

# Electronic Medical Record (EMR) Functional Requirements

VERSION 5.2 6.27.2003

## 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

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<b>A. Company Name:</b>	GE Medical Systems Information Technologies
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<b>G. Company Web Site:</b>	<a href="http://www.gemedicalsystems.com">www.gemedicalsystems.com</a> <a href="http://www.medicallogic.com">www.medicallogic.com</a>
<b>H. Annual Revenue:</b>	For financial details about GE, please visit our web site at <a href="http://www.ge.com/en/company/investor/annreports.htm">http://www.ge.com/en/company/investor/annreports.htm</a>
<b>I. Years in Business:</b>	General Electric Company has been in business for 100 years; GE Medical Systems IT, wholly owned division of GE has been in existence since August 2000; Logician EMR was developed in 1985
<b>J. Years Serving Community Health Care Market:</b>	Since 1985
<b>K. Total Current Health Care Customers:</b>	All customers are healthcare customers-just about 700 nationally
<b>L. Total Current Community Health Center Customers:</b>	We do not maintain statistics on our customers with regard to clinical specialties. We have at least 7-9 community health centers that are presently using Logician across the country.
<b>M. Electronic Medical Record (EMR) Product Name(s):</b>	Logician EMR-Centricity Physician Office EMR
<b>N. Largest Installed System (in terms of number of users and sites):</b>	Providence Health System, Providence, OR; just about 5,000 active clinical users
<b>O. Product Licensing Terms:</b>	
• Is Maintenance Included?	Yes
• Is Training Included?	Yes

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<b>P.</b> Frequency of Upgrades	Annually for major upgrades; 1-2 times per year-maintenance upgrades; quarterly updates for knowledge bases updates
<b>Q.</b> User Groups:	Nationally meets annually; region user groups meet annually as well

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Requirement	Vendor Capabilities					
	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	•		X	Logician EMR		
B. The system links with a variety of digital and analog dictation systems	•		X	Logician EMR		Medshape; Encore Imaging
C. The system date and time stamps all entries	•		X	Logician EMR		
D. The system includes automatic translation of codes to data. For example:						
• ICD-9-CM	•		X	Logician EMR		
• CPT (4 and 5)	•		X	Logician EMR		
• ICD-10	•		X	Logician EMR-when ICD10 are available		
• SNOMED (II and III)	•		X	Logician EMR		
• APG	•			no		
• NDC	•		X	Logician EMR		
E. The system includes support and updates for the above vocabularies	•		X	Logician EMR		
F. The system supports local, regional, and national vocabularies, updates and enhancements	•		X	Logician EMR		
G. The system supports the <b>HIPAA Standards for Electronic Transactions</b>	•		X	Logician EMR		
H. The system includes the integration of third party coding programs		•	X	Logician EMR		
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)			X	Logician EMR		Clinical Content Consultants disease management

Legend: **Min** =Required **Opt**=Optional

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
						t functionalit y
<ul style="list-style-type: none"> <li>ICD-9 procedure checking against diagnosis</li> </ul>			X	Logician EMR		Clinical Content Consultants disease managemen t functionalit y
Extensive date checking for validity as well as ensuring a valid chronological order of events (dx before treatment, scheduling after birth, etc.)			X	Logician EMR		Clinical Content Consultants disease managemen t functionalit y
<b>J.</b> The system includes an integrated standard nomenclature of clinical terms.		•	X	Logician EMR		
<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		•	X	Logician EMR		
<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		•	X	Logician EMR		
<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		•	X	Logician EMR		
<b>C.</b> The system captures permanent patient address		•	X	Logician EMR		
<b>D.</b> The system captures temporary patient addresses		•	X	Logician EMR		

