bioMérieux CONNECTION

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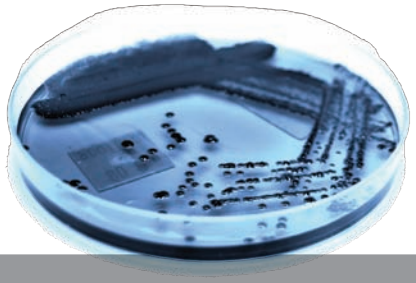
Message from bioMérieux

The American Society for Microbiology (ASM) and the Infectious Diseases Society of America (IDSA) are hosting the 48th Annual ICAAC/IDSA 46th Annual Meeting in Washington, D.C., October 25-28, 2008. Please visit us at booth number 1127 to see how we are committed to improving patient care through innovative in vitro diagnostics.

Etest® Celebrates 20th Anniversary

Twenty years ago, in October of 1988, an ingenious product was created that changed the world of antimicrobial susceptibility testing. The product was Etest® and it combined elegant design with precise functionality. It was an immediate success in the microbiology and infectious disease world and brought the ability to perform accurate minimum inhibitory concentration (MIC) testing to each and every microbiology laboratory.

The determination of MICs and MIC breakpoint values are fundamental to understanding the relative susceptibility of a pathogenic organism to an antimicrobial. Clinicians use this MIC knowledge and combine it with an understanding of the achievable concentration of an antimicrobial at a site of infection,



> “Etest® makes possible a standard method for testing a myriad of different types of organisms, almost “one-stop shopping.” This has allowed laboratories with varying levels of expertise to perform antimicrobial susceptibility testing with enormous positive impact on patient care. Having this technology available even in resource-poor areas of the world, has contributed to the detection of resistances where such knowledge was previously unattainable.”
>
> *Dr. Ellen Jo Baron*
> *Director, Stanford Clinical Microbiology / Virology Laboratory*

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from diagnosis,
the seeds of better health

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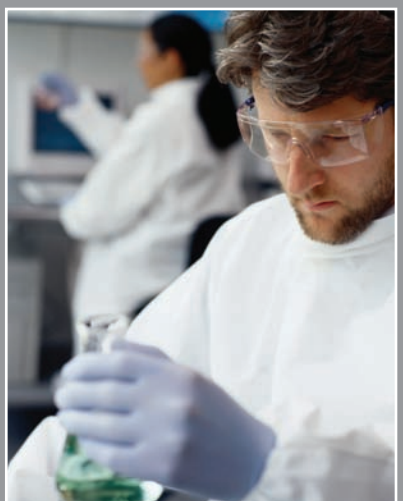
> As a practicing clinical microbiologist for 37 years, I have witnessed the evolution of antimicrobial susceptibility testing from broth dilution testing in glass test tubes to detection of antimicrobial resistance markers with molecular probes. During this time period, two innovations stand out that have had major clinical impact in my opinion. The first is the use of automation to increase the efficiency of testing combined with computer interfaces to enable error-free transfer of results to patient medical records. The second is the refinement of the agar diffusion test method to take advantage of the stable antimicrobial agent gradients produced as Etest® strips to permit testing of virtually all microorganisms that grow on solid media, regardless of microorganism growth rates or the antimicrobial agent's diffusion coefficients.
>
> *Dr. Joseph Campos*
> *Director, Microbiology and Molecular Diagnostics Laboratory, and Laboratory Informatics*
> *Children's National Medical Center, Washington, DC*

along with various host factors (e.g., age, renal function, immunocompetency), to determine the optimal therapy for a patient with an infectious disease.

Laboratories use a variety of methods to determine MIC values. This can prove challenging because of the wide variety of organisms and agents that require susceptibility testing. There is no method as versatile as Etest® in the breadth of organisms, agents and conditions in which MIC determinations can be made. The scope of organisms that can be tested by the Etest methodology includes not only rapidly growing aerobic bacteria, but also slow growing and fastidious organisms, anaerobic bacteria and yeast. There is a place for Etest in every laboratory, regardless of the automated or manual system the laboratory employs for the majority of its isolates.

The Etest method is unique and offers the potential to provide results that may be difficult with other methods. One important method is resistance mechanism detection and a second is the extended range of antibiotic concentrations that can be incorporated into an Etest strip. The extended range can be helpful to clinicians in determining choice and dosage of antimicrobials in patients with sterile site infections (e.g., endocarditis), serious nosocomial infections, chronic infections (e.g., cystic fibrosis), and immune-suppressed patients.

At bioMérieux, we are proud to incorporate Etest into our product offering. It is a reflection of our mission to provide healthcare professionals with products that will advance the well-being of patients everywhere. ▮



> On behalf of all of my patients who have benefited from Etest MIC testing, thank you! You've helped save the lives of patients with serious bacterial infections all over the world.
>
> *Dr. Marc Romney*
> *Medical Microbiologist*
> *St. Paul's Hospital / Providence Health Care*
> *Vancouver, BC*

Revolutionizing the Standard of Care for Patients with Sepsis

VIDAS B·R·A·H·M·S PCT®

Until recently, clinicians who needed to confirm the cause of suspected bacterial septic infections had to wait 24 hours or more for microbiological confirmation that bacteria was the cause, but patients with severe systemic infections cannot be put on hold for that long. Typically, emergency department and ICU doctors prescribe antibiotics immediately because sepsis can turn deadly very quickly.

bioMérieux has released a new assay for the VIDAS® and mini VIDAS® systems that can rapidly correlate with bacteria as the cause of severe infection, providing doctors with a new tool to help determine appropriate treatment. The test, called VIDAS® B·R·A·H·M·S PCT®, tracks levels of procalcitonin (PCT) in the blood and can be used with critically ill patients, on their first day of admission to the intensive care unit, as a prognostic tool to assess their risk for progression to severe sepsis and septic shock.

