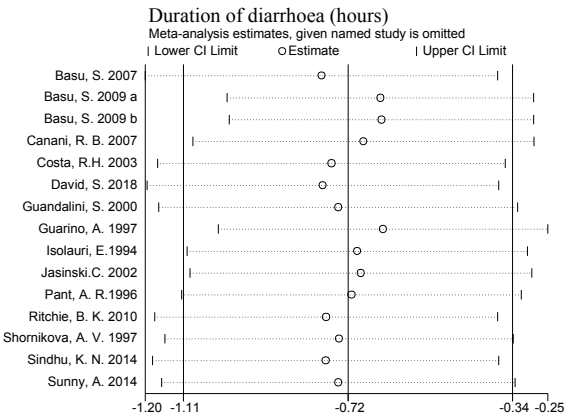
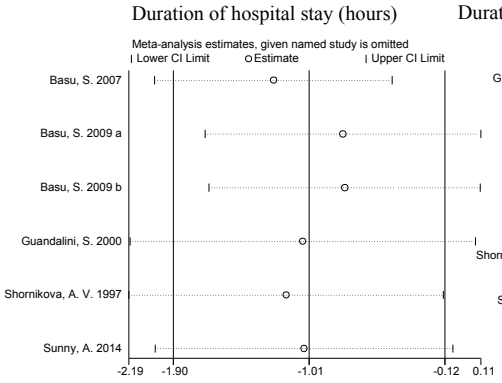
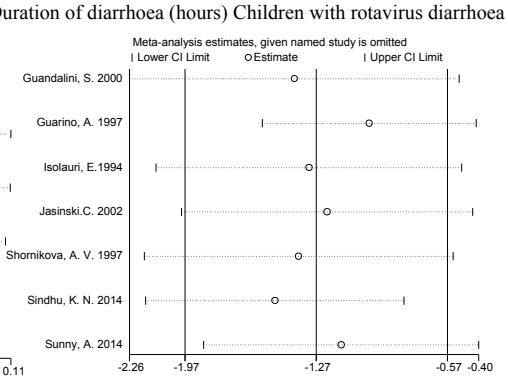
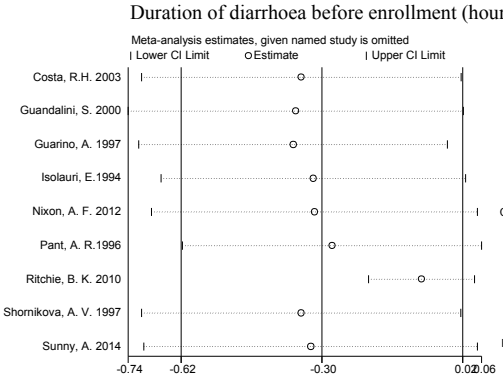
Supplementary materials

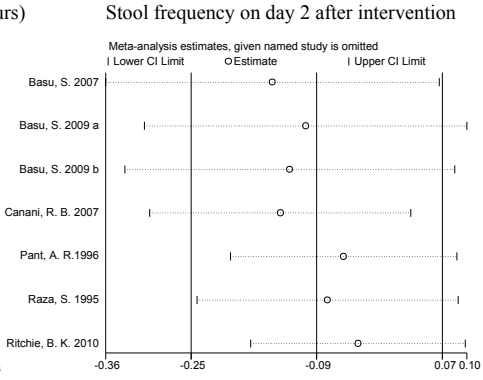
Figure S1. Lactobacillus GG vs. control. Sensitivity analysis.