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
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<b>3. Medical History</b>						
A. The system supports rapid capture of patient history and physical exam data	•		X	Logician EMR		
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)			X	Logician EMR		
• Alcohol use, history			X	Logician EMR		
• Drug use, history			X	Logician EMR		
• Occupational environment			X	Logician EMR		
C. For each new patient, the system captures and stores the following social history elements:						
• Marital status	•		X	Logician EMR		
• Occupation	•		X	Logician EMR		
• Religious preference	•		X	Logician EMR		
• Socioeconomic status	•		X	Logician EMR		
• Native language	•		X	Logician EMR		
• Translator needed (Y/N)	•		X	Logician EMR		
D. The system has the capability to import patient health history data, including obstetrical history data, from an existing system.	•		X	Logician EMR		Chart Catalyst
E. The system documents hospitalization data including:						
• Admission and Discharge dates	•		X	Logician EMR		
• Chief complaint	•		X	Logician EMR		
• Admitting diagnosis / Other diagnoses	•		X	Logician EMR		
• Procedures performed	•		X	Logician EMR		
• Discharge summary		•	X	Logician EMR		
• Discharge disposition		•	X	Logician EMR		
F. The system documents all existing allergies, such as:						

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
• Drug	•		X	Logician EMR		
• Food	•		X	Logician EMR		
• Drug-drug	•		X	Logician EMR		
• Drug-food	•		X	Logician EMR		
<b>G.</b> The system captures history of received immunizations.	•		X	Logician EMR		
<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		•	X	Logician EMR		Medshape; Encore Imaging
<b>J.</b> The system collects and stores family history, including, but not limited to:		•	X			
• History of chronic diseases, including date of diagnosis		•	X	Logician EMR		
• Disease status		•	X	Logician EMR		
• Family member functional status		•	X	Logician EMR		
• If dead: date and cause of death		•	X	Logician EMR		
<a href="#">Table of Contents</a>						
<b>4. Current Health Data, Encounters, Health Risk Appraisal</b>						
<b>A.</b> The system obtains test results from laboratory, radiology / imaging, or other equipment or technology related procedures via standard HL7 interface.	•		X	Logician EMR		
<b>B.</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.	•		X	Logician EMR		
<b>C.</b> The system has the capability to capture and monitor patient health risk factors in a standard format.	•		X	Logician EMR		
<b>D.</b> The system shall display encounter data using a problem-oriented format.	•		X	Logician EMR		

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>E.</b> The system supports online completion of the Health Survey (SF-36) or similar measure for measuring health status and outcomes		•	X	Logician EMR		
<b>F.</b> The system includes plotter support capability.		•	X	Logician EMR		
<b>G.</b> The system supports the capture, graphic display and plotting of “Growth Chart” information, as well as other forms requiring graphic representation.	•		X	Logician EMR		
<b>H.</b> The system has the capability of reproducing and displaying a variety of end user patient and treatment forms.		•	X	Logician EMR		
<b>I.</b> The system has the capability to update other portions of the record with captured vital signs data. At minimum, the system collects:	•					
• Height	•		X	Logician EMR		
• Weight	•		X	Logician EMR		
• Pulse	•		X	Logician EMR		
• Respiratory rate	•		X	Logician EMR		
• Blood pressure (including multiples)	•		X	Logician EMR		
• Different position blood pressure	•		X	Logician EMR		
• Other		•	X	Logician EMR		
<b>J.</b> The system incorporates one or more accepted measure of functional level.	•		X	Logician EMR		
<b>K.</b> The system supports at least one standard health status measure.	•		X	Logician EMR		
<b>L.</b> The system stores automatic measurements of health status.	•		X	Logician EMR		
<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	•		X	Logician EMR		
• Onset of symptoms	•		X	Logician EMR		
• Injury mechanism	•		X	Logician EMR		
• Physical examination findings	•		X	Logician EMR		

