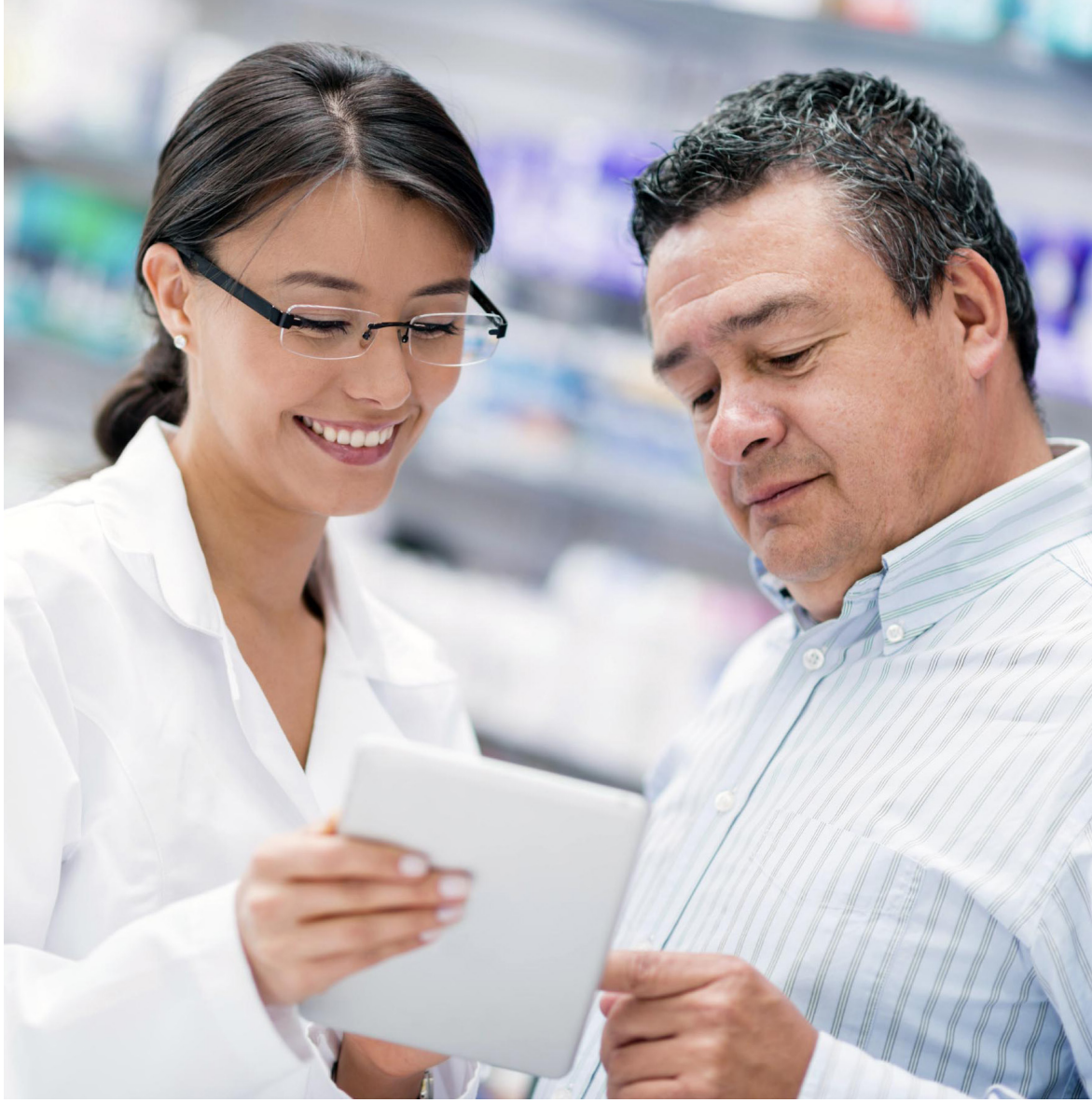
Electronic Health Record Certification: Making the Pharmacist's Case to System Vendors by Practice Specific Settings

May 30, 2016

Pharmacy Health Information Technology Collaborative

Table of Contents



1. BACKGROUND/OVERVIEW

Pharmacy practices are generally divided into community, hospital and long-term post-acute care (e.g., nursing facilities, home care, and hospice) settings. It is important to recognize the diversity of pharmacy system needs within each practice. The community setting definition could apply to ambulatory clinic settings, physician office settings, and telehealth situations. When defining clinical functionality within pharmacy systems an overall Electronic Health Record (EHR) functional profile[1] has been defined. Depending upon clinical practice setting, specific functionality could be customized.

The Health Level Seven (HL7) EHR Functional Model[2] is the basis for the Pharmacist/Pharmacy EHR Functional Profile. Future versions of the HL7 EHR Functional Model have been developed[3] but have not been adopted into regulation. For the pharmacy community setting, a document defining required performance criteria is available[4] and is a guide for system vendors to use to develop a pharmacist/pharmacy EHR.

Future standards are being developed to streamline EHR programming and implementation. One such HL7 standard framework is Fast Health care Interoperability Resources (FHIR®). FHIR leverages web standards with a focus of quick implementation. FHIR is built using a set of modular components called "resources" assembled into systems. FHIR is flexible enough to be used in mobile phone applications (apps), cloud communications, EHR-based data sharing, server communication, and more.[5]

Pharmacy management systems today are focused mainly on receiving electronic prescriptions, documenting prescription dispensing functions, and exchanging claims-based information as pharmacists take on a more clinical role.

According to the Pharmacy Times article, "Pharmacists' Clinical Role in Health IT: Access, Connectivity, and Quality":

> "Imagine somebody being released from the hospital and the reconciled medication list is electronically available with a medication action plan (MAP) at the pharmacy prior to their showing up to pick up their discharge medications. The pharmacist would be able to counsel the patient, document any feedback, and reinforce discontinuation of duplicate prescriptions or interaction with non-prescription medications. These actions would help to reduce the possibility of hospital readmission due to medication errors. All this documentation would be electronically exchanged with other health care providers and sent to the patient's electronic personal health record (PHR) through a health information exchange (HIE).
>
> Pharmacists working in all types of practice settings collect, document, and exchange clinical information differently. Even the pharmacy management systems we use are individually geared to our own work flow. Other care providers, especially physicians and hospitals, are moving toward a standard electronic way of capturing and exchanging health information. A good analogy is how we receive e-mails. Each person uses their own e-mail system (Outlook, Google, Microsoft) and although we write e-mail in these proprietary systems, somehow we get the e-mail and can read it. This is because the e-mail is transported using standards.
>
> In pharmacy, we see this with standard electronic claims, electronic prescribing, electronic submission of immunization/registry information, and the formation of state HIEs to transport the standard message (e.g., laboratory data, discharge summaries, patient care summaries). As in our e-mail analogy, imbedded within the e-mail we receive attachments (e.g., word documents, PDFs, spreadsheets, pictures). These structured documents follow standards so they can be read by any computer system that has the functionality to read the attachment. The same is true for the HIT environment."[6]

The pharmacy professional must adopt relevant clinical terminology used by other health care providers in order for pharmacy systems to exchange patient's clinical information with other health care providers. With the help of the Pharmacy HIT Collaborative, major national pharmacy associations are working together to define technology-based standardized terminology for pharmacy-based process of care and medication therapy management services. The use of defined problem lists (i.e., a list of current and active diagnoses, as well as past diagnoses relevant to the current care of the patient) are functions being included within the standardized terminology currently under development.[7]

This paper will provide guidance to pharmacists with regard to the value of working with their pharmacy management system vendor(s) to encourage the development of functional, certified electronic health records (EHRs).

