

# Electronic Medical Record (EMR) Functional Requirements

VERSION 5.2 9.2.2004

## Instructions for completing the Functional Requirements Checklist

Functions considered of primary importance have a dot (●) in the “Min” column, indicating that the function described by the statement represents a minimum requirement. Features considered desirable but not mandatory have a dot (●), in the “Opt” (Optional) column. The vendor should review each of these requirements against their proposed system. Where the function is provided, the vendor should indicate that capability by placing an “X” in the “Yes” column, followed by the name of the proposed software module or menu function that provides the stated capability under the Module Name column.

If the proposed product does not currently satisfy the requirement but will in the future, enter version number and the approximate date it will be available in the Future Version & Date column (e.g. V6.1/May 2002).

If the product does not satisfy the requirement but the vendor is aware of any third party product that does satisfy the requirement and can be interfaced with the vendor’s product, enter the third-party product(s) name in the 3<sup>rd</sup> Party Provided (Name) column, providing that the vendor has secured an agreement from the third party vendor that the product and its required interface(s) will be provided. Note that the vendor submitting the proposal shall be responsible for all third party products included in the proposal.

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## VENDOR PROFILE

<b>A.</b> Company Name:	
<b>B.</b> Address (City, State, Zip):	
<b>C.</b> Contact Name:	
<b>D.</b> Contact Phone:	
<b>E.</b> Contact Fax Number:	
<b>F.</b> Contact E-mail Address:	
<b>G.</b> Company Web Site:	
<b>H.</b> Annual Revenue:	
<b>I.</b> Years in Business:	
<b>J.</b> Years Serving Community Health Care Market:	
<b>K.</b> Total Current Health Care Customers:	
<b>L.</b> Total Current Community Health Center Customers:	
<b>M.</b> Electronic Medical Record (EMR) Product Name(s):	
<b>N.</b> Largest Installed System (in terms of number of users and sites):	
<b>O.</b> Product Licensing Terms:	
• Is Maintenance Included?	
• Is Training Included?	
<b>P.</b> Frequency of Upgrades	
<b>Q.</b> User Groups:	

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>1. General</b>						
A. The system supports both a total paperless function and a hybrid function, where the contents of the electronic record can be printed for inclusion in the paper chart	•					
B. The system links with a variety of digital and analog dictation systems	•					
C. The system date and time stamps all entries	•					
D. The system includes automatic translation of codes to data. For example:						
• ICD-9-CM	•					
• CPT (4 and 5)	•					
• ICD-10	•					
• SNOMED (II and III)	•					
• APG	•					
• NDC	•					
E. The system includes support and updates for the above vocabularies	•					
F. The system supports local, regional, and national vocabularies, updates and enhancements	•					
G. The system supports the <b>HIPAA Standards for Electronic Transactions</b>	•					
H. The system includes the integration of third party coding programs			•			
I. The system includes extensive error checking of all user input data, including, but not limited to:	•					
• ICD-9 (Check diagnosis against gender, age, other as necessary)						
• ICD-9 procedure checking against diagnosis						
Extensive date checking for validity as well as ensuring a valid chronological order of events (dx before treatment, scheduling after birth, etc.)						

LEGEND: MIN =REQUIRED OPT=OPTIONAL

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>J.</b> The system includes an integrated standard nomenclature of clinical terms.		•				
<b>K.</b> The system provides sufficient storage and processing power to efficiently operate on the initial patient load plus 5% yearly growth for five (5) years without additional hardware	•					
<a href="#">Table of Contents</a>						
<b>2. Demographics</b>						
<b>A.</b> The system has the capability of importing patient demographic data via HL7 interface from an existing Practice Management System, Patient Registration System, or any such system used for patient registration and/or scheduling	•					
<b>B.</b> The system has the capability to import/create, review, update, and delete patient demographic information as well as other non-clinical information from the patient record	•					
<b>C.</b> The system captures permanent patient address	•					
<b>D.</b> The system captures temporary patient addresses		•				
<a href="#">Table of Contents</a>						
<b>3. Medical History</b>						
<b>A.</b> The system supports rapid capture of patient history and physical exam data	•					
<b>B.</b> For each new patient, the system captures and stores risk factors. For example:	•					
• Tobacco use and history including number of years and packs per day (PPD)						
• Alcohol use, history						
• Drug use, history						
• Occupational environment						
<b>C.</b> For each new patient, the system captures and stores the following social history elements:						
• Marital status	•					
• Occupation	•					

