**CHAPTER: 5**

**CONCLUSION AND RECOMMENDATION**

Three bacterial isolates such as *E.coli, Salmonella* and *Staphylococcus* from medical hospitals, veterinary hospitals and slaughterhouses were isolated to find out the antimicrobial resistance pattern by using disc diffusion method. Resistance pattern of *E. coli* were more in slaughterhouse isolates in comparison to hospitals. The prevalence of *Salmonella* positive isolates were found in only three isolates. *Staphylococcus* isolates were common in medical hospital and slaughterhouse isolates but comparatively low in veterinary hospital isolates. Overall results indicated that hospitals and slaughterhouses waste effluent has multiple-antibiotic resistance among *E. coli*, *Salmonella* and *Staphylococcus*. The importance of the different sources of resistance found in the environment, i.e. the presence of antibiotics in the environment and the importance of resistant bacteria resulting from the use of antibiotics in the various fields has to be measured. For this purpose, it is important to make a more detailed assessment of the significance of culture-dependent and laboratory-based methods in relation to conditions found in the environment. Based on the above resistance pattern of antimicrobial agents on environmental samples, following measures should be taken to avoid or control the antimicrobial resistance and improve the public health.

1. To know the exact resistance pattern through advance research
2. To reduce indiscriminate use of antimicrobials
3. To follow the proper withdrawal period of antimicrobials
4. To develop safe disposal of antibiotic containing effluent or waste
5. To develop or increase public awareness regarding the use of effluent or effluent contaminated water to their agricultural fields or everyday uses.