Data Validation for Electronic Case Reporting (eCR) – Required Data Elements

Montana Department of Public Health and Human Services (DPHHS) eCR team has developed a list of data elements that will be evaluated during the Public Health Agency (PHA) validation stage. These data elements are based on the requirements of the [HL7 Electronic Initial Case Report (eICR) Implementation Guides](#) and the critical data elements that are evaluated within the eCR Schematron during onboarding with the Association of Public Health Laboratories (APHL) and Centers for Disease Control and Prevention (CDC) eCR teams. Healthcare organization (HCO) senders are required to send all Priority 1 Data Elements listed in Table 1 and encouraged to send Priority 2 Data Elements (see Table 2) if available in the electronic health record (EHR).

Please refer to the [HL7 Electronic Initial Case Report (eICR) Implementation Guides](#) for more information on the required eICR data elements that must be mapped and the value sets to use for these data elements. Montana DPHHS requires the implementation of Reportable Condition Trigger Codes (RCTC) to ensure appropriate triggering of eICRs. For more information concerning the onboarding process of eCR with Montana DPHSS please visit our [website](#).

For questions concerning these data elements, the PHA data validation process, or anything concerning eCR please email: MIDIS@mt.gov.

Table 1. Priority 1 Data Elements (Required)

Data Element Category	Date Element Name	Detail/Description	Required	Percent Data Completion Requirement
Message Details/ Sending System Information	Document/Message Creation Date/Time	effectiveTime Date Format: YYYYMMDDHHMMSS-UTC offset	Required	100%
	Document ID		Required	100%
	SetId		Required	100%
	Version Number		Required	100%
Patient Information	Patient Id	Medical Record Number (MRN)	Required	90%
	First and Last Name		Required	99%
	Date of Birth		Required	99%
	Sex		Required	98%
	Race		Required	90%
	Ethnicity		Required	90%
	Patient Address - Street - City - State - Zip code		Required	99%
	Patient Contact Information - Telephone number - Email (if available)	Minimum required is telephone number.	Required	95%
	Language Communication	**languageCode** is the only required data element for language	Required	90%
	Parent/Guardian Name		Required if applicable	90%*
	Parent/Guardian Contact Information - Telephone number - Email (if available)		Required if applicable	90%*
	Death Indicator	Is the patient deceased?	Required	98%
	Death – Date/Time	**Required** if patient is deceased.	Required if applicable	98%*

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Data Element Category	Date Element Name	Detail/Description	Required	Percent Data Completion Requirement
Documentation	Indicator of manually initiated eICR	documentationOf @code="PHC1464" Manually Initiated eICR	Required if applicable	95%*
Author	Assigned Author: - Person **OR** - Authoring Device	If sending authoring device include: - Model Name - Software Name	Required	90%
Custodian	Healthcare Organization Name	Organization in charge of maintaining and caring for the document.	Required	90%
	Healthcare Organization Address	Organization in charge of maintaining and caring for the document.	Required	90%
	Healthcare Organization Telephone	Organization in charge of maintaining and caring for the document.	Required	80%
Encounter Details	Encounter Type	Value Set: ActEncounterCode	Required	98%
	Admission Date	Date Format: YYYYMMDDHHMMSS-UTC offset	Required	98%
	Discharge Date	Date Format: YYYYMMDDHHMMSS-UTC offset	Required if applicable	98%*
	Visit Date for Outpatient Encounter		Required if applicable	98%*
	Responsible Provider Name		Required	95%
	Responsible Provider - Telephone		Required	85%
	Healthcare Facility Name	Facility where care was provided when case was reported.	Required	98%
	Healthcare Facility Address - Street - City	Facility where care was provided when case was reported.	Required	98%

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Data Element Category	Date Element Name	Detail/Description	Required	Percent Data Completion Requirement
	- State - Zip Code			
	Healthcare Facility Contact Information - Telephone		Required	95%
	Encounter Diagnosis	MAY indicate no information if applicable to encounter.	Required	98%
	Encounter Diagnosis Date		Required	95%
Patient History	History of Present Illness	Historical details leading up to and pertaining to the patient's current reason for seeking medical care.	Required	90%
Reason for Visit	Reason for Visit	As documented by the provider.	Required	95%
Medications Administered	Medication(s) Administered (list)	Medications administered during an encounter. MAY contain @nullFlavor="NI".	Required	95%
	Time of Medication(s) Administration		Required if applicable	98%*
	Medication Administration Status		Required if applicable	98%*
Laboratory Results Observation	Laboratory Test Results Observation	MAY contain @nullFlavor= "NI".	Required	95%
	Laboratory Test Name/Component		Required if applicable	95%*
	Laboratory Test Code	SHOULD be LOINC, unless code unavailable.	Required if applicable	95%*
	Result Observation/Value	Physical quantity needs to include unit of measure. If cluster of differentiation (type = CD) then value	Required if applicable	95%*