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• Religious preference	•					
• Socioeconomic status	•					
• Native language	•					
• Translator needed (Y/N)	•					
<b>D.</b> The system has the capability to import patient health history data, including obstetrical history data, from an existing system.	•					
<b>E.</b> The system documents hospitalization data including:						
• Admission and Discharge dates	•					
• Chief complaint	•					
• Admitting diagnosis / Other diagnoses	•					
• Procedures performed	•					
• Discharge summary		•				
• Discharge disposition		•				
<b>F.</b> The system documents all existing allergies, such as:						
• Drug	•					
• Food	•					
• Drug-drug	•					
• Drug-food	•					
<b>G.</b> The system captures history of received immunizations.	•					
<b>H.</b> The system has the capability of linking or grouping records of other family members on file.			•			
<b>I.</b> The system has the capability to capture and store genograms			•			
<b>J.</b> The system collects and stores family history, including, but not limited to:			•			
• History of chronic diseases, including date of diagnosis			•			
• Disease status			•			

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<ul style="list-style-type: none"> <li>• Family member functional status</li> </ul>		•				
<ul style="list-style-type: none"> <li>• If dead: date and cause of death</li> </ul>		•				
<a href="#">Table of Contents</a>						
<b>4. Current Health Data, Encounters, Health Risk Appraisal</b>						
A. The system obtains test results from laboratory, radiology / imaging, or other equipment or technology related procedures via standard HL7 interface.		•				
B. The system has the capability to import/create, review, and amend information about the patient's condition obtained from laboratory, radiology/imaging, or other equipment or technology-related tests and/or procedures.		•				
C. The system has the capability to capture and monitor patient health risk factors in a standard format.		•				
D. The system shall display encounter data using a problem-oriented format.		•				
E. The system supports online completion of the Health Survey (SF-36) or similar measure for measuring health status and outcomes						•
F. The system includes plotter support capability.						•
G. The system supports the capture, graphic display and plotting of "Growth Chart" information, as well as other forms requiring graphic representation.		•				
H. The system has the capability of reproducing and displaying a variety of end user patient and treatment forms.						•
I. The system has the capability to update other portions of the record with captured vital signs data. At minimum, the system collects:		•				
<ul style="list-style-type: none"> <li>• Height</li> </ul>		•				
<ul style="list-style-type: none"> <li>• Weight</li> </ul>		•				
<ul style="list-style-type: none"> <li>• Pulse</li> </ul>		•				
<ul style="list-style-type: none"> <li>• Respiratory rate</li> </ul>		•				

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• Blood pressure (including multiples)	•					
• Different position blood pressure	•					
• Other		•				
<b>J.</b> The system incorporates one or more accepted measure of functional level.	•					
<b>K.</b> The system supports at least one standard health status measure.	•					
<b>L.</b> The system stores automatic measurements of health status.	•					
<b>M.</b> The system has the capability to import/create, review, update, and amend health data (objective and subjective) regarding the patient's current health status, including (as applicable):						
• Chief complaint	•					
• Onset of symptoms	•					
• Injury mechanism	•					
• Physical examination findings	•					
• Psychological and social assessment findings	•					
<b>N.</b> The system provides a flexible mechanism for retrieval of encounter information that can be organized in variety of 'views'. For example:						
• By name (last, first; first, last; etc.)	•					
• By date of birth	•					
• Chronological by encounter date	•					
• By diagnosis, problem, problem type	•					
• By chart number	•					
• By family group / linkage		•				
<b>O.</b> The system provides a flexible, user modifiable, search mechanism for retrieval of information captured during encounter documentation.	•					
<b>P.</b> The system provides a mechanism to capture, review, or amend history of current illness.	•					

