BST 222, Survival Analysis, Homework 1

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1. 1.2 Remission Duration from a Clinical Trial for Acute Leukemia

1. Event: Leukemia Returned(Relapse)
2. Time origin: Randomizing within the pair
3. Time scale: months that subjects are in this project.
4. Censoring and/or Truncation: It is a Type I right censoring.

2. 1.3 Bone Marrow Transplantation for Leukemia

1. Event: a patient's leukemia returns (relapse) or dies while in remission.
2. Time origin: the time after bone marrow transplants operation.
3. Time scale: time lapses between the transplants operation to relapse or dies (years).
4. Censoring and/or Truncation: It is a random censoring.

3. 1.4 Times to Infection of Kidney Dialysis Patients

1. Event: first exit-site infection
2. Time origin: the first time that the subjects who was judged with renal insufficiency.
3. Time scale: in months
4. Censoring and/or Truncation: It is a left censoring.

4. 1.5 Times to Death for a Breast-Cancer Trial

1. Event: death
2. Time origin: The time that she has been selected to participate to this project.
3. Time scale: survival time in months
4. Censoring and/or Truncation: It is a progressive Type I right censoring.

5. 1.6 Times to Infection for Burn Patients

1. Event: burn wound infections
2. Time origin: Begin to receive new bathing solution or receive routine bathing care.
3. Time scale: the month of study
4. Censoring and/or Truncation: It is a Type I right censoring.

6. 1.7 Death Times of Kidney Transplant Patients

1. Event: death
2. Time origin: All patients had their transplant performed at the Ohio State University Transplant Center.
3. Time scale: follow-up time (years)
4. Censoring and/or Truncation: It is random censoring and right Type I censoring.

7. 1.8 Death Times of Male Laryngeal Cancer Patients

1. Event: death
2. Time origin: first treatment.
3. Time scale: years between first treatment to death or end of the study.
4. Censoring and/or Truncation: It is a Type I right censoring.

8. 1.9 Autologous and Allogeneic Bone Marrow Transplants

1. Event: death
2. Time origin: The first time that subjects have received the different treatment of transplant.
3. Time scale: month from receiving treatment to death.
4. Censoring and/or Truncation: It is a Type I right censoring.

9. 1.10 Bone Marrow Transplants for Hodgkin's and Non-Hodgkin's Lymphoma

1. Event: dead or relapsed
2. Time origin: The first time that subjects have received the different treatment.
3. Time scale: days from receiving treatment to death or relapsed.

4. Censoring and/or Truncation: It seems that there is no censoring or truncation.

10. 1.11 Times to Death for Patients with Cancer of the Tongue

1. Event: death
2. Time origin: The first time that subjects were selected who had a ample of cancerous tissue taken at the time of surgery.
3. Time scale: weeks from surgery to death.
4. Censoring and/or Truncation: It seems that there is no censoring or truncation.

11. 1.12 Times to Reinfection for Patients with Sexually Transmitted Diseases

1. Event: reinfection by either gonorrhea or chlamydia
2. Time origin: The time that gives an initial infection of gonorrhea or chlamydia
3. Time scale: years from initial infection to reinfection
4. Censoring and/or Truncation: It is a left censoring.

12. 1.13 Time to Hospitalized Pneumonia in Young Children

1. Event: child was hospitalized pneumonia.
2. Time origin: birth of baby
3. Time scale: age
4. Censoring and/or Truncation: It is a progressive Type I right censoring.

13. 1.14 Times to Weaning of Breast-Fed Newborns

1. Event: time to weaning.
2. Time origin: birth of baby
3. Time scale: weeks
4. Censoring and/or Truncation: It is a progressive Type I right censoring.

14. 1.15 Death Times of Psychiatric Patients

1. Event: death

2. Time origin: patient age at first admission to the hospital
3. Time scale: years
4. Censoring and/or Truncation: It is a Type I right censoring.

15. 1.16 Death Times of Elderly Residents of a Retirement Community

1. Event: death or left the center
2. Time origin: The age when individuals entered the community.
3. Time scale: months
4. Censoring and/or Truncation: It is a left truncated.

16. 1.17 Time to First Use of Marijuana

1. Event: first use marijuana
2. Time origin: birth.
3. Time scale: years of age
4. Censoring and/or Truncation: It is a left censoring and right censoring.

17. 1.18 Time to Cosmetic Deterioration of Breast Cancer Patients

1. Event: cosmetic deterioration
2. Time origin: the time that uses different treatments on subjects.
3. Time scale: months
4. Censoring and/or Truncation: It is a interval censoring.

18. 1.19 Time to AIDS

1. Event: development of AIDS
2. Time origin: from the date of infection.
3. Time scale: years
4. Censoring and/or Truncation: It is a right truncated and in progressive Type I right censoring.

GOALS:

1. Know the basic analysis method of survival analysis.
2. Can flexible use those methods to solve different question in reality.
3. Get higher grade of this course
4. Extend those method if I can.

PLAN

1. Try to understand each step of one method of survival analysis. Especially it is worth to conduct formula of each model step by step. This can make you better to understand why we must do this step.
2. Try to understand the interpretation of each step and the result.
3. When you have learned a new knowledge, we can try to apply it to a new question or other domain which may not strong related with clinical trail. (Like the life of one building)