AHIMA Distance Education
Career-building Resources

Inpatient EHR Product Certification— Advantages for Quality HIM

Webinar

February 19, 2008

Practical Tools for Seminar Learning

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Faculty

Keith Olenik, MA, RHIA, CHP

Keith Olenik, received his bachelor's degree in medical record administration from the University of Kansas and his master's degree in health services management with an emphasis in computer resources and information management from Webster University. Keith has over 20 years of experience in every healthcare setting and is currently operating The Olenik Consulting Group. He has worked in a variety of healthcare settings including long-term care, rehabilitation, and psychiatric facilities. Prior to starting his own business he was the Chief Privacy Officer and Corporate Director of Health Information Management for Saint Luke's Health System in Kansas City, Missouri. He is also a visiting professor for the University of Cincinnati Health Information Management Program and has contributed to two current health information management text books.

Keith is currently a director on the FORE Board, chair of the AHIMA Virtual Lab advisory committee, and member of both the PHR and EHR practice councils at AHIMA. He was a director on the AHIMA board in 2004-2006. Keith has held various positions for the Missouri Health Information Management Association including President in 1998. He is also a member of the Health Information Management and Systems Society and serves on the following task forces; privacy and security, research, and EHR accreditation. In addition to these activities Keith has been a speaker at various conventions and educational seminars on HIPAA, project management, HIM functions, and electronic health records.

Rebecca B. Reynolds, RHIA

Rebecca Barron Reynolds received a B.S. in Health Information Management from the University of Tennessee Health Science Center (UTHSC) in Memphis, TN and a Masters in Health Care Administration from the University of Memphis. She is a doctoral candidate in the Higher Education Leadership program at the University of Memphis.

She currently is Associate Professor of Health Informatics and Information Management and Privacy Coordinator for the University of Tennessee Health Science Center as well as Program Director for the new masters program in Health Informatics and Information Management. Before coming to the UTHSC Department of Health Informatics and Information Management on a full-time basis, Reynolds taught part-time while serving as the Director of the Health Information Management Department at the University of Tennessee Bowld Hospital and later at the University of Tennessee Medical Group, the medical practice of the UT faculty.

Reynolds has taught HIM students in Healthcare Policy, Health Information Technology and Systems as well as Legal Issues while providing HIPAA training for the medical, nursing and allied health students on the UTHSC campus and the UT Knoxville campus. Reynolds has served as Project Manager for HIPAA privacy and security policy development and implementation for the University of

(continued)

Tennessee system. She has taught HIPAA seminars throughout Tennessee and has spoken at the Tennessee Bar Association's Health Law Forum, the Tennessee Chapter of the American College of Surgeons, and the National Conference for Nurse Practitioners.

Reynolds is a member of the Operations Committee of the Mid-South eHealth Alliance which is an AHRQ funded RHIO. She is also a member of the AHIMA eHIM Practice Council.

Reynolds is active in the American Health Information Management Association (AHIMA) serving as a former Tennessee delegate to the AHIMA House of Delegates, as a member of the AHIMA Nominating Committee and on the AHIMA Foundation of Research and Education Scholarship Review Committee. She is also past president of the Tennessee Health Information Management Association (THIMA). Reynolds received the Outstanding New Professional Award from THIMA in 1995 and in 2004 received the THIMA Distinguished Member Award.

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Objectives for Presentation

- **Identify the need and value for CCHIT criteria**
- **Explain CCHIT criteria**
- **Identify how the certification criteria can be utilized for selecting EHR vendors**

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Polling Question #1

Do you have an EHR product(s) installed at your organization?

- ***1 Yes**
- ***2 No**

2

CCHIT Overview

- **Formed July 2004 by three organizations**
  - **AHIMA**
  - **HIMSS**
  - **NAHIT**
- **In 2005 other organizations are involved**
  - **AAFP**
  - **AAP**
  - **ACP**
  - **CHCF**
  - **HCA**
  - **McKesson**
  - **Sutter Health**
  - **United Health Foundation**
  - **WellPoint**

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CCHIT Overview

- **HHS contract to develop, create prototypes for and evaluate the certification criteria and inspection process for EHRs.**

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CCHIT Mission

"Is to accelerate the adoption health information technology by creating an efficient, credible and sustainable certification program."

http://www.cchit.org accessed January 10, 2008

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CCHIT Overview

Collaboration with AHIC for:

1. **standards harmonization,**
2. **prototype development for NHIN architecture, and**
3. **assessment of privacy and security laws and practices.**

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CCHIT Organization

- Staff
- Commissioners
- Workgroups
- Expert panels
- Scheduled public comment periods
- Test pilot periods
- Town hall meetings

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CCHIT Goals

1. Reduce the risk of health IT investment by providers.
2. Ensure interoperability of health IT products with emerging health information infrastructures.
3. Enhance the availability of health IT adoption incentives from public and private purchasers and payers.
4. Protect the privacy of patient's personal health information.

