Discharge Medication Reconciliation
Implementation Guide

Version 13
June 24, 2024

Document History

Date	Version	Sections Revised	Description	Modifier
04/09/19	11	All	Revised into new style	S. Southard
01/30/20	11	All	Proof and Edits	A. Jones
4/17/24	12	Section 4	Updated DSM endpoint addresses	A. Pacheco
6/24/2024	13	All	Edited for branding and formatting	E. Mata

Table of Contents

1. Introduction

1.1 Purpose of Data Exchange Solution

> *Helps healthcare providers share patient medication information at the time of discharge with other care team members and organizations, including physicians, practices, pharmacies, hospitals, and transitional facilities such as outpatient and skilled nursing facilities.*

When a patient's medications change it is critically important to check the patient's medication list to be sure there are no problems with new, different or missing medicines. "Medication reconciliation" is the detailed process of checking the accuracy of a patient's medications, particularly when those medications have changed. Finding and correcting medication discrepancies helps avoid errors such as omissions, duplications, dosing errors or negative drug interactions. Regular confirmation of a patient's medications can also help confirm the patient is correctly following a treatment plan.

Medication reconciliation becomes critical when a patient moves from one care setting to another, such as being admitted to or discharged from a hospital. These "transitions of care" very commonly involve prescription of new medications which may interact negatively with a patient's existing medications.

Coordinating and sharing a patient's medication information in real-time has many benefits, both for patients and their healthcare providers. Better, faster coordination can minimize the possibility of adverse drug events for patients and maximize cost benefits for providers.

The medication reconciliation process includes a comparison of existing and previous medication regimens and should occur at:

- Every transition of care in which new medications are ordered;
- When existing orders are rewritten or adjusted, and
- When patients add nonprescription medications to their self-care.

Several factors create difficulty for healthcare providers to manage patients' medications and improve safety. These factors include patients who don't know medication details (e.g., name, dose and frequency), patients who receive care from

multiple healthcare providers in different locations, and a lack of standards for sharing medication information between providers.

- Approximately 1.5 million preventable adverse drug events occur annually as a result of medication errors at a cost of more than $3 billion per year.
- Approximately half of all hospital-related medication errors and 20% of all adverse drug events have been attributed to poor communication at transitions of care.
- The average hospitalized patient is subject to at least one medication error per day.
- Adverse Drug Events account for 2.5% of estimated emergency department visits for all unintentional injuries and 6.7% of those visits lead to hospitalization.

1.2 Message Content

The Use Case Exhibit (UCE) for this data exchange solution defines message content as all data as defined in the Implementation Guide containing Medication Reconciliation upon Discharge.

For the purposes of implementation of this data exchange solution, message content refers to a document conforming to Clinical Document Architecture standards.
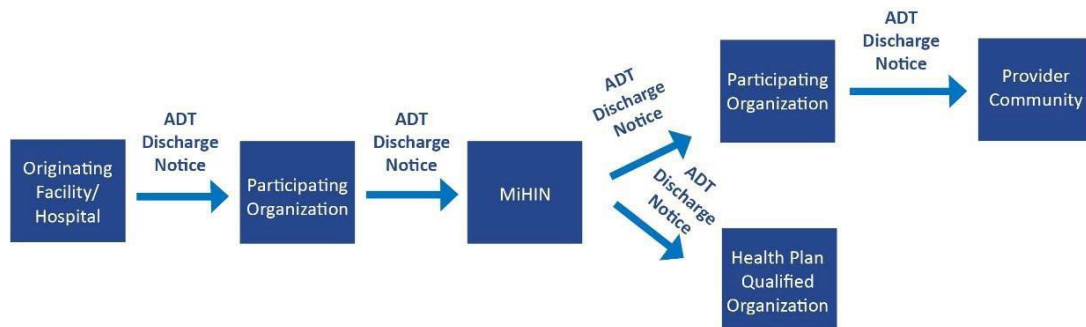
Hospitals provide agreed upon transition of care document via a Consolidated – Clinical Document Architecture (C-CDA) to be generated and sent to the statewide service.

