MIGateway®

User Guide

Version 8
November 11th, 2025

Document History

Date	Version	Sections Revised	Description	Modifier
05/31/24	1	All	Updated Content	T. Fite
7/23/24	2	All	Update to incorporate all individual MIGateway® User Guide Modules into one document and to update to reflect ITP.	M. Allen, T. Fite
11/15/24	3	All	Edited for branding	E. Mata
12/4/24	4	3.4	Format changed	E. Mata
12/10/24	5	All	Editing	K.Lewis, S. Denhof
1/22/2025	5	All	Editing and Formatting Updates	M. Allen
2/7/2025	5	All	Editing	K. Lewis, S. Denhof
5/1/2025	6	Section 3.1,3.4,3.6 and Appendix F	Updated screenshots of all LR sections and updated corresponding descriptions. Updated information on TOC viewer module. Updated email information and screenshots in section 3.1. Fixed page number issues.	M. Allen
7/2/2025	7	Section 3.7	Added section 3.7 Provider Results Viewer	M. Allen
7/24/2025	7	Section 3.3	Added ACRS® CareLink information into the Patient Viewer Module	M. Allen
9/25/2025	8	Sections 3.1-3.4	Updated screenshots to reflect UI adjustments, updated information regarding ACRS® CareLink Functionality.	M. Allen, B. Gokee
11/11/2025	8	Section 3.3.2.2	Added information about Show all ID, Address, and Phone number links.	M. Allen H. Burseth, B. Gokee

Table of Contents

1. Introduction

1.1 Purpose

MIGateway® gives providers and managing organizations a single, consistent, interoperable solution for coordinating patient care.

The Medical Information Gateway (MIGateway®) is a service that centralizes Michigan Health Information Network Shared Services' (MiHIN) Use Case applications to help healthcare professionals find, view, use, and exchange health information for their patients.

Many providers have adopted Electronic Health Records (EHRs) to digitize and exchange health information, but the lack of interoperability among EHR vendors still impedes the effective exchange of electronic health information.

MIGateway® solves this challenge with an easy-to-use interface that offers a single point of entry to access a host of shared services available in the State of Michigan for practices, managing organizations, and other care coordination organizations.

1.2 Functionality

MIGateway® creates opportunities to make information exchanged through Michigan's statewide network usable and valuable. MIGateway® allows users to:

- View other members of a patient's care team, manage shared information for their patients, and view treatment information in the form of transitions of care (TOC) messages
- Upload Active Care Relationship Service® (ACRS®) files
- MIGateway® provides tools to view and work with several different message types and data, including:
  - Admission, Discharge, and Transfer (ADT) messages with any message enrichments
  - Documents conforming to clinical document architecture standards including Continuity of Care Documents (CCDs)

1.3 Data Flow

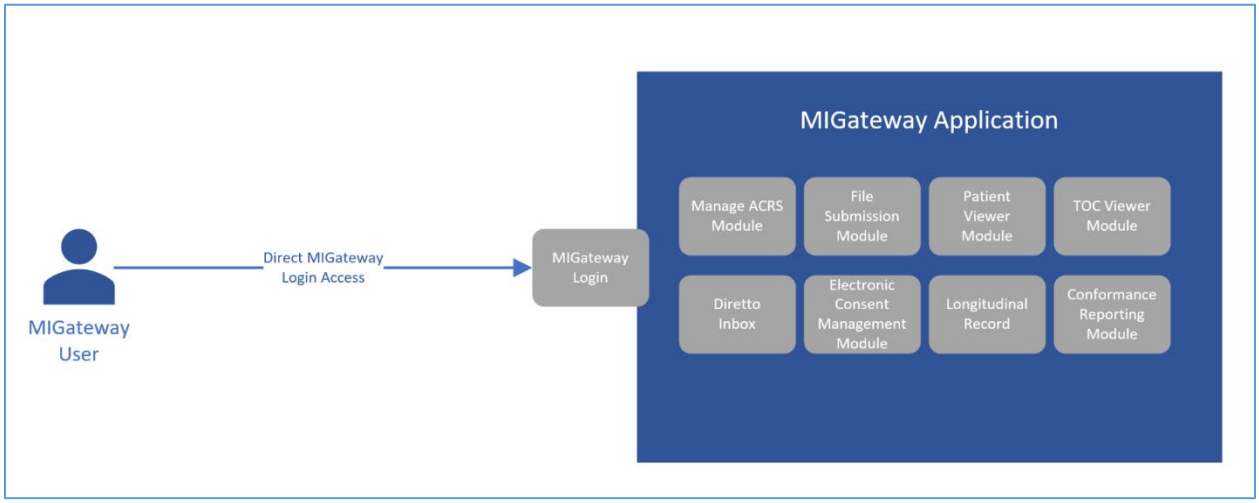


Figure 1. MIGateway® Data Flow

Figure 1 shows the data flow a MIGateway® User would follow. The full application summary is available online at: https://mihin.org/migateway/ . For additional information, visit www.mihin.org/requesthelp.

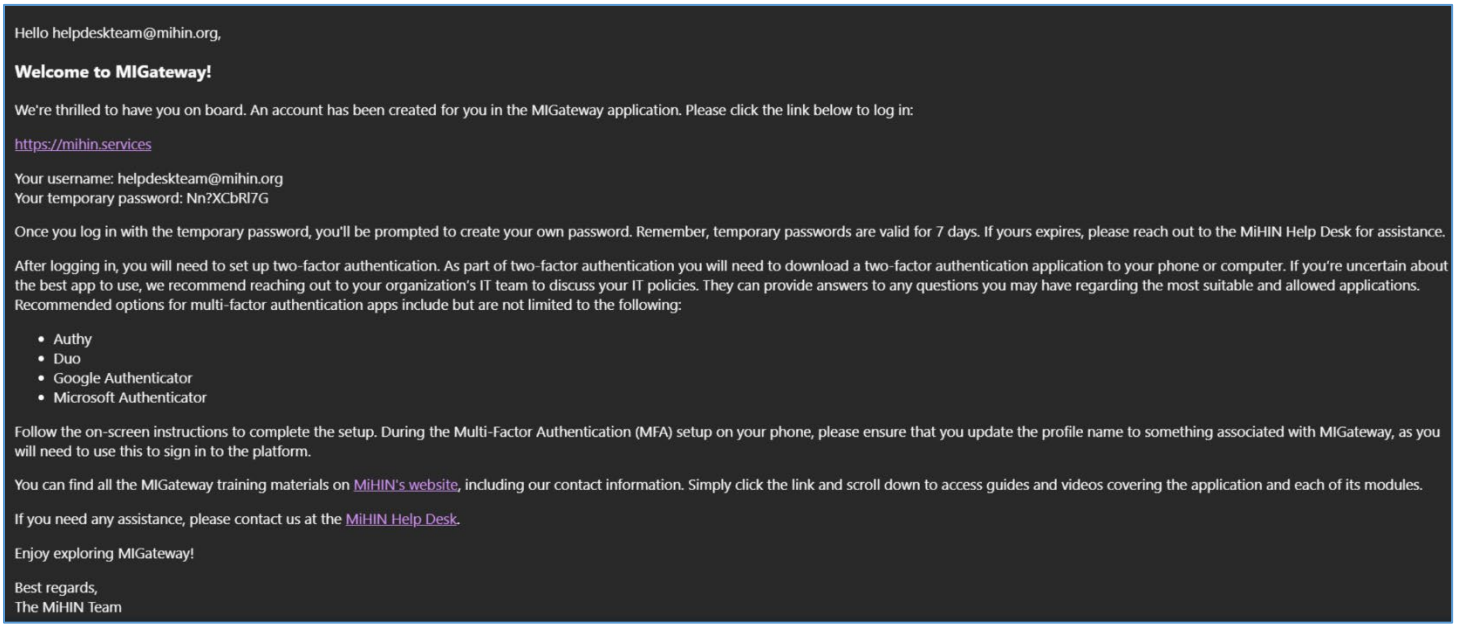
2. Login and Support

The following sections describe the user interfaces and basic processes performed in each module. There are also processes that are either agnostic to any of the modules, or which use a combination of modules.

2.1 Accessing MIGateway®

2.1.1 Initial Login

A welcome email from MiHIN will be delivered to the registered email address to set up an account once a completed request form has been received and processed.



Hello helpdeskteam@mihin.org,

Welcome to MIGateway!

We're thrilled to have you on board. An account has been created for you in the MIGateway application. Please click the link below to log in:

https://mihin.services

Your username: helpdeskteam@mihin.org
Your temporary password: Nn?XCbRI7G

Once you log in with the temporary password, you'll be prompted to create your own password. Remember, temporary passwords are valid for 7 days. If yours expires, please reach out to the MiHIN Help Desk for assistance.

After logging in, you will need to set up two-factor authentication. As part of two-factor authentication you will need to download a two-factor authentication application to your phone or computer. If you're uncertain about the best app to use, we recommend reaching out to your organization's IT team to discuss your IT policies. They can provide answers to any questions you may have regarding the most suitable and allowed applications. Recommended options for multi-factor authentication apps include but are not limited to the following:

- Authy
- Duo
- Google Authenticator
- Microsoft Authenticator

Follow the on-screen instructions to complete the setup. During the Multi-Factor Authentication (MFA) setup on your phone, please ensure that you update the profile name to something associated with MIGateway, as you will need to use this to sign in to the platform.

You can find all the MIGateway training materials on MiHIN's website, including our contact information. Simply click the link and scroll down to access guides and videos covering the application and each of its modules.

If you need any assistance, please contact us at the MiHIN Help Desk.

Enjoy exploring MIGateway!

Best regards,
The MiHIN Team

Figure 2. **MIGateway® *Welcome Email***

1. Click the link in the email to begin registering a MIGateway® account as shown in ***Figure 2***.

2. On the MIGateway® login screen as shown in ***Figure 3***, select "Login Now". Once on the Email and Password screen, as shown in ***Figure 4***, enter the username and temporary password provided in the welcome email and click "Sign in".

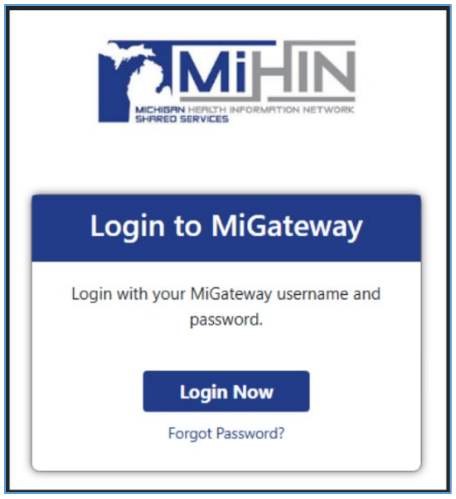


Figure 3. Initial Login Screen

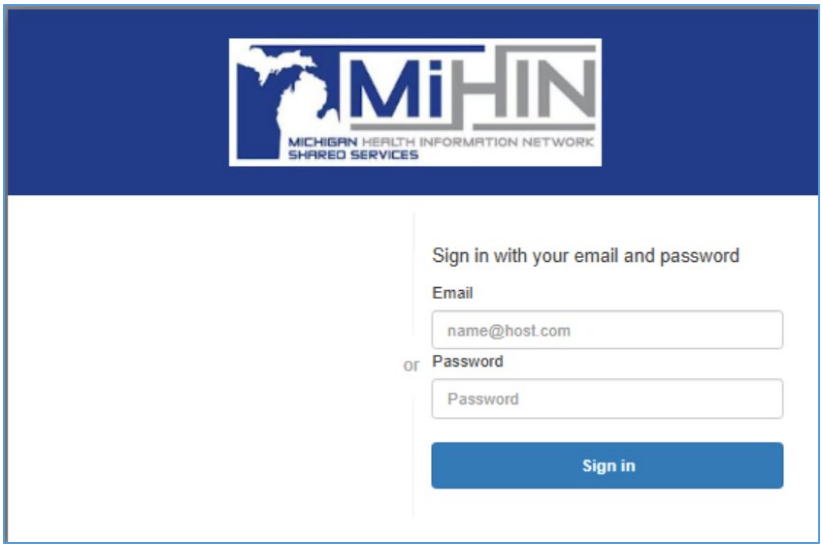


Figure 4. Email and Password Login Screen

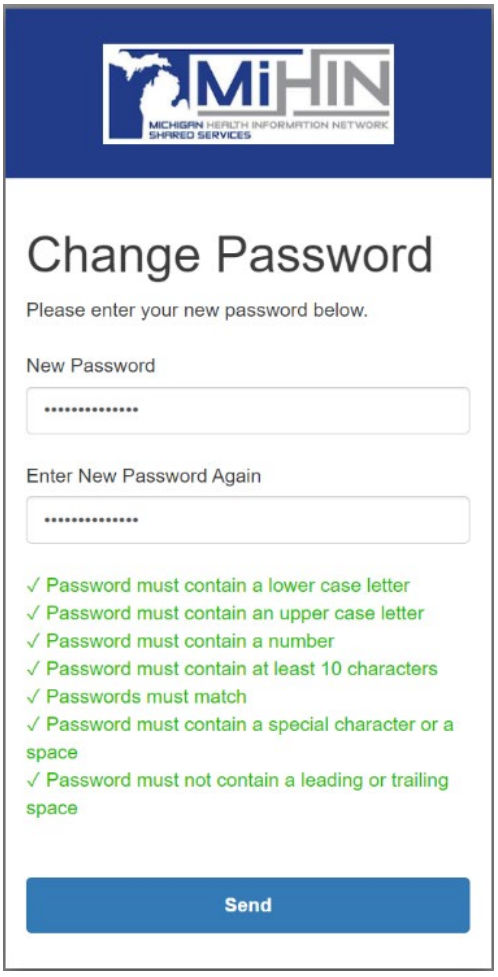


Figure 5. MIGateway® Set Password

3. A password reset will be required with requirements displayed as shown in ***Figure 5***.
4. Create a password and click 'Send.'
5. After creating your new password, you will be required to set up multi-factor authentication (MFA). Follow the instructions, as shown in ***Figure 6***.

