

# Death Notifications Implementation Guide

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### **Document History**



# **Table of Contents**

Acronyms and Abbreviations Guide	1
Definitions	6
1. Introduction	
1.1 Purpose of Use Case	16
1.2 Message Content	17
1.3 Data Flow and Actors	17
1.3.1 Data Flow	17
1.3.2 Actors	17
2 Onboarding	
2.1 Prerequisite	
2.1.1 Universal Legal Prerequisites	
2.1.2 Death Notification Use Case Prerequisites	
2.3 Receiving Death Notifications	
2.3.1 Receiving Death Notification Onboarding Process	
2.3.2 Receiving Death Notification Technical Connectivity Process	
3 Specifications	
3.1 Message Trigger Events	21
3.1.1 Specification for ADT^A04 – Register a Patient Message	21
3.1.2 Specification for ADT^A08 – Update Patient Information Message	
3.1.3 Specification for ADT^A23 – Delete a Patient Record Message	22
3.2 Message Transmission	22
3.3 Message Segment and Field Definitions	
3.3.1 Message Header (MSH) Segment	23
3.3.2 Event Type (EVN) Segment	25
3.3.3 Patient Identification (PID) Segment	
5 Troubleshooting	
5.1 Production Support	
6 Legal Advisory Language	
7 Appendix A: Sample Messages	



# **Acronyms and Abbreviations Guide**



AA	Assigning Authority
ACRS®	Active Care
	Relationship Service <sup>®</sup>
AD	Advance Directive
ADT	Admission, Discharge,
	Transfer
API	Application
	Programming Interface
САН	Critical Access Hospital
CAT 1	Category 1
CAT 3	Category 3
CCD®	Continuity of Care
002	Document
<b>CDA</b> <sup>®</sup>	Clinical Document
	Architecture
CDC	Centers for Disease
	Control and Prevention
CEHRT	Certified Electronic
-	Health Record
	Technology
CGS	Common Gateway
	Service
CHAMPS	Community Health
	Automated Medicaid
	Processing System
CHDR	Clinical Data
	Repository/Health Data
	Repository
CMS	Centers for Medicare &
	Medicaid Services
CQM	Clinical Quality
	Measure
CQMRR	Clinical Quality
	Measurement
	Reporting and
	Repository
DQA	Data Quality Assurance
DSM	Direct Secure
	Messaging
DSO	Data Sharing
	Organization
eCQM	electronic Clinical
	Quality Measure



eCR	Electronic Case
	Reporting
ЕН	Eligible Hospital
EHR	Electronic Health
	Record
EHR-MIPP	Electronic Health
	Record Medicaid
	Incentive Payment
	Program
eICR	Electronic Initial Case
	Report
EP	Eligible Professional
EPID	Enterprise Patient ID
esMD	CMS Electronic
	Submission of Medical
	Documentation
FHIR®	Fast Healthcare
	Interoperability
	Resources®
HEDIS	Healthcare
	Effectiveness Data and
	Information Set
HIE	Health Information
	Exchange
HIE-QO	Health Information
	Exchange Qualified
	Data Sharing
	Organization
HIN	Health Information
	Network
HITSP	Health Information
	Technology Standards
	Panel
HL7®	Health Level Seven®
нрр	Health Provider
LODD	Directory
ICBR	Integrated Care Bridge
	Kecord
ICD	International
	Classification of
	Diseases
ICN	Identification Control
100	Number
ICO	Integrated Care
	Urganization



ІСТ	Integrated Care Teams
IDN	Integrated Delivery
	Network
IHE	Integrating the
	Healthcare Enterprise
JSON	JavaScript Object
	Notation
LOINC	Logical Observation
	Identifiers Names and
	Codes
MDHHS	Michigan Department
	of Health and Human
	Services
MIDIGATE®	Medical Information
	Direct Gateway
MiHIN	Michigan Health
	Information Network
	Shared Services
MIP	Merit-Based Incentive
	Payment System
MPI	Master Person Index
MUCA	Master Use Case
	Agreement
NHIE	Nationwide Health
	Information Exchange
NHIO	Nationwide Health
	Information
MCT	Urganizations
NIST	National Institute of
	Stanuarus anu Tochnology
NDI	National Provider
	Identifier
NwHIN	Nationwide Health
	Information Network
OID	Ohiect Identifier
ONC	Office of the National
UNG	Coordinator
PD	Patient Discovery
	Patient Demographic
глб	
рнл	Query Dublic Hoalth Agongy
	Participating
PU	Participating
	organization



РоМ	Peace of Mind
PQRS	Physician Quality
•	Reporting System
PI	Promoting
	Interoperability
QD	Query for Documents
QRDA	Quality Reporting
C	Document Architecture
RAS	Registration and
	Attestation System
RD	Retrieve Documents
REST	Representational State
	Transfer
RR	Reportability Response
SAML	Security Assertion
	Markup Language
<b>SNOMED-CT</b>	Systemized
	Nomenclature of
	Medicine – Clinical
	Terms
SOAP	Simple Object Access
	Protocol
SOM	State of Michigan
SSA	Social Security
	Administration
SSO	Single Sign On
SSSO	State Sponsored Data
	Sharing Organization
SCD	Statewide Consumer
	Directory
TDSO	Trusted Data Sharing
	Organization
UCA	Use Case Agreement
UCS	Use Case Summary
URL	Uniform Resources
	Locators
VA	Department of Veterans
	Affairs
VLER	Virtual Lifetime
	Electronic Record
VPN	Virtual Private Network
XCA	Cross Community
	Access

XCPD	Cross-Community
	Patient Discovery
XDR	Cross-Enterprise
	Document Reliable
	Interchange
XDS	Cross-Enterprise
	Document Sharing
XML	Extensible Markup
	Language