1. C-CDA should be sent in Extended Mark-Up Language (XML) format.
2. Style sheet format not required. Recipients will develop custom style sheet based on individual requirements.
3. Sending hospitals may send the entire care summary record if desired, or the hospitals may just send demographics and medication sections.
4. All required fields must be populated. (See Section 3.3.)
5. C-CDA message must be sent as an XDM.zip file. Note: this encoding occurs automatically with many health internet service provider (HISP) vendors. For more information on the HL7 C-CDA documents, please refer to the following link: http://www.healthit.gov/policy-researchers-implementers/consolidated-cda-overview.

1.3 Data Flow

1.3.1 Functional Data Flow
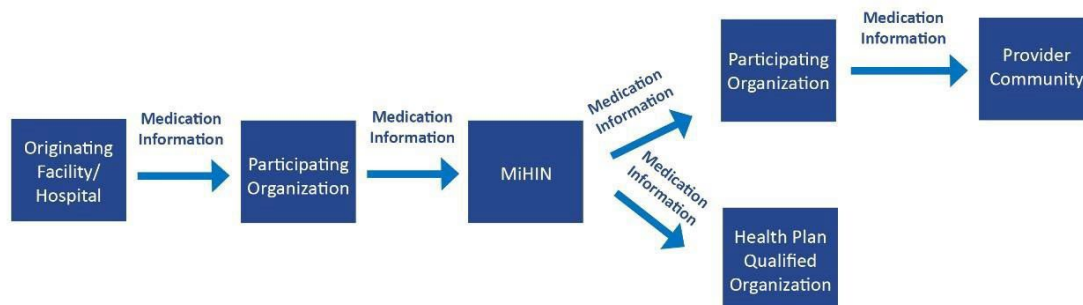
Figure 1. Data Flow for Discharge Medication Reconciliation

a. A discharge notification for the patient is sent from the originating facility/hospital to the providers in an active care relationship (ACR) with the patient and the health plan(s) via the statewide Admission Discharge Transfer Notification service.

b. Information containing medication reconciliation for the patient is sent at the time of discharge from the originating hospital/facility to the providers in an ACR with the patient and to the health plan(s) via Medication Reconciliation.

1.3.2 Exchange Model

Figure 2. Medication Reconciliation Upon Discharge

2. Onboarding

2.1 Prerequisites

Participating organizations should begin two parallel onboarding tracks simultaneously:

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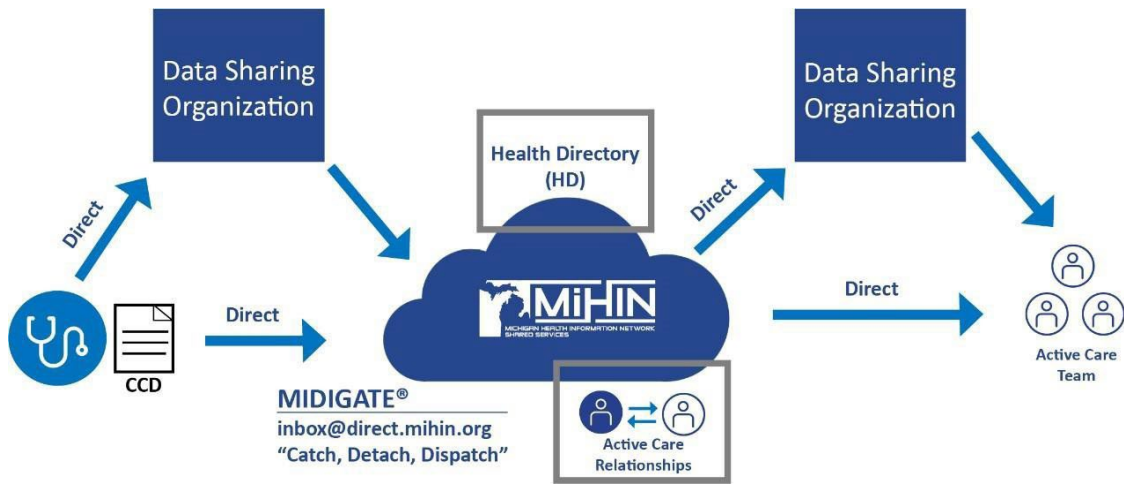- Establish technical transport and testing.