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Polling Question #2

The level of work with CCHIT at our organization is…

- *1 We only have CCHIT certified products
- *2 We are evaluating CCHIT certified products for purchase
- *3 We are reviewing CCHIT criteria for certified products
- *4 We are unaware of CCHIT certification

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Q&A Session…

To ask a question:

- Click the "Q&A" button near the upper-left
- Click "NEW"
- Type your question in the white box
- Click "SEND"

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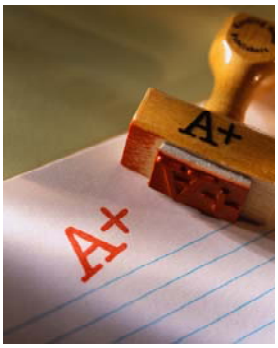
Product Certification Areas



- **Functionality**
- **Interoperability**
- **Security and reliability**

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Three Phases to the Approach

Phase I:
October 2005–September 2006

Phase II:
October 2006–September 2007

Phase III:
October 2007–September 2008

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CCHIT Today

- **November 5th, 2007 – 6 EHR vendors (25% of the market) applied and achieved certification.**

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CCHIT Criteria

- **CCHIT is not a SDO**
- **Criteria based on ANSI-HITSP**
- **CCHIT is responsible for measuring and determining compliance with standards**

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CCHIT Certification Steps

1. **Certification Handbook and Certification Agreement**
2. **Test Scripts and Test Script Clarifications**
3. **Application Form**
4. **Self-attestation Guidance and Submission Form**
5. **Product testing**

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Value of Certification

- **Industry recognition**
- **Reduce malpractice risk**
- **Safety of CCHIT certified products**

▸ **This all equals risk management**

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Risk Management–Value to HIM

- Improved capture of patient information
- Decision support systems
  - Alerts, clinical reminders, best practice guidance
- Prevention of adverse events

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Risk Management–Value to HIM

- Continuous quality improvement
- Electronic documentation of informed consent
- Electronic documentation of evidence-based practice guidelines
- Legal health record

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Risk Management–Core to HIM

1. Fraud and abuse prevention
2. Data access, use and control
3. EHR data quality
4. Data dictionary

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Fraud and Abuse Prevention

- Definition of healthcare fraud
- Detection of healthcare fraud
  - Review of abnormal patterns
  - Robust system audits
  - Review of physician practice patterns
  - Tracking of controlled substances

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Data Access, Use and Control

- Audit logs
- Test before discovery request
- Password / access policies
- Amended / corrected / augmented entries
- Health record completeness

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EHR Data Quality

- Integrity of data
- Authorship integrity
- Documentation integrity
- Patient identification accuracy
- Replication of views
- Downtime procedure and data recovery

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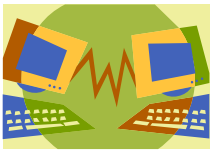
Data Dictionary

- **Auditable record**
- **Workflow issues**
- **Don't make assumptions about current practice/systems**



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EHR Standards

- **CCHIT**
- **HL7 EHR-S Functional Model**
- **HL7 LEHR-S Functional Model**

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Polling Question #3

Are you familiar with the HL7 Functional Model Standards?

***1 Yes**

***2 No**

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CCHIT Criteria–Functionality

- PATIENT DEMOGRAPHICS
- PROVIDER INFORMATION
- PATIENT LIST MANAGEMENT
- PROBLEM LISTS
- ALLERGY INFORMATION
- MEDICATION LIST
- RESULTS ACCESS AND VIEW
- GENERAL ORDERING REQUIREMENTS
- ORDER SETS
- ORDERING – MEDICATION ORDERS
- MEDICATION RECONCILIATION
- DECISION SUPPORT FOR MEDICATION AND IMMUNIZATION ORDERS
- GENERAL CLINICAL DECISION SUPPORT
- MEDICATION, IMMUNIZATION, AND BLOOD PRODUCT ADMINISTRATION
- DECISION SUPPORT FOR MEDICATION, IMMUNIZATION, AND BLOOD PRODUCT ADMINISTRATION
- CLINICAL TASK MANAGEMENT
- PATIENT ORGINATED DATA
- HEALTH RECORD MANAGEMENT

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Notes/Comments/Questions

CCHIT Criteria–Functionality

FUNCTIONALITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

For initial Inpatient EHR certification, CCHIT is offering two test configurations. Test Configuration 1 includes CPOE and eMAR and is intended for vendors with a product suite addressing both processes. Test Configuration 2 is designed to make certification available for vendors whose product suite addresses electronic medication administration, but not clinician electronic order writing and medication reconciliation. The inpatient criteria below addresses both test configurations, first listed is Configuration 1, and in rows directly below Configuration 1 are the criteria included in the certification process for addressing electronic medication administration, which is Configuration 2.

Compliance Key:
P = Previous Criteria
N = New for Year
M = Modified for Year

NEW line #	Original line #	WG	Category and Description	Specific Criteria	Source or References	Priorities (L,M,H)						Availability			Compliance			Discussion / Comments	CPOE & eMAR Test Configuration 1	eMAR Only Test Configuration 2
						Providers	Vendors	Payers or Purchasers	Public Health	Patient	Quality Organizations	2007	2008	2009 and beyond	Roadmap 2007	Roadmap 2008	Roadmap 2009 and Beyond			
4.01	New	IF	4. Problem Lists Create and maintain during the inpatient stay an up-to-date list of patient-specific problems / diagnoses that are documented by a clinician	The system shall provide the ability to document a problem / diagnosis associated with a patient.													N	The intent is that an up-to-date problem list is maintained by clinicians during the hospital stay. The problem list refers only to patient-specific medical problems / diagnoses that are documented by a clinician.	X	
4.02	2.4.1	IF	4. Problem Lists	The system shall provide the ability to display different views of the problem / diagnosis list.	DC 1.4.3									X			N	For example, active, all, or resolved.	X	
4.03	2.4.2	IF	4. Problem Lists	The system shall provide the ability to document the status of a problem / diagnosis.	DC 1.4.3									X			N	For example, inactive, active, resolved, or by date.	X	
4.04	2.4.3	IF	4. Problem Lists	The system shall provide the ability to display the history of changes made to a specific problem / diagnosis, including clinician, date, and time.	DC 1.4.3									X			N		X	
4.05	New	IF	4. Problem Lists	The system shall provide the ability for the clinician to create, associate and display free text comments with the problem / diagnosis.													N		X	
4.06	New	IF	4. Problem Lists	The system shall provide the ability to print a problem / diagnosis list.													N	A screen print is not the intent in this criterion.	X	
4.07	New	IF	4. Problem Lists	The system shall provide the ability to search patient records for specific problems / diagnoses.													N		X	

