

Supplementary Table 1. Relative (%) Femoflor®16 test results (normalized to TBM) by studied groups in midstream urine

Midstream urine	Control	Risk of UTI	rLUTI
<i>Lactobacillus</i> spp.	94.6 (29.7; 99.2)	14.7 (1.1; 69.3)*	0.9 (0.0; 60.6)#
Facultative anaerobes (excluding <i>Lactobacillus</i> spp.)			
<i>Enterobacterales</i>	0.0 (0.0; 2.1)	18.3 (0.1; 74.4)*	96.3 (0.0; 99.9)#
<i>Streptococcus</i> spp.	0.0 (0.0; 0.0)	0.0 (0.0; 0.0)	0.0 (0.0; 0.0)
<i>Staphylococcus</i> spp.	0.0 (0.0; 0.0)	0.0 (0.0; 0.1)	0.0 (0.0; 0.0)
Total	0.1 (0.0; 3.2)	19.0 (0.4;74.4)*	96.3 (1.8; 99.9)#
Obligate anaerobes			
<i>Gardnerella_vaginalis</i> / <i>Prevotella bivia</i> / <i>Porphyromonas</i> spp.	0.0 (0.0; 0.7)	3.6 (0.2; 8.8)#	0.0 (0.0; 1.0)
<i>Eubacterium</i> spp.	0.2 (0.0; 1.5)	4.9 (1.3; 16.2)#	0.0 (0.0; 1.7)
<i>Sneathia</i> spp. / <i>Leptotrichia</i> spp. / <i>Fusobacterium</i> spp.	0.0 (0.0; 0.0)	0.0 (0.0; 2.5)*	0.0 (0.0; 0.0)
<i>Megasphaera</i> spp. / <i>Veillonella</i> spp. / <i>Dialister</i> spp.	0.0 (0.0; 0.1)	1.1 (0.0; 14.0)*	0.0 (0.0; 0.3)
<i>Lachnobacterium</i> spp. / <i>Clostridium</i> spp.	0.0 (0.0; 0.0)	0.0 (0.0; 0.1)	0.0 (0.0; 0.0)*
<i>Mobiluncus</i> spp. / <i>Corynebacterium</i> spp.	0.0 (0.0; 0.1)	0.0 (0.0; 1.1)	0.0 (0.0; 0.0)*
<i>Peptostreptococcus</i> spp.	0.0 (0.0; 0.0)	0.1 (0.0; 0.7)*	0.0 (0.0; 0.0)
<i>Atopobium_vaginae</i>	0.0 (0.0; 0.0)	0.0 (0.0; 3.3)*	0.0 (0.0; 0.0)
Total	1.3 (0.2; 6.8)	12.0 (2.9; 77.7)*	0.2 (0.0; 4.6)*

Note: values are presented as median (Q1; Q3) of logarithmic values; "Control" group, $n = 34$; "Risk of UTI" group, $n = 16$; "rLUTI" group, $n = 100$; * – $p < 0.05$ compared with "Control"; # – $p < 0.001$ compared with "Control". Pairwise comparisons were performed using the Mann-Whitney U test.

Supplementary Table 2. Relative (%) Femoflor®16 test results (normalized to TBM) by studied groups in first-pass urine

First-pass urine	Control	Risk of UTI	rLUTI
<i>Lactobacillus</i> spp.	95.2 (68.5;99.4)	11.3 (0.7;79.7) [#]	1.4 (0.0; 52.0) [#]
Facultative anaerobes (excluding <i>Lactobacillus</i> spp.)			
<i>Enterobacterales</i>	0.0 (0.0;2.0)	6.1 (0.0;77.0) [*]	95.5 (0.0;99.8) [#]
<i>Streptococcus</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.4)	0.0 (0.0;0.0)
<i>Staphylococcus</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.1)	0.0 (0.0;0.0) [*]
Total	0.1 (0.0;6.3)	6.6 (0.2;78.4) [*]	95.5 (1.3; 99.8) [#]
Obligate anaerobes			
<i>Gardnerella_vaginalis</i> / <i>Prevotella bivia</i> / <i>Porphyromonas</i> spp.	0.1 (0.0;1.1)	1.8 (0.2;12.8) [*]	0.0 (0.0;0.5)
<i>Eubacterium</i> spp.	0.3 (0.0;2.4)	3.7 (0.7;22.8) [*]	0.0 (0.0;1.5)
<i>Sneathia</i> spp. / <i>Leptotrichia</i> spp. / <i>Fusobacterium</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;1.5) [*]	0.0 (0.0;0.0)
<i>Megasphaera</i> spp. / <i>Veillonella</i> spp / <i>Dialister</i> spp.	0.0 (0.0;0.7)	0.5 (0.0;15.1) [*]	0.0 (0.0;0.3)
<i>Lachnobacterium</i> spp. / <i>Clostridium</i> spp.	0.0 (0.0;0.1)	0.0 (0.0;0.6)	0.0 (0.0;0.0) [*]
<i>Mobiluncus</i> spp. / <i>Corynebacterium</i> spp.	0.0 (0.0;0.2)	0.0 (0.0;0.9)	0.0 (0.0;0.0) [#]
<i>Peptostreptococcus</i> spp.	0.0 (0.0;0.0)	0.1 (0.0;2.1) [*]	0.0 (0.0;0.0)
<i>Atopobium_vaginae</i>	0.0 (0.0;0.0)	0.0 (0.0;5.4) [*]	0.0 (0.0;0.0)
Total	2.1 (0.1;6.6)	7.8 (1.3;90.9) [*]	0.2 (0.0;4.6)

Note: values are presented as median (Q1; Q3) of logarithmic values; "Control" group, $n = 34$; "Risk of UTI" group, $n = 16$; "rLUTI" group, $n = 98$; ^{*} – $p < 0.05$ compared with "Control"; [#] – $p < 0.001$ compared with "Control". Pairwise comparisons were performed using the Mann-Whitney U test.

