

Supplementary Information Files

Figure S1. Illustrative presentation of the web and mobile application user interfaces.

Figure S2. Schematic representation of the study procedures among stakeholders.

Figure S3. Age and gender (a) and geographical distribution (b) of the study subjects.

Figure S4. Summary of the additional efficacy parameters: number of straining events (a), stool color (b), and stool amount (c). Dots and error bars represent mean and standard deviation, respectively.

Figure S5. Summary of the additional efficacy parameters: the number of sensation of incomplete evacuation (a), anorectal obstruction/blockage (b), abdominal pain/discomfort (c), and manual maneuvers to facilitate events (d). Dots and error bars represent mean and standard deviation, respectively.

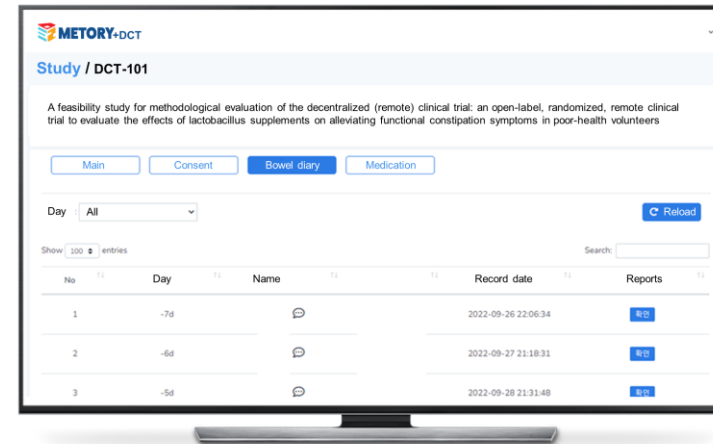
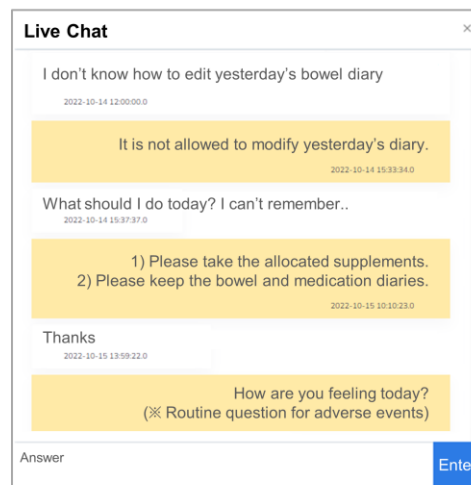
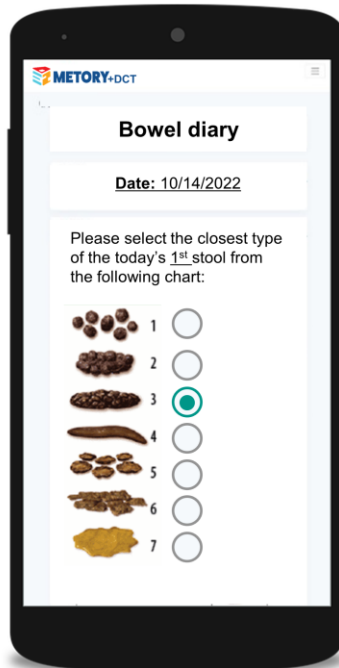
Figure S6. Evaluation of the urine vitamin C measurement records.

Table S1. Summary of the stool color

Table S2. Summary of the amount of stool

Patient Interface

- eConsent and eSignature
- eDiary: bowel and medication diary
- Live chat with the investigators



Investigator Interface

- eConsent and eSignature
- Review of the eDiary records
- Live chat with the patients
- Adverse event monitoring

Figure S1. Illustrative presentation of the web and mobile application user interfaces.