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<ul style="list-style-type: none"> <li>Psychological and social assessment findings</li> </ul>	•		X	Logician EMR		
<b>N.</b> The system provides a flexible mechanism for retrieval of encounter information that can be organized in variety of 'views'. For example: <ul style="list-style-type: none"> <li>By name (last, first; first, last; etc.)</li> <li>By date of birth</li> <li>Chronological by encounter date</li> <li>By diagnosis, problem, problem type</li> <li>By chart number</li> <li>By family group / linkage</li> </ul>						
<ul style="list-style-type: none"> <li>By name (last, first; first, last; etc.)</li> </ul>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>By date of birth</li> </ul>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>Chronological by encounter date</li> </ul>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>By diagnosis, problem, problem type</li> </ul>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>By chart number</li> </ul>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>By family group / linkage</li> </ul>		•	X	Logician EMR		
<b>O.</b> The system provides a flexible, user modifiable, search mechanism for retrieval of information captured during encounter documentation. <ul style="list-style-type: none"> <li>By name (last, first; first, last; etc.)</li> </ul>	•		X	Logician EMR		
<b>P.</b> The system provides a mechanism to capture, review, or amend history of current illness. <ul style="list-style-type: none"> <li>By date of birth</li> </ul>	•		X	Logician EMR		
<b>Q.</b> The system ensures dynamic documentation during the encounter complying with all standard coding rules <ul style="list-style-type: none"> <li>Chronological by encounter date</li> </ul>	•		X	Logician EMR		
<b>R.</b> The system captures the following referral information: <ul style="list-style-type: none"> <li>Type of referral</li> <li>Date</li> <li>Reason</li> <li>Provider</li> </ul>						
<ul style="list-style-type: none"> <li>Type of referral</li> </ul>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>Date</li> </ul>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>Reason</li> </ul>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>Provider</li> </ul>	•		X	Logician EMR		
<b>S.</b> The system tracks consultations and referrals <ul style="list-style-type: none"> <li>By date of birth</li> </ul>	•		X	Logician EMR		
<b>T.</b> The system has the capability of printing consultations / referrals forms <ul style="list-style-type: none"> <li>By name (last, first; first, last; etc.)</li> </ul>	•		X	Logician EMR		
<a href="#">Table of Contents</a>						
<b>5. Encounter – Progress Notes</b>						
<b>A.</b> The system records progress notes utilizing a combination of system default, provider customizable, and provider-defined templates. <ul style="list-style-type: none"> <li>By name (last, first; first, last; etc.)</li> </ul>	•		X	Logician EMR		

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>B.</b> The system has the capability to automatically update other sections of the record with data entered in the progress note	•		X	Logician EMR		
<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	•		X	Logician EMR		
<b>D.</b> The encounter - progress note template includes space for entering performed and planned procedures. It also includes:	•		X	Logician EMR		
• Performed/planned Laboratory procedures	•		X	Logician EMR		
• Diagnosis	•		X	Logician EMR		
• Goals (provider's and patient's) and follow-up plans	•		X	Logician EMR		
• Medications prescribed	•		X	Logician EMR		
• Patient education materials	•		X	Logician EMR		
• Consultation/referrals	•		X	Logician EMR		
• Patient condition or status	•		X	Logician EMR		
<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.	•		X	Logician EMR		
<b>F.</b> The system has the capability of retrieving encounters by a variety of user-defined parameters.	•		X	Logician EMR		
<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.	•		X	Logician EMR		
<b>H.</b> The system automatically captures the electronic signature and title of the person entering data and date/time stamps each transaction.	•		X	Logician EMR		
<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.	•		X	Logician EMR		
<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	•		X	Logician EMR		