The Office of the National Coordinator for Health Information Technology (ONC) is responsible for developing the functional and conformance requirements for the testing and EHRs certification that meets the specific certification criteria adopted by the Health and Human Services (HHS) Secretary. Only ONC approved test methods can be used for certification in the ONC HIT

Certification Program. The Test Methods include test procedures, test data, and test tools used by ONC-approved certification bodies (ONC-ACBs) to evaluate the conformance and functionality of EHR Modules (e.g. Pharmacist/Pharmacy EHRs). The intent of this guidance document is to assist the industry with the modular certification approach that can be customized to pharmacy specific practice settings.

BENEFITS OF USING ONC RECOMMENDATIONS FOR EHR CERTIFICATION ADOPTION BY SYSTEM VENDORS

For pharmacists, the opportunity to electronically access, capture, and integrate patient-related clinical information (non-medication dispensing information) from other health care providers into their workflow is most important. The exchange of clinical information will permit better usability of such patient information by pharmacists providing a variety of clinical services, including medication management, preventive services, and disease monitoring. Documentation of clinical services provided by the pharmacist can be electronically integrated into the patient's health record, where it is more readily available for other providers to use and incorporate into the care of the patient. The electronic exchange of a patient's health care information promotes a better continuum of care for the patient, and allows pharmacist's involvement in that care to become more obvious when medication management documentation is included within the patient's electronic records. Encouraging system vendors to adopt EHR certification, will better position pharmacists to be able to electronically collect, document, and exchange clinical information using their own pharmacy management systems following their own clinical workflow processes.

2. PURPOSE

This paper will provide guidance to pharmacists regarding the value in encouraging vendors to adopt practice specific EHR certification for pharmacy systems.

GOALS:

- Encourage vendors of pharmacy systems to create systems capable of connecting and exchanging patient information with other health care providers and/or systems.
- Use Meaningful Use Stage 3 EHR 2015 Proposed Certification Criteria.
- Identify steps and provide guidance to pharmacists and system vendors to promote the development and use of practice specific EHR certification for pharmacy systems.
- Develop value propositions defining the benefits of standardization.

3. RECOMMENDATIONS FOR ACTION

- Disseminate the guidance document for pharmacists concerning the value of working with their system vendors to seek EHR certification for pharmacy systems.
- Use ONC 2014 Edition Release 2 EHR Certification Criteria Test Procedures and applicable test data files.
- Use Meaningful Use Stage 3 EHR 2015 Proposed Certification Criteria.[8]

3.1.1 ONC 2014 EDITION RELEASE 2 EHR CERTIFICATION CRITERIA TEST PROCEDURES

ONC develops the functional and conformance testing requirements for the testing and EHRs certification that meets the certification criteria adopted by the HHS Secretary. Only ONC approved test methods 2014 Edition Release 2 Test Procedures[9] can test products intended for certification in the ONC HIT Certification Program. The test methods include test procedures, test data, and test tools used by ONC-ACBs to evaluate the conformance and functionality of EHR Modules (e.g., Pharmacist/Pharmacy EHRs). The "Test Procedure Overview" document[10] describes test procedure structure for evaluating conformance of EHR technology.

As part of the ONC 2014 Edition Release 2 EHR Certification Criteria, ONC provided Test Procedures and applicable test data files (see Table: 2014 Test Procedures located in the section 4 RESOURCES AND REFERENCES of this document).

3.1.2 ONC RELEASED EHR CERTIFICATION GUIDANCE FOR INELIGIBLE PROVIDERS

In 2015, ONC released certification guidance for EHR technology developers serving health care providers ineligible for Medicare and Medicaid EHR incentive payments. This would include pharmacists.

The purpose of this guidance

> "is meant to serve as a building block for federal agencies and stakeholders to use as they work with different communities to achieve interoperable electronic health information exchange. It identifies the 2014 Edition EHR certification criteria from the ONC HIT Certification Program that specifically focus on interoperability – to enable electronic health information to be both exchanged and subsequently used by recipients. While these certification criteria were specifically adopted to support health care providers seeking to achieve meaningful use, we believe that they are generally applicable to many health care settings .In addition, the capabilities expressed by some of these certification criteria could, if implemented by both eligible and ineligible types of providers, open critical communication lines between eligible and ineligible health care providers in order to support broad health care goals, such as care coordination and reduced hospital readmissions.[11]

Common Clinical Data Set "includes key health data that should be accessible and available for exchange. Data must conform with specified vocabulary standards and code sets, as applicable."[12]

Patient name	Lab tests
Sex	Lab values/results
Date of birth	Vital signs (changed from proposed rule)
Race	Procedures
Ethnicity	Care team members
Preferred language	Immunizations
Problems	Unique device identifiers for implantable devices
Smoking status	Assessment and plan of treatment
Medications	Goals
Medication allergies	Health concerns

2015 BASE EHR DEFINITIONS AND CERTIFICATION CRITERIA[13]

Base EHR Capabilities	Certification Criteria
Includes patient demographic and clinical health information, such as medical history and problem lists	Demographics § 170.315(a)(5) Problem List § 170.315(a)(6) Medication List § 170.315(a)(7) Medication Allergy List § 170.315(a)(8) Smoking Status § 170.315(a)(11) Implantable Device List § 170.315(a)(14)
Capacity to provide clinical decision support	Clinical Decision Support § 170.315(a)(9)
Capacity to support physician order entry	Computerized Provider Order Entry (medications, laboratory, or diagnostic imaging) § 170.315(a)(1), (2) or (3)
Capacity to capture and query information relevant to health care quality	Clinical Quality Measures – Record and Export § 170.315(c)(1)
Capacity to exchange electronic health information with, and integrate such information from other sources	Transitions of Care § 170.315(b)(1) Data Export § 170.315(b)(6) Application Access – Patient Selection § 170.315(g)(7) Application Access – Data Category Request § 170.315(g)(8) Application Access – All Data Request § 170.315(g)(9) Direct Project § 170.315(h)(1) or Direct Project, Edge Protocol, and XDR/XDM § 170.315(h)(2)

3.2. CERTIFICATION EXAMPLES FOR COMMUNITY PHARMACY

The following scenarios detail a variety of examples for pharmacists to discuss with system vendors how to utilize the EHR Certification process within the community pharmacy settings. This settings definition could apply to ambulatory clinic settings, physician office settings, and telehealth situations.

It's important to note the following: the receiving entity—the community pharmacy EHR system—needs to communicate with the sending entity—hospital EHR system—either through an HIE, using the Direct protocol, a national encryption standard for securely exchanging clinical health care data via the Internet,[14] or through a proprietary clinical exchange network (e.g., Surescripts) using secure transport specifications. The receiving entity—the community pharmacy system—needs to have the ability to either read or integrate the electronic structured document (in this scenario continuity of care document (CCD) template) into the pharmacy EHR system.

The community pharmacy system needs the capability to communicate with a receiving entity using the above protocols in order to send transitions-of-care or clinical information contained in a consolidated clinical document architecture (C-CDA)[15] outlined in the scenarios below.

