

Medical Assessment Based on Generalized Gamma Distribution Generalized Linear Mixed Models

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ABSTRACT This paper proposes an analysis model for a Generalized Gamma distribution, data is distributed based on the Generalized Linear Mixed Models. The authors estimate the parameters, construct the score test as well as the shrinkage estimation, and explore how to deal with the medical service assessment. The recovery curves are obtained with dynamic investigation data from the US Shriners Hospitals and achieved medical service assessment in the empirical analysis. The recovery curve can explore the recovery of the burned children visually and comprehensively. With this model it is easy to give a comprehensive assessment on burn recovery from different aspects such as physics, social psychology, and so on. The method proposed in this paper is also available in the comprehensive assessment which is generally used in a social research.