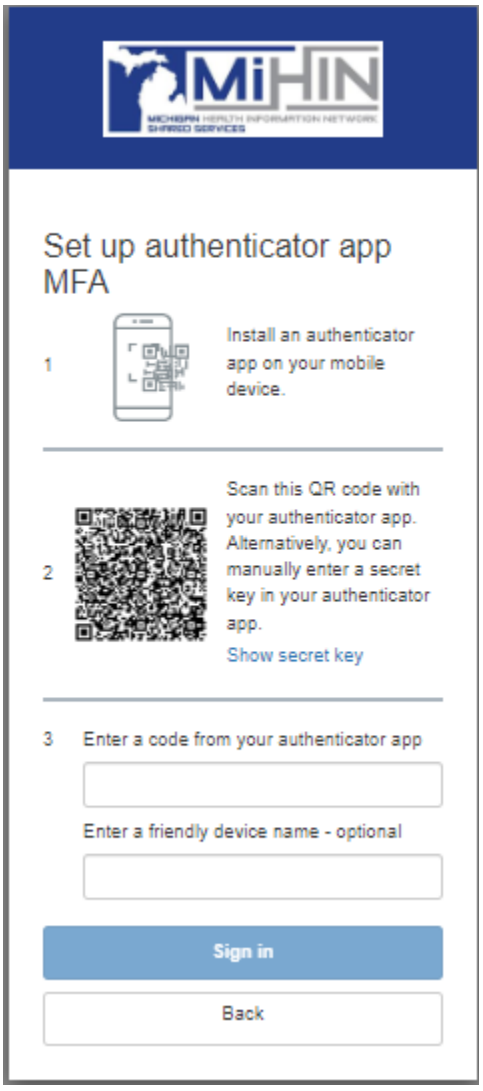


Figure 6. MIGateway® Account Creation Multi-Factor Authentication

6. Enter the authentication code from your choice of authenticator applications and click "Sign in" as shown in ***Figure 6***.
7. After establishing multi-factor authentication, you will automatically be asked to sign in again with your new password and enter the code from MiHIN's passcode app as shown in ***Figures 7 and 8.***

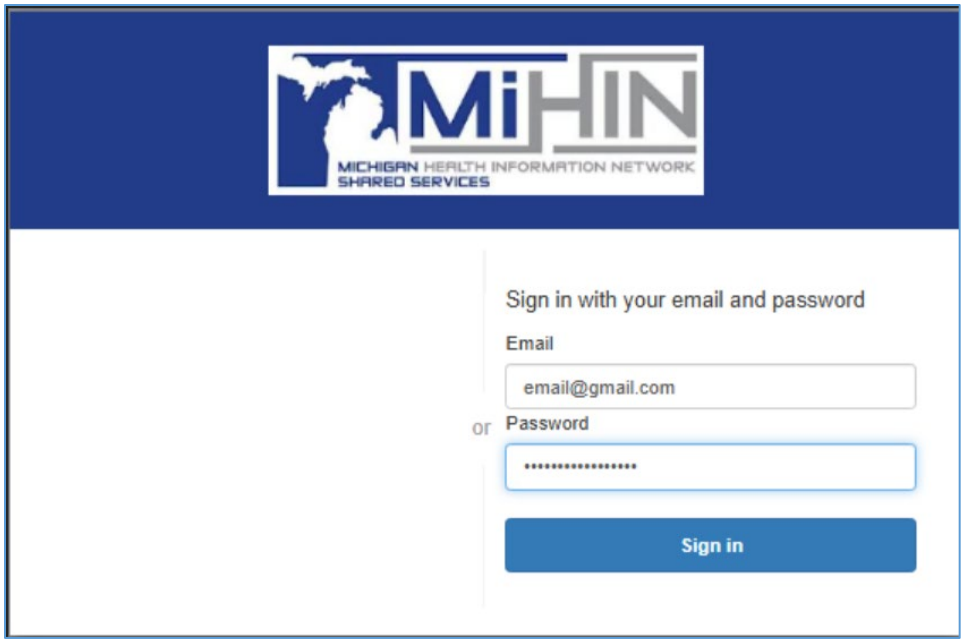


Figure 7. MIGateway® Login Page

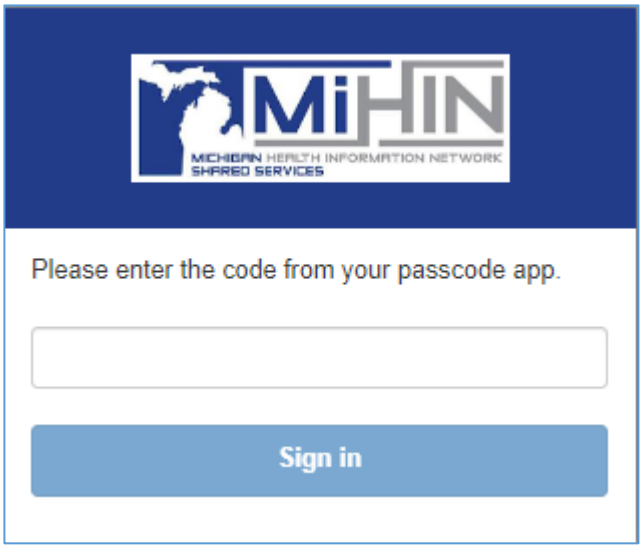


Figure 8. MIGateway® Login Page - Submit Authentication Code

Please Note: *MiHIN's MIGateway® application no longer supports the use of Internet Explorer. For more information and recommended browsers, please see Appendix E.*

2.1.2 Forgot Password

If a new password is needed, select 'Forgot password?' as shown in ***Figure 9.*** Enter your email address to receive the reset instructions as shown in ***Figure 10***. If difficulty occurs with password reset, please contact help@mihin.org.

Figure 9. MIGateway® Forgot Password Link

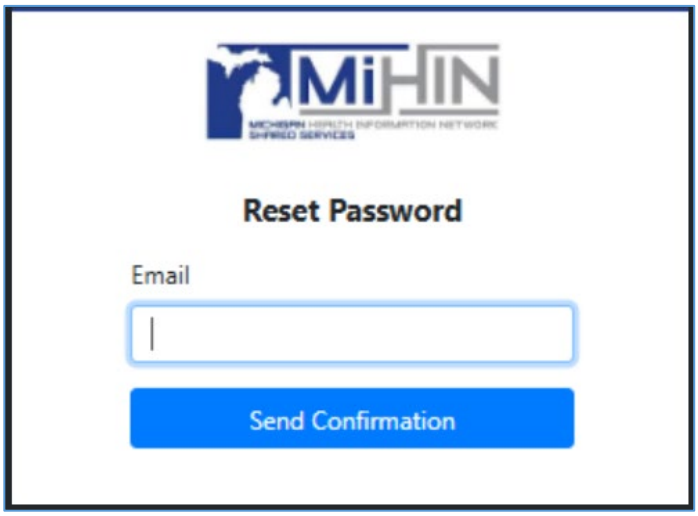


Figure 10. MIGateway® Password Reset

2.1.3 Password Expiration

- MIGateway® passwords are valid for 90 days from the date the account was created, with expiration reminders sent at 75, 85 and 90 days from account creation. An example of this notice can be found in Appendix H
- After 90 days the MIGateway® account will be disabled until the account password is reset
    - The user must submit a request to help@mihin.org requesting their MIGateway® account be re-enabled after the 90 days of inactivity
- Once the account is re-enabled, an email will be sent to the email address associated with the account with instructions on how to reset the account password
- Once the account password has been reset, the new password age will be set back to zero days

2.2 Single Sign-On (SSO)

In addition to signing into MIGateway via the process outlined in Section 2.1, MiHIN allows for the configuration and use of SAML based single sign-on (SSO) access to configured modules within the application. Single sign-on allows MIGateway® users from an organization to utilize one point of access which can be configured to use the provisioned modules via an interface or link within an organization's EMR.

All modules within MIGateway® can be accessed via SSO. During onboarding and the account setup process, an organization implementing MIGateway® access via SSO will have identified which users should have access to which modules. For more details on this process and procedure, please refer to the MIGateway® Integration Guide and the MIGateway® Onboarding Form which should have been distributed during onboarding.

Regardless of how module access is provisioned with SSO, once accessed, this should have no impact on the function of each individual module. Once logged in, all modules should function as described in their associated user guide sections located throughout this document.

2.3 Requesting Support

2.3.1 Support Module

The Support module allows users to submit support tickets directly from MIGateway® to MiHIN's Help Desk. To access the module, click on the 'Support' tab in the navigation bar as shown in **Figure 12**.

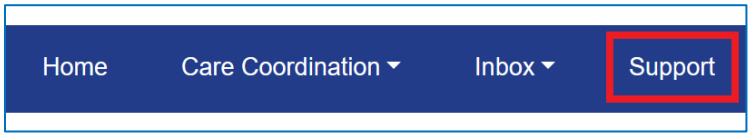


Figure 12. Support Tab in the Navigation Bar

Once on the Support page, complete the required fields on the webform as shown in **Figure 13.** If a support request involves PHI, click the 'Additional PHI Needed?' checkbox under the description field.

*****Please, do not submit any PHI through the Support module or the MiHIN ticketing system directly. If PHI needs to be exchanged, MiHIN will use secure methods for its exchange.*****

Once the support ticket is ready for submission and all required fields have been filled out, click 'Submit Message.' MiHIN's Help Desk will respond via email to the support ticket to the email address used for initial MIGateway® login.

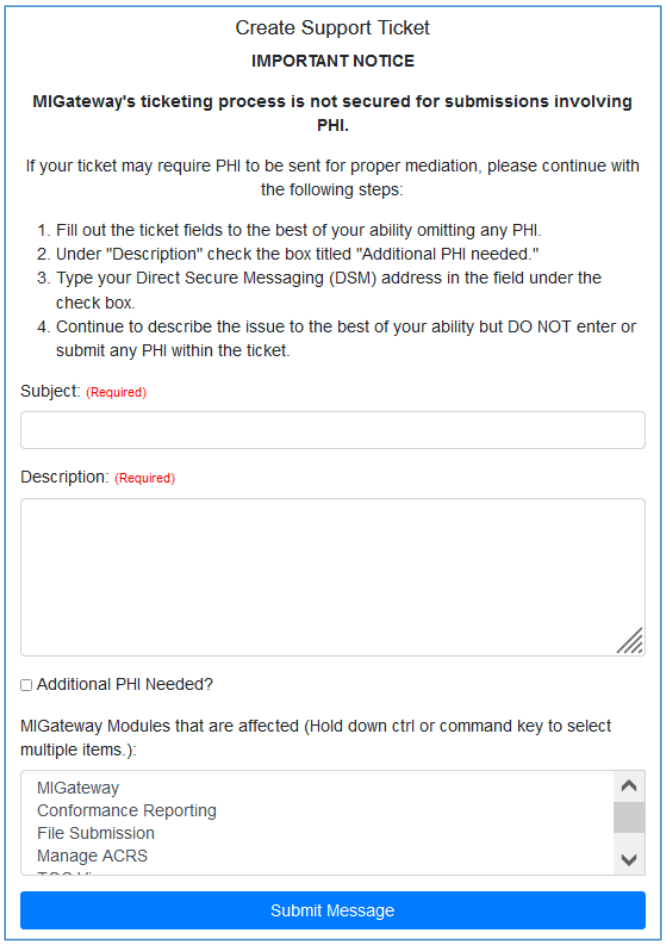


Figure 13. Support Ticket Page

2.3.3 Additional Support Information

Additional information on MIGateway® can be found online at https://mihin.org/products-list

For support please contact:

MiHIN Help Desk

844-454-2443

help@mihin.org

MiHIN Help Desk Portal (https://mihinhelp.refined.site/portal/50)

3. Modules

The MIGateway® application is composed of several modules. Common tasks managed through MIGateway® often utilize multiple modules working together.

This section is intended to give a foundational knowledge for each module.

3.1 File Submission

The File Submission module allows organizations to submit their ACRS® file via MIGateway® and receive processing and feedback in return.

