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Basel Center
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Miquel Serra-Burriel

University of Zurich

4 November 2024 | 16:45
Seminar room S14 | HG.32 WWZ

Basel Center for Health Economics
bche research seminar series

Miquel Serra-Burriel, PhD

Control Groups, Censoring, and Progression Outcomes in Cancer Trials

Background

Progression-free survival has become as the main endpoint of oncological trials. Unlike overall survival, measuring cancer progression is not straight-forward. When there is uncertainty about the progression status, patients are often censored from the analysis. Yet most trials are analyzed under the assumption that censoring is non-informative, when, informative censoring would result in biased reported outcomes. The objective of this study was to assess the bias due to informative censoring in oncology trials, specifically how the reported effect sizes are related to the type of control group used (blinded or open label) and the censoring patterns.

Methods

We digitized time-to-event curves and, when available, censoring patterns by treatment arm from publicly available trial data. We then analyzed the relationships between: i) effect size and type of endpoint, ii) type of control group and effect sizes, iii) type of control group and censoring patterns, and iv) censoring patterns and effect sizes.

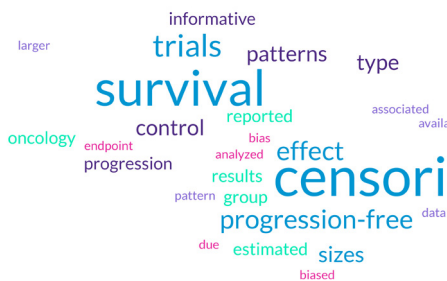
Results

Estimated effects on progression-free survival were unequivocally larger than estimated effects on overall survival. The effect sizes of progression-free survival were strongly associated with imbalances

in censoring across arms, but not for overall survival. Furthermore, the censoring pattern differed between trials with placebo-blinded and open-label control groups.

Discussion

Our results show that the censoring pattern in oncology trials is associated with the reported effects of progression-free survival, suggesting that estimations of progression-free survival are biased in published oncology trials, due to informative censoring. This bias can explain why estimated effects on progression free survival are, on average, much larger than effects on overall survival. Individual patient-level data re-analyses are warranted to confirm or disprove the presented results.



Programme

4/11/2024 @ 16:45

S14 HG.32 WWZ



Miquel Serra-Burriel is a highly accomplished researcher specializing in epidemiology, health economics, and econometrics. He is currently a postdoctoral researcher at both the Epidemiology, Biostatistics, and Prevention Institute, and the Faculty of Law at the University of Zurich. Miquel holds a PhD in Economics from the University of Barcelona, an MSc in Economics from the Barcelona Graduate School of Economics, and a BSc in Economics from Pompeu Fabra University. His research is focused on health policy, drug regulation, and the economic evaluation of health interventions.

16.45 – 16.50 **Introduction**
M. Schwenkglenks

16.50 – 17.45 **Lecture**
M. Serra Burriel

17.45 – 18.00 **Discussion**
Q & A

18.00 – 19.00 **Apéro**
Drinks & Snacks
La Pausa

Dear Colleagues,

Miquel Serra-Burriel, PhD, is giving a talk on novel methods in the analysis of survival data with an application to oncological trials. Take advantage of this unique opportunity and get in touch with other attendees at the subsequent aperitif.

Prof. Dr. Stefan Felder
Director bche

Registration is not required.
The number of seats is limited.



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