

# Functionality Considerations for High Performing Ophthalmic EMR Systems



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Topic	Questions	Yes	No	Comments
<b>Identify and maintain a patient record</b>	<b>Identify and maintain a single patient record for each patient.</b>			
	Is key identifying information stored and linked to the patient record?	✓		
	Are static data elements as well as data elements that will change over time maintained?	✓		
	Does the system assign patient specific (unique) identifying numbers that cannot be changed?	✓		
	Will the system not allow the same patient to be entered under two different identifying numbers?		✓	
	Does the system store date, time and user id for each entry into the patient record?	✓		
	Is each user assigned a unique password?	✓		
	Does the system record who views charts and when they are viewed?	✓		
<b>Manage patient demographics</b>	<b>Capture and maintain demographic information. Where appropriate, the data should be clinically relevant, reportable and trackable over time.</b>			
	Are there security and processes in place to maintain integrity of this information	✓		
<b>Manage problem list</b>	<b>Create and maintain patient-specific problem lists.</b>			
	Are problem lists manageable over time, whether over the course of a visit or stay or the life of the patient?	✓		
	Are all pertinent dates, including date noted or diagnosed, dates of any changes in problem specification or prioritization, and date of resolution stored?	✓		
	Is the entire problem history for any problem in the list viewable?	✓		
<b>Manage medication list</b>	<b>Create and maintain patient-specific medication lists.</b>			
	Are medication lists managed over time, whether over the course of a visit or stay, or the lifetime of a patient?	✓		
	Are all pertinent dates, including medication start, modification and end dates stored?	✓		
	Are all entries in the medication record user stamped?	✓		
	Is the entire medication history for any medication, including alternative supplements and herbal medication viewable?	✓		
	Does medication information from charting records transfer to the medication history section of the EMR?		✓	
	Does the system check for drug interactions?		✓	
	Does the system check drug dosages?		✓	

	Can the system generate a prescription and email and/or fax to a pharmacy?		✓	
<b>Manage allergy and adverse reaction list</b>	<b>Create and maintain patient-specific allergy and adverse reaction lists.</b>			
	Are allergens, including immunizations and substances identified and coded (whenever possible)?	✓		
	Are allergens, including immunizations and substances managed over time?	✓		
	Are all pertinent dates, including patient-reported events stored in the record?	✓		
	Are all pertinent dates, including patient-reported events modifiable over time?	✓		
	Is the entire allergy history, including reaction, for any allergen viewable?	✓		
	Does the list separate reactions that are not true allergies such as intolerances to dietary or environmental triggers?	✓		
	Does the system allow notations indicating whether item is patient reported and/or provider verified?	✓		
	When patient has a severe allergy, especially to items that may be present in physician's office or used in an exam, does the system have the ability to make this information available to provider on every screen through every part of the examination?		✓	
<b>Manage Patient History</b>	<b>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.</b>			
	Can a questionnaire completed by patient by hand be scanned into the system?	✓		
	Can the patient directly enter this information into the system?	✓		
	Can the system switch between a narrative record and a check box notation?	✓		
	Can any templates be easily changed?		✓	
	Does the system allow for a one page summary of the pertinent data from the last visit?	✓		
	If present, is this one page summary customizable by the practice?	✓		
	Does the system utilize information gathered to correctly code level of examination?		✓	
<b>Manage clinical documents and notes</b>	<b>Create, addend, correct, authenticate and close, as needed, transcribed or directly-entered clinical documentation and notes.</b>			
	Can clinical documents and notes be created in a narrative form?	✓		
	Can clinical documents and notes be structured documents that result in the capture of coded data?		✓	
	Can clinical documents and notes be created in a template?	✓		
	Can the templates be flexible to meet physician/practice needs?	✓		
	Can the practice change the design of the templates?	✓		
	Does any change in a template require the help of an outside programmer?		✓	
	Once a record is saved, may it be modified with additional documentation?	✓		
	Does the system label each entry with the time, date and individual that creates the entry?	✓		
	Does the system allow for freehand drawings?	✓		

