

Estimation of the risk of the occurrence of events of interest over time with applications to medical data

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Abstract

In medical research it is common to study the time to the occurrence of a single event that may only happen once per individual. One such typical event is the occurrence of a death and the studying of the survival time. Even though the analysis of this type of one-time-only event is very common, classical theory in event history analysis fail to give a logical measurement of the risk of occurrence of these events.

In the article by Bottai (2017) the theoretical ground for two new measurements, for these type of events, were presented; the incidence rate and the event-probability function. The aim of this thesis is to make the usability of these two measurements visible and easily accessible by giving a thorough theoretical explanation, presenting new software, and providing a real data example.

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