

Applied Survival Analysis - January 2008

Lab 1

Empirical Survival Estimate

Consider the following data from the Ohio State University Bone Marrow Transplant Unit on the time to death or relapse (in months) after bone marrow transplant for 12 patients with non-Hodgkin's lymphoma. For the purposes of this exercise, assume that there are no censored event times.

1, 2, 2, 2, 3, 5, 6, 7, 8, 16, 17, 34

- (a) Using the above data, calculate the empirical estimate of the survival function, $\hat{S}(t^+)$ by hand. Summarize your calculations in a table like that in p.27 of today's notes.
- (b) Use the stata command *sts list* shown on p.29 to verify the empirical survival estimates in part (a). The dataset name is *nhl1*.
- (c) Use the stata command *sts graph* to produce a graph of the estimated survival function, and print it out.
- (d) Show how the estimated standard error is calculated for $t = 6^+$.
- (e) Identify the estimated median survival.