Additionally, through the File Submission module, an organization can see information relevant to their submitted ACRS® file including:

- Time/Date of Submission
- Status of File
- ACRS® file name for both delivery and attribution files
- Transaction IDs for all submitted files
- Status Message indicating the outcome of the submission and whether there were any errors found

3.1.1 File Submission UI Elements

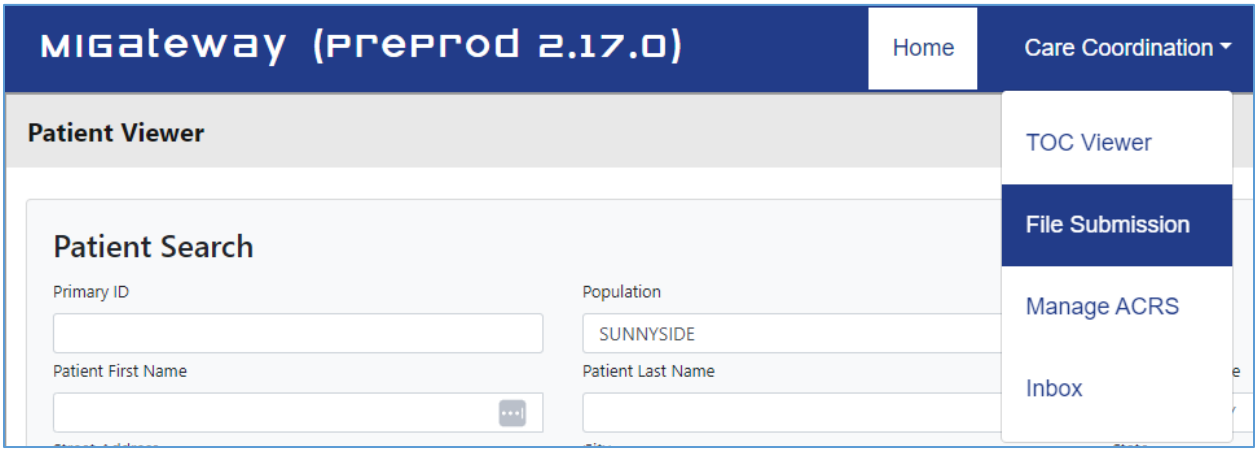


Figure 14. File Submission Menu Location

The File Submission module can be accessed by navigating to the Care Coordination drop-down menu and selecting the File Submission option as shown in ***Figure 14***.

The File Submission module has two tabs that users can select from depending on what tasks they are attempting to complete. These are as follows:

3.1.1.1 File Submission Tab

This tab has the primary interface used for the submission of ACRS® files. Its UI elements are illustrated in ***Figure 15***:

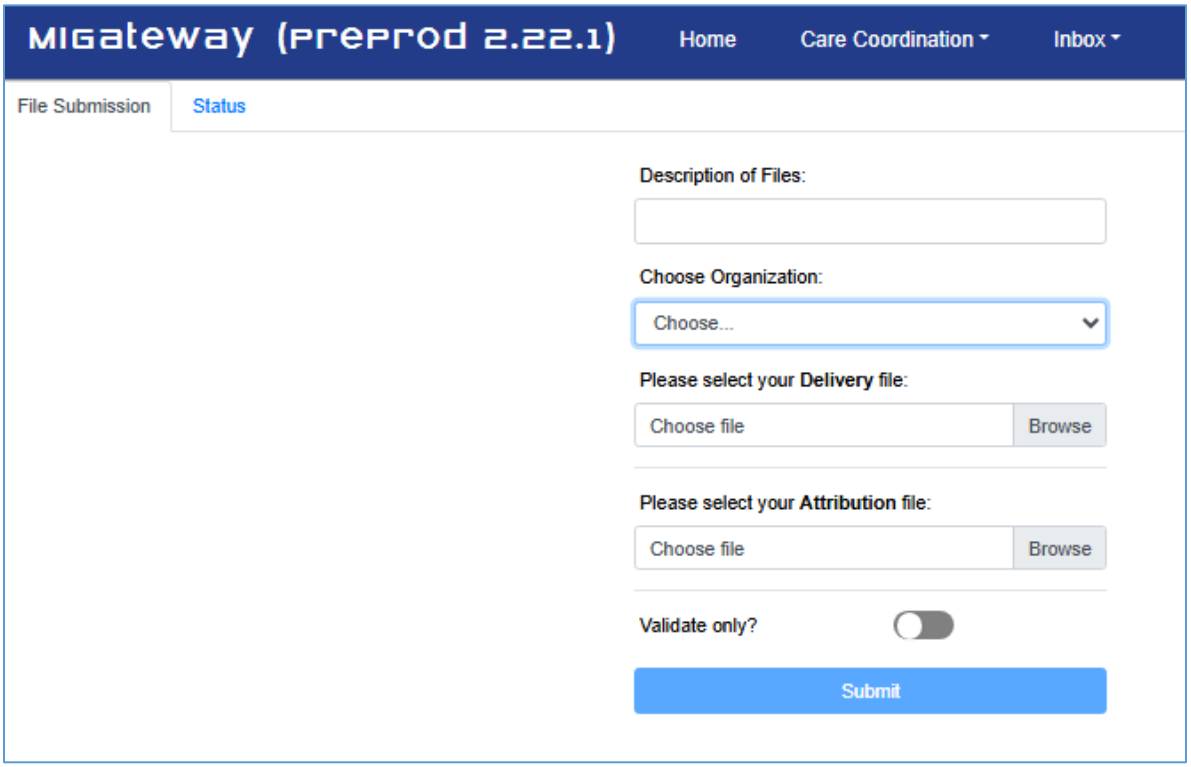


Figure 15. File Submission Tab Layout

This form has several elements that allow a user to customize the ACRS® file submission process. A breakdown of these elements is illustrated in ***Figures 16 and 17***.

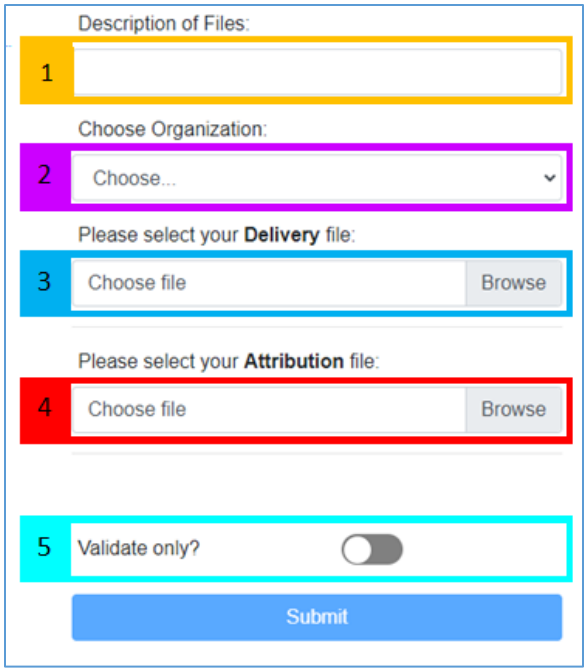


Figure 16. File Submission UI Elements

1	**Description of Files:** Text field used to provide a description of the files being submitted, including type of files, which facility they are for, and other identifying information. Information is at the submitting user's discretion. No PHI should be used in this field.
2	**Choose Organization:** Drop-down list of applicable organization ACRS® Population's names.
3	**Please select your Delivery file:** Field that allows users to browse available drives to find and select the Delivery file to submit.
4	**Please select your Attribution file:** Field that allows users to browse available drives to find and select the Attribution file to submit.
5	**Validate only?:** Clicking the "Validate Only?" toggle will run validation on the uploaded files without submitting and loading the files afterward. Both validation and cross validation errors will be returned.

Figure 17. File Submission UI Element Description

3.1.1.2 Status Tab

The Status tab provides search tools that allow a user to check on the status of submitted ACRS® attribution and delivery files. Its UI elements are illustrated in ***Figure 18***.

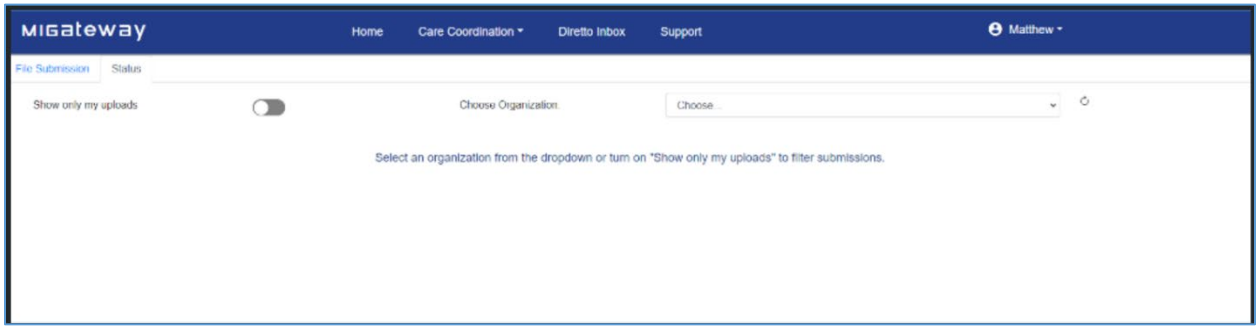


Figure 18. Status Tab Layout

This UI has elements designed to help search for the status on select ACRS® files, and headers which display status information on those files as shown in ***Figures 19 and 20***.

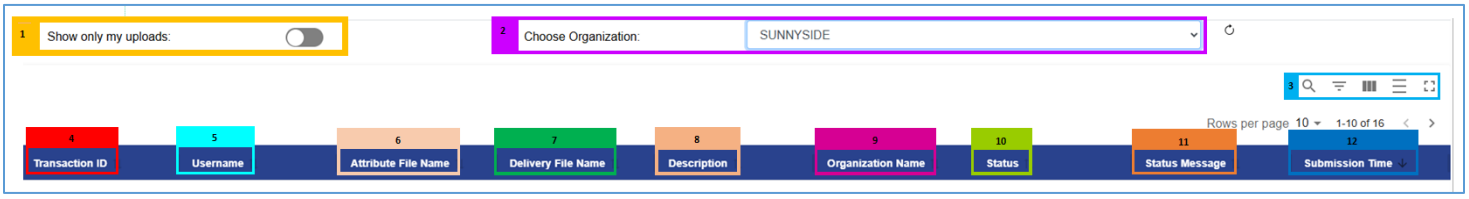


Figure 19. Status Tab UI Elements

1	**Show only my uploads:** Clicking this toggle will filter file submission transactions to those submitted by the user.
2	**Choose Organization:** Drop-down list of organization ACRS® Population names.
3	**View Toggles:** Each icon represents an option to change the view of the UI interface including: **Search** – Toggle to show or hide the search field to search specific criteria within the displayed results **Show/Hide Filters –** Toggle to show or hide the filter fields for each column **Show/Hide Columns –** Brings up a menu of all columns, with an option to keep them visible or hide them in the view **Toggle Density –** Toggles how much space is left between each line of the view. Clicking this multiple times will change the spacing with each click **Toggle Full Screen –** Toggles between only showing the status results on the page and showing the entire page
4	**Transaction ID:** Shows the unique ID attributed to a submitted file and can be used to identify a specific submission status.
5	**Username:** Lists the username of the user that submitted a specific Attribution and/or Delivery file.
6	**Attribute File Name:** Lists the full name of a submitted Attribution file associated with a specific Transaction ID. ■ Attribution Files that are loaded together with a Delivery file will be displayed with that corresponding Delivery file
7	**Delivery File:** Lists the full name of a submitted Delivery file associated with a specific Transaction ID

	■ Delivery files that are loaded together with an Attribution file will be displayed with that corresponding Attribution file.
8	**Description:** The Description of Files entered during file upload via File Submission. If the file was submitted via SFTP, the description will be automatically populated with "SFTP Submission."
9	**Organization Name:** Organization ACRS® Population name that the submitted files are associated with
10	**Status:** Status of the submitted Attribution and Delivery files ■ "Partial Loading" Status indicates when a file is submitted for partial loading after failing to validate in a previous submission ■ "Validating" Status indicates the files are in the process of being validated ■ "Incorrect File" Status could indicate either the file was submitted with formatting issues (like the file was not CSV formatted); or headers are missing or in the wrong order. ■ "Error" Status indicates that a problem occurred during validation or loading. For assistance, please place a ticket to help@mihin.org. ■ "Invalid" Status indicates that something about either the attribution or delivery file did not meet file specifications and could not be processed ■ "Loaded" status indicates that the file has at least partially passed validation and has been loaded for use. ■ "Valid" Status indicates that the selected files were valid, but did not proceed with loading because the "Validate Only?" toggle was selected when submitting the files. ■ "Loading" Status indicates the files are in the process of loading
11	**Status Message:** Lists additional information on the status of a file including the following information: ■ **An internal error occurred. Please contact the Help Desk at help@mihin.org for validation errors and reference the transaction ID #####. –** Indicates an error has occurred with process an ACRS® file and is usually associated with the "Error" status. ■ **Cross-Validation is not valid. Click here for more information** – Indicates that there are discrepancies between the submitted Attribution and Delivery file; and provides a link that lists said errors for correction. Usually associated with the "Invalid" status. ■ **Incorrect Delivery/Attribution file type or format submitted. –** Message that occurs with the "Incorrect File" Status and indicates

	that while the overall CSV format was correct, the Delivery or Attribution file that was submitted had non-valid CSV headers. ■ **SFTP Submission was too invalid to continue –** Message occurs with the "Invalid" status and occurs when a threshold for percentage of rows is invalid for SFTP submissions. ■ **Delivery/Attribution/Cross Validation are invalid –** Message that occurs with the "Invalid" Status and indicates which validations failed when both a Delivery and Attribution file are submitted. May be any combination of the three depending on the validation issues that occurred. ■ **Attribution, Delivery and Cross Validation are valid –** Message that occurs with the "Valid" or "Loading" status and indicates that all files, and their cross validation are valid. ■ **All valid, files loaded –** Message that occurs with the "Loaded" status and indicates that all files were deemed valid and were loaded
12	**Submission Time:** Lists the timestamp of the submission in the following format: ■ YYYY-MM-DD-HH:MM: SS

Figure 20. Status Tab UI Element Descriptions

3.1.2 Getting Started with File Submission

3.1.2.1 Submitting an ACRS® Attribution and/or Delivery File

Organizations wishing to submit their ACRS® file will first navigate to the File Submission module described in the previous sections. In the File Submission form, organizations can enter in a description of the file being submitted (optional) and choose their organization from the drop-down menu as illustrated in ***Figure 21***.

