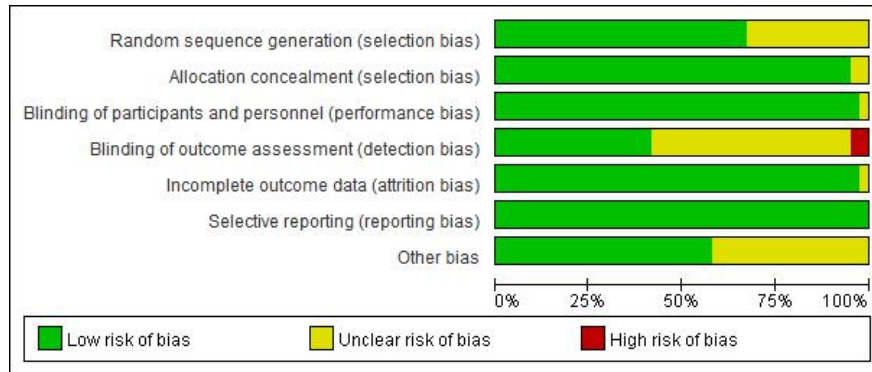
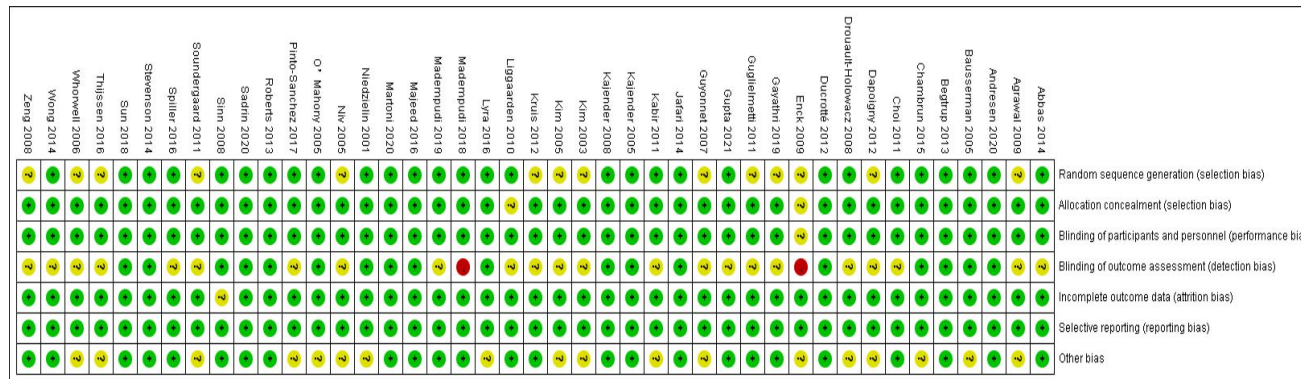


Figure S1

(a)



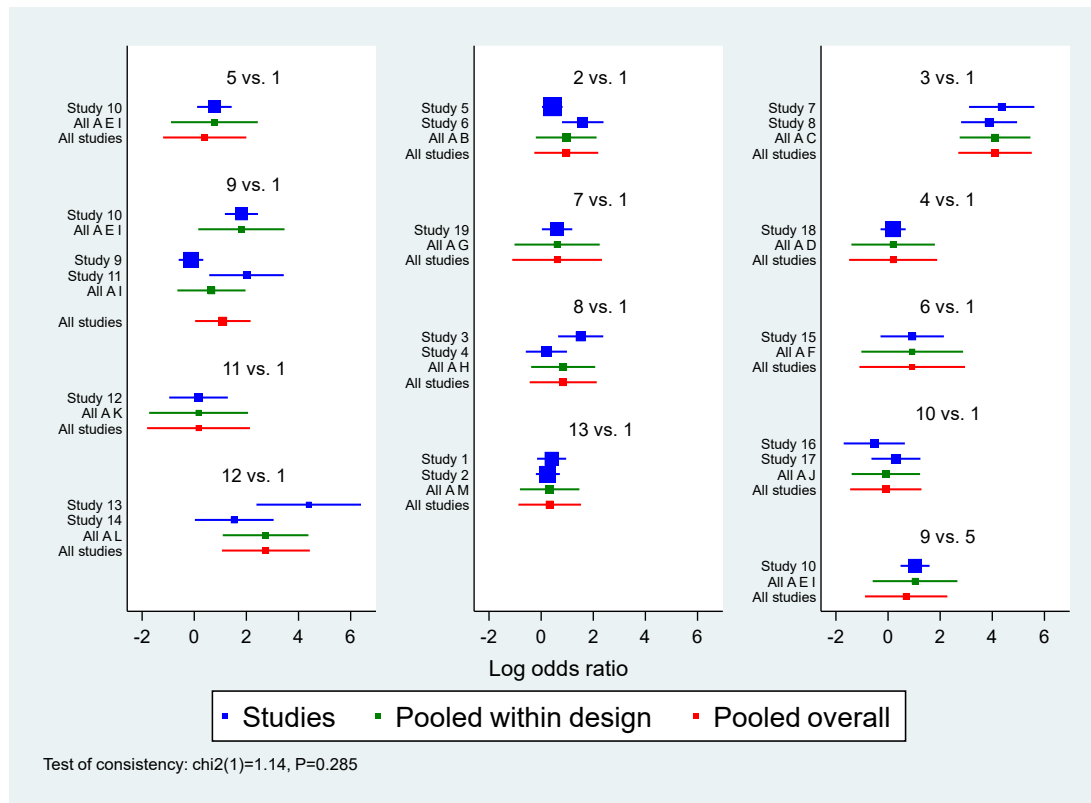
(b)



(a) Risk of bias graph: judgements about each risk of bias item presented as percentages across all included studies.

(b) Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Figure S2: Forest plot and the global inconsistency test result (symptom relief rate).
 ($\chi^2=1.14$, $p=0.285$)



Label: PLA=1=A B.bifidum=2=B B.coagulans=3=C B.infantis=4=D B.lactis=5=E B.longum=6=F C.butyricum=7=G E.coli=8=H
 L.acidophilus=9=I L.casei=10=J L.GG =11=K L.plantarum=12=L S.cerevisiae=13=M

Table S1: Local inconsistency test (symptom relief rate)

Side	Direct		Indirect		Difference			tau
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	P>|z|	
AB
AC
AD
AE *	.7726241	.849371	-1.526387	1.963843	2.299011	2.151114	0.285	.7793094
AF
AG
AH
AI
AJ
AK
AL
AM
EI *	1.036593	.8291856	-1.262418	1.989554	2.299011	2.151114	0.285	.7793094

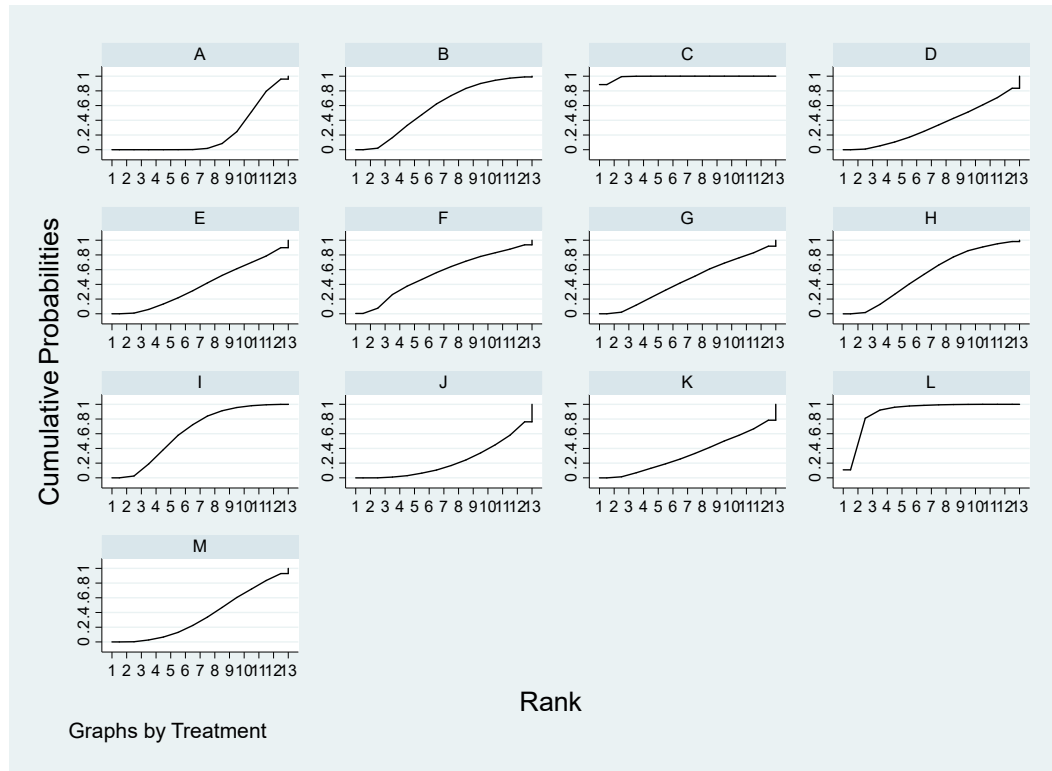
Label: PLA=1=A B.bifidum=2=B B.coagulans=3=C B.infantis=4=D B.lactis=5=E B.longum=6=F C.butyricum=7=G E.coli=8=H
L.acidophilus=9=I L.casei=10=J L.GG =11=K L.plantarum=12=L S.cerevisiae=13=M

Table S2: SUCRA analysis: MeanRank table (symptom relief rate)

Treatm~t	SUCRA	PrBest	MeanRank
A	21.9	0.0	10.4
B	58.3	0.0	6.0
C	99.0	88.6	1.1
D	33.5	0.0	9.0
E	38.9	0.0	8.3
F	54.4	0.4	6.5
G	45.2	0.0	7.6
H	54.1	0.0	6.5
I	63.2	0.0	5.4
J	22.9	0.0	10.2
K	32.8	0.0	9.1
L	89.6	10.9	2.2
M	36.2	0.0	8.7

