

The Office of the National Coordinator for Health Information Technology

EHR Vendor Support for Meaningful Use Stage 2 Certification and Implementation

View, Download, Transmit (VDT)

April 9, 2013 12:00 PM EST



Objectives and Agenda



- Review the VDT objectives for MU Stage 2, discuss similarities and differences with TOC, and testing procedures and tools
- Begin a discussion of key considerations for VDT in the real world (beyond testing)
- Today's agenda and speakers include:
 - Kick-off, Objectives, Agenda (Erica Galvez/Julie Crouse from ONC) 5 minutes
 - Why VDT, measures, and objectives (Kathleen Connors DeLaguna from CMS) 10 minutes
 - Certification Requirements Overview (Steve Posnack from ONC) 10 minutes
 - Certification testing procedures and tools (Asara Clark) 5 minutes
 - Blue Button Plus overview (Ryan Panchadsaram from ONC) 10 minutes
 - Q&A throughout and open discussion (All) 20 minutes

Initial Curriculum Topics



Today's Session is focused on: View, Download, Transmit (VDT), touching all 4 domains:







- This webinar assumes you have general familiarity with:
 - The Medicare and Medicaid EHR Incentive Programs ("meaningful use").
 - The Standards and Certification Criteria 2014
 Edition final rule and standards terminology.
 - The relationship between meaningful use and Certified EHR Technology (CEHRT).







View, Download, Transmit – Final Rule

Kathleen Connors de Laguna Centers for Medicare and Medicaid Services (CMS)

Patient Electronic Access to Health Information



• **Patient engagement** – enabling patients access to their medical information in order to better manage and coordinate their health care.

Measure 1:

• <u>More than 50% patients</u> are provided timely *online* access to their health information

Measure 2:

- <u>More than 5% of patients</u> must access their health information online
- **EXCLUSIONS** –based on broadband availability in the provider's county.

Changes to Stage 1: E-Copy & Online Access





- The measure of the new objective is 50% of patients have accessed their information; there is no requirement that 5% of patients do access their information for Stage 1.
- The change in objective takes effect <u>in 2014</u> to coincide with the 2014 certification and standards criteria





>50%

 In order to meet measure 1, providing 50% of patients with timely access to their health information, eligible providers can use a simple equation:

NUMERATOR: The number of patients in the denominator who have timely (within 4 business days after the information is available to the EP) online access to their health information.

DENOMINATOR: The number of unique patients seen by the EP during the EHR reporting period.





>5%

• In order to meet measure 2, view, download, and transmit, eligible providers can use this equation:

NUMERATOR: The number of unique patients (or their authorized representatives) in the denominator who have viewed online, downloaded, or transmitted to a third party the patient's health information.

DENOMINATOR: The number of unique patients seen by the EP during the EHR reporting period.

Available Health Information



- •Patient name
- •Sex
- •Date of birth
- •Race
- •Ethnicity
- •Preferred language
- •Smoking status
- •Problems
- Medications
- Medication Allergies
- •Laboratory test(s)
- •Laboratory value(s)/result(s)
- •Vital signs height, weight, blood pressure, BMI
- •Care plan field(s), including goals and instructions
- •Procedures
- •Care team member(s)







View, Download, Transmit – Certification Rule

Steve Posnack Office of the National Coordinator for Health IT (ONC)

View, Download, Transmit to 3rd Party Certification Criterion (slide #1)



(e)(1) View, download, and transmit to 3rd party.

- (i) EHR technology must provide patients (and their authorized representatives) with an online means to view, download, and transmit to a 3rd party the data specified below. Access to these capabilities must be through a secure channel that ensures all content is encrypted and integrity-protected in accordance with the standard for encryption and hashing algorithms specified at § 170.210(f).
 - (A) View. Electronically view in accordance with the standard adopted at § 170.204(a), at a minimum, the following data:
 (1) The Common MU Data Set (which should be in their English (i.e., non-coded) representation if they associate with a vocabulary/code set).