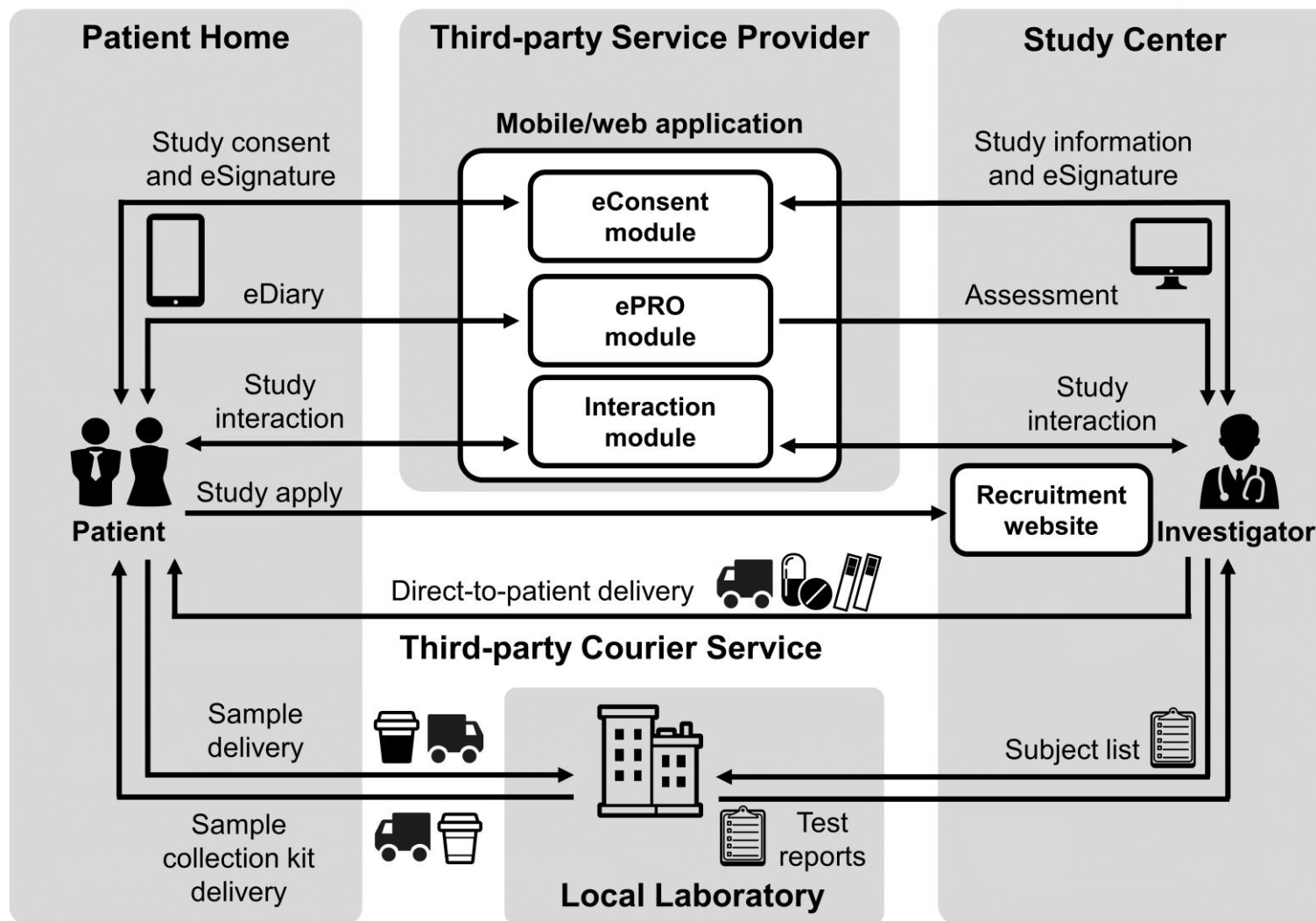


Figure S2. Schematic representation of the study procedures among stakeholders.