	If the system allows for freehand drawings, is different color capability present?		✓	
	Does the system allow for freehand notations within existing templates?	✓		
	Is the system able to store patient electronic signatures?	✓		
<b>Capture external clinical documents</b>	<b>Incorporate clinical documentation from external sources.</b>			
	Are mechanisms for incorporating external clinical documentation (including identification of source) such as image documents available?	✓		
	Are these mechanisms via scanning source documents?	✓		
	Can external clinical documentation be imported directly from the source instrument without scanning the actual document?	✓		
	Does the system address the need for separate server for storage of large image files?	✓		
	Are you able to create a list of the makes and models of instrumentation for which an interface software has been written?		✓	
	Does the system have a functional interface with any eyeglass dispensing software? If so which ones?		✓	
	Are scanned or linked images available within the confines of the patient record?	✓		
<b>Generate and record patient-specific instructions</b>	<b>Generate and record patient-specific instructions related to pre- and post-procedural and post-discharge requirements.</b>			
	Does the system provide for specific instructions for discharge, including diet, clothing, medications etc.?		✓	
	Does the system provide for specific pre-procedural instructions, including diet, clothing medications etc.?		✓	
<b>Order medication</b>	<b>Create prescriptions or other medication orders with detail adequate for correct filling and administration. Provide information regarding compliance of medication orders with formularies.</b>			
	Does the system provide for different medication orders, including new, refill and discontinuing medications?	✓		
	Does the system create administration or patient instructions available for selection by the ordering clinician?	✓		
	Does the system generate appropriate time and individual stamps for all medication related activity?		✓	
	Does the system check drug dosages?		✓	
	Does the system interface with the given patient's insurance formulary?		✓	
	Does the system generate formulary-compliant alternative to any medication being ordered?		✓	
<b>Order diagnostic tests</b>	<b>Submit diagnostic test orders based on input from specific care providers.</b>			
	Does the system create the appropriate detail and instructions for each orderable item for the ordering care provider?		✓	
	Does the system transmit orders for diagnostic tests to the correct destination for completion of the order?		✓	
	Does the system generate appropriate requisitions for communication to the relevant agency providing the diagnostic test?		✓	
<b>Manage order sets</b>	<b>Provide order sets based on provider input or system prompt.</b>			
	Does the system allow a care provider to choose common orders for a particular circumstance or disease state according to best practices or other criteria?	✓		
	Does the system allow for customization of these order sets?	✓		
<b>Manage results</b>	<b>Route, manage and present current and historical test results to appropriate clinical personnel for review, with the ability to filter and compare results.</b>			

	Are results of tests presented in an easily accessible manner and to the appropriate care provider?	✓		
	Does the system create flow sheets, graphs or other tools to allow care providers to view or uncover trends in test data over time?		✓	
	Can the system send results to other appropriate care providers using an electronic messaging system?	✓		
	Can the system send results to patients electronically?	✓		
	Can the system send results to patients in the form of a letter?	✓		
	Can the system generate referral letters based on exam and test findings?		✓	
	Can the system generate consult letters based on exam and test findings?		✓	
	Does the system have ophthalmology specific logic built in? For example a plan for cataract surgery would prompt an A-Scan order, pre-op orders etc.?		✓	
<b>Support for drug interaction checking</b>	<b>Identify drug interaction warnings at the point of medication ordering</b>			
	Does the system alert the clinician to drug-drug, drug-allergy and drug-food interactions?		✓	
	Can these alerts if available be customized to suit the user or group?		✓	
<b>Present alerts for preventive services and wellness</b>	<b>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</b>			
	Does the system alert the clinician to due or overdue activities based on ophthalmology specific protocols for preventive care and wellness?		✓	
<b>Provider demographics</b>	<b>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.</b>			
	Does the system provide demographic information such as credentials, certifications or any other information that may be used to verify that a provider is permitted to perform certain services?		✓	
<b>Patient demographics</b>	<b>Support interactions with other systems, applications, and modules to enable the maintenance of updated demographic information in accordance with realm-specific recordkeeping requirements.</b>			
	Does the system provide the minimum demographic data required by specific laws governing health care transactions and reporting?	✓		
<b>Patient's residence for the provision and administration of services</b>	<b>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.</b>			
	Does the system provide this information?	✓		
<b>Scheduling</b>	<b>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.</b>			
	Can the system user schedule events as required?		x	
	Is relevant clinical and/or demographic information linked to the task?		x	
	Can the system print reports for patients and/or staff as required?	✓		
	Can the system link to phone systems and dial phones?	✓		
	Can the system prompt and create no show calls and or letters?		x	
	Can the system gather scheduling information and send to an ASC?		x	

