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**Title:** Cure Models: Methods, Applications and Implementation
**Author(s):** Yingwei Peng, Binbing Yu
**Publication year:** 2021
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**Publisher:** Chapman & Hall/CRC Biostatistics Series
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Cure models have gained popularity in recent years, particularly in the context of cancer and the use of immunotherapies, and their use has appeared in a range of disciplines (including epidemiological research and health care resource allocation decision making), as acknowledged by the authors. This book provides a well-written, detailed-yet-practical discussion of the use of cure models in biomedical research, providing a much-needed reference for those less familiar with the use of these types of statistical models, and nicely balances lay descriptions with precise statistical notation and derivations.

A particularly attractive feature of the book is the provision of a large quantity of varied examples across a range of software packages (most notably R and SAS, though STATA users may be disappointed to not find examples in this language) and contexts (the majority of examples provided are in studies of cancer). Within this, the authors acknowledge the availability of different functions and codes available to fit the same or similar types of models and illustrate how results compare across packages – essential in order to understand why two different researchers might obtain slightly different results if using two different software packages or functions. The authors helpfully provide code, outputs, and interpretation of results for the worked examples they present, demystifying how cure models work and what they can tell us. Consideration of more advanced extensions of cure models are also covered, including (but not limited to) Bayesian models (using WinBUGS but linking with R), use of longitudinal and grouped data, and even testing for the presence of a cure rate and how this is associated with study follow-up.

While the authors cover a vast range of different models, relatively little attention is given to the application of cure models to estimate overall survival (where cure models are most often used within the context of health technology assessment), and so this book is not universal in its coverage of cure model applications. The book is quite formula-heavy in places and relies on readers having a solid grasp of general survival analysis methods and mathematical notation, but overall, the authors have done a commendable job in consolidating a large collection of published studies, software packages, and applications. I would highly recommend this book to those interested in the application of cure models and expect to hold onto my copy as a handy reference for years to come.

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