Appendix

Appendix table 1-Adverse events

Study ID	Intervention groups	Description	Control groups	Description
Lin RX2016	3(49)	1:Nausea and vomiting 2:Rash	1(49)	1:Vomiting
Wu J2001	2(80)	2:Nausea	32(80)	25:Nausea 5:Loss of appetite 2:Rash
Qin HL2010	0(60)	0	8(46)	2:Vomiting 6:Rash
Geng Y2012	1(49)	1:Vomiting	0(49)	0

Appendix Table2 Summary of secondary outcomes of randomized controlled trials on berberine for diarrhea

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	[intervention]	[comparison]	Relative (95% CI)	Absolute (95% CI)		
Berberine vs no berberine-Stool bacterial culture												
2	randomised trials	serious [a]	serious [b]	not serious	serious [c]	not suspected	50/67 (74.6%)	43/65 (66.2%)	**RR 1.15** (0.70 to 1.88)	**99 more per 1,000** (from 198 fewer to 582 more)	⨁◯◯◯ VERY LOW	NOT IMPORTANT
Berberine vs no-Duration of hospitalization												
2	randomised trials	serious [a]	serious [b]	not serious	serious [c]	not suspected	109	109	-	MD **2.35 lower** (4.82 lower to 0.12 higher)	⨁◯◯◯ VERY LOW	NOT IMPORTANT
Berberine vs no berberine -Isoenzyme-CK												
2	randomised trials	serious [a]	not serious	not serious	serious [c]	not suspected	74	74	-	MD **51.59 lower** (57.84 lower to 45.34 lower)	⨁⨁◯◯ LOW	NOT IMPORTANT
Berberine vs no berberine-Isoenzyme-CK-MB												
3	randomised trials	serious [a]	very serious [b]	not serious	serious [c]	not suspected	109	109	-	MD **7.04 lower** (9.1 lower to 4.97 lower)	⨁◯◯◯ VERY LOW	NOT IMPORTANT
Berberine vs no berberine-Inflammatory factors-TNF-α												
4	randomised trials	serious [a]	serious [b]	not serious	serious [c]	not suspected	147	147	-	MD **0.81 lower** (0.88 lower to 0.74 lower)	⨁◯◯◯ VERY LOW	NOT IMPORTANT
Berberine vs no berberine-Inflammatory factors-IL-6												

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	[intervention]	[comparison]	Relative (95% CI)	Absolute (95% CI)		
3	randomised trials	serious [a]	serious [b]	not serious	serious [c]	not suspected	112	112	-	MD **32.69 lower** (36.42 lower to 28.96 lower)	⨁◯◯◯ VERY LOW	NOT IMPORTANT

Berberine vs no berberine-Inflammatory factors-IL-10

3	randomised trials	serious [a]	serious [b]	not serious	serious [c]	not suspected	112	112	-	MD **3.47 lower** (4.39 lower to 2.54 lower)	⨁◯◯◯ VERY LOW	NOT IMPORTANT

Berberine vs no berberine-Myocardial enzyme-ALT

3	randomised trials	serious [a]	not serious	not serious	serious [c]	not suspected	109	109	-	MD **13.43 lower** (15.49 lower to 11.37 lower)	⨁⨁◯◯ LOW	NOT IMPORTANT

Berberine vs no berberine-Myocardial enzyme-AST

2	randomised trials	serious [a]	not serious	not serious	serious [c]	not suspected	80	80	-	MD **14.71 lower** (16 lower to 13.42 lower)	⨁⨁◯◯ LOW	NOT IMPORTANT

CI: Confidence interval; **RR:** Risk ratio; **MD:** Mean difference

Explanations

a. All the trials had a high risk of performance bias not blinding the participants. Methodological quality of these trials was graded as “high risk of bias” due to the design of comparison is difficult to blind personnel and participants.

b. There is significant statistical heterogeneity indicating by a large I2 value.

c. For dichotomous outcomes, the total number of events is less than 300; for continuous outcomes, the total population size is less than 400; or pooled results included no effects.

Appendix table 3-Inclusion criteria in different studies

Study ID	Inclusion criteria
Berberine VS No berberine	
Lin RX2016[29]	(1)Stool frequency> 3 times / d, and accompanied by changes in fecal characteristics; (2)The patient's stool traits changed, showing loose stools, watery stools, sticky pus stools or pus bloody stool;(3)The patient is accompanied by frequent vomiting, fever or thirst, etc;(4)Red blood cells and phagocytes can be seen in stool routine;(5)According to the duration of diarrhea, diarrhea is divided into acute and persistent types;(6)Age ⩾18 years old;(7)The patient signed an informed consent form.
Ye J2013[34]	(1)The course of chronic diarrhea> 2 months;(2)Stool frequency> 3 times / d, and accompanied by changes in fecal characteristics;(3)Patients can cooperate with treatment and follow-up.
Hu YX2009[40]	(1)The course of chronic diarrhea> 2 months;(2)Stool frequency 4-10 times / d, and accompanied by changes in fecal characteristics;(3)Patients can cooperate with treatment and follow-up.
Zhang HF2015[43]	(1) The patient is between 18-65 years old;(2)Stool frequency> 3 times / d, and accompanied by changes in fecal characteristics; (3)The patient's stool traits changed, showing loose stools, watery stools, sticky pus stools or pus bloody stool;(4)The patient is accompanied by frequent vomiting, fever or thirst, etc;(5)Red blood cells and phagocytes can be seen in stool routine;(6)According to the duration of diarrhea, diarrhea is divided into acute and persistent types; (7)Onset did not exceed 48 hours; (8)The patient signed an informed consent form;(9)The patient also has at least two of the main symptoms of abdominal pain, fever, diarrhea, and changes in stool characteristics
Dang GL2011[44]	(1)The patient is between 2-12 years old;(2)The course of disease was within 72 hours; (3)The frequency of diarrhea ⩾5 times / 24 h; (4)Loose stools, mucous pus and bloody stools, and / or abdominal pain, tenesmus;(4)The fecal leukocytes in stool routine⩾15 / p / HP; (5)Red blood cells and phagocytes can be seen in stool routine;(6)The patients did not receive antibiotics before enrollment.
Wu J2001[45]	(1)Stool frequency> 3 times / d, and accompanied by changes in fecal characteristics; (2)The patient's stool traits changed, showing loose stools, watery stools, sticky pus stools or pus bloody stool;(3)The patient is accompanied by frequent vomiting, fever or thirst, etc;(4)Red blood cells and phagocytes can be seen in stool routine;(5)According to the duration of diarrhea, diarrhea is divided into acute and persistent types;(6)Age 16~58 years old;(7)Gender is not limited; (8)The acute course is less than 5d, the chronic course is 2mo~1a;(9)Chronic patients did not receive drug treatment 2mo before the trial;(10)The patient signed an informed consent form.
Khin-Maung-U M K1985[10]	(1)Patients had a history of watery diarrhea within 48 hours before enrollment;(2)The patient has no history of antibiotic intake, coexisting diseases such as pneumonia, systemic diseases such as diabetes or hypertension, or diarrhea within the past two weeks were taken into the study.
Berberine + Montmorillonite VS No Berberine + Montmorillonite	
Huang HH2011[49]	(1)The children's stool traits changed, showing loose stools, watery stools, sticky pus stools or pus bloody stool;(2)The course of disease ⩾14d;(3)The frequency of stool increased;(4)Age from 3 month to four years;(5)Children's parents with informed consent.
Gan YL2009[52]	(1)The children's stool traits changed, showing loose stools, watery stools, sticky pus stools or pus bloody stool;(2)The course of disease ⩾14d;(3)The frequency of stool increased.
Guo XH2009[53]	(1)The children's stool traits changed, showing loose stools, watery stools, sticky pus stools or pus bloody stool;(2)The course of disease ⩾14d;(3)The frequency of stool increased.

Wang HQ2009[54]	(1)The stool frequency is 5 ～ 16 times / d;(2)The stool is yellow water-like, no mucus and pus blood, no smell, and some milk;(3)In the microscopic examination of stool routine, there were no or 1 to 2 white blood cells / HP, and no or + ~ + + fat globules;(4)Most patients are accompanied by fever, bloating, vomiting, mild or moderate dehydration;(5) The course of disease ≤ 2 weeks.
Berberine + Bifidobacterium subtilisVS No Berberine + bifidobacterium subtilis	
Geng Y2012[59]	(1)The patient's stool traits changed, showing loose stools, watery stools, sticky pus stools or pus bloody stool; (2)The frequency of stool increase;(3)The course of disease ≤14 days.
Berberine + Montmorillonite + Vitamin B VS No Berberine + Montmorillonite + Vitamin B	
Lu M2008[60]	(1)The course of disease ≤7 days;(2)The frequency of stools ≥ 4 times / day.
Yi Q2008[61]	(1)The frequency of stool increased;(2)The patient cannot eat normally;(3)The patient is accompanied by frequent vomiting, fever, obvious thirst, and bloody stools.

