COMPARISON OF THREE TECHNIQUES FOR DETECTION OF PENICILLINASE PRODUCED BY NEISSERIA GONORRHOEAE

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The acidometric iodometric and chromogenic cephalosporin techniques were used concurrently to detect penicillinase production by 14 different strains of Neisseria gonorrhoeae isolated from clinical samples. Pure growths of gonococcal isolates were suspended in proteose peptone no. 3 broth and adjusted to have approximately 10^8 colony forming units per ml. using Mc Farland standards. Colony counts were performed on these bacterial suspensions using Miles and Misra technique.

Tests to detect penicillinase were performed on micro titre plates using serial dilutions of gonococcal strains whose colony counts were known. The lowest colony count of each strain which gave a positive test was noted.

Detection of penicillinase by the chromogenic cephalosporin method was found to be the most sensitive of the three techniques compared.