



LABORATORY ALLIANCE

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Sentinel Antibiotic Susceptibility Prevalence Studies For Group A and B Streptococci

Sentinel antibiotic prevalence studies for group A and group B streptococci are performed periodically by the Microbiology department of Laboratory Alliance of CNY to monitor the emergence of resistance to select antimicrobial agents. The following highlights the results of these studies.

Group A Streptococci

Fifty randomly selected pharyngeal isolates of group A streptococci (GAS) recovered from adult and pediatric outpatients in January 2007 were tested against penicillin, erythromycin, and clindamycin. As expected, all isolates (100%) were susceptible to penicillin and 47 isolates were susceptible to both erythromycin and clindamycin. The D test which screens for the presence of inducible clindamycin resistance in erythromycin resistant bacteria was performed on the 3 GAS isolates that were resistant to erythromycin. Only one of the three erythromycin resistant GAS was positive for the D test indicating resistance to clindamycin.

Thus, based upon this limited survey of 50 GAS pharyngeal isolates, 100% were susceptible to penicillin, 94% were susceptible to erythromycin, and 98% were susceptible to clindamycin. These susceptibility patterns are similar to those observed in previous years.

Physicians are reminded that penicillin remains the drug of choice for the treatment of GAS pharyngitis in the non-penicillin allergic patient and that the use of alternative therapies may result in the emergence of increased resistance and possible treatment failures.

Group B Streptococci

A similar antibiotic susceptibility prevalence study was performed on 50 group B streptococci (GBS) recovered from vaginal specimens during the same time period. All isolates were susceptible to penicillin, 46% were susceptible to erythromycin, and 54% were susceptible to clindamycin. Fortunately, there has been no significant increase in resistance against these antibiotics as the susceptibility patterns are comparable to those experienced in previous years. It is noteworthy, however, that of the nine GBS isolates that were erythromycin resistant and clindamycin susceptible by the disc diffusion test, 5 isolates gave "positive" D test results, indicating that these isolates were, in fact, clindamycin resistant.

If you have any questions or concerns regarding the above, please do not hesitate to contact me (315-464-7653) or Mr. Russell Rawling, Manager of the Microbiology Laboratory (315-410-7060).