

Acutis Reveal™ UTI

Glossary

Term Definition

UTI An infection in any part of the urinary system, the kidneys, bladder, or urethra.

AST Also known as antibiotic susceptibility testing, it is the measurement of the susceptibility of bacteria to antibiotics. It is used because bacteria may have resistance to some antibiotics.

PCR A method widely used to rapidly make millions to billions of copies of a specific DNA sample, allowing scientists to take a very small sample of DNA and amplify it to a large enough amount to study in detail.

Gram positive bacteria Bacteria that give a positive result in the Gram stain test, which is traditionally used to quickly classify bacteria into two broad categories according to their type of cell wall. Despite their thicker peptidoglycan layer, gram-positive bacteria are more receptive to certain cell wall targeting antibiotics than gram-negative bacteria, due to the absence of the outer membrane.

Gram negative bacteria Bacteria that do not retain the crystal violet stain used in the gram-staining method of bacterial differentiation. They are characterized by their cell envelopes, which are composed of a thin peptidoglycan cell wall sandwiched between an inner cytoplasmic cell membrane and a bacterial outer membrane. Gram-negative bacteria have a double membrane that cannot be penetrated by many antibiotics.

Urine dipstick Physician office



Leukocytosis A condition in which the white cell (leukocyte count) is above the normal range in the blood. It is frequently a sign of an inflammatory response, most commonly the result of infection.

Hematuria The presence of blood in a person's urine. The two types of hematuria are gross hematuria – when a person can see the blood in his or her urine – and microscopic hematuria – when a person cannot see the blood in his or her urine, yet it is seen under a microscope.

Nitrite test Normal urine contains chemicals called nitrates. If bacteria enter the urinary tract, nitrates can turn into different, similarly named chemicals called nitrites. Nitrites in urine may be a sign of a urinary tract infection.

Proteinuria Increased levels of protein in the urine. This condition can be a sign of kidney damage.

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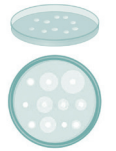


Microscopy Physician office or laboratory

Squamous cells Cells that if found in urine, may indicate the sample was contaminated. This means that the sample contains cells from the urethra (in men) or the vaginal opening (in women).

Crystals A few small urine crystals are normal occurrences in urine. An examination of crystals in urine looks at the amount, size, and type of crystals in your urine. Larger crystals or specific types of crystals can become kidney stones. Kidney stones are hard, pebble-like substances that can get stuck in the kidneys.

Casts Tiny tube-shaped particles that can be found when urine is examined under the microscope during a test called urinalysis. Urinary casts may be made up of white blood cells, red blood cells, kidney cells, or substances such as protein or fat.



Culture and sensitivity Laboratory (Gold standard for UTI)

Pathogen ID Pathogen identification.

Antibiotic sensitivity Measurement of the susceptibility of bacteria to antibiotics.

Culture and sensitivity Laboratory (Gold standard for UTI)



β-hCG In normal physiology, human chorionic gonadotropin (hCG) is a hormone produced by pregnant females. Its presence in blood or urine is used to diagnose pregnancy. When measured in blood, hCG concentrations can be used to determine gestational age.

CBC A complete blood count, also known as a full blood count, is a set of medical laboratory tests that provide information about the cells in a person's blood. The CBC indicates the counts of white blood cells, red blood cells and platelets, the concentration of hemoglobin, and the hematocrit.

CRP C-reactive protein (CRP) is a protein made by the liver. CRP levels in the blood increase when there is a condition causing inflammation somewhere in the body. A CRP test measures the amount of CRP in the blood to detect inflammation due to acute conditions or to monitor the severity of disease in chronic conditions.

Acutis Reveal™ UTI pathogens list

Pathogen	Details
<i>Acinetobacter baumannii</i>	Gram negative bacteria, found in skin, soil, water and hospitals
<i>Aerococcus urinae</i>	Gram positive bacteria, found in dust, air, vegetation and hospital environments
<i>Candida albicans</i>	Yeast like parasitic fungus
<i>Candida parapsilosis / glabrata</i>	Yeast like parasitic fungus
<i>Citrobacter freundii</i>	Gram negative bacteria, found in gastrointestinal tract and water
<i>Citrobacter koseri</i>	Gram negative bacteria, found in soil, water and human gastrointestinal tract
<i>Corynebacterium riegellii</i>	Gram positive bacteria, found in soil, water and food products
<i>Enterobacter aerogenes / cloacae</i>	Gram negative bacteria, a bacterial species found in the feces of humans
<i>Enterococcus faecalis</i>	Gram positive bacteria, found in soil, water and gastrointestinal tract
<i>Enterococcus faecim</i>	Gram positive bacteria, naturally found in gastrointestinal tract
<i>Escherichia coli</i>	Gram negative bacteria, found in gastrointestinal tract
<i>Klebsiella oxytoca</i>	Gram negative bacteria, naturally found in the intestinal tract, mouth and nose
<i>Klebsiella pneumoniae</i>	Gram negative bacteria, found in gastrointestinal tract
<i>Morganella morganii</i>	Gram negative bacteria, found in gastrointestinal tract
<i>Pantoea agglomerans</i>	Gram negative bacteria, plant residing bacteria
<i>Proteus mirabilis</i>	Gram negative bacteria, wide spread in the environment and human intestinal tract
<i>Providencia stuartii</i>	Gram negative bacteria, found in soil, water and sewage
<i>Pseudomonas aeruginosa</i>	Gram negative bacteria, found in soil, water and gastrointestinal tract
<i>Serratia marcescens</i>	Gram negative bacteria, found in soil, water and bathroom
<i>Staphylococcus aureus</i>	Gram positive bacteria, type of bacteria found on the human skin
<i>Staphylococcus epidermis / haemolyticus / lugdunensis</i>	Gram positive bacteria, naturally found in human skin
<i>Staphylococcus saprophyticus</i>	Gram positive bacteria, found in genital tract, urethra and gastrointestinal tract
<i>Streptococcus agalactiae</i>	Gram positive bacteria, found in genital tract and gastrointestinal tract
<i>Streptococcus anginosus / pasteurianus</i>	Gram positive bacteria, naturally found in oral cavity and gastrointestinal tract
<i>Streptococcus oralis</i>	Gram positive bacteria, naturally found in human oral cavity
<i>Streptococcus pyogenes</i>	Gram positive bacteria, found in throat and human skin