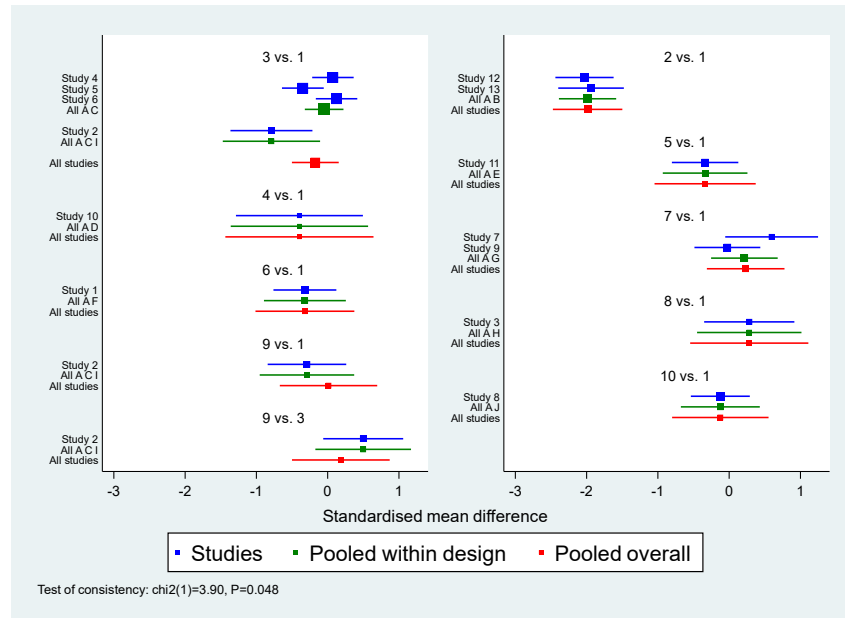
Label: PLA=1=A B.bifidum=2=B B.coagulans=3=C B.infantis=4=D B.lactis=5=E B.longum=6=F C.butyricum=7=G E.coli=8=H
L.acidophilus=9=I L.casei=10=J L.GG =11=K L.plantarum=12=L S.cerevisiae=13=M

Figure S3: SUCRA analysis: MeanRank figure (symptom relief)



Label: PLA=1=A B.bifidum=2=B B.coagulans=3=C B.infantis=4=D B.lactis=5=E B.longum=6=F C.butyricum=7=G E.coli=8=H
 L.acidophilus=9=I L.casei=10=J L.GG =11=K L.plantarum=12=L S.cerevisiae=13=M

Figure S4: Forest plot and the global inconsistency test result (global symptom scores).
 ($\chi^2=3.90$, $p=0.048$)



Label: PLA=1=A B.coagulans=2=B B.infantis=3=C B.longum =4=D C.butyricum=5=E L.acidophilus=6=F L.plantarum=7=G L.reuteri=8=H
 L.salivarius=9=I S.bouardii=10=J

Table S3: Local inconsistency test (global symptom score)

Side	Direct		Indirect		Difference		P>|z|	tau
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.		
A B
A C
A D
A E
A F
A G
A H
A I *	-.2907251	.3380839	1.188604	.6626518	-1.479329	.7495419	0.048	.1877169
A J
C I *	.4983858	.3422479	-.9809432	.6562077	1.479329	.7495419	0.048	.1877169

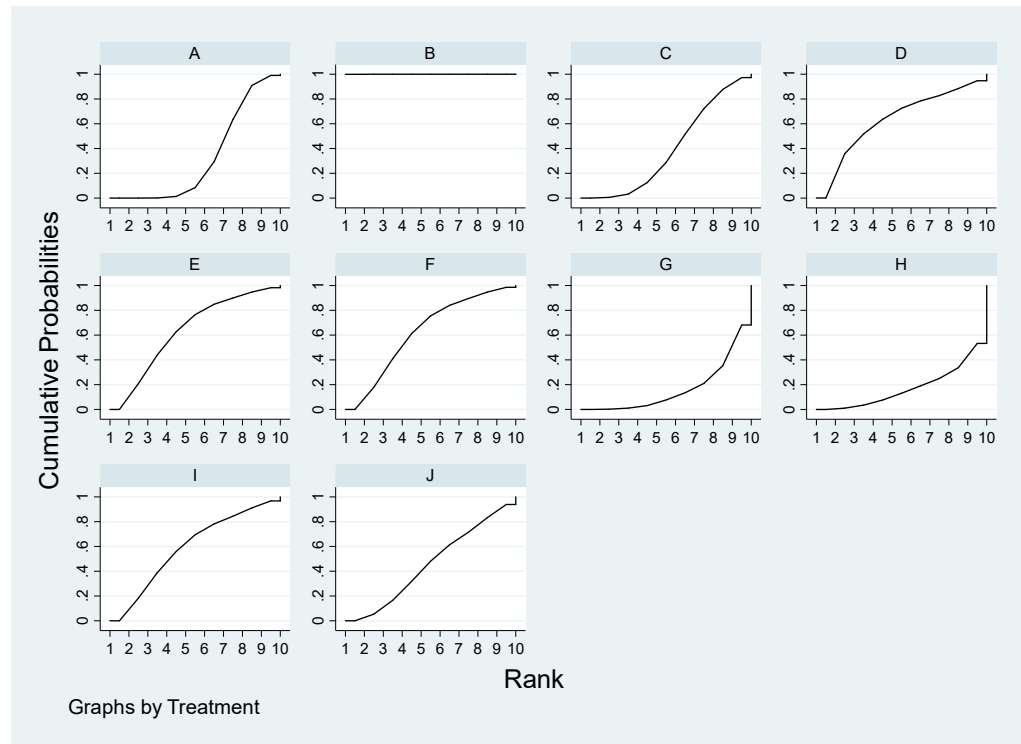
Label: PLA=1=A B.coagulans=2=B B.infantis=3=C B.longum =4=D C.butyricum=5=E L.acidophilus=6=F L.plantarum=7=G L.reuteri=8=H
L.salivarius=9=I S.boulardii=10=J

Table S4: SUCRA analysis: MeanRank table (global symptom score)

Treatm~t	SUCRA	PrBest	MeanRank
A	32.5	0.0	7.1
B	100.0	99.9	1.0
C	39.3	0.0	6.5
D	63.1	0.1	4.3
E	63.5	0.0	4.3
F	62.5	0.0	4.4
G	16.7	0.0	8.5
H	17.4	0.0	8.4
I	59.2	0.0	4.7
J	45.8	0.0	5.9

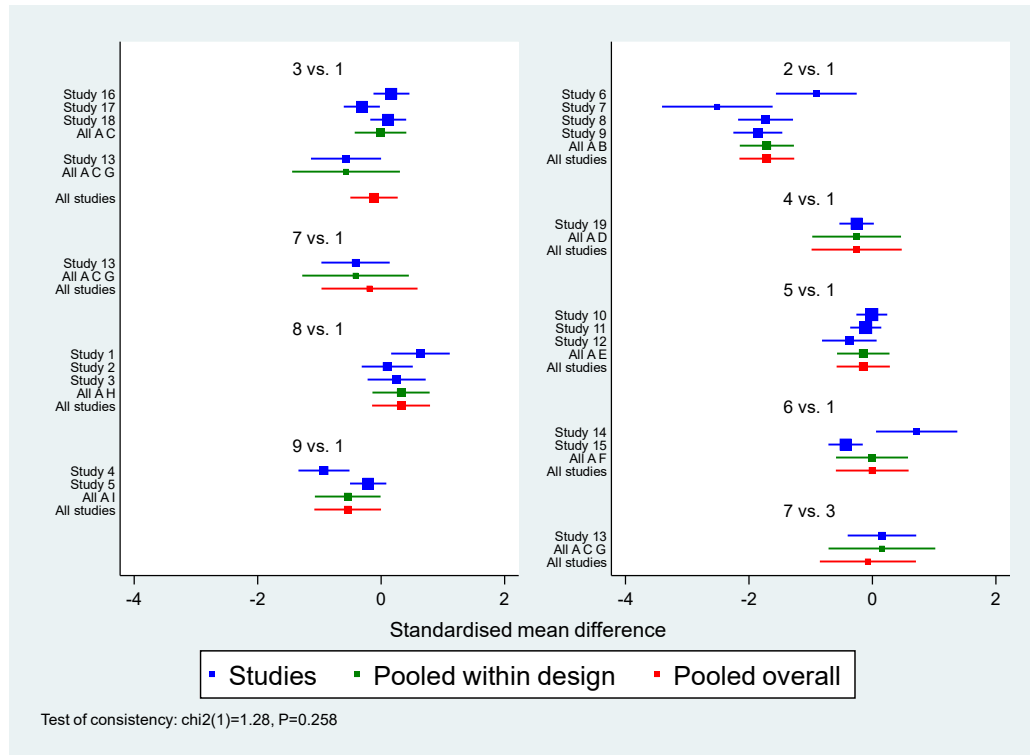
Label: PLA=1=A B.coagulans=2=B B.infantis=3=C B.longum =4=D C.butyricum=5=E L.acidophilus=6=F L.plantarum=7=G L.reuteri=8=H
L.salivarius=9=I S.boulardii=10=J

Figure S5: SUCRA analysis: MeanRank figure (global symptom score)



Label: PLA=1=A B.coagulans=2=B B.infantis=3=C B.longum =4=D C.butyricum=5=E L.acidophilus=6=F L.plantarum=7=G L.reuteri=8=H
L.salivarius=9=I S.boulardii=10=J

Figure S6: Forest plot and the global inconsistency test result (Abdominal pain).
 ($\chi^2=1.28$, $p=0.258$)



Label: PLA=1=A B.coagulans=2=B B.infantis=3=C C.butyricum=4=D L.acidophilus=5=E L.plantarum=6=F L.salivarius=7=G
 S.bouardii=8=H S.cerevisiae=9=I

Table S5: Local inconsistency test (Abdominal pain)