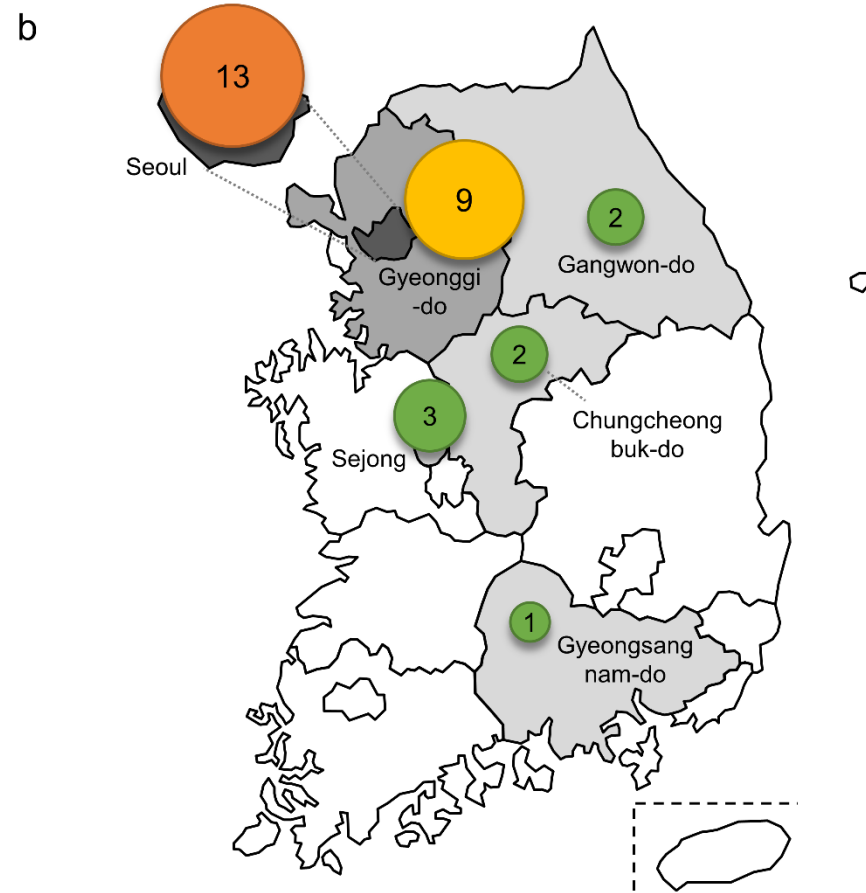
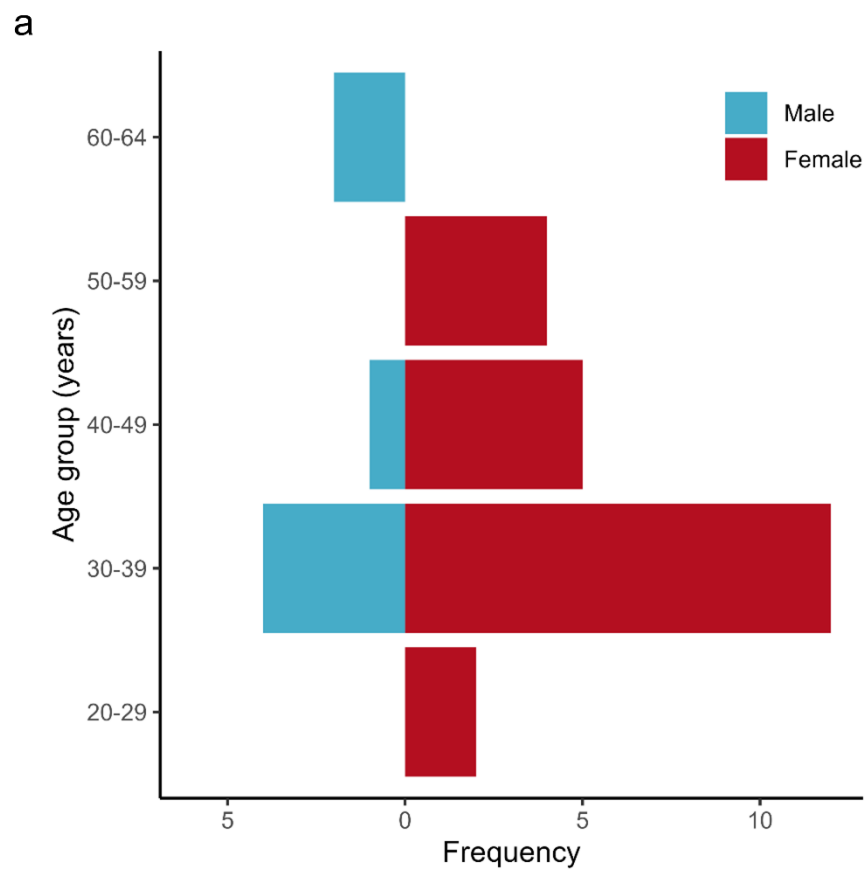


Figure S3. Age and gender (a) and geographical distribution (b) of the study subjects.

