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(54) **Title:** SYTEM FOR OPTIMIZING TREATMENT STRATEGIES USING A PATIENT-SPECIFIC RATING SYSTEM

(57) **Abstract:** The combined effects of a selected treatment option on multiple causes of morbidity or mortality are simulated for evaluation. Various patient-specific (620) and model-specific (610) parameters, including parameters related to the diseases to be modeled, are used in modeling (630) the incidence and mortality rates for each disease. These disease-specific models are used for defining a set of health states (640) having initial probabilities, which are used to formulate a transition matrix (650) used in matrix calculation to obtain output matrix Q (655). If additional cycles are needed (660), the transition matrix is updated (650) and matrix calculation is performed (655) using the updated transition matrix. Otherwise, the final output matrix Q (655) is utilized for calculation of values (670) needed for determining an overall treatment score. The calculated values (670) and/or values from Q (655) are combined (680) with patient or numeric scores from other treatment choice-related domains (675) to obtain a raw score that is used to produce a patient-specific score (690) for a selected treatment option.



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B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 702/19,20;703/2,1 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,108,635 (Herren et al.) 30 April 1997, abstract, col. 1-4, 12, 15, 20-24, 35	1-34
A	US 2008/0052789 A1 (Jorgensen et al.), March 30, 2004	1-34
A	US 2005/0182659 A1 (Huttin) Feb. 6, 2004	1-34
A	US 2005/0032066 A1 (Heng et al.) Aug. 4, 2003	1-34
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