	Coef.	Side Std. Err.	Direct Coef.	Std. Err.	Indirect Coef.	Std. Err.	P>|z|	Difference	tau
A B	.		.		.		.	.	.
A C	.		.		.		.	.	.
A D	.		.		.		.	.	.
A E	.		.		.		.	.	.
A F	.		.		.		.	.	.
A G *	-.4148299	.4404527	.702524	.8795925	-1.117354	.9874351	0.258	.338101	
A H	.		.		.		.	.	.
A I	.		.		.		.	.	.
C G *	.1541163	.4411457	-.9632376	.87855	1.117354	.987435	0.258	.338101	

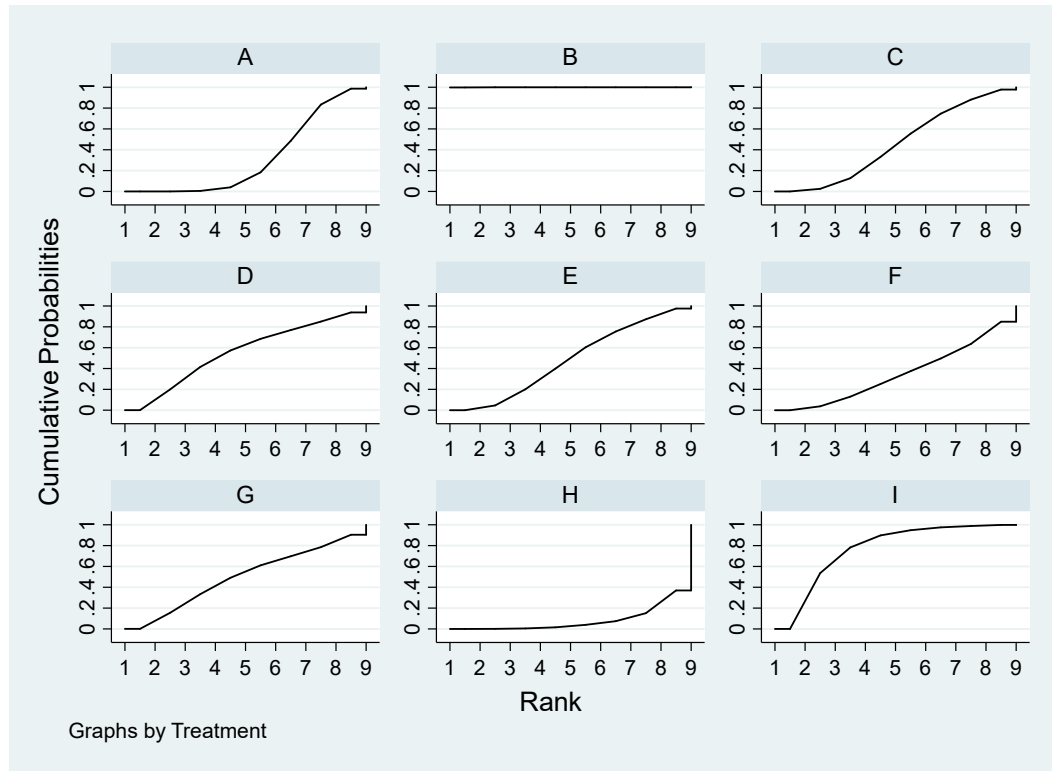
Label: PLA=1=A B.coagulans=2=B B.infantis=3=C C.butyricum=4=D L.acidophilus=5=E L.plantarum=6=F L.salivarius=7=G
S.bouardii=8=H S.cerevisiae=9=I

Table S6: SUCRA analysis: MeanRank table (Abdominal pain)

Treatm~t	SUCRA	PrBest	MeanRank
A	31.7	0.0	6.5
B	100.0	99.8	1.0
C	45.6	0.0	5.4
D	55.4	0.1	4.6
E	48.2	0.0	5.1
F	34.7	0.0	6.2
G	49.7	0.1	5.0
H	8.2	0.0	8.3
I	76.6	0.0	2.9

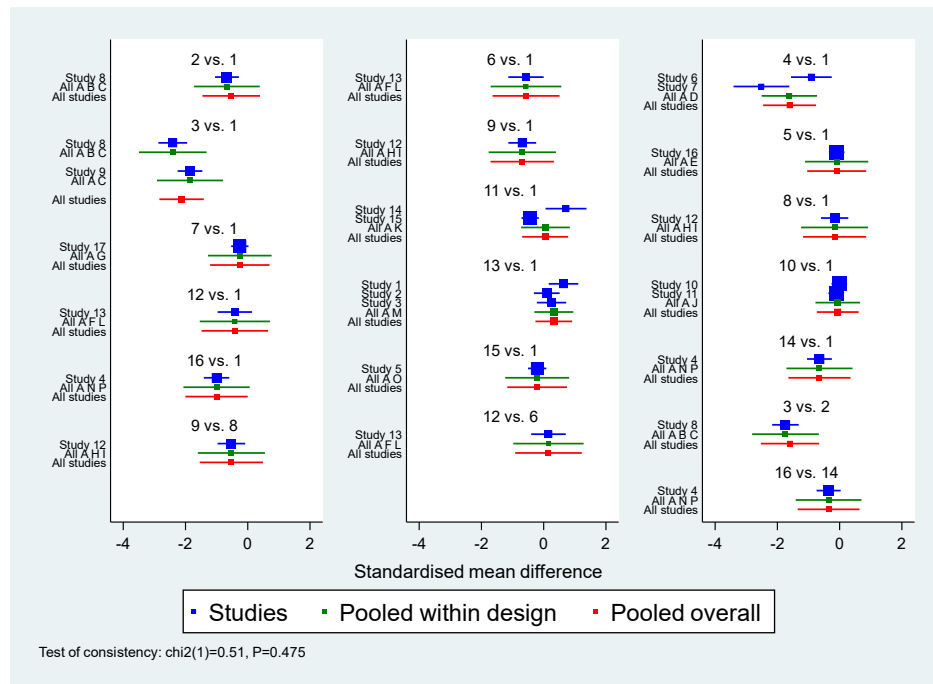
Label: PLA=1=A B.coagulans=2=B B.infantis=3=C C.butyricum=4=D L.acidophilus=5=E L.plantarum=6=F L.salivarius=7=G
S.boulardii=8=H S.cerevisiae=9=I

Figure S7: SUCRA analysis: MeanRank figure (Abdominal pain)



Label: PLA=1=A B.coagulans=2=B B.infantis=3=C C.butyricum=4=D L.acidophilus=5=E L.plantarum=6=F L.salivarius=7=G
S.bouardii=8=H S.cerevisiae=9=I

Figure S8: Forest plot and the global inconsistency test result (Abdominal pain+treatment length).
 ($\chi^2=0.51$, $p=0.475$)



Label: PLA=1=A B.coagulans(4w)=2=B B.coagulans(8w)=3=C B.coagulans(11w/13W)=4=D B.infantis(4w)=5=E B.infantis(8w)=6=F
 C.butyricum(4w)=7=G L.acidophilus(4w)=8=H L.acidophilus(8w)=9=I L.acidophilus(12w)=10=J L.plantarum(3w/4W)=11=K
 L.salivarius(8w)=12=L S.boulardii(4w/6w)=13=M S.cerevisiae(4w)=14=N S.cerevisiae(8w)=15=O S.cerevisiae(10w)=16=P

Table S7: Local inconsistency test (Abdominal pain+treatment length).

Side	Direct		Indirect		Difference			P>|z|	tau
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.			
A B *	-.6693619	.5385393	.4372391	1.446432	-1.106601	1.54874	0.475	.5015388	
A C	
A D	
A E	
A F	
A G	
A H	
A I	
A J	
A K	
A L	
A M	
A N	
A O	
A P	
B C *	-1.740341	.5467806	-.6337399	1.437127	-1.106601	1.54874	0.475	.5015388	
F L	
H I	
N P	

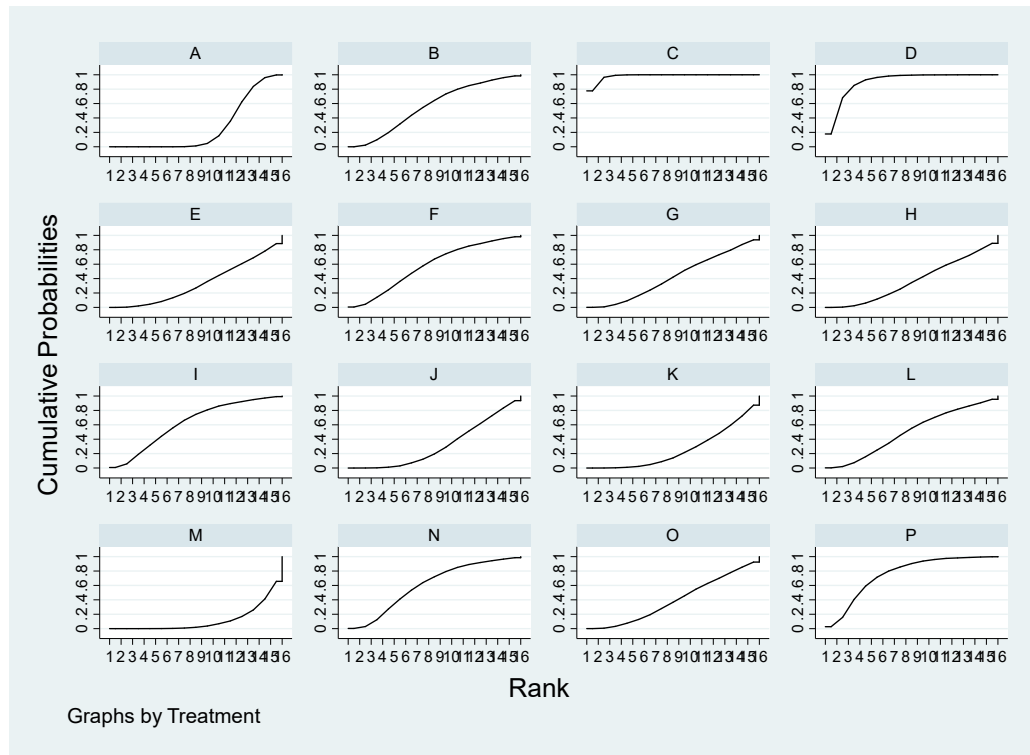
Label: PLA=1=A B.coagulans(4w)=2=B B.coagulans(8w)=3=C B.coagulans(11w/13W)=4=D B.infantis(4w)=5=E B.infantis(8w)=6=F
 C.butyricum(4w)=7=G L.acidophilus(4w)=8=H L.acidophilus(8w)=9=I L.acidophilus(12w)=10=J L.plantarum(3w/4W)=11=K
 L.salivarius(8w)=12=L S.boulardii(4w/6w)=13=M S.cerevisiae(4w)=14=N S.cerevisiae(8w)=15=O S.cerevisiae(10w)=16=P

Table S8: SUCRA analysis: MeanRank table (Abdominal pain+treatment length).