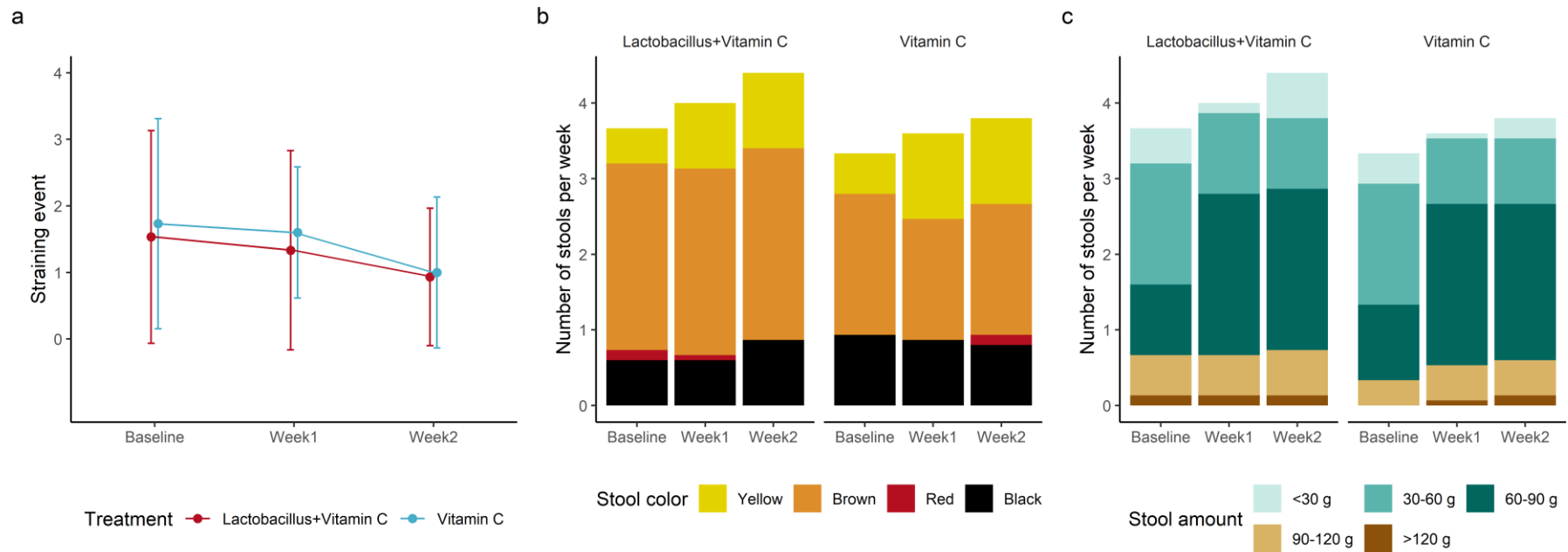


Figure S4. Summary of the additional efficacy parameters: number of straining events (a), stool color (b), and stool amount (c). Dots and error bars represent mean and standard deviation, respectively.