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<b>Q.</b> The system ensures dynamic documentation during the encounter complying with all standard coding rules	•					
<b>R.</b> The system captures the following referral information:						
• Type of referral	•					
• Date	•					
• Reason	•					
• Provider	•					
<b>S.</b> The system tracks consultations and referrals	•					
<b>T.</b> The system has the capability of printing consultations / referrals forms	•					
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## 5. Encounter – Progress Notes

<b>A.</b> The system records progress notes utilizing a combination of system default, provider customizable, and provider-defined templates.	•					
<b>B.</b> The system has the capability to automatically update other sections of the record with data entered in the progress note	•					
<b>C.</b> The system requires that the progress note be electronically signed at the end of the encounter prior to being allowed to continue	•					
<b>D.</b> The encounter - progress note template includes space for entering performed and planned procedures. It also includes:	•					
• Performed/planned Laboratory procedures	•					
• Diagnosis	•					
• Goals (provider's and patient's) and follow-up plans	•					
• Medications prescribed	•					
• Patient education materials	•					
• Consultation/referrals	•					

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• Patient condition or status	•					
<b>E.</b> The system includes a progress note template that is problem oriented and can, at the user's option be linked to either a diagnosis or problem number.	•					
<b>F.</b> The system has the capability of retrieving encounters by a variety of user-defined parameters.	•					
<b>G.</b> The system enables standard phrases to be defined/contained in tables and used as pull down menus to reduce the key entry effort.	•					
<b>H.</b> The system automatically captures the electronic signature and title of the person entering data and date/time stamps each transaction.	•					
<b>I.</b> The system enables progress notes to be sorted for viewing in chronological or reverse chronological order by encounter date in relation to the active care plan.	•					
<b>J.</b> The system applies security controls to progress notes to ensure that data cannot be deleted or altered except within the current session and by an authorized user.	•					
<b>K.</b> The system includes a medical terminology dictionary and a spell checker within the progress notes data entry module.	•					
<b>L.</b> The system supports the capability to automatically collect the data elements defined by the associated clinical practice guideline or order.						•

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## 6. Problem Lists

<b>A.</b> The system provides a problem status for each shown problem.	•					
<b>B.</b> The system organizes applicable patient data into comprehensive problem summary lists.	•					
<b>C.</b> The system provides problem descriptions based on the following standard controlled	•					

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vocabularies:						
• SNOMED III	•					
• SNOMED RT	•					
• MEDCIN	•					
• 3M	•					
• ULMS	•					
<b>D.</b> The system separates active from inactive problems.	•					
<b>E.</b> The system allows clinicians to identify and record new patient problems as well as the current status of existing problems.	•					
<b>F.</b> The system expands the problem summary list on demand.		•				
<b>G.</b> The system enables the monitoring of health risk factors.	•					
<b>H.</b> The system updates the active problem list from relevant data in the progress note.	•					
<b>I.</b> The system records the patient's current health status collected in a standard format.	•					
<b>J.</b> When capturing problem information, the system captures:						
• Diagnosis / problem date(s)	•					
• Severity of illness	•					
<b>K.</b> For each problem, the system has the capability to create, review, or amend information regarding a change on the status of a problem to include, but not be limited to, the date the change was first noticed or diagnosed.	•					
<b>L.</b> The system archives problems complete with status history		•				
<b>M.</b> The system continually updates the diagnosis/problem lists with the capture of each new piece of patient data in any module	•					
<b>N.</b> The system automatically links problems with order and results	•					