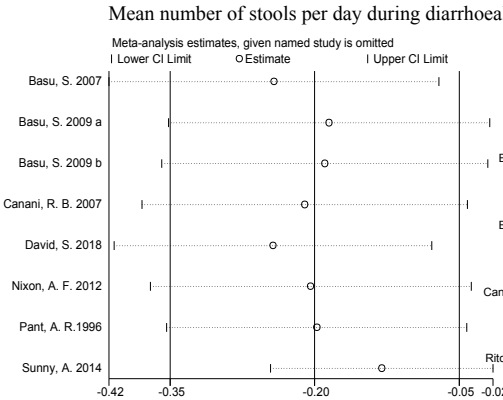












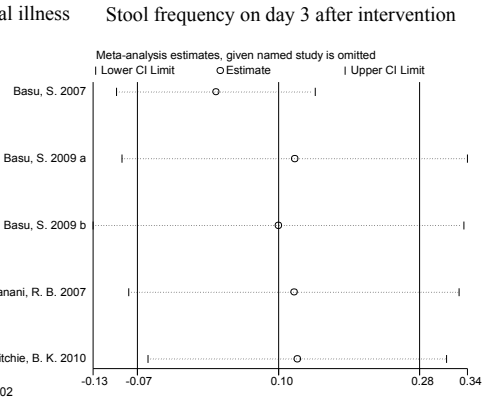
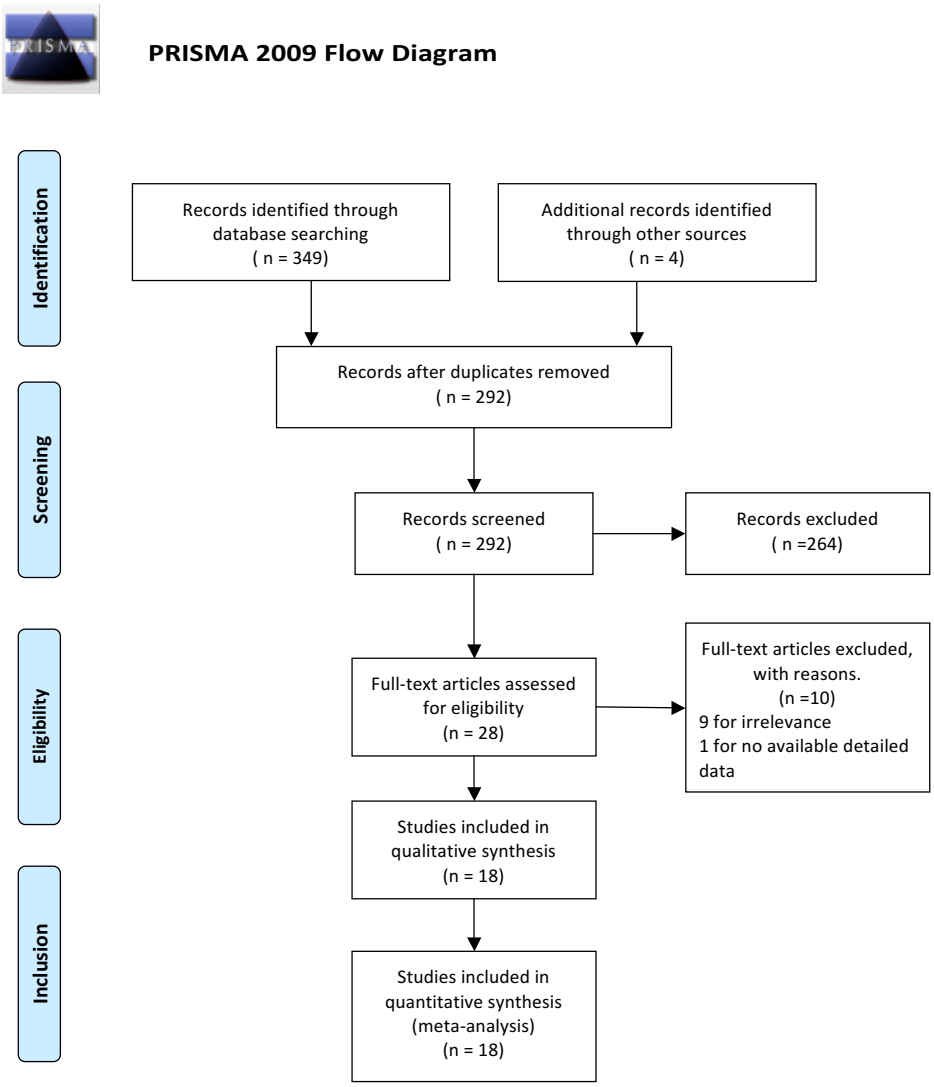


Figure S2. Flow diagram: Identification process for eligible trials.



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

For more information, visit www.prisma-statement.org.