Treatment	SUCRA	PrBest	MeanRank
A	26.6	0.0	12.0
B	56.0	0.0	7.6
C	98.2	77.7	1.3
D	90.5	17.8	2.4
E	33.6	0.0	11.0
F	57.8	0.5	7.3
G	42.7	0.1	9.6
H	37.2	0.0	10.4
I	62.5	0.7	6.6
J	31.7	0.0	11.2
K	25.9	0.0	12.1
L	50.0	0.3	8.5
M	11.6	0.0	14.3
N	60.5	0.3	6.9
O	39.8	0.0	10.0
P	75.3	2.7	4.7

Label: PLA=1=A B.coagulans(4w)=2=B B.coagulans(8w)=3=C B.coagulans(11w/13W)=4=D B.infantis(4w)=5=E B.infantis(8w)=6=F
 C.butyricum(4w)=7=G L.acidophilus(4w)=8=H L.acidophilus(8w)=9=I L.acidophilus(12w)=10=J L.plantarum(3w/4W)=11=K
 L.salivarius(8w)=12=L S.boulardii(4w/6w)=13=M S.cerevisiae(4w)=14=N S.cerevisiae(8w)=15=O S.cerevisiae(10w)=16=P

Figure S9: SUCRA analysis: MeanRank figure (Abdominal pain+treatment length).



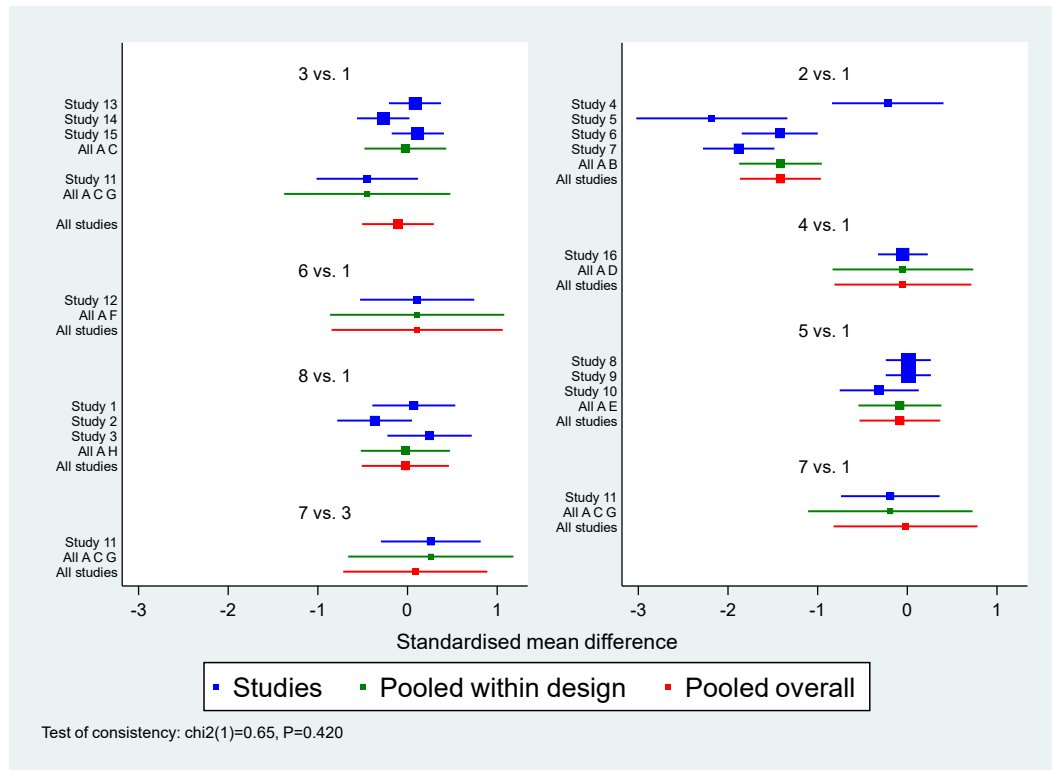
Label: PLA=1=A B.coagulans(4w)=2=B B.coagulans(8w)=3=C B.coagulans(11w/13W)=4=D B.infantis(4w)=5=E B.infantis(8w)=6=F
 C.butyricum(4w)=7=G L.acidophilus(4w)=8=H L.acidophilus(8w)=9=I L.acidophilus(12w)=10=J L.plantarum(3w/4W)=11=K
 L.salivarius(8w)=12=L S.bouardii(4w/6w)=13=M S.cerevisiae(4w)=14=N S.cerevisiae(8w)=15=O S.cerevisiae(10w)=16=P

Table S9: League table (Abdominal pain+treatment length).

B.coagulans(8w)	B.coagulans(11w/13w)	S.cerevisiae(10w)	L.acidophilus(8w)	S.cerevisiae(4w)	B.infantis(8w)	B.coagulans(4w)	L.salivarius(8w)
-0.52 (-1.63,0.59)	-0.60 (-1.92,0.71)	-0.31 (-1.74,1.11)	-0.04 (-1.46,1.39)	-0.08 (-1.55,1.39)	-0.04 (-1.46,1.38)	-0.12 (-1.53,1.30)	-0.16 (-1.59,1.27)
-1.12 (-2.35,0.11)	-0.92 (-2.24,0.41)	-0.35 (-1.35,0.64)	-0.12 (-1.60,1.36)	-0.12 (-1.48,1.24)	-0.15 (-1.22,0.92)	-0.28 (-1.61,1.05)	-0.20 (-1.64,1.23)
-1.44 (-2.68,-0.19)	-0.96 (-2.27,0.35)	-0.43 (-1.90,1.04)	-0.16 (-1.53,1.22)	-0.12 (-1.48,1.24)	-0.31 (-1.75,1.13)	-0.32 (-1.66,1.01)	-0.25 (-1.73,1.22)
-1.48 (-2.70,-0.25)	-1.04 (-2.41,0.33)	-0.47 (-1.83,0.89)	-0.27 (-1.75,1.20)	-0.39 (-1.77,0.99)	-0.36 (-1.80,1.08)	-0.37 (-1.74,1.00)	-0.32 (-1.75,1.11)
-1.56 (-2.85,-0.26)	-1.07 (-2.33,0.18)	-0.59 (-2.05,0.88)	-0.43 (-1.83,0.96)	-0.44 (-1.82,0.95)	-0.41 (-1.89,1.07)	-0.44 (-1.76,0.89)	-0.36 (-1.62,0.91)
-1.59 (-2.53,-0.66)	-1.19 (-2.56,0.17)	-0.75 (-2.13,0.64)	-0.48 (-1.88,0.92)	-0.49 (-1.91,0.93)	-0.47 (-1.91,0.96)	-0.47 (-1.62,0.67)	-0.41 (-1.48,0.65)
-1.71 (-3.00,-0.43)	-1.35 (-2.63,-0.07)	-0.79 (-2.18,0.59)	-0.53 (-1.54,0.49)	-0.55 (-1.93,0.82)	-0.51 (-1.78,0.76)	-0.53 (-1.46,0.39)	-0.46 (-1.76,0.84)
-1.87 (-3.06,-0.68)	-1.40 (-2.68,-0.11)	-0.84 (-2.27,0.58)	-0.59 (-1.98,0.80)	-0.59 (-1.79,0.61)	-0.57 (-1.65,0.51)	-0.58 (-1.76,0.61)	-0.74 (-1.96,0.48)
-1.92 (-3.11,-0.72)	-1.45 (-2.77,-0.12)	-0.91 (-2.29,0.47)	-0.69 (-1.71,0.33)	-0.65 (-1.65,0.35)	-0.62 (-1.92,0.69)	-0.86 (-1.95,0.24)	
-1.96 (-3.20,-0.72)	-1.51 (-2.78,-0.24)	-0.94 (-2.15,0.26)	-0.74 (-1.99,0.52)	-0.70 (-1.94,0.55)			
-2.03 (-3.22,-0.84)	-1.55 (-2.63,-0.46)	-1.00 (-2.00,-0.00)	-1.01 (-2.19,0.16)	-0.97 (-2.13,0.18)			
-2.07 (-3.05,-1.09)	-1.61 (-2.46,-0.76)	-1.05 (-2.29,0.19)					
-2.13 (-2.84,-1.41)	-1.65 (-2.79,-0.52)	-1.33 (-2.49,-0.17)					
-2.17 (-3.20,-1.14)	-1.93 (-2.97,-0.90)						
-2.45 (-3.38,-1.52)							

C.butyricum(4w)							
-0.05 (-1.40,1.31)	S.cerevisiae(8w)						
-0.09 (-1.49,1.30)	-0.05 (-1.45,1.35)	L.acidophilus(4w)					
-0.16 (-1.51,1.19)	-0.11 (-1.46,1.23)	-0.07 (-1.45,1.32)	B.infantis(4w)				
-0.20 (-1.36,0.97)	-0.15 (-1.32,1.02)	-0.10 (-1.32,1.11)	-0.04 (-1.20,1.13)	L.acidophilus(12w)			
-0.26 (-1.21,0.70)	-0.21 (-1.17,0.75)	-0.16 (-1.18,0.85)	-0.10 (-1.04,0.85)	-0.06 (-0.73,0.61)	PLA		
-0.30 (-1.51,0.90)	-0.26 (-1.47,0.95)	-0.21 (-1.46,1.05)	-0.14 (-1.34,1.06)	-0.11 (-1.10,0.89)	-0.05 (-0.79,0.69)	L.plantarum(3w/4w)	
-0.58 (-1.70,0.54)	-0.53 (-1.66,0.59)	-0.49 (-1.66,0.69)	-0.42 (-1.54,0.70)	-0.38 (-1.28,0.51)	-0.32 (-0.91,0.26)	-0.28 (-1.22,0.67)	S.boulardii(4w/6w)

Figure S10: Forest plot and the global inconsistency test result (Abdominal bloating).
 ($\chi^2=0.65$, $p=0.420$)



Label: PLA=1=A B.coagulans=2=B B.infantis=3=C C.butyricum=4=D L.acidophilus=5=E L.plantarum=6=F L.salivarius=7=G
 S.bouardii=8=H

Table S10: Local inconsistency test (Abdominal bloating).