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CCHIT Criteria–Interoperability

- **Admission into Inpatient Care Setting—** ***Medication History***
- **Admission into Inpatient Care Setting—** ***Allergy Information***
- **Within Inpatient Care Setting—** ***Orders and Medication Administration***
- **Discharge from Inpatient Care Setting or Transfer to Other Health Care Facility—** ***Medications and Allergies***

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To see the DETAIL in this table, go to this resource book's APPENDIX.

Notes/Comments/Questions

CCHIT Criteria–Interoperability

INTEROPERABILITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

Compliance Key:
N=New Criteria pilot = Pilot in year
P=Previous Criteria
M=Modified Criteria
FI=Functional Integration

For initial inpatient EHR certification, CCHIT is offering two test configurations. Test Configuration 1 includes CPOE and eMAR and is intended for vendors with a product suite addressing both processes. Test Configuration 2 is designed to make certification available for vendors whose product suite addresses electronic medication administration, but not clinician electronic order writing and medication reconciliation. The inpatient interoperability criteria below addresses both test configurations, first listed is Configuration 1, and in rows directly below Configuration 1 are the criteria included in the certification process for addressing electronic medication administration, which is Configuration 2.

Criteria #	Category and Description	Specific Criteria	Source or References	Compliance			Discussion / Comments	CPOE & eMAR Test Configuration 1	eMAR Only Test Configuration 2	Inpatient Functionality Criteria Cross Reference
				Certify in May 2007	Roadmap for May 2008	Roadmap for May 2009 and beyond				
II-01	**Admission into Inpatient Care Setting - Medication History**	Receive Current Medication List ("patient home medications") from Pharmacy (directly), PBM (directly) or via intermediary network (e.g. SureScripts, RxHub, etc.)	NCPDP Script 8.1 (RXHREQ, RXHRES) for Current Medication List (2008) Use of RxNorm for clinical drug terminology (2009)		N	M	CCHIT will align with AHIC Medication Management Use Case development.	X		IF-11.05 The system shall provide the ability to accept information on patient home medications from prescription network intermediary. (2008 - display; 2009 codified)
II-02		Receive Current Medication List ("patient home medications") from outpatient documentation sources (e.g., Physicians office EMR) or RHIO/network	HL7/ASTM CCD for Current Medication List (2008) Use of RxNorm for clinical drug terminology (2009)		N	M	CCHIT will align with AHIC Medication Management Use Case development.	X		IF-11.03 The system shall provide the ability to accept information on patient home medications from an external source. (2008 - display; 2009 codified)
II-03		Receive Current Medication List ("patient home medications") from Health Plans	TBD			N	CCHIT will align with AHIC Medication Management Use Case development.	X		IF-11.03 The system shall provide the ability to accept information on patient home medications from an external source. (2008 - display; 2009 codified)
II-04		Receive / import Current Medication List and Medication History from a PHR	HITSP IS-03 Consumer Empowerment			pilot	HITSP IS-03 CE includes HL7/ASTM CCD and terminology standards in HITSP/ISC-32 Registration and Medication History Document Content Component	X		IF-11.03 The system shall provide the ability to accept information on patient home medications from an external source. (2008 - display; 2009 codified)

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To see the DETAIL in this table, go to this resource book's APPENDIX.

CCHIT Criteria–Security & Reliability

- **Security: Access Control**
- **Security: Audit**
- **Security: Authentication**
- **Security: Documentation**
- **Security: Technical Services**
- **Reliability: Backup/Recovery**
- **Reliability: Documentation**

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Notes/Comments/Questions

CCHIT Criteria–Security & Reliability

SECURITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

Legend:
Provisional Criteria (2007) are highlighted in yellow
P= Previous
N= New
M= Modified

Line #	WG	Category and Description	Specific Criteria	Source or References * See end of document for references.	Compliance: Certify in May 2007	Compliance: Roadmap for May 2008	Compliance: Roadmap for May 2009 and beyond	Discussion/Comments
S1	Sec	Security: Access Control	The system shall enforce the most restrictive set of rights/privileges or accesses needed by users/groups (e.g. System Administration, Clerical, Nurse, Doctor, etc.), or processes acting on behalf of users, for the performance of specified tasks.	ISO 17799: 9.1.1.2.b; HIPAA: 164.312(a)(1)	P			
S2			The system shall provide the ability for authorized administrators to assign restrictions or privileges to users/groups.	Canadian: Alberta 4.1.3 (EMR); CC SFR: FMT_MSA; SP800-53: AC-5 LEAST PRIVILEGE; HIPAA: 164.312(a)(1)	P			
S3			The system must be able to associate permissions with a user using one or more of the following access controls: 1) user-based (access rights assigned to each user); 2) role-based (users are grouped and access rights assigned to these groups); or 3) context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as time-of-day, workstation-location, emergency-mode, etc.)	Canadian: Ontario 5.3.12.e (System Access Management); CC SFR: FDP_ACC, FMT_MSA; ASTM: E1985-98; SP800-53: AC-3 ACCESS AND INFORMATION FLOW CONTROL; HIPAA: 164.312(a)(1)	P			
S4			The system shall support removal of a user's privileges without deleting the user from the system. The purpose of the criteria is to provide the ability to remove a user's privileges, but maintain a history of the user in the system.		M			