### Definitions

- **Attribution**. The connection between a consumer and their healthcare providers. One definition of attribution is "assigning a provider or providers, who will be held accountable for a member based on an analysis of that member's claim data." The attributed provider is deemed responsible for the patient's cost and quality of care, regardless of which providers actually deliver the service.
- Active Care Relationship (ACR). (a) For health providers, a patient who has been seen by a provider within the past 24 months, or is considered part of the health provider's active patient population they are responsible for managing, unless notice of termination of that treatment relationship has been provided to Michigan Health Information Network Shared Services (MiHIN); (b) for payers, an eligible member of a health plan;(c) an active relationship between a patient and a health provider for the purpose of treatment, payment and/or healthcare operations consistent with the requirements set forth in Health Insurance Portability and Accountability Act (HIPAA); (d) a relationship with a health provider asserted by a consumer and approved by the health provider; or (e) any person or Trusted Data Sharing Organization authorized to receive message content under an exhibit which specifies that an Active Care Relationship (ACR) may be generated by sending or receiving message content under that exhibit. ACR records are stored by MiHIN in the Active Care Relationship Service.
- Active Care Relationship Service<sup>®</sup> (ACRS<sup>®</sup>). The Michigan Health Information Network Shared Services infrastructure service that contains records for Trusted Data Sharing Organizations, their participating organizations participants or any health providers who have an active care relationship with a patient.
- Admission, Discharge, Transfer (ADT). An event that occurs when a patient is admitted to, discharged from, or transferred from one care setting to another care setting or to the patient's home. For example, an Admission, Discharge, Transfer (ADT) event occurs when a patient is discharged from a hospital. An ADT event also occurs when a patient arrives in care setting such as a health clinic or hospital.
- **ADT Message**. A type of Health Level Seven<sup>®</sup> (HL7<sup>®</sup>) message generated by healthcare systems based upon Admission, Discharge, Transfer (ADT) events and the HL7 *"Electronic Data Exchange in Healthcare"* standard. The HL7 ADT message type is used



to send and receive patient demographic and healthcare encounter information, generated by source system(s). The ADT messages contain patient demographic, visit, insurance, and diagnosis information.

- **ADT Notification.** An electronic notification that a given patient has undergone an Admission, Discharge, Transfer (ADT) event. An ADT Notification is not a complete ADT Message.
- **Advance Directive.** A document in which consumers specify what type of medical care they want in the future, or who should make medical decisions if they become unable to make decisions for themselves.
- **Applicable Laws and Standards**. In addition to the definition set forth in the Data Sharing Agreement, the federal Confidentiality of Alcohol and Drug Abuse Patient Records statute, section 543 of the Public Health Service Act, 42 U.S.C. 290dd-2, and its implementing regulation, 42 CFR Part 2; the Michigan Mental Health Code, at MCLA §§ 333.1748 and 333.1748a; and the Michigan Public Health Code, at MCL § 333.5131, 5114a.
- **C32.** Healthcare Information Technology Standards Panel Summary Documents Using Health Level Seven® Continuity of Care Document Component -<u>http://www.hitsp.org/ConstructSet Details.aspx?&PrefixAlpha=4&PrefixNumeric=32</u>.
- **C62.** The Healthcare Information Technology Standards Panel Unstructured Document Component is provided for the capture and storage of patient identifiable, unstructured document content, such as text, PDF, and images rendered in PDF. It is based on the Cross-Enterprise Sharing of Scanned Documents (XDS-SD) profile from Integrating the Healthcare Enterprise -

http://www.hitsp.org/ConstructSet Details.aspx?&PrefixAlpha=4&PrefixNumeric=62

**C83.** The Healthcare Information Technology Standards Panel (HITSP) Clinical Document Architecture (CDA) Content Modules Component. The CDA Content Modules Component defines the content modules for document based HITSP constructs utilizing clinical information-

http://www.hitsp.org/ConstructSet Details.aspx?&PrefixAlpha=4&PrefixNumeric=83

- **Caregiver.** An individual such as a health professional or social worker who assists in the identification, prevention or treatment of an illness or disability.
- **Clinical Document Architecture (CDA).** A message structure that uses XML and is made up of Templates and Profiles with RIM attributes and codes. One of the main advantages to using XML is the human readable structure.
- **Common Gateway.** The method by which data is sent and received by Michigan Health Information Network Shared Services using various national standard protocols (e.g., NwHIN SOAP, IHE XCA, IHE XDS.b).
- **Conforming Message.** A message that is in a standard format that strictly adheres to the implementation guide for its applicable use case.



- **CONNECT.** An open source software solution that supports health information exchange both locally and at the national level. CONNECT uses Nationwide Health Information Network standards and governance to make sure that health information exchanges are compatible with other exchanges being set up throughout the country (<u>http://www.connectopensource.org/</u>). This software solution was initially developed by federal agencies to support their health-related missions, but it is now available to all organizations and can be used to help set up health information exchanges and share data using nationally-recognized interoperability standards.
- **Critical Access Hospital (CAH).** A Critical Access Hospital as defined under the Medicaid Electronic Health Record Incentive Program.
- **Data Sharing Agreement.** Any data sharing organization agreement signed by both Michigan Health Information Network Shared Services (MiHIN) and a participating organization. Data sharing organization agreements include but are not limited to: Qualified Data Sharing Organization Agreement, Virtual Qualified Data Sharing Organization Agreement, Consumer Qualified Data Sharing Agreement, Sponsored Shared Organization Agreement, State Sponsored Sharing Organization Agreement, Direct Data Sharing Organization Agreement, Simple Data Sharing Organization Agreement, or other data sharing organization agreements developed by MiHIN.
- **DS Message.** A message specific to the document submission (DS) specification that conforms in content and format to the Integrating the Healthcare Enterprise's Cross-enterprise Document Reliable Interchange specification.
- **EdgeSim.** Simulators that are utilized in a testing environment to simulate testing with a data sharing organization.
- **Michigan's Electronic Death Registration System (EDRS)**. Provides a secure, web-based environment that supports online collaboration, from the creation of records to the production of certified copies. EDRS allows funeral homes, medical certifiers, medical examiners, and registrars offices to complete death certificates online, securely, faster, and with fewer errors than on paper, 24 hours a day.
- eHealth Exchange. See the definition for The Sequoia Project.
- **Electronic Address.** A string that identifies the transport protocol and end point address for communicating electronically with a recipient. A recipient may be a person, organization or other entity that has designated the electronic address as the point at which it will receive electronic messages. Examples of an electronic address include a secure email address (Direct via secure Simple Mail Transfer Protocol) or secure URL (SOAP/XDR/REST/FHIR). Communication with an electronic address may require a digital certificate or participation in a trust bundle.
- **Electronic CQM (eCQM).** Clinical Quality Measure that are specified in a standard electronic format and are designed to use data from health information technology systems for measurement.