	Side	Direct		Indirect		Difference		tau
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	P>|z|	
A B	.	.	.	.	.	.	.	.
A C	.	.	.	.	.	.	.	.
A D	.	.	.	.	.	.	.	.
A E	.	.	.	.	.	.	.	.
A F	.	.	.	.	.	.	.	.
A G *	-.1894072	.4679005	.6602016	.9411275	-.8496088	1.053394	0.420	.3744517
A H	.	.	.	.	.	.	.	.
C G *	.2596367	.469917	-.5899721	.9381086	.8496088	1.053394	0.420	.3744517

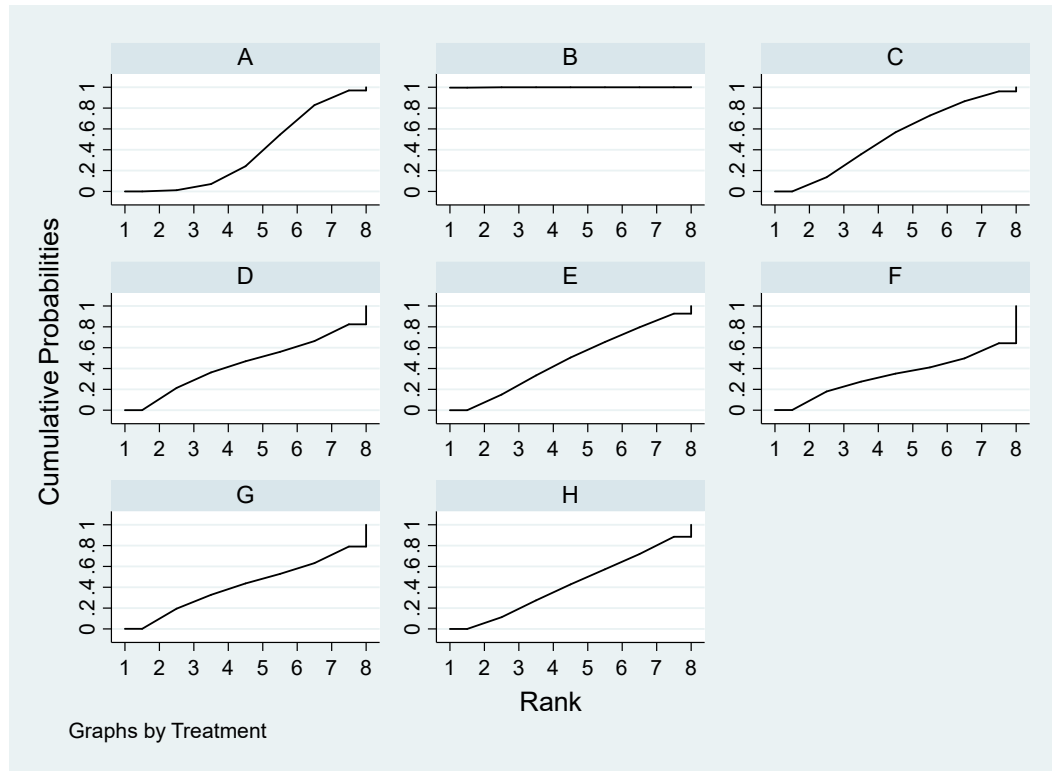
Label: PLA=1=A B.coagulans=2=B B.infantis=3=C C.butyricum=4=D L.acidophilus=5=E L.plantarum=6=F L.salivarius=7=G
S.bouardii=8=H

Table S11: SUCRA analysis: MeanRank table (Abdominal bloating).

Treatm~t	SUCRA	PrBest	MeanRank
A	38.1	0.0	5.3
B	99.9	99.6	1.0
C	51.7	0.0	4.4
D	44.2	0.1	4.9
E	48.1	0.0	4.6
F	33.7	0.2	5.6
G	41.6	0.1	5.1
H	42.7	0.0	5.0

Label: PLA=1=A B.coagulans=2=B B.infantis=3=C C.butyricum=4=D L.acidophilus=5=E L.plantarum=6=F L.salivarius=7=G
S.boulardii=8=H

Figure S11: SUCRA analysis: MeanRank figure (Abdominal bloating).



Label: PLA=1=A B.coagulans=2=B B.infantis=3=C C.butyricum=4=D L.acidophilus=5=E L.plantarum=6=F L.salivarius=7=G S.bouardii=8=H

Table S12: League table (**Abdominal bloating**).

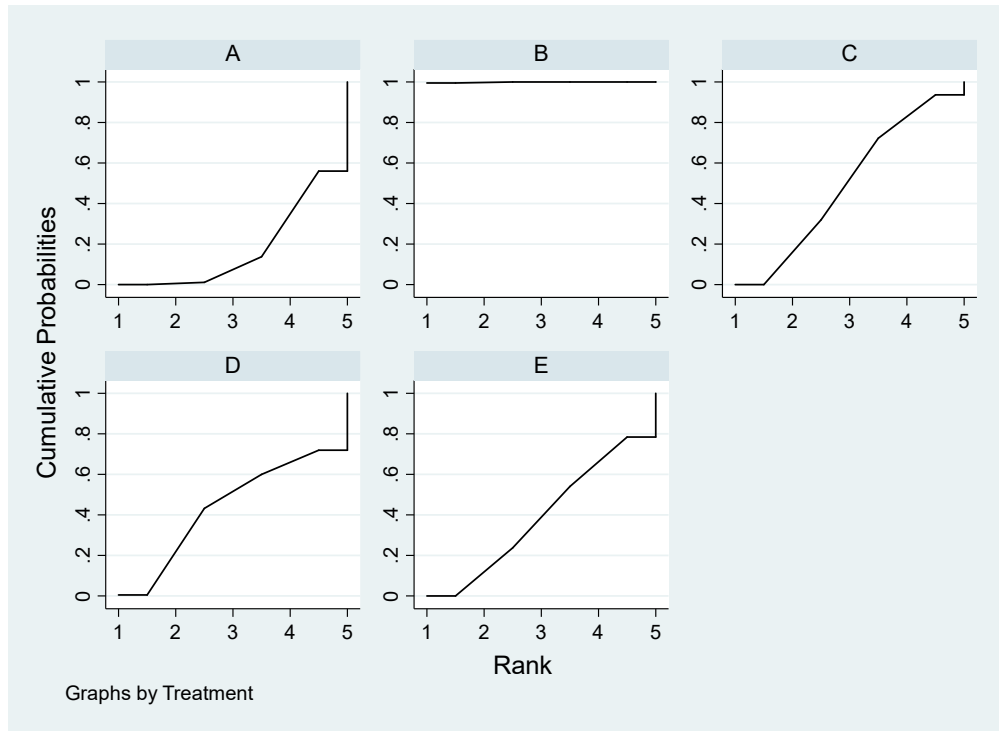
B.coagulans									
-1.31 (-1.91,-0.71)	B.infantis								
-1.33 (-1.97,-0.69)	-0.02 (-0.62,0.58)	L.acidophilus							
-1.37 (-2.25,-0.48)	-0.06 (-0.92,0.80)	-0.03 (-0.92,0.85)	C.butyricum						
-1.39 (-2.05,-0.73)	-0.08 (-0.71,0.55)	-0.06 (-0.72,0.60)	-0.02 (-0.93,0.88)	S.boulardii					
-1.40 (-2.32,-0.47)	-0.09 (-0.89,0.72)	-0.06 (-0.98,0.86)	-0.03 (-1.14,1.08)	-0.01 (-0.94,0.93)	L.salivarius				
-1.42 (-1.87,-0.96)	-0.11 (-0.51,0.29)	-0.08 (-0.53,0.37)	-0.05 (-0.81,0.71)	-0.02 (-0.51,0.46)	-0.02 (-0.82,0.78)	PLA			
-1.52 (-2.58,-0.47)	-0.21 (-1.25,0.82)	-0.19 (-1.25,0.87)	-0.16 (-1.38,1.07)	-0.13 (-1.20,0.94)	-0.13 (-1.37,1.12)	-0.11 (-1.06,0.85)	L.plantarum		

Table S13: SUCRA analysis: MeanRank table (Straining).

Treatm~t	SUCRA	PrBest	MeanRank
A	17.7	0.0	4.3
B	99.9	99.5	1.0
C	49.5	0.0	3.0
D	43.9	0.5	3.2
E	39.0	0.0	3.4

Label: PLA=1=A B.coagulans=2=B B.infantis=3=C L.plantarum=4=D S.boulardii=5=E

Figure S12: SUCRA analysis: MeanRank figure (Straining).