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Relationship to HL7

- HL7 messaging
- HL7 Legal EHR-S Functional Profile
- HL7 CDA
- ASTM CCR
- HL7 CCD

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To see the DETAIL in this table, go to this resource book's APPENDIX.

Notes/Comments/Questions

Comparison–CCHIT and HL7

FUNCTIONALITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

For initial Inpatient EHR certification, CCHIT is offering two test configurations. Test Configuration 1 includes CPOE and eMAR and is intended for vendors with a product suite addressing both processes. Test Configuration 2 is designed to make certification available for vendors whose product suite addresses electronic medication administration, but not clinician electronic order writing and medication reconciliation. The inpatient criteria below addresses both test configurations, first listed is Configuration 1, and in rows directly below Configuration 1 are the criteria included in the certification process for addressing electronic medication administration, which is Configuration 2.

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4.01	New	IF	4. Problem Lists Create and maintain during the inpatient stay an up-to-date list of patient-specific problems / diagnoses that are documented by a clinician	The system shall provide the ability to document a problem / diagnosis associated with a patient.													N	The intent is that an up-to-date problem list is maintained by clinicians during the hospital stay. The problem list refers only to patient-specific medical problems / diagnoses that are documented by a clinician.	X	
4.02	2.4.1	IF	4. Problem Lists	The system shall provide the ability to display different views of the problem / diagnosis list.	DC 1.4.3									x			N	For example, active, all, or resolved.	X	
4.03	2.4.2	IF	4. Problem Lists	The system shall provide the ability to document the status of a problem / diagnosis.	DC 1.4.3									x			N	For example, inactive, active, resolved, or by date.	X	
4.04	2.4.3	IF	4. Problem Lists	The system shall provide the ability to display the history of changes made to a specific problem / diagnosis, including clinician, date, and time.	DC 1.4.3									x			N		X	

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To see the DETAIL in this table, go to this resource book's APPENDIX.

Comparison–CCHIT and HL7

ID#	Type	Name	Statement/Description	See Also	Conformance Criteria
DC.1.4.3	F	Manage Problem List	**Statement:** Create and maintain patient-specific problem lists. **Description:** A problem list may include, but is not limited to: Chronic conditions, diagnoses, or symptoms, functional limitations, visit or stay-specific conditions, diagnoses, or symptoms. Problem lists are managed over time, whether over the ocurse of a visit or stay or the life of a patient, allowing documentation of historical information and tracking the changing character of problem(s) and their priority. The source (e.g. the provider, the system id, or the patient) of the updates should be documented. In addition all pertinent dates are stored. All pertinent dates are stored, including date noted or diagnoses, dates of any changes in problem specification or prioritization, and date of resolution. This might include time stamps, where useful and appropriate. The entire problem history for any problem in the list is viewable.	DC.2.1.3 S.2.2.1 S.3.3.5 IN.2.4 IN.2.5.1 IN.2.5.2 IN.4.1 IN.4.2 IN.4.3 IN.6	1. The system **SHALL** capture, display and report all active problems associated with a patient. 2. The system **SHALL** capture, display and report a history of all problems associated with a patient. 3. The system **SHALL** provide the ability to capture onset date of a problem. 4. The system **SHOULD** provide the ability to capture the chronicity of a problem. 5. The system **SHALL** provide the ability to capture the source, date and time of all updates to the problem list. 6. The system **SHALL** provide the ability to deactivate a problem. 7. The system **MAY** provide the ability to re-activatea previously deactivated problem. 8. The system **SHOULD** provide the ability to display inactive and/or resolved problems. 9. The system **SHOULD** provide the ability to manually order/sort the problem list. 10. The system **MAY** provide the ability to asosciate encounters, orders, medications, notes with one or more problems.

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To see the DETAIL in this table, go to this resource book's APPENDIX.

Polling Question #4

Were you aware that HL7 had published a Legal EHR Functional Model?

***1 Yes**

***2 No**

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Q&A Session…

To ask a question:

- **Click the "Q&A" button near the upper-left**
- **Click "NEW"**
- **Type your question in the white box**
- **Click "SEND"**

(For LIVE seminar only)

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HL7 Legal EHR Functional Profile

Information Infrastructure	**Functions that support the reliability, integrity, security and interoperability of the LEHR-S. These functions are not involved in the provision of healthcare, but are necessary to ensure that the EHR provides safeguards. The Information Infrastructure functions provide the foundation for maintaining a legally-sound electronic health record within an EHR-S.**
Supportive Functions	**Functions that support the delivery and optimization of care, but generally do not impact the direct care of an individual patient. These functions assist with the administrative and financial requirements associated with the delivery of healthcare, provide support for medical research and public health, and improve the global quality of healthcare. From a LEHR-S perspective only a handful of Supportive functions relate to maintaining a legally sound electronic health record.**
Direct Care Functions	**Functions employed in the provision of care to individual patients and collect information that will comprise the legal electronic health record. Direct care functions are the subset of functions that enable delivery of healthcare or offer clinical decision support.**

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To see the DETAIL in this table, go to this resource book's APPENDIX.

