Antibiotic Misuse Reported By 90% of Lab Personnel

MarketWire

The inappropriate use or misuse of antibiotics was reported by 9 of 10 infection control officers and laboratory personnel in a nationwide survey of 218 hospitals. Problems cited include unnecessary antibiotic use and the use of weaker broad-spectrum agents when 'targeted,' bacteria-specific antibiotics would be more effective.

The survey was commissioned by MicroPhage, Inc., provider of the KeyPath MRSA/MSSA Blood Culture Test, which returns antibiotic susceptibility results from positive blood cultures for deadly Staphylococcus aureus (S. aureus or "staph") infections within a day rather than the three days required for typical testing procedures.

Hospital personnel are especially concerned about these issues in treatment of serious S. aureus bloodstream infections (SABSI). The mortality rate for these infections is 23 to 36 percent -- allowing only a small window of time to administer optimal antibiotic therapy to prevent a possible deterioration to sepsis.(1, 2)

The vast majority (87%) of survey respondents agree that SABSIs are among the leading concerns at their institutions.

Nearly all (96%) cite the importance of determining if the infecting organism is methicillin-susceptible (MSSA), as well as determining if it is methicillin-resistant (MRSA). In addition, 91% cite the need to optimize therapy away from broad spectrum agents, such as vancomycin, in treating S. aureus infections. A majority believe that earlier antibiotic susceptibility results (within 1 day instead of the typical 3 days) would improve cure rates (84% agree) and shorten patient hospital stays (87% agree).

"The survey results reflect what infection control staff know, that the sooner we can distinguish MSSA from MRSA, the sooner we can put the patient on optimal antibiotic therapy and the better it is for the patient," stated Dr. Jack Brown, Assistant Professor of Pharmacy, Medicine and Public Health at The State University of New York at Buffalo. "Use of innovative products like KeyPath that provide earlier susceptibility results have the potential to save lives."

Antibiotic Misuse

Nine out of ten of the hospital personnel surveyed believe that antibiotics are often used inappropriately in hospital settings: 91% state that antibiotics are often or sometimes administered unnecessarily in hospital settings, including half (49%) who feel this happens often.

All respondents agree that antibiotics are often or sometimes continued unnecessarily. A total of 94% say that broad spectrum agents are often or sometimes used to treat infections that could be better treated with targeted antibiotics. Remarkably, half of respondents (54%) say this happens often.

KeyPath MRSA/MSSA Blood Culture Test

MicroPhage's KeyPath, the only blood culture test to have gained FDA clearance to report accelerated antibiotic susceptibility results, provides physicians with a tool for selecting safer and more effective therapy.

Results are available much sooner than is typically practiced, shortening the time to antibiotic susceptibility results from three days to one. The KeyPath test platform incorporates MicroPhage's proprietary Bacteriophage Amplification Technology (BAT) to create a simple-to-use, instrument-free test platform that empowers clinical laboratories of any size or means to deliver KeyPath benefits to its physicians and patients. Recently MicroPhage initiated clinical trials to further expand product claims for KeyPath and increase accessibility to more than 90% of U.S. hospitals.

Survey Methodology

Kinesis Survey Technologies conducted the online survey. Respondents were recruited by via email between October 1 and October 8, 2012, from a nationwide list of medical professionals involved in infectious disease diagnosis and treatment at major hospitals and reference laboratories in the U.S.

In addition to infection control specialists and laboratorians, the survey sample included hospitalists, pharmacists, infectious disease specialists and hospital administrators. As an incentive for completion, a contribution was made to Doctors without Borders for each completed survey. The survey had an overall completion rate of 3%.

References:

(1) Kaye et al. The deadly toll of invasive methicillin-resistant Staphylococcus aureus infection in community hospitals. Clin Infect Dis (2008) vol. 46 (10) pp. 1568-77
(2) Cosgrove SE et al, Comparison of Mortality Associated with Methicillin-Resistant and Methicillin-Susceptible Staphylococcus aureus Bacteremia: A Meta-analysis. Clinical Infectious Diseases 2003; 36:53-9.

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