(2) Ambulatory setting only. Provider's name and office contact information.

(3) Inpatient setting only. Admission and discharge dates and locations; discharge instructions; and reason(s) for hospitalization.

(B) Download.

(1) Electronically download an ambulatory summary or inpatient summary (as applicable to the EHR technology setting for which certification is requested) in human readable format or formatted according to the standard adopted at § 170.205(a)(3).that includes, at a minimum, the following data (which, for the human readable version, should be in their English representation if they associate with a vocabulary/code set):

(i) Ambulatory setting only. All of the data specified in paragraph (e)(1)(i)(A)(1) and (e)(1)(i)(A)(2) of this section.

(ii) Inpatient setting only. All of the data specified in paragraphs (e)(1)(i)(A)(1) and (e)(1)(i)(A)(3) of this section.

(2) Inpatient setting only. Electronically download transition of care/referral summaries that were created as a result of a transition of care (pursuant to the capability expressed in the certification criterion adopted at paragraph (b)(2) of this section).

(C) Transmit to third party.

(1) Electronically transmit the ambulatory summary or inpatient summary (as applicable to the EHR technology setting for which certification is requested) created in paragraph (e)(1)(i)(B)(1) of this section in accordance with the standard specified in 170.202(a).

(2) Inpatient setting only. Electronically transmit transition of care/referral summaries (as a result of a transition of care/referral) selected by the patient (or their authorized representative) in accordance with the standard specified in § 170.202(a).

(ii) Activity history log.

(A) When electronic health information is viewed, downloaded, or transmitted to a third-party using the capabilities included in paragraphs (e)(1)(i)(A) through (C) of this section, the following information must be recorded and made accessible to the patient:

(1) The action(s) (i.e., view, download, transmission) that occurred;

(2) The date and time each action occurred in accordance with the standard specified at § 170.210(g); and

(3) The user who took the action.

(B) EHR technology presented for certification may demonstrate compliance with paragraph (e)(1)(ii)(A) of this section if it is also certified to the certification criterion adopted at § 170.314(d)(2) and the information required to be recorded in paragraph (e)(1)(ii)(A) is accessible by the patient.

View, Download, Transmit to 3rd Party Certification Criterion (slide #2)



(A) View. Electronically view in accordance with the standard adopted at § 170.204(a), at a minimum, the following data:

(1) The Common MU Data Set (which should be in their English (i.e., non-coded) representation if they associate with a vocabulary/code set).

(2) Ambulatory setting only. Provider's name and office contact information.

(3) Inpatient setting only. Admission and discharge dates and locations; discharge instructions; and reason(s) for hospitalization.

(B) Download.

(1) Electronically download an ambulatory summary or inpatient summary (as applicable to the EHR technology setting for which certification is requested) in human readable format or formatted according to the standard adopted at § 170.205(a)(3).that includes, at a minimum, the following data (which, for the human readable version, should be in their English representation if they associate with a vocabulary/code set):

(i) Ambulatory setting only. All of the data specified in paragraph (e)(1)(i)(A)(1) and (e)(1)(i)(A)(2) of this section.

(ii) Inpatient setting only. All of the data specified in paragraphs (e)(1)(i)(A)(1) and (e)(1)(i)(A)(3) of this section.

(2) Inpatient setting only. Electronically download transition of care/referral summaries that were created as a result of a transition of care (pursuant to the capability expressed in the certification criterion adopted at paragraph (b)(2) of this section).

(C) Transmit to third party.

(1) Electronically transmit the ambulatory summary or inpatient summary (as applicable to the EHR technology setting for which certification is requested) created in paragraph (e)(1)(i)(B)(1) of this section in accordance with the standard specified in § 170.202(a).

(2) Inpatient setting only. Electronically transmit transition of care/referral summaries (as a result of a transition of care/referral) selected by the patient (or their authorized representative) in accordance with the standard specified in § 170.202(a).