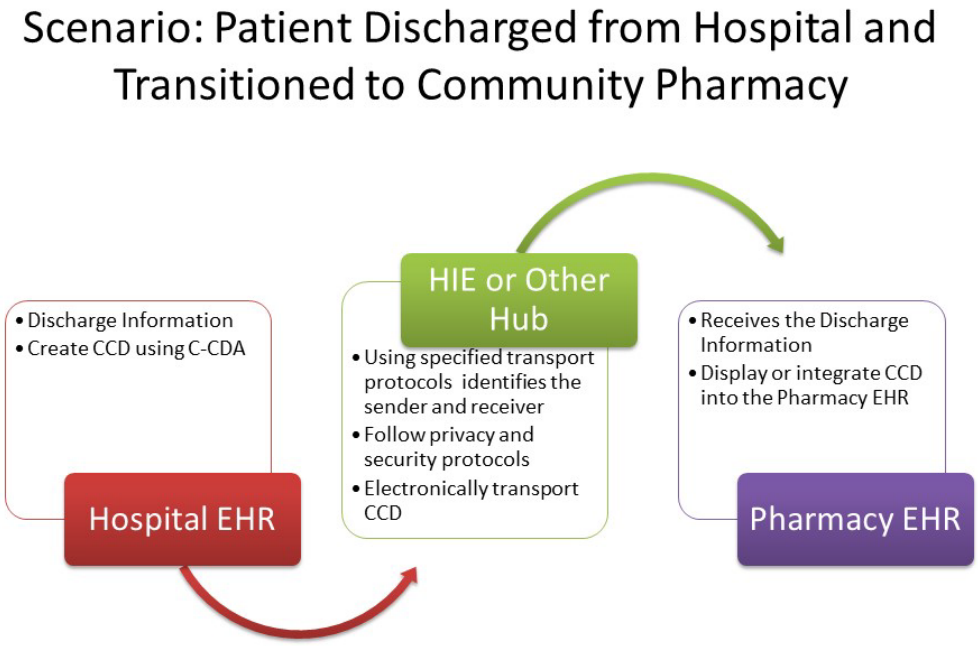
3.2.1 TRANSITIONS-OF-CARE SCENARIO (COMMUNITY PHARMACY SETTING)

One component of the certification criteria requires EHR technology to enable a pharmacist, at a minimum, to view, receive, download, and send or transmit summary of patient care records using electronic structured documents with a common data set, in accordance with the Health Level 7 (HL7) C-CDA standard.

Using a scenario of a patient being discharged from the hospital and going to his or her community pharmacy as part of the transition from the hospital setting to the community or ambulatory setting, the sending entity—the hospital EHR system—creates an electronic structured document using C-CDA (HL7 CDA R2 standard implementation guides for the electronic structured document—CCD).[16]

The receiving entity—the community pharmacy EHR system—needs to receive the C-CDA document (View and Download).

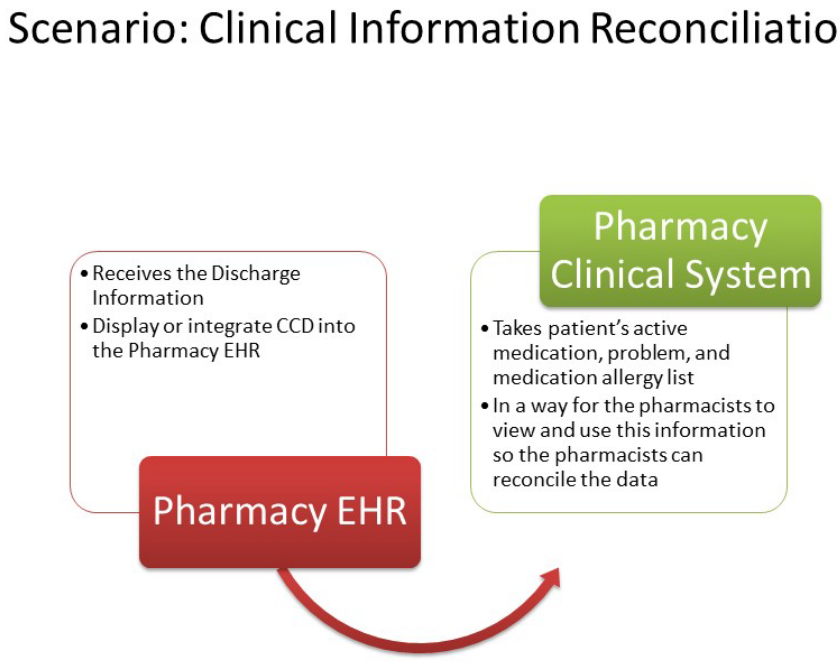
The pharmacy EHR system needs to make these sections available to the pharmacist so they can view and use this information and can reconcile the data. How the pharmacy EHR system performs these functions is proprietary to the system vendor.



3.2.2 CLINICAL INFORMATION RECONCILIATION SCENARIO (COMMUNITY PHARMACY SETTING)

A second component of the certification criteria requires EHR technology to allow users to electronically reconcile the data that represent a patient's active medications, problems (i.e., problem list of current and active diagnoses, as well as past diagnoses relevant to the current care of the patient[17] and medication allergy list).

Using the same scenario of a patient being discharged from the hospital and going to a community pharmacy as part of the transition from the hospital setting to the community or ambulatory setting, the receiving entity—the community pharmacy EHR system—receives the C-CDA document (View and Download) to allow the pharmacist to reconcile the data sent electronically by the sending entity—hospital EHR system (the C-CDA document). The data within the C-CDA are divided into sections (e.g., patient's active medication; problem and medication allergy lists). The pharmacy EHR system needs to make these sections available so the pharmacist can view and use this information and reconcile the data. How the pharmacy EHR system performs these functions is proprietary to the system vendor.

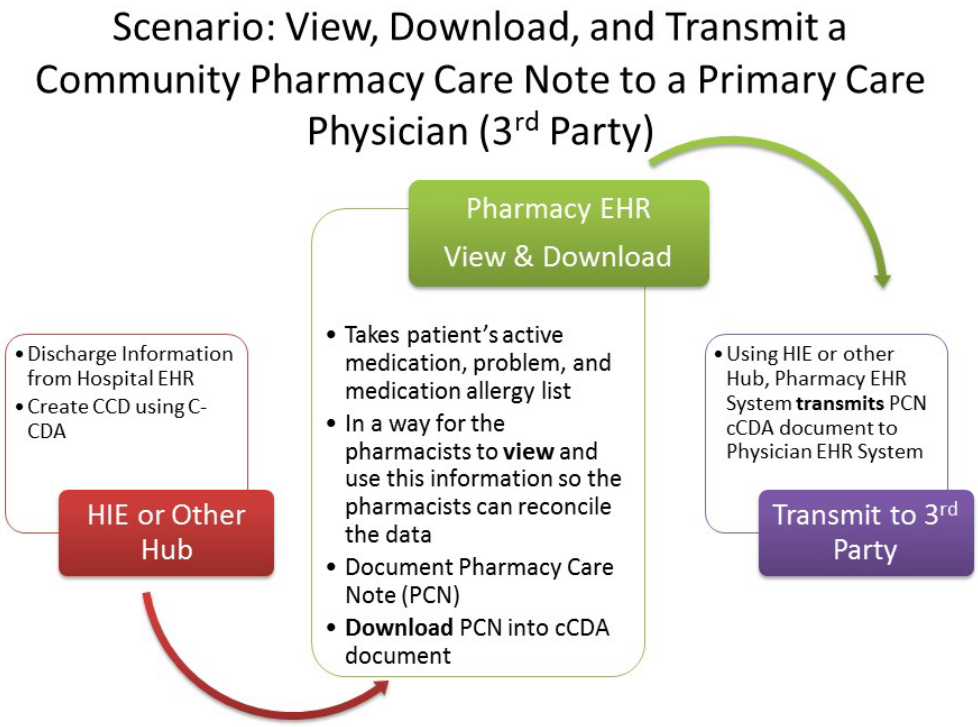


3.2.3 VIEW, DOWNLOAD, AND TRANSMIT TO A THIRD PARTY SCENARIO (COMMUNITY PHARMACY SETTING)

The third component of the certification criteria requires EHR technology to view, download, and transmit to a third party (another entity sending or receiving a C-CDA) reconciled data that represents a patient's active medications, problems, medication allergies, and pharmacy care notes.[18,19]