Figure S3. Risk of bias graph and bias summary

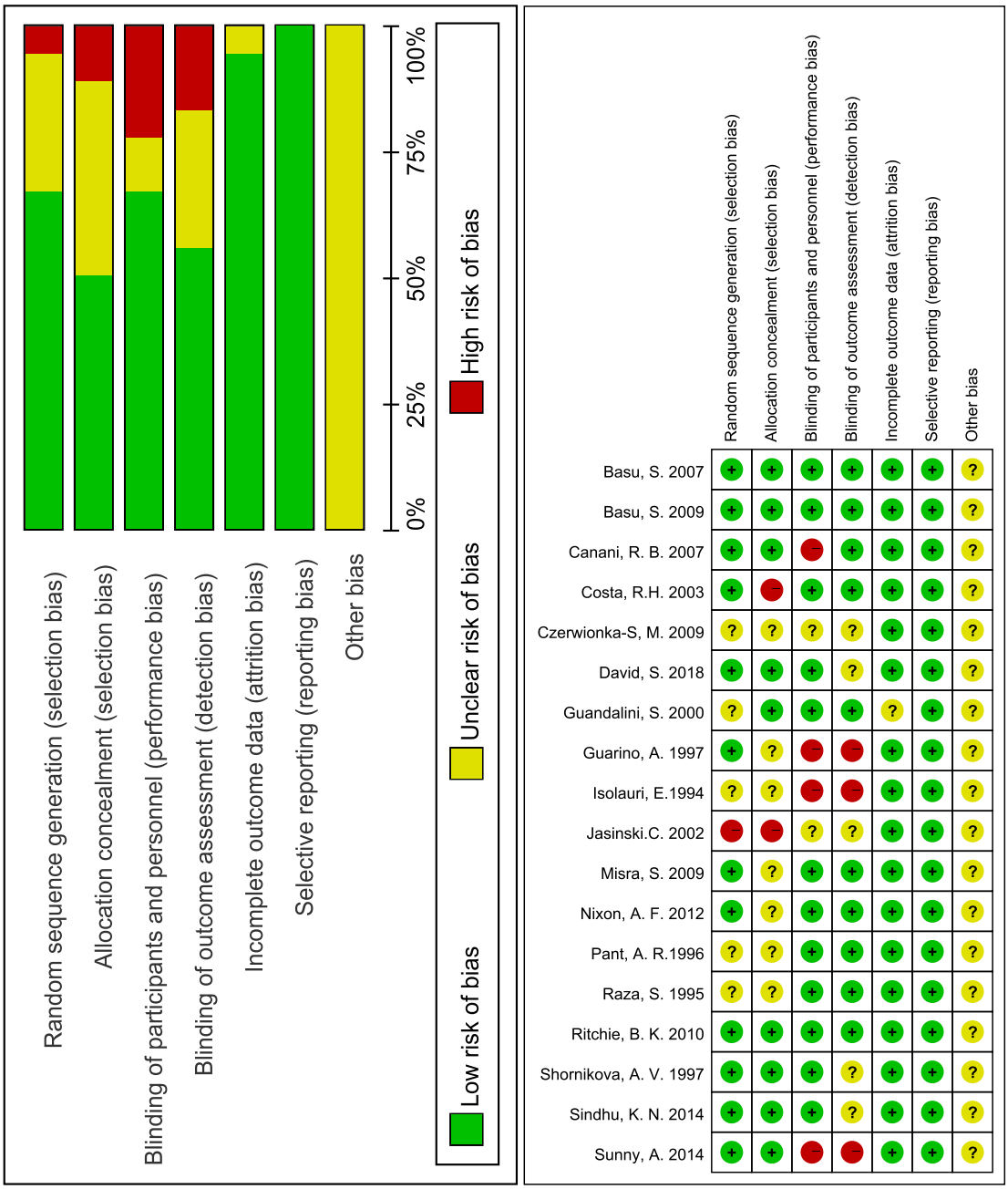


Figure S4. Lactobacillus GG vs. control. Age (months)

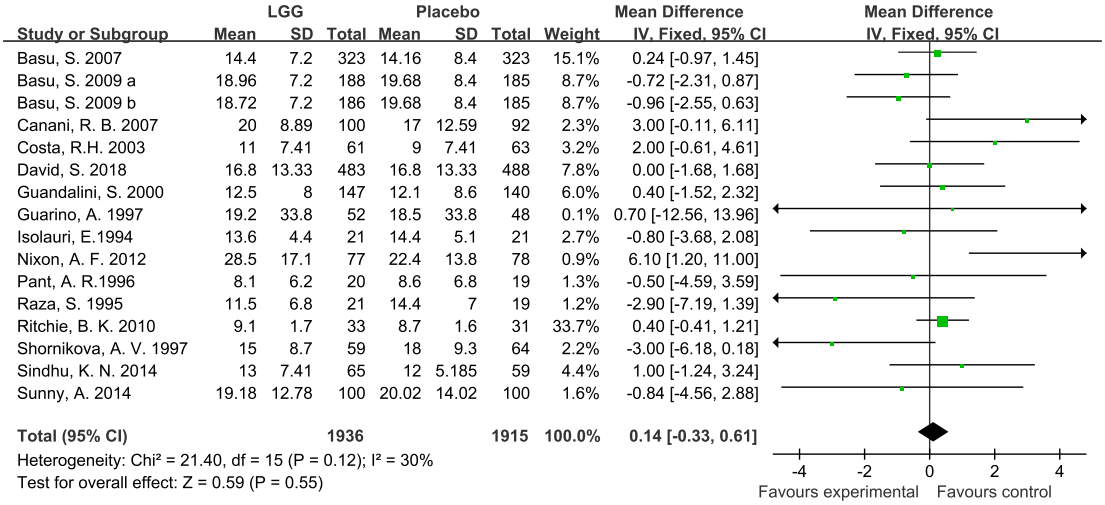


Figure S5. Lactobacillus GG vs. control. Duration of diarrhea before enrollment (hours)

