

Hsm330



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HSM 330 Master Patient Index and Primary Keys 2/8/2011 Abstract The purpose of this paper is to discuss Master Patient Index and the Primary Key(s).

MPI also provides quick access by physician to patient records over distributed network and facilitates the presentation of patient health information in a clear manner. Primary Keys are the unique identification number associated with the patient. These two are used together to improve patient care by enabling an exchange of clinical information between healthcare organization, through data sharing, using unique identifiers. A Master Patient Index (MPI) makes use of sophisticated identifiers to allow for patient identification and linking to a patient's electronic medical record (EMR). It basically provides a link to the correct patient record in those organizations that utilize EMRs. An MPI's accuracy can be attributed to its matching techniques that use any available fields for matching, despite discrepancies in how various healthcare facilities track information. The Master Patient Index is an electronic medical record system for every patient registered in a health care organization. The MPI is stored in a database and contains a unique identifier, called the primary key.

The primary key is unique and identifies each record in the database. The MPI is considered the most important resource in a healthcare facility. An MPI is the cornerstone of any data-sharing initiative. Without a list, to say that a specific record is in the database, there is no way to know what patients are included. An EMR provides the clinical information about a patient, while the MPI is the index for that data. The MPI will contain the nucleus about a patient such as name, address, phone number, date of birth, gender, race, social security number, and the unique patient identification number. The

MPI identifies all patients that have been treated in a facility or healthcare organization.

The primary key is the unique identification number associated with the patient. The primary key allows a patient to be cross-referenced between different facilities within a healthcare system. In relational database design, a primary key is a candidate key to uniquely identify each row in a table. A primary key comprises a single column or set of columns. No two distinct rows in a table can have the same value or combination of values in those columns. Depending on its design, a table can have many unique keys but most have one primary key. A primary key must uniquely identify all possible rows that exist in a table and not only the currently existing rows. Examples of unique keys are social security numbers, related with a specific person or ISBNs associated with a specific book.

Each time a patient visits a facility within the healthcare organization the registration system within the facility will look to the MPI for the patient information. If no record exists then one will be created at registration. Services obtained by the patient at each facility will now be linked to the MPI record using the primary key. The MPI allows historical data about a patient's care to be stored and later obtained.

The MPI also allows access to information from any clinic, physician, laboratory, radiologist, medications, known allergies, referrals, billing, and accounts receivable with the use of the primary key. The MPI allows for quick and accurate storage of a patient's care. Quick access to a patient's full medical history by a physician allows for better patient care.

MPI is the means for E-health care that allows for quick, accurate storage of patients encountered at the health centers. To control patient confidentiality only people with access are able to manage system functionalities. Specific objectives include: ??? Recording of patient files and ability to update, transfer and retrieve them ??? Replication of patient information among the centers ??? Organization of health services delivery ??? Statistical data generation in relation to indefinite variables ??? Contributes to sustained monitoring and evaluation of operations and their integration with national managerial processes of health care ??? Enhance physician??™s decision making Functionality: ??? Integration with the Appointments System ??? Integration with the Clinician System ??? Patients security and confidentiality ??? Recording of all patients details while tracking their flow ??? Keyboard use for data entry is minimized, minimized by a drop-down list A Regional Health Information Organization (RHIO) or a National Health Information Network (NHIN) needs to have a MPI in order to locate and link to the correct patient record. They use MPIs to keep track of information kept in their data warehouse. The information listed in the MPI provides the ability for the institution to confirm that a particular patient is the correct person.

A RHIO or NHIN or community of hospitals that chooses to share data and utilize a MPI will have to work out sharing and data standards, such as what information will be listed in the MPI. The Health Information Management Association has published rules of core MPI data elements. According to the AHIMA, some recommended core data elements for indexing and searching records include: ??? Internal patient Identification ??? Patient Name ??? DOB ??? DOB qualifier ??? Gender ??? Race ??? Ethnicity ??? Address ???

Alias/pervious name??? SS#??? Facility identification??? Universal patient identifier (if available)??? Account number??? Admission date??? Discharge date??? Service type??? Patient disposition Providers feed the MPI demographic information about patients, and the MPI will determine which patient information matches; then it can be queried to determine where records are located. An MPI is a very important piece of the solution, and its role is parallel between all three environments ??“ a RHIO, a NHIN, and a community of hospitals. The MPI enables the health care organization to improve patient care through the integration of patient records and ensuring that all historical care information on each patient resides in one record. It also helps the health care organization to decrease cost. It can be used as enterprise tool to assure that vital clinical and demographic information can be cross-referenced between different facilities in a health care system.

A MPI correlates and cross-references patient identifiers and performs a matching function with high accuracy in an unattended mode. An Enterprise Master Patient Index (EMPI) takes the MPI one step further. It is a database that contains a unique identifier for every patient in the healthcare organization, such as the medical center, rehab facilities, outpatient clinics and practice offices.

An EMPI cross references patient identifiers across multiple information systems to identify each patient, perform global patient searches and matching, consolidate duplicate patient records, and create complete views of patient information and share data across multiple facilities and information systems. A MPI is considered an important resource in a healthcare facility because it is the link to tracking patients, person, or

member activity within an organization (or enterprise) and across patient care settings. The MPI is the glue that ties all the information together.

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