

Supplemental Information

SUPPLEMENTAL TABLE 5 Urinalysis Results Based on UTI Defined as $\geq 10\,000$ CFUs/mL, Stratified by Bacteremia Status

	UTI With Bacteremia, <i>N</i> = 30	UTI Without Bacteremia, <i>N</i> = 365	<i>P</i>	UTI (Regardless of Bacteremia), <i>N</i> = 395	No UTI, <i>N</i> = 3830	<i>P</i>
LE concentration, <i>n</i> = 4225			.01			<.001
Small (trace or 1+)	0 (0.0)	36 (9.9)		36 (9.1)	91 (2.4)	
Moderate (2+)	6 (20.0)	69 (18.9)		75 (18.9)	36 (0.9)	
Large (3+)	24 (80.0)	202 (55.3)		226 (57.1)	31 (0.8)	
Negative results	0 (0.0)	58 (15.9)		58 (14.7)	3672 (95.9)	
Nitrites, <i>n</i> = 4225			.4			<.001
Positive	11 (36.7)	109 (29.9)		120 (30.4)	19 (0.5)	
Negative	19 (63.3)	256 (70.1)		275 (69.6)	3811 (99.5)	
Pyuria, <i>n</i> = 4176			.4			<.001
Positive (>5 WBCs/HPF)	19 (79.2)	246 (71.7)		265 (72.2)	243 (6.4)	
Negative (≤ 5 WBCs/HPF)	5 (20.8)	97 (28.3)		102 (27.8)	3566 (93.6)	

All data presented as *n* (%).

SUPPLEMENTAL TABLE 6 Test Characteristics of Aggregate Urinalysis for Diagnosing UTI Defined as $\geq 10,000$ CFUs/mL, Stratified by Bacteremia Status

	Sensitivity (95% CI)	Specificity (95% CI)	PPV (95% CI)	NPV (95% CI)	LR+ (95% CI)	LR- (95% CI)
Identification of any UTI^a (N = 395)						
Entire population, n = 4225	0.87 (0.83–0.90)	0.91 (0.90–0.92)	0.49 (0.46–0.53)	0.99 (0.98–0.99)	9.45 (8.50–10.51)	0.14 (0.11–0.18)
Infants ≤ 28 d, n = 1325	0.88 (0.82–0.92)	0.90 (0.88–0.92)	0.55 (0.49–0.61)	0.98 (0.97–0.99)	8.71 (7.27–10.44)	0.14 (0.09–0.21)
Infants 29–60 d, n = 2900	0.87 (0.82–0.91)	0.91 (0.90–0.92)	0.46 (0.41–0.51)	0.99 (0.98–0.99)	9.79 (8.58–11.18)	0.15 (0.11–0.20)
Identification of UTI with bacteremia^a (N = 30)						
Entire population, n = 3860	1.00 (0.88–1.00)	0.91 (0.90–0.92)	0.08 (0.05–0.11)	1.00 (1.00–1.00)	10.85 (9.82–11.98)	0.00 ^b
Infants ≤ 28 d, n = 1177	1.00 (0.78–1.00)	0.90 (0.88–0.92)	0.11 (0.07–0.18)	1.00 (1.00–1.00)	9.93 (8.36–11.79)	0.00 ^b
Infants 29–60 d, n = 2683	1.00 (0.78–1.00)	0.91 (0.90–0.92)	0.06 (0.03–0.10)	1.00 (1.00–1.00)	11.31 (10.01–12.77)	0.00 ^b
Identification of UTI without bacteremia^a (N = 365)						
Entire population, n = 4195	0.86 (0.82–0.89)	0.91 (0.90–0.92)	0.47 (0.43–0.51)	0.99 (0.98–0.99)	9.33 (8.38–10.39)	0.15 (0.12–0.20)
Infants ≤ 28 d, n = 1310	0.86 (0.80–0.92)	0.90 (0.88–0.92)	0.52 (0.46–0.59)	0.98 (0.97–0.99)	8.59 (7.15–10.32)	0.15 (0.10–0.23)
Infants 29–60 d, n = 2885	0.86 (0.80–0.90)	0.91 (0.90–0.92)	0.44 (0.39–0.49)	0.99 (0.98–0.99)	9.69 (8.48–11.07)	0.16 (0.11–0.22)

LR+, positive likelihood ratio; LR-, negative likelihood ratio; NPV, negative predictive value; PPV, positive predictive value.