2.1.1 Universal Legal Prerequisites

The following legal documentation will need to be executed prior to any connectivity being established between MiHIN and participating organizations.

- Statement of Work (SOW)
- MiHIN's Exhibit A Agreement (Found on the MiHIN Legal Portal)
- Participant Agreement (Found on the MiHIN Legal Portal)
- Must select the appropriate data exchange solution (Exchange CCDAs) on the MiHIN legal portal in addition to the above agreements.

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

2.1.2 Technical Requirements

The following data exchange solution implementations and technical requirements will need to be conducted for Tobacco Free Data Exchange Solution to function.

2.1.2.1 Data Exchange or Application Requirements

Organizations that will be receiving Med Rec messages will need to participate in the following data exchange solutions:

- Active Care Relationship Service (ACRS)
- Health Directory (HD)

Organizations that will be sending Med Rec messages will need to participate in the following data exchange solutions:

- Health Directory (HD)

2.1.2.2 Other Requirements

- Organizations will need to be able to establish either a Direct Secure Messaging (DSM) or Restful API connection with MiHIN to be able to participate in this data exchange solution.
- Additionally, sending organizations will need to be able to generate CCDA messages according to the specifications laid out in section 3 and will need to meet conformance standards prior to their messages being released for receipt by other organizations.
- Receiving organizations will need to be able to receive Med Rec messages and ingest to their local system.

2.2 Medication Reconciliation on Discharge Onboarding Process

2.2.1 Med Rec Receiver Onboarding Process
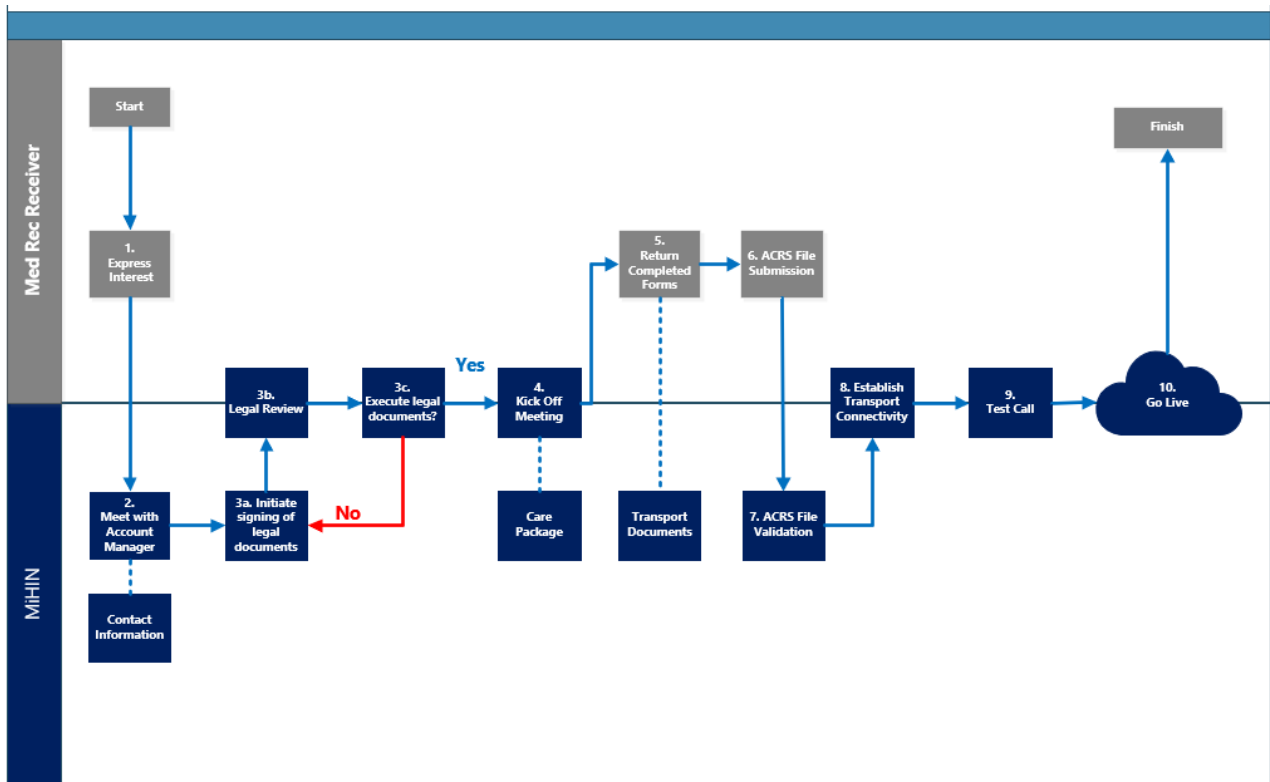
- Express interest in participating in the use data exchange solution
- Meet with Account Manager
  - Exchange contact information
- Legal Review