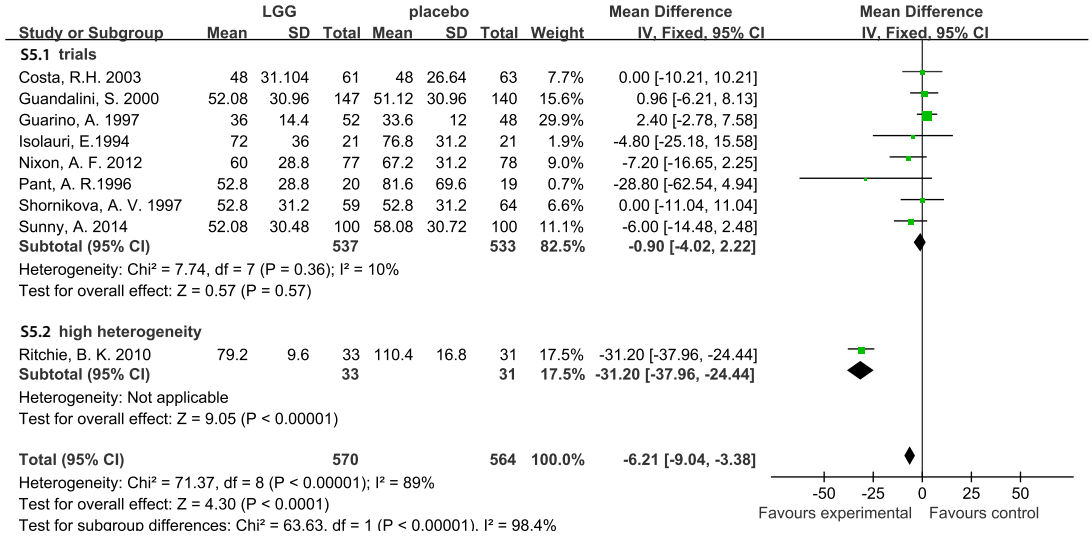
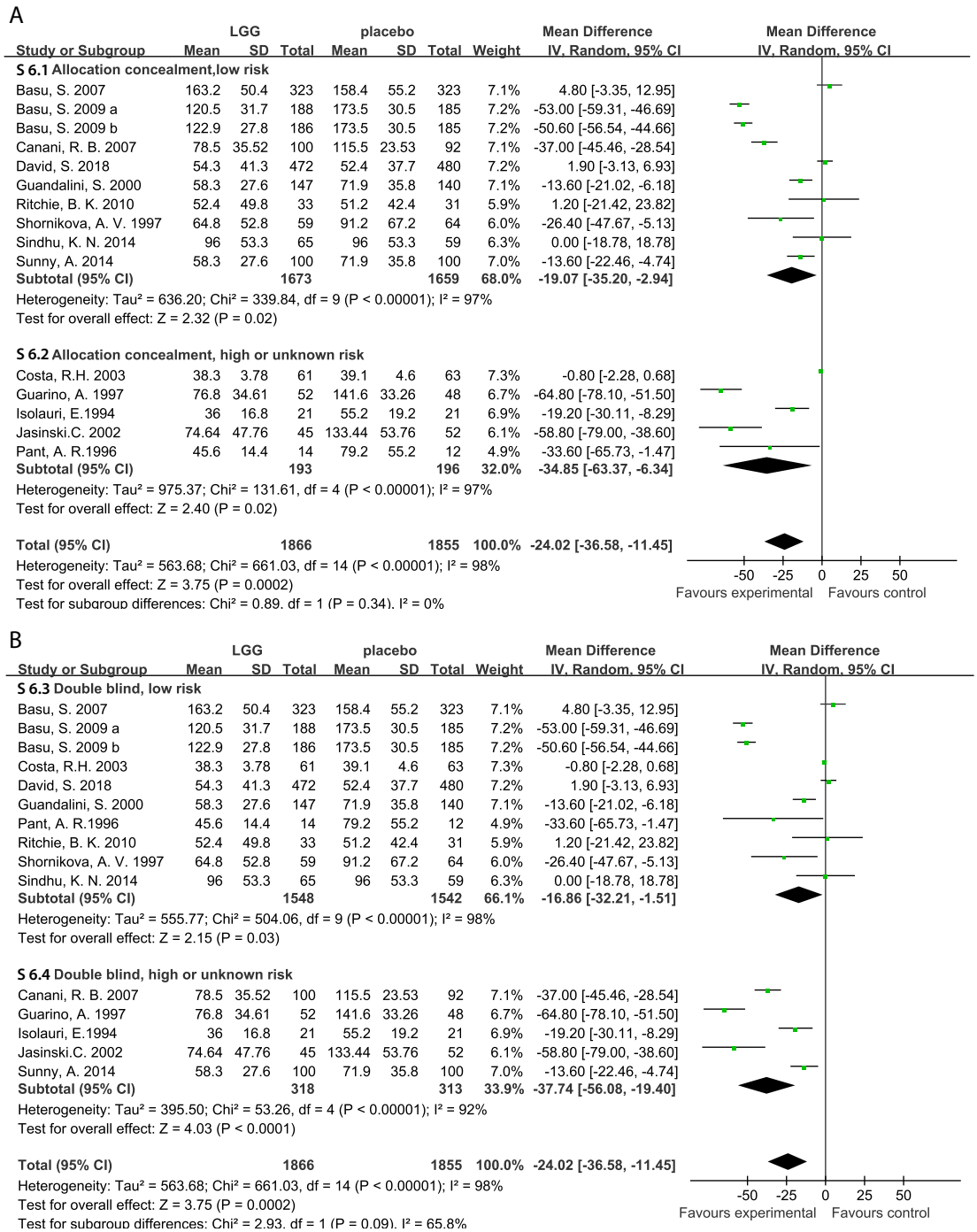
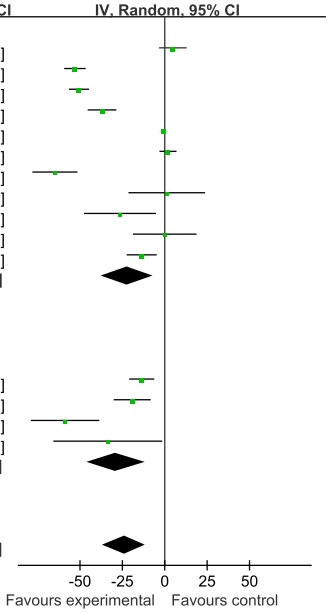


Figure S6. Lactobacillus GG vs. control. Methodology. (A) Allocation concealment **(B)** Blinding **(C) Randomisation (D)** Incomplete outcome data **(E)** Detection bias.



