** | **CBM** | **VIP** | **PubMed** | **Embase** | **WoS** | **Cochrane** |
| Initial results | 995 | 1205 | 781 | 560 | 108 | 327 | 180 | 151 |
| After duplicate removal | 964 | 699 | 197 | 31 | 90 | 205 | 97 | 46 |
| Total | 2329 |

Search date: 21-05-2021

**1. CNKI Search Strategy**

1. (SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染)
2. (SU%=中药+中草药+中成药+汤药+中西医+安胃汤+安胃疡+半夏泻心汤+荜铃胃痛+黄连素+黄连+黄芪+六君子汤+健脾+胃康+连朴饮+六君子丸+疏肝+和胃 OR TKA=中药+中草药+中成药+汤药+中西医+安胃汤+安胃疡+半夏泻心汤+荜铃胃痛+黄连素+黄连+黄芪+六君子汤+健脾+胃康+连朴饮+六君子丸+疏肝+和胃)
3. (SU%=三联+四联 OR TKA=三联+四联)
4. #1 and #2 AND #3 2071
5. (SU%=随机+盲法+双盲+单盲+三盲+交叉+RCT OR TKA=随机+盲法+双盲+单盲+三盲+交叉+RCT)
6. (SU%=META+荟萃+系统综述+系统评价+评价综述 OR TKA=META+荟萃+系统综述+系统评价+评价综述)
7. #4 AND #5 995
8. #4 AND #6 34

**2. WanFang** **Search Strategy**

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:(中药 OR 中草药 OR 中成药 OR 汤药 OR 中西医 OR 安胃汤 OR 安胃疡 OR "半夏泻心汤" OR "荜铃胃痛" OR "黄连素" OR "黄连" OR "黄芪" OR "六君子" OR "健脾" OR "胃康" OR "连朴饮" OR "疏肝" OR "和胃") and 主题:(四联 OR 三联) and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) 1205

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:(中药 OR 中草药 OR 中成药 OR 汤药 OR 中西医 OR 安胃汤 OR 安胃疡 OR "半夏泻心汤" OR "荜铃胃痛" OR "黄连素" OR "黄连" OR "黄芪" OR "六君子" OR "健脾" OR "胃康" OR "连朴饮" OR "疏肝" OR "和胃") and 主题:(META OR "荟萃" OR "系统综述" OR "系统评价" OR "评价综述") and 主题:(四联 OR 三联) 20

**3. CBM Search Strategy**

#1. (("幽门螺杆菌"[不加权:扩展] OR "幽门螺杆菌"[常用字段:智能] OR "幽门螺旋杆菌"[常用字段:智能] OR "幽门螺旋菌"[常用字段:智能]) AND "感染"[常用字段:智能]) OR ( "hp感染"[常用字段:智能] OR "HP阳性"[常用字段:智能] OR "螺旋菌阳性"[常用字段:智能] OR "螺杆菌阳性"[常用字段:智能] OR "螺旋菌感染"[常用字段:智能] OR "螺杆菌感染"[常用字段:智能])

#2. "中草药"[不加权:扩展] OR "医学, 中国传统"[不加权:扩展] OR "中药"[常用字段:智能] OR "中草药"[常用字段:智能] OR "中成药"[常用字段:智能] OR "汤药"[常用字段:智能] OR "中西医"[常用字段:智能] OR "安胃汤"[常用字段:智能] OR "安胃疡"[常用字段:智能] OR "半夏泻心汤"[常用字段:智能] OR "荜铃胃痛"[常用字段:智能] OR "黄连素"[常用字段:智能] OR "黄连"[常用字段:智能] OR "黄芪"[常用字段:智能] OR "六君子汤"[常用字段:智能] OR "健脾"[常用字段:智能] OR "胃康"[常用字段:智能] OR "连朴饮"[常用字段:智能] OR "六君子丸"[常用字段:智能] OR "疏肝"[常用字段:智能] OR "和胃"[常用字段:智能]

#3. ( "四联"[常用字段:智能] OR "三联"[常用字段:智能])

#4. #1 AND #2 AND #3 1169

#5. ("随机对照试验"[不加权:扩展] OR "随机对照试验(主题)"[不加权:扩展] OR "非随机对照试验(主题)"[不加权:扩展] OR "随机"[常用字段:智能] OR "盲法"[常用字段:智能] OR "双盲"[常用字段:智能] OR "单盲"[常用字段:智能] OR "三盲"[常用字段:智能] OR "交叉"[常用字段:智能] OR "RCT"[常用字段:智能])

#6. ("Meta分析"[不加权:扩展] OR "Meta分析(主题)"[不加权:扩展] OR "META"[常用字段:智能] OR "荟萃"[常用字段:智能] OR "系统综述"[常用字段:智能] OR "系统评价"[常用字段:智能] OR "评价综述"[常用字段:智能])

#7. #4 AND #5 781

#8. #4 AND #6 16

**4. VIP Search Strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=四联+三联 OR R=四联+三联) AND (M=中药+中草药+中成药+汤药+中西医+安胃汤+安胃疡+半夏泻心汤+荜铃胃痛+黄连素+黄连+黄芪+六君子汤+健脾+胃康+连朴饮+六君子丸+疏肝+和胃 OR R=中药+中草药+中成药+汤药+中西医+安胃汤+安胃疡+半夏泻心汤+荜铃胃痛+黄连素+黄连+黄芪+六君子汤+健脾+胃康+连朴饮+六君子丸+疏肝+和胃) AND (M=随机+盲法+双盲+单盲+三盲+交叉+RCT OR R=随机+盲法+双盲+单盲+三盲+交叉+RCT) 1483

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=四联+三联OR R=四联+三联) AND (M=中药+中草药+中成药+汤药+中西医+安胃汤+安胃疡+半夏泻心汤+荜铃胃痛+黄连素+黄连+黄芪+六君子汤+健脾+胃康+连朴饮+六君子丸+疏肝+和胃 OR R=中药+中草药+中成药+汤药+中西医+安胃汤+安胃疡+半夏泻心汤+荜铃胃痛+黄连素+黄连+黄芪+六君子汤+健脾+胃康+连朴饮+六君子丸+疏肝+和胃) AND (M=META+荟萃+系统综述+系统评价+评价综述 OR R=META+荟萃+系统综述+系统评价+评价综述)

