



# United States Patent [19]

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[54] **EXPERT SYSTEM FOR PROVIDING INTERACTIVE ASSISTANCE IN SOLVING PROBLEMS SUCH AS HEALTH CARE MANAGEMENT**

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### [57] ABSTRACT

A problem solving expert system is provided which is particularly useful in managing the health care of individual patients. A description of a problem (e.g., medical condition) and a proposed solution therefor (e.g., medical procedure) is entered via a user interface. A topical library is searched to identify information relevant to the problem and proposed solution. Access to the identified information is available in either a full text or synopsis format, to assist a user in assessing the appropriateness of the proposed solution. An inference engine provides a recommendation to the user as to the appropriateness of the proposed solution based on information entered via the user interface and rules associated with the inference engine. A user can interact with the inference engine in either a structured or guided mode. The structured mode is directed to inexperienced users and dynamically generates questions in response to previous answers provided by the user to enable the inference engine to make its recommendation. The guided mode is directed to experienced users and provides a predefined questionnaire enabling the user to decide which questions to answer in order to obtain a recommendation.

**21 Claims, 2 Drawing Sheets**