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<b>O.</b> The system automatically updates the problem summary lists using approved rules-based guidelines	•					
<b>P.</b> The system has the capability of allowing the display of past interventions, hospitalizations, diagnostic procedures, and therapies for review at the option of the provider	•					
<b>Q.</b> The system meets RBRVS/E&M documentation and coding guidelines	•					
<b>R.</b> The system automatically updates the problem summary lists upon detecting changes made to multi-disciplinary guidelines.	•					
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<b>7. Clinical Practice Guidelines (CPG)</b>						
<b>A.</b> The system includes standard Clinical Practice Guidelines (CPG) from the National Guideline Clearinghouse, a public resource for evidence-based clinical practice guidelines. NGC is sponsored by the Agency for Healthcare Research and Quality (formerly the Agency for Health Care Policy and Research).	•					
<b>B.</b> The system has the capability of allowing initial authoring and revising of clinical practice guidelines	•					
<b>C.</b> The system allows linkages from the CPG to other system modules.	•					
<b>D.</b> The CPG module imports/creates the facility for rapid documentation of the patient's progress along the CPG's phases.	•					
<b>E.</b> The format utilized by the guideline for documenting is intuitive, easy to use, and user customizable.	•					
<b>F.</b> The CPG module utilizes pull down menus and check boxes to speed up data entry.	•					
<b>G.</b> Optionally, the CPG module can be populated by data entered elsewhere in the system.		•				
<b>H.</b> The system allows reporting and analysis of any	•					

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
/ all components included in the CPG.						
<b>I.</b> Included in each CPG, the system has the capability to create, review, and update information about:						
<ul style="list-style-type: none"> <li>The performance measures that will be used to monitor the attainment of objectives</li> </ul>	•					
<ul style="list-style-type: none"> <li>The quantitative and qualitative data to be collected</li> </ul>		•				
<ul style="list-style-type: none"> <li>Performance metrics</li> </ul>	•					
<ul style="list-style-type: none"> <li>Collection means and origin of data to be evaluated</li> </ul>		•				
<b>J.</b> The system allows the provider or other authorized user to override any or all parts of the guideline.	•					

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## 8. Care Plan

<b>A.</b> The system has the capability to import/create, review, and amend information about the desired single or multi-disciplinary long / short term goals and objectives that will be accompanied by the care plan.	•					
<b>B.</b> The system has the capability to import/create, review, and amend information about the proposed set of single or multi-disciplinary care plan options that are based upon expected outcomes.	•					
<b>C.</b> The system has the capability to import/create, review, and amend information about:						
<ul style="list-style-type: none"> <li>The provider's explanation and the patient's or patient representative's understanding of the recommended and/or alternative care plan options.</li> </ul>	•					
<ul style="list-style-type: none"> <li>The medical orders, which authorize the execution of the selected, care plan.</li> </ul>	•					
<ul style="list-style-type: none"> <li>The collection of specimens (body fluids, tissue, etc.) from the patient to be used for diagnostic or treatment purposes.</li> </ul>	•					

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<ul style="list-style-type: none"> <li>• The actions taken to safeguard the patient to avert the occurrence of morbidity, trauma, infection, or condition deterioration.</li> </ul>	•					

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## 9. Prevention

A. The system has the capability to display prevention prompts on the summary display.	•					
B. The system allows interactive prevention status documentation. At minimum:						
<ul style="list-style-type: none"> <li>• Date addressed</li> </ul>	•					
<ul style="list-style-type: none"> <li>• Result</li> </ul>	•					
<ul style="list-style-type: none"> <li>• Reasons for not performed</li> </ul>	•					
<ul style="list-style-type: none"> <li>• Where performed</li> </ul>	•					
C. The system includes user-modifiable health maintenance templates.	•					
D. The system includes a patient tracking and reminder capability (patient follow-up).	•					
E. The system allows the graphing of pertinent data into flow sheets for presentation/display.	•					
F. The system includes the incorporation of immunization protocols:						
<ul style="list-style-type: none"> <li>• Universal child</li> </ul>	•					
<ul style="list-style-type: none"> <li>• Universal adult</li> </ul>	•					
<ul style="list-style-type: none"> <li>• Specific foreign travel</li> </ul>		•				

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## 10. Patient Education

A. The system has the capability to create, review, update, or delete patient education materials		•				
B. The system has the capability of providing printed patient education materials in culturally appropriate languages on demand or automatically at the end of the encounter		•				
C. The system includes or the capability to develop						