View, Download, Transmit to 3rd Party Certification Criterion (slide #3)



(ii) Activity history log.

(A) When electronic health information is viewed, downloaded, or transmitted to a third-party using the capabilities included in paragraphs (e)(1)(i)(A) through (C) of this section, the following information must be recorded and made accessible to the patient:

- (1) The action(s) (i.e., view, download, transmission) that occurred;
- (2) The date and time each action occurred in accordance with the standard specified at §
- 170.210(g); and
- (3) The user who took the action.

(B) EHR technology presented for certification may demonstrate compliance with paragraph (e)(1)(ii)(A) of this section if it is also certified to the certification criterion adopted at § 170.314(d)(2) and the information required to be recorded in paragraph (e)(1)(ii)(A) is accessible by the patient.







View, Download, Transmit – Certification testing procedures and tools

Asara Clark Office of the National Coordinator for Health IT (ONC)

VDT and Transitions of Care (ToC) Key Differences

- 170.314(e)(1) VDT:
 - "EHR technology must provide <u>patients</u> (and their authorized representatives) with an online means to view, download, and transmit to a 3rd party the data specified below"
- 170.314(b)(2) ToC Create and Transmit:
 - <u>"Create</u>: Enable <u>a user</u> to electronically create a transition of care/referral summary"
 - <u>"Transmit</u>. Enable <u>a user</u> to electronically transmit the transition of care/referral summary created in paragraph (b)(2)(i) of this section"
- "'User' is used to mean a health care professional or his or her office staff or a software program or service that would interact directly with the CEHRT... We clarified that, unless expressly stated otherwise, 'user' does not mean a patient."







Transport Testing: View, Download, and Transmit to a 3rd Party





Transport Testing Overview:

View, Download, and Transmit, and **Create and Transmit Summary Care**

- Same transport testing steps
- **Different user interfaces**

Transport Testing: Create and Transmit Summary Care Records





Transport Testing Overview:

View, Download, and Transmit, and **Create and Transmit Summary Care**

- Same transport testing steps
- **Different user interfaces**

Tester

Ambulatory Documents





Common MU Data Set

- Patient name
- Sex
- Date of birth
- Race
- Ethnicity
- Preferred language

- Smoking status
- Problems
- Medications
- Medication Allergies
- Laboratory test(s)
- Laboratory

value(s)/result(s)

- Vital signs height, weight, blood pressure, BMI
- Care plan field(s), including goals and

instructions

- Procedures
- Care team member(s)

Inpatient Documents





Common MU Data Set

- Patient name
- Sex
- Date of birth
- Race
- Ethnicity
- Preferred language

- Smoking status
- Problems
- Medications
- Medication Allergies
- Laboratory test(s)
- Laboratory

value(s)/result(s)

- Vital signs height, weight, blood pressure, BMI
- Care plan field(s), including goals and

instructions

- Procedures
- Care team member(s)

Key Differences: VDT and ToC



	VDT	ToC - Create and Transmit
Role	Patient or Authorized Patient Representative	EHR user
Capabilities Required	 View health information Download C-CDA and human readable information Transmit downloaded information Access activity history 	 Create C-CDA conformant documents Transmit C-CDA conformant documents via Direct
Required Transport	• Direct	• Direct
Optional Transport	• None	 C-CDA Transmission via Direct with XDM Validation C-CDA Transmission using SOAP
Documents used	 Ambulatory summary Inpatient summary Inpatient Transitions of Care/Referral Summary 	 Summary Care Records: Ambulatory Transition of Care/Referral Summary Inpatient Transition of Care/Referral Summary
Additional requirements	WCAG conformanceNetwork Time Protocol (NTP)	None

VDT Test Procedure Key Considerations



Question: Does the information in the "view" step need to be displayed on a single page?

• **Answer**: Information viewed is not required to be displayed on a single page.

Question: Must human readable and C-CDA conformant documents be transmitted separately or together?

• **Answer**: They may be transmitted separately or together.