**5. PubMed Search Strategy**

1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 64605
2. "Drugs, Chinese Herbal"[Mesh] OR "Medicine, Chinese Traditional"[Mesh] OR "Plant Extracts"[Mesh] OR "Medicine, East Asian Traditional"[Mesh] OR tcm therap\*[tiab] OR TCD therap\*[tiab] OR chinese therap\*[tiab] OR traditional therap\*[tiab] OR chinese herb\*[tiab] OR traditional herb\*[tiab] OR chinese medic\*[tiab] OR traditional medic\*[tiab] OR Phytotherap\*[tiab] OR Herb Therap\*[tiab] OR Chinese plant extract\*[tiab] OR integrated medic\*[tiab] OR decoction[tiab] OR herbalist doctor\*[tiab] OR Chinese patent drug\*[tiab] OR anwei[tiab] OR huanglian[tiab] OR huangqi[tiab] OR hewei[tiab] OR shugan[tiab] OR jianpi[tiab] OR liujunzi[tiab]
3. #1 and #2 655
4. "Meta-Analysis"[pt] OR "Meta-Analysis as Topic"[Mesh] OR "Systematic Review" [pt] OR "Systematic Reviews as Topic"[Mesh] OR "Systematic Review\*"[tiab] OR "Meta-Analysis"[tiab]
5. ("controlled clinical trial"[pt] OR "Controlled Clinical Trials as Topic"[MeSH] OR "Random Allocation"[MeSH] OR "Double-Blind Method"[MeSH] OR "single-blind method"[MeSH] OR "Control Groups"[MeSH] OR "cross-over studies"[MeSH] OR random\*[tiab] OR placebo[tiab] OR trial[tiab] OR groups[tiab] OR crossover[tiab] OR cross-over[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[Mesh] AND "Animals"[Mesh]))
6. #3 AND #4 22
7. #3 and #5 108

**6. EMBASE Search Strategy**

1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 92691
2. 'herbaceous agent'/exp OR 'Chinese medicine'/exp OR 'plant extract'/exp OR 'oriental medicine'/exp OR ((tcm OR TCD OR Chinese OR traditional OR Herb OR integrated) NEAR/3 (therap\* OR medic\*) OR Phytotherap\* OR plant NEAR/2 (extract\* OR drug\*) OR decoction OR herbalist NEAR/2 doctor\* OR anwei OR huanglian OR huangqi OR hewei OR shugan OR jianpi OR liujunzi):ab,ti,kw
3. #1 AND #2 1533
4. 'meta analysis'/exp OR 'meta analysis (topic)'/exp OR 'systematic review'/exp OR 'systematic review (topic)'/exp OR (Systemat\* NEAR/3 Review\* OR 'Meta Analysis\*'):ab,ti,kw
5. (('controlled clinical trial'/exp OR 'Controlled Clinical Trial (Topic)'/exp OR 'double blind procedure'/de OR 'control group'/de OR 'crossover procedure'/de OR 'single blind procedure'/de OR 'triple blind procedure'/de OR 'placebo'/de OR 'randomization'/exp) OR (random\* OR trial OR groups OR placebo\* OR crossover OR "cross-over"):ab,ti,kw) AND 'human'/exp
6. #3 AND #4 94
7. #3 AND #5 327

**7. WOS Search Strategy**

1. TS=(Helicobacter OR Campylobacter) 90313
2. TS=((tcm OR TCD OR Chinese OR traditional OR Herb OR integrated) NEAR/3 (therap\* OR medic\*) OR Phytotherap\* OR plant NEAR/2 (extract\* OR drug\*) OR decoction OR herbalist NEAR/2 doctor\* OR anwei OR huanglian OR huangqi OR hewei OR shugan OR jianpi OR liujunzi)
3. #1 AND #2 586
4. TS=("Meta-Analysis" OR "Meta Analysis" OR "Systematic Review" OR "Systematic Review\*" OR "Meta-Analysis" OR "Meta-Analy\*" OR "Metaanalysis" OR "Metaanaly\*" OR ("systematic\*" NEAR/4 "Review\*"))
5. TS=("controlled trial" OR "Clinical Trial" OR (Random\* NEAR/5 Trial) OR "Random Allocation" OR Randomization OR "Double Blind" OR "single blind" OR "Control Group" OR "Control Groups" OR "cross over" OR placebo\* OR crossover OR random\* OR trial OR groups) OR TI=("RCT" OR "groups" OR "group")
6. #3 and #4 50
7. #3 and #5 180

**8. Cochrane Library Search Strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 1995

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1982

#3 (Helicobacter OR Campylobacter) 5798

#4 #1 OR #2 OR #3 5798

#5 MeSH descriptor: [Drugs, Chinese Herbal] explode all trees 3626

#6 MeSH descriptor: [Medicine, Chinese Traditional] explode all trees 1209

#7 MeSH descriptor: [Plant Extracts] explode all trees 8368

#8 MeSH descriptor: [Medicine, East Asian Traditional] explode all trees 1328

#9 ((tcm OR TCD OR Chinese OR traditional OR Herb OR integrated) NEAR/3 (therap\* OR medic\*)):ti,ab,kw 18275

#10 (Phytotherap\* OR plant NEAR/2 (extract\* OR drug\*) OR decoction OR herbalist NEAR/2 doctor\* OR anwei OR huanglian OR huangqi OR hewei OR shugan OR jianpi OR liujunzi):ti,ab,kw 12048

#11 #5 OR #6 OR #7 OR #8 OR #9 OR #10 28331

#12 #4 AND #11 157

# **PICO 8 & 9. Should probiotics be augmented to bismuth quadruple therapy in initial and second eradication treatments for people with *H. pylori* infection?**

**Supplementary Table 7: Summary of PICO 8 & 9 search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RCT** | **CNKI** | **WanFang** | **CBM** | **VIP** | **PubMed** | **Embase** | **WoS** | **Cochrane** |
| Initial results | 491 | 591 | 515 | 467 | 303 | 649 | 906 | 316 |
| After duplicate removal | 458 | 217 | 70 | 15 | 218 | 317 | 539 | 106 |
| Total | 1940 |

Search date: 21-05-2021

**1. CNKI Search Strategy**

1. (SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染)
2. (SU%=益生菌+微生态+活菌+地衣芽孢杆菌+酪酸梭菌+酵母菌+双歧杆菌+乳酸菌+乳杆菌+益生芽孢菌+丁酸梭菌+培菲康 OR TKA=益生菌+微生态+活菌+地衣芽孢杆菌+酪酸梭菌+酵母菌+双歧杆菌+乳酸菌+乳杆菌+益生芽孢菌+丁酸梭菌+培菲康)
3. #1 and #2 1194
4. (SU%=随机+盲法+双盲+单盲+三盲+交叉+RCT OR TKA=随机+盲法+双盲+单盲+三盲+交叉+RCT)
5. (SU%=META+荟萃+系统综述+系统评价+评价综述 OR TKA=META+荟萃+系统综述+系统评价+评价综述)
6. #3 AND #4 491
7. #3 AND #5 42