NR: Not reported

Appendix the modification of the Cochrane Risk of Bias tool

Was generation randomization of sequence adequate	1=low risk of bias (mention of "randomized" e.g. random number table, computer random number generator, coins, dice, drawing lots, minimizing) 2=probably low risk of bias (mention of "randomized" but not detailed protocol) 3=probably high risk of bias (mention of "randomized" , generate random sequence by an open random allocation schedule) 4=high risk of bias (mention of "randomized", randomization protocol is determined by the clinician, etc.)

Was allocation concealed?	"1=low risk of bias (e.g. central allocation (including telephone, web-based, and pharmacy-controlled randomization) 2=probably low risk of bias (e.g. sequentially numbered drug cntainers of identical appearance; opaque, sealed envelopes;) 3=probably high risk of bias （mention of "randomized" but not detailed protocol; not mention of "randomized"） 4=high risk of bias, Quasi-RCT, Using an open random allocation schedule: (e.g. Date of birth; Case record number; Any other explicitly unconcealed procedure))

For the next 5 questions regarding blinding, when high risk of bias explicit statement about blinding status is provided, consider the following assumptions:

Placebo controlled drug trial → probably low risk of bias

Active control drug trial (A vs. B) and mention of “double dummy” or that medications were identical or matched → probably low risk of bias

Active control drug trial (A vs. B) but high risk of bias mention of “double dummy” or that medications were identical or matched → probably high risk of bias

high risk of biasn drug trial→ probably high risk of bias

When high risk of biasne of the above applies, but still high risk of bias explicit statement of patient blinding is provided, consider the following assumptions:

“single blinded” → "probably low risk of bias" for patients; “probably high risk of bias” for healthcare providers, data collectors, outcome assessors, and data analysts.

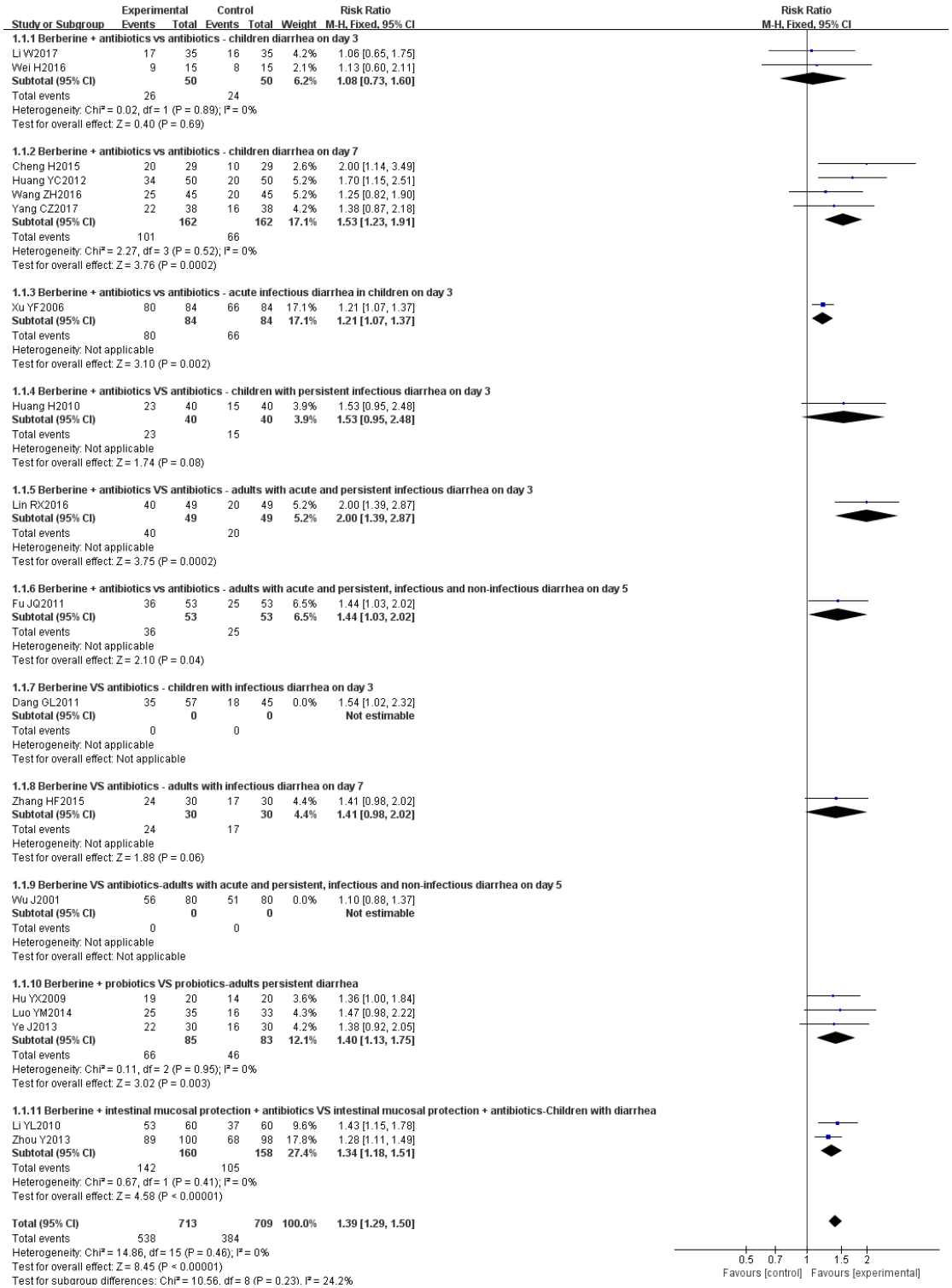
”double blinded” → "probably low risk of bias" for patients, health care providers and "probably

high risk of bias" for the rest. “triple blinded” →"probably low risk of bias" for patients, health care providers and outcome adjudicators, "probably high risk of bias" for the rest.	
Blinding of patients	1=low risk of bias (explicit statement that a group of interest was blinded) 2=probably low risk of bias trial (described as "single blinded" "double blinded" or "triple blinded") 3=probably high risk of bias(not mentioned) 4=Definitely high risk of biast (explicit statement that a group of interest was NOT blinded, explicit description of the trial as "open label" or "unblinded")
Blinding of health care providers	1=low risk of bias (explicit statement that a group of interest was blinded) 2=probably low risk of bias trial (described as "double blinded" or "triple blinded") 3=probably high risk of bias(not mentioned) 4=Definitely high risk of biast (explicit statement that a group of interest was NOT blinded, explicit description of the trial as "open label" or "unblinded")
Blinding of data collectors	1=low risk of bias (explicit statement that a group of interest was blinded) 2=probably low risk of bias 3=probably high risk of bias (trial described as "single blinded" "double blinded" "triple blinded" or not mentioned) 4=Definitely high risk of biast (explicit statement that a group of interest was NOT blinded, explicit description of the trial as "open label" or "unblinded")