^a Positive urinalysis results were defined as the presence of any LE or nitrite or pyuria.

^b LR- does not have a CI because of a sensitivity of 1.00.

SUPPLEMENTAL TABLE 7 Urinalysis Results Based on Varying Ranges of CFU Levels, Stratified by Bacteremia Status

	Cath. 10 000–99 999 CFUs		Cath. \geq 100 000 CFUs	
	With Bacteremia, N = 2	Without Bacteremia, N = 48	With Bacteremia, N = 26	Without Bacteremia, N = 236
LE concentration, n = 312	2	48	26	236
Small (trace or 1+)	0 (0.0)	7 (14.6)	0 (0.0)	23 (9.7)
Moderate (2+)	1 (50.0)	8 (16.7)	5 (19.2)	45 (19.1)
Large (3+)	1 (50.0)	12 (25.0)	21 (80.8)	148 (62.7)
Negative results	0 (0.0)	21 (43.8)	0 (0.0)	20 (8.5)
Nitrites, n = 312	2	48	26	236
Positive	0 (0.0)	2 (4.2)	11 (42.3)	94 (39.8)
Negative	2 (100.0)	46 (95.8)	15 (57.7)	142 (60.2)
Pyuria, n = 286	1	47	21	217
Positive (>5 WBCs/HPF)	0 (0.0)	18 (38.3)	17 (81.0)	180 (82.9)
Negative (\leq 5 WBCs/HPF)	1 (100.0)	29 (61.7)	4 (19.0)	37 (17.1)
Aggregate urinalysis (LE or nitrite or pyuria), n = 312	2	48	26	236
Positive	2 (100.0)	28 (58.3)	26 (100.0)	222 (94.1)
Negative	0 (0.0)	20 (41.7)	0 (0.0)	14 (5.9)

All data presented as n (%). Cath., catheterized sample of.

SUPPLEMENTAL TABLE 8 Sensitivities for UTIs Defined as $\geq 50,000$ CFUs/mL by Bacteremia Status and Pathogen

N	With Bacteremia (95% CI)				Without Bacteremia (95% CI)			
	<i>E coli</i>	<i>Klebsiella</i>	<i>Enterobacter</i>	<i>Enterococcus</i>	<i>E coli</i>	<i>Klebsiella</i>	<i>Enterobacter</i>	<i>Enterococcus</i>
Individual urinalysis components	23	1	3	0	214	12	5	9
Any LE, <i>n</i> = 4115	1.00 (0.85–1.00)	1.00 (0.03–1.00)	1.00 (0.29–1.00)	NA	0.95 (0.92–0.98)	0.83 (0.52–0.98)	0.80 (0.28–0.99)	0.44 (0.14–0.79)
Nitrites, <i>n</i> = 4115	0.39 (0.20–0.61)	1.00 (0.03–1.00)	0.33 (0.01–0.91)	NA	0.41 (0.34–0.48)	0.17 (0.02–0.48)	0.20 (0.01–0.72)	0.22 (0.03–0.60)
Pyuria, >5 WBCs/HPF, <i>n</i> = 4070	0.78 (0.52–0.94)	1.00 (0.03–1.00)	0.67 (0.09–0.99)	NA	0.87 (0.82–0.92)	0.50 (0.21–0.79)	1.00 (0.48–1.00)	0.22 (0.03–0.60)
Aggregate urinalysis components								
Positive for LE or nitrites or pyuria, <i>n</i> = 4115	1.00 (0.85–1.00)	1.00 (0.03–1.00)	1.00 (0.29–1.00)	NA	0.97 (0.94–0.99)	0.83 (0.52–0.98)	1.00 (0.48–1.00)	0.56 (0.21–0.86)
Infants ≤ 28 d, <i>n</i> = 1289	1.00 (0.74–1.00)	1.00 (0.03–1.00)	1.00 (0.03–1.00)	NA	0.98 (0.93–1.00)	1.00 (0.40–1.00)	1.00 (0.29–1.00)	0.67 (0.09–0.99)
Infants 29–60 d, <i>n</i> = 2826	1.00 (0.72–1.00)	NA	1.00 (0.16–1.00)	NA	0.97 (0.91–0.99)	0.75 (0.35–0.97)	1.00 (0.16–1.00)	0.50 (0.12–0.88)

NA, not applicable (there were no positive UTIs that met these criteria).