On June 9-10, 2008, 16 physicians from across the United States and Europe attended a scientific advisory roundtable discussion in Research Triangle Park, hosted by bioMérieux. The meeting was structured to provide an overview of European experience with PCT, where the test has been on the market for several years, and to encourage an interactive dialogue about how to accelerate awareness, understanding, and adoption of PCT in the U.S. Overall, the panel of scientific advisors expressed great enthusiasm for the potential of VIDAS B·R·A·H·M·S PCT.

The consensus among these physicians was that VIDAS B·R·A·H·M·S PCT will not only help to quickly confirm potential of bacterial infection when dealing with cases of suspected sepsis, it can also help physicians in preventing the misuse of antibiotics in patients who are not infected with bacteria. Using antimicrobial drugs judiciously—prudent antibiotic stewardship—is a top priority in healthcare around the world.

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"For decades, advancement of the diagnosis of sepsis has been limited as doctors continue to rely on clinical clues and symptoms," said Dr. Charles B. Cairns, Professor & Chair, Department of Emergency Medicine, UNC School of Medicine, and member of the PCT scientific advisory board. "Yet, it has been shown that early treatment can be life saving. Healthcare professionals need new tools, like PCT, to rapidly and accurately diagnosis sepsis in order to pick the best possible drug therapy."

Beyond its promise for faster and more accurate treatment, VIDAS® B·R·A·H·M·S PCT® could help hospitals with one of their most vexing problems today: antibiotic resistance.

PCT is the prohormone of calcitonin (CT). Whereas CT is secreted by the C-cells of the thyroid after hormonal stimulation, PCT can be produced by numerous cell types and organs after proinflammatory stimulation, especially when caused by bacterial challenge. In healthy people, plasma PCT concentrations are found to be below 0.05 ng/mL, but can increase up to 1,000 ng/mL in patients with severe sepsis or septic shock. PCT provides clearly defined cut-offs for bacterial infections, including septic shock, severe sepsis, and sepsis.

There are several major advantages of PCT compared to other parameters, including its early and highly specific increase in response to systemic bacterial infection that occurs in sepsis. In septic conditions, increased PCT levels can be observed three to six hours after an infectious challenge. In fact, among several laboratory parameters, PCT has been shown to be the most useful, performing the best for differentiating between patients with sepsis and those with a systemic inflammatory reaction unrelated to an infectious cause.

bioMérieux is excited by the potential PCT holds to revolutionize the standard of care for patients with sepsis. We look forward to sharing more information with you about VIDAS® B·R·A·H·M·S PCT® in the future and hope that you consider adding it to your collection of VIDAS assays.

2008
SHOWS AND CONFERENCES

Northwest Medical Lab Symposium
October 15-18 • Portland, OR

Association for Professionals in Infection Control (APIC) Hawaii
October 3 • Honolulu, HI

Health Industry Distributors Association (HIDA)
October 16-18 • Chicago, IL
Booth #501

Northeast Medical Lab Conference
October 22-24 • Portland, ME
Booth #66/67

American College of Chest Physicians
October 26-29 • Philadelphia, PA
Booth #941

American College of Emergency Physicians (ACEP)
October 27-30 • Chicago, IL
Booth #421

Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC/IDSA)
October 27-29 • Washington DC
Booth # 1127

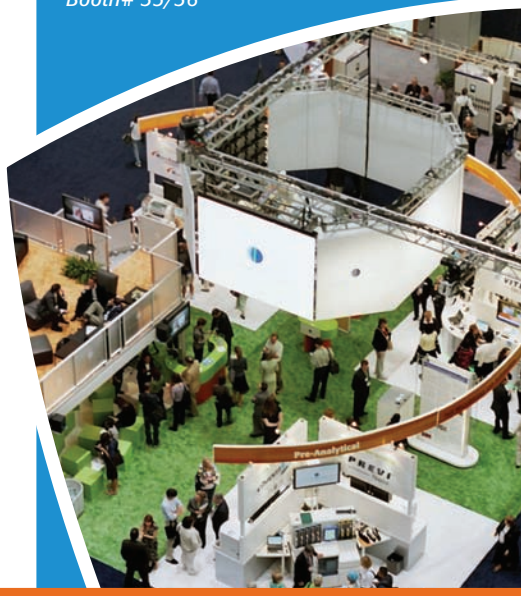
Association of Molecular Pathology
October 31-November 1 • Grapevine, TX

Southeast Association of Clinical Microbiology (SEACM)
November 5-8 • Myrtle Beach, SC

American Society of Hospital Pharmacists
November 7-10 • Orlando, FL

American Society of Reproductive Medicine (ASRM)
November 8-10 • San Francisco, CA

Southern California American Society of Clinical Microbiology (SCASM)
November 13-15 • San Diego, CA
Booth# 35/36



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