

Use of Adaptive Robust R Procedures on Bioequivalence Type Problems

Joseph W. MCKEAN
Western Michigan University

Abstract: Adaptive procedures for R estimators of regression coefficients are discussed. Several of these exploit an optimality result for R estimators. Shomrani and McKean (2003) developed an extension of an adaptive procedure for tests in simple location models as proposed by Hogg, Fisher and Randles (1974). This procedure selects one of a set of scores for the R estimation based on the residuals from an initial fit. It can be used for an analysis but, also, as a method to explore what type of scores are useful for a specified class of problems. Using this procedure and recent results for R estimators in mixed models (Kloke, McKean and Rashid, 2008), we explore the use of this R methodology for bioequivalence type problems focusing on the modeling and statistical approaches as mandated by the FDA.