- **Electronic Medical Record or Electronic Health Record (EMR/EHR)**. A digital version of a patient's paper medical chart.
- **Electronic Service Information (ESI).** All information reasonably necessary to define an electronic destination's ability to receive and use a specific type of information (e.g., discharge summary, patient summary, laboratory report, query for patient/provider/healthcare data). Electronic Service Information (ESI) may include the type of information (e.g., patient summary or query), the destination's electronic address, the messaging framework supported (e.g., SMTP, HTTP/SOAP, XDR, REST, FHIR), security information supported or required (e.g., digital certificate) and specific payload definitions (e.g., CCD C32 V2.5). In addition, ESI may include labels that help identify the type of recipient (e.g., medical records department).
- **Eligible Hospital (EH).** An Eligible Hospital as defined under the Medicare and Medicaid Electronic Health Record Incentive Programs.
- **Eligible Professional (EP).** An Eligible Professional as defined under the Medicare and Medicaid Electronic Health Record Incentive Programs.
- End Point. An instance of an electronic address or ESI.
- Exhibit. Collectively, a use case exhibit or a pilot activity exhibit.
- **FedSim**. Simulators that are utilized in a testing environment to simulate testing with a federal partner e.g., Social Security Administration or U.S. Department of Veterans Affairs.
- **Health Directory**. The statewide shared service established by Michigan Health Information Network Shared Services that contains contact information on health providers, electronic addresses, end points, and ESI, as a resource for authorized users to obtain contact information and to securely exchange health information.
- **Health Level Seven® (HL7®)**. An interface standard and specifications for clinical and administrative healthcare data developed by the Health Level Seven organization and approved by the American National Standards Institute (ANSI). HL7 provides a method for disparate systems to communicate clinical and administrative information in a normalized format with acknowledgement of receipt
- **Health Information.** Any information, including genetic information, whether oral or recorded in any form or medium, that (a) is created or received by a health provider, public health authority, employer, life insurer, school or university, or healthcare clearinghouse; and (b) relates to the past, present, or future physical or mental health or condition of an individual; the provision of healthcare to an individual; or the past, present, or future payment for the provision of healthcare to an individual.
- **Health Information Network (HIN).** An organization or group of organizations responsible for coordinating the exchange of protected health information in a region, state, or nationally.



- **Health Plan.** An individual or group plan that provides, or pays the cost of medical care (as "group health plan" and "medical care" are defined in section 2791(a)(2) of the Public Health Service Act, 42 U.S.C. 300gg-91(a)(2)). Health plan further includes those entities defined as a health plan under HIPAA, 45 C.F.R 160.103.
- **Health Professional.** Means (a) any individual licensed, registered, or certified under applicable Federal or State laws or regulations to provide healthcare services; (b) any person holding a nonclinical position within or associated with an organization that provides or coordinates healthcare or healthcare related services; and (c) people who contribute to the gathering, recording, processing, analysis or communication of health information. Examples include, but are not limited to, physicians, physician assistants, nurse practitioners, nurses, medical assistants, home health professionals, administrative assistants, care managers, care coordinators, receptionists and clerks.
- **Health Provider.** Means facilities/hospitals, health professionals, health plans, caregivers, pharmacists/other qualified professionals, or any other person or organization involved in providing healthcare.
- **ICD-10.** Diagnosis codes is the 10th revision of the International Statistical Classification of Diseases and Related Health Problems, a medical classification list by the World Health Organization.
- Immunization Information System (IIS). A registry that stores immunization records.
- **Information Source**. Any organization that provides information that is added to a Michigan Health Information Network Shared Services infrastructure service.
- **Integrating the Healthcare Enterprise**. An initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information (http://www.ihe.net/). Integrating the Healthcare Enterprise (IHE) promotes the coordinated use of established standards such as DICOM and Health Level Seven<sup>®</sup> to address specific clinical needs in support of optimal patient care. Systems developed in accordance with IHE communicate with one another better, are easier to implement, and enable care providers to use information more effectively. The Nationwide Health Information Network specifications utilize underlying IHE specifications for various services for health data exchange
- **LOINC.** Logical Observation Identifiers Names and Codes is a database and universal standard for identifying medical laboratory observations.
- **Master Use Case Agreement (MUCA).** Legal document covering expected rules of engagement across all use cases. Trusted data sharing organizations sign master use case agreement one time, then sign use case exhibits for participation in specific use cases.
- **Message**. A mechanism for exchanging message content between the participating organization to Michigan Health Information Network Shared Services, including query and retrieve.



- **Message Content**. Information, as further defined in an Exhibit, which is sent, received, found or used by a participating organization to or from Michigan Health Information Network Shared Services. Message content includes the message content header.
- **Message Header ("MSH") or Message Content Header**. The Message Header segment present in every Health Level Seven<sup>®</sup> (HL7<sup>®</sup>) message type that defines the Message's source, purpose, destination, and certain syntax specifics such as delimiters (separator characters) and character sets. It is always the first segment in the HL7 message, with the only exception being HL7 batch messages.
- **Michigan Care Improvement Registry (MCIR)**. The Immunization Information System for the State of Michigan operated by the Michigan Department of Health and Human Services.
- Michigan Health Information Network Shared Services. The health information network for the State of Michigan.
- **MiHIN Infrastructure Service**. Certain services that are shared by numerous use cases. Michigan Health Information Network Shared Services infrastructure services include, but are not limited to, Active Care Relationship Service<sup>®</sup>, Health Directory, Statewide Consumer Directory, and the Medical Information Direct Gateway (MIDIGATE<sup>®</sup>).
- **MiHIN Services**. The Michigan Health Information Network Shared Services (MiHIN) infrastructure services and additional services and functionality provided by MiHIN allowing the participating organizations to send, receive, find, or use information to or from MiHIN as further set forth in an exhibit.
- **Merit-Based Incentive Payment System.** The program that will determine Medicare payment adjustments. Using a composite performance score, eligible clinicians (ECs) may receive a payment bonus, a payment penalty or no payment adjustment.
- Nationwide Health Information Network (NwHIN). See the definition for The Sequoia Project.
- **Nationwide Health Information Organizations (NHIO).** Nodes on the eHealth Exchange that use the Nationwide Health Information Network web services to facilitate exchange of information with other nodes in the network.
- **NwHIN Authorization Framework Specification.** The purpose of this specification is to define the required exchange of information describing the initiator of a request between Health Information Organizations participating in the eHealth Exchange network. This enables a responding Nationwide Health Information Organizations (NHIO) to evaluate the request based on the initiating NHIOs assertions and its own local policies and permissions.
- **NwHIN Document Submission (DS) Web Service Interface Specification.** The purpose of this specification is to provide the ability to "send" data for a given patient from an exchange partner to a health information exchange using configuration on the sender side.



