Understanding Features & Functions of an EHR

http://www.aafp.org/practice-management/health-it/product/features-functions.html

Basic EHR Functions

Projects like Health Level 7 are currently attempting to define the minimum functions an EHR should perform to help physicians practice better medicine and improve the bottom line. Some of these functions include, but are not limited to:

- Identify and maintain a patient record
- Manage patient demographics
- Manage problem lists
- Manage medication lists
- Manage patient history
- Manage clinical documents and notes
- Capture external clinical documents
- Present care plans, guidelines, and protocols
- Manage guidelines, protocols and patient-specific care plans
- Generate and record patient-specific instructions

HL7 List of EHR Functions

Identify and maintain a patient record - Identify and maintain a single patient record for each patient.

Manage patient demographics - Capture and maintain demographic information. Where appropriate, the data should be clinically relevant, reportable and trackable over time.

Manage problem lists - Create and maintain patient-specific problem lists.

Manage medication lists - Create and maintain patient-specific medication lists.

Manage patient history - Capture, review, and manage medical procedural/surgical, social and family history including the capture of pertinent positive and negative histories, patient-reported or externally available patient clinical history.

Manage clinical documents and notes - Create, addend, correct, authenticate and close, as needed, transcribed or directly-entered clinical documentation and notes.

Capture external clinical documents - Incorporate clinical documentation from external sources.

Present care plans, guidelines, and protocols - Present organizational guidelines for patient care as appropriate to support order entry and clinical documentation.

Manage guidelines, protocols and patient-specific care plans - Provide administrative tools for organizations to build care plans, guidelines and protocols for use during patient care planning and care.

Generate and record patient-specific instructions - Generate and record patient-specific instructions related to pre- and post-procedural and post-discharge requirements.

Place patient care orders - Capture and track orders based on input from specific care providers.

Order diagnostic tests - Submit diagnostic test orders based on input from specific care providers.

Manage order sets - Provide order sets based on provider input or system prompt.

Manage results - Route, manage and present current and historical test results to appropriate clinical personnel for review, with the ability to filter and compare results.

Manage consents and authorizations - Create, maintain, and verify patient treatment decisions in the form of consents and authorizations when required.

Support for standard assessments - Offer prompts to support the adherence to care plans, guidelines, and protocols at the point of information capture.

Support for standard care plans, guidelines, protocols - Support the use of appropriate standard care plans, guidelines and/or protocols for the management of specific conditions.

Support for drug interaction checking - Identify drug interaction warnings at the point of medication ordering.

Patient specific dosing and warnings - Identify and present appropriate dose recommendations based on patient-specific conditions and characteristics at the time of medication ordering.

Support for accurate specimen collection - Alert providers in real-time to ensure specimen collection is supported.

Present alerts for preventive services and wellness - At the point of clinical decision making, identify patient specific suggestions/reminders, screening tests/exams, and other preventive services in support of routine preventive and wellness patient care standards.

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Notifications and reminders for preventive services and wellness - Between healthcare encounters, notify the patient and/or appropriate provider of those preventive services, tests, or behavioral actions that are due or overdue.

Support for monitoring response to notifications regarding an individual patient's health, including appropriate follow-up notifications - In the event of a health risk alert and subsequent notification related to a specific patient, monitor if expected actions have been taken, and execute follow-up notification if they have not.

Clinical task assignment and routing - Assignment, delegation and/or transmission of tasks to the appropriate parties.

Clinical task linking - Linkage of tasks to patients and/or a relevant part of the electronic health record.

Clinical task tracking - Track tasks to guarantee that each task is carried out and completed appropriately.

Clinical task timeliness tracking - Track and/or report on timeliness of task completion

Inter-provider communication - Support secure electronic communication (inbound and outbound) between providers to trigger or respond to pertinent actions in the care process (including referral), document non-electronic communication (such as phone calls, correspondence or other encounters) and generate paper message artifacts where appropriate.

Pharmacy communication - Provide features to enable secure bidirectional communication of information electronically between practitioners and pharmacies or between practitioner and intended recipient of pharmacy orders.

