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Prevalence of ESBL *Escherichia coli* in urinary tract infections

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The most common cause of urinary tract infections (UTIs) is Escherichia coli. Antimicrobial resistance rates among these isolates is highly varied and rapidly increasing, and it is vital to characterize these isolates as to the frequency of serious antimicrobial resistance patterns, and in particular, extended spectrum beta-lactamase (ESBL) producers. ESBL strains are often commonly resistant to other drug classes as well, and for that reason, treatment options may be very limited. Because of this, UTIs caused by ESBL strains can result in increased healthcare costs. Antimicrobial resistance data has been collected from nearly 1500 UTI E. coli isolates in the Detroit, Michigan metropolitan area. This data has been analyzed to determine the frequency of resistance to the various drugs, the frequency of resistance to the different drug classes, and the frequency of resistance based on the antimicrobial effects of the various drugs. The characterization of this type of data can lead to a better understanding of treatment options for UTIs, and hopefully lead researchers in the right direction for new antimicrobial and/or vaccine development.

Biography

Wanda Reygaert has a Ph.D. in Molecular Biology from the University of Illinois at Chicago, has taught at Oakland University since 2004 where she has conducted research on urinary tract infection isolates. She is currently the Discipline Director for Microbiology and Immunology at the OUWB School of Medicine. She also has a degree in Medical Technology and was employed in clinical laboratories for over 12 years, 5 of those years as a clinical microbiologist.