- **NwHIN Gateway.** An implementation of the Nationwide Health Information Network specified web service interfaces. These web service interfaces communicate over secured Hypertext Transfer Protocol Secure using Public Key Infrastructure supported by the Nationwide Health Information Network Operational Infrastructure.
- **NwHIN Interface.** An implementation of the Nationwide Health Information Network (NwHIN) specified web service interfaces. These web service interfaces communicate over secured Hypertext Transfer Protocol Secure using Public Key Infrastructure supported by the NwHIN Operational Infrastructure.
- **NwHIN Messaging Platform Specifications.** The purpose of this specification is to define a base set of messaging standards and web service protocols which must be implemented by each node in the eHealth Exchange network and applies to all eHealth Exchange transactions.
- **NwHIN Patient Discovery Web Service Interface Specification.** The purpose of this specification is to define the mechanism by which one eHealth Exchange node can query another to reciprocally establish patient identity and to determine if a node may be a source of information for a specific patient.
- **NwHIN Query for Documents Web Service Interface Specification.** The purpose of this specification is to define the mechanism by which an initiating eHealth Exchange node can request a patient-specific list of available documents from a responding node using the patient ID obtained by a prior Patient Discovery transaction.
- **NwHIN Retrieve Documents Web Service Interface Specification.** The purpose of this specification is to define the mechanism by which an Initiating eHealth Exchange node can retrieve specific documents from a responding node using the Document Reference IDs obtained using a prior Query for Documents transaction.
- **Negative Acknowledgment (NAK or NACK).** "Not acknowledged" and is used to negatively acknowledge or to reject previously received message content or to indicate some kind of error.
- **Notice**. A message transmission that is not message content and which may include an acknowledgement of receipt or error response, such as an Acknowledged or Not Acknowledged.
- **Patient Data**. Any data about a patient or a consumer that is electronically filed in a participating organization or participating organization participant's systems or repositories. The data may contain protected health information, personal credit information, and/or personally identifiable information.
- **Person Record**. Any record in a Michigan Health Information Network Shared Services infrastructure service that primarily relates to a person.
- **Pilot Activity**. The activities set forth in the applicable exhibit and typically includes sharing message content through early trials of a new use case that is still being defined and is still under development and which may include participating organization



feedback to Michigan Health Information Network Shared Service to assist in finalizing a use case and use case exhibit upon conclusion of the pilot activity.

- **Promoting Interoperability**. Using certified electronic health record technology to improve quality, safety and efficiency of healthcare, and to reduce health disparities as further contemplated by Title XIII of the American Recovery and Reinvestment Act of 2009.
- **Principal.** A person or a system utilizing a federated identity through a federated organization.
- **Provider Community**. A healthcare provider with an active care relationship with the applicable patient.
- **Public Health Agency**. Entities that have the legal authority to receive case reports on conditions of interest to them (Ex. Michigan Department of Health and Human Services).
- **Query for Documents Message**. A message specific to the Query for Documents Web Services Interface Specification that references the Integrating the Healthcare Enterprise's Cross-Community Access specification.
- **Reportability Response.** A message used to communicate the reportability of a case report.
- **REST**. REST stands for Representational State Transfer, which is an architectural style, and an approach to communications that is often used in the development of web services.
- **Retrieve Documents Message**. Retrieve documents web services interface specification that references the Integrating the Healthcare Enterprise's Cross-Community Access specification.
- Send/Receive/Find/Use (SRFU). Means sending, receiving, finding, or using message content. Sending involves the transport of message content. Receiving involves accepting and possibly consuming or storing message content. Finding means querying to locate message content. Using means any use of the message content other than sending, receiving and finding. Examples of use include consuming into workflow, reporting, storing, or analysis. Send/Receive/Find/Use (SRFU) activities must comply with Applicable Laws & Standards or State Administrative Code as that term is defined in this agreement and the data sharing agreement.
- **Service Interruption**. A party is unable to send, receive or find message content for any reason, including the failure of network equipment or software, scheduled or unscheduled maintenance, general Internet outages, and events of force majeure.
- **SNOMED CT.** Systemized Nomenclature of Medicine Clinical Terms is a systematically organized computer processable collection of medical terms providing codes, terms, synonyms and definitions used in clinical documentation and reporting.
- **SOAP**. SOAP originally defined as Simple Object Access Protocol is a lightweight protocol intended for exchanging structured information in a decentralized, distributed

environment. It uses XML technologies to define an extensible messaging framework providing a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation specific semantics. For the eHealth Exchange to be a truly scalable, secure and interoperable network, a common transport layer is essential. The messaging platform is based on SOAP 1.2 messages over Hypertext Transfer Protocol.

- **Source System**. A computer system, such as an electronic health record system, at the participating organization, that sends, receives, finds or uses message content or notices.
- **Specifications**. Specifications provide a standard set of service interfaces that enable the exchange of interoperable health information among the health information exchanges.
- **Statewide Consumer Directory (SCD)**. A Michigan Health Information Network Shared Services infrastructure service that helps organizations provide tools to consumers, which allow the consumers to manage how their personal Health Information can be shared and used. The Statewide Consumer Directory is essentially a Software Development Kit with a robust set of Application Programming Interfaces that can be used by consumer-facing applications that enable consumers to take an active role in viewing and editing their preferences for how their health information is shared.
- **Target HIE.** The health information exchange or eHealth Exchange Node that the message or feedback is being addressed.
- **The Sequoia Project.** An organization that manages the nationwide network formerly known as Nationwide Health Information Network now called eHealth Exchange, which uses a set of standards, services and policies that enable secure health information exchange over the Internet
- **Transactional Basis.** The transmission of message content or a notice within a period of time of receiving message content or notice from a sending or receiving party as may be further set forth in a specific exhibit.
- **Transitions of Care**. The movement of a patient from one setting of care (e.g., hospital, ambulatory primary care practice, ambulatory specialty care practice, long-term care, rehabilitation facility) to another setting of care and can include transfers within a healthcare organization.
- **Trusted Data Sharing Organization (TDSO)**. An organization that has signed any form of agreement with Michigan Health Information Network Shared Services for data sharing.
- Use Case. (a) A use case agreement previously executed by a participating organization; or(b) the use case summary, use case exhibit and a use case implementation guide that participating organization or Trusted Data Sharing Organization must follow to share specific message content with the Michigan Health Information Network Shared Services.