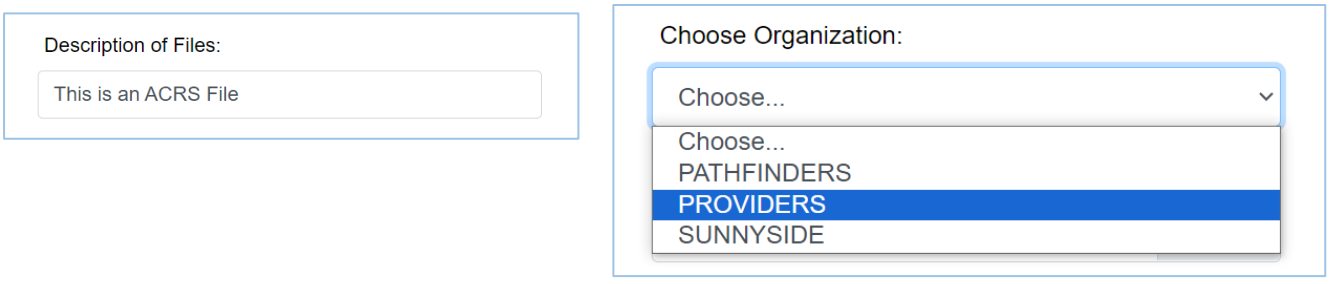


Figure 21. Selecting ACRS® File Description and Organization

The list of names displayed in this drop-down menu is determined by the ACRS® Population(s) and organization information provided in the MIGateway® Onboarding Form. Once these fields have been completed, the organization will select the Attribution and/or Delivery file to be submitted by clicking the "Browse" button for each entry as shown in ***Figure 22***.

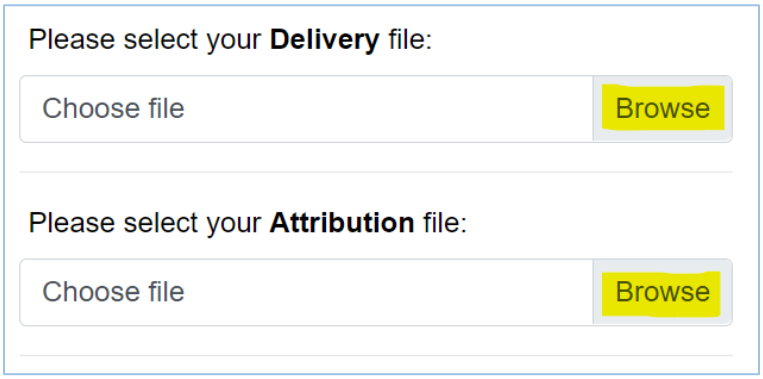


Figure 22. ACRS® Attribution and Delivery File Selection Fields

Please note: Attribution and Delivery files can be submitted independently of each other if this has been configured during MIGateway® setup. If this is configured, completion of both fields will not be required.

Please note: the "Validate only?" toggle is off by default and will only be selected when an organization is looking to evaluate to see if their file is valid without submission as shown in ***Figures 23 and 24***.

Figure 23. Off Position

Figure 24. On Position

If the user has been configured to submit the Attribution and Delivery files independently, a pop-up message will appear after submitting either file without the other, as shown in ***Figure 25***.

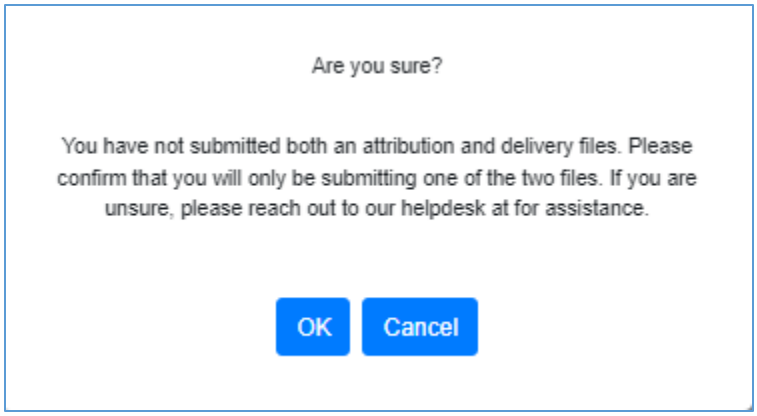


Figure 25. Single File Submission Confirmation Screen

For more information on creating Attribution and Delivery files that meet specifications, refer to the ACRS® Implementation Guide.

3.1.2.2 View the Status of Uploads

After a file has been submitted, the user can check the status of the file by navigating to the "Status" tab described in section 3.1.1.2. On this screen, the user will select the organization they would like to see file status for as shown in ***Figure 26***.

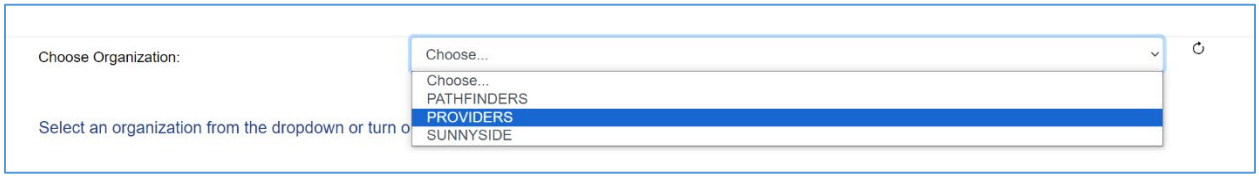


Figure 26. Organization Drop-Down

Additionally, if the user would like to only see the files they uploaded, they may activate the "Show only my uploads" toggle as shown in ***Figure 27***.

Figure 27. "Show Only My Uploads" Toggle

Once selected, a list of all ACRS® file submissions associated with the organization will be displayed, listing all the information described in section 3.1.1.2 .Users should take note of the following information:

- Transaction ID – This is a generated ID associated with the submission. This information creates a unique identifier that can be used by internal MiHIN staff to identify and troubleshoot issues with files. Users should always try to provide this ID when reporting issues or asking questions about a particular submission
- Status – The status of a submission will let the user know what action, if any, is required for their submitted files. For a full list of potential statuses, please refer to section 3.1.1.2.
- Status Message – The Status Message provides further information on the statuses described previously. For a full list of potential status messages, please refer to section 3.1.1.2
- Submission Time – This lists the time and date of the submission. This is useful when reporting issues or trying to identify one file of many that an organization may have submitted. When sending help requests, this information should be provided along with the transaction ID to aid in troubleshooting

3.1.2.3 Address Upload Error/Invalid Messages

For files that have failed validation, a review will be required to address the issues indicated in the "Status Message" section before the files are able to be successfully loaded and used. For files that have the "Invalid" status, a link will be provided that identifies the issues behind the status. The errors are divided into three categories:

- Attribution File Validation Errors
- Delivery File Validation Errors
- Cross-Validation Errors

For each type of error, the page will indicate a file row and the related column that needs attention, and an error message will be provided as shown in ***Figures 28-30***.

- Attribution File Errors
  Lists each row or group of rows and columns where validation errors occurred along with the specific error(s).

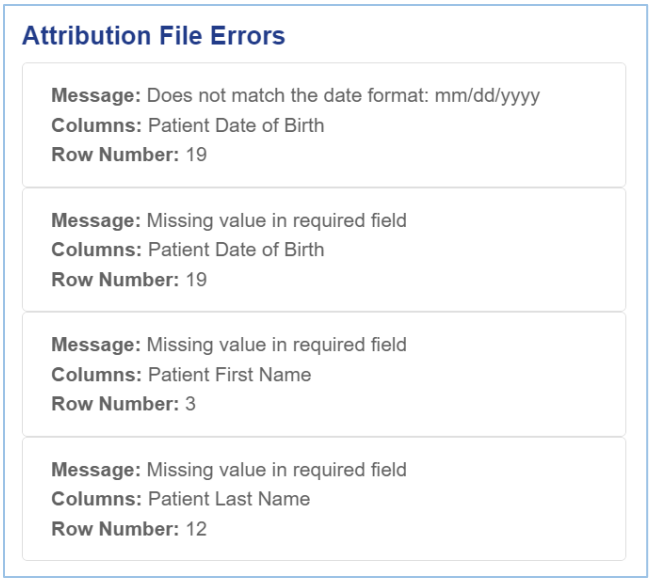


Figure 28. Attribution File Error Example

- Delivery File Errors
  Lists each row, column, and/or headers where validation errors or formatting issues occurred, along with the specific error.

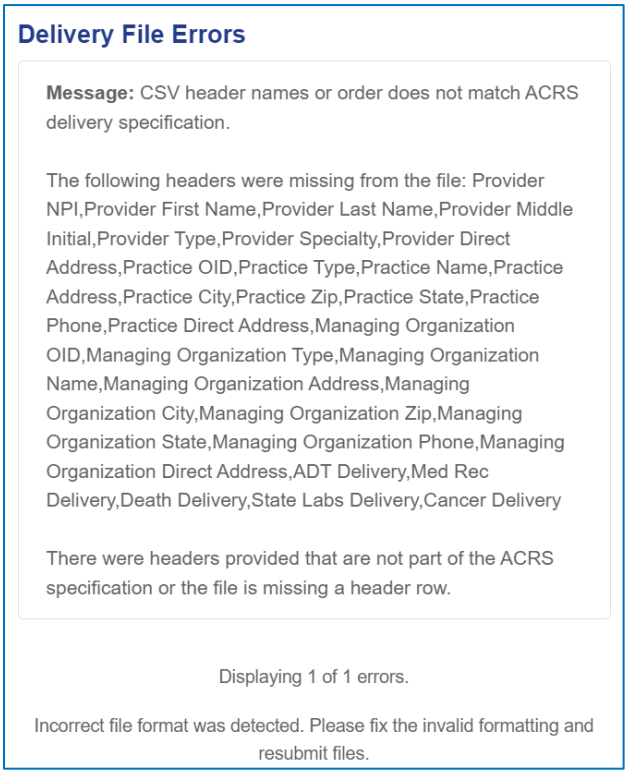


Figure 29. Delivery File Error Example

- Cross-Validation Errors
  Cross-Validation Errors will be listed so the submitter can make corrections to prevent message routing or delivery issues in the future. It should be

  noted that Cross Validation Errors will only represent valid rows. If there are cross-invalid rows, they will be represented in groups, as shown in **Figure 30**.

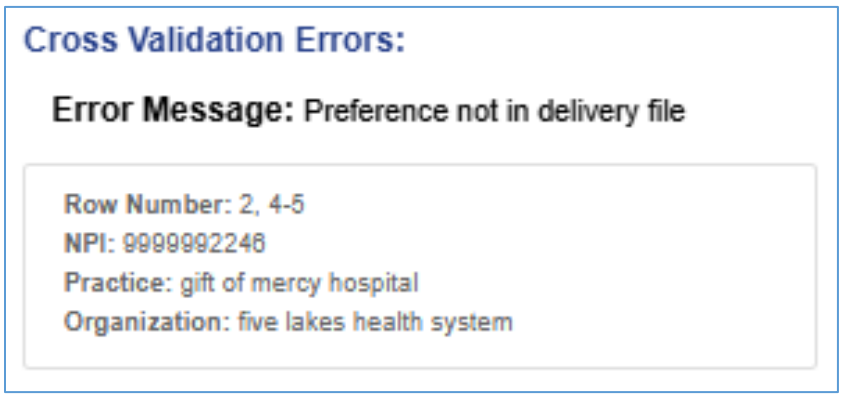


Figure 30. Cross-Validation Error Example

3.1.2.4 Working with Files with Errors

The File Submission module allows the submission of files that contain validation errors. This function will remove all rows containing validation errors within either the attribution or delivery file. This can be done by clicking the "Submit" button on the validation errors pop-up window, as shown in ***Figure 31***.