Using the same scenario of a patient being discharged from the hospital and going to a community pharmacy as part of the transition from the hospital setting to the community or ambulatory setting, the receiving entity—the community pharmacy EHR system—needs to make the data contained in C-CDA viewable and downloadable for the community pharmacist. How the community pharmacy EHR system uses and views the data (user interface) is proprietary to the system vendor. The community pharmacist electronically reconciles the data and documents into a pharmacy care note.

The reconciled data is contained in a C-CDA version of the pharmacy care note. The community pharmacy EHR system would then be ready to transmit the C-CDA or electronic version of the pharmacy care note to the primary care provider's EHR system (third party) or any other system needing the pharmacy care note.



3.3 CERTIFICATION EXAMPLES FOR HOSPITAL PHARMACY SETTINGS

The scenarios discussed in this section (3.3 - 3.3.4) detail examples for pharmacists to use in discussing with system vendors the EHR Certification process applicable to hospital pharmacy settings. These scenarios will not apply to clinical information remaining within the same EHR system, such as when a patient is being discharged from a hospital; when a patient uses the outpatient pharmacy for services; and when the pharmacist conducting the transitions-of-care review has access to and uses the discharging hospital's EHR.

It's important to note the following: the receiving entity (e.g., the hospital pharmacy EHR system) needs to communicate with the sending entity (e.g., community pharmacy EHR system) through an HIE, using the Direct protocol, a national encryption standard for securely exchanging clinical health care data via the Internet[20] or through a proprietary clinical exchange network (e.g., Surescripts) using secure transport specifications. The receiving entity (e.g., the hospital pharmacy system) needs to have the ability to either read or integrate the electronic structured document (in this scenario CCD template) into the pharmacy EHR system.

The hospital pharmacy system, when serving as the sending entity, needs to communicate with the receiving entity using the Direct protocol outlined in the ONC Direct Project[21] to send the transitions-of-care or clinical information contained in a C-CDA as outlined in the scenarios below.

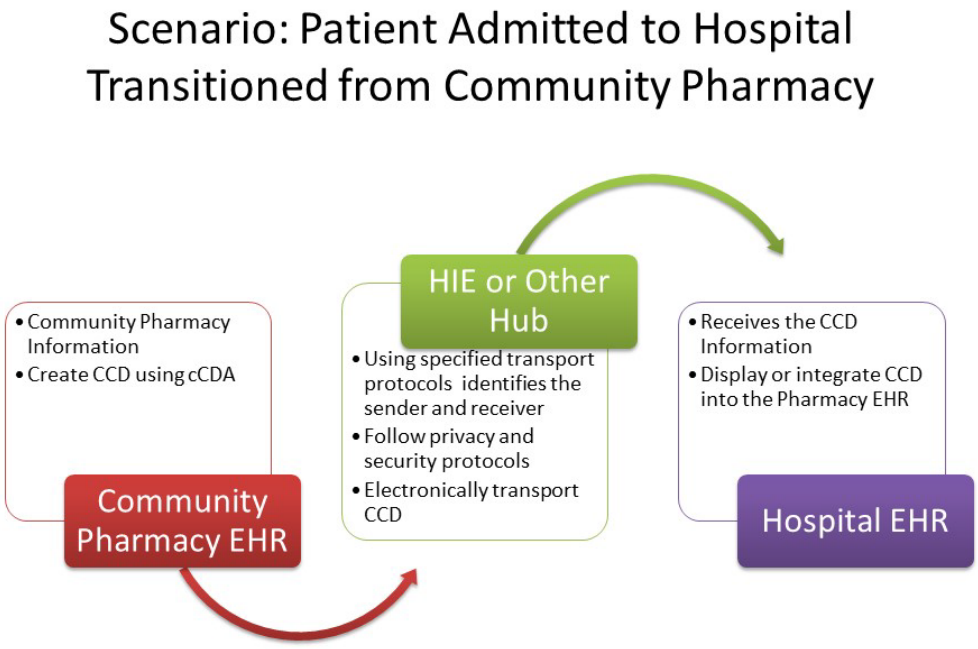
3.3.1 TRANSITIONS-OF-CARE SCENARIO (HOSPITAL PHARMACY SETTING)

One component of the certification criteria requires EHR technology to enable a pharmacist, at a minimum, to view, receive, download, and send or transmit summary of patient care records using electronic structured documents with a common data set, in accordance with the HL7 C-CDA standard.

Using a scenario of a patient being admitted to the hospital from a community setting, the hospital, as part of the transition from the community setting, queries (asks for) through a hub or HIE information for the patient from their community pharmacy. The hospital EHR system receives the information in the form of an electronic structured document C-CDA (HL7 CDA R2 standard implementation guides for the electronic structured document–CCD.[22]

The receiving entity—the hospital pharmacy EHR module—needs to receive the C-CDA document (View and Download).

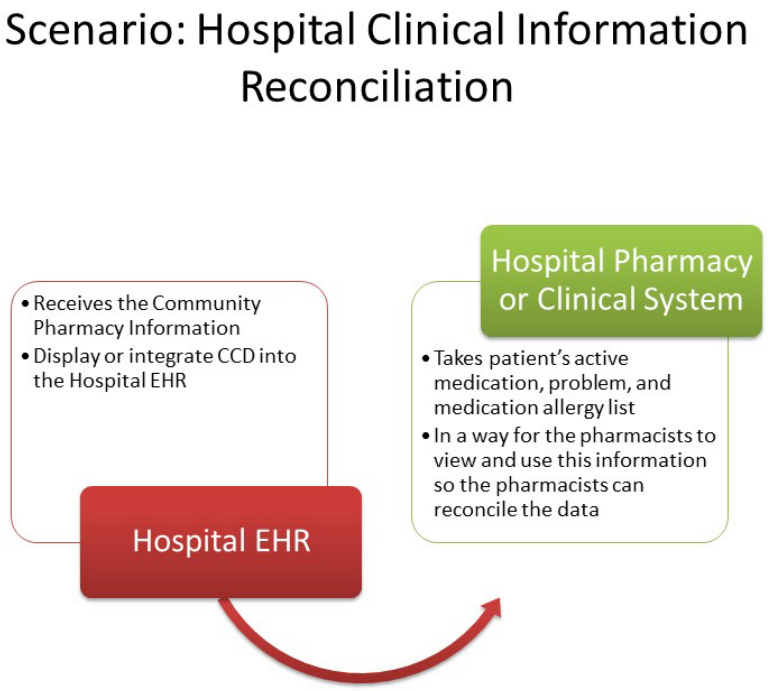
The pharmacy EHR system needs to make these sections available to the pharmacist so the pharmacist can view and use this information and can reconcile the data. How the pharmacy EHR system performs these functions is proprietary to the system vendor.