- **Use Case Exhibit.** The legal agreement attached as an exhibit to the master use case agreement that governs participation in any specific use case.
- **Use Case Implementation Guide (UCIG)**. The document providing technical specifications related to message content and transport of message content between participating organization, Michigan Health Information Network Shared Services, and other Trusted Data Sharing Organizations. Use case implementation guides are made available via URLs in exhibits.
- **Use Case Summary**. The document providing the executive summary, business justification and value proposition of a use case. Use case summaries are provided by Michigan Health Information Network Shared Services (MiHIN) upon request and via the MiHIN website at <u>www.mihin.org</u>.
- **View Download Transmit (VDT).** A requirement for Promoting Interoperability with the objective to provide patients with the ability to view online, download and transmit their health information within a certain period of the information being available to an eligible professional.
- **XCA**. The Integrating the Healthcare Enterprise<sup>®</sup> standard for Cross-Community Access which provides specifications to query and retrieve patient relevant health information held by other communities.
- **XDS.b**. The Integrating the Healthcare Enterprise<sup>®</sup> standard for Cross-Enterprise Document Sharing revision b, which provides specifications to query and retrieve patient relevant healthcare data held within a community.

# **1. Introduction**

### 1.1 Purpose of Use Case

Allows participating organizations receive notifications of deaths in a timely and accurate fashion

There are approximately 90,000 deaths annually in Michigan, a death rate of almost 0.1percent. Roughly 75% of these deaths are residents over the age of 65 who are likely tohave been Medicare beneficiaries.<sup>1</sup>

For many years, delayed death notifications have financially impacted healthcare facilities and government departments. There have also been accounts of people using these delaysfor fraudulent insurance claims or other criminal activities. For example:

- In 2011 Medicare paid \$23 million to deceased patients<sup>2</sup>
- Also, in 2011, a Georgia Doctor was billed \$2M in fraudulent claims<sup>3</sup>
- In 2015, the United States Accountability Office noted that identities of about 200beneficiaries received \$9.6 million worth of Medicaid benefits subsequent to the beneficiaries' deaths<sup>4</sup>

The Death Notifications use case can help:

- Inform care teams of a death if the person is involved in a study
- Notify care teams of fact of death such that they can identify intervention opportunities for suspected fraud and/or substance abuse
- Improve home health, rehabilitation, and hospice organizations' ability to reallocate resources and scheduling availability
- Enable better synchronization between state and local vital records registries

<sup>&</sup>lt;sup>4</sup> Seto Bagdoyan, "MEDICAID: CMS Could Take Additional Actions to Help Improve Provider and Beneficiary Fraud Controls," Testimony Before the Subcommittee on Oversight and Investigations, Committeeon Energy and Commerce, House of Representatives, United States Government Accountability Office (June 2, 2015), accessed on August 4, 2016, http://www.gao.gov/assets/680/670581.pdf



<sup>&</sup>lt;sup>1</sup> "Number of Deaths and Age-adjusted Mortality Rates for the Ten Leading Causes of Death, Michigan and United States Residents, 2014," accessed on August 5, 2016, http://www.mdch.state.mi.us/pha/osr/deaths/causrankcnty.asp

<sup>&</sup>lt;sup>2</sup>Lisa Barron, "Medicare Paid Out Millions for Deceased and Undocumented Patients," Newsweek (November 1, 2013), accessed on August 4, 2016, http://www.newsmax.com/US/medicare-deceased-patients-payouts/2013/11/01/id/534326/

<sup>&</sup>lt;sup>3</sup> "Doctor Pleads Guilty to Billing Medicare and Medicaid for Counseling Sessions with Dead Patients," Federal Bureau of Investigation (June 6, 2011), accessed on August 4, 2016,

https://archives.fbi.gov/archives/atlanta/press-releases/2011/doctor-pleads-guilty-to-billing-medicare- and medicaid-for-counseling-sessions-with-dead-patients

### 1.2 Message Content

For this use case, Message Content refers to a message conforming to HL7 2.7.1 standards identified as an ADT message type.

### 1.3 Data Flow and Actors

1.3.1 Data Flow



Figure 1. Electronic Death Notifications Workflow

Electronic death notifications are generated on a transactional basis.

- 1. A death record is filed within the Electronic Death Notification Registration System (EDRS)
- 2. State's Data Hub generates an electronic death notification message and forwards it to MiHIN
- 3. MiHIN queries the death notification against ACRS<sup>®</sup>. MiHIN also utilizes the Common Key Service to aid in patient matching identifying participating organizations.
- 4. The Health Directory determines the proper destination and routes to the appropriate participating organization accordingly

#### 1.3.2 Actors

- *Actor:* Death Record Submitter:
  - *Role:* registers death record in EDRS
- *Actor:* Electronic Death Registration System (EDRS):
  - *Role:* allows death records to be registered electronically by funeral directors, physicians, medical examiners, nursing homes, and hospitals; submits death notification to State's Data Hub
- Actor: State's Data Hub
  - *Role:* receive death notification from EDRS; transforms custom XML file to ADT message; submits ADT^A04 to MiHIN in the event of a new death

notification; submits ADT^A08 to MiHIN in the event of an amended death notification; submits ADT^A23 to MiHIN in the event of a voided, retraction or sealed death notification

- Actor: Death Notification Receiver
  - *Role:* receive death notification for deceased with Active Care Relationship through delivery preference in Health Directory; submits ACRS Attribution and ACRS Delivery file

### **2** Onboarding

The following guidelines describe the way in which an organization may onboard with MiHIN to receive Death Notification. Additional documentation is available on the MiHIN use case page if needed <u>https://mihin.org/death-notifications-use-case/</u>).

### 2.1 Prerequisite

Participating organizations should begin two parallel onboarding tracks simultaneously:

- Obtain, review, and execute legal agreements, and
- Establish technical transport and testing.

### 2.1.1 Universal Legal Prerequisites

Legal agreements for organizations who are onboarding for the first-time consist of a Data Sharing Organization Agreement, a Master Use Case Agreement, and Use Case Exhibits for any applicable use cases.

Once an organization signs the Master Use Case Agreement, only a new Use Case Exhibit is required for each additional use case.

To initiate the legal onboarding contact, email legal@mihin.org.

### 2.1.2 Death Notification Use Case Prerequisites

Receiving Death Notifications requires participation in the following use cases:

- Common Key Service
- Active Care Relationship Service
- Health Directory

See Figure 1 (above) for an example of how these use cases work together.

