CDAR2_IG_PHCR_R2_RR_D1_2017MAY
Vol4_Receiver_Guidance

HL7 CDA® R2 Implementation Guide: Reportability Response, Release 1 - US Realm

May 2017

Volume 4 - Receiver Guidance

HL7 Standard for Trial Use (STU) Ballot

Sponsored by:
Public Health and Emergency Response Group
Structured Documents Work Group

Table of Contents

1 INTRODUCTION

1.1 Purpose

This volume contains informative guidance on the rendering and visualization of a Reportability Response CDA document (Reportability Response). Through the Reportability Response, public health is seeking to establish bidirectional electronic communication with clinical care providers across the nation. The sharing of the Reportability Response with clinical care will serve several functions, including to:

- Communicate the reportability of condition(s) in an electronic Initial Case Report (eICR)
- Indicate what Public Health Agency(ies) (PHAs) has have been sent a report
- Identify necessary clinical follow-up activities including any additional reporting needs
- Provide clinical support information for identified reportable conditions
- Provide appropriate contact information for the primary responsible PHA
- Confirm eICR receipt and processing

A Reportability Response will also, when requested, be shared with the responsible PHAs (when they have not constructed them) for their internal use and so they understand what has been shared with healthcare.

1.2 Audience

The audience for this document is developers of software systems who want to enable their systems for displaying Reportability Response CDA documents. It is expected that various parts of the Reportability Response will be relevant for different audiences:

- ***Providers***: Providers of care
- ***Reporters***: Staff involved in reporting and infection control including Infection Control Practitioners and clinical support staff
- ***EHR System Administrators***: EHR and IT management, development and support staff including healthcare IT administrators and EHR system managers and developers
- ***Public Health***: Public Health Agency personnel and IT support

2 RENDERING / VISUALIZATION GUIDANCE

The Reportability Response CDA implemenation guide includes normative constraints in Volumes 1 and 2 for how Reportabilty Response structure, coded data, and narrative elements should be arrayed, sequenced, and populated. Volume 3 of this implemenation guide includes additonal informative guidance about the specifics of how the text in narrative sections should be constructed as the Reportabilty Response is populated. All of this guidance as well as the informative guidance in this volume are important to providing consistent display that clinical care can rely upon to view and find Reportabilty Response information. The guidance mentioned above means that the rendering/visualization responsibilities of the receiver are minor. The senders will be responsible for most aspects of making sure the data are populated and formatted correctly.

2.1 Stylesheet

An example stylesheet is available to illustrate the desired format of the rendered Reportability Response CDA document. This stylesheet can be found in the transform directory.

2.2 Examples

This rendering, below is provided to illustrate the desired format of the rendered Reportability Response for *Providers* and *Reporters*.

Figure 1 – Example Rendering of Reportability Response for "Providers" and "Reporters" Built Using Available Example Stylesheet

Patient	Everywoman, Eve
Patient ID(s)	123453 2.16.840.1.113883.19.5 111-00-1234 2.16.840.1.113883.4.1
Contact info	Home: 2222 Home Street Ann Arbor, MI 99999, US
Date of Birth	April 22, 1990
Sex	Female
Race	White
Ethnicity	Hispanic or Latino
Information recipient:	Dr. Seven, Henry
Contact info	1002 Healthcare Drive Ann Arbor, MI 99999, US

Subject:

Reportable condition notification: An initial report for Zika has been sent to the Health Authority West.

eICR Information:

eICR Identifier	ca316e79-aaf2-4e8c-aa5f-848093bb8bb1

Summary:

An initial case report was submitted electronically by your organization to determine if a patient has a public health reportable condition. The condition of Zika was identified and is a reportable condition in Michigan. The initial case report was forwarded to the Health Authority West.