HL7 Legal EHR Functional Profile

ID#	Type	Priority	Name	Statement/Description	See Also	Conformance Criteria	Row #	FM Source ID#	FM Source Criteria #	FM Source Criteria Status
NEW IN.2.1.1.1	F	EF	*Legal Hold Notice*	***Statement:*** *Provide a notice to EHR-S users when records are on legal hold.* ***Description/Legal Rationale:*** *In an EHR-S records that are on legal hold will be available for review and/or patient care purposes. The notice tells the user that the records are on legal hold, who to contact for questions and the general reason for the hold. Key departments and staff must be notified when a legal hold has been lifted.*	IN.6	1. *The system **SHALL** provide the ability to generate a legal hold notice which 1) Identifies that a record/document is on legal hold; 2) informs recipient who to contact for legal hold matters; 3) Describes the matter at issue; and 4) Identifies the potential sources of relevant information and legal obligation.*	78			A
						2. *The system **SHOULD** provide the ability to generate a notice to relevant personnel (HIM, IT, record custodian and others identified by the organization) to advise them when a legal hold has been lifted.*	79			A
IN.2.2	F	EN	Auditable Records	**Statement:** Provide audit capabilities for system access and usage indicating the author, the modification (where pertinent), and the date and time at which a record was created, modified, viewed, extracted, or deleted. Date and Time stamping implies the ability to indicate the time zone where it was recorded (time zones are described in ISO 8601 Standard Time Reference). Auditable		1. The system **SHALL** audit capabilities for recording access and usage of systems, data, and organizational resources.	80	IN.2.2	1	N/C
						2. The system **SHALL** conform to function IN.1.1 (Entity Authentication).	81	IN.2.2	2	N/C
						3. The system **SHALL** provide audit capabilities indicating the time stamp for an object or data creation.	82	IN.2.2	3	N/C

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To see the DETAIL in this table, go to this resource book's APPENDIX.

Vendor Selection

- **RFP – the request for proposal is a formal document detailing the functional requirements of a product.**
- **Responses to the RFP provide the customer with needed information to make a decision about which vendors to consider in the selection process.**

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Vendor Selection

- **Familiarity with CCHIT and HL7 criteria and functional models**
- **CCHIT and HL7 criteria incorporated into RFP**
- **Product evaluation using CCHIT and HL7 test scripts**

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Notes/Comments/Questions

Vendor Selection–Testing

FUNCTIONALITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

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NEW line #	Original line #	WG	Category and Description	Specific Criteria	Source or References	Priorities (L,M,H)						Availability			Compliance			Discussion / Comments	CPOE & eMAR Test Configuration 1	eMAR Only Test Configuration 2
						Providers	Vendors	Payers or Purchasers	Public Health	Patient	Quality Organizations	2007	2008	2009 and beyond	Roadmap 2007	Roadmap 2008	Roadmap 2009 and Beyond			
4.01	New	IF	4. Problem Lists Create and maintain during the inpatient stay an up-to-date list of patient-specific problems / diagnoses that are documented by a clinician	The system shall provide the ability to document a problem / diagnosis associated with a patient.													N	The intent is that an up-to-date problem list is maintained by clinicians during the hospital stay. The problem list refers only to patient-specific medical problems / diagnoses that are documented by a clinician.	X	
4.02	2.4.1	IF	4. Problem Lists	The system shall provide the ability to display different views of the problem / diagnosis list.	DC 1.4.3									X			N	For example, active, all, or resolved.	X	
4.03	2.4.2	IF	4. Problem Lists	The system shall provide the ability to document the status of a problem / diagnosis.	DC 1.4.3									X			N	For example, inactive, active, resolved, or by date.	X	
4.04	2.4.3	IF	4. Problem Lists	The system shall provide the ability to display the history of changes made to a specific problem / diagnosis, including clinician, date, and time.	DC 1.4.3									X			N		X	
4.05	New	IF	4. Problem Lists	The system shall provide the ability for the clinician to create, associate and display free text comments with the problem / diagnosis.													N		X	
4.06	New	IF	4. Problem Lists	The system shall provide the ability to print a problem / diagnosis list.													N	A screen print is not the intent in this criterion.	X	
4.07	New	IF	4. Problem Lists	The system shall provide the ability to search patient records for specific problems / diagnoses.													N		X	

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To see the DETAIL in this table, go to this resource book's APPENDIX.