- Execute legal documents
- Kick Off Meeting
- Distribute Med Rec Care Package
- Exchange required documents
  - Transport Document
    - DSM Request Form or,
    - API Request Form and,
    - VPN Request Form
- Submit and Validate ACRS attribution and Delivery file
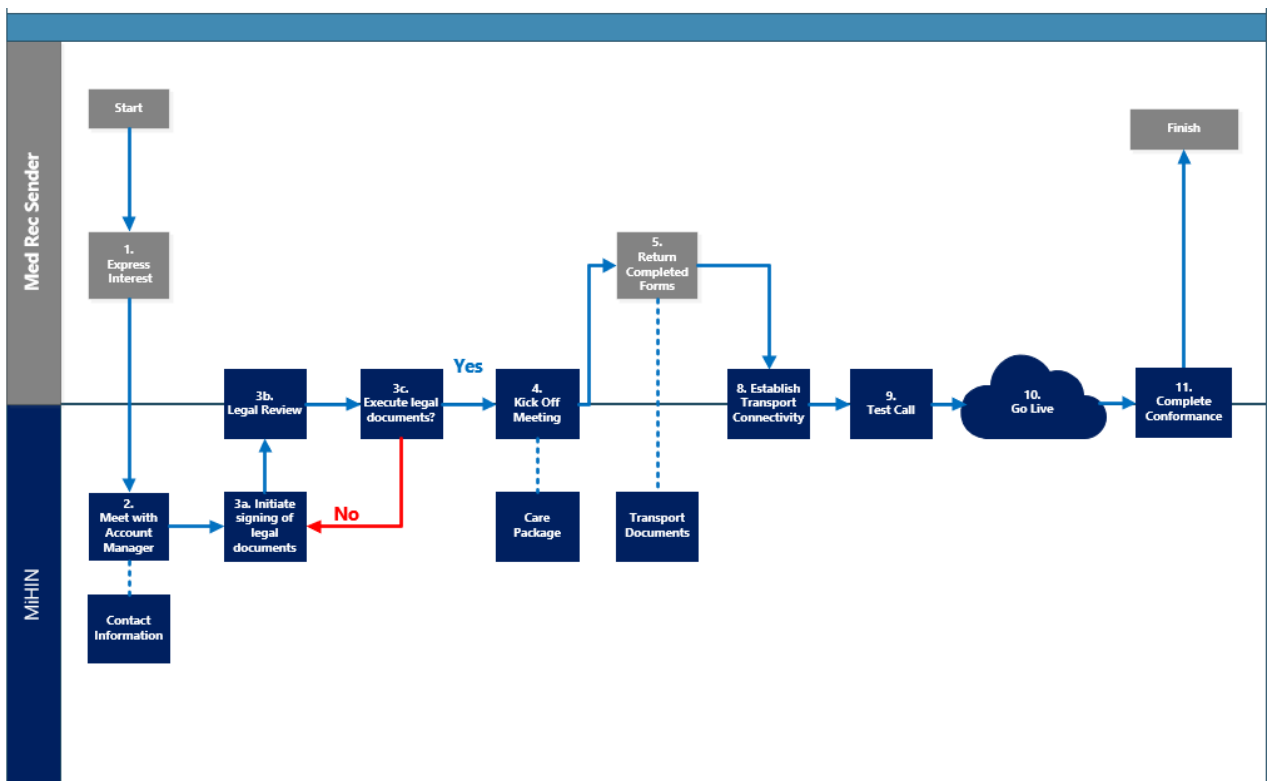- Establish Transport Connectivity
- Testing
- Go Live