3.3.2 CLINICAL INFORMATION RECONCILIATION SCENARIO (HOSPTIAL PHARMACY SETTING)

Another component of the certification criteria requires EHR technology to allow users to electronically reconcile the data that represent a patient's active medications, medication allergy list, and problem list.[23]

Using a scenario of a patient being discharged from the hospital and going to a community pharmacy as part of the transition from the hospital setting to the community or ambulatory setting, the receiving entity—the community pharmacy EHR system—needs to receive the C-CDA document (View and Download) so the pharmacist can reconcile the data sent electronically by the sending entity—hospital EHR system (the C-CDA document). The data are divided into sections (e.g., patient's active medications, medication allergy list and problem list). The pharmacy EHR system needs to make these sections available to the pharmacist so the pharmacist can view and use this information and can reconcile the data. How the pharmacy EHR system performs these functions is proprietary to the system vendor.



3.3.3 VIEW, DOWNLOAD, AND TRANSMIT TO THIRD PARTY SCENARIO (HOSPITAL PHARMACY SETTING)

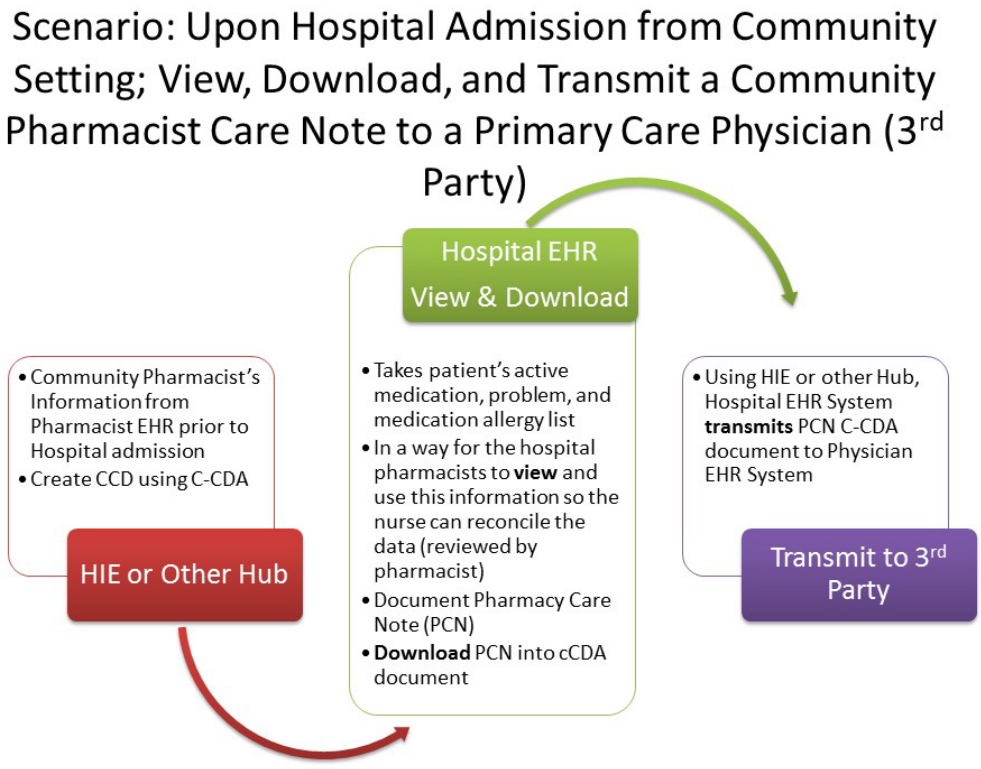
The third component of the certification criteria requires inpatient EHR technology to allow the patient, or their authorized representative, to view, download, and transmit to a third party, patient health summary information and transition-of-care/referral summaries. Transmission is via the Direct Project protocol, and thus the third party must be a Direct participant.

In the scenario where a patient has been discharged from a hospital, that hospital's EHR system

- must provide a mechanism for the patient (or representative) to view the patient's health information summary (the "common clinical data set"), as well as admission/discharge date(s), locations, discharge instructions, and reason for hospitalization;
- must provide a mechanism for the patient (or representative) to download this information, plus any associated transition of care or referral summaries;
- must provide a mechanism for the information to be sent to a third party (e.g., another health care provider or facility), registered on the Direct Project Network, identified by the patient (or representative).

The mechanisms employed are not specified in the certification criteria. The certification criteria require that the functionality exist and specify the minimum content of the displayed information or documents.

In this scenario, the hospital pharmacy will not have direct control over the content of the health summary information, transition-of-care, or referral summaries. The hospital pharmacy, however, should be engaged in the medication reconciliation process that results in the medication information on the documents.



3.4 CERTIFICATION EXAMPLES FOR LTPAC PHARMACY

The following scenarios detail examples for pharmacists use in discussing with system vendors how to utilize the EHR Certification process within the long-term and post-acute care (LTPAC) pharmacy settings.

It's important to note the following: the receiving entity—the LTPAC EHR system—needs to communicate with the sending entity—hospital EHR system or community pharmacy system—either through an HIE, using the Direct protocol, or a national encryption standard for securely exchanging clinical health care data via the Internet[24] using secure transport specifications. The receiving entity—the LTPAC—needs to have the ability to either read or integrate the electronic structured document (in this scenario CCD template) into the pharmacy EHR system.

The LTPAC pharmacy system also needs the capability to communicate with a receiving entity using the above protocols in order to send transitions-of-care or clinical information contained in a C-CDA[25] outlined in the scenarios below.

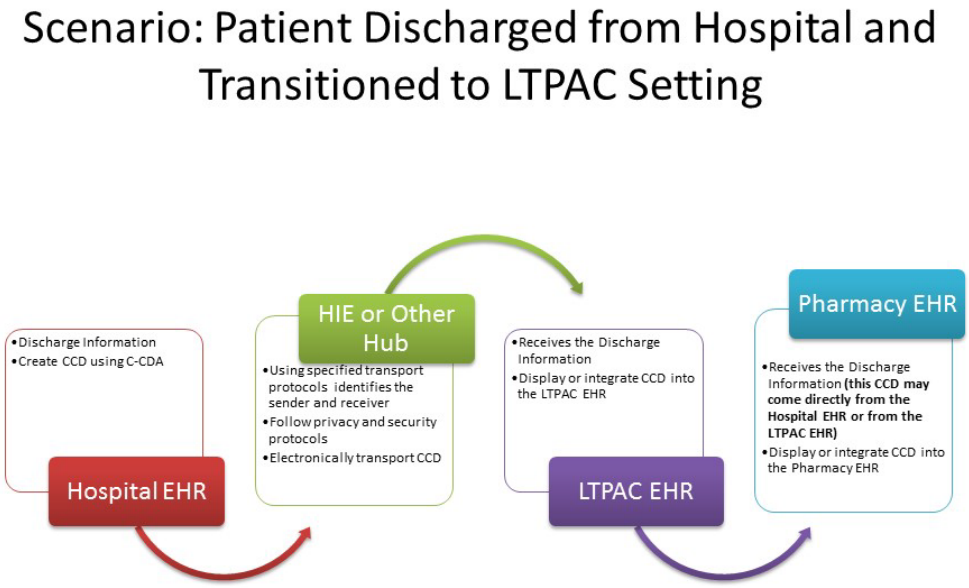
3.4.1 TRANSITIONS-OF-CARE SCENARIO (LTPAC PHARMACY SETTING)

One component of the certification criteria requires EHR technology to enable a pharmacist, at a minimum, to view, receive, download, and send or transmit summary of patient care records using electronic structured documents with a common data set, in accordance with the Health Level 7 (HL7) C-CDA standard.