Supplementary Table 3. Relative (%) Femoflor®16 test results (normalized to TBM) by studied groups in urethral swab

Urethral swab	Control	Risk of UTI	rLUTI
<i>Lactobacillus</i> spp.	98.6 (90.2;99.9)	52.3 (14.2;98.6)*	93.2 (54.7; 98.7)*
Facultative anaerobes (excluding <i>Lactobacillus</i> spp.)			
<i>Enterobacterales</i>	0.0 (0.0;0.0)	0.0 (0.0;0.0)	0.0 (0.0;1.2)#
<i>Streptococcus</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.0)*	0.0 (0.0;0.0)*
<i>Staphylococcus</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.0)	0.0 (0.0;0.0)
Total	0.0 (0.0;0.0)	0.0 (0.0;0.2)	0.1 (0.0;1.6)*
Obligate anaerobes			
<i>Gardnerella_vaginalis</i> / <i>Prevotella bivia</i> / <i>Porphyromonas</i> spp.	0.0 (0.0;1.2)	11.8 (0.0;20.3)*	0.1 (0.0;3.2)
<i>Eubacterium</i> spp.	0.6 (0.0;7.3)	22.5 (0.0;28.5)	1.7 (0.0;16.1)
<i>Sneathia</i> spp. / <i>Leptotrichia</i> spp. / <i>Fusobacterium</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.0)*	0.0 (0.0;0.0)
<i>Megasphaera</i> spp. / <i>Veillonella</i> spp. / <i>Dialister</i> spp.	0.0 (0.0;0.0)	0.1 (0.0;9.4)*	0.0 (0.0;0.2)
<i>Lachnobacterium</i> spp. / <i>Clostridium</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;1.3)*	0.0 (0.0;0.0)*
<i>Mobiluncus</i> spp. / <i>Corynebacterium</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.0)	0.0 (0.0;0.0)
<i>Peptostreptococcus</i> spp.	0.0 (0.0;0.0)	0.7 (0.0;1.2)#	0.0 (0.0;0.0)
<i>Atopobium_vaginae</i>	0.0 (0.0;0.0)	0.0 (0.0;11.3)*	0.0 (0.0;0.0)
Total	0.9 (0.0;9.8)	47.7 (1.2;85.7)*	3.9 (0.1;31.2)

Note: values are presented as median (Q1; Q3) of logarithmic values; "Control" group, $n = 34$; "Risk of UTI" group, $n = 16$; "rLUTI" group, $n = 98$ for *Lactobacillus* spp. and $n = 97$ for other parameters; * – $p < 0.05$ compared with "Control"; # – $p < 0.001$ compared with "Control". Pairwise comparisons were performed using the Mann-Whitney U test.

Supplementary Table 4. Relative (%) Femoflor®16 test results (normalized to TBM) by studied groups in vaginal swab

Vaginal swab	Control	Risk of UTI	rLUTI
<i>Lactobacillus</i> spp.	99.8 (97.6;100.0)	98.1 (41.6;100.0)	98.0 (66.1; 99.8)*
Facultative anaerobes (excluding <i>Lactobacillus</i> spp.)			
<i>Enterobacterales</i>	0.0 (0.0;0.0)	0.0 (0.0;0.0)	0.0 (0.0;0.6)*
<i>Streptococcus</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.0)	0.0 (0.0;0.0)
<i>Staphylococcus</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.0)	0.0 (0.0;0.0)
Total	0.0 (0.0;0.1)	0.0 (0.0;0.2)	0.1 (0.0;0.7)*
Obligate anaerobes			
<i>Gardnerella_vaginalis</i> / <i>Prevotella bivia</i> / <i>Porphyromonas</i> spp.	0.0 (0.0;0.2)	0.3 (0.0;10.5)*	0.0 (0.0;2.4)
<i>Eubacterium</i> spp.	0.0 (0.0;1.1)	0.6 (0.0;20.0)	0.3 (0.0;4.2)*
<i>Sneathia</i> spp. / <i>Leptotrichia</i> spp. / <i>Fusobacterium</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.2)*	0.0 (0.0;0.0)
<i>Megasphaera</i> spp. / <i>Veillonella</i> spp. / <i>Dialister</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;4.2)*	0.0 (0.0;0.3)*
<i>Lachnobacterium</i> spp. / <i>Clostridium</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.3)	0.0 (0.0;0.0)
<i>Mobiluncus</i> spp. / <i>Corynebacterium</i> spp.	0.0 (0.0;0.0)	0.0 (0.0;0.2)	0.0 (0.0;0.0)
<i>Peptostreptococcus</i> spp.	0.0 (0.0;0.0)	0.1 (0.0;0.5)*	0.0 (0.0;0.0)
<i>Atopobium_vaginae</i>	0.0 (0.0;0.0)	0.0 (0.0;9.7)*	0.0 (0.0;0.0)
Total	0.1 (0.0;1.8)	1.9 (0.0;58.2)*	0.7 (0.1;11.4)*

Note: values are presented as median (Q1; Q3) of logarithmic values; "Control" group, $n = 34$; "Risk of UTI" group, $n = 16$; "rLUTI" group, $n = 98$; * – $p < 0.05$ compared with "Control"; # – $p < 0.001$ compared with "Control". Pairwise comparisons were performed using the Mann-Whitney U test.