**2. WanFang Search Strategy**

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("益生菌" OR "微生态" OR "活菌" OR "地衣芽孢杆菌" OR "酪酸梭菌" OR "酵母菌" OR "双歧杆菌" OR "乳酸菌" OR "乳杆菌" OR "益生芽孢菌" OR "丁酸梭菌" OR "培菲康") and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) 591

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("益生菌" OR "微生态" OR "活菌" OR "地衣芽孢杆菌" OR "酪酸梭菌" OR "酵母菌" OR "双歧杆菌" OR "乳酸菌" OR "乳杆菌" OR "益生芽孢菌" OR "丁酸梭菌" OR "培菲康") and 主题:(META OR "荟萃" OR "系统综述" OR "系统评价" OR "评价综述") 39

**3. CBM Search Strategy**

1. (("幽门螺杆菌"[不加权:扩展] OR "幽门螺杆菌"[常用字段:智能] OR "幽门螺旋杆菌"[常用字段:智能] OR "幽门螺旋菌"[常用字段:智能]) AND "感染"[常用字段:智能]) OR ( "hp感染"[常用字段:智能] OR "HP阳性"[常用字段:智能] OR "螺旋菌阳性"[常用字段:智能] OR "螺杆菌阳性"[常用字段:智能] OR "螺旋菌感染"[常用字段:智能] OR "螺杆菌感染"[常用字段:智能])
2. ( "益生菌"[常用字段:智能] OR "微生态"[常用字段:智能] OR "活菌"[常用字段:智能] OR "地衣芽孢杆菌"[常用字段:智能] OR "酪酸梭菌"[常用字段:智能] OR "酵母菌"[常用字段:智能] OR "双歧杆菌"[常用字段:智能] OR "乳酸菌"[常用字段:智能] OR "乳杆菌"[常用字段:智能] OR "益生芽孢菌"[常用字段:智能] OR "丁酸梭菌"[常用字段:智能] OR "培菲康"[常用字段:智能])
3. #1 AND #2 864
4. ("随机对照试验"[不加权:扩展] OR "随机对照试验(主题)"[不加权:扩展] OR "非随机对照试验(主题)"[不加权:扩展] OR "随机"[常用字段:智能] OR "盲法"[常用字段:智能] OR "双盲"[常用字段:智能] OR "单盲"[常用字段:智能] OR "三盲"[常用字段:智能] OR "交叉"[常用字段:智能] OR "RCT"[常用字段:智能])
5. ("Meta分析"[不加权:扩展] OR "Meta分析(主题)"[不加权:扩展] OR "META"[常用字段:智能] OR "荟萃"[常用字段:智能] OR "系统综述"[常用字段:智能] OR "系统评价"[常用字段:智能] OR "评价综述"[常用字段:智能])
6. #3 AND #4 515
7. #3 AND #5 27

**4. VIP Search Strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=益生菌+微生态+活菌+地衣芽孢杆菌+酪酸梭菌+酵母菌+双歧杆菌+乳酸菌+乳杆菌+益生芽孢菌+丁酸梭菌+培菲康 OR R=益生菌+微生态+活菌+地衣芽孢杆菌+酪酸梭菌+酵母菌+双歧杆菌+乳酸菌+乳杆菌+益生芽孢菌+丁酸梭菌+培菲康) AND (M=META+荟萃+系统综述+系统评价+评价综述 OR R=META+荟萃+系统综述+系统评价+评价综述) 24

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=益生菌+微生态+活菌+地衣芽孢杆菌+酪酸梭菌+酵母菌+双歧杆菌+乳酸菌+乳杆菌+益生芽孢菌+丁酸梭菌+培菲康 OR R=益生菌+微生态+活菌+地衣芽孢杆菌+酪酸梭菌+酵母菌+双歧杆菌+乳酸菌+乳杆菌+益生芽孢菌+丁酸梭菌+培菲康) AND (M=随机+盲法+双盲+单盲+三盲+交叉+RCT OR R=随机+盲法+双盲+单盲+三盲+交叉+RCT) 467

**5. PubMed Search Strategy**

1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 64605
2. "Probiotics"[Mesh] OR "Bacillus licheniformis"[Mesh] OR "Clostridium butyricum"[Mesh] OR "Lactobacillus"[Mesh] OR "Saccharomyces boulardii"[Mesh] OR "Clostridium butyricum"[Mesh] OR "Bifidobacterium"[Mesh] OR Probiotic\*[tiab] OR Yeast[tiab] OR Bifidobacterium[tiab] OR Lactobacillus[tiab] OR "Clostridium butyricum"[tiab] OR "Bacillus licheniformis"[tiab] OR "Clostridium butyricum"[tiab] OR "Saccharomyces boulardii"[tiab]
3. #1 and #2 1311
4. "Meta-Analysis"[pt] OR "Meta-Analysis as Topic"[Mesh] OR "Systematic Review" [pt] OR "Systematic Reviews as Topic"[Mesh] OR "Systematic Review\*"[tiab] OR "Meta-Analysis"[tiab]
5. ("controlled clinical trial"[pt] OR "Controlled Clinical Trials as Topic"[MeSH] OR "Random Allocation"[MeSH] OR "Double-Blind Method"[MeSH] OR "single-blind method"[MeSH] OR "Control Groups"[MeSH] OR "cross-over studies"[MeSH] OR random\*[tiab] OR placebo[tiab] OR trial[tiab] OR groups[tiab] OR crossover[tiab] OR cross-over[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[Mesh] AND "Animals"[Mesh]))
6. #3 AND #4 56
7. #3 and #5 303

**6. EMBASE Search Strategy**

1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 92691
2. 'probiotic agent'/exp OR 'Bifidobacterium'/exp OR 'Bacillus licheniformis'/exp OR 'Clostridium butyricum'/exp OR 'Lactobacillus'/exp OR 'Clostridium butyricum'/exp OR 'Saccharomyces boulardii'/exp OR (Probiotic\* OR Yeast OR Bifidobacterium OR Lactobacillus OR "Clostridium butyricum" OR "Bacillus licheniformis" OR "Clostridium butyricum" OR "Saccharomyces boulardii"):ab,ti,kw
3. #1 AND #2 2642
4. 'meta analysis'/exp OR 'meta analysis (topic)'/exp OR 'systematic review'/exp OR 'systematic review (topic)'/exp OR (Systemat\* NEAR/3 Review\* OR 'Meta Analysis\*'):ab,ti,kw
5. (('controlled clinical trial'/exp OR 'Controlled Clinical Trial (Topic)'/exp OR 'double blind procedure'/de OR 'control group'/de OR 'crossover procedure'/de OR 'single blind procedure'/de OR 'triple blind procedure'/de OR 'placebo'/de OR 'randomization'/exp) OR (random\* OR trial OR groups OR placebo\* OR crossover OR "cross-over"):ab,ti,kw) AND 'human'/exp
6. #3 AND #4 209
7. #3 AND #5 649

