

Description of Simulation Study Results

RData File in Munko et al. (2025) for $\delta = 1$

Simon Mack

December 18, 2025

This Dataset contains the detailed results from the simulation study of the main paper for the scenario $\delta = 1$, and therefore also contains results of the RMST-based methods. A detailed description of the simulation setup is given in Section 4.2 of the main paper. Each row of the dataset represents one simulation setup.

- Columns 1-5 contain the true values for the estimands, on which the decision whether a confidence interval contains the estimand is based upon. Only the difference and ratio of RMSTs are exact (up to inaccuracy from numerical quadrature), the other three parameters have been estimated (setting wise) from a large dataset of uncensored observations.
- Columns 6-11 contain the estimated coverage probabilities for the RTE. If the name contains "gauss", the confidence intervals have been computed based on a normal distribution. If the name ends with perm, the (random) quantiles from the randomization procedure have been used. The names containing "lower", are the left sided intervals, of which the randomization versions are contained in the main paper. Analogously the columns with names containing "upper" and "twoside", contain the estimated coverage probabilities for right- and two-sided intervals. This naming convention also applies to the other methods.
- Columns 12-17 contain the results for the Midrank method. If the column name contains "binom", the exact Clopper-Pearson interval was used. If the column name contains "wald", the Wald interval for binomial probabilities was used.
- Columns 18-20 contain the estimated coverage probabilities for the Kaplan-Meier method. Here the confidence interval is based on the complementary log-log transformation and standard normal quantiles.
- Columns 21-26 contain the estimated coverage probabilities for the difference of RMSTs. The columns 27-32 contain the estimated coverage probabilities for the ratio of RMSTs.
- Column 33 contains the estimated censoring probability for the second event time (the first event time is always uncensored).
- Columns 34-42 contain the input parameters of the simulation.

Reference: M. Munko, S. Mack, M. Ditzhaus, S. Fröhling, D. Dobler, D. Edelman (2025). Effect measures for comparing paired event times. *Preprint*.