PATIENT FLOW AND MEDICAL RECORD TRANSACTION IN HEALTHCARE FACILITY

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1. Introduction
In this study, the characteristics of the patient visit are being explored through data exchange such as patient flow and medical record transaction. A framework is established to address the requirements of information exchange and to develop a basic representation for project-based patient flow and medical transaction information.

2. Patient Flow and Medical Record Database Models
Functional requirements provide a specification and technical solution for data exchange between software applications. This includes the scope, details of software implementations and certification based on the specification. The goal is to create reliable and useful data exchange capabilities for industry practitioners to create or consume parameter-based data. It validates once for all its uses and can be re-used in other use cases.

The features of the patient flow database may include 1) an inquiry method (smart search), 2) quantity attributes, 3) patient visit calculations, 4) system design allowances and 5) system installation allowances.

The medical record database features the followings: 1) symptom description and follow-up, 2) medical history tracking and monitoring, 3) phases and participants, 4) fee/rate library, and 5) range of treatments provided.

In Figure 1, symptom description and follow-up is used to create the medical record. This parameter-based system works for briefing, sorting, editing and evaluating appropriate phased-based medical information. Criteria for selecting phase-based medical data are based on the level of details in each scenario of treatment. For example, only personal information and patient visit history are needed at the very beginning of the process while medical data such as report of diagnosis and patient feedback will play a more critical role at the later stages of treatment. In addition, a
user-editable data repository may serve as a library for scenario of treatment and associated fee/rate in a project life cycle management.

On the patient flow side, inquiry method (smart search) primarily serves as an engine to generate the estimated quantity of a patient visit. This knowledge-embedded system features patient flow calculations, which are based on a method of simulation and an easy-to-use interface for relevant users with functions such as wiki, blog, etc. In addition, the patient flow data model should include the quantified attributes such as frequency, volume (peak-time and non-peak time), duration of patient visits, and incorporation of design and installation allowances for future adjustment.

Fig1. Patient flow and medical record data management

References