

Thursday 25 July 2024

09:00-12:30 Mini Symposium 2 (Room 2)

STRengthening Analytical Thinking for Observational Studies (STRATOS) initiative – recent progress and foci for the future

Organizers: Willi Sauerbrei and Els Goetghebeur in collaboration with the STRATOS Steering Group

Current and future initiatives in missing data

Katherine J Lee, Els Goetghebeur, James Carpenter on behalf of TG1

The aim of TG1 is to describe the principles for the analysis of partially observed observational data, illustrate potential methods for handling missing data and their application, and provide general guidance on how best to handle missing data across a range of settings. We have previously developed a framework for the handling and reporting of missing data. We are currently expanding this framework to the context of when data are missing dependent on unobserved data. This is exemplified through a worked case study. Future initiatives of TG1 include:

1. conducting a review of journal guidelines for handling missing data in top ranked medical journals with the aim of highlighting key misunderstandings, outlining the key components which we believe are useful to include in author guidance for missing data, and suggesting a template for author guidelines,
2. providing an overview of methods for handling missing data including a discussion of plausibility of needed assumptions, pros and cons of the various approaches and example code for conducting each using a single case study, and
3. evaluating methods to handle missing data in the context of informative drop out and nonpositivity, where (nearly) all further data are missing for some categories of participants. We consider a case study on missing quality of life data in a cancer trial with substantial treatment discontinuation and drop-out due to disease progression.

In this talk we describe these initiatives of TG1, in particular also how we are developing collaborations with TG7 to address questions regarding the handling of missing data in causal inference.