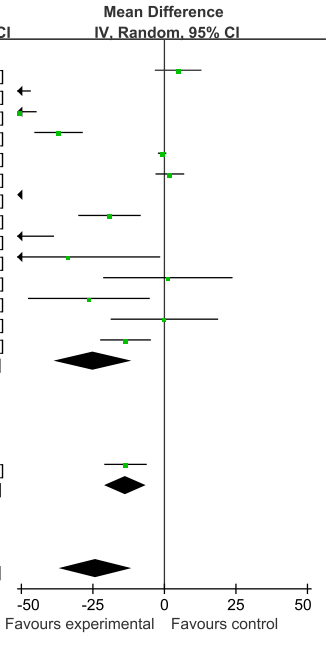
C

Study or Subgroup	LGG Mean	LGG SD	LGG Total	placebo Mean	placebo SD	placebo Total	Weight	Mean Difference IV, Random, 95% CI
S 6.5 Randomisation,low risk								
Basu, S. 2007	163.2	50.4	323	158.4	55.2	323	7.1%	4.80 [-3.35, 12.95]
Basu, S. 2009 a	120.5	31.7	188	173.5	30.5	185	7.2%	-53.00 [-59.31, -46.69]
Basu, S. 2009 b	122.9	27.8	186	173.5	30.5	185	7.2%	-50.60 [-56.54, -44.66]
Canani, R. B. 2007	78.5	35.52	100	115.5	23.53	92	7.1%	-37.00 [-45.46, -28.54]
Costa, R.H. 2003	38.3	3.78	61	39.1	4.6	63	7.3%	-0.80 [-2.28, 0.68]
David, S. 2018	54.3	41.3	472	52.4	37.7	480	7.2%	1.90 [-3.13, 6.93]
Guarino, A. 1997	76.8	34.61	52	141.6	33.26	48	6.7%	-64.80 [-78.10, -51.50]
Ritchie, B. K. 2010	52.4	49.8	33	51.2	42.4	31	5.9%	1.20 [-21.42, 23.82]
Shornikova, A. V. 1997	64.8	52.8	59	91.2	67.2	64	6.0%	-26.40 [-47.67, -5.13]
Sindhu, K. N. 2014	96	53.3	65	96	53.3	59	6.3%	0.00 [-18.78, 18.78]
Sunny, A. 2014	58.3	27.6	100	71.9	35.8	100	7.0%	-13.60 [-22.46, -4.74]
Subtotal (95% CI)			**1639**			**1630**	**74.9%**	**-21.94 [-37.28, -6.61]**
Heterogeneity: Tau² = 633.66; Chi² = 625.55, df = 10 (P < 0.00001); I² = 98%								
Test for overall effect: Z = 2.80 (P = 0.005)								
S 6.6 Randomisation, high or unknown risk								
Guandalini, S. 2000	58.3	27.6	147	71.9	35.8	140	7.1%	-13.60 [-21.02, -6.18]
Isolauri, E.1994	36	16.8	21	55.2	19.2	21	6.9%	-19.20 [-30.11, -8.29]
Jasinski.C. 2002	74.64	47.76	45	133.44	53.76	52	6.1%	-58.80 [-79.00, -38.60]
Pant, A. R.1996	45.6	14.4	14	79.2	55.2	12	4.9%	-33.60 [-65.73, -1.47]
Subtotal (95% CI)			**227**			**225**	**25.1%**	**-28.82 [-46.18, -11.46]**
Heterogeneity: Tau² = 233.54; Chi² = 17.70, df = 3 (P = 0.0005); I² = 83%								
Test for overall effect: Z = 3.25 (P = 0.001)								
Total (95% CI)			**1866**			**1855**	**100.0%**	**-24.02 [-36.58, -11.45]**
Heterogeneity: Tau² = 563.68; Chi² = 661.03, df = 14 (P < 0.00001); I² = 98%								
Test for overall effect: Z = 3.75 (P = 0.0002)								
Test for subgroup differences: Chi² = 0.34, df = 1 (P = 0.56), I² = 0%								