Vendor Selection

- **Verification of certification**
  - **Certificate document**
  - **Seal**
  - **Listing on Web site**

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Vendor Selection

- **Purchaser complaint**
  - **Product, release and version**
  - **Purchase date**
  - **Non-compliant criteria**
  - **Attempts to resolve with vendor**
  - **CCHIT investigation**

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Existing EHR Systems

- **Adopt EHR criteria**
- **Evaluate EHR functionality**
- **Identify functionality gaps**
- **Develop mitigation plan with vendor**

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Resource/Reference List–CCHIT

CCHIT Web site: www.cchit.org

- **White papers**
- ***Physician's guide to Certification for Ambulatory EHRs***

"Taking the measure of Inpatient EHRs,"
***Journal of AHIMA* 78, no. 6 (June 2007),**
pp. 24-30
http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_034248.hcsp (member login required)

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Resource/Reference List

- **Department of Health and Human Services www.hhs.gov.healthit**
- **American Health Information Community (AHIC) www.hhs.gov/healthit/community/background/**
- **Health Information Technology Standards Panel (HITSP) www.ansi.org/standards_activities/standards_boards_panels/hisb/hitsp.aspx**
- **National Institute of Standards and Technology (NIST) http://ts.nist.gov/Standards/ssd.cfm**

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Resource/Reference List

- **RTI International**
  www.rti.org/page.cfm?nav=92
  (Information Technology)
- **Connecting for Health**
  www.Connectingforhealth.org
- **eHealth Initiative**
  www.ehealthinitiative.org
- **HL7 EHR-S Functional Profile**
  http://xreg2.nist.gov:8080/ehrsRegistry/

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Audience Questions

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  March 18, 2008
- **Defining and Maintaining the Legal Health Record**
  April 22, 2008
- **Enterprise Content Management**
  May 20, 2008

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Certificates will be awarded for AHIMA CEUs and ANCC Contact Hours.

Appendix

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CE Certificate Instructions.....37

Appendix

Resource/Reference List

CCHIT Web site: http://www.cchit.org
- White papers
- *Physician's guide to Certification for Ambulatory EHRs*

Article: "Taking the measure of Inpatient EHRs," *Journal of AHIMA* 78, no. 6 (June 2007), pp. 24-30
http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_034248.hcsp
(member login required)

Department of Health and Human Services
http://www.hhs.gov.healthit

American Health Information Community (AHIC)
http://www.hhs.gov/healthit/community/background/

Health Information Technology Standards Panel (HITSP)
http://www.ansi.org/standards_activities/standards_boards_panels/hisb/hitsp.aspx

National Institute of Standards and Technology (NIST)
http://ts.nist.gov/Standards/ssd.cfm

RTI International
http://www.rti.org/page.cfm?nav=92
(Information Technology)

Connecting for Health
http://www.Connectingforhealth.org

eHealth Initiative
http://www.ehealthinitiative.org

HL7 EHR-S Functional Profile
http://xreg2.nist.gov:8080/ehrsRegistry/

CCHIT Criteria–Functionality

FUNCTIONALITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

For initial Inpatient EHR certification, CCHIT is offering two test configurations. Test Configuration 1 includes CPOE and eMAR and is intended for vendors with a product suite addressing both processes. Test Configuration 2 is designed to make certification available for vendors whose product suite addresses electronic medication administration, but not clinician electronic order writing and medication reconciliation. The inpatient criteria below addresses both test configurations, first listed is Configuration 1, and in rows directly below Configuration 1 are the criteria included in the certification process for addressing electronic medication administration, which is Configuration 2.

Compliance Key:
P = Previous Criteria
N = New for Year
M = Modified for Year

NEW line #	Original line #	WG	Category and Description	Specific Criteria	Source or References	Priorities (L,M,H)						Availability			Compliance			Discussion / Comments	CPOE & eMAR Test Configuration 1	eMAR Only Test Configuration 2
						Providers	Vendors	Payers or Purchasers	Public Health	Patient	Quality Organization	2007	2008	2009 and beyond	Roadmap 2007	Roadmap 2008	Roadmap 2009 and Beyond			
4.01	New	IF	4. Problem Lists Create and maintain during the inpatient stay an up-to-date list of patient-specific problems / diagnoses that are documented by a clinician	The system shall provide the ability to document a problem / diagnosis associated with a patient.													N	The intent is that an up-to-date problem list is maintained by clinicians during the hospital stay. The problem list refers only to patient-specific medical problems / diagnoses that are documented by a clinician.	X	
4.02	2.4.1	IF	4. Problem Lists	The system shall provide the ability to display different views of the problem / diagnosis list.	DC 1.4.3									X			N	For example, active, all, or resolved.	X	
4.03	2.4.2	IF	4. Problem Lists	The system shall provide the ability to document the status of a problem / diagnosis.	DC 1.4.3									X			N	For example, inactive, active, resolved, or by date.	X	
4.04	2.4.3	IF	4. Problem Lists	The system shall provide the ability to display the history of changes made to a specific problem / diagnosis, including clinician, date, and time.	DC 1.4.3									X			N		X	
4.05	New	IF	4. Problem Lists	The system shall provide the ability for the clinician to create, associate and display free text comments with the problem / diagnosis.													N		X	
4.06	New	IF	4. Problem Lists	The system shall provide the ability to print a problem / diagnosis list.													N	A screen print is not the intent in this criterion.	X	
4.07	New	IF	4. Problem Lists	The system shall provide the ability to search patient records for specific problems / diagnoses.													N		X	

CCHIT Criteria–Interoperability

INTEROPERABILITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

Compliance Key:
N=New Criteria **pilot = Pilot in year**
P=Previous Criteria
M=Modified Criteria
FI=Functional Integration

For initial Inpatient EHR certification, CCHIT is offering two test configurations. Test Configuration 1 includes CPOE and eMAR and is intended for vendors with a product suite addressing both processes. Test Configuration 2 is designed to make certification available for vendors whose product suite addresses electronic medication administration, but not clinician electronic order writing and medication reconciliation. The inpatient interoperability criteria below addresses both test configurations, first listed is Configuration 1, and in rows directly below Configuration 1 are the criteria included in the certification process for addressing electronic medication administration, which is Configuration 2.