Question: Do WCAG Level A requirements apply only to the view portion of the test procedure or to all capabilities viewable by the patient?

• **Answer**: WCAG Level A must be met for all capabilities viewable by the patient (not only capabilities in the "view" section of the test procedure).

Question: If EHRs are certifying to the Auditable Events and Tamper Resistance test procedure, are they required to meet the Record & Display portion of the test procedure separately?

• **Answer**: EHRs may meet the Record & Display requirement through certification to the 170.314(d)(2) Auditable Events and Tamper Resistance criterion if they demonstrate patient access to the required information.







View, Download, Transmit – Blue Button Plus Implementation Guide

Ryan Panchadsaram Office of the National Coordinator for Health IT (ONC) and Department of Health and Human Services (HHS)



In 2010, Department of Veterans Affairs starts the Blue Button initiative

Now over **88 million Americans** can download their health record from a portal (CMS, Dept. of Defense, Aetna, and United)



Blue Button is Evolving





First version

- Access: Download only
- Format: Unstructured, making it difficult to parse
- Portability: Easy to download, read, and print – not easy to upload to other apps

Blue Button⁺

New version

- Access: Download & Transmit
- Format: Structured
- Portability: Includes Transmit Via Direct, so easy to connect with other apps
- Automation, using internal triggers

Blue Button+ brings Blue Button in line with MU2, and provides a blueprint for meeting MU2



68 committed organizations defined the next version of BB

Independence















Blue Button⁺



What Blue Button+ looks like for Dataholders Putting the I in Health (Providers, Payors, etc.)



www.HealthIT.gov

What Blue Button+ looks like for Developers and Patients





Meaningful Use Stage 2 and Blue Button+



Blue Button+ gives specific guidance to EHR companies in meeting the V/D/T requirements.

Structure	Consolidated CDA (C-CDA)	MU 2
Section & Fields	Described in Meaningful Use 2	regulations -• requires these for all certified EHRs
Transmit	Direct Protocol (SMIME/SMTP)	
Trust Anchors	Ability To Exchange Anchors	
Transmit Frequency Send once		↓ LTHX5
Trust Anchors	Anchor Bundles	Poquirad for
Transmit Context	In message body	Required for Blue Button+
Transmit Frequency	Send on change, automation	

C K

Blue Button+ Implementation Guide

February 4, 2013 - Developer Preview

Background

Evolution of BB VDT & BB+

Content

Clinical Claims

Download

Transmit

Receive

Toolkit

Privacy & Security

Getting Started with Blue Button+

Blue Button is the symbol for a patient's access to their own data. Blue Button+ is the ability to get records in a humanreadable and machine-readable format; and to send them where they choose. This enables a consumer to do everything from printing a physical copy to sharing it with a third party application.

For Data Holders / Providers

Learn how to structure a patient health record and how to transmit it to a patient's location of choosing. Meet MU 2 - VDT requirement.

- 1 Structure health data as C-CDA
- 2 Transmit health data using Direct
- 3 Implement automation/triggers
- 4 Retrieve BB+ Patient Trust Bundle

For Third Party Applications

Learn how to build applications powered by Blue Button+ receiving structured patient health records and getting automated access from dataholders.

- 1 Parse health data as C-CDA
- 2 Receive health data using Direct
- 3 Submit your anchor to trust bundle
- 4 Retrieve BB+ Provider Trust Bundle

This Blue Button+ guidance was developed though ONC's Standards and Interoperability Framework initiative with input from more than 70 organizations.

