

**GRAPHICAL METHODS FOR DETECTION OF OUTLYING OBSERVATIONS. APPLICATION IN DESIGNS OF BIOAVAILABILITY STUDIES**

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One of the problems commonly encountered in bioavailability studies is that the data set may contain some extremely large or small (i.e. outlying) observations. These observations may have an influence on the conclusion of the bioequivalence.

This contribution is structured into three parts:

- the first section presents some new Exploratory Data Analysis (EDA) techniques, such Principal Component Analysis (PCA) and Projection Pursuit (PP), for detection of possible outlying subjects in designs of bioavailability studies;
- in the second section, a discordance test for one or more outlying observations for an individual subject, based on sample Kurtosis, is discussed;
- in section three, the AUC (Area Under the Curve) data (both raw data and log-transformed data) of the two erythromycin formulation in Clayton and Leslie's study are used to illustrate the procedures presented above.

Although computer intensive, the above EDA techniques are efficient in detecting outlying subjects and observations.

## References

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