**7. WoS Search Strategy**

1. TS=(Helicobacter OR Campylobacter) 90313
2. TS=(Probiotic\* OR Yeast OR Bifidobacterium OR Lactobacillus OR "Clostridium butyricum" OR "Bacillus licheniformis" OR "Clostridium butyricum" OR "Saccharomyces boulardii")
3. #1 AND #2 2312
4. TS=("Meta-Analysis" OR "Meta Analysis" OR "Systematic Review" OR "Systematic Review\*" OR "Meta-Analysis" OR "Meta-Analy\*" OR "Metaanalysis" OR "Metaanaly\*" OR ("systematic\*" NEAR/4 "Review\*"))
5. TS=("controlled trial" OR "Clinical Trial" OR (Random\* NEAR/5 Trial) OR "Random Allocation" OR Randomization OR "Double Blind" OR "single blind" OR "Control Group" OR "Control Groups" OR "cross over" OR placebo\* OR crossover OR random\* OR trial OR groups) OR TI=("RCT" OR "groups" OR "group")
6. #3 and #4 182
7. #3 and #5 906

**8. Cochrane Library Search Strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 1995

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1982

#3 (Helicobacter OR Campylobacter) 5798

#4 #1 OR #2 OR #3 5798

#5 MeSH descriptor: [Probiotics] explode all trees 2100

#6 MeSH descriptor: [Bacillus licheniformis] explode all trees 0

#7 MeSH descriptor: [Clostridium butyricum] explode all trees 13

#8 MeSH descriptor: [Lactobacillus] explode all trees 1627

#9 MeSH descriptor: [Saccharomyces boulardii] explode all trees 17

#10 MeSH descriptor: [Clostridium butyricum] explode all trees 13

#11 MeSH descriptor: [Bifidobacterium] explode all trees 733

#12 (Probiotic\* OR Yeast OR Bifidobacterium OR Lactobacillus OR "Clostridium butyricum" OR "Bacillus licheniformis" OR "Clostridium butyricum" OR "Saccharomyces boulardii"):ti,ab,kw 10884

#13 #5 OR #6 OR #7 OR #8 or #9 or #10 or #11 or #12 10884

#14 #4 and #13 325

# **PICO 10. Relative to bismuth quadruple therapy, should triple therapy combined with gastric mucosal protective agents be recommended for initial and second line eradication treatments?**

**Supplementary Table 8: Summary of PICO 10 search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RCT** | **CNKI** | **WanFang** | **CBM** | **VIP** | **PubMed** | **Embase** | **WoS** | **Cochrane** |
| Initial results | 309 | 355 | 288 | 285 | 134 | 325 | 240 | 146 |
| After duplicate removal | 301 | 141 | 53 | 17 | 118 | 181 | 138 | 22 |
| Total | 971 |

Search date: 24-05-2021

**1. CNKI Search Strategy**

1. (SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染)
2. (SU%=胃粘膜保护剂+胃黏膜保护剂+胃黏膜保护药+胃黏膜保护+黏膜保护剂+铝碳酸镁+达喜+硫糖铝+氢氧化铝+替普瑞酮+戊四烯酮+瑞巴派特+聚普瑞锌+瑞莱生+吉法酯+吉法酯片+惠加强+谷氨酰胺+依卡倍特+依卡倍特钠+普利莫+盖爽 OR TKA=胃粘膜保护剂+胃黏膜保护剂+胃黏膜保护药+胃黏膜保护+黏膜保护剂+铝碳酸镁+达喜+硫糖铝+氢氧化铝+替普瑞酮+戊四烯酮+瑞巴派特+聚普瑞锌+瑞莱生+吉法酯+吉法酯片+惠加强+谷氨酰胺+依卡倍特+依卡倍特钠+普利莫+盖爽)
3. #1 AND #2 698
4. (SU%=随机+盲法+双盲+单盲+三盲+交叉+RCT OR TKA=随机+盲法+双盲+单盲+三盲+交叉+RCT)
5. (SU%=META+荟萃+系统综述+系统评价+评价综述 OR TKA=META+荟萃+系统综述+系统评价+评价综述)
6. #3 AND #4 309
7. #3 AND #5 10

**2. WanFang Search Strategy**

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("胃粘膜保护剂" OR "胃黏膜保护剂" OR "胃黏膜保护药" OR "胃黏膜保护" OR "黏膜保护剂" OR "铝碳酸镁" OR "达喜" OR "硫糖铝" OR "氢氧化铝" OR "替普瑞酮" OR "戊四烯酮" OR "瑞巴派特" OR "聚普瑞锌" OR "瑞莱生" OR "吉法酯" OR "惠加强" OR "谷氨酰胺" OR "依卡倍特" OR "普利莫" OR "盖爽") and 主题:(随机 OR 盲法 OR 双盲 OR 单盲 OR 三盲 OR 交叉 OR RCT) 355

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("胃粘膜保护剂" OR "胃黏膜保护剂" OR "胃黏膜保护药" OR "胃黏膜保护" OR "黏膜保护剂" OR "铝碳酸镁" OR "达喜" OR "硫糖铝" OR "氢氧化铝" OR "替普瑞酮" OR "戊四烯酮" OR "瑞巴派特" OR "聚普瑞锌" OR "瑞莱生" OR "吉法酯" OR "惠加强" OR "谷氨酰胺" OR "依卡倍特" OR "普利莫" OR "盖爽") and 主题:(META OR "荟萃" OR "系统综述" OR "系统评价" OR "评价综述") 6