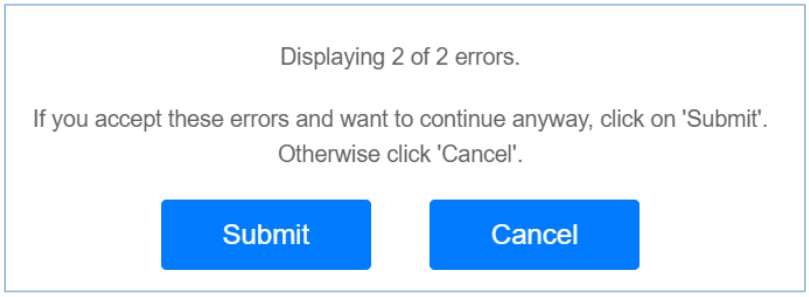


Figure 31. File Submission Invalid Rows Submission Screen

After clicking the “Submit” button, another pop-up window will appear asking for confirmation as shown in ***Figure 32***. Clicking “Yes” will load the file and remove the rows with validation errors in them but will also mean that **messages will not be routed based on those deleted rows**.

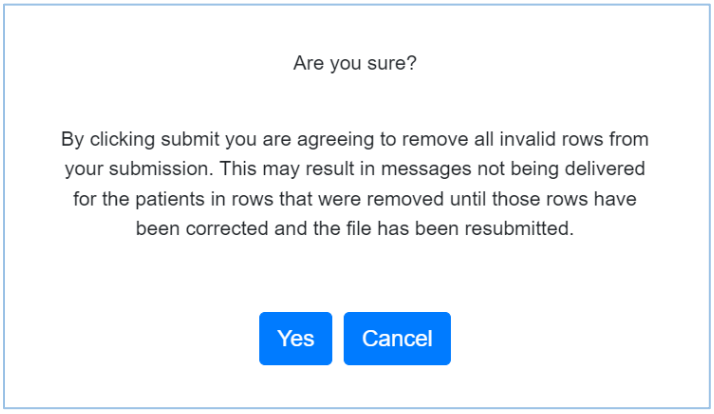


Figure 32. File Submission with Invalid Row Confirmation

Once the files have been submitted, email messages will be generated and sent to the email address associated with the submission. This will either be the MIGateway® user account email or the one associated with the SFTP User Account through which the files were uploaded.

Emails will always be delivered when files go through at least one of the following, regardless of success or error status:

- Attribution Validation
- Delivery Validation
- Cross Validation

In situations where a file is found to be invalid, a file will be attached to the email with explanations detailing the source of the error. This will be the same file that users can see when reviewing file submissions in the “Status” tab, illustrated earlier in this section. For examples of emails that can be sent for given validation scenarios, please refer to Appendix 4.6.

3.2 Manage ACRS®

Manage ACRS® allows direct access to ACRS® populations within MIGateway®, offering the ability to search patient populations using represented filters or to add or modify active care relationships on demand. The features included with Manage ACRS® provide the following views:

- Hierarchy of active care relationships within a network
- Access to all active care relationships within personal hierarchy
- Active care relationships associated with a specific practice
- Active care relationships with a specific provider
- Patient care team

3.2.1 Manage ACRS® UI Elements

Manage ACRS® can be accessed by navigating to the Care Coordination drop-down menu at the top of MIGateway® and clicking "Manage ACRS®" as shown in ***Figure 33***.

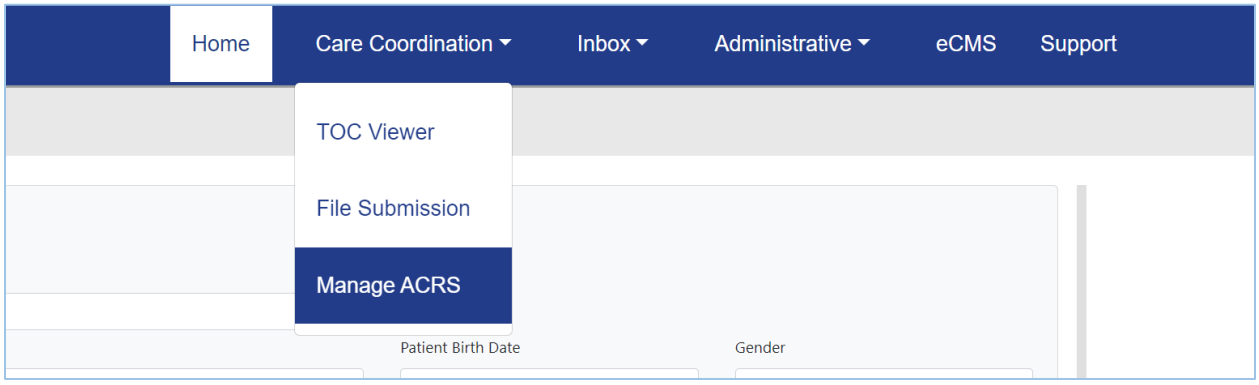


Figure 33. Manage ACRS® Menu Location

The "Search Active Care Relationships" interface is the main user interface element for Manage ACRS®, as shown in ***Figure 34***.

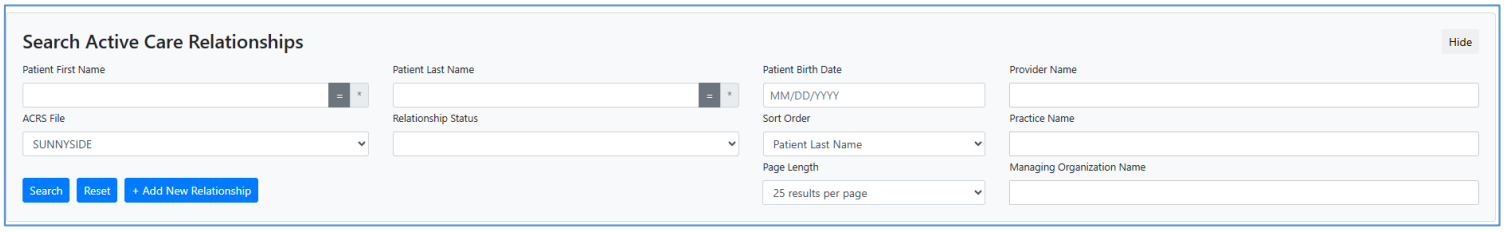


Figure 34. Search Active Care Relationships Layout

The filter has several elements to look up information about applicable ACRS® files and the patients that are attributed to them. A breakdown of these elements is illustrated in ***Figures 35 and 36***.

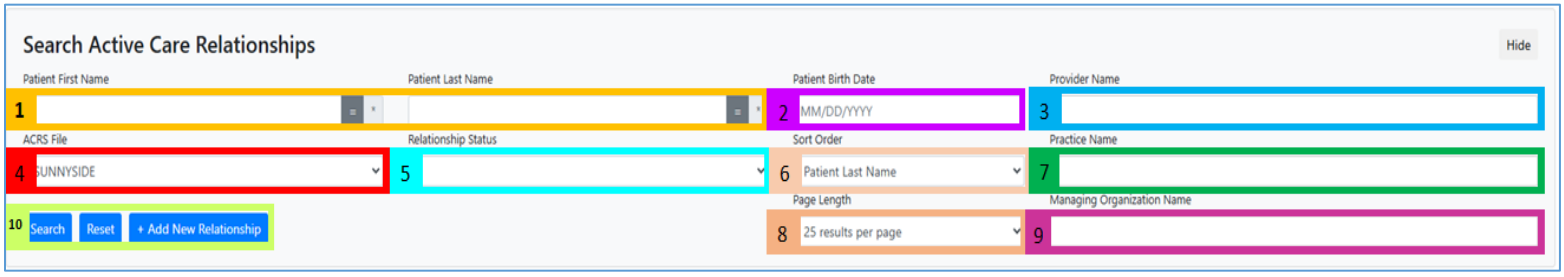


Figure 35. Search Active Care Relationships UI Elements

1	**Patient First/Last Name:** Filter by patient first/last name with optional wildcard search function (for more information on wildcard searches, see appendix E)
2	**Patient Birth Date:** Filter by patient date of birth (MM/DD/YYYY)
3	**Provider Name:** Filter by Provider Name within ACRS® file ■ Utilizes a text-completion field. Entering the first 2 letters of the providers' name will start to display available provider names/NPI's from the Health Directory
4	**ACRS® File:** Filter by ACRS® file (applicable if organizations submit multiple ACRS files)
5	**Relationship Status:** Filter by relationship status. Currently, only one status is searchable: **Declared**
6	**Sort Order:** Sort results based on data elements (Patient Last Name, Provider Last Name, Practice Name)
7	**Practice Name:** Filter by Practice Name within ACRS® file ■ Utilizes a text-completion field. Entering the first 2 letters of the practices' name will start to display available practice names/OIDs from the Health Directory
8	■ **Page Length:** Adjust results shown per page (25, 50, 100 or 200 results)
9	**Managing Organization Name:** Filter by Managing Organization Name within ACRS file ■ Utilizes a text-completion field. Entering the first 2 letters of the organizations' name will start to display available organization names/OIDs from the Health Directory
10	**Search/Reset/+Add New Relationship:** ■ "Search" button will refresh page results with applied filter(s)

	■ "Reset" button will refresh page results with default Transitions of Care Viewer settings ■ "+Add New Relationship" button will add new patient relationship(s) to ACRS® file

Figure 36. Search Active Care Relationships UI Element Descriptions

The resulting list of entries are laid out under the following headers as shown in ***Figure 37 and 38***.

Figure 37. Search Active Care Relationships Results Headers

1	**Patient Name:** Lists patient name, Gender, and Date of Birth in the following format: ■ Last Name, First Name M.I. (Gender) MM/DD/YYYY
2	**Patient Address:** Lists patient address in the following format: ■ Street Address City, State, Zip Code
3	**Care Team Member/Practice:** Lists Provider Last Name, First Name, NPI, Practice Name, and Practice OID of patient's care team member in the following format: ■ Last Name, First Name ((NPI)) Practice name ((Practice OID))
4	**Managing Organization:** Lists the Name and OID of the organization managing the list of care team members and practices in the following format: ■ Managing Organization Name ((Managing Org OID))
5	**Actions:** Lists actions to be made with the Patient Entry: ■ Relationship-Declared – Used to remove a declared relationship between patient and care team member ■ Copy – Used to copy the relationship. This will open the entry to confirm details of the relationship ■ Edit – Used to edit the details of the relationship

Figure 38. Search Active Care Relationships Results Header Descriptions

3.2.2 Working with ACRS® Populations

3.2.2.1 Adding and Removing Active Care Relationships

The Manage ACRS® module can be used to add active care relationships by clicking the "+Add New Relationship" button, as shown in ***Figure 39***:

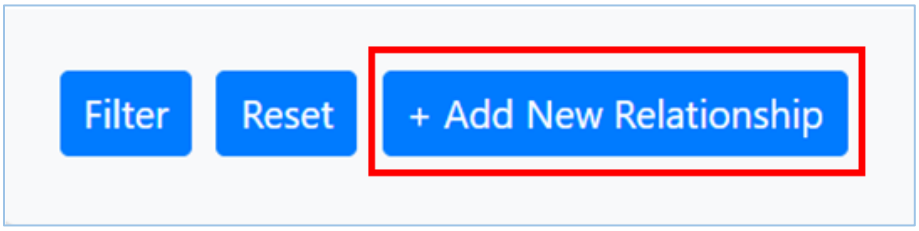


Figure 39. Add New Relationship Button

A window will appear, allowing the creation of a new active relationship by entering in the corresponding information, as pictured in ***Figure 40***.