Using a scenario of a patient being discharged from the hospital and going to an LTPAC as part of the transition from the hospital setting, the sending entity—the hospital EHR system—creates an electronic structured document using C-CDA (HL7 CDA R2 standard implementation guides for the electronic structured document—CCD).[26]

The receiving entities—LTPAC EHR system and the pharmacy EHR system—need to receive the C-CDA document (View and Download). The pharmacy EHR system may receive the C-CDA from either the hospital or the LTPAC EHR system.

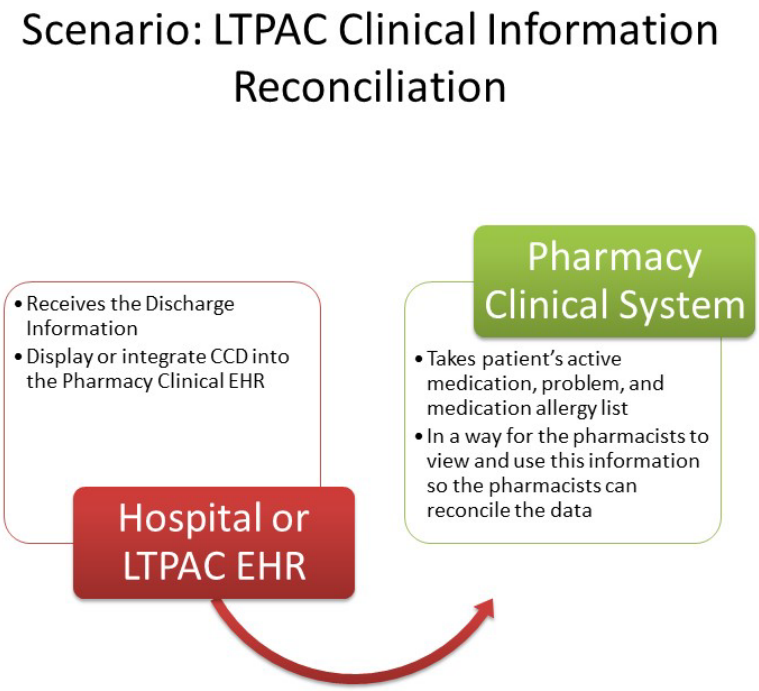
The pharmacy EHR system needs to make these sections available to the pharmacist so the pharmacist can view and use this information and can reconcile the data. How the pharmacy EHR system performs these functions is proprietary to the system vendor.



3.4.2 CLINICAL INFORMATION RECONCILIATION SCENARIO (LTPAC PHARMACY SETTING)

A second component of the certification criteria requires EHR technology to allow users to electronically reconcile the data that represent a patient's active medications, problems (i.e., problem list of current and active diagnoses, as well as past diagnoses relevant to the current care of the patient[27] and medication allergy list).

Using the same scenario of a patient being discharged from the hospital and going to an LTPAC as part of the transition from the hospital setting, the receiving entity—the LTPAC EHR system and/or the pharmacy EHR system—receives the C-CDA document (View and Download) to allow the pharmacist to reconcile the data sent electronically by the sending entity—hospital EHR system (the C-CDA document). The data within the C-CDA are divided into sections (e.g., patient's active medication; problem and medication allergy lists). The pharmacy EHR system needs to make these sections available to the pharmacist so they can view and use this information and can reconcile the data. How the pharmacy EHR system performs these functions is proprietary to the system vendor.



3.4.3 VIEW, DOWNLOAD, AND TRANSMIT TO THIRD PARTY SCENARIO (LTPAC PHARMACY SETTING)

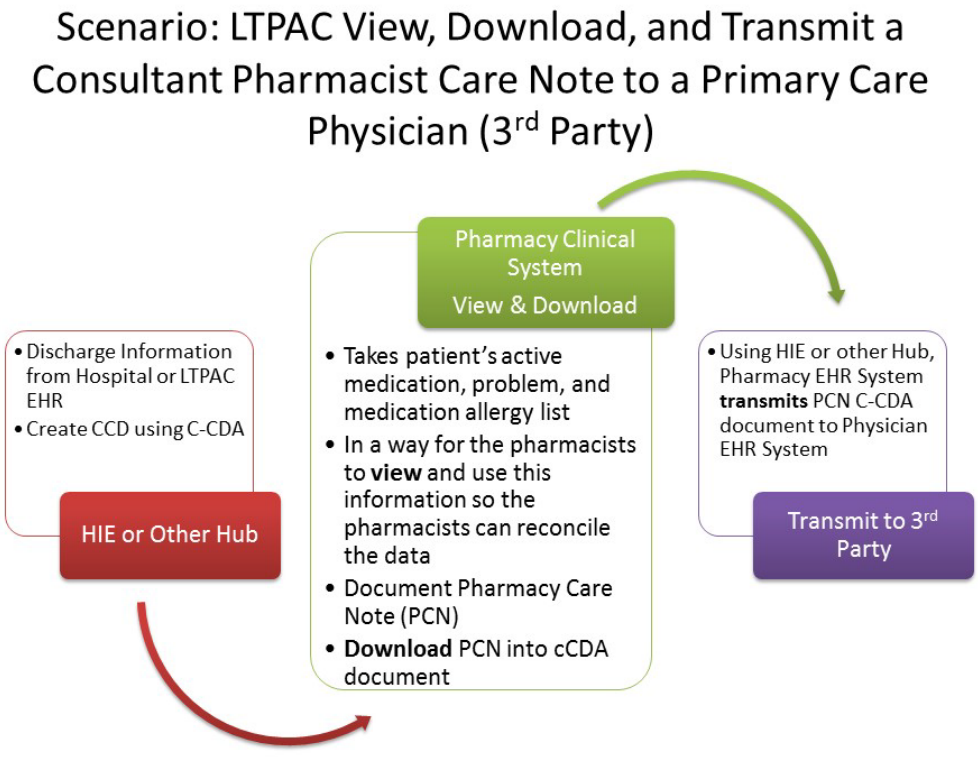
The third component of the certification criteria requires hospital EHR technology to allow the patient, or their authorized representative (LTPAC setting), to view, download, and transmit to a third party, patient health summary information and transition-of-care/referral summaries. Transmission is via the Direct Project protocol, and thus the third party must also be a Direct participant.

In the scenario where a patient has been discharged from a hospital setting to a LTPAC setting, that hospital's EHR system

- must provide a mechanism for the patient (or representative in this case the LTPAC setting) to view the patient's health information summary (the common clinical data set), as well as admission/discharge date(s), locations, discharge instructions, and reason for hospitalization;
- must provide a mechanism for the patient (or LTPAC setting) to download this information, plus any associated transition of care or referral summaries;
- must provide a mechanism for the information to be sent to a third party (e.g., another health care provider or facility), registered on the Direct Project Network, identified by the patient (or representative).