**3. CBM Search Strategy**

1. (("幽门螺杆菌"[不加权:扩展] OR "幽门螺杆菌"[常用字段:智能] OR "幽门螺旋杆菌"[常用字段:智能] OR "幽门螺旋菌"[常用字段:智能]) AND "感染"[常用字段:智能]) OR ( "hp感染"[常用字段:智能] OR "HP阳性"[常用字段:智能] OR "螺旋菌阳性"[常用字段:智能] OR "螺杆菌阳性"[常用字段:智能] OR "螺旋菌感染"[常用字段:智能] OR "螺杆菌感染"[常用字段:智能])
2. ( "胃粘膜保护剂"[常用字段:智能] OR "胃黏膜保护剂"[常用字段:智能] OR "胃黏膜保护药"[常用字段:智能] OR "胃黏膜保护"[常用字段:智能] OR "黏膜保护剂"[常用字段:智能] OR "铝碳酸镁"[常用字段:智能] OR "达喜"[常用字段:智能] OR "硫糖铝"[常用字段:智能] OR "氢氧化铝"[常用字段:智能] OR "替普瑞酮"[常用字段:智能] OR "戊四烯酮"[常用字段:智能] OR "瑞巴派特"[常用字段:智能] OR "聚普瑞锌"[常用字段:智能] OR "瑞莱生"[常用字段:智能] OR "吉法酯"[常用字段:智能] OR "吉法酯片"[常用字段:智能] OR "惠加强"[常用字段:智能] OR "谷氨酰胺"[常用字段:智能] OR "依卡倍特"[常用字段:智能] OR "依卡倍特钠"[常用字段:智能] OR "普利莫"[常用字段:智能] OR "盖爽"[常用字段:智能])
3. #1 AND #2 498
4. ("随机对照试验"[不加权:扩展] OR "随机对照试验(主题)"[不加权:扩展] OR "非随机对照试验(主题)"[不加权:扩展] OR "随机"[常用字段:智能] OR "盲法"[常用字段:智能] OR "双盲"[常用字段:智能] OR "单盲"[常用字段:智能] OR "三盲"[常用字段:智能] OR "交叉"[常用字段:智能] OR "RCT"[常用字段:智能])
5. ("Meta分析"[不加权:扩展] OR "Meta分析(主题)"[不加权:扩展] OR "META"[常用字段:智能] OR "荟萃"[常用字段:智能] OR "系统综述"[常用字段:智能] OR "系统评价"[常用字段:智能] OR "评价综述"[常用字段:智能])
6. #3 AND #4 288
7. #3 AND #5 3

**4. VIP Search Strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=胃粘膜保护剂+胃黏膜保护剂+胃黏膜保护药+胃黏膜保护+黏膜保护剂+铝碳酸镁+达喜+硫糖铝+氢氧化铝+替普瑞酮+戊四烯酮+瑞巴派特+聚普瑞锌+瑞莱生+吉法酯+吉法酯片+惠加强+谷氨酰胺+依卡倍特+依卡倍特钠+普利莫+盖爽 OR R=胃粘膜保护剂+胃黏膜保护剂+胃黏膜保护药+胃黏膜保护+黏膜保护剂+铝碳酸镁+达喜+硫糖铝+氢氧化铝+替普瑞酮+戊四烯酮+瑞巴派特+聚普瑞锌+瑞莱生+吉法酯+吉法酯片+惠加强+谷氨酰胺+依卡倍特+依卡倍特钠+普利莫+盖爽) AND (M=META+荟萃+系统综述+系统评价+评价综述 OR R=META+荟萃+系统综述+系统评价+评价综述) 4

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=胃粘膜保护剂+胃黏膜保护剂+胃黏膜保护药+胃黏膜保护+黏膜保护剂+铝碳酸镁+达喜+硫糖铝+氢氧化铝+替普瑞酮+戊四烯酮+瑞巴派特+聚普瑞锌+瑞莱生+吉法酯+吉法酯片+惠加强+谷氨酰胺+依卡倍特+依卡倍特钠+普利莫+盖爽 OR R=胃粘膜保护剂+胃黏膜保护剂+胃黏膜保护药+胃黏膜保护+黏膜保护剂+铝碳酸镁+达喜+硫糖铝+氢氧化铝+替普瑞酮+戊四烯酮+瑞巴派特+聚普瑞锌+瑞莱生+吉法酯+吉法酯片+惠加强+谷氨酰胺+依卡倍特+依卡倍特钠+普利莫+盖爽) AND (M=随机+盲法+双盲+单盲+三盲+交叉+RCT OR R=随机+盲法+双盲+单盲+三盲+交叉+RCT) 285

**5. PubMed Search Strategy**

1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 64663
2. (Gastricmucos\*[tiab] AND protect\*[tiab]) OR "hydrotalcite" [Supplementary Concept] OR hydrotalcite[tw] OR Altacite[tw] OR manasseite[tw] OR Talcid[tw] OR "Gastro-Hek"[tw] OR "Sucralfate"[Mesh] OR Sucralfate[tw] OR Carafate[tw] OR "Aluminum Hydroxide"[Mesh] OR "Aluminum Hydroxide"[tw] OR Alugel[tw] OR Algeldrate[tw] OR Dialume[tw] OR Alhydrogel[tw] OR Amphojel[tw] OR "geranylgeranylacetone" [Supplementary Concept] OR geranylgeranylacetone[tw] OR teprenon\*[tw] OR tetraprenylacetone[tw] OR "tetraprenyl acetone"[tw] OR "rebamipide" [Supplementary Concept] OR rebamipide[tw] OR "OPC 12759"[tw] OR Polaprezine[tw] OR "Gefarnate"[Mesh] OR Gefarnate[tw] OR Gefarnil[tw] OR "Geranyl Farnesylacetate"[tw] OR "Glutamine"[Mesh] OR Glutamine[tw] OR "ecabet" [Supplementary Concept] OR ecabet[tw] OR "TA-2711"[tw]
3. #1 AND #2 454
4. "Meta-Analysis"[pt] OR "Meta-Analysis as Topic"[Mesh] OR "Systematic Review" [pt] OR "Systematic Reviews as Topic"[Mesh] OR "Systematic Review\*"[tiab] OR "Meta-Analysis"[tiab]
5. ("controlled clinical trial"[pt] OR "Controlled Clinical Trials as Topic"[MeSH] OR "Random Allocation"[MeSH] OR "Double-Blind Method"[MeSH] OR "single-blind method"[MeSH] OR "Control Groups"[MeSH] OR "cross-over studies"[MeSH] OR random\*[tiab] OR placebo[tiab] OR trial[tiab] OR groups[tiab] OR crossover[tiab] OR cross-over[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[Mesh] AND "Animals"[Mesh]))
6. #3 and #4 13
7. #3 and #5 134