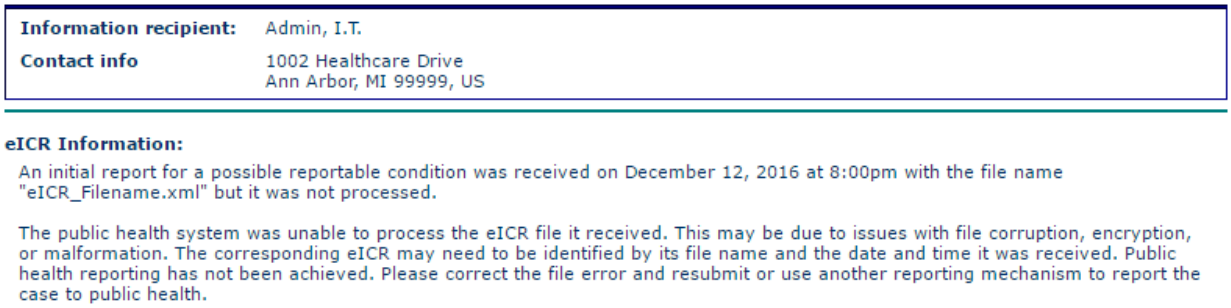
Additional information for the required reporting of Zika must be submitted to the Health Authority West immediately. This additional information can be submitted here:	http://health.authoritywest.gov/epi/diseases/zika/Supplemental_data_form.pdf
Zika has particular risks for pregnant women. Follow-up guidance for pregnant women and couples who are planning pregnancy:	http://health.authoritywest.gov/epi/diseases/zika/Zika_Virus_Testing_Guidance.pdf
Further Laboratory testing for Zika may be needed. Guidance for additional testing and specimen collection:	http://health.authoritywest.gov/epi/diseases/zika/Zika_Virus_Testing_Guidance.pdf
A disease plan and treatment guidance for Zika:	http://health.authoritywest.gov/epi/diseases/zika/plan.pdf
If you have additional questions regarding Zika or reporting, contact information for the Health Authority West is available here:	http://health.authoritywest.gov/epi/diseases/zika/

Additional References:

Control and prevention information for providers	http://health.authoritywest.gov/epi/diseases/zika/plan.pdf
Current prevalence information for Health Authority West	http://health.authoritywest.gov/epi/diseases/zika/
CDC webpage	https://www.cdc.gov/zika/index.html
Patient information factsheet	http://health.authoritywest.gov/epi/diseases/zika/factsheet.pdf
UT Resident information	http://health.authoritywest.gov/epi/diseases/zika/ZikaVirus_QA_authoritywest.pdf

This rendering, below is provided to illustrate the desired format of the rendered Reportability Response for *EHR System Administrators* when an eICR was unable to be processed.

Figure 2 – Example Rendering of Reportability Response for "EHR System Administrators" Built Using Available Example Stylesheet



2.3 CDA Header Information

Many EHRs have an established approach for displaying patient and provider information (i.e., CDA header information and information inside of "box" in rendered example above). In different EHRs, these data may be displayed in separate windows or in various places on the screen. Normative guidance for other parts of the Reportability Response data are found in Volumes 1 and 2 of the implementation guide. There are specific expectations for what Reportability Response content data are presented, the order in which they are displayed and, in some respects, their formatting.

Greater variability is anticipated in how EHR vendors display patient and provider header information. What follows is a recommended list of necessary patient and provider data. It is recommended that, where possible, a limited set of these data from the CDA header be rendered. This helps to ensure that the Reportability Response CDA document is immediately usable and understandable to clinical staff. The following are suggested as the data elements that should be rendered:

- The Patient (recordTarget)
    - Name (last, first)
    - Relevant ID(s) (e.g., Medical Record Number, Social Security Number, etc.)
    - Contact Information (Phone, Address, Email, etc.)
    - Date of Birth
    - Administrative Gender
    - Race
    - Ethnicity
- The Recipient (informationRecipient)

- Name
- Organization
- Contact Information (Phone, Address, Email, etc.)

3 EHR WORKFLOW CONSIDERATIONS

The normative Reportability Response guidance in Volumes 1 and 2 of this implementation guide specifies information, order, and some formatting for information that needs to be visualized for *Providers* and *Reporters* in clinical care. The specific EHR implementation of workflow for notification, alerting (as desired), queuing, and internal routing will depend on EHR and clinical site implementation. The guidance found here describes expected functions and the specific Reportability Response coded data that can be used to support them.

3.1 "Provider" and "Reporter" Notification and Alerting

Many providers of care already experience more "alerts" than they can manage. The Reportability Response is designed to be sensitive to this issue and also the significant role that *Rreporters* (clinical support staff, Infection Control Practitioners, and others) play in the reporting and disease management processes.

