



UTI Zoomer

Key Clinical Messages

The UTI Zoomer detects a wide range of UTI pathogens and antibiotic resistance genes, and includes a full urinalysis to evaluate and manage overall urinary health.

What is the UTI Zoomer?

The UTI Zoomer combines advanced pathogen detection and antibiotic resistance with detailed urinalysis to provide healthcare providers with an extensive urinary health evaluation and suggestions for management. This panel identifies a wide range of bacterial and fungal pathogens commonly associated with urinary tract infections (UTIs), which antibiotic resistant genes are present, and performs a comprehensive urinalysis to assess various aspects of urinary health. Supplement suggestions for addressing urobiome dysbiosis are also provided. This integrated approach provides a holistic view of the patient's urinary system, aiding in accurate evaluation and effective management planning.

Which Patients Will Benefit from this Test?

The UTI Zoomer is ideal for individuals experiencing recurrent urinary tract infections, persistent or unexplained urinary symptoms such as frequent or painful urination, or lower abdominal discomfort. It is particularly beneficial for those with a history of urinary tract issues, individuals in high-risk groups, such as those with a family history of urinary conditions, or those undergoing regular health screenings. This comprehensive test provides early detection and detailed analysis, supporting targeted interventions, and improved long-term urinary health outcomes.

Why Order the UTI Zoomer?

Order the UTI Zoomer to obtain a complete assessment of your patient's urinary system. This panel not only detects a broad spectrum of UTI-causing pathogens but also antibiotic resistance genes, and evaluates key urinalysis markers, allowing for early identification of potential issues and facilitating targeted treatment strategies to improve patient outcomes.

What Does the Test Measure?

The UTI Zoomer measures a wide range of pathogens, antibiotic resistance genes, and urinalysis markers to give a thorough assessment of the urinary system. It detects bacterial and fungal pathogens responsible for UTIs, such as *Escherichia coli*, *Proteus mirabilis*, *Pseudomonas aeruginosa*, and *Candida albicans*. The panel also includes antibiotic resistance, antibiotic and supplement suggestions to address urobiome dysbiosis, and a detailed urinalysis, evaluating markers like glucose, bilirubin, ketones, specific gravity, pH, protein, nitrite, leukocytes, red and white blood cells, and epithelial cells. This comprehensive measurement helps in accurate evaluation and effective management of urinary tract conditions.



Which Markers Are Included in the UTI Zoomer?

Urinary Tract Infections (UTI)	Urinalysis
<ul style="list-style-type: none"> • <i>Acinetobacter baumannii</i> • <i>Candida albicans</i> • <i>Candida glabrata</i> • <i>Candida parapsilosis</i> • <i>Candida tropicalis</i> • <i>Citrobacter freundii</i> • <i>Enterococcus faecalis</i> • <i>Enterococcus faecium</i> • <i>Enterobacter cloacae complex</i> • <i>Escherichia coli</i> • <i>Klebsiella aerogenes (Enterobacter aerogenes)</i> • <i>Klebsiella oxytoca</i> • <i>Klebsiella pneumoniae</i> • <i>Morganella morganii</i> • <i>Proteus mirabilis</i> • <i>Proteus vulgaris</i> • <i>Providencia stuartii</i> • <i>Pseudomonas aeruginosa</i> • <i>Staphylococcus aureus</i> • <i>Staphylococcus saprophyticus</i> • <i>Staphylococcus xylosus</i> • <i>Streptococcus agalactiae</i> (Group B Strep) 	<ul style="list-style-type: none"> • Bacteria • Bilirubin • Clarity • Color • Epithelial Cells • Glucose • Hyaline Casts • Ketone • Leukocytes • Nitrite • Occult Blood • pH • Protein • Red Blood Cells • Specific Gravity • Urobilinogen • White Blood Cells

Antibiotic Class	Drug	Resistance Genes
Aminoglycosides	Gentamicin, Tobramycin	aac(6')-Ib; aac(6')-Im
Beta Lactams	Amoxicillin, Piperacillin	blaCMY, blaCTX-M, blaTEM, SHV
Fluoroquinolone	Ciprofloxacin, Levofloxacin	qnrA, qnrB, qnrS
Fosfomycin	Fosfomycin	fosA3, fosA, fosA4, fosA5
Glycopeptides	Vancomycin, Teicoplanin	vanA, vanB, vanD
Macrolides (MLs-Groups)	Azithromycin, Clarithromycin	erm33; ermA; ermB; ermC; ermD; ermE; ermF; ermG; ermT; ermX, mefA, mphA, mphB, mphC, msrA, msrD
Nitrofurans	Nitrofurantoin	nfsA, nfsB
Polymyxins	Colistin	mcr-1; mcr-2; mcr-3; mcr-4; mcr-5; mcr-6; mcr-7; mcr-8; mcr-9
Tetracyclines	Doxycycline, Minocycline	tetA, tetB, tetC, tetD, tetE, tetM, tetO, tetQ, tetS, tetT, tetW, tetX, tetY

Clinical Pearls

Enhanced Accuracy for Recurrent UTIs

Enhanced Accuracy for Recurrent UTIs: Many patients with recurrent urinary tract infections (UTIs) undergo multiple rounds of antibiotics without long-term relief. The comprehensive UTI Zoomer employs bead beating to disrupt biofilms, enabling the detection of hidden pathogens that may contribute to persistent infections. This advanced methodology identifies specific pathogens and antibiotic resistance genes while providing detailed urinalysis along with antibiotic and supplement suggestions. These insights allow healthcare providers to accurately evaluate the root causes and tailor management strategies, reducing unnecessary antibiotic use and improving patient outcomes.