Criteria #	Category and Description	Specific Criteria	Source or References	Compliance			Discussion / Comments	CPOE & eMAR Test Configuration 1	eMAR Only Test Configuration 2	Inpatient Functionality Criteria Cross Reference
				Certify in May 2007	Roadmap for May 2008	Roadmap for May 2009 and beyond				
II-01	**Admission into Inpatient Care Setting - Medication History**	Receive Current Medication List ("patient home medications") from Pharmacy (directly), PBM (directly) or via intermediary network (e.g. SureScripts, RxHub, etc.)	NCPDP Script 8.1 (RXHREQ, RXHRES) for Current Medication List (2008) Use of RxNorm for clinical drug terminology (2009)		N	M	CCHIT will align with AHIC Medication Management Use Case development.	X		IF-11.05 The system shall provide the ability to accept information on patient home medications from prescription network intermediary. (2008 - display; 2009 codified)
II-02		Receive Current Medication List ("patient home medications") from outpatient documentation sources (e.g., Physicians office EMR) or RHIO/network	HL7/ASTM CCD for Current Medication List (2008) Use of RxNorm for clinical drug terminology (2009)		N	M	CCHIT will align with AHIC Medication Management Use Case development.	X		IF-11.03 The system shall provide the ability to accept information on patient home medications from an external source. (2008 - display; 2009 codified)
II-03		Receive Current Medication List ("patient home medications") from Health Plans	TBD			N	CCHIT will align with AHIC Medication Management Use Case development.	X		IF-11.03 The system shall provide the ability to accept information on patient home medications from an external source. (2008 - display; 2009 codified)
II-04		Receive / import Current Medication List and Medication History from a PHR	HITSP IS-03 Consumer Empowerment			pilot	HITSP IS-03 CE includes HL7/ASTM CCD and terminology standards in HITSP/ISC-32 Registration and Medication History Document Content Component	X		IF-11.03 The system shall provide the ability to accept information on patient home medications from an external source. (2008 - display; 2009 codified)

CCHIT Criteria–Security & Reliability

SECURITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

Legend:
Provisional Criteria (2007) are highlighted in yellow
P= Previous
N= New
M= Modified

Line #	WG	Category and Description	Specific Criteria	Source or References * See end of document for references.	Compliance: Certify in May 2007	Compliance: Roadmap for May 2008	Compliance: Roadmap for May 2009 and beyond	Discussion/Comments
S1	Sec	Security: Access Control	The system shall enforce the most restrictive set of rights/privileges or accesses needed by users/groups (e.g. System Administration, Clerical, Nurse, Doctor, etc.), or processes acting on behalf of users, for the performance of specified tasks.	ISO 17799: 9.1.1.2.b; HIPAA: 164.312(a)(1)	P			
S2			The system shall provide the ability for authorized administrators to assign restrictions or privileges to users/groups.	Canadian: Alberta 4.1.3 (EMR); CC SFR: FMT_MSA; SP800-53: AC-5 LEAST PRIVILEGE; HIPAA: 164.312(a)(1)	P			
S3			The system must be able to associate permissions with a user using one or more of the following access controls: 1) user-based (access rights assigned to each user); 2) role-based (users are grouped and access rights assigned to these groups); or 3) context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as time-of-day, workstation-location, emergency-mode, etc.)	Canadian: Ontario 5.3.12.e (System Access Management); CC SFR: FDP_ACC, FMT_MSA; ASTM: E1985-98; SP800-53: AC-3 ACCESS AND INFORMATION FLOW CONTROL; HIPAA: 164.312(a)(1)	P			
S4			The system shall support removal of a user's privileges without deleting the user from the system. The purpose of the criteria is to provide the ability to remove a user's privileges, but maintain a history of the user in the system.		M			

Comparison–CCHIT and HL7

FUNCTIONALITY Criteria
For 2007 Certification of Inpatient EHRs
FINAL

For initial Inpatient EHR certification, CCHIT is offering two test configurations. Test Configuration 1 includes CPOE and eMAR and is intended for vendors with a product suite addressing both processes. Test Configuration 2 is designed to make certification available for vendors whose product suite addresses electronic medication administration, but not clinician electronic order writing and medication reconciliation. The inpatient criteria below addresses both test configurations, first listed is Configuration 1, and in rows directly below Configuration 1 are the criteria included in the certification process for addressing electronic medication administration, which is Configuration 2.