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
patient instructions for a broad range of treatments and services delivered by providers. Examples:						
• Care of wound	•					
• Exercise regimen	•					
• Diet guidelines	•					
• Administration and care of medications	•					
<b>D.</b> The system allows patient instructions to be selected from a pull down list.		•				
<b>E.</b> The system allows user modifications to instructions to suit individual patient needs without altering the original content.		•				
<b>F.</b> The system enables the linkage of patient instructions to care plans/care maps/ practice guidelines/orders, enabling automatic printing.		•				
<b>G.</b> The system allows patient instructions to be printed on demand independent of care plans/care maps/guidelines/orders	•					
<b>H.</b> The system includes the facility to create a directory of information for patient support groups and to include any applicable support group information in the instructions		•				

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## 11. Alerts

<b>A.</b> The system includes user customizable alert screens / messages, enabling capture of alert details, including, but not being limited to:						
• Text describing the alert	•					
• Date and time of the alert	•					
<b>B.</b> The system prints an alert on demand	•					
<b>C.</b> The system has the capability of forwarding the alert to a specific provider(s) or other authorized users via secure electronic mail or by other means of secure electronic communications	•					

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<b>12. Orders</b>						
<b>A.</b> The system includes an electronic Order Entry module that has the capability to be interfaced with a number of key systems depending on the health center's existing and future systems as well as external linkages, through a standard, real time, HL7 two-way interface.	•					
<b>B.</b> The system has the capability to print orders for manual transmission	•					
<b>C.</b> The system has the capability to fax orders.		•				
<b>D.</b> The system has the capability to require that all orders be digitally signed at the completion of each order.	•					
<b>E.</b> The system accepts orders from multiple locations.	•					
<b>F.</b> The system has the capability to assign and display an order number for active, hold, and pending orders.	•					
<b>G.</b> During the order entry process, the system has the capability to require the user to acknowledge an error message prior to being allowed to continue with the data entry function.	•					
<b>H.</b> The system allows the user to accept, override, or cancel an order.	•					
<b>I.</b> The system requires the user to enter a justification for overriding, changing, or canceling an order prior to be allowed to continue	•					
<b>J.</b> The system includes the visual indication of orders in need of review.		•				
<b>K.</b> The system detects and displays duplicate orders issuing visual and auditory warnings, and allows the user to override the warning after entering a justification for the override.	•					
<b>L.</b> The system includes the capability to:						
• Define order sets for each provider or service department.	•					

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<ul style="list-style-type: none"> <li>Contain all information specific to one order in one display screen.</li> </ul>	•					
<ul style="list-style-type: none"> <li>Include a pull-down list of all order departments to enable multiple orders</li> </ul>		•				
<ul style="list-style-type: none"> <li>Include a user-configurable / customizable pull-down list of tests and services from which to place one or more orders.</li> </ul>		•				
<b>M.</b> The system has the capability of displaying the most commonly used orders to assist in order placement.		•				
<b>N.</b> The system can display all order sets including components, by any of the following:						
<ul style="list-style-type: none"> <li>By procedure</li> </ul>	•					
<ul style="list-style-type: none"> <li>By provider</li> </ul>	•					
<ul style="list-style-type: none"> <li>By diagnosis</li> </ul>	•					
<ul style="list-style-type: none"> <li>By date</li> </ul>	•					
<b>O.</b> The system has the capability to specify/display exploding orders	•					
<b>P.</b> The system has the capability to enable selected orders to be recurring orders.	•					
<b>Q.</b> The system includes an order inquiry mechanism to allow providers to inquire on the details of an order.	•					
<b>R.</b> The order inquiry function is accessible within the order entry flow before the session is terminated.	•					
<b>S.</b> An order, at the user's option, displays all the detail data associated with the order, including demographics, order parameters, electronic signatures, and order status	•					
<b>T.</b> The system displays order summaries on demand to allow the clinician to review/correct all orders prior to transmitting/printing the orders for processing by the receiving entity	•					

