

A LIKELIHOOD APPROACH TO DIAGNOSTIC TESTS IN CLINICAL MEDICINE

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Abstract

This work presents a pure likelihood approach to statistical inference and its relation to diagnostic tests in clinical medicine. The standard antagonistic frequentist approaches of Fisher and Neyman–Pearson–Wald, and the Bayesian perspective are discussed. We advocate that in medicine, usually, the likelihood is the only source of information available. Also, it is shown that there is no difference of interpretation of the concept of likelihood in statistics and in clinical diagnostic tests. This contradicts what is usually stated.

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