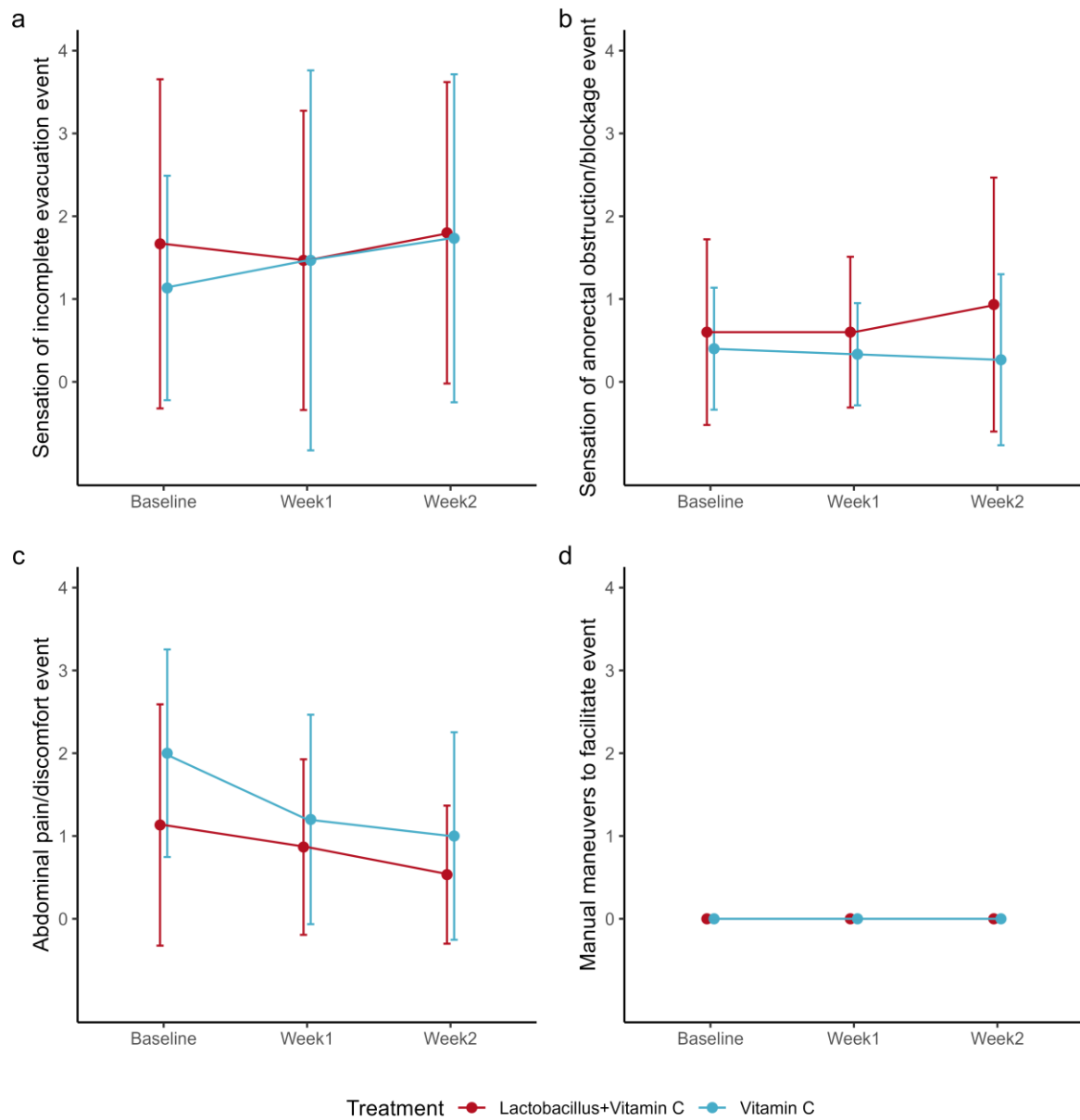


Figure S5. Summary of the additional efficacy parameters: the number of sensation of incomplete evacuation (a), anorectal obstruction/blockage (b), abdominal pain/discomfort (c), and manual maneuvers to facilitate events (d). Dots and error bars represent mean and standard deviation, respectively.