**6. EMBASE Search Strategy**

1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 92693
2. 'hydrotalcite'/exp OR 'sucralfate'/exp OR 'aluminum hydroxide'/exp OR 'teprenone'/exp OR 'rebamipide'/exp OR 'gefarnate'/exp OR 'glutamine'/exp OR 'ecabet'/exp OR (Gastricmucos\* NEAR/3 protect\* OR hydrotalcite OR Altacite OR manasseite OR Talcid OR "Gastro-Hek" OR Sucralfate OR Carafate OR "Aluminum Hydroxide" OR Alugel OR Algeldrate OR Dialume OR Alhydrogel OR Amphojel OR geranylgeranylacetone OR teprenon\* OR tetraprenylacetone OR "tetraprenyl acetone" OR rebamipide OR "OPC 12759" OR Polaprezine OR Gefarnate OR Gefarnil OR "Geranyl Farnesylacetate" OR Glutamine OR ecabet OR "TA-2711"):ab,ti,kw 84950
3. #1 AND #2 1333
4. 'meta analysis'/exp OR 'meta analysis (topic)'/exp OR 'systematic review'/exp OR 'systematic review (topic)'/exp OR (Systemat\* NEAR/3 Review\* OR 'Meta Analysis\*'):ab,ti,kw
5. (('controlled clinical trial'/exp OR 'Controlled Clinical Trial (Topic)'/exp OR 'double blind procedure'/de OR 'control group'/de OR 'crossover procedure'/de OR 'single blind procedure'/de OR 'triple blind procedure'/de OR 'placebo'/de OR 'randomization'/exp) OR (random\* OR trial OR groups OR placebo\* OR crossover OR "cross-over"):ab,ti,kw) AND 'human'/exp
6. #3 AND #4 82
7. #3 AND #5 325

**7. WoS Search Strategy**

1. TS=(Helicobacter OR Campylobacter) 90400
2. TS=(Gastricmucos\* NEAR/3 protect\* OR hydrotalcite OR Altacite OR manasseite OR Talcid OR "Gastro-Hek" OR Sucralfate OR Carafate OR "Aluminum Hydroxide" OR Alugel OR Algeldrate OR Dialume OR Alhydrogel OR Amphojel OR geranylgeranylacetone OR teprenon\* OR tetraprenylacetone OR "tetraprenyl acetone" OR rebamipide OR "OPC 12759" OR Polaprezine OR Gefarnate OR Gefarnil OR "Geranyl Farnesylacetate" OR Glutamine OR ecabet OR "TA-2711")
3. #1 AND #2 625
4. TS=("Meta-Analysis" OR "Meta Analysis" OR "Systematic Review" OR "Systematic Review\*" OR "Meta-Analysis" OR "Meta-Analy\*" OR "Metaanalysis" OR "Metaanaly\*" OR ("systematic\*" NEAR/4 "Review\*"))
5. TS=("controlled trial" OR "Clinical Trial" OR (Random\* NEAR/5 Trial) OR "Random Allocation" OR Randomization OR "Double Blind" OR "single blind" OR "Control Group" OR "Control Groups" OR "cross over" OR placebo\* OR crossover OR random\* OR trial OR groups) OR TI=("RCT" OR "groups" OR "group")
6. #3 and #4 36
7. #3 and #5 240

**8. Cochrane Library Search Strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 1995

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1982

#3 (Helicobacter OR Campylobacter) 5798

#4 #1 OR #2 OR #3 5798

#5 MeSH descriptor: [Sucralfate] explode all trees 396

#6 MeSH descriptor: [Aluminum Hydroxide] explode all trees 586

#7 MeSH descriptor: [Gefarnate] explode all trees 12

#8 MeSH descriptor: [Glutamine] explode all trees 659

#9 (Gastricmucos\* NEAR/3 protect\*):ti,ab,kw 0

#10 (hydrotalcite OR Altacite OR manasseite OR Talcid OR "Gastro-Hek" OR Sucralfate OR Carafate OR "Aluminum Hydroxide" OR Alugel OR Algeldrate OR Dialume OR Alhydrogel OR Amphojel OR geranylgeranylacetone OR teprenon\* OR tetraprenylacetone OR "tetraprenyl acetone" OR rebamipide OR "OPC 12759" OR Polaprezine OR Gefarnate OR Gefarnil OR "Geranyl Farnesylacetate" OR Glutamine OR ecabet):ti,ab,kw 4350

#11 #5 OR #6 OR #7 OR #8 OR #9 OR #10 4412

#12 #4 and #11 150

# **Search strategy for stakeholder values and preferences**

**Supplementary Table 9: Summary of stakeholder values and preferences search results.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RCT** | **CNKI** | **WanFang** | **CBM** | **VIP** | **PubMed** | **Embase** | **WoS** | **Cochrane** |
| Initial results | 523 | 418 | 331 | 300 | 754 | 1219 | 1087 | 174 |
| After duplicate removal | 523 | 83 | 66 | 10 | 753 | 558 | 414 | 48 |
| Total | 2455 |

Search date: 28-07-2021

**1. CNKI search strategy**

(SU%=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR TKA=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (SU%=价值观+偏好+资源需求+成本+公平性+伦理+可接受性+可行性+接受度+患者意愿+价值取向+优先权+决策倾向+患者倾向+患者意向+政策倾向+倾向性+接受程度+接受意愿+资金压力+疾病负担+用药负担+成本效益+成本效用+经济学+医保+保险+马尔柯夫模型+马可夫模型+马尔科夫模型+时间费用模型+标准博弈+传统观念+宗教+伦理 OR TKA % (价值观+偏好+资源需求+成本+公平性+伦理+可接受性+可行性+接受度+患者意愿+价值取向+优先权+决策倾向+患者倾向+患者意向+政策倾向+倾向性+接受程度+接受意愿+资金压力+疾病负担+用药负担+成本效益+成本效用+经济学+医保+保险+马尔柯夫模型+马可夫模型+马尔科夫模型+时间费用模型+标准博弈+传统观念+宗教+伦理)) 523

**2. WanFang search strategy**

主题:((("幽门螺杆菌" OR "幽门螺旋杆菌" OR "幽门螺旋菌") AND "感染") OR "hp感染" OR "HP阳性" OR "螺旋菌阳性" OR "螺杆菌阳性" OR "螺旋菌感染" OR "螺杆菌感染") and 主题:("价值观" OR "偏好" OR "资源需求" OR "成本" OR "公平性" OR "伦理" OR "可接受性" OR "可行性" OR "接受度" OR "患者意愿" OR "价值取向" OR "优先权" OR "决策倾向" OR "患者倾向" OR "患者意向" OR "政策倾向" OR "倾向性" OR "接受程度" OR "接受意愿" OR "资金压力" OR "疾病负担" OR "用药负担" OR "成本效益" OR "成本效用" OR "经济学" OR "医保" OR "保险" OR "马尔柯夫模型" OR "马可夫模型" OR "马尔科夫模型" OR "时间费用模型" OR "标准博弈" OR "传统观念" OR "宗教" OR "伦理") 418

