

COVID-19 Electronic Case Reporting

Sam is a Certified Nursing Assistant who is experiencing fever, cough, and shortness of breath. He contacts his primary care provider, who directs him to the county health department to be tested for SARS Co-V2. When the laboratory confirms a positive test result, the case data are reported electronically to the state public health agency where Sam lives. The county health department receives an electronic reportability response back from the state public health agency. Sam is advised to quarantine. He is released to go back to work after a telehealth visit with his care provider 10 days later, based on his symptoms having resolved. The state public health agency uses case data such as Sam's for investigation and case management.

Setting	Description	Standards
<p>1 – FQHC Provider</p>	<p>Sam Michael Caldwell is a 59-year-old black man who lives in Florida at 1515 Old Bainbridge Rd, Tallahassee, FL 32303.</p> <p>His PCP receives a phone call from the patient with concerns about possible COVID-19 infection. He reports symptoms of fever, cough, shortness of breath, and dizziness which began two days ago. During the call, the PCP documents work information and determines that he is a Certified Nursing Assistant working in a Skilled Nursing Facility. He is therefore an essential worker. The PCP has a relationship with the LeonCounty Health Department and refers Sam to the health department clinic for testing. The health department is located at 1285 Central St, Tallahassee, FL 32303. Sam's health summary, including work information, is provided to the public health department.</p>	<p>IHE: XDR, XPHR with ODH Option HL7: CCD, HL7 CDA® R2 Implementation Guide: Consolidated CDA Templates for Clinical Notes; Occupational Data for Health Release 1 - US Realm</p>
<p>2 – Public Health Services</p>	<p>Sam goes to the health department clinic for testing.</p> <p>Sam's summary record from his primary care at the FQHC is available.</p> <p>Sam is seen by Dr. Smith at the county health department for a possible COVID evaluation. He is triaged and isolated immediately in the office due to his symptoms. The provider also sees that he works as a Certified Nursing Assistant in the Home for the Elderly with Nursing Care industry at HSH Senior Living, and screens him due to the known COVID-19 outbreak. The physician notes possible novel coronavirus in his problem list. Novel Coronavirus is a newly reportable condition in the state of Florida. When the laboratory confirms a positive test for COVID-19 infection, the diagnosis is entered and the EHR sends an electronic case report to the state health department.</p>	<p>IHE: XCA, Direct XDR HL7: HL7 CDA eICR</p>
<p>3- Public Health Platform</p>	<p>The eICR is received and validated by AIMS and then sent to the Reportable Condition Knowledge Management System (RCKMS) for decision making, the RCKMS decision support service processes the eICR using reporting requirements for public health agencies (PHAs) and determines reportability. Once determined as reportable by RCKMS, AIMS forwards eICR to the appropriate</p>	<p>IHE: DirectXDR HL7: HL7 CDA eICR, HL7 CDA Reportability Response</p>

	PHA(s). AIMS generates a Reportability Response (RR) and sends it to the PHA(s) and back to the provider system for use.	
4 – PCP 	<p>The county health department receives the Reportability Response back from the public health agency.</p> <p>Sam is sent home with instructions for in home quarantine. He has a follow-up telehealth visit in ten days. At that time, he has had no fever for four days and his symptoms are resolving. He is able to return to work.</p>	HL7: HL7 CDA Reportability Response
5- Public Health Agency 	<p>The PHA surveillance epidemiologist monitors reports of Coronavirus cases. They use the eICR and RR to populate and manage cases in their disease surveillance system to help with public health investigation and case management.</p> <p>They also emphasize the value of having the Occupation/industry data for COVID-19 monitoring. In this case, the nursing home is notified of a case of COVID19 in order to support efforts to reduce transmission within the nursing home.</p>	IHE: S3 HL7: HL7 CDA eICR, HL7 CDA Reportability Response

Resources:

General eCR: www.cdc.gov/ecr and ecr.aimsplatform.org

CDC COVID eCR: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/electronic-case-reporting.html>

Email: ecr@cdc.gov

CDC, NIOSH. Emergency Preparedness and Response Program, Coronavirus Disease-2019.
https://www.cdc.gov/niosh/emres/2019_ncov.html?deliveryName=USCDC_308-DM26149

CDC, NIOSH. Electronic Health Records (EHRs) and Patient Work Information.
<https://www.cdc.gov/niosh/topics/ehr/>

HL7 CDA® R2 Implementation Guide: Public Health Case Report, Release 2 - US Realm - the Electronic Initial Case Report (eICR)

https://www.hl7.org/implement/standards/product_brief.cfm?product_id=436

HL7 CDA® R2 Implementation Guide: Reportability Response, Release 1, STU Release 1.0 - US Realm

https://www.hl7.org/implement/standards/product_brief.cfm?product_id=470

HL7 EHRS-FM Release 2: Functional Profile; Work and Health, Release 1 – US Realm

https://www.hl7.org/implement/standards/product_brief.cfm?product_id=498



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HL7 CDA® R2 Implementation Guide: Consolidated CDA Templates for Clinical Notes; Occupational Data for Health Release 1 - US Realm

https://www.hl7.org/implement/standards/product_brief.cfm?product_id=522

IHE Patient Care Coordination Technical Framework (Volumes 1 and 2)

https://www.ihe.net/uploadedFiles/Documents/PCC/IHE_PCC_TF_Vol1.pdf

https://www.ihe.net/uploadedFiles/Documents/PCC/IHE_PCC_TF_Vol2.pdf

IHE CDA Occupational Data Options

https://www.ihe.net/uploadedFiles/Documents/PCC/IHE_PCC_Suppl_ODH_Options_Rev1-0_PC_2020-06-17.pdf



Centers for Disease Control
and Prevention
National Institute for Occupational
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