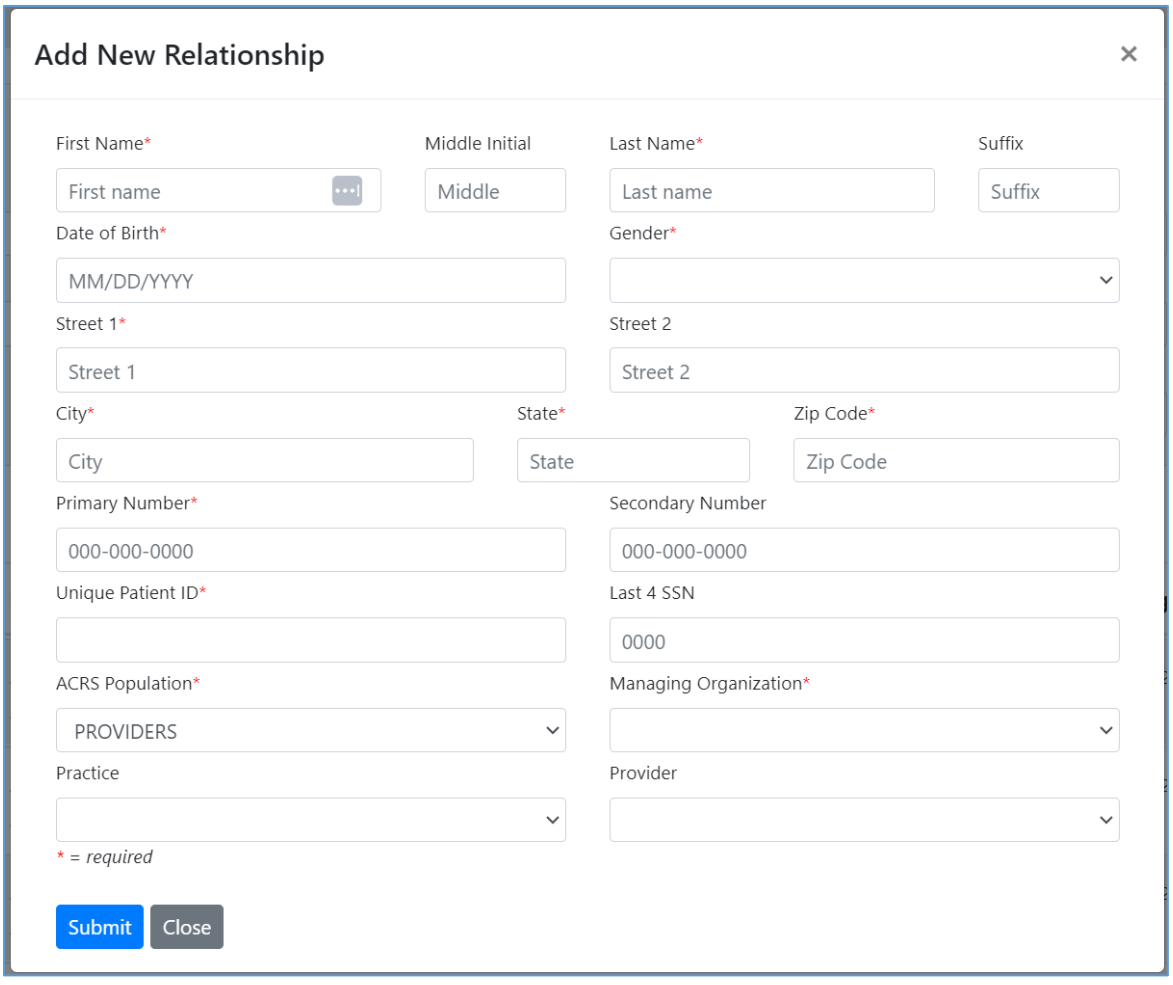


Figure 40. Add New Relationship Field Layout

The ACRS® Population, Managing Organization, Practice, and Provider fields are all text-completion fields that will be populated based on information in the Health Directory that was entered in the Search Active Care Relationships filter. Users will need to enter at least the first two letters of their Provider or Org Name in the field for it to begin to display available options matching their search criteria.

Several of the fields in the form are required to be completed prior to submitting the form. These fields are listed below, along with any specifications around the information required:

Required Field	Field Specifications
First Name	■ First Name of patient as it appears in the health record
Last Name	■ Last name of patient as it appears in the health record
Date of Birth	■ Date of Birth in the format: **DD/MM/YYYY**
Gender	■ Gender of the Patient as it appears in the health record
Street Address (Line 1)	■ For unhoused/homeless patients, please populate “NOT AVAILABLE”
City	■ For unhoused/homeless patients please populate Attributed Practice city
State	■ For unhoused/homeless patients please populate with Attributed Practice State
Zip Code	■ For unhoused/homeless patients please populate with Attributed Practice Zip Code
Primary Phone Number	■ For unhoused/homeless patients, please populate with Attributed Practice Phone number
Unique Patient ID	■ Enter a formal unique identifier (maximum of 40 characters) from your system (e.g. Medical Record Number). For optimal results, do NOT reuse the same number for multiple patients. This number is important for identity resolution and will impact the quality of patient matching.
ACRS Population	■ The Name of the ACRS® File the patient will be attributed to. This entry will default to the

	ACRS® population selected in the Manage ACRS® Search Active Care Relationships filter when a user adds a new relationship.
Managing Organization	■ When beginning to enter in the first two letters of a user's organization from the "Managing Organization" type-ahead field. **Please Note:** There may be a slight delay when loading the list as it is a large list. ■ If you still do not see your organization, please email help@mihin.org or submit a Help Desk ticket

Please Note: For **unhoused/homeless patients** that the Attributed Practice information is unknown, please list the associated information for the Managing Organization instead.

For any **housed patients,** if the user meets the field population and format requirements, the relationship can be created. We do not recommend, but also do not prevent, the use of default values if the information is unknown. The inclusion of default data may result in a patient mismatch, so it is critical to gather as much accurate, required information as possible. If the social security number (SSN) is known, we also highly recommend including that to enhance the patient matching rate.

Once all required fields are populated, the user will click "Submit" and the Manage ACRS® module will reappear with a green banner at the top declaring that the new active relationship was successfully created as shown in ***Figure 41***. The newly created relationship should appear amongst the results for that population, though it may not appear on the first page, as the results are sorted alphabetically.

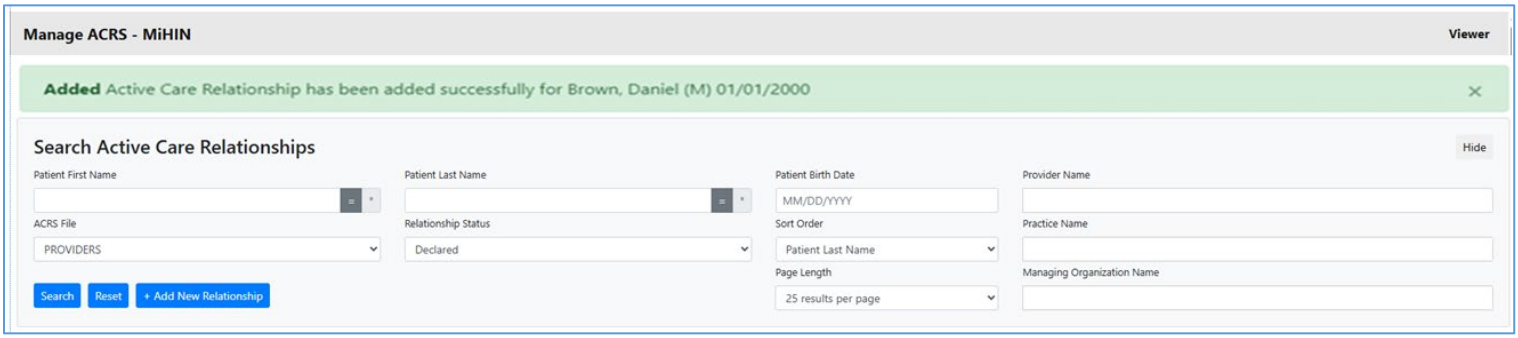


Figure 41. Successful Active Care Relationship Added Message

For more information and troubleshooting optional fields when adding new patients or relationships, please see Appendix I.

3.2.2.2 Copy/Edit Active Care Relationships

When an ACRS® file is selected and "Search" is done, it will display up to the first four hundred records attributed to that ACRS® file, along with information on that patient and the patient's care team (if permissions allow). These active care relationship entries can be copied or edited as shown in ***Figure 42***.

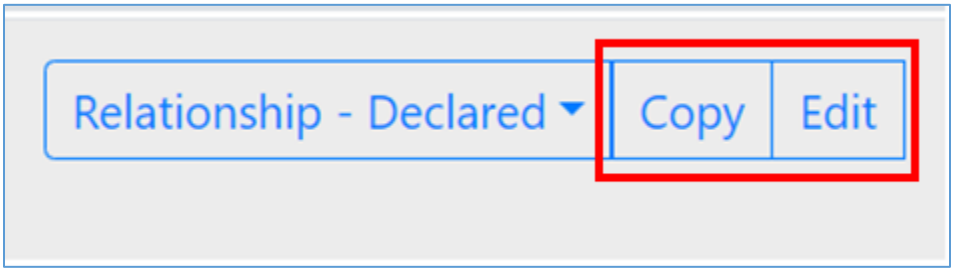


Figure 42. Copy and Edit Active Care Relationship Buttons

The "Copy" function will duplicate patient demographic data from the current entry and allow changes to be made and saved as a new active care relationship entry. The "Edit" function will allow the ability to update and save the current active care

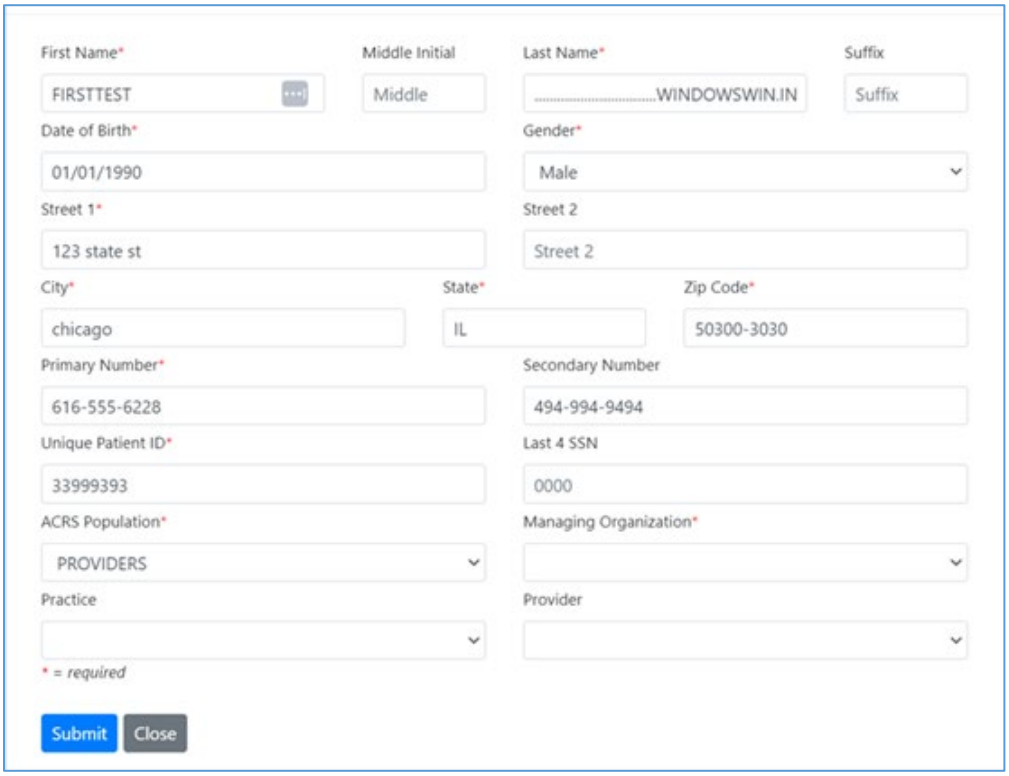


Figure 43. Edit/Copy Pop-Up Window Interface

relationship entry. Clicking either of these options will display a pop-up window as shown in ***Figure 43***.

This window allows fields to be updated before copying or to update the active relationship itself. Once the needed edits are made, the user can click the "Submit" button to complete the copy or update.

3.2.2.3 Removing Active Care Relationships

Deleting an active care relationship can also be accomplished through the Manage ACRS® module. In the same section as the "Copy" and "Edit" options, the "Relationship – Declared" button will display a "Remove" option when clicked as shown in **Figure 44**.

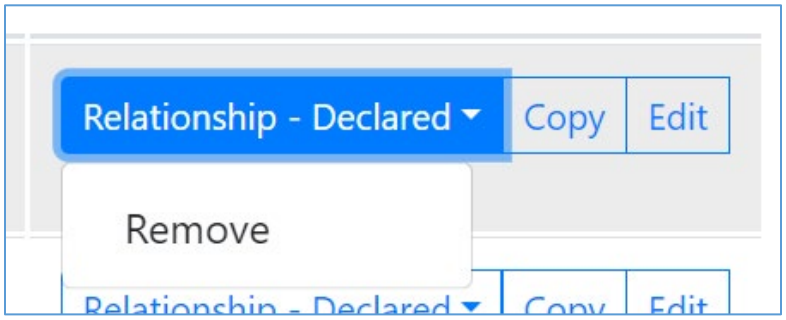


Figure 44. Remove Relationship Drop-down

When this option is selected, a confirmation window will be displayed. Clicking the "Remove" option will remove the relationship from the ACRS® file, as shown in ***Figure 45***.

Figure 45. Remove Active Care Relationship Confirmation Screen

3.3 Patient Viewer

The Patient Viewer module allows users to search for patients across the entire Enterprise Master Person Index (eMPI) and view protected health information (PHI) related to patients they have existing relationships with. If configured, the user can

also create relationships with patients they do not currently have an existing relationship with using the ACRS® CareLink functionality within the Patient Viewer. Please see Section 3.3.2.4 for more information about using ACRS® CareLink.

The Patient Viewer module is also used in conjunction with other modules to display additional information about a patient. Depending on which modules the user has access to, Patient Viewer can be launched for any patient that is found through the following methods:

- Patient Search displayed on the MIGateway® homepage
- Patients displayed in the Manage ACRS® module
- Patients displayed in the TOC Viewer module

These modules will offer a list of patients in one of two ways: in the case of the Manage ACRS® module, the list will show attributed patients and their associated care team information (if permissions allow). For the TOC Viewer module, the list will display encounter messages associated with the patient. In either situation, the patients included within these results can be selected to open the Patient Viewer.