**3. CBM search strategy**

1. (("幽门螺杆菌"[不加权:扩展] OR "幽门螺杆菌"[常用字段:智能] OR "幽门螺旋杆菌"[常用字段:智能] OR "幽门螺旋菌"[常用字段:智能]) AND "感染"[常用字段:智能]) OR ( "hp感染"[常用字段:智能] OR "HP阳性"[常用字段:智能] OR "螺旋菌阳性"[常用字段:智能] OR "螺杆菌阳性"[常用字段:智能] OR "螺旋菌感染"[常用字段:智能] OR "螺杆菌感染"[常用字段:智能])
2. ( "价值观"[常用字段:智能] OR "偏好"[常用字段:智能] OR "资源需求"[常用字段:智能] OR "成本"[常用字段:智能] OR "公平性"[常用字段:智能] OR "伦理"[常用字段:智能] OR "可接受性"[常用字段:智能] OR "可行性"[常用字段:智能] OR "接受度"[常用字段:智能] OR "患者意愿"[常用字段:智能] OR "价值取向"[常用字段:智能] OR "优先权"[常用字段:智能] OR "决策倾向"[常用字段:智能] OR "患者倾向"[常用字段:智能] OR "患者意向"[常用字段:智能] OR "政策倾向"[常用字段:智能] OR "倾向性"[常用字段:智能] OR "接受程度"[常用字段:智能] OR "接受意愿"[常用字段:智能] OR "资金压力"[常用字段:智能] OR "疾病负担"[常用字段:智能] OR "用药负担"[常用字段:智能] OR "成本效益"[常用字段:智能] OR "成本效用"[常用字段:智能] OR "经济学"[常用字段:智能] OR "医保"[常用字段:智能] OR "保险"[常用字段:智能] OR "马尔柯夫模型"[常用字段:智能] OR "马可夫模型"[常用字段:智能] OR "马尔科夫模型"[常用字段:智能] OR "时间费用模型"[常用字段:智能] OR "标准博弈"[常用字段:智能] OR "传统观念"[常用字段:智能] OR "宗教"[常用字段:智能] OR "伦理"[常用字段:智能])
3. #1 and #2 331

**4. VIP search strategy**

(M=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染 OR R=(幽门螺杆菌+幽门螺旋杆菌+幽门螺旋菌)\*感染+hp感染+HP阳性+螺旋菌阳性+螺杆菌阳性+螺旋菌感染+螺杆菌感染) AND (M=价值观+偏好+资源需求+成本+公平性+伦理+可接受性+可行性+接受度+患者意愿+价值取向+优先权+决策倾向+患者倾向+患者意向+政策倾向+倾向性+接受程度+接受意愿+资金压力+疾病负担+用药负担+成本效益+成本效用+经济学+医保+保险+马尔柯夫模型+马可夫模型+马尔科夫模型+时间费用模型+标准博弈+传统观念+宗教+伦理 OR R=价值观+偏好+资源需求+成本+公平性+伦理+可接受性+可行性+接受度+患者意愿+价值取向+优先权+决策倾向+患者倾向+患者意向+政策倾向+倾向性+接受程度+接受意愿+资金压力+疾病负担+用药负担+成本效益+成本效用+经济学+医保+保险+马尔柯夫模型+马可夫模型+马尔科夫模型+时间费用模型+标准博弈+传统观念+宗教+伦理) 300

**5. PubMed search strategy**

1. "Helicobacter Infections"[Mesh] OR "Helicobacter pylori"[Mesh] OR Helicobacter[tiab] OR Campylobacter[tiab] 65136
2. "Socioeconomic Factors"[Mesh] OR "Costs and Cost analysis"[Mesh] OR "Health Equity"[Mesh] OR "Ethics"[Mesh] OR "Morals"[Mesh] OR "Bioethics"[Mesh] OR "Choice Behavior"[Mesh] OR "Decision Making"[Mesh] OR "Attitude to Health"[Mesh] OR "Feasibility Studies"[Mesh] OR "Economics"[Mesh] OR Values[ti] OR value[ti] OR view[ti] OR views[ti] OR "value add\*"[tiab] OR preference\*[tiab] OR "resource requirement\*"[tiab] OR costs[tiab] OR cost[tiab] OR health equit\*[tiab] OR ethic\*[tiab] OR bioethic\*[tiab] OR accept\*[tiab] OR feasib\*[tiab] OR understanding\*[tiab] OR perception\*[tiab] OR preference\*[tiab] OR expectation\*[tiab] OR informed choice\*[tiab] OR attitude\*[tiab] OR informed decision\*[tiab] OR screening decision\*[tiab] OR attitude\*[tiab] OR opinion\*[tiab] OR belief\*[tiab] OR "adhere to"[tiab] OR adherence[tiab] OR barrier\*[tiab] OR challeng\*[tiab] OR complianc\*[tiab] OR facilitat\*[tiab] OR comply\*[tiab] OR Markov model[tiab] OR "time trade-off"[tiab] OR "standard gamble"[tiab] OR economic\*[tiab]
3. #1 and #2 10764
4. "China"[Mesh] OR China OR Chinese OR Taiwan OR "Hong kong" OR Hongkong OR Macau OR Macao OR Beijing OR Shanghai OR Tianjin OR Chongqing OR "Inner Mongolia" OR Tibet OR Guangxi OR Sinkiang OR Ningxia OR Xinjiang OR Hebei OR Shanxi OR Liaoning OR Jilin OR Heilongjiang OR Jiangsu OR Zhejiang OR Anhui OR Fujian OR Jiangxi OR Shandong OR Henan OR Hubei OR Hunan OR Guangdong OR Hainan OR Sichuan OR Guizhou OR Yunnan OR Shaanxi OR Gansu OR Qinghai
5. #3 and #4 1076