Vibrant Advantage

The UTI Zoomer delivers a comprehensive evaluation of urinary tract health, focusing on pathogen detection, antibiotic resistance, and detailed urinalysis:

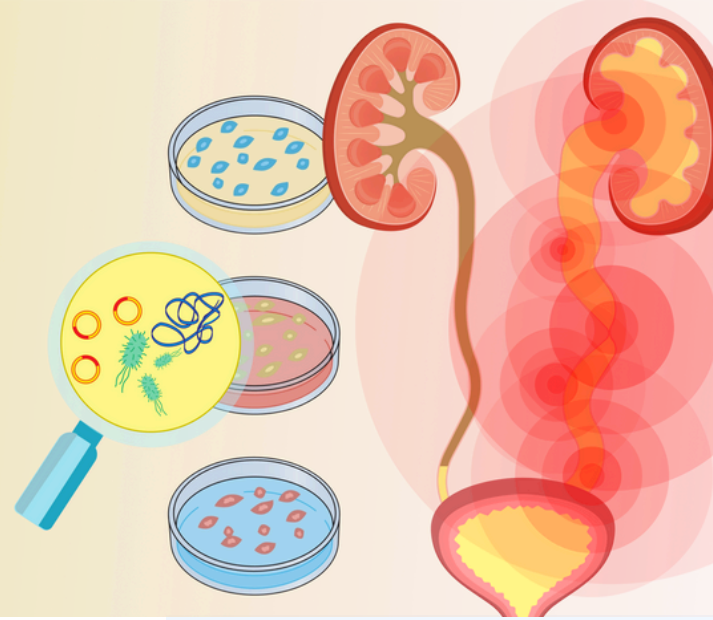
- **Comprehensive Detection:** Identifies a wide range of UTI-causing bacterial and fungal pathogens, along with antibiotic resistance genes.
- **Integrated Urinalysis:** Analyzes key markers like glucose, protein, pH, and specific gravity for a complete urinary health assessment.
- **Advanced Technology:** Employs RT-PCR and automated analyzers for precise pathogen and urinalysis marker detection.
- **Personalized Insights:** Provides detailed reports with antibiotic and supplement recommendations for targeted treatment.
- **Early Intervention:** Facilitates early detection and effective management strategies, reducing the risk of chronic infections.

Lab Methodology

The UTI Zoomer utilizes advanced laboratory methodologies to ensure precise and accurate results. To enhance pathogen detection, bead beating is employed to effectively disrupt biofilms, allowing for a more comprehensive measurement of bacterial and fungal pathogens. The UTI pathogen detection is performed using real-time polymerase chain reaction (RT-PCR) technology, which offers high sensitivity and specificity. The urinalysis component is conducted using FDA-approved automated analyzers, providing a detailed analysis of various urine markers for a holistic evaluation of urinary health.

Comprehensive Evaluation for Complex Cases

Patients with persistent urinary symptoms often present with a complex clinical picture, making diagnosis challenging. This panel offers a thorough assessment of both common and rare UTI-causing pathogens and antibiotic resistance genes, along with detailed urinalysis markers and antibiotic and supplement suggestions, helping to identify underlying issues that may contribute to chronic symptoms. This comprehensive approach supports more effective and personalized treatment plans.



Early Detection of Multidrug-Resistant Pathogens

The panel's ability to detect multidrug-resistant organisms such as *Klebsiella pneumoniae* and *Pseudomonas aeruginosa* alongside antibiotic resistance evaluation is crucial for guiding appropriate antibiotic therapy. Early identification of these resistant strains helps prevent ineffective treatments and allows for prompt, targeted intervention, minimizing the risk of complications.

Guiding Treatment for Complicated UTI Cases

Patients with anatomical abnormalities or those who have undergone recent urinary procedures are at increased risk for complicated UTIs. This panel provides a comprehensive evaluation, identifying pathogens like *Proteus mirabilis* and *Enterococcus faecalis* that may contribute to persistent or recurrent infections, enabling more effective management strategies.

Which Tests Pair Well With the UTI Zoomer?

- **Renal Function Panel:** Evaluates kidney function, providing essential insights into potential kidney damage that may result from chronic UTIs or other urinary system disorders.
- **Oxidative Stress Profile:** Measures markers of oxidative damage, which can be elevated in patients with chronic infections, including persistent UTIs, and provides a broader picture of the patient's overall health.
- **Mycotoxins Test:** Detects exposure to harmful mold toxins, which can exacerbate or mimic urinary symptoms, helping healthcare providers make a comprehensive differential diagnosis.
- **Total Tox Burden:** Assesses the cumulative burden of toxins, including heavy metals and environmental chemicals, that can impact urinary health and contribute to the severity of UTIs.
- **Gut Zoomer:** Assesses gut microbiome health, which can influence urinary health by promoting systemic inflammation or dysbiosis, contributing to recurrent infections.
- **Candida + IBS Profile:** Identifies overgrowth of *Candida* and other gut pathogens, which may be related to or exacerbate urinary symptoms, particularly in patients with overlapping digestive issues.

Reference Ranges

Reference ranges have been established using results from 200 healthy individuals.

Urinary Tract Infections (UTI) pathogenic bacteria are indicated as **DETECTED** in red or **NOT DETECTED** in green.

Antibiotic resistance genes are categorized based on antibiotic class, drug, and resistant genes. Individual resistance genes are marked in red if detected or in black if not detected.

For Urinalysis, the classification of green denotes a result that is within the normal reference range and red denotes a result that is elevated with respect to the normal reference range.

Test Preparation



**Provider
Collection
Instructions**



**Patient
Collection
Instructions**