Provider and patient or family communication - Trigger or respond to electronic communication (inbound and outbound) between providers and patients or patient representatives with pertinent actions in the care process

Patient, family and care giver education - Identify and make available electronically or in print any educational or support resources for patients, families, and caregivers that are most pertinent for a given health concern, condition, or diagnosis and which are appropriate for the person(s).

Entity Authentication - Authenticate EHR-S users and/or entities before allowing access to an EHR-S.

Entity Authorization - Manage the sets of access-control permissions granted to entities that use an EHR-S (EHR-S Users). Enable EHR-S security administrators to grant authorizations to users, for roles, and within contexts. A combination of the authorization levels may be applied to control access to EHR-S functions or data within an EHR-S, including at the application or the operating system level.

Secure Data Exchange - Secure all modes of EHR data exchange.

Enforcement of Confidentiality - Enforce the applicable jurisdiction's patient privacy rules as they apply to various parts of an EHR-S through the implementation of security mechanisms.

Data Retention, Availability and Destruction - Retain, ensure availability, and destroy health record information according to organizational standards This includes: > Retaining all EHR-S data and clinical documents for the time period designated by policy or legal requirement; >Retaining inbound documents as originally received (unaltered); >Ensuring availability of information for the legally prescribed period of time; and >Providing the ability to destroy EHR data/records in a systematic way according to policy and after the legally prescribed retention period.

Workflow Management - Support workflow management functions including both the management and set up of work queues, personnel, and system interfaces as well as the implementation functions that use workflow-related business rules to direct the flow of work assignments.

Provider demographics - Provide a current directory of practitioners that, in addition to demographic information, contains data needed to determine levels of access required by the EHR security system.

Patient demographics - Support interactions with other systems, applications, and modules to enable the maintenance of updated demographic information in accordance with realm-specific recordkeeping requirements.

Patient's residence for the provision and administration of services - Provide the patient's residence information solely for purposes related to the provision and administration of services to the patient, patient transport, and as required for public health reporting.

De-identified data request management - Provide patient data in a manner that meets local requirements for de-identification.

Scheduling - Support interactions with other systems, applications, and modules to provide the necessary data to a scheduling system for optimal efficiency in the scheduling of patient care, for either the patient or a resource/device.

Report generation - Provide report generation features for the generation of standard and ad hoc reports.

Health record output - Allow users to define the records and/or reports that are considered the formal health record for disclosure purposes, and provide a mechanism for both chronological and specified record element output.

Specialized views - Present specialized views based on the encounter-specific values, clinical protocols and business rules.

Rules-driven clinical coding assistance - Make available all pertinent patient information needed to support coding of diagnoses, procedures and outcomes.

Rules-driven financial and administrative coding assistance - Provide financial and administrative coding assistance based on the structured data and unstructured text available in the encounter documentation.

Service authorizations - Support interactions with other systems, applications, and modules to enable the creation of requests, responses and appeals related to service authorization, including prior authorizations, referrals, and pre-certification.

Support of service requests and claims - Support interactions with other systems, applications, and modules to support the creation of health care attachments for submitting additional clinical information in support of service requests and claims

Claims and encounter reports for reimbursement - Support interactions with other systems, applications, and modules to enable the creation of claims and encounter reports for reimbursement.

Manage Practitioner/Patient relationships - Identify relationships among providers treating a single patient, and provide the ability to manage patient lists assigned to a particular provider.

E-prescribing vs. Fax-prescribing

> **E-prescribing** typically refers to a process that is not yet in place, or is just beginning to take hold. E-prescribing allows a physician to write a prescription that is electronically transmitted to a pharmacy in such a way that the data goes directly into the pharmacy's computer system. This means that there is no re-entry of data at the pharmacy end. This saves time and leaves much less room for human error.

> **Fax-prescribing** is widely used today. While each state may have different laws about how faxed prescriptions are handled, most allow a physician's office to fax a prescription. This is not typically considered e-prescribing.

> There are services available on the Internet where you can send the prescription electronically to the service, which then transmits it to a pharmacy. However, those prescriptions are still faxed to the pharmacy– just through the service and not directly from the physician's office.