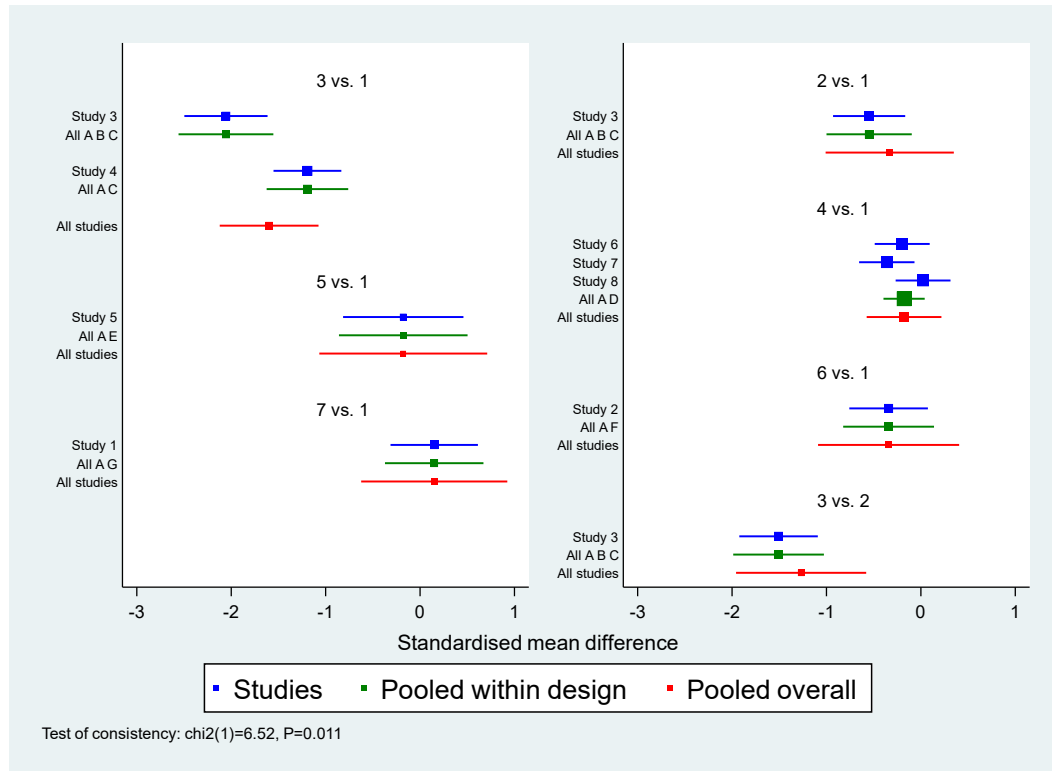


Label: PLA=1=A B.coagulans=2=B B.infantis=3=C L.plantarum=4=D S.boulevardii=5=E

Table S14: League table (**Straining**).

B.coagulans					
-1.11 (-1.55,-0.66)	B.infantis				
-1.11 (-1.93,-0.29)	-0.00 (-0.79,0.79)	L.plantarum			
-1.18 (-1.71,-0.64)	-0.07 (-0.56,0.43)	-0.07 (-0.92,0.78)	S.boulardii		
-1.29 (-1.63,-0.94)	-0.18 (-0.46,0.10)	-0.18 (-0.92,0.56)	-0.11 (-0.52,0.30)	PLA	

Figure S13: Forest plot and the global inconsistency test result (Strain scores: probiotics+length)
 ($\chi^2=6.52$, $p=0.0107$)



Label: *PLA*=1=A *B.coagulans*(4w)=2=B *B.coagulans*(8w)=3=C *B.infantis*(4w)=4=D *L.plantarum*(3w)=5=E
S.bouardii(4w)=6=F *S.bouardii*(6w)=7=G

Table S15: Local inconsistency test (Strain scores: probiotics+length)

Side	Direct		Indirect		Difference		P>|z|	tau
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.		
A B *	-.5482431	.2303674	1.177715	.6267571	-1.725958	.6760362	0.011	.1227094
A C	.	.	.	.	.	.	.	.
A D	.	.	.	.	.	.	.	.
A E	.	.	.	.	.	.	.	.
A F	.	.	.	.	.	.	.	.
A G	.	.	.	.	.	.	.	.
B C *	-1.507669	.2450861	.218289	.6097797	-1.725958	.676037	0.011	.1227094

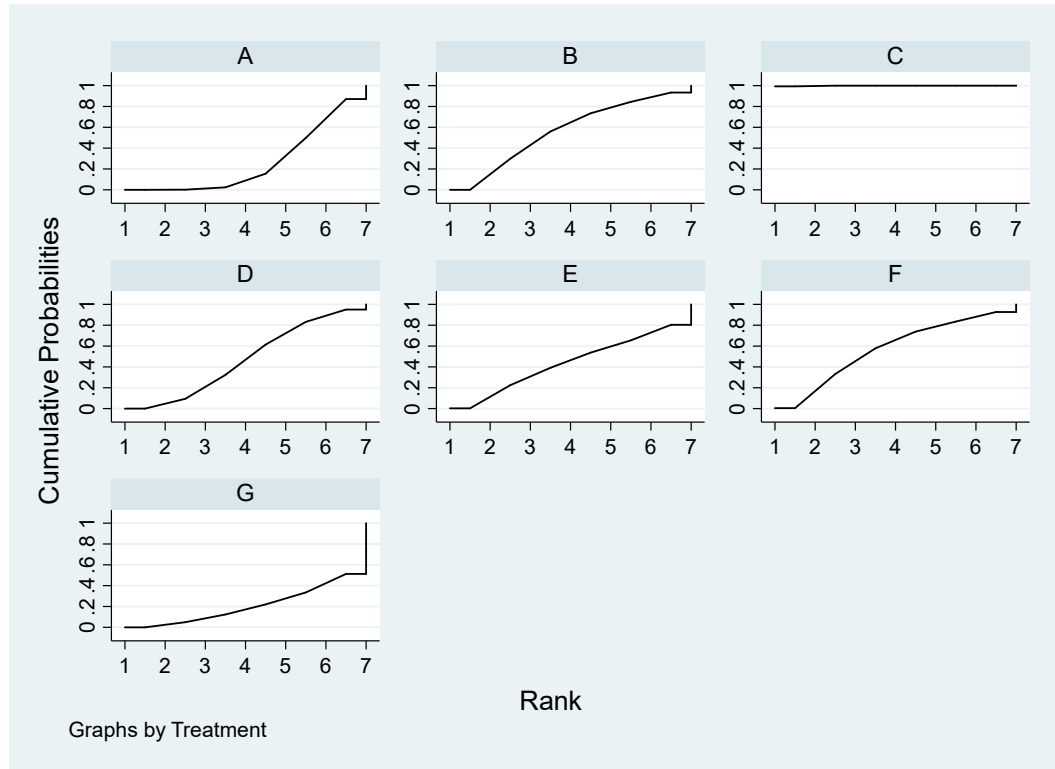
Label: *PLA*=1=*A* *B.coagulans*(4w)=2=*B* *B.coagulans*(8w)=3=*C* *B.infantis*(4w)=4=*D* *L.plantarum*(3w)=5=*E*
S.bouardii(4w)=6=*F* *S.bouardii*(6w)=7=*G*

Table S16: Result of SUCRA analysis: MeanRank table (Strain scores: probiotics+length)

+-----+			
Treatm~t	SUCRA	PrBest	MeanRank
A	25.8	0.0	5.4
B	56.2	0.0	3.6
C	99.9	99.3	1.0
D	46.9	0.0	4.2
E	43.6	0.2	4.4
F	56.9	0.4	3.6
G	20.7	0.0	5.8

Label: *PLA*=1=*A* *B.coagulans*(4w)=2=*B* *B.coagulans*(8w)=3=*C* *B.infantis*(4w)=4=*D* *L.plantarum*(3w)=5=*E*
S.bouardii(4w)=6=*F* *S.bouardii*(6w)=7=*G*

Figure S14: Result of SUCRA analysis: MeanRank figure (Strain scores: probiotics+length)



Label: *PLA*=1=*A* *B.coagulans*(4w)=2=*B* *B.coagulans*(8w)=3=*C* *B.infantis*(4w)=4=*D* *L.plantarum*(3w)=5=*E*
S.boulaardii(4w)=6=*F* *S.boulaardii*(6w)=7=*G*

Table S17: league table (Strain scores: probiotics+length)

B.coagulans(8w)

-1.26 (-2.17,-0.34)	<i>S.boulevardii</i> (4w)
-1.27 (-1.96,-0.58)	-0.01 (-1.02,1.00) <i>B.coagulans</i> (4w)
-1.42 (-2.08,-0.76)	-0.16 (-1.01,0.68) -0.15 (-0.94,0.63) <i>B.infantis</i> (4w)
-1.42 (-2.45,-0.39)	-0.16 (-1.33,1.00) -0.15 (-1.27,0.97) -0.00 (-0.97,0.97) <i>L.plantarum</i> (3w)
-1.60 (-2.12,-1.08)	-0.34 (-1.09,0.41) -0.33 (-1.01,0.35) -0.18 (-0.57,0.22) -0.18 (-1.07,0.71) PLA
-1.75 (-2.68,-0.81)	-0.49 (-1.57,0.58) -0.48 (-1.51,0.55) -0.33 (-1.20,0.54) -0.33 (-1.51,0.85) -0.15 (-0.92,0.62) <i>S.boulevardii</i> (6w)

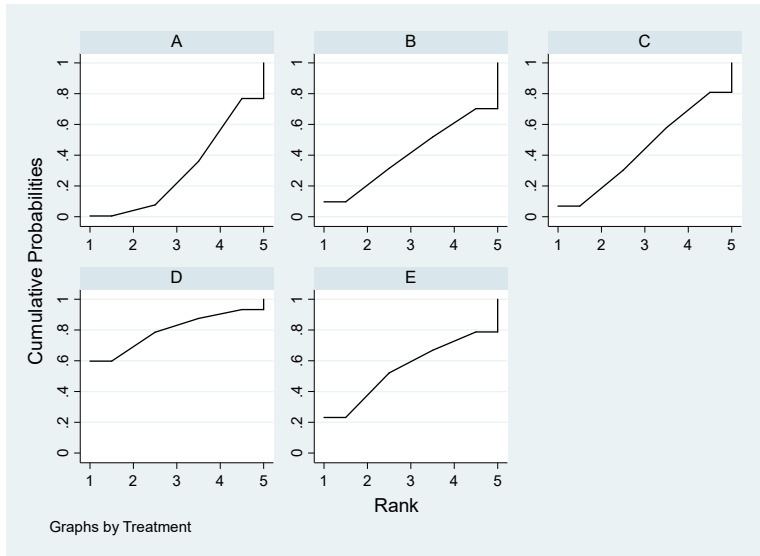
Label: PLA=1=A *B.coagulans*(4w)=2=B *B.coagulans*(8w)=3=C *B.infantis*(4w)=4=D *L.plantarum*(3w)=5=E
S.boulevardii(4w)=6=F *S.boulevardii*(6w)=7=G

