

MEDICAL NETWORK MANAGEMENT ARTICLE OF MANUFACTURE

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a division of U.S. application Ser. No. 08/562,003, filed Nov. 22, 1995, now U.S. Pat. No. 5,764,923; which is a continuation of U.S. application Ser. No. 08/180,090, filed Jan. 10, 1994, now U.S. Pat. No. 5,471,382.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to a system and process for managing health care and addressing many of the problems faced by those involved with health care today; payers, patients, and providers. More particularly, it relates to such a system and process which interfaces with health plan beneficiaries who have decided to seek health care services from a doctor and/or some other type of health care provider. These calls are answered by nurses and/or other types of health care professionals, who use the proprietary information tools and processes of the network management system (NMS) to help patients assess their health needs and then select appropriate care.

2. Description of the Prior Art

Using conventional approaches to access the health care system, many individuals with self-correcting conditions will see a doctor and begin to receive care that in most cases will not have medical benefit. Many will also receive treatment from a provider who is not the most qualified to treat their particular condition. For such reasons, there has been an effort to develop alternative approaches.

Consumer Health Services currently operates a telephone-based, hospital and doctor marketing and referral service under the brand name of Prologue. Consumer Health collects information about doctors and makes patient referrals to doctors.

Other approaches have been suggested in the prior art. For example, U.S. Pat. No. 4,852,173, issued Jul. 25, 1989 to Bahl et al. discloses the use of branched tree logic, primarily for a speech recognition system. However, the teaching of this patent also suggests application of branched tree logic for medical applications as follows: "While the invention will most often refer to speech recognition and specifically to next word prediction, the described invention is equally applicable to any pattern recognition system in which a next event or next data predictor is based upon a past event or given set of data. For example, given a list of a patient's medical symptoms, what is the best course of treatment or what is the best diagnosis." (Column 1, lines 60-69). However, the system and process there disclosed imposes the limitation that all nodes in the branched tree logic be related to each other in terms of probability or be probabilistically dependent on each other. It is believed that such a limitation is not appropriate for an effective medical network management system and process, because numerical data to establish the dependencies is not available. There is therefore a need for patient screening system and process in which the branched chain logic does not require nodes that are related probabilistically or probabilistically dependent on one another.

U.S. Pat. No. 4,838,275, issued Jun. 13, 1989 to Lee and U.S. Pat. No. 4,290,114, issued Sep. 15, 1981 to Sinay both disclose systems and processes including patient screening

by non-physicians, but without the use of branched chain logic for such screening.

A variety of approaches are also known in the art for systems and processes that automate medical diagnosis. For example, U.S. Pat. No. 5,263,123 discloses an expert system using a form of fuzzy logic for medical diagnosis. However, it should be recognized that diagnosis is a different problem than managing access to medical providers who can then make a diagnosis and institute effective treatment.

Accordingly, the art relating to patient screening and provider referral is fairly well developed. However, a need remains for further development of such systems and processes, especially in light of current movement to a universal care medical system.

SUMMARY OF THE INVENTION

Accordingly, it is an object of this invention to provide a medical network management system and process system based on understanding and managing the process of care, in an integrated manner, from the onset of patient perception of possible needs.

It is a further object of the invention to provide such a medical network management system and process which allows beneficiaries to obtain appropriate care, at the appropriate time, from an appropriate provider.

It is still another object of the invention to provide such a medical network management system and process which effectively reduces utilization and costs, while increasing user satisfaction and overall quality of care.

It is a still further object of the invention to provide such a medical network management system and process which uses unique information systems to help guide patients through and manage the process of care, thereby assuring quality health care.

The attainment of these and related objects may be achieved through use of the novel medical network management system herein disclosed. A medical network management system in accordance with this invention has a data processing system including a memory containing a patient assessment stored program and a patient database, a display, and input means. The patient assessment stored program includes means for checking patient eligibility, means for selecting a branched chain logic algorithm for assessing a patient for an appropriate timing and type of medical care, and a plurality of branched chain logic algorithms. Each of the branched chain logic algorithms assess the patient for an appropriate timing and level of medical care. The data processing system is configured by the patient assessment stored program to present a series of questions on the display for checking patient eligibility to receive medical care, for selecting one of the plurality of branched chain algorithms, and for guiding the patient through the selected one of the plurality of branched chain algorithms, to enter answers from the patient to the series of questions, and to make a medical care timing and level of medical care recommendation in response to patient answers to the questions, and to provide the medical care timing and level of medical care recommendation on the display.

In another aspect of the invention, a data processing system including a display utilizes a process for managing health care. A first series of questions is presented on the display to select one of a plurality of branched chain algorithms which assess the patient for an appropriate timing and level of medical care. A second series of questions is presented on the display to guide the patient through the selected one of the plurality of branched chain algorithms.