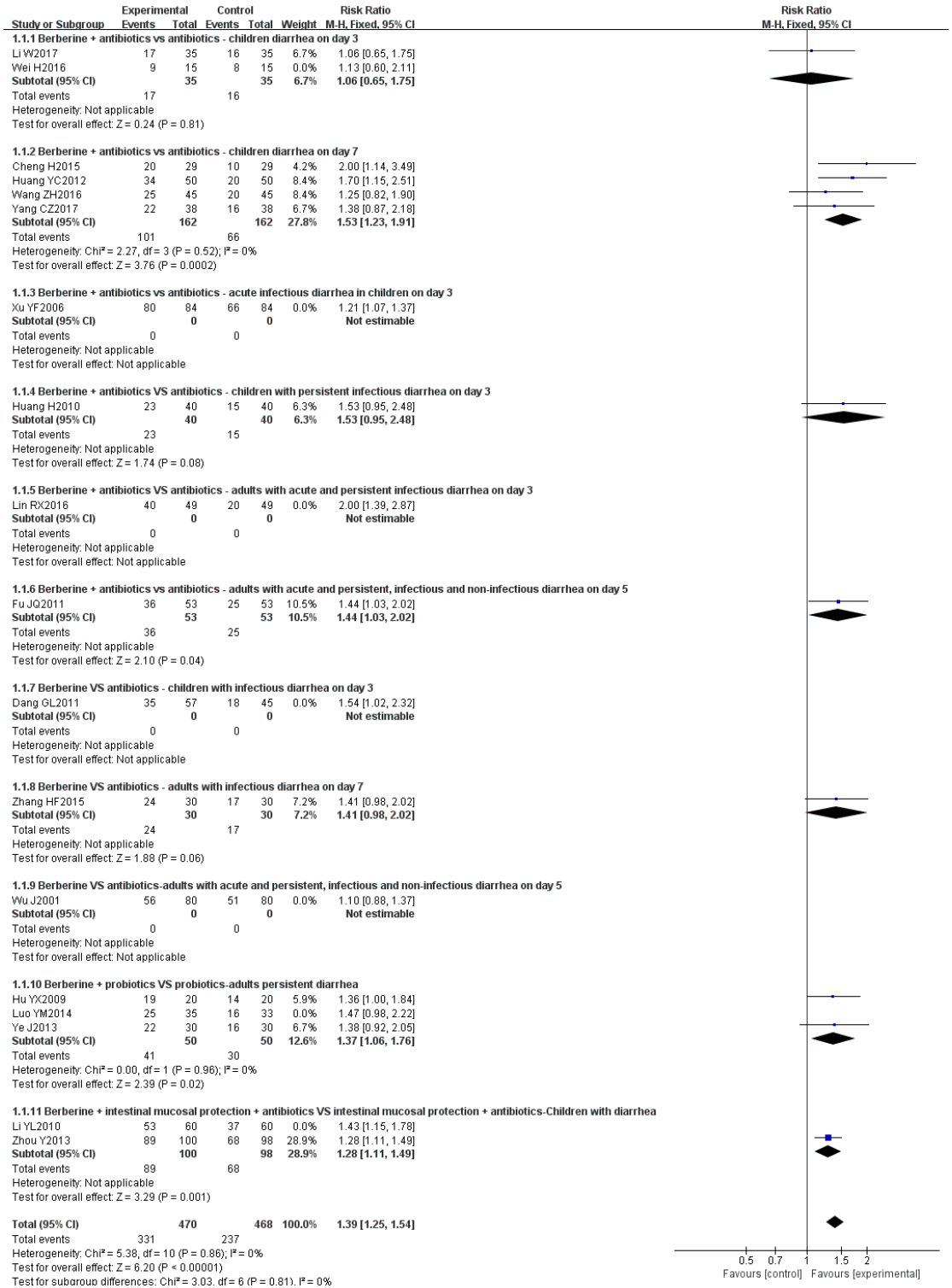
Blinding of adjudicators	1=low risk of bias (explicit statement that a group of interest was blinded) 2=probably low risk of bias ("triple blinded") 3=probably high risk of bias (trial described as "single blinded" "double blinded" or not mentioned) 4=Definitely high risk of biast (explicit statement that a group of interest was NOT blinded, explicit description of the trial as "open label" or "unblinded")
Blinding of data analysts	1=low risk of bias(explicit statement that a group of interest was blinded) 2=probably low risk of bias 3=probably high risk of bias (trial described as "single blinded" "double blinded" "triple blinded" or not mentioned) 4=Definitely high risk of biast (explicit statement that a group of interest was NOT blinded, explicit description of the trial as "open label" or "unblinded")
Lost to follow-up/missing data	0=0% 1= <5% 2= 5-9.9% 3= 10-19.9% 4= 20+% 5=not mentioned Difference between n randomized and n available for analysis.
Selective report	

*Guyatt G, Oxman AD, Akl EA, Kunz R, Vist G, Brozek J, high risk of biasrris S, Falck-Ytter Y, Glasziou P, DeBeer H, Jaeschke R, Rind D, Meerpohl J, Dahm P, Schünemann HJ. GRADE guidelines: 1. Introduction-GRADE evidence profiles and summary of findings tables. J Clin Epidemiol 2011; 64(4):383-94. doi: 10.1016/j.jclinepi.2010.04.026