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an authorized user.						
<b>K.</b> The system includes a medical terminology dictionary and a spell checker within the progress notes data entry module.	•		X	Logician EMR		
<b>L.</b> The system supports the capability to automatically collect the data elements defined by the associated clinical practice guideline or order.		•	X	Logician EMR		
<a href="#">Table of Contents</a>						
<b>6. Problem Lists</b>						
<b>A.</b> The system provides a problem status for each shown problem.	•		X	Logician EMR		
<b>B.</b> The system organizes applicable patient data into comprehensive problem summary lists.	•		X	Logician EMR		
<b>C.</b> The system provides problem descriptions based on the following standard controlled vocabularies:	•					
• SNOMED III	•		X	Logician EMR		
• SNOMED RT	•			No		
• MEDCIN	•			No		
• 3M	•			No		
• ULMS	•			No		
<b>D.</b> The system separates active from inactive problems.	•		X	Logician EMR		
<b>E.</b> The system allows clinicians to identify and record new patient problems as well as the current status of existing problems.	•		X	Logician EMR		
<b>F.</b> The system expands the problem summary list on demand.		•	X	Logician EMR		
<b>G.</b> The system enables the monitoring of health risk factors.	•		X	Logician EMR		
<b>H.</b> The system updates the active problem list from relevant data in the progress note.	•		X	Logician EMR		

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>I.</b> The system records the patient's current health status collected in a standard format.	•		X	Logician EMR		
<b>J.</b> When capturing problem information, the system captures:						
• Diagnosis / problem date(s)	•		X	Logician EMR		
• Severity of illness	•		X	Logician EMR		
<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.	•		X	Logician EMR		
<b>L.</b> The system archives problems complete with status history		•	X	Logician EMR		
<b>M.</b> The system continually updates the diagnosis/problem lists with the capture of each new piece of patient data in any module	•		X	Logician EMR		
<b>N.</b> The system automatically links problems with order and results	•		X	Logician EMR		
<b>O.</b> The system automatically updates the problem summary lists using approved rules-based guidelines	•			no		
<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	•		X	Logician EMR		
<b>Q.</b> The system meets RBRVS/E&M documentation and coding guidelines	•		X	Logician EMR		
<b>R.</b> The system automatically updates the problem summary lists upon detecting changes made to multi-disciplinary guidelines.	•		X	Logician EMR		

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### 7. Clinical Practice Guidelines (CPG)

<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	•		X	Logician EMR		PLUS Clinical Content Consultants disease
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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
Research and Quality (formerly the Agency for Health Care Policy and Research).						management functionality provides additional nationally recognized guidelines integrated within Logician
<b>B.</b> The system has the capability of allowing initial authoring and revising of clinical practice guidelines	•		X	Logician EMR		
<b>C.</b> The system allows linkages from the CPG to other system modules.	•		X	Logician EMR		
<b>D.</b> The CPG module imports/creates the facility for rapid documentation of the patient's progress along the CPG's phases.	•		X	Logician EMR		
<b>E.</b> The format utilized by the guideline for documenting is intuitive, easy to use, and user customizable.	•		X	Logician EMR		
<b>F.</b> The CPG module utilizes pull down menus and check boxes to speed up data entry.	•		X	Logician EMR		
<b>G.</b> Optionally, the CPG module can be populated by data entered elsewhere in the system.		•	X	Logician EMR		
<b>H.</b> The system allows reporting and analysis of any / all components included in the CPG.	•		X	Logician EMR		
<b>I.</b> Included in each CPG, the system has the capability to create, review, and update information about:						
• The performance measures that will be used to monitor the attainment of objectives	•		X	Logician EMR		
• The quantitative and qualitative data to be collected		•	X	Logician EMR		
• Performance metrics	•		X	Logician EMR		
• Collection means and origin of data to be		•	X	Logician EMR		

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
evaluated						
<b>J.</b> The system allows the provider or other authorized user to override any or all parts of the guideline. <a href="#">Table of Contents</a>	•		X	Logician EMR		
<b>8. Care Plan</b>						
<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.	•		X	Logician EMR		
<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.	•		X	Logician EMR		
<b>C.</b> The system has the capability to import/create, review, and amend information about:			X	Logician EMR		
<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>	•		X	Logician EMR		
<ul style="list-style-type: none"> <li>• The medical orders, which authorize the execution of the selected, care plan.</li> </ul>	•		X	Logician EMR		
<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>	•		X	Logician EMR		
<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>	•		X	Logician EMR		
<a href="#">Table of Contents</a>						
<b>9. Prevention</b>						
<b>A.</b> The system has the capability to display prevention prompts on the summary display.	•		X	Logician EMR		
<b>B.</b> The system allows interactive prevention status documentation. At minimum:						

