RTMS.e34 Drug Survival Studies in Dermatology: Principles, Purposes, and Pitfalls

QUESTIONS

1. What is drug survival?
   A. The half-life of a drug.
   B. The time patients remain "on drug."
   C. The amount of patients surviving treatment with a drug.
   D. The percentage of responders on a drug.

2. How can different follow-up times of patients be combined in survival analysis?
   A. The method of "censoring" can be applied, incorporating all information until the end of follow-up of each individual patient.
   B. All patients must have the same follow-up time; otherwise, survival cannot be analyzed.
   C. The patient with the shortest follow-up time is leading; that period should be chosen as the maximum duration of the survival analysis.
   D. The method of last observation carried forward should be applied; follow-up time of patients with short follow-up can be extended with the information available.

3. What can be used to estimate the required sample size for a reliable survival analysis?
   A. Survival studies can only be used for samples with at least 100 patients.
   B. The number of events determines the power of survival analyses. A general rule of thumb in survival analysis is that at least 10–20 events must be present in each survival curve.
   C. The number of patients determines the power of survival analyses. At least 10–20 patients are needed in each survival curve.

4. If a body weight below 100 kg is a predictor of drug survival with a hazard ratio of 0.5 (95% confidence interval 0.4-0.6), what does this mean?
   A. Patients with a body weight <100 kg have a lower chance to stop the drug than patients weighing >100 kg. Thus <100 kg is predictive for long DS.
   B. Patients with a body weight >100 kg have a lower chance to stop the drug than patients weighing <100 kg. Thus >100 kg is predictive for long DS.
   C. Patients with a body weight <100 kg have 0.5% chance of discontinuing treatment within the analyzed period.
   D. Patients with a body weight >100 kg have 0.5% chance of discontinuing treatment within the analyzed period.

5. Which assumptions should be present in survival analysis?
   A. (i) At any time point, the patients who are censored have the same survival prospects as the ones who continue, (ii) survival probabilities are stable throughout the whole study, and (iii) the event corresponds with the specified time and is not a raw estimation.
   B. (i) at any time point, the patients who are censored have the same survival prospects as the ones that continue, (ii) survival probabilities differ throughout the whole study, and (iii) the event does not always correspond with the specified time and is a raw estimation.
   C. A and B are both incorrect.

ANSWERS

1. B.
2. A.
3. B.
4. A.
5. A.