	Does the system have a tracking logic that allows the practice to know where the patient is in a workup, testing or exam process?		x	
<b>Report generation</b>	<b>Provide report generation features for the generation of standard and ad hoc reports.</b>			
	Does the system generate referral letters from the exams?		✓	
	Does the system allow the user to modify the template for generating referral letters?		N/A	
	Does the system allow referral letters to be faxed directly from the system?	✓		
	Does the system print prescriptions?		✓	
	Does the system print examination summaries?		✓	
	Does the system allow the user to modify the template for printing examination summaries?		✓	
	Does the system generate treatment plans?		✓	
	Does the system allow the user to modify the treatment plan?	✓		
	Does the system print reports on medications?		✓	
	Does the system print reports on allergies?		✓	
	Does the system print reports on tests and surgeries?		✓	
	Does the system print reports on eye pressures?	✓		
	Does the system print reports on diagnosis history?	✓		
	Can the system directly e-mail any of the reports?	✓		
	Does the system offer a report writer?		✓	
	Does the system offer reports on the effectiveness of clinical pathways and other evidence-based practices?		✓	
	Does the system link reports with financial and other external data sources (i.e. data external to the entity)?	✓		
<b>Health record output</b>	<b>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.</b>			
	Does the system provide hardcopy and electronic output that can fully chronicle the healthcare process?		✓	
	Does the system support selection of specific sections of the health record?		✓	
	Does the system allow the user to define the report and/or documents that will comprise the formal health record for disclosure purposes?		✓	
<b>Encounter/Episode of care management</b>	<b>Manage and document the health care needed and delivered during an encounter/episode of care.</b>			
	Does the system support direct care functionality that relies on providing user interaction and workflows, which are configured according to clinical protocols?		✓	
<b>Entity Authentication</b>	<b>Authenticate EHR-S users and/or entities before allowing access to an EHR-S.</b>			
	Does the system require users to be authenticated when they attempt to use the application?	✓		
	Do applications authenticate themselves before accessing EHR information managed by other applications or remote EHR-S?	✓		
	Does the system require a Chain of Trust agreement to be in place before entry authentication?		✓	

	<b>Manage the sets of access-control permissions granted to entities that use an EHR-S (EHR-S Users).</b>			
<b>Entity Authorization.</b>	<b>Manage the sets of access-control permissions granted to entities that use an EHR-S (EHR-S Users).</b>			
	Does the system enable EHR-S security administrators to grant authorizations to users, for roles, and within contexts.	✓		
<b>Secure Data Exchange</b>	<b>Secure all modes of EHR data exchange.</b>			
	Does the system require appropriate security and privacy considerations including data obfuscation as well as both destination and source authentication when necessary?		✓	
	Does the system encrypt data sent to remote or external destinations?	✓		
<b>Enforcement of Confidentiality</b>	<b>Enforce the applicable jurisdiction's patient privacy rules as they apply to various parts of an EHR-S through the implementation of security mechanisms.</b>			
	Does the system have privacy rules built in?		✓	
<b>Interfacing with EPM System</b>	<b>The EMR and the EPM systems should Interchange certain information</b>			
	Does the EMR accept patient demographics for the patients scheduled from the practice management software?	✓		
	Does the EMR send CPT's, diagnoses and recalls to the practice management system?		✓	
<b>Data Conversion</b>	<b>There should be more than one way to enter data into the new system from an older system</b>			
	Has the vendor converted data from (my computer system) before?			
	Does the vendor convert patient demographics?		✓	
	Does the vendor convert referring doctor information?		✓	
	Does the vendor define a format for old data to be entered into the new system?	✓		
<b>Existing Paper Charts</b>	<b>Mechanisms for entering paper patient records into the system</b>			
	Is the new system able to scan old paper charts into the new system?	✓		
	Is the new system only able to accept typed details from old paper charts?		✓	
<b>Training</b>	<b>The vendor for the new system need training systems in place</b>			
	Is training offered at the vendor's office or site?		✓	
	Is training offered at the practice's office?	✓		
	How many hours of training are built in to the base cost of the software?			unlimited - System is very simple. Training is via Remote. Est time needed: 1 hr.
<b>Support</b>	<b>Description of support features</b>			
	Does the system support on-line help via a website or the internet?	✓		
	Is e-mail support available?	✓		
	During what hours at the practice site are support services available?			<b>9-5 EST M-F</b>
	Who support the hardware?			Tech support in Baltimore

Updates	Description of update history and relationships			
	How often is the software updated?			2-3 x / year
	Does the vendor install the updates?		✓	
	Is your company the author of the software?	✓		
	Is your company a reseller of the software?		✓	
	Is custom programming available?	✓		
	What is the charge for custom programming?			\$450 per year.
Pricing	Please include a price for EHR software and training (no hardware, wiring or installation) based on the following number of users and physicians:			
	5 user system including 1 physician			\$1,800 plus hardware (2 tabletPCs) at \$1,700 each. Service contract is \$900 per year per office (not per physician)
	25 user system including 4 physicians			\$5,000 plus hardware (8 tabletPCs) at \$1,700 each. Service contract is \$900 per year per office (not per physician)
	If your company offers <b>eyeglass dispensing</b> software, please include a price for that software and training based on the following number of users and physicians:			
	5 user system including 1 physician			
	25 user system including 4 physicians			
	If your company offers <b>EPM</b> software, please include a price for that software and training based on the following number of users and physicians:			
	5 user system including 1 physician			
	25 user system including 4 physicians			