

**APPLICATIONS OF REPEATED MEASUREMENT ANALYSIS IN THE STUDY OF EFFICACY OF  
LEVOCETRIZINE, DESLORATIDINE AND FEXOFENADINE IN HISTAMINE INDUCED WHEAL  
SUPPRESSION**

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Variety of methods are available for analyzing repeated measurements data in clinical research. In this paper we reviewed the applications of methods such as summary statistic approach, unstructured multivariate approach, profile analysis, repeated measures ANOVA and compared the results by application to a clinical trial data set. The data considered were taken from a clinical trial on efficacy of Levocetirizine, Desloratidine and Fexofenadine in histamine induced wheal suppression at 1, 2 and 3 hours. Considering the various models, it is concluded that pattern of wheal suppression at various time intervals was statistically significant in all the three treatments. Pattern of wheal suppression between the three treatments was also statistically significant. Pattern in wheal suppression of levocetirizine and desloratidine are not parallel. Pattern of fexofenadine is not linear over time. The study provides a basis for encouraging further efforts in this area.