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
• Date addressed	•		X	Logician EMR		
• Result	•		X	Logician EMR		
• Reasons for not performed	•		X	Logician EMR		
• Where performed	•		X	Logician EMR		
<b>C.</b> The system includes user-modifiable health maintenance templates.	•		X	Logician EMR		
<b>D.</b> The system includes a patient tracking and reminder capability (patient follow-up).	•		X	Logician EMR		
<b>E.</b> The system allows the graphing of pertinent data into flow sheets for presentation/display.	•		X	Logician EMR		
<b>F.</b> The system includes the incorporation of immunization protocols:						
• Universal child	•		X	Logician EMR		
• Universal adult	•		X	Logician EMR		
• Specific foreign travel		•	X	Logician EMR		
<a href="#">Table of Contents</a>						
<b>10. Patient Education</b>						
<b>A.</b> The system has the capability to create, review, update, or delete patient education materials		•	X	Logician EMR		
<b>B.</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		•	X	Logician EMR		
<b>C.</b> The system includes or the capability to develop patient instructions for a broad range of treatments and services delivered by providers. Examples:						
• Care of wound	•		X	Logician EMR		
• Exercise regimen	•		X	Logician EMR		
• Diet guidelines	•		X	Logician EMR		
• Administration and care of medications	•		X	Logician EMR		
<b>D.</b> The system allows patient instructions to be selected from a pull down list.		•	X	Logician EMR		

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	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>E.</b> The system allows user modifications to instructions to suit individual patient needs without altering the original content.		•	X	Logician EMR		
<b>F.</b> The system enables the linkage of patient instructions to care plans/care maps/ practice guidelines/orders, enabling automatic printing.		•	X	Logician EMR		
<b>G.</b> The system allows patient instructions to be printed on demand independent of care plans/care maps/guidelines/orders	•		X	Logician EMR		
<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		•	X	Logician EMR		
<a href="#">Table of Contents</a>						
<b>11. Alerts</b>						
<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	•		X	Logician EMR		
• Date and time of the alert	•		X	Logician EMR		
<b>B.</b> The system prints an alert on demand	•		X	Logician EMR		
<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	•		X	Logician EMR		
<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.	•		X	Logician EMR		
<b>B.</b> The system has the capability to print orders for manual transmission	•		X	Logician EMR		
<b>C.</b> The system has the capability to fax orders.		•	X	Logician EMR	Further integrati	With various third

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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)
					on here with version 5.6 due fall 2003	party vendors
<b>D.</b> The system has the capability to require that all orders be digitally signed at the completion of each order.	•		X	Logician EMR		
<b>E.</b> The system accepts orders from multiple locations.	•		X	Logician EMR		
<b>F.</b> The system has the capability to assign and display an order number for active, hold, and pending orders.	•		X	Logician EMR		
<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.	•		X	Logician EMR		
<b>H.</b> The system allows the user to accept, override, or cancel an order.	•		X	Logician EMR		
<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	•			no		
<b>J.</b> The system includes the visual indication of orders in need of review.		•	X	Logician EMR		
<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.	•		X	Logician EMR		
<b>L.</b> The system includes the capability to:						
<ul style="list-style-type: none"> <li>Define order sets for each provider or service department.</li> </ul>	•				In version 5.6 of Logician due fall 2003	
<ul style="list-style-type: none"> <li>Contain all information specific to one order in one display screen.</li> </ul>	•		X	Logician EMR		