D

Study or Subgroup	LGG Mean	LGG SD	LGG Total	placebo Mean	placebo SD	placebo Total	Weight	Mean Difference IV, Random, 95% CI
S 6.7 Incomplete outcome data, low risk								
Basu, S. 2007	163.2	50.4	323	158.4	55.2	323	7.1%	4.80 [-3.35, 12.95]
Basu, S. 2009 a	120.5	31.7	188	173.5	30.5	185	7.2%	-53.00 [-59.31, -46.69]
Basu, S. 2009 b	122.9	27.8	186	173.5	30.5	185	7.2%	-50.60 [-56.54, -44.66]
Canani, R. B. 2007	78.5	35.52	100	115.5	23.53	92	7.1%	-37.00 [-45.46, -28.54]
Costa, R.H. 2003	38.3	3.78	61	39.1	4.6	63	7.3%	-0.80 [-2.28, 0.68]
David, S. 2018	54.3	41.3	472	52.4	37.7	480	7.2%	1.90 [-3.13, 6.93]
Guarino, A. 1997	76.8	34.61	52	141.6	33.26	48	6.7%	-64.80 [-78.10, -51.50]
Isolauri, E.1994	36	16.8	21	55.2	19.2	21	6.9%	-19.20 [-30.11, -8.29]
Jasinski.C. 2002	74.64	47.76	45	133.44	53.76	52	6.1%	-58.80 [-79.00, -38.60]
Pant, A. R.1996	45.6	14.4	14	79.2	55.2	12	4.9%	-33.60 [-65.73, -1.47]
Ritchie, B. K. 2010	52.4	49.8	33	51.2	42.4	31	5.9%	1.20 [-21.42, 23.82]
Shornikova, A. V. 1997	64.8	52.8	59	91.2	67.2	64	6.0%	-26.40 [-47.67, -5.13]
Sindhu, K. N. 2014	96	53.3	65	96	53.3	59	6.3%	0.00 [-18.78, 18.78]
Sunny, A. 2014	58.3	27.6	100	71.9	35.8	100	7.0%	-13.60 [-22.46, -4.74]
Subtotal (95% CI)			**1719**			**1715**	**92.9%**	**-24.83 [-38.44, -11.22]**
Heterogeneity: Tau² = 619.12; Chi² = 658.25, df = 13 (P < 0.00001); I² = 98%								
Test for overall effect: Z = 3.58 (P = 0.0003)								
S 6.8 Incomplete outcome data, high or unknown risk								
Guandalini, S. 2000	58.3	27.6	147	71.9	35.8	140	7.1%	-13.60 [-21.02, -6.18]
Subtotal (95% CI)			**147**			**140**	**7.1%**	**-13.60 [-21.02, -6.18]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 3.59 (P = 0.0003)								
Total (95% CI)			**1866**			**1855**	**100.0%**	**-24.02 [-36.58, -11.45]**
Heterogeneity: Tau² = 563.68; Chi² = 661.03, df = 14 (P < 0.00001); I² = 98%								
Test for overall effect: Z = 3.75 (P = 0.0002)								
Test for subgroup differences: Chi² = 2.02, df = 1 (P = 0.16), I² = 50.4%								



E

Study or Subgroup	LGG Mean	LGG SD	LGG Total	placebo Mean	placebo SD	placebo Total	Weight	Mean Difference IV, Random, 95% CI
S 6.9 Detection bias, low risk								
Basu, S. 2007	163.2	50.4	323	158.4	55.2	323	7.1%	4.80 [-3.35, 12.95]
Basu, S. 2009 a	120.5	31.7	188	173.5	30.5	185	7.2%	-53.00 [-59.31, -46.69]
Basu, S. 2009 b	122.9	27.8	186	173.5	30.5	185	7.2%	-50.60 [-56.54, -44.66]
Canani, R. B. 2007	78.5	35.52	100	115.5	23.53	92	7.1%	-37.00 [-45.46, -28.54]
Costa, R.H. 2003	38.3	3.78	61	39.1	4.6	63	7.3%	-0.80 [-2.28, 0.68]
Guandalini, S. 2000	58.3	27.6	147	71.9	35.8	140	7.1%	-13.60 [-21.02, -6.18]
Pant, A. R.1996	45.6	14.4	14	79.2	55.2	12	4.9%	-33.60 [-65.73, -1.47]
Ritchie, B. K. 2010	52.4	49.8	33	51.2	42.4	31	5.9%	1.20 [-21.42, 23.82]
Subtotal (95% CI)			**1052**			**1031**	**53.7%**	**-22.89 [-42.56, -3.22]**
Heterogeneity: Tau² = 755.20; Chi² = 540.89, df = 7 (P < 0.00001); I² = 99%								
Test for overall effect: Z = 2.28 (P = 0.02)								
S 6.10 Detection bias, high or unknown risk								
David, S. 2018	54.3	41.3	472	52.4	37.7	480	7.2%	1.90 [-3.13, 6.93]
Guarino, A. 1997	76.8	34.61	52	141.6	33.26	48	6.7%	-64.80 [-78.10, -51.50]
Isolauri, E.1994	36	16.8	21	55.2	19.2	21	6.9%	-19.20 [-30.11, -8.29]
Jasinski.C. 2002	74.64	47.76	45	133.44	53.76	52	6.1%	-58.80 [-79.00, -38.60]
Shornikova, A. V. 1997	64.8	52.8	59	91.2	67.2	64	6.0%	-26.40 [-47.67, -5.13]
Sindhu, K. N. 2014	96	53.3	65	96	53.3	59	6.3%	0.00 [-18.78, 18.78]
Sunny, A. 2014	58.3	27.6	100	71.9	35.8	100	7.0%	-13.60 [-22.46, -4.74]
Subtotal (95% CI)			**814**			**824**	**46.3%**	**-25.30 [-44.06, -6.55]**