### 2.3 Receiving Death Notifications

### 2.3.1 Receiving Death Notification Onboarding Process





Figure 4. MiHIN Death Notifications Receiver Onboarding Flowchart

For Death Notification Receivers, onboarding steps are as follows:

- Express interest in participating in the use case
- Meet with Account Manager
  - Exchange contact information
- Initiate signing of legal documents
- Legal Review
- Execute legal documents
  - Data Sharing Organization Agreement (if not already executed)
  - Master Use Case Agreement (if not already executed)
  - Use Case Exhibit
- Kick Off Meeting
  - Distribute Death Notifications care package
- Exchange required documents
  - Transport document
- Establish transport method/connectivity (e.g., via HIE, VPN, or DSM)
- Send ACRS file(s) securely
- Validate ACRS file(s)
- Test Call
  - Transport document
- Go live

### 2.3.2 Receiving Death Notification Technical Connectivity Process

HIN considers itself "transport agnostic" and offers multiple options for organizations to establish technical connectivity to transport data to HIN. Organizations should select one or more connectivity methods for message transport based on their technical capabilities and should communicate the selection(s) to www.mihin.org/requesthelp early in the onboarding process. Currently the ONLY transport methods the HIN accepts are:

- LLP over IPsec VPN Lower-Layer Protocol over Internet Protocol Security Virtual Private Network
- DSM Direct Secure Messaging

For VPN connectivity two VPNs are required. A primary VPN will facilitate regular traffic. A secondary will be established for fail-over purposes.

Additional transport methods may be added in the future. These can include NwHIN, XCA, REST/RESTFUL APIs, FHIR, and others.

The following steps describe the technical onboarding process. However, HIN typically conducts "onboarding kickoff" meetings with new organizations to go through each of these steps in detail and answer any questions.

- 1. The organization selects one supported transport method and establishes connectivity with HIN. This step varies based on the method selected:
  - a. **LLP over IPsec VPN** HIN's site-to-site VPN request form must be completed, submitted and approved by HIN. Visit www.mihin.org/requesthelp to obtain the VPN request form. A pre-shared key exchanges between the organization and HIN to initialize the connection. The LLP over IPsec VPN is the most efficient transport for very high volumes of messages.
  - b. Direct Secure Messaging HIN accepts Direct Secure Messages from Health Internet Service Provider (HISPs) that have EHNAC-DTAAP (DirectTrust) accreditation. Test messages are sent to verify HISP connectivity ("ping pong"). The Message Header section in the test messages is verified for appropriate routing configuration.
- 2. Test messages are sent by the HIN to the organization.
  - a. All test messages will have a "T" in the Message Header field 11
  - b. Test traffic is routed via HIN to the appropriate destination.
  - c. The end destination monitors for inbound test traffic and confirm receipt with HIN, which confirms with the organization.

### 2.3.3 Receiving Death Notification ACRS Delivery File Requirements

Organizations must submit an ACRS delivery file to receive death notifications. MiHIN will utilize the file to manage delivery preferences at the managing organization, practice, and provider level for outbound messages.



Organizations should indicate "LLP" for LLP over IPsec VPN or "DIRECT" for Direct Secure Messaging (DSM) in the "Death Delivery" column of the ACRS delivery file. More information about the Active Care Relationship Service and delivery file can be found here:

https://mihin.org/active-care-relationship-service-use-case-2/

# **3 Specifications**

The following guidelines describe the way in which segment and field requirements apply to conformant messages.

### 3.1 Message Trigger Events

The HL7 message type for Death Notifications is ADT and would include information concerning all deaths in the state of Michigan. This includes updates or voids to deaths that occurred before the use case went live. Thus, while a new death may never have been received, an update to it or void may still be transmitted to the participating organization.

In addition, a participating organization will receive an update to a death when any part of the death record changes, even if it's a data element not transmitted to the participating organization. Because the messages only contain fact of death, some information such as burial information is not contained in these messages. However, if an update to occurs in the burial information, the participating organization will receive an update message.

Based on the above, it is also important to note that organizations should consider only the most recent notification as the current and accurate state.

The trigger events are:

- ADT^A04 Register a Patient Message in the event of a new death notification or in a case where a previous record was un-voided, un-sealed or un-retracted.
- ADT^A08 Update Patient Information Message in the event of an amended death notification
- ADT^A23 Delete a Patient Record Message in the event of a voided, retraction or sealed death notification

### 3.1.1 Specification for ADT^A04 – Register a Patient Message

Below is the specification of the ADT^A04

Segment	Description	Usage	Cardinality	HL7	Description
				Chapter	
MSH	Message	R	11	2	The Message Header (MSH) segment
	header				contains information describing how
					to parse and process the message.
					This includes identification of
					message delimiters, sender, receiver,
					message type, timestamp, etc.



EVN	Event type	0	11	3	
PID	Patient	R	11	3	The Patient Identification (PID)
identification					segment is used to communicate
					infant identifying information.

### 3.1.2 Specification for ADT^A08 – Update Patient Information Message

Below is the specification of the ADT^A08

Segment	Description	Usage	Cardinality	HL7	Description
				Chapter	
MSH	Message header	R	11	2	The Message Header (MSH) segment contains information describing how to parse and process the message. This includes identification of message delimiters, sender, receiver, message type, timestamp, etc.
EVN	Event type	0	11	3	
PID	Patient identification	R	11	3	The Patient Identification (PID) segment is used to communicate infant identifying information.

### 3.1.3 Specification for ADT^A23 – Delete a Patient Record Message

Below is the specification of the ADT^A23

Segment	Description	Usage	Cardinality	HL7	Description
				Chapter	
MSH	Message header	R	11	2	The Message Header (MSH) segment contains information describing how to parse and process the message. This includes identification of message delimiters, sender, receiver, message type, timestamp, etc.
EVN	Event type	0	11	3	
PID	Patient identification	R	11	3	The Patient Identification (PID) segment is used to communicate infant identifying information.

### 3.2 Message Transmission



*S*ingle message transmission is required per fact of death. For *the* Death Notifications use case a message will contain a single fact of death. This will be a single message at a time, not batching. The message could be an Add, an Update or a Delete.

### 3.3 Message Segment and Field Definitions

### 3.3.1 Message Header (MSH) Segment

The message header (MSH) segment contains information describing how to parse and process the message. This includes identification of message delimiters, sender, receiver, message type, timestamp, etc.