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<ul style="list-style-type: none"> <li>Include a pull-down list of all order departments to enable multiple orders</li> </ul>			X	Logician EMR		
<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>			X	Logician EMR		
<b>M.</b> The system has the capability of displaying the most commonly used orders to assist in order placement.					In version 5.6 of Logician due fall 2003	
<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>					In version 5.6 of Logician due fall 2003	
<ul style="list-style-type: none"> <li>By provider</li> </ul>					In version 5.6 of Logician due fall 2003	
<ul style="list-style-type: none"> <li>By diagnosis</li> </ul>					In version 5.6 of Logician due fall 2003	
<ul style="list-style-type: none"> <li>By date</li> </ul>					In version 5.6 of Logician due fall 2003	
<b>O.</b> The system has the capability to specify/display exploding orders					In version 5.6 of	

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## Functional Requirements

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
					Logician due fall 2003	
<b>P.</b> The system has the capability to enable selected orders to be recurring orders.	•				In version 5.6 of Logician due fall 2003	
<b>Q.</b> The system includes an order inquiry mechanism to allow providers to inquire on the details of an order.	•		X	Logician EMR		
<b>R.</b> The order inquiry function is accessible within the order entry flow before the session is terminated.	•		X	Logician EMR		
<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	•		X	Logician EMR		
<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	•		X	Logician EMR		

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### 13. Results

<b>A.</b> 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.	•		X	Logician EMR however most pharmacy systems now do not allow for HL7 import of pharmacy data; when they do, Logician is able to export this data		
<b>B.</b> The system includes an intuitive, user customizable results entry screen linked to orders	•		X	Logician EMR		
<b>C.</b> The system displays results in a customizable,	•		X	Logician EMR		

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## Functional Requirements

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
intuitive, and flexible format						
<b>D.</b> The system allows authorized users to copy selected results into a note		•	X	Logician EMR		
<b>E.</b> 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	•		X	Logician EMR		
<b>F.</b> The system uses visual cues to highlight abnormal results <a href="#">Table of Contents</a>	•		X	Logician EMR		
<b>14. Medications</b>						
<b>A.</b> The medication module includes access to the National Drug Classification (NDC) database	•		X	Logician EMR		
<b>B.</b> The system stores common prescriptions for quick entry.		•	X	Logician EMR		
<b>C.</b> The systems supports multiple drug formularies and prescribing guidelines	•		X	Logician EMR		Integrated InfoScan electronic formulary database
<b>D.</b> The system has the ability to update the progress note with prescription information		•	X	Logician EMR		
<b>E.</b> The system allows the provider the ability to document the effectiveness or ineffectiveness of a medication.	•		X	Logician EMR		
<b>F.</b> The system stores refill and repeat prescription information	•		X	Logician EMR		
<b>G.</b> The system allows storage of prescription data for retrieval by any or the following:						
• Drug name	•		X	Logician EMR		
• Drug code number (NDC)	•		X	Logician EMR		
• Amount prescribed	•		X	Logician EMR		
• Schedule	•		X	Logician EMR		

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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 provides the following drug/prescription order information:						
• Drug contraindication	•		X	Logician EMR		
• Active problem interactions	•		X	Logician EMR		Clinical Content Consultants disease management functionality
• Check that appropriate studies are obtained		•	X	Logician EMR		Clinical Content Consultants disease management functionality
<b>I.</b> The system provides extensive drug interaction information:						
• Drug-drug	•		X	Logician EMR		
• Drug-allergy	•		X	Logician EMR		
• Drug-symptom	•			no		
<b>J.</b> The system allows the provider the ability to prioritize / rank the importance of the interactions and/or warnings.	•			no		

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### 15. Confidentiality and Security

<b>A.</b> The system supports biosensor technology for logon.		•	X	Logician EMR		
<b>B.</b> Supports industry standard electronic signatures.	•		X	Logician EMR		
<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	•		X	Logician EMR		

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# Electronic Medical Record (EMR)

