

Supplementary Table S1. Inclusion and Exclusion Criteria.

Inclusion	Exclusion
At least 60 years of age	
Male or Female sex (no predetermined quotas or ratios for participation)	
Presenting to a urologist or urogynecologist in an outpatient setting	
Requires microbial testing according to clinician judgment	Failure to meet all inclusion criteria
Sample ordered with an ICD-10-CM code associated with UTI	
Sample contained enough urine to conduct M-PCR/P-AST, SUC, and biomarker assays on the same sample	

Supplementary Table S2. Bacterial Identification and Frequency by M-PCR and SUC in UTI symptomatic patients.

Organism	Method	Cases	%	Organism	Method	Cases	%
<i>E. coli</i>	SUC		160 27%	<i>E. faecalis</i>	SUC		150 26%
	M-PCR		188 32%		M-PCR		94 16%
<i>K. pneumoniae</i>	SUC		59 10%	VGS	SUC		2 <1%
	M-PCR		63 11%	M-PCR		84 14%	
<i>P. mirabilis</i>	SUC		29 5%	CoNS	SUC		32 5%
	M-PCR		24 4%	M-PCR		25 4%	
<i>P. aeruginosa</i>	SUC		14 2%	<i>S. agalactiae</i>	SUC		9 2%
	M-PCR		22 4%	M-PCR		12 2%	
Enterobacter Group	SUC		8 1%	<i>E. faecium</i>	SUC		7 1%
	M-PCR		13 2%	M-PCR		10 2%	
<i>M. morgani</i>	SUC		4 1%	<i>S. aureus</i>	SUC		3 1%
	M-PCR		9 2%	M-PCR		5 1%	
<i>C. freundii</i>	SUC		5 1%	<i>A. urinae</i>	SUC		4 1%
	M-PCR		6 1%	M-PCR		118 20%	
<i>K. oxytoca</i>	SUC		2 <1%	<i>A. schalii</i>	SUC		0 0%
	M-PCR		4 1%	M-PCR		116 20%	
<i>C. koseri</i>	SUC		4 1%	<i>G. vaginalis</i>	SUC		0 0%
	M-PCR		2 <1%	M-PCR		35 6%	
<i>S. marcescens</i>	SUC		1 <1%	<i>A. omnicolens</i>	SUC		0 0%
	M-PCR		2 <1%	M-PCR		17 3%	
<i>P. stuartii</i>	SUC		0 0%	<i>U. urealyticum</i>	SUC		0 0%
	M-PCR		1 <1%	M-PCR		5 1%	
<i>A. baumannii</i>	SUC		0 0%	<i>C. riegelii</i>	SUC		0 0%
	M-PCR		0 0%	M-PCR		5 1%	
<i>P. agglomerans</i>	SUC		1 <1%	<i>M. hominis</i>	SUC		0 0%
	M-PCR		0 0%	M-PCR		3 1%	
<i>C. glabrata</i>	SUC		1 <1%	<i>C. parapsilosis</i>	SUC		0 0%
	M-PCR		16 3%		M-PCR		1 <1%
<i>C. albicans</i>	SUC		1 <1%	<i>C. auris</i>	SUC		0 0%
	M-PCR		3 1%		M-PCR		0 0%