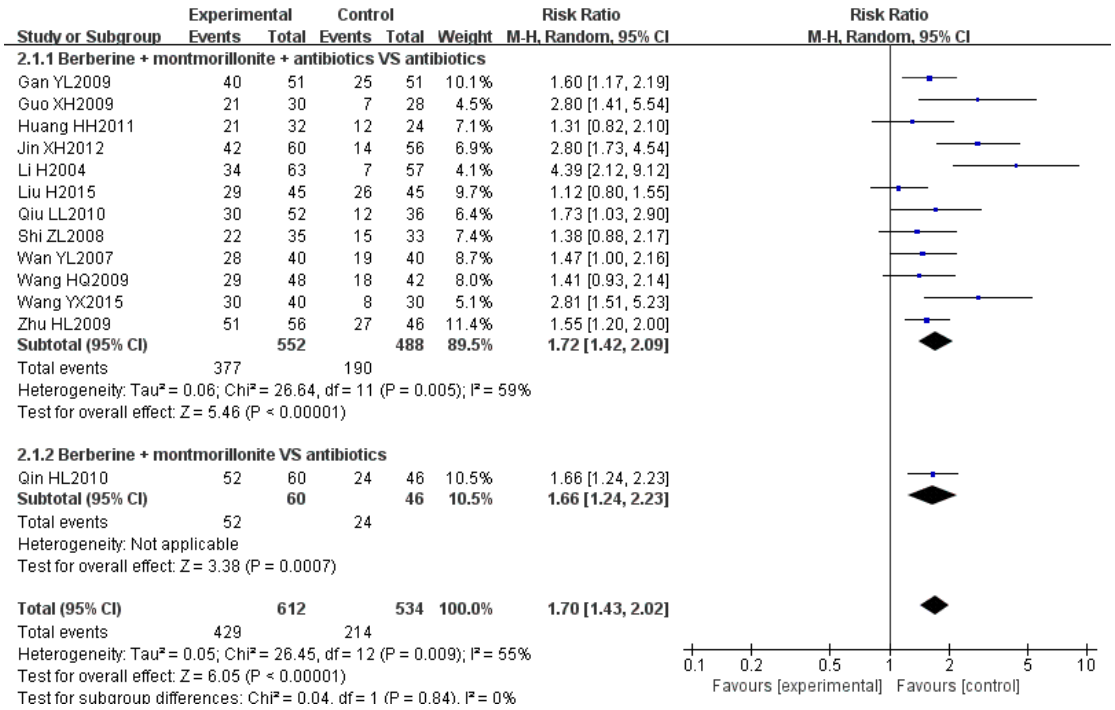
Appendix Other funnel plots


Experimental
Control
Risk Ratio
Risk Ratio
Study or Subgroup Events Total Events Total Weight M-H, Fixed, 95% CI
M-H, Fixed, 95% CI
1.1.1 Berberine + antibiotics vs antibiotics - children diarrhea on day 3
Li W2017 17 35 16 35 4.2% 1.06 [0.65, 1.75]
Wei H2016 9 15 8 15 2.1% 1.13 [0.60, 2.11]
Subtotal (95% CI) 50 50 6.2% 1.08 [0.73, 1.60]
Total events 26 24
Heterogeneity: Chi² = 0.02, df = 1 (P = 0.89); I² = 0%
Test for overall effect: Z = 0.40 (P = 0.69)
1.1.2 Berberine + antibiotics vs antibiotics - children diarrhea on day 7
Cheng H2015 20 29 10 29 2.6% 2.00 [1.14, 3.49]
Huang YC2012 34 50 20 50 5.2% 1.70 [1.15, 2.51]
Wang ZH2016 25 45 20 45 5.2% 1.25 [0.82, 1.90]
Yang CZ2017 22 38 16 38 4.2% 1.38 [0.87, 2.18]
Subtotal (95% CI) 162 162 17.1% 1.53 [1.23, 1.91]
Total events 101 66
Heterogeneity: Chi² = 2.27, df = 3 (P = 0.52); I² = 0%
Test for overall effect: Z = 3.76 (P = 0.0002)
1.1.3 Berberine + antibiotics vs antibiotics - acute infectious diarrhea in children on day 3
Xu YF2006 80 84 66 84 17.1% 1.21 [1.07, 1.37]
Subtotal (95% CI) 84 84 17.1% 1.21 [1.07, 1.37]
Total events 80 66
Heterogeneity: Not applicable
Test for overall effect: Z = 3.10 (P = 0.002)
1.1.4 Berberine + antibiotics VS antibiotics - children with persistent infectious diarrhea on day 3
Huang H2010 23 40 15 40 3.9% 1.53 [0.95, 2.48]
Subtotal (95% CI) 40 40 3.9% 1.53 [0.95, 2.48]
Total events 23 15
Heterogeneity: Not applicable
Test for overall effect: Z = 1.74 (P = 0.08)
1.1.5 Berberine + antibiotics VS antibiotics - adults with acute and persistent infectious diarrhea on day 3
Lin RX2016 40 49 20 49 5.2% 2.00 [1.39, 2.87]
Subtotal (95% CI) 49 49 5.2% 2.00 [1.39, 2.87]
Total events 40 20
Heterogeneity: Not applicable
Test for overall effect: Z = 3.75 (P = 0.0002)
1.1.6 Berberine + antibiotics vs antibiotics - adults with acute and persistent, infectious and non-infectious diarrhea on day 5
Fu JQ2011 36 53 25 53 6.5% 1.44 [1.03, 2.02]
Subtotal (95% CI) 53 53 6.5% 1.44 [1.03, 2.02]
Total events 36 25
Heterogeneity: Not applicable
Test for overall effect: Z = 2.10 (P = 0.04)
1.1.7 Berberine VS antibiotics - children with infectious diarrhea on day 3
Dang GL2011 35 57 18 45 0.0% 1.54 [1.02, 2.32]
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
1.1.8 Berberine VS antibiotics - adults with infectious diarrhea on day 7
Zhang HF2015 24 30 17 30 4.4% 1.41 [0.98, 2.02]
Subtotal (95% CI) 30 30 4.4% 1.41 [0.98, 2.02]
Total events 24 17
Heterogeneity: Not applicable
Test for overall effect: Z = 1.88 (P = 0.06)
1.1.9 Berberine VS antibiotics-adults with acute and persistent, infectious and non-infectious diarrhea on day 5
Wu J2001 56 80 51 80 0.0% 1.10 [0.88, 1.37]
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
1.1.10 Berberine + probiotics VS probiotics-adults persistent diarrhea
Hu YX2009 19 20 14 20 3.6% 1.36 [1.00, 1.84]
Luo YM2014 25 35 16 33 4.3% 1.47 [0.98, 2.22]
Ye J2013 22 30 16 30 4.2% 1.38 [0.92, 2.05]
Subtotal (95% CI) 85 83 12.1% 1.40 [1.13, 1.75]
Total events 66 46
Heterogeneity: Chi² = 0.11, df = 2 (P = 0.95); I² = 0%
Test for overall effect: Z = 3.02 (P = 0.003)
1.1.11 Berberine + intestinal mucosal protection + antibiotics VS intestinal mucosal protection + antibiotics-Children with diarrhea
Li YL2010 53 60 37 60 9.6% 1.43 [1.15, 1.78]
Zhou Y2013 89 100 68 98 17.8% 1.28 [1.11, 1.49]
Subtotal (95% CI) 160 158 27.4% 1.34 [1.18, 1.51]
Total events 142 105
Heterogeneity: Chi² = 0.67, df = 1 (P = 0.41); I² = 0%
Test for overall effect: Z = 4.58 (P < 0.00001)
Total (95% CI) 713 709 100.0% 1.39 [1.29, 1.50]
Total events 538 384
Heterogeneity: Chi² = 14.86, df = 15 (P = 0.46); I² = 0%
Test for overall effect: Z = 8.45 (P < 0.00001)
Test for subgroup differences: Chi² = 10.56, df = 8 (P = 0.23), I² = 24.2%
0.5 0.7 1 1.5 2
Favours [control] Favours [experimental]

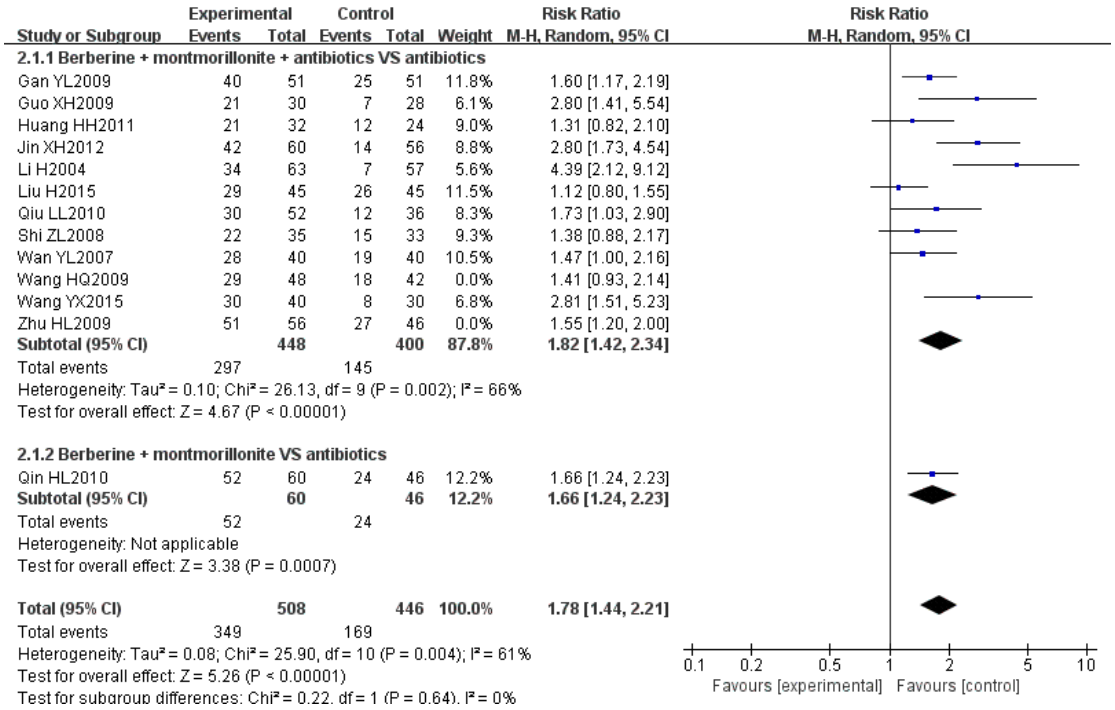
Appendix 1 Berberine vs no Berberine-clinical cure rate-sensitivity analysis(randomization, allocation concealment)


Experimental
Control
Risk Ratio
Risk Ratio
Study or Subgroup Events Total Events Total Weight M-H, Fixed, 95% CI
M-H, Fixed, 95% CI
1.1.1 Berberine + antibiotics vs antibiotics - children diarrhea on day 3
Li W2017 17 35 16 35 6.7% 1.06 [0.65, 1.75]
Wei H2016 9 15 8 15 0.0% 1.13 [0.60, 2.11]
Subtotal (95% CI) 35 35 6.7% 1.06 [0.65, 1.75]
Total events 17 16
Heterogeneity: Not applicable
Test for overall effect: Z = 0.24 (P = 0.81)
1.1.2 Berberine + antibiotics vs antibiotics - children diarrhea on day 7
Cheng H2015 20 29 10 29 4.2% 2.00 [1.14, 3.49]
Huang YC2012 34 50 20 50 8.4% 1.70 [1.15, 2.51]
Wang ZH2016 25 45 20 45 8.4% 1.25 [0.82, 1.90]
Yang CZ2017 22 38 16 38 6.7% 1.38 [0.87, 2.18]
Subtotal (95% CI) 162 162 27.8% 1.53 [1.23, 1.91]
Total events 101 66
Heterogeneity: Chi² = 2.27, df = 3 (P = 0.52); I² = 0%
Test for overall effect: Z = 3.76 (P = 0.0002)
1.1.3 Berberine + antibiotics vs antibiotics - acute infectious diarrhea in children on day 3
Xu YF2006 80 84 66 84 0.0% 1.21 [1.07, 1.37]
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
1.1.4 Berberine + antibiotics VS antibiotics - children with persistent infectious diarrhea on day 3
Huang H2010 23 40 15 40 6.3% 1.53 [0.95, 2.48]
Subtotal (95% CI) 40 40 6.3% 1.53 [0.95, 2.48]
Total events 23 15
Heterogeneity: Not applicable
Test for overall effect: Z = 1.74 (P = 0.08)
1.1.5 Berberine + antibiotics VS antibiotics - adults with acute and persistent infectious diarrhea on day 3
Lin RX2016 40 49 20 49 0.0% 2.00 [1.39, 2.87]
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
1.1.6 Berberine + antibiotics vs antibiotics - adults with acute and persistent, infectious and non-infectious diarrhea on day 5
Fu JQ2011 36 53 25 53 10.5% 1.44 [1.03, 2.02]
Subtotal (95% CI) 53 53 10.5% 1.44 [1.03, 2.02]
Total events 36 25
Heterogeneity: Not applicable
Test for overall effect: Z = 2.10 (P = 0.04)
1.1.7 Berberine VS antibiotics - children with infectious diarrhea on day 3
Dang GL2011 35 57 18 45 0.0% 1.54 [1.02, 2.32]
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
1.1.8 Berberine VS antibiotics - adults with infectious diarrhea on day 7
Zhang HF2015 24 30 17 30 7.2% 1.41 [0.98, 2.02]
Subtotal (95% CI) 30 30 7.2% 1.41 [0.98, 2.02]
Total events 24 17
Heterogeneity: Not applicable
Test for overall effect: Z = 1.88 (P = 0.06)
1.1.9 Berberine VS antibiotics-adults with acute and persistent, infectious and non-infectious diarrhea on day 5
Wu J2001 56 80 51 80 0.0% 1.10 [0.88, 1.37]
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
1.1.10 Berberine + probiotics VS probiotics-adults persistent diarrhea
Hu YX2009 19 20 14 20 5.9% 1.36 [1.00, 1.84]
Luo YM2014 25 35 16 33 0.0% 1.47 [0.98, 2.22]
Ye J2013 22 30 16 30 6.7% 1.38 [0.92, 2.05]
Subtotal (95% CI) 50 50 12.6% 1.37 [1.06, 1.76]
Total events 41 30
Heterogeneity: Chi² = 0.00, df = 1 (P = 0.96); I² = 0%
Test for overall effect: Z = 2.39 (P = 0.02)
1.1.11 Berberine + intestinal mucosal protection + antibiotics VS intestinal mucosal protection + antibiotics-Children with diarrhea
Li YL2010 53 60 37 60 0.0% 1.43 [1.15, 1.78]
Zhou Y2013 89 100 68 98 28.9% 1.28 [1.11, 1.49]
Subtotal (95% CI) 100 98 28.9% 1.28 [1.11, 1.49]
Total events 89 68
Heterogeneity: Not applicable
Test for overall effect: Z = 3.29 (P = 0.001)
Total (95% CI) 470 468 100.0% 1.39 [1.25, 1.54]
Total events 331 237
Heterogeneity: Chi² = 5.38, df = 10 (P = 0.86); I² = 0%
Test for overall effect: Z = 6.20 (P < 0.00001)
Test for subgroup differences: Chi² = 3.03, df = 6 (P = 0.81), I² = 0%
0.5 0.7 1 1.5 2
Favours [control] Favours [experimental]

