Staphylococcus saprophyticus

Staphylococcus saprophyticus is a gram-positive cocci, and it is commonly implicated in urinary tract infections. This bacteria is catalase-positive and coagulase-negative, allowing it to be differentiated from catalase-negative organisms like Streptococci, Enterococci and coagulase-positive Staph aureus. Staph saprophyticus can be differentiated from Staph epidermidis, which is also catalase-positive and coagulase-negative, by resistance to novobiocin. This organism is implicated in about 10-20% of urinary tract infections, second only to E. coli. It is often called “honeymooner’s UTI” due to association with intercourse.



PLAY PICMONIC

Characteristics

Gram-Positive
Graham-cracker Positive-angel
This organism stains positive on Gram stain due to thick peptidoglycan layer which absorbs crystal violet.

Cocci
Cockeyed
This bacterium has a spherical shape.

Catalase-Positive
Positive-cat
Characteristically, Staph saprophyticus is catalase-positive, meaning it produces the enzyme catalase. This enzyme allows the bacterium to convert hydrogen peroxide to water and oxygen. This characteristic is helpful in distinguishing Staphylococci from catalase-negative Streptococci and Enterococci.

Coagulase-Negative
Negative clogs
Staph saprophyticus can be differentiated from other Staphylococcal organisms, such as Staph aureus, because Staph aureus is coagulase-positive, while Staph saprophyticus is coagulase-negative.

Novobiocin-Resistant
Tied-up Navy-bison wearing Resistance-bandana
Staphylococcus saprophyticus can be differentiated from Staphylococcus epidermidis, which is also catalase-positive, coagulase-negative, by resistance to novobiocin.

Urease-Positive
Positive U-eraser
This bacteria has the ability to produce urease, which hydrolizes urea in the body to ammonia. In a urinary tract infection, this means that the urine becomes more alkaline.

Disease

Urinary Tract Infections (UTI's)
Kidneys and Bladder In-flames
A urinary tract infection commonly presents with symptoms of burning sensation during urination, and increased frequency and urgency with sharp razor pains in the lower abdomen. This organism is implicated in about 10-20% of urinary tract infections, second only to E. coli. It is often called “honeymooner's UTI” due to association with intercourse.

Sign up for FREE at picmonic.com