

## CHAPTER VII

### CONCLUSION

The molecular typing was performed by using PFGE, 72 pulsotypes were discriminated among the 135 *P. aeruginosa* isolates which were obtained from throat, tracheostomy wound and environment: sinks from the RCU, the TICU and sputum from patients in the other hospital care units who had lower respiratory tract infection. The technique used had been shown to be valuable in the typing study because it was reproducible and not that difficult to perform eventhough it was slightly expensive. There was no predominant pulsotypes of *P. aeruginosa* obtained among the isolates from colonized or infected patients as well as from environments.

The prevalence of *P. aeruginosa* in colonized patients from both RCU and TICU was similar which was about 10-14%. The average length of the intensive care unit stay was almost the same ranged from 10-12 days. The patients who developed *P. aeruginosa* respiratory tract and tracheostomy wound infection carried the same pulsotype as found in their throat. However, there were some different pulsotypes obtained from the same patients, which probably indicated there were more than strains of *P. aeruginosa* in such patients.

There were 30 different antibiograms obtained. Eventhough there were not as many patterns as pulsotypes, but there was no correlation between the two typing methods. This indicated that antibiogram could not be used as the appropriate methods to differentiated *P. aeruginosa* isolates. The antimicrobial administration prior to the detection of *P. aeruginosa* in patients was shown to have no correlation with the colonization.