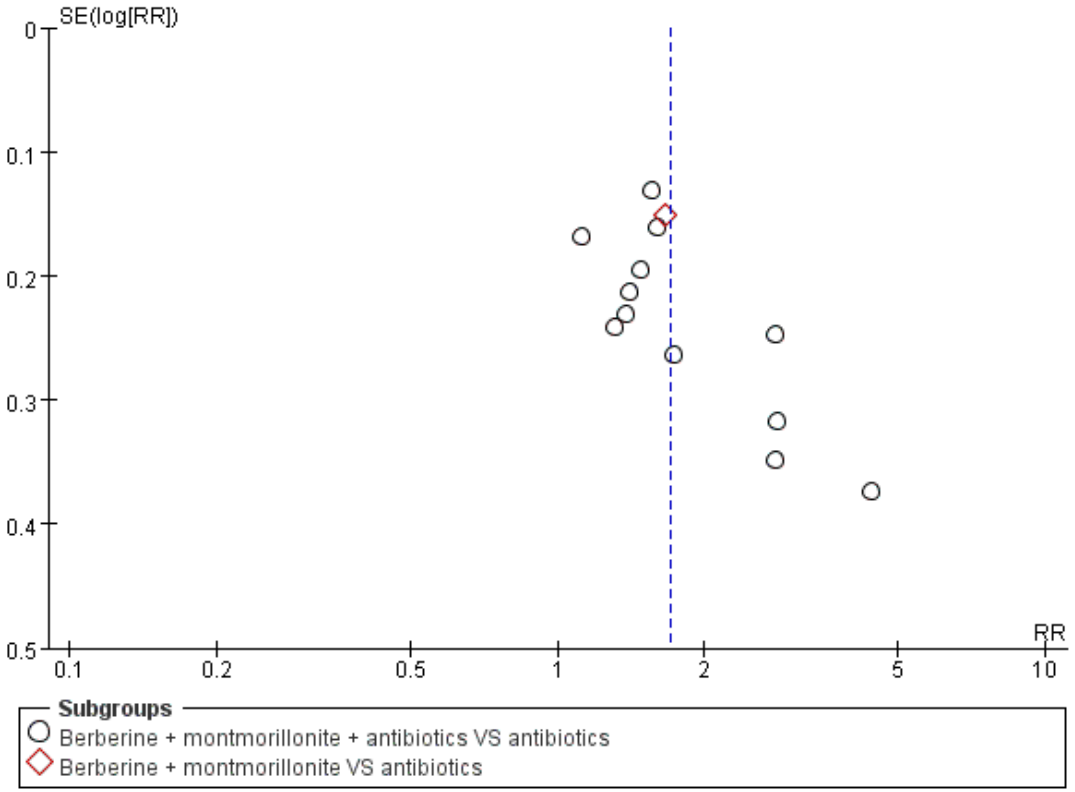
Appendix 2 Berberine vs no Berberine-clinical cure rate-sensitivity analysis(selective reporting bias)



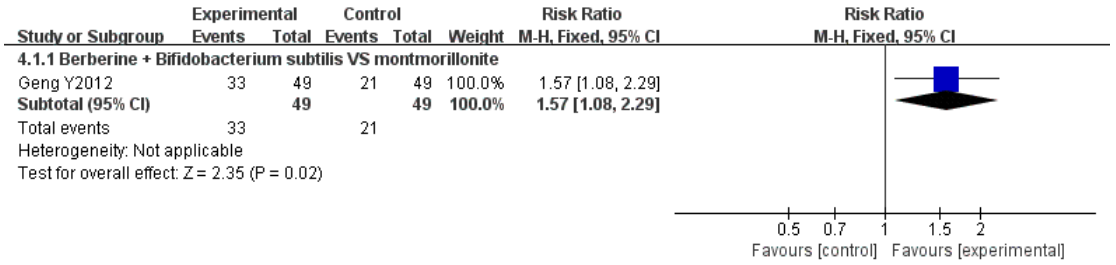
Appendix 3 Berberine+Montmorillonite versus No Berberine+Montmorillonite -clinical cure rate



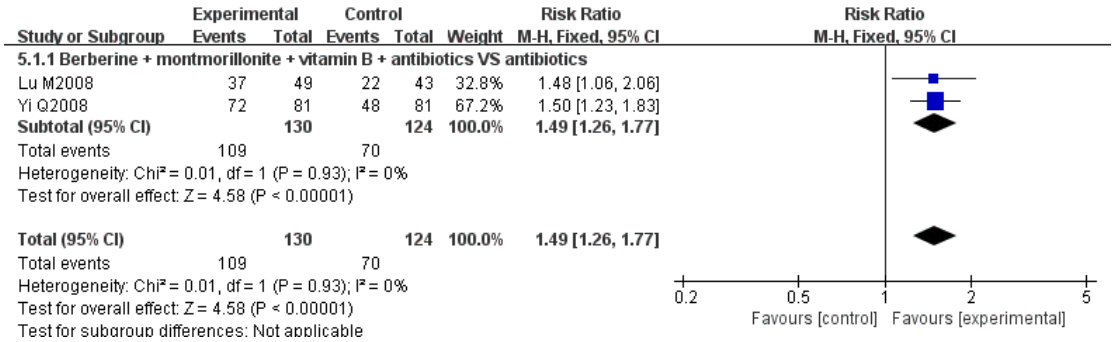
Appendix 3.A Berberine+Montmorillonite versus No Berberine+Montmorillonite -clinical cure rate-sensitivity analysis(selective reporting bias)



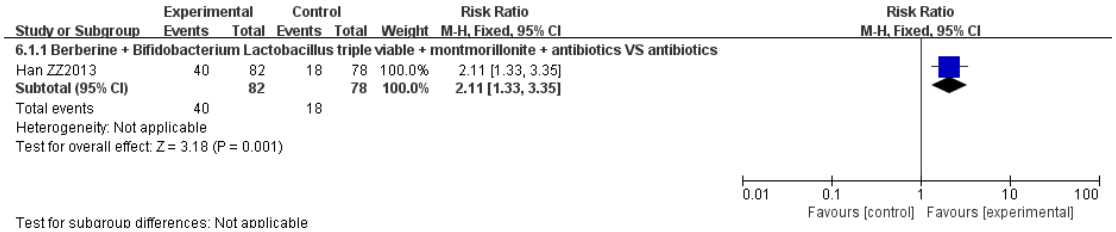
Appendix 4 Berberine+Montmorillonite versus No Berberine+Montmorillonite -clinical cure rate-funnel plot