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<b>13. Results</b>						
A. The system accepts results via two way HL7 interface from all HL7 compliant / capable entities or through direct data entry. Specifically – Laboratory, Radiology, and Pharmacy information systems.	•					
B. The system includes an intuitive, user customizable results entry screen linked to orders	•					
C. The system displays results in a customizable, intuitive, and flexible format	•					
D. The system allows authorized users to copy selected results into a note		•				
E. When displaying results, the system, at a minimum, displays the patient name, date and time of order, date and time results were last updated, as well as any alerts identifying changes/amendments to the test or procedure, and test name	•					
F. The system uses visual cues to highlight abnormal results	•					
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<b>14. Medications</b>						
A. The medication module includes access to the National Drug Classification (NDC) database	•					
B. The system stores common prescriptions for quick entry.		•				
C. The systems supports multiple drug formularies and prescribing guidelines	•					
D. The system has the ability to update the progress note with prescription information		•				
E. The system allows the provider the ability to document the effectiveness or ineffectiveness of a medication.	•					
F. The system stores refill and repeat prescription information	•					
G. The system allows storage of prescription data						

LEGEND: MIN =REQUIRED OPT=OPTIONAL

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# Electronic Medical Record (EMR) Functional Requirements

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Requirement				Vendor Capabilities		
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
for retrieval by any or the following:						
• Drug name	•					
• Drug code number (NDC)	•					
• Amount prescribed	•					
• Schedule	•					
<b>H.</b> The system provides the following drug/prescription order information:						
• Drug contraindication	•					
• Active problem interactions	•					
• Check that appropriate studies are obtained		•				
<b>I.</b> The system provides extensive drug interaction information:						
• Drug-drug	•					
• Drug-allergy	•					
• Drug-symptom	•					
<b>J.</b> The system allows the provider the ability to prioritize / rank the importance of the interactions and/or warnings.	•					

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## 15. Confidentiality and Security

<b>A.</b> The system supports biosensor technology for logon.		•				
<b>B.</b> Supports industry standard electronic signatures.	•					
<b>C.</b> The system controls access to and within the system at multiple levels (e.g. per user, per user role, per area, per section of the chart) through a consistent mechanism of identification and authentication of all users in accordance with the 'Role Based Access Control' (RBAC) standard.	•					
<b>D.</b> The system establishes patient/physician data element confidentiality.		•				
<b>E.</b> The system allows access to its modules regardless of location based on confidentiality and security procedures.	•					

LEGEND: MIN =REQUIRED OPT=OPTIONAL

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# Electronic Medical Record (EMR)

## Functional Requirements

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
F. The system incorporates audit trails of each access to specific data.	•					
G. The system incorporates an audit trail for all system transactions including look-ups of patient data.	•					
H. Provides automatic analysis of audit trails and unauthorized access attempts.	•					
I. Runs under B-2 or above rated operating system. <a href="#">Table of Contents</a>	•					

### 16. Decision Support

A. The system includes access to medical research and literature databases such as MEDLINE, JAMA, GRATEFUL MED, and others.		•				
B. The system utilizes health data from all sections of the chart to provide decision support to providers.	•					
C. The system triggers alerts to providers when individual documented data indicates that critical interventions may be required.	•					
D. The system automatically triggers an alert upon documentation of a diagnoses or event required to be reportable to outside agencies including the Centers for Disease Control and Prevention (CDC) and State health and mental hygiene departments.		•				
E. The system automatically triggers and alert upon documentation of patient health data for a member of an existing medical registry or disease management program.	•					
F. The system's alert/reminder functions are driven by appropriate multi-disciplinary clinical guidelines.	•					
G. The system allows customized studies to be performed utilizing individual and group health data from the electronic record.	•					

