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| Nota di contenuto | Preface -- Chapter 1: Regression Analysis -- Chapter 2: Cox Regressions -- Chapter 3: Accelerated Failure Time Models -- Chapter 4: Simple Dataset with Event as Outcome and Treatment as Predictor -- Chapter 5: Simple Dataset with Death as Outcome and Treatment Modality, Cholesterol, and Age as Predictors -- Chapter 6: Glioma Brain Cancer -- Chapter 7: Linoleic Acid for Colonic Carcinoma -- Chapter 8: The Effect on Survival of Maintained Chemotherapy with Acute Myelogenous Leucemia -- Chapter 9: Eighty Four Month Parallel Group Mortality Study -- Chapter 10: The Effect on Survival from Stages 1 and 2 Histiocytic Lymphoma -- Chapter 11: Survival of 64 Lymphoma Patients with or without B Symptoms -- Chapter 12: Effect on Time-to-Event of Group Membership -- Chapter 13: The Effect on Survival of Group Membership -- Chapter 14: Deaths from Carcinoma after Exposure to Carcinogens in Rats -- Chapter 15: Effect of Group Membership on Survival -- Chapter 16: Multiple Variables Regression Study of 2421 Stroke Patients Assessed for Time to Second Stroke -- Chapter 17: Hypothesized 55 Patient Study of Effect of Treatment Modality on Survival -- Chapter 18: One Year Follow-up Study with |

Many Censored Patients -- Chapter 19: Alcohol Relapse after Detox Program Treated with or without Personal Coach -- Chapter 20: Alcohol Relapse after Detox Program with 3 Predictors -- Chapter 21: Ayurvedic Therapy for Human Immunodeficiency Virus -- Chapter 22: Time to Event other Than Cox -- Chapter 23: Abstracts of the Chapters 1 to 22.

Sommario/riassunto

An important novel menu for Survival Analysis entitled Accelerated Failure Time (AFT) models has been published by IBM (international Businesss Machines) in its SPSS statistical software update of 2023. Unlike the traditional Cox regressions that work with hazards, which are the ratio of deaths and non-deaths in a sample, it works with risk of death, which is the proportion of deaths in the same sample. The latter approach may provide better sensitivity of testing, but has been seldom applied, because with computers risks are tricky and hazards because they are odds are fine. This was underscored in 1997 by Keiding and colleague statisticians from Copenhagen University who showed better-sensitive goodness of fit and null-hypothesis tests with AFT than with Cox survival tests. So far, a controlled study of a representative sample of clinical Kaplan Meier assessments, where the sensitivity of Cox regression is systematically tested against that of AFT modeling, has not been accomplished. This edition is the first textbook and tutorial of AFT modeling both for medical and healthcare students and for professionals. Each chapter can be studied as a standalone, and, using, real as well as hypothesized data, it tests the performance of the novel methodology against traditional Cox regressions. Step by step analyses of over 20 data files stored at Supplementary Files at Springer Interlink are included for self-assessment. We should add that the authors are well qualified in their field. Professor Zwinderman is past-president of the International Society of Biostatistics (2012-2015) and Professor Cleophas is past-president of the American College of Angiology (2000-2002). From their expertise they should be able to make adequate selections of modern data analysis methods for the benefit of physicians, students, and investigators. The authors have been working and publishing together for 25 years and their research can be characterized as a continuedeffort to demonstrate that clinical data analysis is not mathematics but rather a discipline at the interface of biology and mathematics.