

Avails Medical

Avails Medical Digital Biosensor Technology

For decades, lab technicians have detected infections through crude, time-consuming, error-ridden techniques of dipsticks and specimen sampling, leaving physicians to guess which antibiotic might be effective since reliable results take days to develop. Antibiotic resistance is one of the world's most serious health threats. Repeated and improper uses of antibiotics as well as inadequate diagnostics are major causes of the steady increase in drug-resistant bacteria. Today, the proper detection of a bacterial infection and its antibiotic resistance profile is a lengthy process of two to three days from sample collection (urine, blood, wound swipe, etc.) to laboratory results. The lack of proper diagnosis during that time forces physicians into non-targeted or even unnecessary antibiotic prescriptions. These improper antibiotic treatments can dramatically compromise a patient's health condition, promote patient's hospitalizations and promote further development of antibiotic-resistant bacteria.

Avails Medical has developed a cost-effective digital biosensor technology that enables accurate and rapid detection of bacteria and fungi in any bodily fluid while indicating real-time which drugs are most effective. *Avails'* electronic biosensor platform will reduce time-to-treatment from days to minutes by enabling for the first time diagnostic-guided therapy at the point-of-prescription.

Avails Medical's first market is urinary tract infections (UTIs). UTI is a \$3.5B market, with more than 12 million positive annual cases of UTI in the US alone. Placed in the doctor's office, *Avails'* biosensor will detect a patient's UTI in as fast as 10 min and will provide physicians information about the susceptibility of the infection to the most commonly prescribed antibiotics in less than two hours.