

Inhibitory Test of Gentamicin Antibiotics Against Escherichia coli and Staphylococcus aureus Bacteria Using Disc Method

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Abstract	Escherichia coli and Staphylococcus aureus are bacteria that often cause health problems and diseases in humans, such as digestive disorders (diarrhea), or skin disorders (boils). Gentamicin is one of the most widely used antibiotics from the aminoglycoside group. Gentamicin is widely used as an antibiotic for both minor infections due to bacteria or moderate infections due to fungal or viral infections. The purpose of this study was to determine the inhibition and effectiveness of gentamicin in inhibiting the growth of E. coli and S. aureus and to determine the pattern of sensitivity of these bacteria to gentamicin. This research method was a completely randomized design with one way ANOVA, and further test using Duncan's test, with a total of 10 experimental units for each bacterium with 2 replications, then the data were analyzed using SPSS v.25.0 software. The results showed that the antibiotic gentamicin could inhibit the growth of E. coli and S. aureus. Gentamicin inhibited the growth of E. coli bacteria with the smallest inhibition zone value was 17 mm, the highest was 22.5 mm, and against S. aureus the lowest was 15.5 mm and the highest was 18.5 mm with the percentage of inhibition ability (inhibition) sensitive category for E. coli was 90%, S. aureus 60%, while the intermediate category for E. coli was 10% and S. aureus was 40%.
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