2.2.2 Med Rec Sender Onboarding Process

- Express interest in participating in the use data exchange solution
- Meet with Account Manager
  - Exchange contact information
- Legal Review
- Execute legal documents

- Kick Off Meeting
- Distribute Med Rec Care Package
- Exchange required documents
  - Transport Document
    - DSM Request Form or,
    - API Request Form and
    - VPN Request Form
- Establish Transport Connectivity
- Testing
- Go Live
- Complete Conformance Process

2.3 Technical Connectivity Process

MiHIN considers itself "transport agnostic" and offers multiple options for organizations to establish technical connectivity to transport data to MiHIN. Organizations should select one connectivity methods for message transport based on their technical capabilities and should communicate the selection(s) to help@mihin.org early in the onboarding process.

Currently, MiHIN accepts the following transport methods:

- **DSM** - Direct Secure Messaging
- **RESTFUL API-** Application Programming Interface

Additional transport methods may be added in the future. These can include Nationwide Health Information Network (NwHIN), Cross-Community Access (XCA), and others.

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

1. The participating organization selects a supported transport method and establishes connectivity with MiHIN. This step varies based on the method selected:
   a. **Direct Secure Messaging** – MiHIN accepts Direct Secure Messages (DSM) from Health Internet Service Provider (HISPs) that have EHNAC-DTAAP (DirectTrust) accreditation.
   b. **RESTFUL API** – A connection must be established with MiHIN, typically via a secure Virtual Private Network (VPN) tunnel and a Hypertext

Transfer Protocol Secure (HTTPS) endpoint. The receiver must create an Application Programming Interface (API) according to the Receiver API specs (see Section 3.3).

2. Testing is conducted in the following ways depending on how the organization is participating with the data exchange solution:

    a. Senders

        i. Sending organizations will generate and send test Med Rec CCDA messages to MiHIN via the established CCDA test endpoint listed in section 3.

        ii. MiHIN will monitor inbound traffic and confirm receipt of sent messages. Onboarding sending organizations will monitor for the receipt of any applicable ACKS returned.

    b. Receivers

        i. MiHIN will generate test Med Rec CCDA messages and send them to the configured endpoint as listed by the onboarding organization.

        ii. The onboarding receiver will monitor incoming traffic and confirm receipt of test messages and ingestion to their local system. MiHIN will monitor for any returned ACKs as applicable.

    c. Once successful messages have been received and confirmed, MiHIN declares the sending facility to be in production status. For senders, production messages will not be allowed to be received by other organizations until the onboarding organization completes the conformance process with MiHIN's operations team.

        i. Once the onboarding sender organization has achieved the minimum conformance threshold, MiHIN will allow messages to pass through, match and be sent to other organizations based on their declared active care relationships.

3. Specifications

3.1 Overview

3.1.1 Environments

- MiHIN Pre-Production
- MiHIN Production

3.2 General Specification Requirements

3.2.1 C-CDA File Structure and Specifications

Hospitals provide medication section of care summary document via a C-CDA upon discharge to MiHIN. A care summary should be sent for inpatient and emergency department visits upon discharge. Specifications are outlined below:

- C-CDA should be sent in .xml format. Style sheet format not required. Recipients will develop custom style sheet based on individual requirements.
- In an effort to reduce customization, sending hospitals may send the entire care summary record, ensuring that the information below is captured.
- Sending hospital will send inpatient discharge information and emergency department discharge information.
- C-CDA message must be sent as an XDM.zip file. Note: this encodingoccurs automatically with most HISP vendors upon sending.
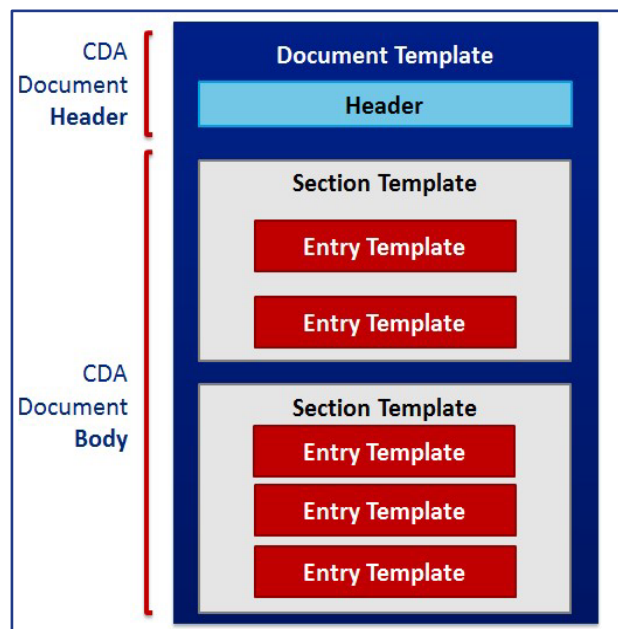

Figure 3. C-CDA File Structure

3.2.2 C-CDA Required Fields

1.   Patient identifying/demographic information (header section of C-CDA)
   a. Name
   b. Visit ID
   c. Institution name/OID (if available)
   d. Date of birth
   e. Gender
   f. Social Security/last 4 (if available)
   g. Address/Zip/Phone (primary)
   h. Care team
   i. Attending provider name, National Provider Identifier, phone

2.   Medication section information (three sections), each section should be a section template:
   a. Current medications (admission history)
   b. Prescriptions ordered during visit (if applicable)
   c. Medications at time of discharge
      i. Date (start/end) as applicable
      ii. Medication name (generic or brand)
      iii. RxNorm code from eRx system
      iv. Full sig (strength, frequency, dosage, route)

3.   Other information (body template/s of C-CDA)
   a. Admitting diagnosis
   b. Active allergies and adverse reactions (if applicable)
   c. Visit diagnosis/working diagnosis (on file)
   d. Active problems
   e. Discharge disposition – home, skilled nursing facility, etc. (if available)
   f. Chief complaint (if available)

3.2.3 Submission via Direct Secure Messaging

C-CDA files that are sent to MiHIN via DSM as email attachments must adhere to the following specifications:

1.   There shall be only one CDA file attached per email.
2.   The appropriate MiHIN DSM email address must be in the "To" line. An error will occur if it is in the Carbon-Copy (Cc) line of the outgoing message.

Senders should have the ability to receive DIRECT email for the MiHIN's acknowledgment response in the form of an Acknowledge (ACK) message (see Section 4.4).

3.2.3.1 Direct Addresses

Participants using Direct should use the following addresses:

- For test messages with no protected health information (PHI): medicationreconciliation-test@direct.mihin.net
- For pre-production certification: medicationreconciliation-foc@direct.mihin.net
- For production: medicationreconciliation@direct.mihin.net
- For sending from a TEST HISP to our TEST HISP: medicationreconciliation@direct-test.mihin.org

3.2.3.2 Delivery Notification

This service is designed to support alerts for senders and receivers when a file is sent. These alerts serve as confirmation to a sender that their files were delivered to the intended receiver and to inform the receiver a new file has arrived. This is referred to as the ACK message.

```
Hello ███████████@direct.mihinss.net,

You have received a CDA from ███████Healthcare Group through MiHIN
 services. The attached
document details a change in medication. The attachment is 41 KB.

Information
 on the document:
- MiHIN tracking Id: 146
- Document Id: 1.2.840.114350.1.13.289.2.7.8.688883.784184
- Document Extension:
```

Figure 4. Acknowledgement Notification Example

3.2.4 Receiving via Direct Secure Messaging

Outbound C-CDA files will be attachments to Direct email messages. There will be only one C-CDA file attached per email.

For Medication Reconciliation receivers using Direct, MiHIN does not need an ACK response message.

Receiving organizations must fill out MiHIN's Subscription Checklist provided by the Onboarding Team, in which the organization will indicate which sources they would like to receive C-CDAs from.