Most Reportability Response that communicate reportable conditions or seek additional information to determine reportability, do not need to generate a *Provider* "alert" and can be routed as a "notification" to a *Provider* and/or *Reporter* through a work queue or secure email-like function.

- The **Reportable Condition** data element indicates the presence of one or more reportable conditions as being identified in a Reportability Response.
- The **Reportability Response Subject** contains narrative text intended to be used as a subject in a queue (such as the subject for an email inbox).
- The normative guidance in Volumes 1 and 2 specifies other narrative text and content that needs to be visualized to complete the delivery of the Reportability Response to *Providers* and/or *Reporters*.

3.1.1 eICR Visualization

The completion of any next step reporting or other actions specified in the Reportability Response may require the concurrent or sequential visualization of the eICR that initiated it. EHR vendors have requested they be allowed to visualize the initiating eICR rather than getting all the eICR data back in the Reportability Response itself.

- The **eICR CDA document ID** has the unique eICR CDA document identifier for the purpose of having the EHR identify and retrieve the relevant eICR CDA document.

Providers are legally required to meet reporting requirements and need to know if these legal requirements have been fulfilled or if they are yet to be fulfilled. Some *Providers* will want to receive Reportability Response notifications and then will send them to a *Reporter* and some will want Reportability Responses directly routed to a *Reporter.*

In some circumstances, however, the *Provider* may want an actual "alert" in addition to receiving a Reportability Response "notification" in a queue.

- The **Reportability Response Priority** includes the priority of a Reportability Response CDA document and an indication of whether there is 1) Action Required, or 2) Action Recommended, or if it is just for 3) Information Only.
- Each individual table row / URL activity also has a priority indicated by its **External Resource Priority**. These individual table / row priorites may or may not have value in healthcare, but they are used to calcuate the overall document priority when the Reportabilty Response is being populated

Some eICRs will have been manually initiated. If the **Manually Initiated eICR** in the Reportability Response indicates a manually initiated eICR, the appropriate *Provider* or *Reporter* should always be notified with the relevant Reportability Response regardless of the reportability determination.

It is expected that most *Providers* or *Reporters* will not want to see Reportability Responses that were automatically initiated when it was determined that no reportable conditions were present in the eICR or when a specific reportable condition in a patient has already been reported.

When reportability cannot be determined because some additional data are needed, it is important that the Reportability Response be presented to the *Provider* and/or *Reporter,* so that they are aware of the need to provide additional data.

3.2 EHR System Administrator Workflow and Data

EHR System Administrators can include clinical IT support staff, EHR support staff and EHR integrators / developers. EHR system administrators have requested acknowledgment that all eICRs have been properly received and processed, if an eICR was not properly processed and if it was processed with a non-fatal "warning" issue.

Because of the many "hops" that an eICR may take on its way to public health, transport-level acknowledgments, which usually do not pass through more than one hop, are not sufficient to serve these purposes.

The Reportability Response will represent that an eICR was received by public health, that it met, or did not meet, validation for its structure and data, and that it was successfully processed.

- The **eICR Processing Status** contains the eICR processing status for the initiating eICR. It may indicate that the eICR was successfully processed, that it was processed with a warning of some kind, or that it was not processed because of an error.
- The **eICR Processing Warning Reason** contains a short explanation of the warning. A more detailed explanation can be found as part of the value set.
- The **eICR Processing Error Reason** contains a short explanation of the error. A more detailed explanation can be found as part of the value set.

A Reportability Response with a "warning" should be routed to the *Provider* and/or *Reporter* as usual. Like all Reportabilty Responses, it is expected that *EHR System Administrators*, in addtion to receiving the Reportabilty Responses to acknowledge

processing, will need to be made aware of warnings for remediation. Reportability Responses that indicate errors with the eICR have not been processed by public health and need to be acted on by *EHR System Administrator*s. In turn, they may need to communicate to *Providers* and *Reporters* that public health reporting has not been completed on these patients.

EHR System Administrators also need to be notified when an eICR was determined to be using an outdated Reportable Condition Trigger Code (RCTC) table version or an outdated code. The Reportabilty Response includes the following data to support these needs:

- The **Outdated RCTC Version** will be present if the RCTC table version is outdated. It will also include information about the RCTC version that was expected by public health.
- If an eICR has been triggered by a code that is identified as no longer active in the RCTC, the Reportability Response will include the **Inactive RCTC Code**.