**6. EMBASE search strategy**

1. 'Helicobacter infection'/exp OR 'Helicobacter pylori'/exp OR Helicobacter:ab,ti,kw OR Campylobacter:ab,ti,kw 93502
2. 'Economics'/exp OR 'socioeconomics'/exp OR 'cost'/exp OR 'health equity'/exp OR 'ethics'/exp OR 'morality'/exp OR 'Bioethics'/exp OR 'decision making'/exp OR 'attitude to health'/exp OR 'feasibility study'/exp OR (values OR value OR view OR views):ti OR (value NEAR/3 add\* OR preference\* OR "resource requirement\*" OR costs OR cost OR health NEAR/2 equit\* OR ethic\* OR bioethic\* OR accept\* OR feasib\* OR understanding\* OR perception\* OR preference\* OR expectation\* OR informed NEAR/3 choice\* OR attitude\* OR informed NEAR/3 decision\* OR screening NEAR/3 decision\* OR attitude\* OR opinion\* OR belief\* OR "adhere to" OR adherence OR barrier\* OR challeng\* OR complianc\* OR facilitat\* OR comply\* OR Markov NEAR/2 model OR "time trade-off" OR "standard gamble" OR economic\*):ab,ti,kw
3. #1 AND #2 16856
4. 'China'/exp OR (China OR Chinese OR Taiwan OR "Hong kong" OR Hongkong OR Macau OR Macao OR Beijing OR Shanghai OR Tianjin OR Chongqing OR "Inner Mongolia" OR Tibet OR Guangxi OR Sinkiang OR Ningxia OR Xinjiang OR Hebei OR Shanxi OR Liaoning OR Jilin OR Heilongjiang OR Jiangsu OR Zhejiang OR Anhui OR Fujian OR Jiangxi OR Shandong OR Henan OR Hubei OR Hunan OR Guangdong OR Hainan OR Sichuan OR Guizhou OR Yunnan OR Shaanxi OR Gansu OR Qinghai):ti,ab,ad,ff
5. #3 and #4 1688

**7. WoS search strategy**

1. TS=(Helicobacter OR Campylobacter) 91176
2. TI=(values OR value OR view OR views) OR TS=(value NEAR/3 add\* OR preference\* OR "resource requirement\*" OR costs OR cost OR health NEAR/2 equit\* OR ethic\* OR bioethic\* OR accept\* OR feasib\* OR understanding\* OR perception\* OR preference\* OR expectation\* OR informed NEAR/3 choice\* OR attitude\* OR informed NEAR/3 decision\* OR screening NEAR/3 decision\* OR attitude\* OR opinion\* OR belief\* OR "adhere to" OR adherence OR barrier\* OR challeng\* OR complianc\* OR facilitat\* OR comply\* OR Markov NEAR/2 model OR "time trade-off" OR "standard gamble" OR economic\*)
3. #1 AND #2 13561
4. CU=(China) OR TS=(China OR Chinese OR Taiwan OR "Hong kong" OR Hongkong OR Macau OR Macao OR Beijing OR Shanghai OR Tianjin OR Chongqing OR "Inner Mongolia" OR Tibet OR Guangxi OR Sinkiang OR Ningxia OR Xinjiang OR Hebei OR Shanxi OR Liaoning OR Jilin OR Heilongjiang OR Jiangsu OR Zhejiang OR Anhui OR Fujian OR Jiangxi OR Shandong OR Henan OR Hubei OR Hunan OR Guangdong OR Hainan OR Sichuan OR Guizhou OR Yunnan OR Shaanxi OR Gansu OR Qinghai) OR AD=(China OR Chinese OR Taiwan OR "Hong kong" OR Hongkong OR Macau OR Macao OR Beijing OR Shanghai OR Tianjin OR Chongqing OR "Inner Mongolia" OR Tibet OR Guangxi OR Sinkiang OR Ningxia OR Xinjiang OR Hebei OR Shanxi OR Liaoning OR Jilin OR Heilongjiang OR Jiangsu OR Zhejiang OR Anhui OR Fujian OR Jiangxi OR Shandong OR Henan OR Hubei OR Hunan OR Guangdong OR Hainan OR Sichuan OR Guizhou OR Yunnan OR Shaanxi OR Gansu OR Qinghai)
5. #3 AND #4 1462

**8. Cochrane Library search strategy**

#1 MeSH descriptor: [Helicobacter Infections] explode all trees 2002

#2 MeSH descriptor: [Helicobacter pylori] explode all trees 1989

#3 (Helicobacter OR Campylobacter):ti,ab,kw 5727

#4 #1 OR #2 OR #3 5727

#5 MeSH descriptor: [Socioeconomic Factors] explode all trees 10073

#6 MeSH descriptor: [Costs and Cost Analysis] explode all trees 10868

#7 MeSH descriptor: [Health Equity] explode all trees 4

#8 MeSH descriptor: [Ethics] explode all trees 622

#9 MeSH descriptor: [] explode all trees and with qualifier(s): [ethics - ES] 239

#10 MeSH descriptor: [Morale] explode all trees 29

#11 MeSH descriptor: [Bioethics] explode all trees 15

#12 MeSH descriptor: [Choice Behavior] explode all trees 1422

#13 MeSH descriptor: [Decision Making] explode all trees 4056

#14 MeSH descriptor: [Attitude to Health] explode all trees 36340

#15 MeSH descriptor: [Feasibility Studies] explode all trees 6567

#16 MeSH descriptor: [Economics] explode all trees 12922

#17 MeSH descriptor: [] explode all trees and with qualifier(s): [economics - EC] 11773

#18 (values OR value OR view OR views):ti 7692

#19 (value NEAR/3 add\* OR preference\* OR "resource requirement\*" OR costs OR cost OR health NEAR/2 equit\* OR ethic\* OR bioethic\* OR accept\* OR feasib\* OR understanding\* OR perception\* OR preference\* OR expectation\* OR informed NEAR/3 choice\* OR attitude\* OR informed NEAR/3 decision\* OR screening NEAR/3 decision\* OR attitude\* OR opinion\* OR belief\* OR "adhere to" OR adherence OR barrier\* OR challeng\* OR complianc\* OR facilitat\* OR comply\* OR Markov NEAR/2 model OR "time trade-off" OR "standard gamble" OR economic\*):ti,ab,kw 367395

#20 #5 OR #6 OR #7 OR #8 OR #9 OR #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 386798

#21 #4 and #20 1398

#22 (China OR Chinese OR Taiwan OR "Hong kong" OR Hongkong OR Macau OR Macao OR Beijing OR Shanghai OR Tianjin OR Chongqing OR "Inner Mongolia" OR Tibet OR Guangxi OR Sinkiang OR Ningxia OR Xinjiang OR Hebei OR Shanxi OR Liaoning OR Jilin OR Heilongjiang OR Jiangsu OR Zhejiang OR Anhui OR Fujian OR Jiangxi OR Shandong OR Henan OR Hubei OR Hunan OR Guangdong OR Hainan OR Sichuan OR Guizhou OR Yunnan OR Shaanxi OR Gansu OR Qinghai) 108581

#23 #21 and #22 239