

Question 5

A retrospective cohort study was conducted on factors affecting survival of tuberculosis patients in the state of Terengganu. The entry point is the date of being diagnosed with tuberculosis and the primary end point is the date of death. Please calculate the duration of survival in months using the DateDiff command. Those who died are coded as STATUS = 1.

a) Do a Kaplan Meier Survival Analysis on the following variables. Copy and complete the table below in your answer sheet. This will help us to identify factors that affect the duration of survival of tuberculosis patients;

- Gender
- Race
- Marital Status
- Work History
- Education History
- Diabetes Mellitus
- HIV Status
- Extra-Pulmonary TB
- Treated For At Least 6 Months
- Completed Treatment
- Compliance To Treatment

Risk Factors		Mean	Type of test	P value
Gender	Male			
	Female			
Race	Malay			
	Non-Malay			
Marital Status	Single			
	Married			
Work History	Working			
	Not Working			
Education History	Schooling			
	No Schooling			
Diabetes Mellitus	Yes			
	No			
HIV Status	Positive			
	Negative			
Extra-Pulmonary TB	Extra-pulmonary			
	Pulmonary			
Treated For 6 Months	Yes			
	No			
Completed Treatment	Completed			
	Incomplete			
Compliance To Treatment	Compliant			
	Non-compliant			

b) Based on the above table, list the variables that significantly affected the duration of survival.

c) Create a survival plot for HIV status and paste it in your answer sheet.

d) Many variables were found to be significant. Conduct a Cox Regression Analysis using all the significant variables. Determine the real predictors that affect the survival of TB patients. Copy & paste the appropriate tables/charts. Explain your answer in brief.

Save your answers using your matriculation number as its filename i.e. P20627.doc and send it using e-mail with your matriculation number as the subject header to drtamil@gmail.com during the exam. Make sure that you can access your mail account during the exam, else subscribe to gmail or hotmail. Any answers sent after the exam (21 April 2011;10.30 am) will be considered void.

You can bring any notes that you want but you can't discuss with your friends during exam. Those caught cheating will get 0 automatically.

Open book not open mouth exam ;-)