The mechanisms employed are not specified in the certification criteria. The certification criteria require that the functionality exist and specify the minimum content of the displayed information or documents.

In this scenario, the hospital pharmacy will not have direct control over the content of the health summary information, transition-of-care, or referral summaries. The hospital pharmacy, however, should be engaged in the medication reconciliation process that results in the medication information on the documents.



3.5. PHARMACISTS' GUIDANCE TO PHARMACY SYSTEM VENDORS

The certification criteria identified in this document presents the functionality that pharmacists should encourage their system vendors to implement to meet the necessary certification for pharmacist/pharmacy EHR technology developers. Once pharmacy system vendors implement the certification criteria and go through a certification process, pharmacists can start working with HIEs to exchange clinical data (e.g., laboratory information, discharge summaries, patient care summaries, and progress notes).

4. CONCLUSION

This guidance document was designed to

- Encourage pharmacists to be able to connect and exchange information with health care providers;
- Identify steps for pharmacists to promote EHR certification;
- Develop value propositions for pharmacists to define the benefits of working with their system vendors to adopt pharmacist/pharmacy EHR certification.

By working with system vendors to adopt Pharmacist/Pharmacy Provider EHR certification, pharmacists will be in a better position to electronically collect, document, and exchange clinical information within their own pharmacy management systems following their own clinical workflow processes.

The general perception appears to be that without access to clinical information and pharmacists unable to work with the information within their workflow, patients suffer. The benefits of pharmacists having access to clinical information include time savings, more streamlined communication (e.g., telephone and fax), ability to serve more patients, and improved patient care.

Information recorded in the patient's current medical records and transmitted to health care providers in an organized, accepted format is extremely valuable in the development of appropriate drug therapies and in the monitoring of the patient's response to treatment. Such involvement and oversight on the part of the pharmacist can aid in driving positive outcomes, including safety of the patient's medication treatment plans through a variety of methods. Being able to improve patient care, attract additional patients and providers, and use this information in contract negotiations serves as the motivation to pursue the adoption of appropriate EHR certification. Pharmacists, in serving the best interests of the patient's medication-related health care, can effectively and efficiently use the exchange of EHR data to provide optimal patient care.

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6. APPENDIX

LIST OF HL7 STANDARDS – EHR PROFILES

http://www.hl7.org/implement/standards/product_section.cfm?section=4&ref=nav

HL7 EHR PHARMACIST/PHARMACY PROVIDER FUNCTIONAL PROFILE

The Pharmacist/Pharmacy Provider Functional Profile will facilitate EHR systems' capture of medication- and clinical-related data at the point of contact or point of care by specifying the functional requirements needed to support messaging among prescribers, pharmacist, and pharmacy providers and other health care entities needing medication-related information. These standards provide functional models and profiles that enable the constructs for management of electronic health records.

- HL7 EHR Pharmacist/Pharmacy Provider Functional Profile. http://www.hl7.org/documentcenter/private/standards/ehr/Functional_Profiles/HL7_EHRRXPROVFP_R1_2012MAR.zip
- EHR-System for a Pharmacist/Pharmacy EHR: Implementation Guide for Community Practice (offered as is; HL7 endorsement pending). http://www.hl7.org/documentcenter/public/standards/informative/13-294_HITSbook_HL7_Web.pdf

ONC RESOURCES

- Certification Guidance for EHR Technology Developers Serving Health Care Providers Ineligible for Medicare and Medicaid EHR Incentive Payments. http://www.healthit.gov/sites/default/files/generalcertexchangeguidance_final_9-9-13.pdf
- ONC HIT Certification Program, Overview for 2014. http://www.healthit.gov/policy-researchers-implementers/onc-hit-certification-program.
- Certified Health IT Product List (CHPL) provides the authoritative, comprehensive listing of certified Complete EHRs and EHR Module(s). http://oncchpl.force.com/ehrcert?q=chpl

- Certification Programs and Policy: The ONC Certification Program provides a defined process to ensure that EHR technologies meet the standards and certification criteria adopted by the Secretary of Health and Human Services (HHS) to help providers and hospitals achieve MU objectives and measures established by CMS. http://www.healthit.gov/policy-researchers-implementers/certification-programs-policy.
- 2014 Edition Testing and Certification. http://www.healthit.gov/policy-researchers-implementers/2014-edition-testing-and-certification

  - Test Method Overview: ONC, in collaboration with the National Institute of Standards and Technology, developed the functional and conformance testing requirements, test cases, and test tools for the testing and certification of EHRs to the certification criteria adopted by the HHS Secretary.

  - By adopting certified EHR technology and attesting to MU, eligible professionals, eligible hospitals, and critical access hospitals are eligible to receive incentive payments through the CMS EHR incentive programs.

TABLE : 2014 TEST PROCEDURES

Criterion #	Certification Criterion Name	Document Type	Last Revised
§170.314(a)(1)	Computerized provider order entry	Test Procedure [PDF - 465 KB]	*12/19/14
		Test Data [PDF - 129 KB]	04/26/13
§170.314(a)(2)	Drug-drug, drug-allergy interactions checks	Test Procedure [PDF - 393 KB]	12/14/12
§170.314(a)(3)	Demographics	Test Procedure [PDF - 395 KB]	12/14/12
		Test Data [PDF - 77 KB]	02/26/13
§170.314(a)(4)	Vital signs, body mass index, and growth Charts	Test Procedure [PDF - 135 KB]	06/28/13
		Test Data [PDF - 73 KB]	01/16/13
§170.314(a)(5)	Problem list	Test Procedure [PDF - 134 KB]	06/28/13
		Test Data [PDF - 95 KB]	01/16/13
§170.314(a)(6)	Medication list	Test Procedure [PDF - 116 KB]	06/28/13
		Test Data [PDF - 84 KB]	02/26/13

Criterion #	Certification Criterion Name	Document Type	Last Revised
§170.314(a)(7)	Medication allergy list	Test Procedure [PDF - 136 KB]	06/28/13
		Test Data [PDF - 96 KB]	01/16/13
§170.314(a)(8)	Clinical decision support	Test Procedure [PDF - 519 KB]	*12/24/14
§170.314(a)(9)	Electronic notes	Test Procedure [PDF - 380 KB]	05/08/13
		Test Data [PDF - 62 KB]	01/16/13
§170.314(a)(10)	Drug formulary checks	Test Procedure [PDF - 110 KB]	12/14/12
		Test Data [PDF - 69 KB]	02/26/13
§170.314(a)(11)	Smoking status	Test Procedure [PDF - 111 KB]	06/28/13
§170.314(a)(12)	Image results	Test Procedure [PDF - 337 KB]	02/26/13
§170.314(a)(13)	Family health history	Test Procedure [PDF - 467 KB]	12/14/12
§170.314(a)(14)	Patient list creation	Test Procedure [PDF - 490 KB]	12/14/12
§170.314(a)(15)	Patient-specific education resources	Test Procedure [PDF - 94 KB]	06/28/13
§170.314(a)(16)	Inpatient setting only -electronic medication administration record	Test Procedure [PDF - 467 KB]	*12/24/14
		Test Data [PDF - 386 KB]	12/14/12
§170.314(a)(17)	Advance directives	Test Procedure [PDF - 85 KB]	12/14/12
§170.314(a)(18)	Optional – computerized provider order entry - medications	Test Procedure [PDF - 576 KB]	*12/24/14
§170.314(a)(19)	Optional – computerized provider order entry - laboratory	Test Procedure [PDF - 582 KB]	*12/24/14
§170.314(a)(20)	Optional – computerized provider order entry – diagnostic imaging	Test Procedure [PDF - 582 KB]	*12/24/14
§170.314(b)(1)	* Transitions of care – receive, display and incorporate transition of care/referral summaries	Test Procedure [PDF - 452 KB]	03/21/14
		Test Data [PDF - 173 KB]	03/21/14

