

Boulesteix AL, Binder H, Abrahamowicz M, Sauerbrei W for the Simulation Panel of the STRATOS Initiative (2018): On the necessity and design of studies comparing statistical methods. DOI: 10.1002/bimj.201700129

Short summary

This paper highlights the lack of meaningful comparison studies investigating the behavior of statistical methods in a neutral way in the literature, as opposed to comparison studies aimed at demonstrating the superiority of a new method promoted by its authors. For many data analysis problems, there is no lack of available methods and no need for new methods, but a need for guidance supporting the choice of statistical methodology in practice. The status of neutral comparison studies including particularly simulation-based studies should be reinforced, and research on how to reliably design them should be conducted, in analogy to the active research field devoted to clinical trial methodology.