3.3.1 Patient Viewer User Interface (UI) Elements and Views

The Patient Viewer module has several screens that are used to search for patients and provide information about patients found in other modules, including their care teams and the documents and messages associated with them.

3.3.1.1 Patient Search User Interface (UI)

For users with access to the Patient Search module, the Patient Search UI can be accessed from the MIGateway® home page after logging in as shown in ***Figure 46***.

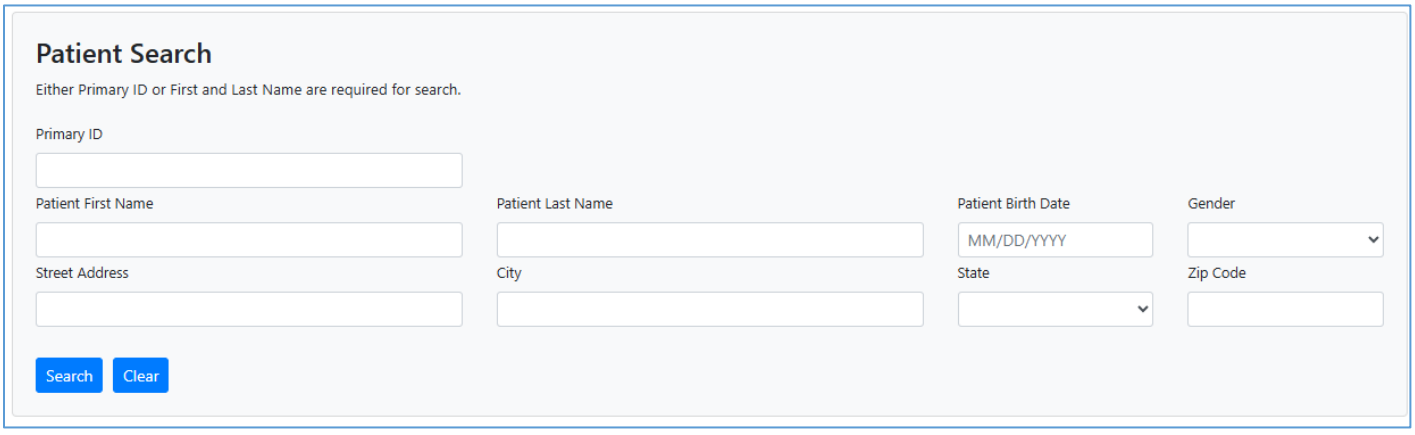


Figure 46. Patient Search Landing Page

The Patient Search UI has several elements used to search against the MPI and filter all patients based on the search criteria entered in the Primary ID or First and Last Name fields vs the ACRS® Population. There is also a set of headers that are used to create a list of the patients filtered from the search. These are described in ***Figures 47-50***.

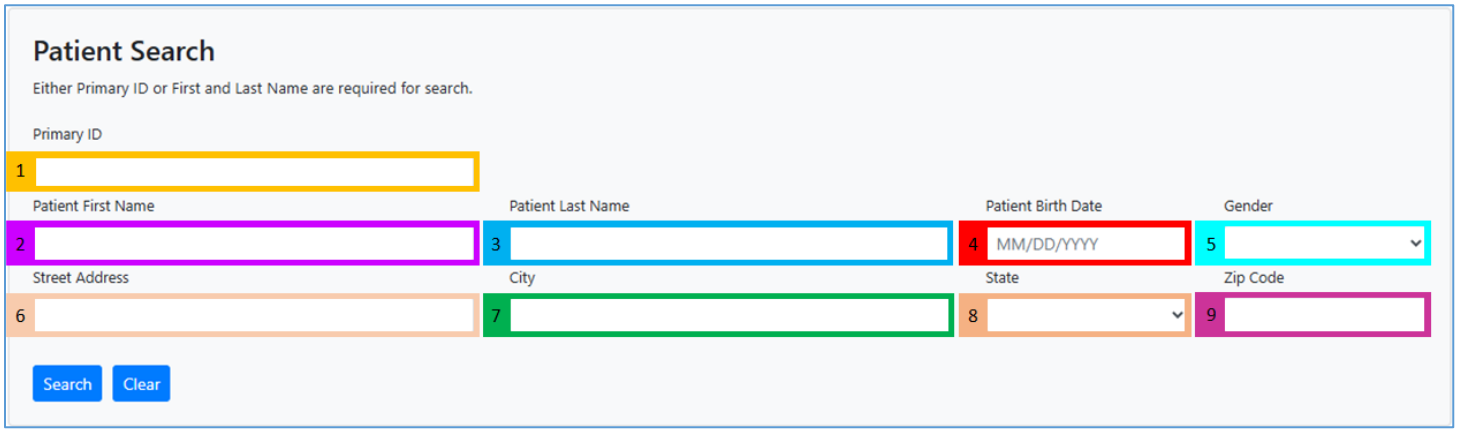


Figure 47. Patient Search UI Elements

1	**Primary ID:** Filters by the unique identifier assigned to the patient by the managing organization as part of their ACRS® attribution entry. This ID is established and used at the discretion of the managing organization that provided it. This field is case sensitive.
2	**Patient First Name:** Filters patients by the first name of patients listed in the selected ACRS® population.
3	**Patient Last Name:** Filters patients by the last name of patients listed in the selected ACRS® population.
4	**Patient Birth Date:** Filters patients listed in the selected ACRS® population by the selected date of birth, entered in the format: **MM/DD/YYYY**
5	**Gender:** Filters patients listed in the selected ACRS® population by the selected gender from the following list: ■ M – Male ■ F – Female ■ O – Other ■ U - Unknown
6	**Street Address:** Filters patients listed in the selected ACRS® population by their address in the format: **Street Number, Street Name**
7	**City:** Filters patients listed in the selected ACRS® population by listed city.

8	**State:** Filters patients listed in the selected ACRS® population by state. Drop down includes: ■ MI ■ GA ■ WI
9	**Zip Code:** Filters patients listed in the selected ACRS® population by entered, 5-digit zip code

Figure 48. Patient Search UI Element Descriptions

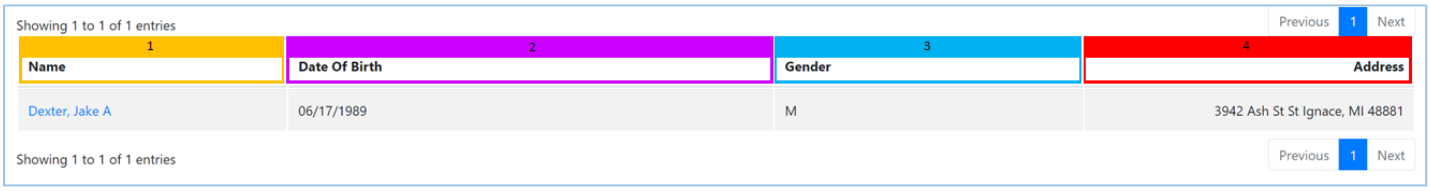


Figure 49. Patient Search Result UI

1	**Name:** Lists names of all patients meeting search criteria in alphabetical order, in the format: **Last Name, First Name, Middle Initial**
2	**Date of Birth:** Lists associated date of birth for all patients meeting search criteria in the format: **MM/DD/YYYY**
3	**Gender:** Lists associated gender for all patients meeting search criteria from the following list: ■ M – Male ■ F – Female ■ O – Other ■ U - Unknown
4	**Address:** Lists associated address for all patients meeting search criteria in the format: **Street Number, Street Name, City, State, Zip Code**

Figure 50. Patient Search Result Header UI Descriptions

3.3.1.2 Viewer UI

Clicking on the name of a patient listed in the Patient Search results will open another screen with more detailed information about the patient, including their care team, documents associated with them, their consent information, as well as links to their associated longitudinal record entry. These results can also be found in the Manage ACRS and TOC Viewer moules as well. This screen has display and UI elements as illustrated in ***Figures 51-58***.

Patient Summary

Figure 51. Patient Summary UI Elements

1	**Patient Name:** Displays the name of the selected patient in the format: **Last Name, First Name**
2	**Primary ID:** Displays the primary unique identifier associated with the patient that is provided by the managing organization as part of their ACRS® attribution entry. This ID is established and used at the discretion of the managing organization that provided it.
3	**Primary ID Source:** Displays the OID of primary organization and facilities responsible for generating the patient data.
4	**Birth:** Displays the patient's date of birth in the format: **MM/DD/YYYY**
5	**Address Line 1:** Displays the primary address for patient in the format: **Street Number, Street Name**
6	**Address Line 2:** Displays secondary address information including the following: ■ Unit/Apt Number ■ P.O. Box Number
7	**Secondary ID:** Displays the secondary identifier associated with the patient that is provided by the managing organization as part of their ACRS® attribution entry. This ID is established and used at the discretion of the managing organization that provided it.
8	**Secondary ID Source:** Displays the OID of secondary organization and facilities responsible for generating the patient data.
9	**Gender:** Displays patient's listed gender from the following options: ■ M – Male ■ F – Female ■ O – Other ■ U - Unknown

10	**City:** Displays patient's city of residence
11	**State:** Displays patient's state of residence
12	**Zip:** Displays patient's 5-digit zip code of residence
13	**Primary Phone and Secondary Phone:** Displays patient's primary phone number, including area code, and any additional phone number associated with the patient.
14	**Longitudinal Record:** Clicking this button will open an additional window that will display the full longitudinal record for the selected patient. The Longitudinal Record module will be covered in greater detail in section 3.6.

Figure 52. Patient Summary UI Element Descriptions

Care Team Tab

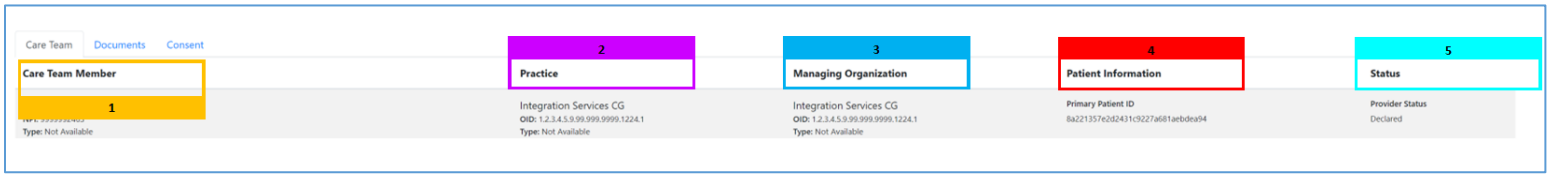


Figure 53. Care Team Tab Headers

1	**Care Member Team:** Lists all members of a patient's care team, along with additional details including: ■ Name in the format: Last Name, First Name ■ NPI ■ Type ■ Specialties ■ Direct Address ■ Phone Number
2	**Practice:** Lists information about the practice associated with each Care Team Member, including: ■ Practice OID ■ Type ■ Phone Number ■ Address
3	**Managing Organization:** Lists information about the managing organization for the Care Team Member, including: ■ Managing Organization OID ■ Type ■ Phone Number ■ Address

4	**Patient Information:** Lists some of the same information displayed in the patient summary display for the patient, including: ■ Primary Patient ID ■ Patient Address in the format: **Street Number, Street Name, City, State, Zip Code**
5	**Status:** Lists the status of the Care Team Member's provider and consumer relationship with the patient: ■ Declared

Figure 54. Care Team Tab Header Descriptions

Documents Tab (If configured for Intelligent Query Broker)

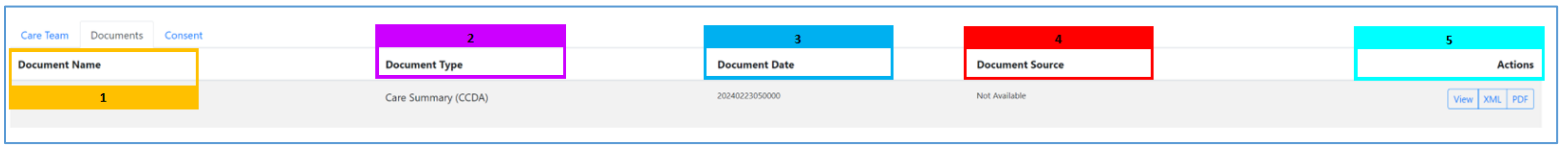


Figure 55. Documents Tab Headers

1	**Document Name:** Displays a list of documents associated with the patient, including the following: ■ Summarization of Episode Notes
2	**Document Type:** Displays CCD documents. The documents displayed may have many different names depending on the providing organization. The CCDs are retrieved from federated calls. The documents may include the following: ■ Summarization of Episode Notes (90% of documents) ■ Other (For a complete list of documents that may be present in this field, please see 4.7 Appendix G – C-CDA Documents.
3	**Document Date:** Displays the creation date for each listed document in the format: **YYYYMMDD050000 (entire time stamp of the creation date)**
4	**Document Source:** Displays the organization or location from where the document was produced and is kept.
5	**Actions:** Lists actions that can be taken by the user to interact with the listed document, including: ■ View – Opens a more detailed window view of the entire listed document ■ XML – Export the document in raw XML format ■ PDF – Export the document in human-readable PDF format

Figure 56. Documents Tab Header Descriptions

Figure 57. Consent Tab Headers

Consent Tab

1	**Form Name:** Displays the name of both the Active and Inactive consent forms on file for the patient
2	**Active Until Date:** Displays the last date active consent forms will be usable for consent-related processes and the last date that inactive consent forms were usable for consent-related processes
3	**Provider:** Displays the provider that the active and inactive consent forms authorized
4	**Practice:** Displays the practice associated with the provider that the active and inactive consent forms authorized
5	**Document Source:** Lists the source of the active and inactive consent forms
6	**Action:** Displays actions available for users to interact with the listed active and inactive consent forms, including**:** ■ PDF – Export the document in human-readable PDF format

Figure 58. Consent Tab Header Descriptions

3.3.2 Using the Patient Viewer Module

Users can access the information found within the Patient Viewer module from any other module that pulls up and displays a list of patients. Patients can also be searched for directly by using the Patient Search function.