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
'Role Based Access Control' (RBAC) standard.						
<b>D.</b> The system establishes patient/physician data element confidentiality.		•	X	Logician EMR		
<b>E.</b> The system allows access to its modules regardless of location based on confidentiality and security procedures.		•	X	Logician EMR		
<b>F.</b> The system incorporates audit trails of each access to specific data.		•	X	Logician EMR		
<b>G.</b> The system incorporates an audit trail for all system transactions including look-ups of patient data.		•			Available in version 5.6 of Logician due fall 2003	
<b>H.</b> Provides automatic analysis of audit trails and unauthorized access attempts.		•	X	Logician EMR		
<b>I.</b> Runs under B-2 or above rated operating system. <a href="#">Table of Contents</a>		•	X	Logician EMR		
<b>16. Decision Support</b>						
<b>A.</b> The system includes access to medical research and literature databases such as MEDLINE, JAMA, GRATEFUL MED, and others.		•	X	Logician EMR		
<b>B.</b> The system utilizes health data from all sections of the chart to provide decision support to providers.		•	X	Logician EMR		
<b>C.</b> The system triggers alerts to providers when individual documented data indicates that critical interventions may be required.		•	X	Logician EMR		Clinical Content Consultants disease management functionality augments

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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)
						this as well
<b>D.</b> 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.		•	X	Logician EMR		Clinical Content Consultants disease management functionality would augment this functionality as well
<b>E.</b> The system automatically triggers and alert upon documentation of patient health data for a member of an existing medical registry or disease management program.		•	X	Logician EMR		
<b>F.</b> The system's alert/reminder functions are driven by appropriate multi-disciplinary clinical guidelines.		•	X	Logician EMR		
<b>G.</b> The system allows customized studies to be performed utilizing individual and group health data from the electronic record.		•	X	Logician EMR		
<b>H.</b> The system incorporates preventive medicine questionnaires to be completed by clinicians and if applicable, patients, during the encounter.		•	X	Logician EMR		
<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		•	X	Logician EMR using Crystal Reports or other ODBC compliant report writing tool. Logician can export data which can then be co-mingled with financial data		

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
				from other external systems		
<b>B.</b> The system generates an evaluation survey (scheduled and on-demand) that will record patient satisfaction	•		X	Logician EMR		
<b>C.</b> The system supports real-time or retrospective trending, analysis, and reporting of clinical, operational, demographic, or other user-specified data	•		X	Logician EMR		
<b>D.</b> The system produces workload measures		•	X	Logician EMR using Crystal Reports or other ODBC report writing tool to extract this data		
<b>E.</b> The system produces reports of usage patterns		•	X	Logician EMR using Crystal Reports or other ODBC report writing tool to extract this data		
<b>F.</b> The system has the capability to perform automatic cost analysis for courses of drug treatments		•	X	Logician EMR		With the integrated InfoScan electronic formulary database
<b>G.</b> The system provides the capabilities for users to develop utilization statistical and productivity reports on user-determined data fields		•	X	Logician EMR using Crystal Reports or other ODBC report writing tool to extract this data		
<b>H.</b> The system provides the capability for authorized users to develop volume statistics reports on user determined data fields	•		X	Logician EMR using Crystal Reports or other ODBC report writing tool to extract this data		
<b>I.</b> The system has the capability to produce	•		X	Logician EMR		

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
population-based studies based on flexible, end user modifiable criteria.				using Crystal Reports or other ODBC report writing tool to extract this data		
<p><b>J.</b> The system has the capability of producing scheduled and on demand case mix reports.</p> <p><a href="#">Table of Contents</a></p>	•		X	Logician EMR using Crystal Reports or other ODBC report writing tool to extract this data		