Please note that the delivery preferences of providers as listed in the organization's ACRS file will determine how the message is routed and delivered.

3.2.5 Sending/Receiving via API

Those senders/receivers interested in the API method should follow these steps:

1. The HTTPS server endpoint should follow the following naming convention, inserting own IP and Port numbers when receiver: HTTPS://[IP]:[PORT]/medrec/v1/cda. Please send this address to MiHIN Onboarding Team prior to connectivity testing.
2. Establish connectivity with MiHIN utilizing a secure Virtual Private Network (VPN) Tunnel. The Onboarding Team can provide the appropriate request form to create one.
3. Participate in the VPN Tunnel Connectivity Test scheduled with MiHIN to ensure connection between the sender/receiver organization server and MiHIN's pre-production and production servers.
4. Configure API to the specifications listed in Section 4.6.1 (for receivers).
5. Participate in the API Server Test scheduled with MiHIN to ensure conformity to these specifications.
6. The final step is to fill out MiHIN's Subscription Checklist provided by the Onboarding Team, in which the sources are indicated that the organization would like to receive C- CDAs from. Please note: the delivery preferences of providers as listed in the organization's ACRS file will determine how the messages are routed and delivered.

3.2.5.1 Medication Reconciliation Sender/Receiver API Specifications

Request Characteristics

Below are characteristics of the request that clients *MUST* accept:

- Communications *WILL* be through HTTPS.
- The request *WILL* be an HTTP POST.
- Content *MAY* be compressed via gzip (denoted through the Content-Encoding HTTP header).
- HTTP persistent connection *MAY* be enabled (denoted through the Connection: Keep- Alive HTTP header).
- The request *MAY* be chunked (will be denoted by the Transfer-Encoding header).

- Request body *WILL* have the type of application/.xml.
- The XML data doesn't need to be valid according to the CDA, as long as enough information could be extracted from the document to determine delivery.
- Metadata will be sent through HTTP X- headers.

Response Characteristics

Exchange Medication Reconciliation behaves differently depending on the response status code returned by the server.

Status Code	Message Replay	Response Contents
None or 500	Yes	If available, the response *SHALL* contain reasoning why the service failed.
400	No	Used when the data cannot be handled by the receiving system, and the message should not be requeued. The response *SHALL* contain reasoning why the document was rejected.
200	No	Successful response with a trackingId.

- All responses *WILL* be logged.
- All responses *WILL* be in JavaScript Object Notation (JSON).
- All responses *WILL* contain a globally unique ID to track the response.

A sample response body on a successful receive *WILL* look like:

{

"trackingId": "047ee203-857c-46fb-835e-18b80bccc392"

}

In the event of an unsuccessful receive, the response *WILL* look like:

```
"trackingId": "32c051f3-ad91-4b77-8776-b931a9f99741"
"errors": [{
"title": "Invalid field detected"
"details": "//section/component/ssn must not be null"
}]
}
```

- *Title:* SHALL contain the human readable form of the error.
- *Details:* SHALL contain any additional information about the error.

Request Metadata

Below is a sample of the HTTP headers metadata that could be sent.

X-Tracking-Id: 124

X-Sending-Facility: West Lansing X-Document-Id: 1.2.840.000000000 X-Document-Extension:

X-NPI: 9999999999,9999999998

- *X-Tracking-Id:* Medrec unique ID for the document being sent. Guaranteed to not be empty.
- *X-Sending-Facility:* Who sent the document (as contained within the document). May be empty.
- *X-Document-Id:* ID of the document being sent (as contained within the document). May be empty.
- *X-Document-Extension:* Extension of the document (as contained within the document). May be empty.
- *X-NPI:* One or more provider National Provider Identifier that matched as an active care provider for the demographics contained within the document.

