

Importance of Antimicrobial Resistance Testing

“Measurement of the sensitivity of microorganisms to antibiotics and chemotherapeutics is of great importance in the rational use of chemotherapy”

Hans Ericsson and John Sherris, ICS Report, 1971.

“The Etest has been cleared by the FDA for clinical use in the U.S. This test may have a special advantage for resistance surveillance because it has a continuous concentration gradient and is able to show subtle changes in susceptibility. The wide concentration gradients cover the MIC ranges of a wide variety of pathogens and allow both low level and high level resistance to be detected. The Etest is reportedly easy to use in most laboratory settings and requires no complicated procedures.”

**Impacts of antibiotic resistant bacteria. Office of Technology Assessment, Congress of the United States
OTA H629, 1995.**

"Antibiotics sow the seeds of their own potential downfall by selecting for rare strains of bacteria that have the ability to resist their activity. To complicate matters further, many of these resistance traits can be transferred or spread from one kind of resistant bacteria to other bacteria, even of different types."

"We suggest that hospitals should have an active program for on-line antibiotic resistance surveillance of common drugs, using quantitatively accurate minimum inhibitory concentration methods, to constantly evaluate antibiotic administration and pharmacy formulary options."

**Stuart B. Levy, The Antibiotic Paradox, How Miracle Drugs Are Destroying the Miracle,
ISBN 0-306-44331-7, 1992.**

"Finally, national level longitudinal antimicrobial resistance surveillance programs are a necessity for the 1990's. Only from these types of surveillance initiatives can we, as treating physicians, rapidly modify empiric, prophylactic or directed antimicrobial therapy to achieve the best clinical result."

Ronald Jones, Diagnostic Microbiology Infectious Diseases, vol. 19, 1994.

"The high bacterial inoculum provided by Etest that was used in this study is a sensitive tool for detecting resistant subpopulations of bacteria that may be selected during therapy. In previous studies, the microdilution method based on a lower inoculum may not have detected resistant subpopulations as easily as the Etest."

Håkan Hanberger *et al.* JAMA, vol. 281, 1999.

"The use of accurate and “real” MICs is a crucial first step in any attempt to fine-tune individual patient therapy."

Johan Mouton, Etest News, no. 26, 2000.