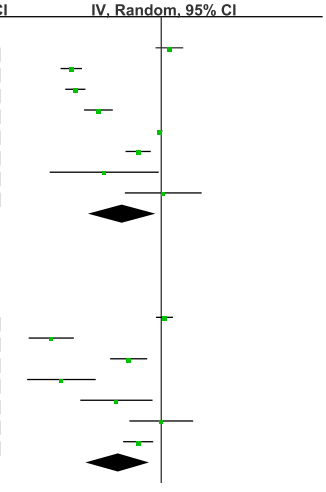


Figure S7. Lactobacillus GG vs. control. Duration of diarrhea. Year of the publication in 1990s, 2000s and 2010s.

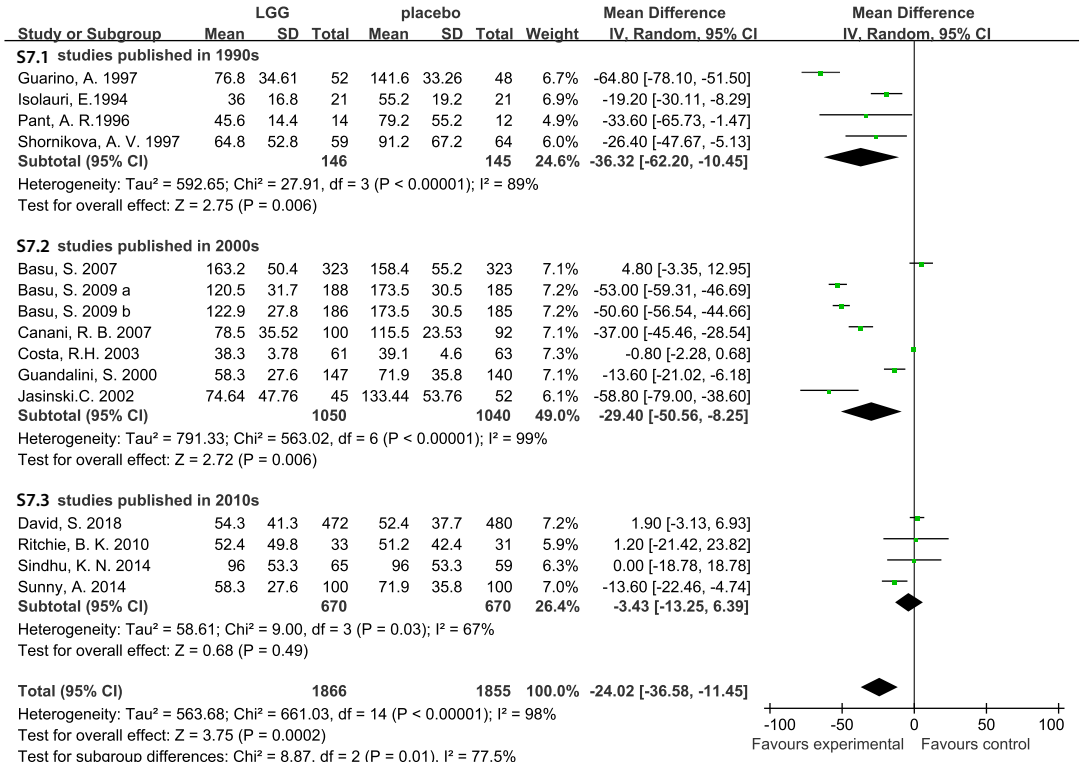
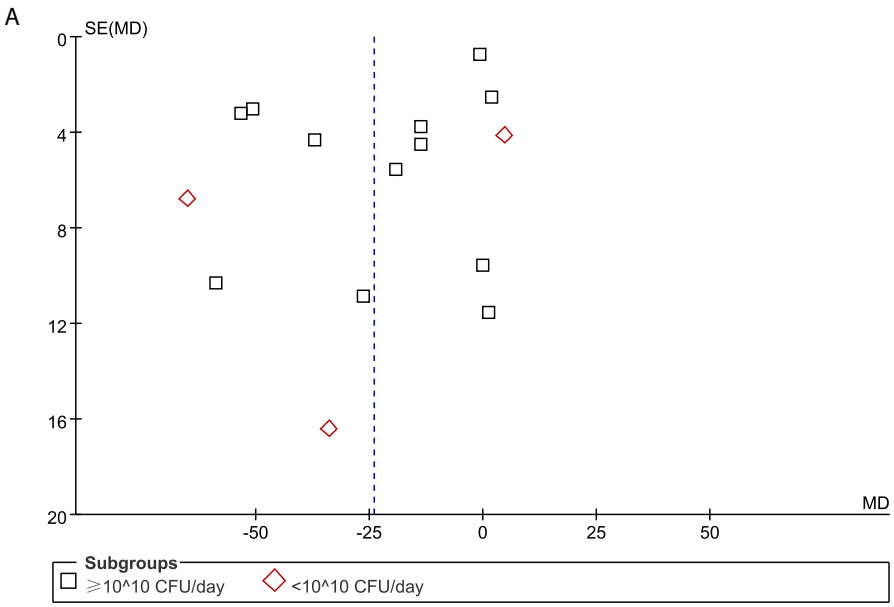
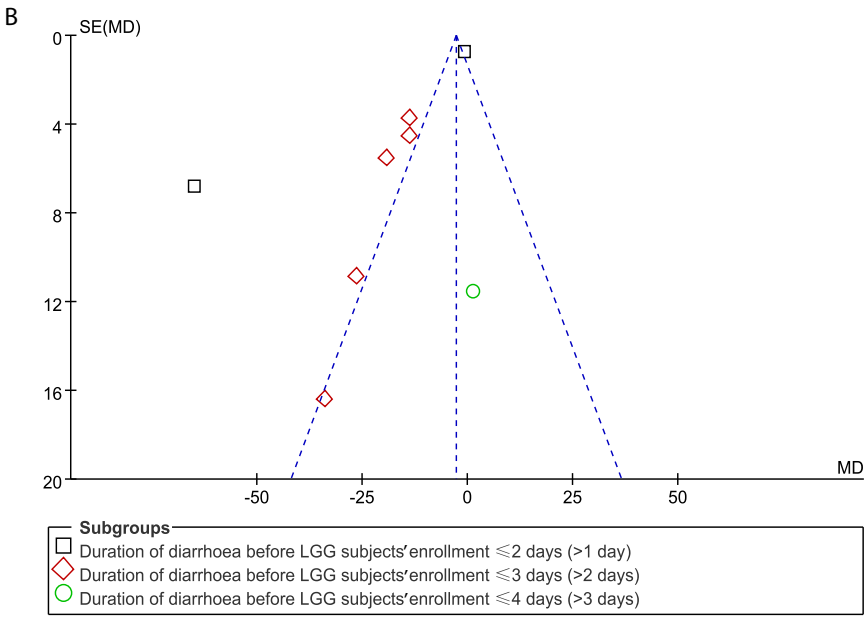
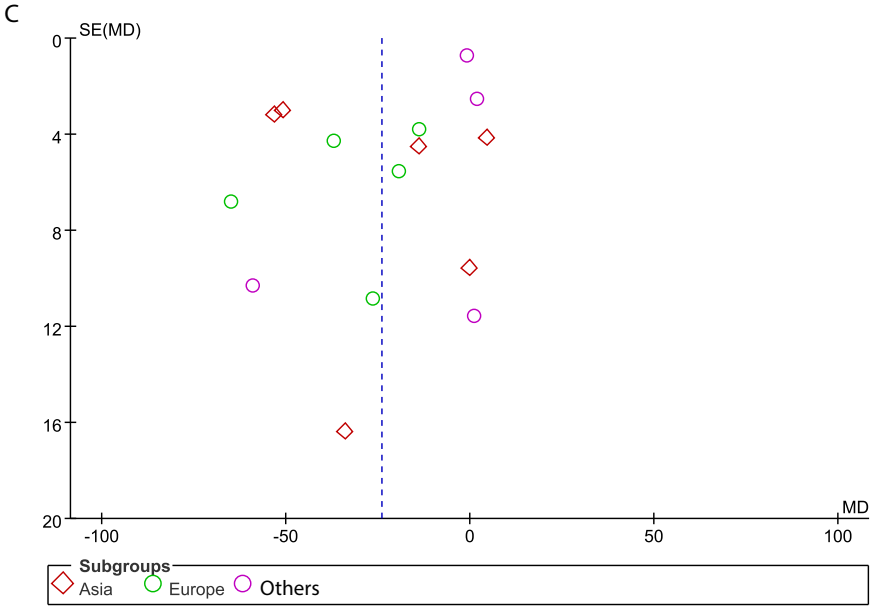


Figure S8. Funnel plot of comparison: Lactobacillus GG vs. control. Duration of diarrhea. (A) High dose and low dose. **(B)** Duration of diarrhea before LGG participators enrollment. ⩽2 days (>1 day), ⩽3 days (>2 days) and ⩽4 days(>3 days). **(C)** Geography of clinical trials. Asia, Europe and other continents.


A
SE(MD)
0
4
8
12
16
20
-50
-25
0
25
50
MD
Subgroups
⩾10^10 CFU/day
<10^10 CFU/day


B
SE(MD)
0
4
8
12
16
20
-50
-25
0
25
50
MD
Subgroups
Duration of diarrhoea before LGG subjects'enrollment ⩽2 days (>1 day)
Duration of diarrhoea before LGG subjects'enrollment ⩽3 days (>2 days)
Duration of diarrhoea before LGG subjects'enrollment ⩽4 days (>3 days)


C
SE(MD)
0
4
8
12
16
20
-100
-50
0
50
100
MD
Subgroups
Asia
Europe
Others