Criterion #	Certification Criterion Name	Document Type	Last Revised
§170.314(b)(2)	* Transitions of care – create and transmit transition of care/ referral summaries	Test Procedure [PDF - 650 KB]	03/01/13
		Test Data [PDF - 183 KB]	03/21/14
§170.314(b)(3)	Electronic prescribing	Test Procedure [PDF - 420 KB] Test Data and Test Tools are available via a hyperlink in the Test Procedure, as applicable.	06/10/13
§170.314(b)(4)	Clinical information reconciliation	Test Procedure [PDF - 469 KB]	01/16/13
		Test Data [PDF - 99 KB]	02/26/13
§170.314(b)(5)(A)	Incorporate laboratory tests and values/results	Test Procedure [PDF - 820 KB] Test Data and Test Tools are available via a hyperlink in the Test Procedure, as applicable.	02/26/13
		Guidelines for Configuring and Priming the EHR [PDF - 155 KB]	03/20/13
§170.314(b)(5)(B)	Incorporate laboratory tests and values/results	Test Procedure [PDF - 685 KB]	12/14/12
		Test Data [PDF - 627 KB]	12/14/12
§170.314(b)(6)	Inpatient setting only - transmission of electronic laboratory tests and values/results to ambulatory providers	Test Procedure [PDF - 828 KB] Test Data and Test Tools are available via a hyperlink in the Test Procedure, as applicable.	01/16/13
		Guidelines for Pre-loading Test Data [PDF - 97 KB]	03/20/13

Criterion #	Certification Criterion Name	Document Type	Last Revised
§170.314(b)(7)	Data portability	Test Procedure [PDF - 551 KB] Test Data and Test Tools are available via a hyperlink in the Test Procedure, as applicable.	05/08/13
		Test Data [PDF - 354 KB]	06/19/14
§170.314(b)(9)	Optional – clinical information reconciliation and incorporation (CIRI)	Test Procedure [PDF - 448 KB]	*12/24/14
§170.314(c)(1)	Clinical quality measures – capture and export	Test Procedure [PDF - 926 KB]	01/22/15
§170.314(c)(2)	Clinical quality measures – import and calculate	Test Procedure [PDF - 926 KB]	01/22/15
§170.314(c)(3)	Clinical quality measures – electronic submission	Test Procedure [PDF - 926 KB]	01/22/15
§170.314(d)(1)	Authentication, access, control, and authorization	Test Procedure [PDF - 357 KB]	12/14/12
§170.314(d)(2)	Auditable events and tamper-resistance	Test Procedure [PDF - 491 KB]	*12/24/14
§170.314(d)(3)	Audit report(s)	Test Procedure [PDF - 395 KB]	05/08/13
§170.314(d)(4)	Amendments	Test Procedure [PDF - 188 KB]	03/21/14
§170.314(d)(5)	Automatic log-off	Test Procedure [PDF - 84 KB]	12/14/12
§170.314(d)(6)	Emergency access	Test Procedure [PDF - 88 KB]	12/14/12
§170.314(d)(7)	End-user device encryption	Test Procedures [PDF - 480 KB]	12/14/12
§170.314(d)(8)	Integrity	Test Procedure [PDF - 97 KB]	12/14/12
§170.314(d)(9)	Optional - accounting of disclosures	Test Procedure [PDF - 113 KB]	12/14/12
§170.314(e)(1)	* View, download, and transmit to 3rd party	Test Procedure [PDF - 762 KB]	*12/24/14
		Test Data [PDF - 169 KB]	03/21/14
§170.314(e)(2)	Ambulatory setting only -clinical summary	Test Procedure [PDF - 766 KB]	12/14/12
		Test Data [PDF - 147 KB]	03/21/14
§170.314(e)(3)	Ambulatory setting only - secure messaging	Test Procedure [PDF - 528 KB]	01/16/13

Criterion #	Certification Criterion Name	Document Type	Last Revised
§170.314(f)(1)	Immunization information	Test Procedure [PDF - 381 KB]	12/14/12
		Test Data [PDF - 384 KB]	12/14/12
§170.314(f)(2)	Transmission to immunization registries	Test Procedures [PDF - 706 KB] Test Data and Test Tools are available via a hyperlink in the Test Procedure, as applicable.	01/16/13
		Guidelines for Pre-loading Test Data [PDF - 97 KB]	03/20/13
§170.314(f)(3)	Transmission to public health agencies – syndromic surveillance	Test Procedure [PDF - 767 KB] Test Data and Test Tools are available via a hyperlink in the Test Procedure, as applicable.	01/16/13
		Guidelines for Pre-loading Test Data [PDF - 181 KB]	03/20/13
§170.314(f)(4)	Inpatient setting only - transmission of reportable laboratory tests and values/results	Test Procedure [PDF - 1.05 MB] Test Data and Test Tools are available via a hyperlink in the Test Procedure, as applicable.	01/16/13
		Guidelines for Pre-loading Test Data [PDF - 97 KB]	03/20/13
§170.314(f)(5)	Optional – ambulatory setting only - cancer case information	Test Procedure [PDF - 353 KB]	12/14/12
		Test Data [PDF - 425 KB]	12/14/12

Criterion #	Certification Criterion Name	Document Type	Last Revised
§170.314(f)(6)	Optional – ambulatory setting only - transmission to cancer registries	Test Procedure [PDF - 699 KB] Test Data and Test Tools are available via a hyperlink in the Test Procedure, as applicable.	07/23/14
		Guidelines for Pre-loading Test Data [PDF - 85 KB]	03/20/13
§170.314(f)(7)	Optional – ambulatory setting only – transmission to public health agencies – syndromic surveillance	Test Procedure [PDF - 537 KB]	*12/24/14
§170.314(g)(1)	Automated numerator recording	Test Procedure [PDF - 1.8 MB]	*12/19/14
		Test Data [XLSX - 259 KB]	06/19/14
§170.314(g)(2)	Automated measure calculation	Test Procedure [PDF - 1.8 MB]	*12/19/14
		Test Data [XLSX - 200 KB]	06/19/14
§170.314(g)(3)	Safety-enhanced design	Test Procedure [PDF - 431 KB]	*12/19/14
§170.314(g)(4)	Quality management system	Test Procedure [PDF - 90 KB]	12/14/12
§170.314(h)(1)	Optional - Transmit - Applicability Statement for Secure Health	Test Procedure [PDF - 1 MB]	*12/24/14
§170.314(h)(2)	Optional - Transmit - Applicability Statement for Secure Health Transport and XDR/XDM for Direct Messaging	Test Procedure [PDF - 580 KB]	*12/24/14
§170.314(h)(3)	Optional - Transmit - SOAP Transport and Security Specification and XDR/XDM for Direct Messaging	Test Procedure [PDF - 727 KB]	*12/24/14

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