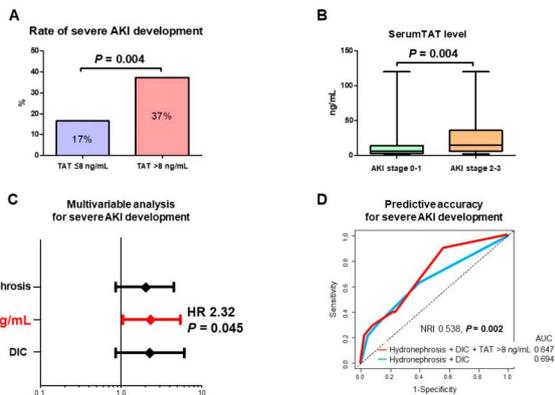




**CONCLUSIONS:** Elevated thrombin-antithrombin complex is a risk factor of severe acute kidney injury in patients with urological sepsis.

**Table Patients' characteristics**

	All n=146	Lower TAT group n=79	Higher TAT group n=67	P value
Age, years	78 (68-86)	78 (68-84)	77 (68-88)	0.769
Male, n=	58 (40%)	36 (46%)	22 (33%)	0.117
ECOG PS ≥2, n=	64 (44%)	28 (35%)	36 (54%)	<b>0.026</b>
Urolithiasis, n=	33 (23%)	14 (18%)	19 (28%)	0.126
Hydronephrosis, n=	55 (38%)	25 (32%)	30 (45%)	0.103
Hypertension, n=	98 (67%)	57 (72%)	41 (61%)	0.160
Diabetes mellitus, n=	40 (27%)	24 (30%)	16 (24%)	0.380
Angiotensin receptor blocker, n=	43 (29%)	26 (33%)	17 (25%)	0.319
Angiotensin-converting-enzyme inhibitor, n=	18 (12%)	14 (18%)	4 (6.0%)	<b>0.042</b>
Disseminated intravascular coagulation, n=	25 (17%)	5 (6.3%)	20 (30%)	<b>&lt;0.001</b>



**Source of Funding:** nothing

**PD32-09  
COMPARISON OF GUIDANCE UTI® AND STANDARD URINE CULTURE FOR RATES OF SEPSIS, HOSPITALIZATION AND OTHER ADVERSE OUTCOMES IN COMPLICATED URINARY TRACT INFECTIONS**

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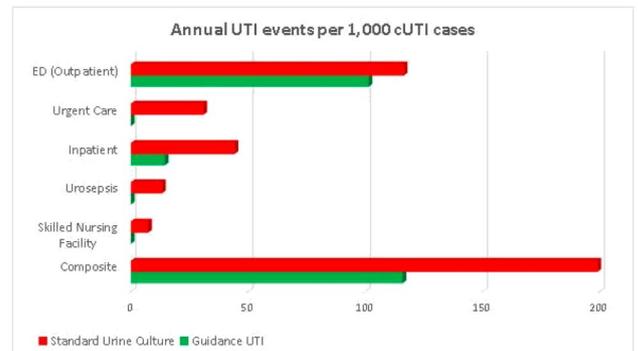
**INTRODUCTION AND OBJECTIVE:** Complicated urinary tract infections (cUTI) are a significant burden on individual health and healthcare resources. They are often caused by polymicrobial infections where interactions between bacteria can change the antibiotic resistance of the pool of organisms. Guidance UTI® is a urine-based test that combines PCR and Pooled Antibiotic Susceptibility (P-AST), which tests for antibiotic susceptibility against the combined pool of organisms. This study sought to determine rates of adverse outcomes, medical resource utilization, and costs with Guidance UTI compared to standard urine culture (SUC).

**METHODS:** Using a randomized 5% sample of Medicare Parts A+B beneficiaries enrolled in 2017-19 (n~1.5M in each year), we compared 2 cohorts matched on sex, diabetes, and propensity score, based on whether outpatient UTI diagnosis was made with SUC (N = 678) or Guidance UTI (N=69) initially, and for the year following their first cUTI after a 12-month baseline. UTI-related utilization and Medicare-allowed cost was acquired from professional and facility claims.

**RESULTS:** The rate of outpatient emergency visits was 13% lower and inpatient admissions was 67% lower when using Guidance

UTI compared to SUC. For every 1,000 patients there were zero urosepsis, urgent care and skilled nursing facility admissions with Guidance UTI vs 13, 31 and 7 events respectively with SUC. For the composite outcome, Guidance UTI testing was associated with a 42% reduction compared to SUC (Figure 1). These reductions translate to \$463.46 saving per cUTI patient tested with Guidance UTI (p=0.043), a saving of \$11.6 million for 25,000 cUTI cases (Table 1).

**CONCLUSIONS:** Guidance UTI testing is associated with reductions in critical adverse outcomes, healthcare resource utilization and cost for cUTI cases as compared to standard urine culture. cUTI cases may benefit from Guidance UTI's combination of increased sensitivity, reduced time to results, and P-AST results.



**Figure 1.** Medical Resource Utilization when utilizing Guidance UTI compared to SUC. Rates are events per 1,000 cUTI cases utilizing the test per year. The composite score includes outpatient ED, Urgent Care, Inpatient admissions (including ED that were admitted), and SNF.

**Mean Annual Cost Per Complicated UTI Case**

	Guidance UTI	Standard Urine Culture
<b>ED (Outpatient)</b>	\$50.50	\$94.71
<b>Inpatient</b>	\$91.10	\$391.75
<b>Urgent Care</b>	\$0.00	\$3.20
<b>SNF</b>	\$0.00	\$115.40
<b>Total</b>	<b>\$141.60</b>	<b>\$605.06</b>
<b>Savings</b>	<b>\$463.46 (p = 0.043)</b>	

**Table 1.** Medical Resource Cost when utilizing Guidance UTI compared to SUC. Costs and savings are mean dollar amount per cUTI case utilizing the test per year.

**Source of Funding:** Pathnostics

**PD32-10  
KIDNEY STONE ENDOTOXIN CONCENTRATION CORRELATES WITH POST-OPERATIVE SEPSIS FOLLOWING PERCUTANEOUS NEPHROLITHOTOMY**

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**INTRODUCTION AND OBJECTIVE:** Patients with infected kidney stones are at risk for post-operative sepsis following surgical removal of their calculi. Of all the surgical approaches, percutaneous nephrolithotomy (PCNL) remains associated with the highest risk for experiencing post-operative SIRS (severe inflammatory response syndrome). Accurate prediction of patients at risk for SIRS after surgery would be of clinical value. While previous studies have demonstrated infected kidney stones contain variable levels of endotoxin concentrations, these were limited in their rigor and ability to correlate stone immunobiology with important clinical outcomes. The aim of this study was to quantitate endotoxin levels amongst PCNL patients who experienced and did not experience SIRS.

**METHODS:** Between October 2020 and June 2021, urine & stone specimens from consecutive stone patients were prospectively collected as part of the Registry for Stones of the Kidneys and Ureter (ReSKU) at the University of Arizona. Clinical data including stone analyses and post-operative outcomes have been tracked. Equal