

A FUZZY APPROACH TO EVALUATION AND MANAGEMENT OF THERAPEUTIC PROCEDURE IN DIABETES MELLITUS TREATMENT

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Abstract: In this paper a new fuzzy model (FMOTPD2) is developed and by this model the measures of beliefs are determined so that one of the groups of possible therapeutic procedures is optimal for each patient of type 2 diabetes on hospital treatment. The choice of therapeutic procedure on individual level, which is one of the demands of modern medicine, means that each therapeutic procedure is to be evaluated by multiple and different criteria. In this paper, evaluation criteria are classified into two groups: (1) common criteria by which medicines used by the type 2 diabetes patients are being evaluated and (2) specific criteria, by which the patients' 1h state of health with type 2 diabetes mellitus is being estimated. Generally, the relative importance and values of these criteria are different. It is assumed that (a) the relative importance of evaluation criteria is defined by a team of medical experts and described by linguistic expressions and (b) the values of evaluation criteria are determined by evidence data, anamnesis and a diagnostic process. They can be crisp or uncertain. The most often used linguistic