# Electronic Medical Record (EMR) Functional Requirements

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>H.</b> The system incorporates preventive medicine questionnaires to be completed by clinicians and if applicable, patients, during the encounter. <a href="#">Table of Contents</a>	•					
<b>17. Cost Measuring / Quality Assurance</b>						
<b>A.</b> The system has built-in mechanism/access to other systems to capture cost information	•					
<b>B.</b> The system generates an evaluation survey (scheduled and on-demand) that will record patient satisfaction	•					
<b>C.</b> The system supports real-time or retrospective trending, analysis, and reporting of clinical, operational, demographic, or other user-specified data	•					
<b>D.</b> The system produces workload measures		•				
<b>E.</b> The system produces reports of usage patterns		•				
<b>F.</b> The system has the capability to perform automatic cost analysis for courses of drug treatments		•				
<b>G.</b> The system provides the capabilities for users to develop utilization statistical and productivity reports on user-determined data fields		•				
<b>H.</b> The system provides the capability for authorized users to develop volume statistics reports on user determined data fields	•					
<b>I.</b> The system has the capability to produce population-based studies based on flexible, end user modifiable criteria.	•					
<b>J.</b> The system has the capability of producing scheduled and on demand case mix reports. <a href="#">Table of Contents</a>	•					

# Electronic Medical Record (EMR) Functional Requirements

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Requirement				Vendor Capabilities		
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>18. Disease Management / Clinical Registries</b>						
A. The system supports disease management registries by:						
• Allowing patient tracking and follow-up based on user defined diagnoses	•					
• Integrating all patient information within the system	•					
• Providing a longitudinal view of the patient medical history	•					
• Providing intuitive access to patient treatments and outcomes	•					
B. The system automatically identifies all high-risk patients and notifies clinical staff for preventive care.	•					
C. The system utilizes user authored and/or third party developed clinical guidelines for disease and registry management	•					
D. The system tracks / provides reminders and validates care process	•					
E. The system generates follow-up letters to physicians, consultants, external sources, and patients based on a variety of parameters such as date, time since last event, etc. for the purpose of collecting health data and functional status for the purpose of updating the patient's record		•				
F. The system links Disease Management functions to all other sections of the EMR	•					
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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>19. Technical</b>						
A. The system auto-populates user defined data fields with patient demographics at the time of order or request	•					
B. The system is scalable	•					
C. The system incorporates a consistent user interface for data entry independent of the platform	•					
D. The system supports a variety of input modalities such as voice recognition, touch screen, light pen, mouse, keyboard, etc.	•					
E. The system will be accessible and available to all authorized users 99.5% of the time	•					
F. The system's response time is 2 seconds or less 90% of the time	•					
G. The system supports a sub second response time 80% of the time	•					
H. The system supports remote system monitoring technology		•				
I. The system incorporates extensive, secure telecommunications capabilities that link staff and clinicians from remote locations to the central site	•					
J. The system supports an industry standard locking mechanism to prevent unauthorized updates	•					
K. The system supports and implements system redundancy / fault tolerance for 100% availability	•					
L. The system logs all transactions processing and archiving	•					
M. The system alerts simultaneous users of each other's presence in the same record	•					
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# Electronic Medical Record (EMR) Functional Requirements

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>20. Clinical IT Data Dictionary</b>						
A. The system is structured to support skeleton-to-robust EMR.	•					
B. Provides attributes for each data element; supports all data types.	•					
C. Supports static/dynamic data element relationship.	•					
<a href="#">Table of Contents</a>						
<b>21. Input Mechanisms</b>						
A. The system supports a full range of input technologies.	•					
B. Input protocol is easy/fast; intuitive input interface.	•					
C. The system capitalizes on the “repetitive nature of medicine”.	•					
D. The system has the ability to allow inclusion of free text as well as the capture of discrete data.	•					
<a href="#">Table of Contents</a>						
<b>23. Ergonomic Presentation</b>						
A. The system places emphasis on user friendliness	•					
B. The system incorporates a consistent presentation of information across the entire system	•					
C. The system incorporates visual cues	•					
D. The system provides consistent formatting to aid users in finding information	•					
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# Electronic Medical Record (EMR) Functional Requirements

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>24. Implementation and Support</b>						
A. The implementation effort begins with the development of a comprehensive implementation plan developed jointly with the end user.	•					
A. The implementation plan includes an end-user skills assessment phase to be performed by the vendor	•					
B. The implementation includes a staff-training phase.	•					
C. The amount and type of training is derived from the results of the skills assessment phase.	•					
D. The system package includes support and maintenance of application software and application system upgrades.	•					
E. The system includes support of networked applications	•					
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