Compliance Key:
P = Previous Criteria
N = New for Year
M = Modified for Year

NEW line #	Original line #	WG	Category and Description	Specific Criteria	Source or References	Priorities (L,M,H)						Availability			Compliance			Discussion / Comments	CPOE & eMAR Test Configuration 1	eMAR Only Test Configuration 2
						Providers	Vendors	Payers or Purchasers	Public Health	Patient	Quality Organizatior	2007	2008	2009 and beyond	Roadmap 2007	Roadmap 2008	Roadmap 2009 and Beyond			
4.01	New	IF	4. Problem Lists Create and maintain during the inpatient stay an up-to-date list of patient-specific problems / diagnoses that are documented by a clinician	The system shall provide the ability to document a problem / diagnosis associated with a patient.													N	The intent is that an up-to-date problem list is maintained by clinicians during the hospital stay. The problem list refers only to patient-specific medical problems / diagnoses that are documented by a clinician.	X	
4.02	2.4.1	IF	4. Problem Lists	The system shall provide the ability to display different views of the problem / diagnosis list.	DC 1.4.3									X			N	For example, active, all, or resolved.	X	
4.03	2.4.2	IF	4. Problem Lists	The system shall provide the ability to document the status of a problem / diagnosis.	DC 1.4.3									X			N	For example, inactive, active, resolved, or by date.	X	
4.04	2.4.3	IF	4. Problem Lists	The system shall provide the ability to display the history of changes made to a specific problem / diagnosis, including clinician, date, and time.	DC 1.4.3									X			N		X	

Comparison–CCHIT and HL7

ID#	Type	Name	Statement/Description	See Also	Conformance Criteria
DC.1.4.3	**F**	Manage Problem List	**Statement:** Create and maintain patient-specific problem lists. **Description:** A problem list may include, but is not limited to: Chronic conditions, diagnoses, or symptoms, functional limitations, visit or stay-specific conditions, diagnoses, or symptoms. Problem lists are managed over time, whether over the ocurse of a visit or stay or the life of a patient, allowing documentation of historical information and tracking the changing character of problem(s) and their priority. The source (e.g. the provider, the system id, or the patient) of the updates should be documented. In addition all pertinent dates are stored. All pertinent dates are stored, including date noted or diagnoses, dates of any changes in problem specification or prioritization, and date of resolution. This might include time stamps, where useful and appropriate. The entire problem history for any problem in the list is viewable.	DC.2.1.3 S.2.2.1 S.3.3.5 IN.2.4 IN.2.5.1 IN.2.5.2 IN.4.1 IN.4.2 IN.4.3 IN.6	1. The system **SHALL** capture, display and report all active problems associated with a patient. 2. The system **SHALL** capture, display and report a history of all problems associated with a patient. 3. The system **SHALL** provide the ability to capture onset date of a problem. 4. The system **SHOULD** provide the ability to capture the chronicity of a problem. 5. The system **SHALL** provide the ability to capture the source, date and time of all updates to the problem list. 6. The system **SHALL** provide the ability to deactivate a problem. 7. The system **MAY** provide the ability to re-activatea previously deactivated problem. 8. The system **SHOULD** provide the ability to display inactive and/or resolved problems. 9. The system **SHOULD** provide the ability to manually order/sort the problem list. 10. The system **MAY** provide the ability to asosciate encounters, orders, medications, notes with one or more problems.

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HL7 Legal EHR Functional Profile

Information Infrastructure	**Functions that support the reliability, integrity, security and interoperability of the LEHR-S. These functions are not involved in the provision of healthcare, but are necessary to ensure that the EHR provides safeguards. The Information Infrastructure functions provide the foundation for maintaining a legally-sound electronic health record within an EHR-S.**
Supportive Functions	**Functions that support the delivery and optimization of care, but generally do not impact the direct care of an individual patient. These functions assist with the administrative and financial requirements associated with the delivery of healthcare, provide support for medical research and public health, and improve the global quality of healthcare. From a LEHR-S perspective only a handful of Supportive functions relate to maintaining a legally sound electronic health record.**
Direct Care Functions	**Functions employed in the provision of care to individual patients and collect information that will comprise the legal electronic health record. Direct care functions are the subset of functions that enable delivery of healthcare or offer clinical decision support.**

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HL7 Legal EHR Functional Profile

ID#	Type	Priority	Name	Statement/Description	See Also	Conformance Criteria	Row #	FM Source		
								ID#	Criteria #	Criteria Status
NEW IN.2.1.1.1	F	EF	*Legal Hold Notice*	***Statement:*** *Provide a notice to EHR-S users when records are on legal hold.* ***Description/Legal Rationale:*** *In an EHR-S records that are on legal hold will be available for review and/or patient care purposes. The notice tells the user that the records are on legal hold, who to contact for questions and the general reason for the hold. Key departments and staff must be notified when a legal hold has been lifted.*	IN.6	1. *The system **SHALL** provide the ability to generate a legal hold notice which 1) Identifies that a record/document is on legal hold; 2) Informs recipient who to contact for legal hold matters; 3) Describes the matter at issue; and 4) Identifies the potential sources of relevant information and legal obligation.*	78			A
						2. *The system **SHOULD** provide the ability to generate a notice to relevant personnel (HIM, IT, record custodian and others identified by the organization) to advise them when a legal hold has been lifted.*	79			A
IN.2.2	F	EN	Auditable Records	**Statement:** Provide audit capabilities for system access and usage indicating the author, the modification (where pertinent), and the date and time at which a record was created, modified, viewed, extracted, or deleted. Date and Time stamping implies the ability to indicate the time zone where it was recorded (time zones are described in ISO 8601 Standard Time Reference). Auditable		1. The system **SHALL** audit capabilities for recording access and usage of systems, data, and organizational resources.	80	IN.2.2	1	N/C
						2. The system **SHALL** conform to function IN.1.1 (Entity Authentication).	81	IN.2.2	2	N/C
						3. The system **SHALL** provide audit capabilities indicating the time stamp for an object or data creation.	82	IN.2.2	3	N/C

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the evaluation.

Each participant expecting to receive continuing education credit must complete the online evaluation and sign-in information after the webinar, in order to view and print the CE certificate.