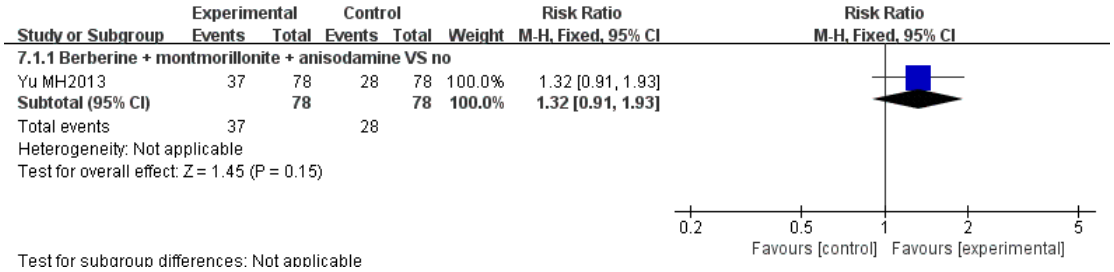
Appendix 5 Berberine + Bifidobacterium subtilis versus No Berberine + Bifidobacterium subtilis-clinical cure rate



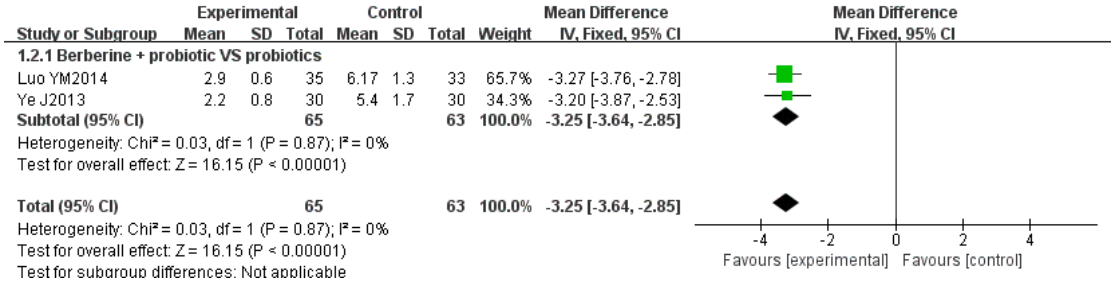
Appendix 6-Berberine + montmorillonite + vitamin B VS No Berberine + montmorillonite + vitamin B-clinical cure rate



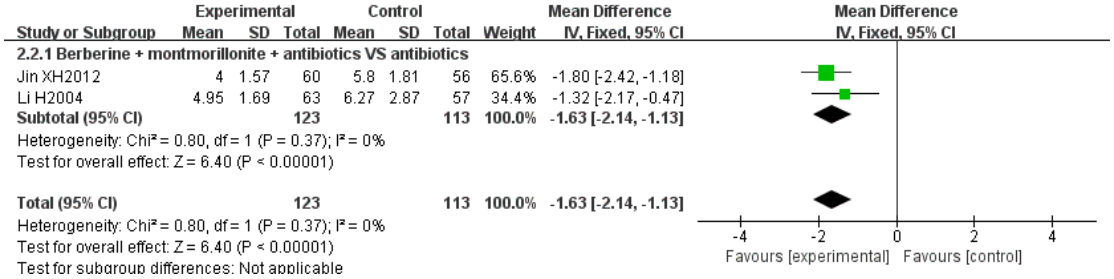
Appendix 7 Berberine + Bifidobacterium Lactobacillus triple viable + montmorillonite VS No Berberine + Bifidobacterium Lactobacillus triple viable + montmorillonite-clinical cure rate



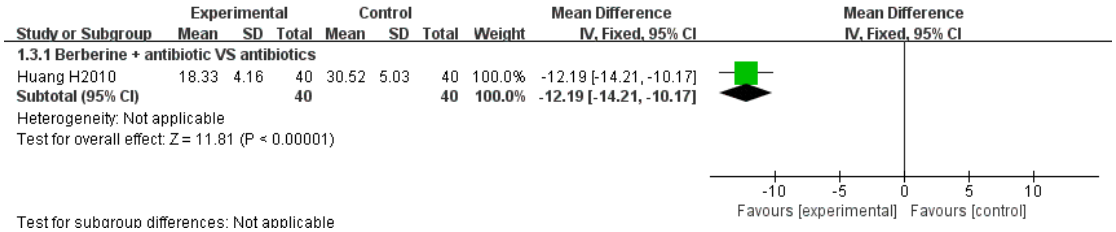
Appendix 8 Berberine + montmorillonite + anisodamine VS No Berberine + montmorillonite + anisodamine.-clinical cure rate



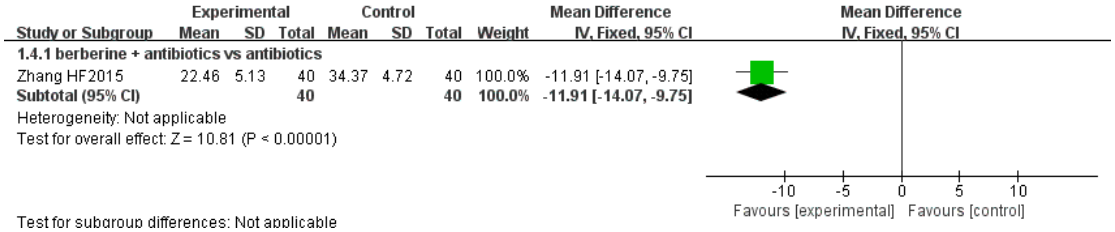
Appendix 9 Berberine vs no Berberine-the duration of diarrhea



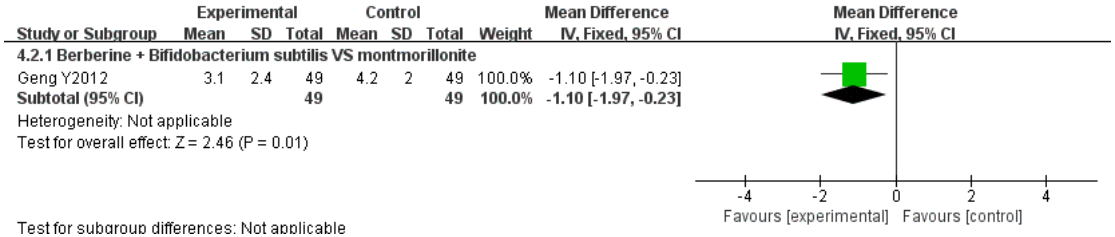
Appendix 10 Berberine+Montmorillonite versus No Berberine+Montmorillonite-the duration of diarrhea



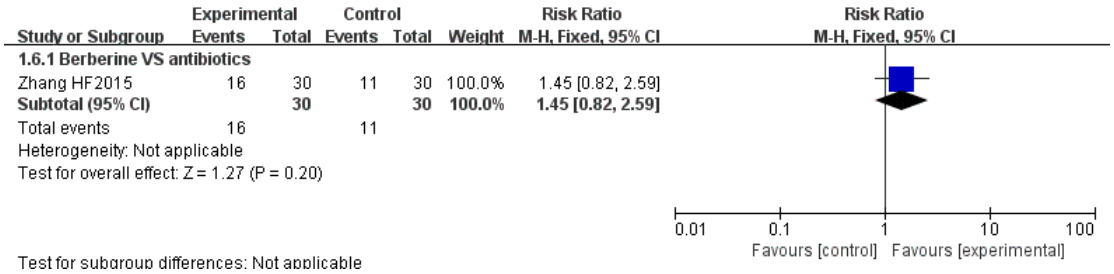
Appendix 11 Berberine vs no Berberine-stool frequency



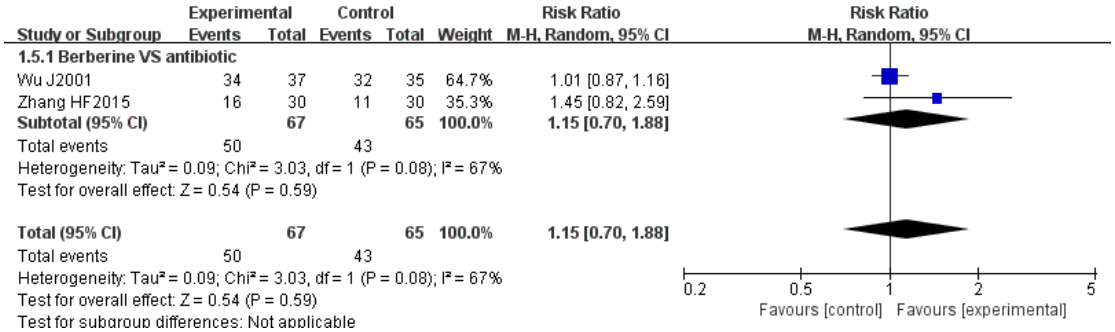
Appendix 12 Berberine vs no Berberine-faecal trait