Example

Below is an example that will send the file data.xml to an endpoint:

```
 gzip -c data.xml |\
curl -H "Content-Type: application/xml" \
-H "X-Tracking-Id: 124" \
-H "X-Document-Id: 1.2.840.000000000" \
-H "X-Document-Extension;" \
-H "Content-Encoding: gzip" \ -H "Connection: Keep-Alive" \
--data-binary @- \
"https://<your-host>:443/medrec/v1/cda"
```

4. Production Support

	Severity Levels			
	1	**2**	**3**	**4**
Description	*Critical Impact/ System Down:* 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	*Phone:* (517) 336-1430	*Phone:* (517) 336-1430	Web form at http://mihin.org/requesthelp	Web form at http://mihin.org/requesthelp
Secondary Initiation Method	Web form at http://mihin.org/requesthelp	Web form at http://mihin.org/requesthelp	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
Resolution Goal	24 hours	24 hours	3 business days	7 business days

A list of common questions regarding the Discharge Medication Reconciliation Data Exchange Solution can be found at*https://mihin.org/discharge-medication-reconciliation/.*

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

- www.mihin.org/requesthelp
- Phone: 517-336-1430
- Monday – Friday 8:00 AM – 5:00 PM (Eastern Standard Time)

5. Legal Advisory Language

This reminder applies to all use cases covering the exchange of electronic health information:

The Data Sharing Agreement (DSA) establishes the legal framework under which participating organizations can exchange messages through the MiHIN Platform, and sets forth the following approved reasons for which messages may be exchanged:

a. By health care providers for Treatment, Payment and/or Healthcare Operations consistent with the requirements set forth in HIPAA.
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.
f. For any additional purposes as specified in any use case, provided that such purposes are consistent with Applicable Laws and Standards.

Under the DSA, "***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 or self-regulatory agency, including the State of Michigan, the Michigan Health Information Technology Commission, or the Michigan Health and Hospital Association, 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. "Applicable Laws and Standards" includes but is not limited to 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 participating organization'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 use case is directed to the exchange of physical health information that may be exchanged without patient authorization under HIPAA, the participating organization 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 applies its best efforts to keep all information in this guide up-to-date. It is ultimately the responsibility of the participating organization and sending facilities to be knowledgeable of changes outside of MiHIN's control.

6. Appendices

7. Acronyms and Abbreviations Guide

ACK	Acknowledge
ACRS®	Active Care Relationship Service®
ADE	Adverse Drug Events
ADT	Admission Discharge Transfer Notice
AMR	Advanced Medication Reconciliation
API	Application Programming Interface
ADE	Adverse Drug Event
C-CDA	Consolidated – Clinical Document Architecture
CDA	Clinical Document Architecture
DSM	Direct Secure Messaging
EHNAC-DTAAP	Electronic Healthcare Network Accreditation Commission Direct Trusted Agent Accreditation Program
EHR	Electronic Health Record
HISP	Health Internet Service Provider
HL7®	Health Level Seven®

JSON	JavaScript Object Notation
MiHIN	Michigan Health Information Network Shared Services
NPI	National Provider Identifier
NwHIN	Nationwide Health Information Network
OID	Object Identifier
PHI	Protected Health Information
REST	Representational State Transfer
SNF	Skilled Nursing Facility
VPN	Virtual Private Network
XCA	Cross-Community Access
XDM	Cross-Enterprise Document Media Interchange
XML	Extended Mark-Up Language

8. Definitions

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 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® (ACRS®). The Michigan Health Information Network Shared Services infrastructure service that contains records for those 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® (HL7®) 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.

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.

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.

Electronic Medical Record or Electronic Health Record (EMR/EHR). A digital version of a patient's paper medical chart.

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 Veterans Affairs.

Health Level Seven® (HL7®). An interface standard and specifications for clinical and administrative healthcare data developed by the Health Level Seven (HL7) organization and approved by the American National Standards Institute. 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.

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 (MSH) segment present in every Health Level Seven® (HL7®) 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 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® (ACRS®), Health Directory (HD), Statewide Consumer Directory (SCD), and the Medical Information Direct Gateway (MIDIGATE®).

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.

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 (PHI), personal credit information (PCI), and/or personally identifiable information (PII).

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.

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 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 https://mihin.org/use-case-categories/.

XCA. The Integrating the Healthcare Enterprise ® standard for Cross-Community Access which provides specifications to query and retrieve patient relevant health information held by other communities.