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## LOGISTIC MODEL OF SELECTION DIAGNOSTIC DECISIONS IN MEDICINE BASED ON MONTY HALL PARADOX AND ITS GENERALIZATION

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This medical decisions, while lack of input parameters previous experience of the doctor is used and an intuitive decision is made. Often, after the selection process for diagnosis or treatment there is additional information that does not directly affect the pre-selection process. Such information is often ignored by doctors, is not used to correct medical decisions. To ensure and optimize logically and intellectually controlled diagnostic process we propose scheme for appropriate choice of diagnostic decisions. We suggest the use of logistic models of Monty Hall paradox and its generalization (in the case of four factors) for optimizing diagnostic decisions in medicine. The features inherent to modern medicine indicate that the appearance of new additional excluding parameters, based on ignorance of the obviously negative option, is often the most randomized. Ignorance of correct choice (additional information regarding all options simultaneously), for example, increases the probability not to **2/3**, but only **to 1/2** for the three schemes.