Display a menu

Quick Link - Implementation Guide http://bluebuttonplus.org



Soluebuttonplus.org/healthrecords.html

12⁷¹ 0

Blue Button+ Implementation Guide

February 4, 2013 - Developer Preview

	Background Evolution of BB VDT & BB+	Format for Blue Button+ Health Content			
Questions - Feedback		An electronic health record keeps a digital record of clinical information about a particular individual. With the amount of variability among Health IT systems, it is important to have a consistent set of health information for each patient.			
	Content Clinical Claims	For Blue Button, the recommended standar Document Architecture also known as the 0	d for representing the patient health record is Consolidated CDA.	the HL7 Consolidated Clinical	
	Download	The Consolidated CDA is a XML-based standard that specifies the encoding, structure, and semantics of a clinical document.			
stions	Transmit	There are a wide-range of templates that can be represented in the Consolidated CDA standard. For Blue Button we are			
Ques	Receive	outlining a subset of sections and fields that should be used.			
	Toolkit	Tools: NIST Validator Web App and C-CDA Scorecard			
	Privacy & Security	1. Sections			
		Blue Button adopts the requirements for sections and fields from Meaningful Use Stage 2. Meaningful Use specifies the fields and content structure of clinical data that providers will share with patients at care transitions. This same structure and consistency will aid application developers as they design and build consumer tools.			
		Whenever the C-CDA is generated for patients, it should have the following fields, if they exist in the dataholder's system:			
		Section	Description	Quick Link	
Disch		Header	Patient information and demographics	Jump to XML	
Displa	iy a menu				

	forms.org/static/ccda5corecard/#/	C Reader
SMART C-CDA Scorecard		
• Collapse all • Expand all	CDA's overall s	core: 57%
General		37%
✓ SNOMED CT, LOINC, and RxNorm codes validate against UMLS		
Best Practice: Codes that claim to	be from SNOMED CT, LOINC, and RxNorm should be pre	0/5 points esent in UMLS 2012AB.
Best Practice: Codes that claim to Your Results: 3 of 68 codes weren't fo		
Your Results: 3 of 68 codes weren't fo		esent in UMLS 2012AB.
Your Results: 3 of 68 codes weren't fo Your code	ound in UMLS 2012AB	esent in UMLS 2012AB. What now?

http://ccda-scorecard.smartplatforms.org



Soluebuttonplus.org/transmit-using-direct.html

12

0

Blue Button+Implementation Guide

February 4, 2013 - Developer Preview

Transmitting Data Using the Direct Protocol

This section describes the use of the Direct Project specification to transmit health data securely from a **data holder** to a **third party**. Implementation of Direct protocol is required for Meaningful Use Stage 2 CEHRT.



Examples of data holder systems include: provider's EHR, health insurance claims database, or pharmacy dispensing system. Examples of third parties include: personal health records, mobile applications, or web services.

1. Technical

A. Authentication

A patient's identity must be validated before a transmission of his/her data can occur. In the case of a patient portal, a patient or their authorized representative is authenticated by logging in using previously-validated credentials. In the case of a live interaction identity validation may be needed, and can be obtained orally or in writing. If the provider already knows the individual, no additional steps are needed to verify the individual's identity. (Also see Blue Button Privacy and Security Related Questions)

These requirements are the same identity assurance and authentication requirements sufficient to meet the View and

Toolkit

Receive

Background

Evolution of BB

VDT & BB+

Content

Privacy & Security

Display a menu

Pilot Site - Updated January 31, 2013

Blue Button Trust Bundles

A collection of trust anchors enabling secure exchange to third parties on behalf of patients

During this pilot phase, this page is being managed by the <u>Automate Blue Button</u> patient community, a voluntary group of personal health service providers that are working together to accelerate patient engagement in support of better health.

"ABBI" is an <u>ONC-sponsored</u> project that aims to make it easy for patients to conveniently receive copies their own health information. It has its origins in the Blue Button initiative that first liberated health information for millions of veterans, military personnel and Medicare beneficiaries.

This page is meant for healthcare providers, vendors and personal health services that wish to use Direct Project secure messaging to support their patients and customers.