Data Element Category	Date Element Name	Detail/Description	Required	Percent Data Completion Requirement
		SHOULD be SNOMED-CT. MAY contain translations for value.		
	Laboratory Test Result Date/Time	Date Format: YYYYMMDDHHMMSS-UTC offset	Required if applicable	95%*
	Specimen Collection Date	Date Format: YYYYMMDDHHMMSS-UTC offset	Required if applicable	90%*
Plan of Treatment	Plan of Treatment	Pending order, interventions, encounters, services, and/or procedures. MAY contain no entries if applicable to encounter.	Required	85%
Immunization	Immunization Status	Current immunization status and may contain the entire immunization history. MAY contain no entries if applicable to patient encounter. MAY contain @nullFlavor="NI".	Required	90%
	Immunization Vaccine Code		Required if applicable	95%*
	Immunization Date/ Date of administration	"INT" = Intended immunizations "EVN" = received immunizations Date Format: MM/DD/YYYY	Required if applicable	90%*
Problem List	Problem List (Diagnosis/Symptom Code)	Any ongoing concerns for the patient that the provider documents. MAY contain @nullFlavor= "NI".	Required	95%

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Data Element Category	Date Element Name	Detail/Description	Required	Percent Data Completion Requirement
	Problem Status		Required if applicable	95%*
	Effective Date	The time that the concern was authored in the patient's chart. **effectiveTime** (low value required) Resolved Problems need to include an **effectiveTime/high** to indicate when the concern was completed/ or no longer a concern.	Required if applicable	95%*
Social History	Pregnancy Observation - Pregnancy Status - Pregnancy Estimated Date of Delivery - Pregnancy Outcome	**Pregnancy must be reported in eICR document if applicable.** **All pregnancy observations need an associated date.**	Required if applicable	90%*

Notes

Required – Enforced data elements that must be mapped within the eICR and contain information. NullFlavor is acceptable for the data elements where indicated.

Required if applicable – These data elements are not enforced unless they are applicable to the patient encounter.

*Percent data completion requirement for this data element is calculated against only applicable eICRs.

Table 2. Priority 2 Data Elements (Recommended)

Data Element Category	Date Element Name	Detail/Description	Required	Percent Data Completion Goal
Patient Information	Patient Address - County		Recommended	85%
	Marital Status		Recommended	90%
Encounter Details	Responsible Provider Identifier	Use NPI number if available.	Recommended	90%
	Responsible Provider Facility/Office Name	Not necessarily where care was provided.	Recommended	90%
Encounter Details	Responsible Provider Facility/Office Address - Street - City - State - Zip Code	Not necessarily where care was provided.	Recommended	90%
	Date of Onset for Encounter Diagnosis		Recommended if available	80%
	Discharge Disposition	sdtc:discharge DispositionCode	Recommended if applicable	80%
Medications Administered	Dose or Rate Quantity	doseQuantity OR rateQuanitity	Recommended if applicable	95%
Immunization	Vaccine manufacturer		Recommended if available	85%
	Vaccine lot number		Recommended if available	70%
	Vaccine administrator		Recommended if available	70%
Laboratory Tests	Laboratory Test Result Observation Interpretation		Recommended	90%
	Laboratory Test Result		Recommended	90%

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Data Element Category	Date Element Name	Detail/Description	Required	Percent Data Completion Goal
	Interpretation Code			
	Laboratory Test Reference Range			90%
Plan of Treatment	Lab Test Order Trigger Code	Trigger code ordered lab tests ONLY. SHOULD be LOINC.	Recommended	75%
Problem List	Date of Onset	Date Format: MM/DD/YYYY	Recommended if available	50%
Social History	Birth Sex	F, M, or nullFlavor = "UNK"	Recommended	80%
	Patient Occupation	Past/Present if available.	Recommended if available	60%
	Patient Occupation - Industry	Past/Present if available.	Recommended if available	50%
	Travel History		Recommended if available	50%

	Tobacco Use
	  - Smoking
	  - Smokeless
			Recommended if available	70%

	Smoking Status		Recommended if available	70%
	Alcohol Use		Recommended if available	70%
	Gender Identity		Recommended if available	50%
	Sexual Orientation		Recommended if available	50%

Notes

Recommended – these data elements are not enforced but are recommended to include in the eICR. [Percent data completion requirement for this data element is calculated against only applicable eICRs and used for internal analysis only.]

Recommended if applicable – these data elements are not enforced but are recommended to include if applicable to the patient encounter. [Percent data completion requirement for this data element is calculated against only applicable eICRs and used for internal analysis only.]

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Recommended if available – if the information is available in the patient's electronic health record (EHR) then recommended to be included. [Percent data completion requirement for this data element is calculated against only applicable eICRs and used for internal analysis only.]

Acronyms

APHL – Association of Public Health Laboratories
CDC – Centers for Disease Control and Prevention
DPHHS – Department of Public Health of Human Services
eCR – Electronic Case Report/ Electronic Case Reporting
EHR – Electronic Health Record
eICR – Electronic Initial Case Report
HCO – Healthcare organization
HL7 – Health Level 7
PHA – Public Health Agency
RCTC – Reportable Conditions Trigger Codes