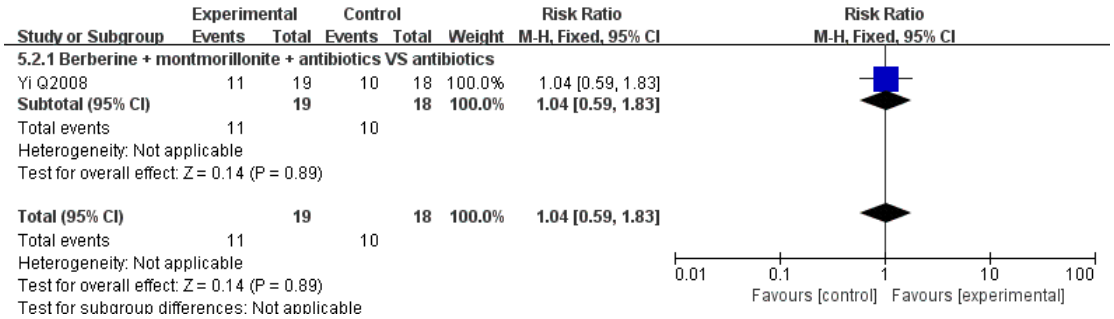
Appendix 13 Berberine + Bifidobacterium subtilis versus No Berberine + Bifidobacterium subtilis-stool frequency



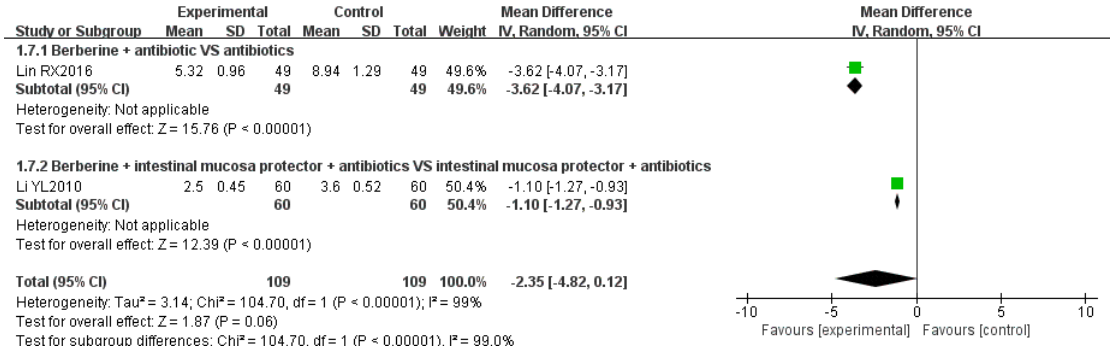
Appendix 14 Berberine vs no Berberine-stool routine examination



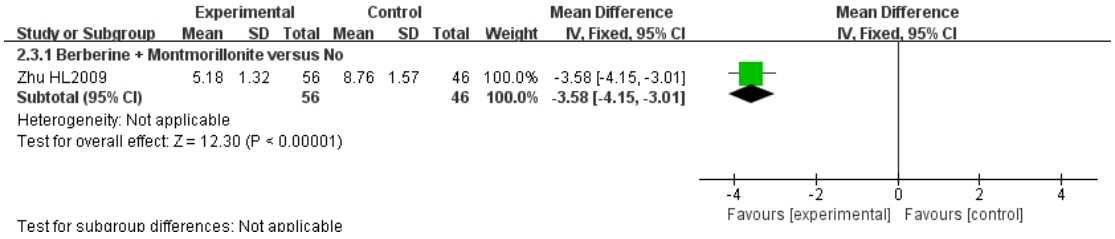
Appendix 15 Berberine vs no Berberine-stool bacterial culture



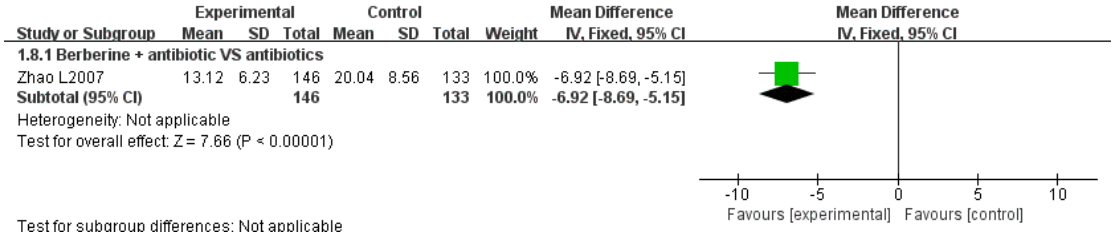
Appendix 16 Berberine + montmorillonite + vitamin B VS No Berberine + montmorillonite + vitamin B-Stool bacterial culture



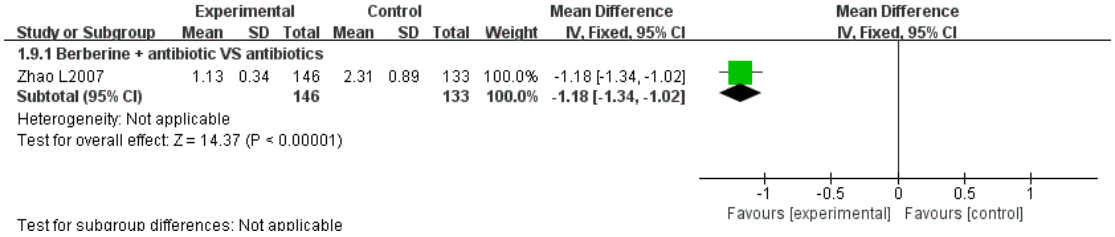
Appendix 17 Berberine vs no Berberine-the duration of hospitalization



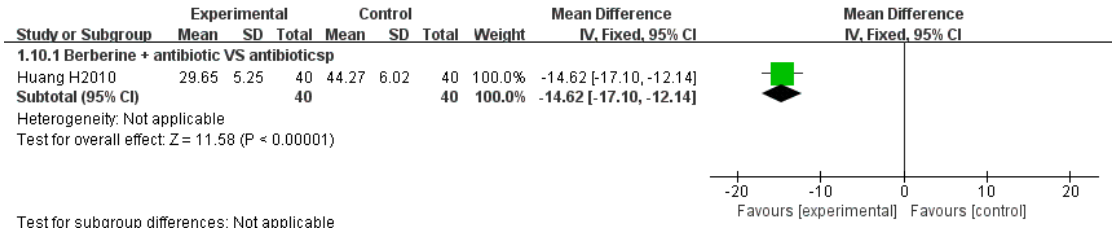
Appendix 18 Berberine+Montmorillonite versus No Berberine+Montmorillonite-the duration of hosilation



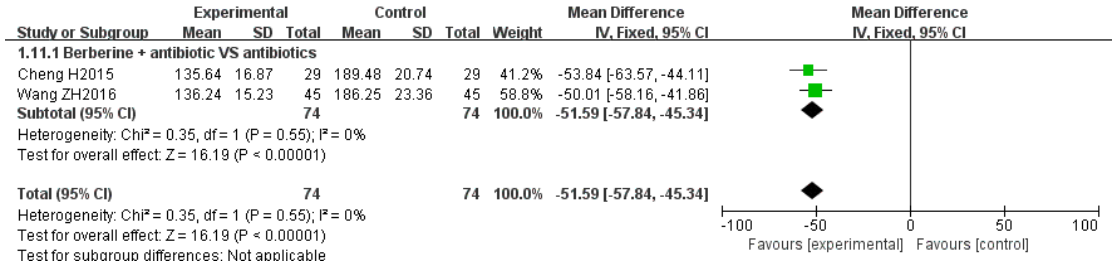
Appendix 19 Berberine vs no Berberine-the duration of heating



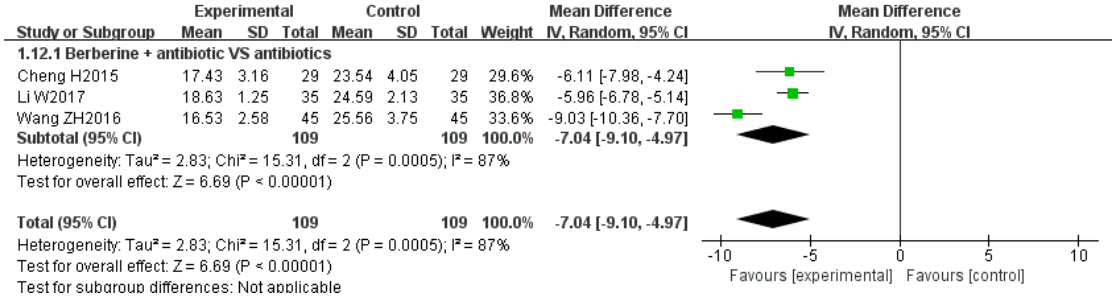
Appendix 20 Berberine vs no Berberine-the duration of vomiting