Seq ue	Len gth	DT	Usa ge	Cardi nality	TBL#		Element	
nce	0		0-			Item#	Name	Comments
1	1	ST	R	11		00001	Field	Literal value: ' ' [ASCII
							Separator	(124)].
2	5	ST	R	11		00002	Encoding Character s	Four characters, always appearing in the same order: ^~\&# . Literal value: '^~\&#'.</td></tr><tr><td>3</td><td></td><td>HD</td><td>R</td><td>11</td><td>0361</td><td>00003</td><td>Sending Applicati on</td><td>Literal value of "HESB^2.16.840.1.114222 .4.3.2.2.3.161.1.4372^ISO"</td></tr><tr><td>4</td><td></td><td>HD</td><td>R</td><td>11</td><td>0362</td><td>00004</td><td>Sending Facility</td><td>Literal value of "MDHHS^2.16.840.1.1142 22.4.3.2.2.3.161.1^ISO"</td></tr><tr><td>5</td><td></td><td>HD</td><td>R</td><td>11</td><td>0361</td><td>00005</td><td>Receiving Applicati on</td><td>Literal value of "MiHIN"</td></tr><tr><td>6</td><td></td><td>HD</td><td>R</td><td>11</td><td>0362</td><td>00006</td><td>Receiving Facility</td><td>Literal value of "MiHIN"</td></tr><tr><td>7</td><td></td><td>TS</td><td>R</td><td>11</td><td></td><td>00007</td><td>Date/Tim e Of Message</td><td></td></tr><tr><td>9</td><td></td><td>MS G</td><td>R</td><td>11</td><td>0076 0003</td><td>00009</td><td>Message Type</td><td>For the result message Literal Value: 'ADT^A04'.</td></tr></tbody></table>



								For the	
								acknowled	
								gement	
								message	
								Literal	
								Value:	
								(ΔCK^Δ04)	
								For the	
								rogult	
								moreage	
								literel	
								Literal	
								value:	
								ADTA08	
								For the	
								acknowled	
								gement	
								message	
								Literal	
								Value:	
								'ACK^A08'.	
								For the	
								result	
								message	
								Literal	
								Value:	
								'ADT^A23'	
								For the	
								acknowled	
								gement	
								mossago	
								Litoral	
								Value	
10	100	CTT	D	1 1		00010	Managar	AUKAZ3.	
10	199	51	К	11		00010	Message	Shall be unique for the	
							Lontrol	sender.	
			-				ID		
11		РТ	R	11		00011	Processin	Field that may be used to	
							g ID	indicate the intent for	
								processing the message,	
								such as "T" (training or	
								testing) or "P"	
								(production).	
12		VI	R	11	0104	00001	Version	For this message, the	
		D				2	ID	version ID will always be	
								literal value: "2.7.1"	



15	2	ID	X	00	0155	00015	Accept Acknowle dgment Type	Due to the public health nature of this message and a need to retransmit if the message was not received, MDHHS will acknowledge all messages and ignore this value. This field points out the conditions under which accept acknowledgements should be returned regarding this message.
16	2	ID	X	00	0155	00016	Applicati on Acknowle dgment Type	Due to the public health nature of this message and a need to retransmit if the message was not received, MDHHS will acknowledge all messages and ignore this value. NOTE: Some HIEs may require this field to be populated with 'AL'. Check with your HIE for details.
17	3	ID	0	01		00017	Country Code	
18	15	ID	0	099		00692	Character Set	
19		C W E	0	01			Principal Language Of Message	

### 3.3.2 Event Type (EVN) Segment

The event type (EVN) segment is used to communicate necessary trigger event information to receiving applications.

SequenceLength DT	Usage CardinalityTBL#		Element	
		Item#	Name	Comments



2	DTM	R	11		00100	Recorded	
						Date Time	
3	DTM	0	01		00101	Date Time	
						Planned	
						Event	
4	CWE	0	01	0062	00102	Event	Indicates
						Reason	whether the
						Code	transmission
							includes valid
							information or
							not.
5	XCN	0	099	0188	00103	Operator	
						ID	
6	DTM	0	01		01278	Event	
						Occurred	
7	HD	0	0.11		01534	Event	
						Facility	

### 3.3.3 Patient Identification (PID) Segment

The patient identification (PID) segment is used to communicate patient identification information. The segment contains patient identifying information that is usually permanent and is unlikely to change.

Seq	Leng	DT	Usage	Cardina'	TBL#			
uen	th			lity			Element	
ce						Item#	Name	Comments
1	4	SI	R	11		00104	Set ID – Patient	Literal Value: '1'.
							ID	
3		СХ	R	11		00106	Patient	
							Identifier	
							List	
5		XPN	R	199		00108	Patient Name	
6		XPN	0	01		00109	Mother's	
							Maiden	
							Name	
7		DTM	0	11		00110	Date/Time	Format:
							of Birth	YYYY[MM[DD[HH[MM
								[SS[.S[S[S[S]]]]]]]][+/
								-ZZZZ]
8		CWE	0	11	0001	00111	Administrative	
							Sex	
10		CWE	0	199	0005	00113	Race	



11		XAD	0	099		00114	Patient	
							Address	
13		XTN	0	099		00116	Phone Number	
							– Home	
14		XTN	0	099		00117	Phone	
							Number –	
							Business	
15		CWE	0	099	029	00118	Primary	
					6		Language	
16		CWE	0	00	0002	00119	Marital	
							Status	
17		CWE	0	00	0006	00120	Religion	
18		СХ	0	00		00121	Patient	
							Account	
							Number	
21		СХ	0	099		00124	Mother's	
							Identifier	
22		CWE	0	099	0189	00125	Ethnic Group	
23		ST	0	01		00126	Birth	
							Place	
24	1	ID	0	11	0136	00127	Multiple Birth	
							Indicator	
25		NM	0	01		00128	Birth Order	
29		TS	С	01		00740	Patient Death	This field contains the date
							Date and Time	and time at which the
								patient death occurred. It
								is conditionally required if
								PID-30 = Y.
30	1	ID	С	01	0136	00741	Patient	This field indicates
							Death	whether the patient is
							Indicator	deceased. It is
								conditionally required if
								the patient is deceased.
31	1	ID	0	00	0136	01535	Identity	
							Unknown	
							Indicator	
32		CWE	0	00	0445	01536	Identity	
							Reliability	
							Code	
33		TS	0	01		01537	Last Update	
							Date/Time	
34		HD	CE	01		01538	Last Update	It is conditionally
							Facility	required if known if PID-
								33 is populated.