# 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>						
<b>A.</b> The system supports disease management registries by:						
• Allowing patient tracking and follow-up based on user defined diagnoses	•		X	Logician EMR		
• Integrating all patient information within the system	•		X	Logician EMR		
• Providing a longitudinal view of the patient medical history	•		X	Logician EMR		
• Providing intuitive access to patient treatments and outcomes	•		X	Logician EMR		
<b>B.</b> The system automatically identifies all high-risk patients and notifies clinical staff for preventive care.	•		X	Logician EMR		
<b>C.</b> The system utilizes user authored and/or third party developed clinical guidelines for disease and registry management	•		X	Logician EMR		Clinical Content Consultants disease management functionality offers integrated disease management templates based on national guidelines
<b>D.</b> The system tracks / provides reminders and validates care process	•		X	Logician EMR		
<b>E.</b> 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	•		X	Logician EMR		

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
<b>F.</b> The system links Disease Management functions to all other sections of the EMR <a href="#">Table of Contents</a>	•		X	Logician 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	•		X	Logician EMR		
B. The system is scalable	•		X	Logician EMR		
C. The system incorporates a consistent user interface for data entry independent of the platform	•		X	Logician EMR		
D. The system supports a variety of input modalities such as voice recognition, touch screen, light pen, mouse, keyboard, etc.	•		X	Logician EMR		
E. The system will be accessible and available to all authorized users 99.5% of the time	•		X	Logician EMR (hardware and network dependent)		
F. The system's response time is 2 seconds or less 90% of the time	•		X	Logician EMR (hardware and network dependent)		
G. The system supports a sub second response time 80% of the time	•		X	Logician EMR (hardware and network dependent)		
H. The system supports remote system monitoring technology		•	X	Logician EMR		
I. The system incorporates extensive, secure telecommunications capabilities that link staff and clinicians from remote locations to the central site	•		X	Logician EMR (hardware and network dependent)		
J. The system supports an industry standard locking mechanism to prevent unauthorized updates	•		X	Logician EMR		
K. The system supports and implements system redundancy / fault tolerance for 100% availability	•		X	Logician EMR (hardware and network dependent)		
L. The system logs all transactions processing and archiving	•		X	Logician EMR		

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# Electronic Medical Record (EMR)

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Requirement	Vendor Capabilities					
	Min	Opt	Yes	Module Name	Future Version (Date)	3 <sup>rd</sup> Party Provided (Name)
M. The system alerts simultaneous users of each other's presence in the same record <a href="#">Table of Contents</a>	•		X	Logician EMR		
<b>20. Clinical IT Data Dictionary</b>						
A. The system is structured to support skeleton-to-robust EMR.	•		X	Logician EMR		
B. Provides attributes for each data element; supports all data types.	•		X	Logician EMR		
C. Supports static/dynamic data element relationship. <a href="#">Table of Contents</a>	•		X	Logician EMR		
<b>21. Input Mechanisms</b>						
A. The system supports a full range of input technologies.	•		X	Logician EMR		
B. Input protocol is easy/fast; intuitive input interface.	•		X	Logician EMR		
C. The system capitalizes on the "repetitive nature of medicine".	•		X	Logician EMR		
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>	•		X	Logician EMR		
<b>23. Ergonomic Presentation</b>						
A. The system places emphasis on user friendliness	•		X	Logician EMR		
B. The system incorporates a consistent presentation of information across the entire system	•		X	Logician EMR		
C. The system incorporates visual cues	•		X	Logician EMR		
D. The system provides consistent formatting to aid users in finding information <a href="#">Table of Contents</a>	•		X	Logician EMR		

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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.	•		X	Logician EMR		
A. The implementation plan includes an end-user skills assessment phase to be performed by the vendor	•		X	Logician EMR		
B. The implementation includes a staff-training phase.	•		X	Logician EMR		
C. The amount and type of training is derived from the results of the skills assessment phase.	•		X	Logician EMR		
D. The system package includes support and maintenance of application software and application system upgrades.	•		X	Logician EMR		
E. The system includes support of networked applications <a href="#">Table of Contents</a>	•			No, although our support department is staffed with individuals who are well versed in network applications. They will determine if the root cause of a problem is Logician-based or other application and will try to rectify the problem, although we do not officially support other applications than Logician EMR.		