Table S18: Result of SUCRA analysis: MeanRank table (QOL)

Treatm~t	SUCRA	PrBest	MeanRank
A	30.3	0.5	3.8
B	40.8	9.7	3.4
C	44.0	6.9	3.2
D	79.8	59.8	1.8
E	55.2	23.1	2.8

Label: PLA=1=A C.butyrlicum=2=B L.acidophilus=3=C L.plantarum=4=D S.boulardii=5=E

Figure S15: Result of SUCRA analysis: MeanRank figure (QOL)



Label: PLA=1=A C.butyrlicum=2=B L.acidophilus=3=C L.plantarum=4=D S.boulardii=5=E

Table S19: league table (QOL)

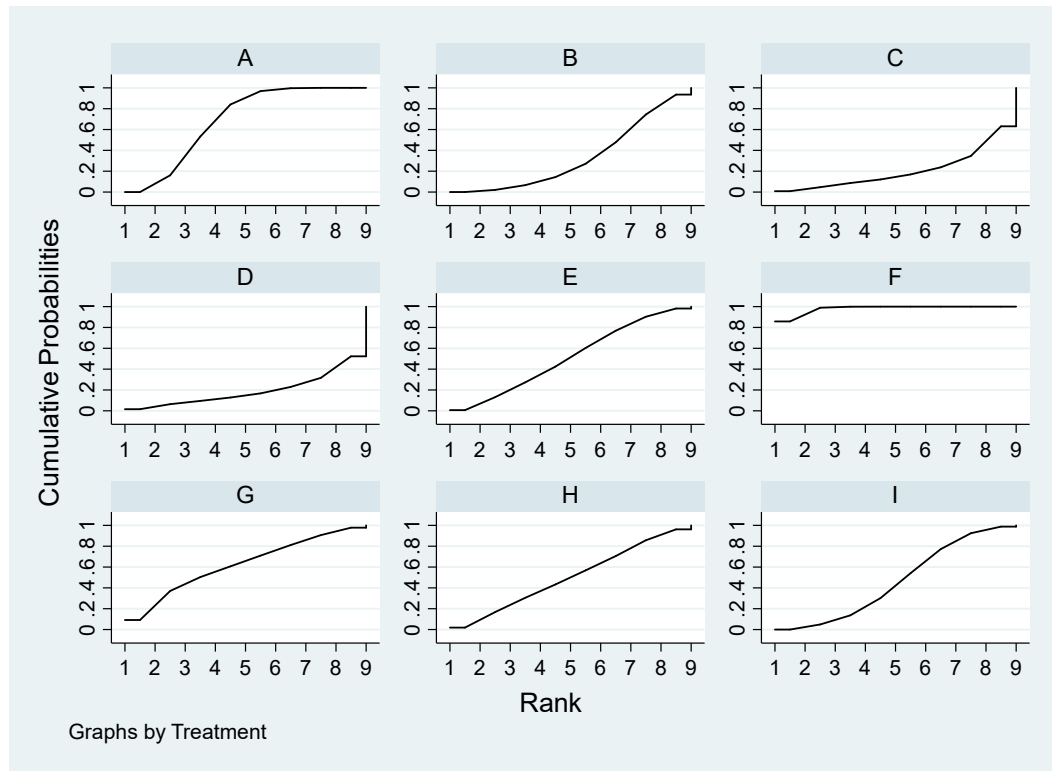
L.plantarum				
0.20 (-0.54,0.93)	S.boulardii			
0.27 (-0.33,0.88)	0.08 (-0.49,0.64)	L.acidophilus		
0.28 (-0.39,0.96)	0.09 (-0.55,0.72)	0.01 (-0.46,0.49)	C.butyricum	
0.33 (-0.22,0.87)	0.13 (-0.37,0.63)	0.05 (-0.21,0.32)	0.04 (-0.35,0.44)	PLA

Table S20: Result of SUCRA analysis: MeanRank table (Adverse events)

Treatment	SUCRA	PrBest	MeanRank
A	68.8	0.0	3.5
B	33.3	0.0	6.3
C	20.6	0.9	7.4
D	19.2	1.6	7.5
E	51.2	0.7	4.9
F	98.1	85.8	1.2
G	62.2	9.2	4.0
H	50.2	1.9	5.0
I	46.4	0.0	5.3

Label: PLA=1=A B.bifidum=2=B B.longum=3=C C.butyricum=4=D E.coli=5=E L.acidophilus=6=F L.reuteri=7=G
 S.boulardii=8=H S.cerevisiae=9=I

Figure S16: Result of SUCRA analysis: MeanRank figure (Adverse events)

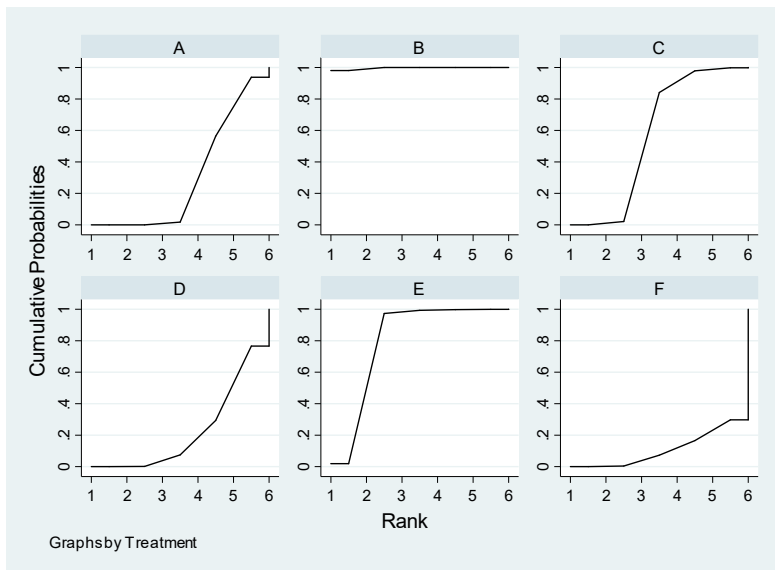


Label: PLA=1=A B.bifidum=2=B B.longum=3=C C.butyricum=4=D E.coli=5=E L.acidophilus=6=F L.reuteri=7=G
S.bouardii=8=H S.cerevisiae=9=I

Table S21: league table (Adverse events)

L.acidophilus								
0.47								
(0.32,0.67)	PLA							
0.47	1.00							
(0.15,1.44)	(0.34,2.91)	L.reuteri						
0.38	0.82	0.82						
(0.17,0.85)	(0.40,1.68)	(0.23,2.96)	E.coli					
0.37	0.79	0.79	0.97					
(0.14,0.97)	(0.33,1.94)	(0.20,3.20)	(0.31,3.05)	S.bouardii				
0.35	0.76	0.76	0.92	0.95				
(0.19,0.65)	(0.46,1.24)	(0.23,2.45)	(0.39,2.21)	(0.34,2.64)	S.cerevisiae			
0.29	0.62	0.62	0.76	0.78	0.82			
(0.14,0.60)	(0.33,1.17)	(0.18,2.14)	(0.29,1.97)	(0.26,2.33)	(0.37,1.82)	B.bifidum		
0.18	0.39	0.39	0.48	0.49	0.51	0.63		
(0.04,0.76)	(0.10,1.56)	(0.07,2.24)	(0.10,2.27)	(0.09,2.55)	(0.12,2.24)	(0.14,2.89)	B.longum	
0.17	0.35	0.35	0.43	0.45	0.47	0.57	0.91	
(0.03,0.88)	(0.07,1.80)	(0.05,2.48)	(0.07,2.56)	(0.07,2.85)	(0.09,2.56)	(0.10,3.28)	(0.11,7.74)	C.butyricum

Figure S17: Result of SUCRA analysis: MeanRank figure (global symptom scores: *B. coagulans* vs. Probiotic combinations)



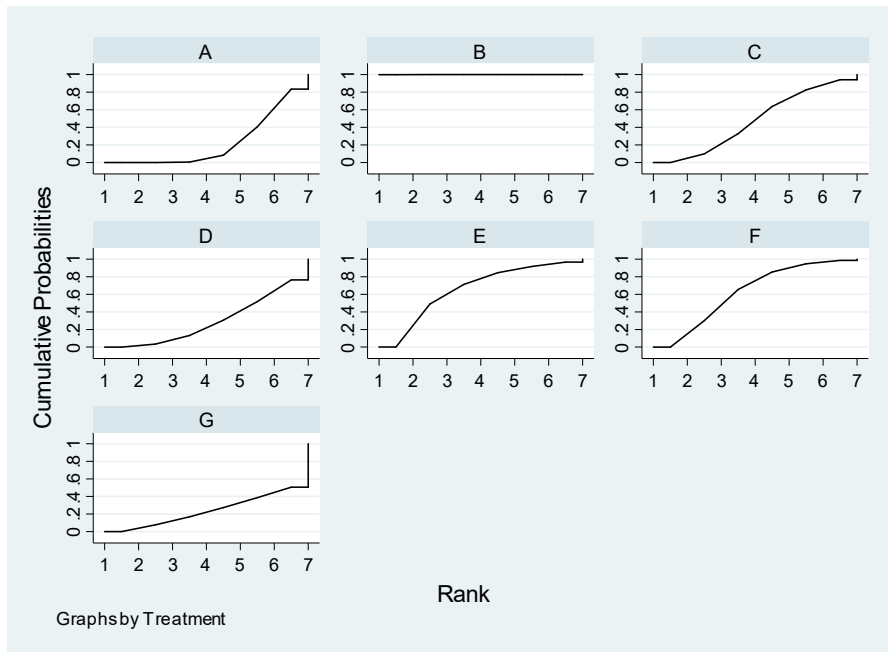
Labels: PLA=A *B. coagulans*=B 1B1L1S=C 1B2L=D 1B2L1S=E 3B4L1S=F