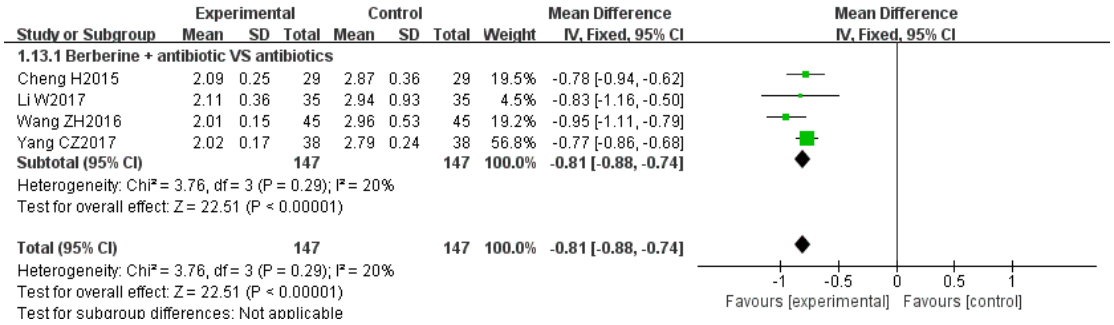
Appendix 21 Berberine vs no Berberine-the duration of systematic symptom



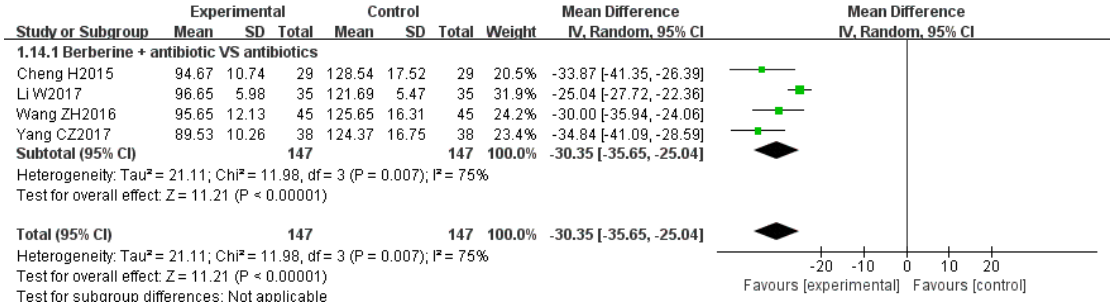
Appendix 22 Berberine vs no Berberine-Isoenzyme-CK



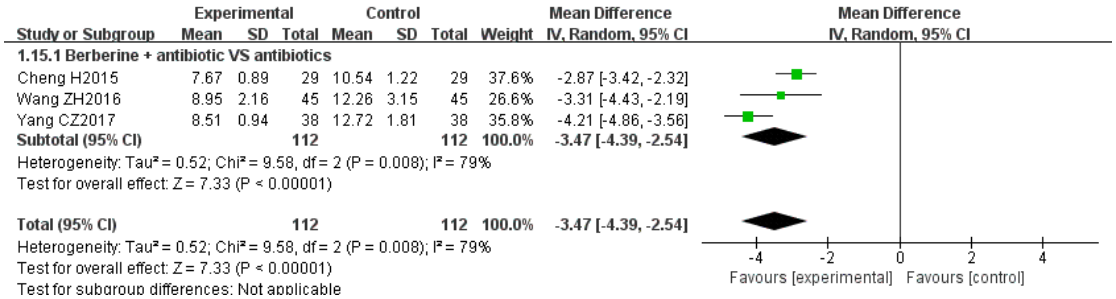
Appendix 23-Berberine vs no Berberine-Isoenzyme-CK-MB



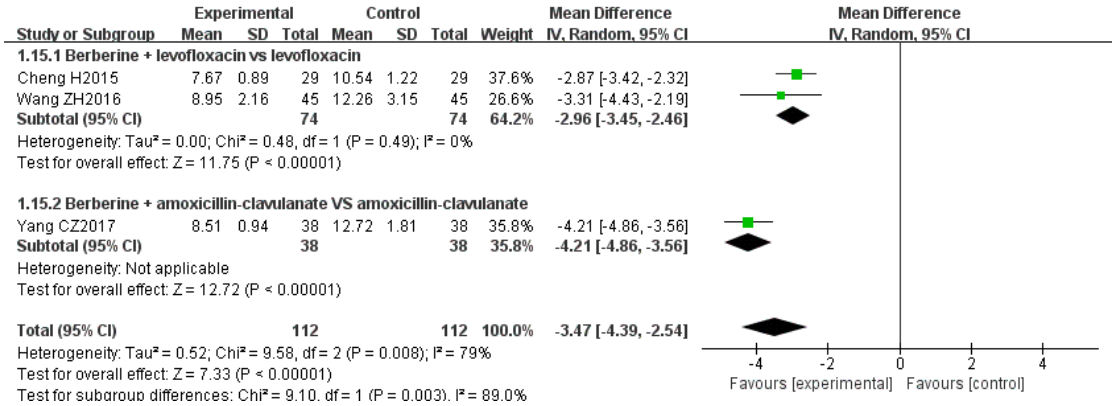
Appendix 24 Berberine vs no Berberine-Inflammatory factors-TNF- α



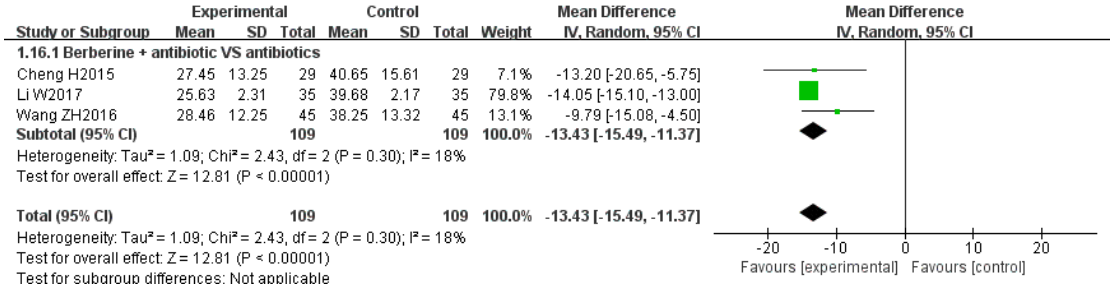
Appendix 25-Berberine vs no Berberine-Inflammatory factors-IL-6



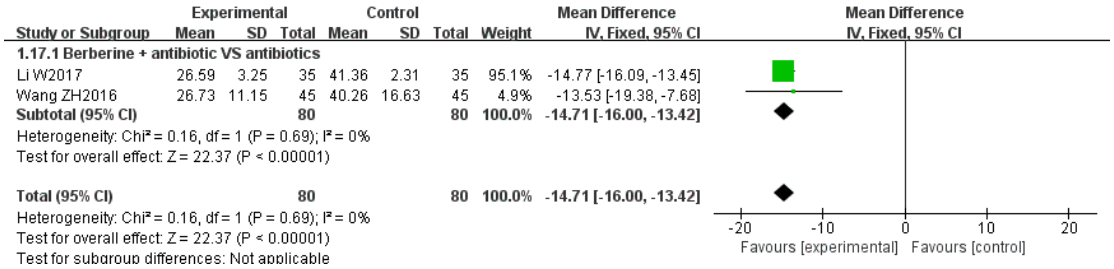
Appendix 26 Berberine vs no Berberine-Inflammatory factors-IL-10



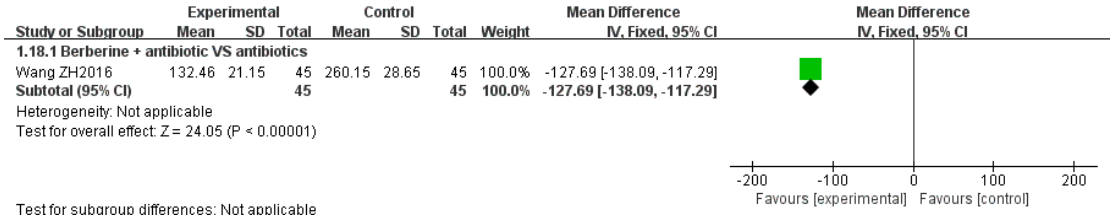
Appendix 27 Berberine vs no Berberine-Inflammatory factors-IL-10-subgroup analyses based on the type of antibiotic



Appendix 28 Berberine vs no Berberine-Myocardial enzyme-ALT



Appendix 29 Berberine vs no Berberine-Myocardial enzyme-AST



Appendix 30 Berberine vs no Berberine-Myocardial enzyme-LDH