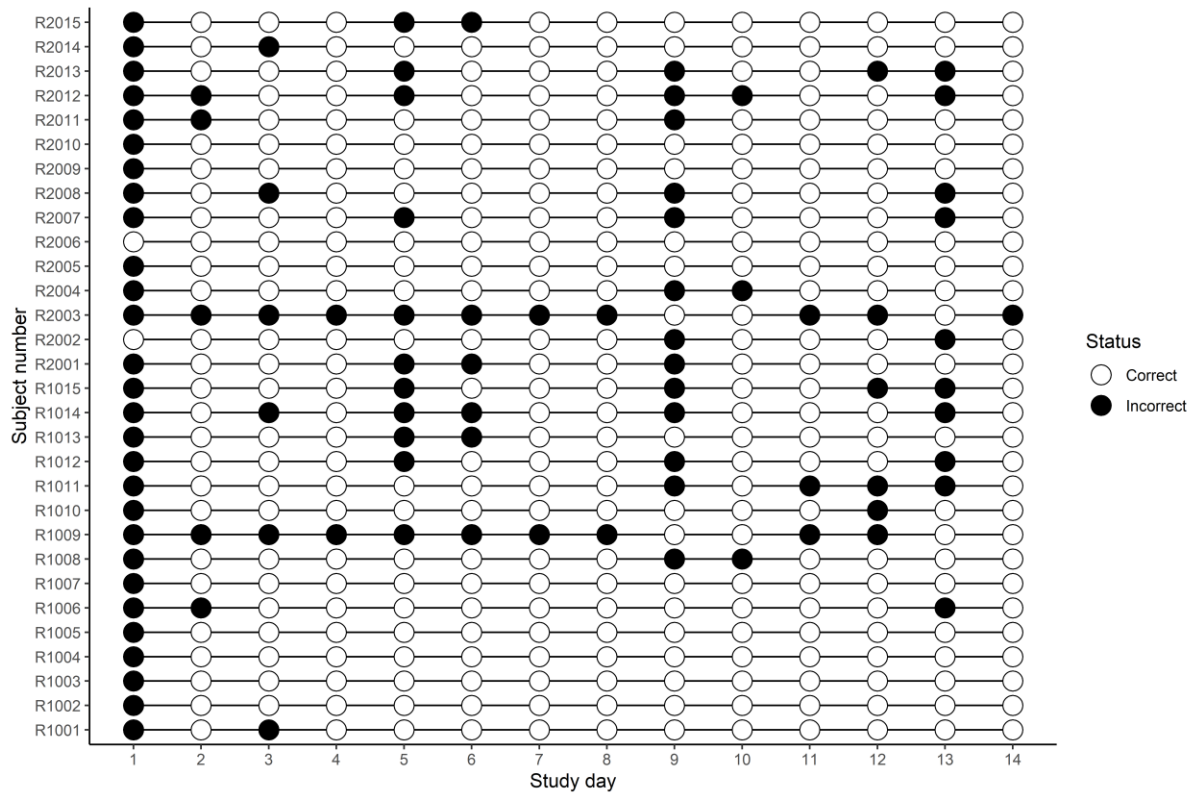


Figure S6. Evaluation of the urine vitamin C measurement records.

Table S1. Summary of the stool color

#/week	Lactobacillus+Vitamin C (n=15)				Vitamin C (n=15)			
	Yellow	Brown	Red	Black	Yellow	Brown	Red	Black
Baseline	0.47 (0.99)	2.47 (2.03)	0.13 (0.35)	0.60 (0.83)	0.53 (0.99)	1.87 (1.51)	0.00 (0.00)	0.93 (1.10)
Week 1	0.87 (1.51)	2.47 (2.03)	0.07 (0.26)	0.60 (0.91)	1.13 (1.88)	1.60 (1.55)	0.00 (0.00)	0.87 (1.19)
Week 2	1.00 (1.89)	2.53 (1.85)	0.00 (0.00)	0.87 (1.36)	1.13 (2.13)	1.73 (1.98)	0.13 (0.35)	0.80 (1.01)

Notes: Mean (standard deviation) were presented.

Table S2. Summary of the amount of stool

#/week	Lactobacillus + Vitamin C (n=15)					Vitamin C (n=15)				
	<30 g	30-60 g	60-90 g	90-120 g	>120 g	<30 g	30-60 g	60-90 g	90-120 g	>120 g
Baseline	0.47 (0.92)	1.60 (1.50)	0.93 (1.22)	0.53 (1.13)	0.13 (0.35)	0.40 (0.51)	1.60 (1.50)	1.00 (0.93)	0.33 (0.49)	0.00 (0.00)
Week 1	0.13 (0.35)	1.07 (1.28)	2.13 (1.77)	0.53 (1.06)	0.13 (0.52)	0.07 (0.26)	0.87 (1.06)	2.13 (1.85)	0.47 (0.64)	0.07 (0.26)
Week 2	0.60 (1.80)	0.93 (0.80)	2.13 (2.26)	0.60 (0.83)	0.13 (0.52)	0.27 (0.80)	0.87 (0.74)	2.07 (1.83)	0.47 (0.64)	0.13 (0.35)