Table S22: league table (global symptom scores: *B. coagulans* vs. Probiotic combinations)

B					
-0.90 (-1.74,-0.05)	E				
-1.75 (-2.14,-1.36)	-0.85 (-1.68,-0.03)	C			
-1.99 (-2.29,-1.68)	-1.09 (-1.88,-0.30)	-0.24 (-0.48,-0.00)	A		
-2.08 (-2.58,-1.58)	-1.19 (-2.07,-0.30)	-0.34 (-0.80,0.13)	-0.09 (-0.49,0.30)	D	
-2.35 (-3.20,-1.50)	-1.46 (-2.57,-0.34)	-0.60 (-1.43,0.22)	-0.36 (-1.16,0.43)	-0.27 (-1.16,0.62)	F

Labels: PLA=A *B. coagulans*=B 1B1L1S=C 1B2L=D 1B2L1S=E 3B4L1S=F

Figure S18: Result of SUCRA analysis: MeanRank figure (Symptom relief rate: *B. coagulans* vs. Probiotic combinations)



Labels: PLA=A *B. coagulans*=B 1B1L1S=C 1B2L=D 1B2L1P=E 1B2L1S=F 3B4L1S=G

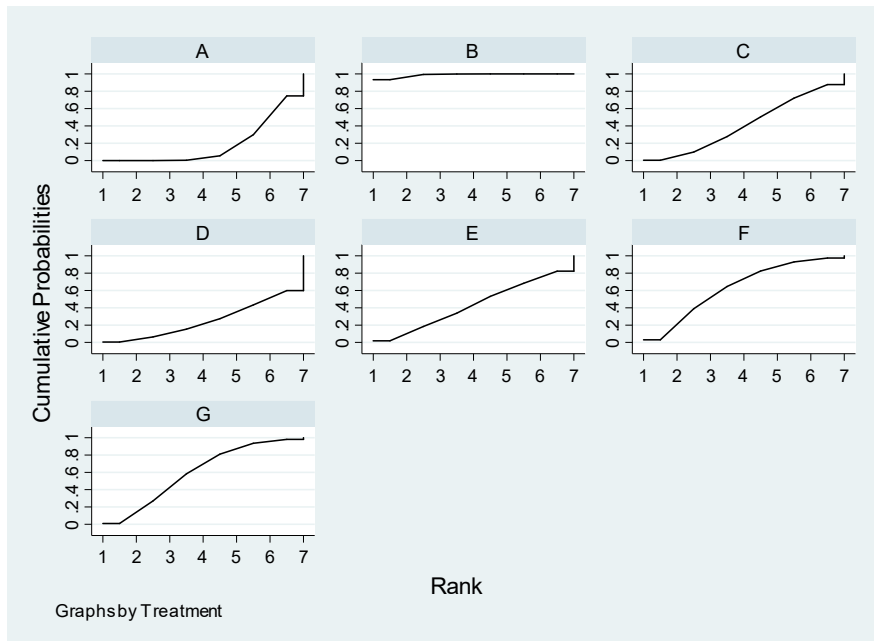
Table S23: league table (Symptom relief rate: *B. coagulans* vs. Probiotic combinations)

B

3.02 (1.06,4.98)	E					
3.21 (1.56,4.86)	0.19 (-1.69,2.07)	F				
3.61 (2.03,5.19)	0.59 (-1.23,2.41)	0.40 (-1.08,1.88)	C			
4.02 (2.35,5.69)	1.00 (-0.90,2.90)	0.81 (-0.77,2.39)	0.41 (-1.09,1.92)	D		
4.33 (1.90,6.75)	1.31 (-1.28,3.89)	1.12 (-1.25,3.48)	0.72 (-1.60,3.03)	0.30 (-2.07,2.68)	G	
4.10 (2.87,5.33)	1.08 (-0.44,2.61)	0.89 (-0.21,1.99)	0.49 (-0.50,1.49)	0.08 (-1.05,1.21)	-0.22 (-2.31,1.87)	A

Labels: PLA=A *B. coagulans*=B 1B1L1S=C 1B2L=D 1B2L1P=E 1B2L1S=F 3B4L1S=G

Figure S19: Result of SUCRA analysis: MeanRank figure (Abdominal pain: *B. coagulans* vs. Probiotic combinations)



Labels: PLA=A *B. coagulans*=B 1B1L1S=C 1B2L=D 1B2L1P=E 1B2L1S=F 3B4L1S=G

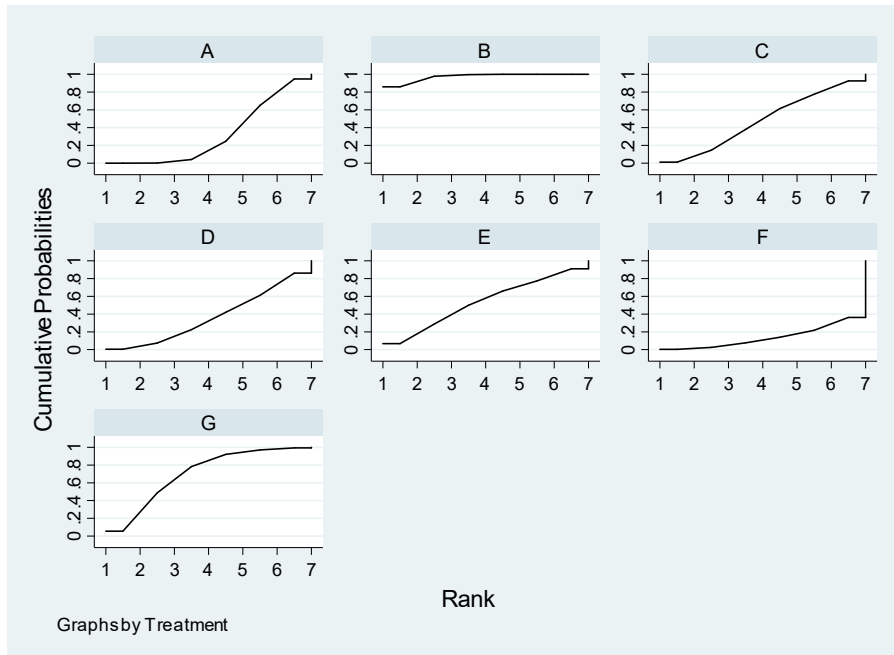
Table S24: league table (Abdominal pain: *B. coagulans* vs. Probiotic combinations)

B

-1.01 (-2.07,0.05)	F						
-1.08 (-2.03,-0.13)	-0.07 (-1.20,1.07)	G					
-1.36 (-2.66,-0.06)	-0.35 (-1.79,1.09)	-0.28 (-1.64,1.08)	E				
-1.40 (-2.43,-0.36)	-0.38 (-1.59,0.82)	-0.32 (-1.43,0.79)	-0.04 (-1.46,1.39)	C			
-1.72 (-3.01,-0.43)	-0.71 (-2.14,0.72)	-0.64 (-1.99,0.71)	-0.36 (-1.98,1.25)	-0.33 (-1.74,1.08)	D		
-1.72 (-2.33,-1.11)	-0.71 (-1.58,0.16)	-0.64 (-1.37,0.08)	-0.36 (-1.51,0.79)	-0.33 (-1.16,0.51)	-0.00 (-1.13,1.13)	A	

Labels: PLA=A *B. coagulans*=B 1B1L1S=C 1B2L=D 1B2L1P=E 1B2L1S=F 3B4L1S=G

Figure S20: Result of SUCRA analysis: MeanRank figure (Abdominal bloating: *B. coagulans* vs. Probiotic combinations)



Labels: PLA=A *B. coagulans*=B 1B1L1S=C 1B2L=D 1B2L1P=E 1B2L1S=F 3B4L1S=G

Table S25: league table (Abdominal bloating: *B. coagulans* vs. Probiotic combinations)

B						
-0.77 (-1.77,0.23)	G					
-1.04 (-2.42,0.34)	-0.27 (-1.71,1.18)	E				
-1.17 (-2.27,-0.08)	-0.41 (-1.58,0.76)	-0.14 (-1.65,1.37)	C			
-1.37 (-2.46,-0.29)	-0.61 (-1.77,0.56)	-0.34 (-1.84,1.17)	-0.20 (-1.44,1.04)	D		
-1.41 (-2.05,-0.77)	-0.64 (-1.41,0.12)	-0.38 (-1.60,0.85)	-0.24 (-1.12,0.65)	-0.04 (-0.91,0.84)	A	
-1.97 (-3.48,-0.47)	-1.20 (-2.77,0.36)	-0.94 (-2.77,0.90)	-0.80 (-2.42,0.83)	-0.60 (-2.22,1.02)	-0.56 (-1.92,0.80)	F

Labels: PLA=A *B. coagulans*=B 1B1L1S=C 1B2L=D 1B2L1P=E 1B2L1S=F 3B4L1S=G

Table S26: league table (Abdominal pain: Comparisons of different strains of *B. coagulans*)

B.coagulans MTCC5856

-0.71 (-1.65,0.23)

B.coagulans Unique IS2

-1.60 (-2.71,-0.49)

-0.89 (-1.61,-0.17)

B.coagulans LBSC

-2.51 (-3.41,-1.62)

-1.80 (-2.10,-1.51)

-0.91 (-1.56,-0.25)

PLA

Table S27: league table (Abdominal bloating: Comparisons of different strains of *B. coagulans*)

B.coagulans MTCC5856

-0.52 (-1.59,0.55)

B.coagulans Unique IS2

-2.18 (-3.15,-1.21)

-1.66 (-2.11,-1.21)

PLA

Table S28: league table (Straining scores: Comparisons of different strains of *B. coagulans*)

B.coagulans Unique IS2

-0.56 (-1.52,0.39)

B.coagulans LBSC

-1.41 (-1.88,-0.95)

-0.85 (-1.68,-0.02)

PLA