# **5** Troubleshooting

### **5.1 Production Support**

	Severity Levels									
	1	2	3	4						
Descripti on	<i>Critical Impact/ System</i> <i>Down:</i> Business critical software is down or critical interface has failed. The issue is impacting all production systems, causing all participating organizations' or other organizations' ability to function to be unusable.	Significant Business Impact: Software component severely restricted. Entire organization is unable to continue business functions, causing all communications and transfer of messages to be halted.	Partial Failure or Downtime: Program is useable and less significant features unavailable. The service is online, though may not working as intended or may not currently working as intended or may not currently be accessible, though other systems are currently available.	Minimal Business: A non- critical software component is malfunctioning, causing minimal impact, or a test system is down.						
Example	All messages to and from MiHIN are unable to be sent and received, let alone tracked	MiHIN cannot communication (send or receive) messages between single or multiple participating organizations but can still successfully communicate with other organizations.	Messages are lost in transit; messages can be received but not sent.	Additional feature requested.						
Primary Initiation Method	<b>Phone:</b> 517-336-1430	<b>Phone:</b> 517-336-1430	Web form at https://mihin.org/request help/	Web form at https://mihin.org/request help/						
Secondar y Initiation Method	Web form at https://mihin.org/request help/	Web form at https://mihin.org/request help/	Email to help@mihin.org	Email to help@mihin.org						
Tertiary Initiation Method	Email to help@mihin.org	Email to help@mihin.org	N/A	N/A						
Initial Response	Within 2 hours	Within 2 hours	1 business day	1 business day						
Resolutio n Goal	24 hours	24 hours	3 business days	7 business days						

If you have questions, please contact the MiHIN Help Desk:

- Web: <u>https://help.mihin.org/servicedesk/customer/portals</u>
- Phone: (844) 454-2443
- Email: <u>help@mihin.org</u>
- Monday Friday 8:00 AM 5:00 PM (Eastern Standard Time)





# 6 Legal Advisory Language

This reminder applies to all Use Case Exhibits (UCEs) or Pilot Activity Exhibits (PAEs) covering the exchange of electronic health information:

The data sharing agreement establishes the legal framework under which Participating Organization (PO) can exchange messages through the Michigan Health Information Network Shared Services Platform, and sets forth the following approved reasons for which messages may be exchanged:

- a. By healthcare providers for Treatment, Payment and/or Healthcare Operations consistent with the requirements set forth in Health Insurance Portability and Accountability Act (HIPPA);
- b. Public health activities and reporting as permitted by HIPAA and other Applicable Laws and Standards;
- c. To facilitate the implementation of "promoting interoperability" criteria as specified in the American Recovery and Reinvestment Act of 2009 and as permitted by HIPAA;
- d. Uses and disclosures pursuant to an Authorization provided by the individual who is the subject of the Message or such individual's personal representative in accordance with HIPAA;
- e. By Data Sharing Organizations for any and all purposes, including but not limited to pilot programs and testing, provided that such purposes are consistent with Applicable Laws and Standards; and
- f. For any additional purposes as specified in any UCE or PAE, provided that such purposes are consistent with Applicable Laws and Standards.

Under these agreements, "*Applicable Laws and Standards*" means all applicable federal, state, and local laws, statutes, acts, ordinances, rules, codes, standards, regulations and judicial or administrative decisions promulgated by any governmental agency, including the State of Michigan, or the Michigan Health Information Technology Commission as any of the foregoing may be amended, modified, codified, reenacted, promulgated or published, in whole or in part, and in effect from time to time which is enforceable against a Party. Without limiting the generality of the foregoing, "Applicable Laws and Standards" includes HIPAA "; the federal Confidentiality of Alcohol and Drug Abuse Patient Records statute, section 543 of the Public Health Service Act, 42 U.S.C. 290dd-2, and its implementing regulation, 42 CFR Part 2; the Michigan Mental Health Code, at MCLA §§ 333.1748 and 333.1748a; and the Michigan Public Health Code, at MCL § 333.5131, 5114a.

It is each PO's obligation and responsibility to ensure that it is aware of Applicable Laws and Standards as they pertain to the content of each message sent, and that its delivery of each message complies with the Applicable Laws and Standards. This means, for example, that if a UCE is directed to the exchange of physical health information that may be exchanged without patient authorization under HIPAA, the



# PO must not deliver any message containing health information for which an express patient authorization or consent is required (e.g., mental or behavioral health information).

**Disclaimer:** The information contained in this implementation guide was current as of the date of the latest revision in the Document History in this guide. However, Medicare and Medicaid policies are subject to change and do so frequently. HL7 versions and formatting are also subject to updates. Therefore, links to any source documents have been provided within this guide for reference. MiHIN will apply its best efforts to keep all information in this guide up-to-date. It is ultimately the responsibility of the PO and Sending Facilities to be knowledgeable of changes outside of MiHIN's control.



### 7 Appendix A: Sample Messages

#### Sample messages for ADT^A04, ADT^A08 and ADT^A23 are included for reference

- MSH|^~&&|HESB^2.16.840.1.114222.4.3.2.2.3.161.1.4372^ISO|MDHHS^2.16.840 .1.114222.4.3.2.2.3.161.1^ISO|MIHIN|MIHIN||ADT^A04|202202241612 02.930|T|2.7.1[0D]
- PID|1||123456789^^^SS~2018Oakland200165^^^U~507744^^^A||Cooper^Stanl ey~Cooper^Stan~Coop^Stan||1960^01^01|M||2222&Grand Boulevard^^Royal Oak^Michigan^48975^United States^^South^Oakland||||||||||||||||2018^05^01^10^00|5[0D]
- MSH|^~&&|HESB^2.16.840.1.114222.4.3.2.2.3.161.1.4372^ISO|MDHHS^2.16.840 .1.114222.4.3.2.2.3.161.1^ISO|MIHIN|MIHIN||ADT^A23|202202241615 41.082|T|2.7.1[0D]
- PID|1||123456789^^^SS~2018Oakland200165^^^U~507744^^^A||Cooper^Stanl ey~Cooper^Stan~Coop^Stan||1960^01^01|M||2222&Grand Boulevard^^Royal Oak^Michigan^48975^United States^^South^Oakland|||||||||||||||2018^05^01^10^00|5[0D]
- MSH|^~&&|HESB^2.16.840.1.114222.4.3.2.2.3.161.1.4372^ISO|MDHHS^2.16.840 .1.114222.4.3.2.2.3.161.1^ISO|MIHIN|MIHIN||ADT^A08|202202241615 41.082|T|2.7.1[0D]

PID|1||123456789^^^SS~2018Oakland200165^^^U~507744^^^A||Cooper^Stanl ey~Cooper^Stan~Coop^Stan||1960^01^01|M||2222&Grand Boulevard^^Royal Oak^Michigan^48975^United States^^South^Oakland|||||||||||||||2018^05^01^10^00|5[0D]