Register Your Service's Anchor

and be a part of the ecosystem

	Patients	Anchors of personal health systems, to be installed by provider systems for sending to patients Bundle Download View Details
Display a menu		

4/12/2013

000

4 1

1

0

C Reader



S bluebuttonplus.org/receive-using-direct.html

C Reader

C N

Blue Button+ Implementation Guide

February 4, 2013 - Developer Preview

Background

Evolution of BB VDT & BB+

Content

Receiving Health Data Using Direct

This section describes the use of the Direct Project specification to receive health data securely from a data holder on behalf of a patient or their authorized representative. The ability to receive health data securely enables an ecosystem to be built on patient health data.



🕙 bluebuttonplus.org/privacy.html

0

Blue Button+Implementation Guide

February 4, 2013 - Developer Preview

Background

Evolution of BB VDT & BB+

Content Clinical

Download

Transmit

Claims

Questions - Feedback

000

4 1

D

Receive

Toolkit

Privacy & Security

Privacy and Security

The U.S. Department of Health and Human Services' Office for Civil Rights and Office of the National Coordinator have compiled the following document in response to questions related to the Automate Blue Button Initiative. This document will be periodically expanded upon, as more questions arise that we can address with existing guidance.

Background

Blue Button functionality provides data that follows Meaningful Use Stage 2's requirements for sections and fields, formatted in Consolidated Clinical Document Architecture (Consolidated CDA). A Consolidated CDA contains a subset of protected health information (PHI) maintained in an individual's medical records and therefore is a subset of a designated record set. Accordingly, under the HIPAA Privacy Rule, the individual who is the subject of the PHI has a right of access to the PHI in the Consolidated CDA. (We recognize that individuals continue to have the right to request and receive all their PHI in the medical records outside of the Consolidated CDA or Blue Button function.) For ease of reference, we will call the PHI in a Consolidated CDA "Blue Button health information" in our Use Cases and Questions and Answers below.

DIRECT is a set of technical specifications that allow providers and individuals to securely transmit PHI electronically. It is similar to e-mail, in that providers and patients each have "DIRECT addresses" that allow them to communicate with each other, but is more secure than regular e-mail. For example, a John Q. Public could have a Direct address (JohnQPublic@direct.somephr.org). Meaningful Use Stage 2 requires every certified Electronic Health Record system to be able to send messages to DIRECT addresses.

Use cases

 While interacting in person with his HIPAA-covered health care provider's office the individual gives the provider either the individual's e-mail address or a Direct address and requests the provider to electronically transmit the individual's Blue Button health information to this e-mail or Direct address.







Your Action Items



Share http://bluebuttonplus.org with your colleagues

Implement Blue Button+ Today





Discussion

Resources



- See these general resources for more info
 - ONC resources: <u>http://www.healthit.gov/policy-researchers-implementers/meaningful-use-stage-2</u>
 - CMS resources: <u>http://www.cms.gov/Regulations-and-</u> <u>Guidance/Legislation/EHRIncentivePrograms/EducationalMaterials.html</u>
- VDT Resources
 - 2014 VDT Test Procedures: <u>http://www.healthit.gov/sites/default/files/170.314e1vdt_2014_tp_approved_v1.4_onc.pdf</u>
 - CMS VDT Tip Sheet: <u>https://www.cms.gov/Regulations-and-</u> <u>Guidance/Legislation/EHRIncentivePrograms/Downloads/Stage2Overview_Tipsheet.pdf</u>
 - The Blue Button Initiative:

http://www.healthit.gov/bluebutton

- "Direct" specification
 - <u>http://www.healthit.gov/policy-researchers-implementers/direct-project</u>

Wrap-Up



- Thank you for joining!
- If you have not already registered, we encourage you to join us in-person at the Mayflower Renaissance Hotel in DC on April 18th for our Meaningful Use Stage 2 Exchange Summit, you can <u>REGISTER HERE!</u>
- We welcome your feedback regarding today's session. Please continue to share pain points and need for information in ongoing manner through this workgroup.
- Please e-mail <u>Julie.Crouse@hhs.gov</u> for questions or more details for the April 18th Meaningful Use Stage 2 Exchange Summit.