3.3.2.1 Searching for a Patient

If users have been set up for the Home Patient Search during their account configuration, the user can use the Patient Search function to enter search criteria that will filter the list of patients from the eMPI that best matches the criteria provided in the search fields.

Search criteria fields and requirements include either the Primary/Unique Patient ID or the First and Last Names. With this information, users can use the Patient Search function to enter the to find up to 10 matching identities in the eMPI with an exact match to the entered information These are also defined in detail in section 3.3.1.1. Once all needed fields have been defined, click the “Search” button to filter the results.

Please Note: In situations where a Patient Birth Date is used along with the First Name and Last Name in a search, the results returned could match on either the first **OR** last name plus the date of birth, **NOT** the first **AND** last name plus the date of birth.

A list of patients that meet the specified search criteria will be listed below the Patient Search menu, as shown in ***Figure 59***.

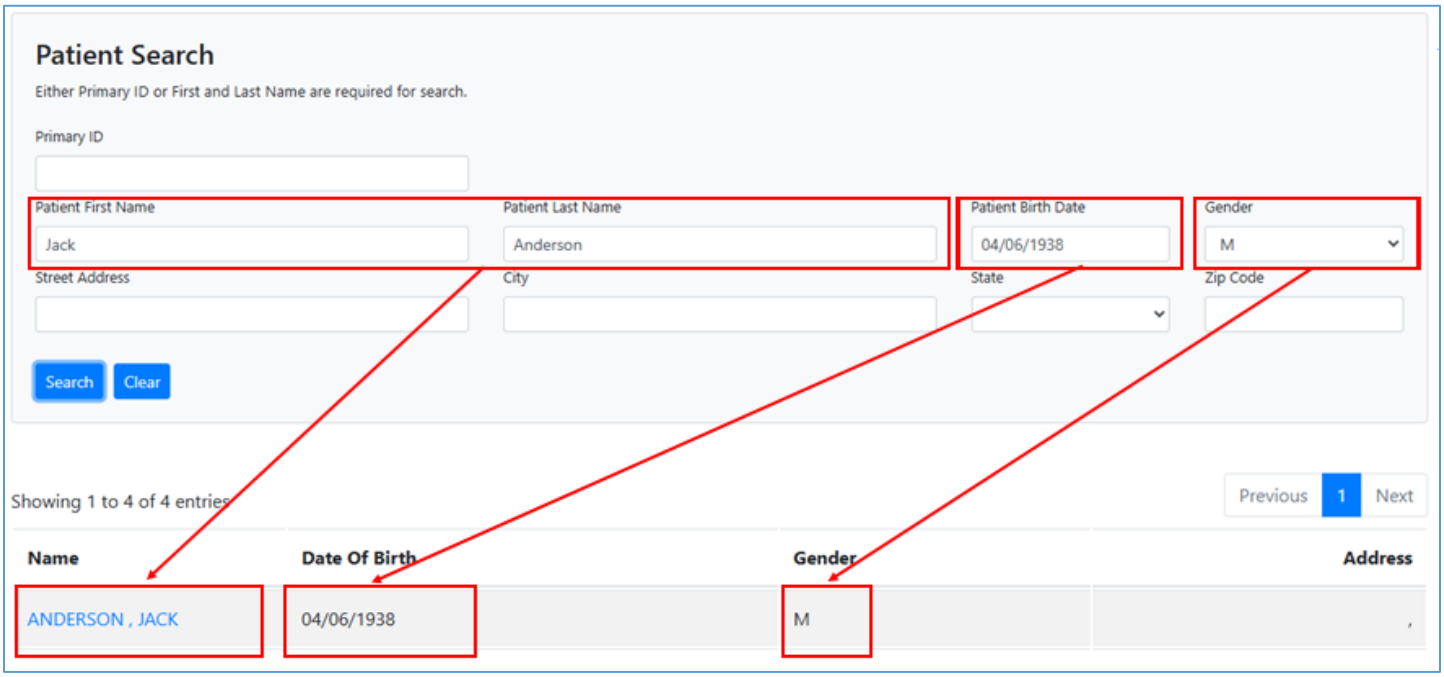


Figure 59. Patient Search Filter Entries and Results

This list shows basic information associated with each patient such as Date of Birth, Gender, and Address. It also provides a link on the patient's name that can be clicked to see more detailed information and other tools that can be used to work with the patient's entry as shown in ***Figure 60***.

Figure 60. Patient Viewer Link

3.3.2.2 Working with Patient Viewer Entries Patient Summary

When a specific patient's name is clicked on, a new window will open, displaying a much more detailed summary for the patient, as shown in ***Figure 61***.

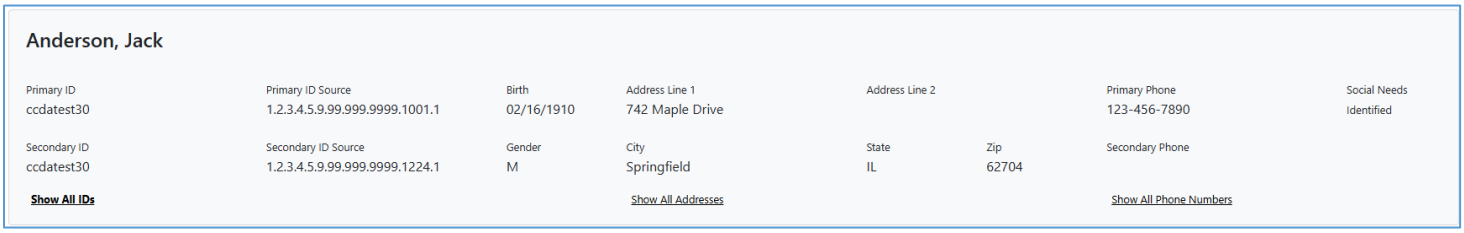


Figure 61. Patient Summary Screen

This summary includes all the information displayed on the previous page, but includes additional information such as the following:

- Primary and Secondary Phone Numbers
- Primary and Secondary ID Source
- Secondary ID
- Address Line 2

These entries are defined in detail in section 3.3.1.2. Additionally, the "Longitudinal Patient Record" button located on the lower right-hand corner will take the user to the patient's detailed longitudinal record view, which will be covered in greater detail in section 3.6.

On the left-hand side of the interface, a "Show All IDs" link can be clicked to provide a list of all IDs for the patient and their source, displayed as the source organization OID as illustrated in **Figure 62**.

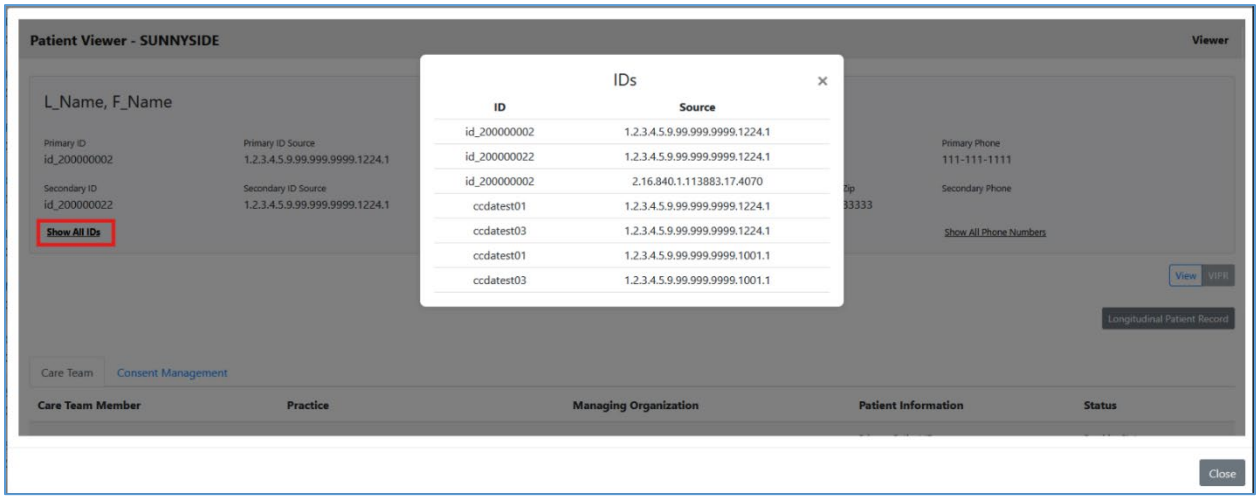


Figure 62. Patient Viewer ID Display Window

Similar links can be found for “Show All Addresses” and “Show All Phone Numbers”, which function similarly, displaying all Addresses or Phone Numbers for a patient and their source, respectively.

In addition to the Patient Summary, if enabled during account setup and configuration, there are three tabs displayed for each patient that list information about the patient’s care team members, any documents associated with the patient, and any Electronic Consent Management Services Use Case (eCMS) documents associated with the patient on file (this will be available soon).

Viewing Care Team Information

If a user’s permissions are configured to do so, they can view a summary of care team information for the patient in the care team tab, which lists all members of a patient’s care team across all loaded ACRS® populations, as shown in ***Figure 63***. Users can review information about care team members by clicking this tab.

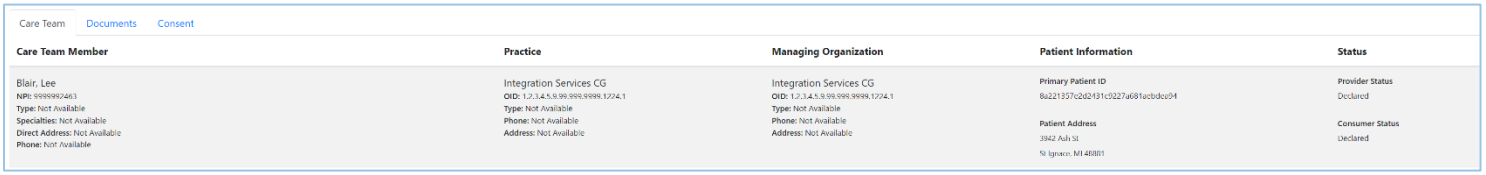


Figure 63. Care Team Tab View

This information includes:

- Care Team Member Details
- Details about the practice of which the care team member is a part of
- Details about the Managing Organization of the practice/care team member
- Patient Information that reiterates details from the ACRS file that the patient is attributed to
- The current provider and consumer status between the patient and care team member.

Viewing Patient Documents

Users can utilize the documents tab to view a summary list of all care documents on file for a selected patient. This tab also includes tools that allow a user to access a complete view of listed documents as shown in ***Figure 64***.

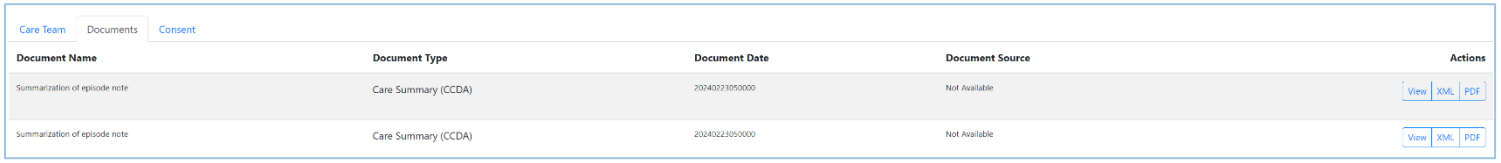


Figure 64. Documents Tab Display

In this tab, users can view a summary list of all documents on file associated with the chosen including:

- The name of all documents listed
- The type of document each named document is
- The date the document was created
- The source of the document

Additionally, under the "Actions" header, the "View" button can be used to view all the information included in a listed document as shown in ***Figure 65***.

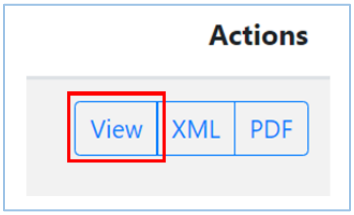


Figure 65. View Button to View Full Documents

The resulting view lists all information included in the listed document and can vary depending on the document listed. **Figure 66** is an example of a detailed view of a Summarization of Episode Note while using this view:

Figure 66. Summarization of Episode Note Example

Please Note: The Documents Tab will only be present if users have been configured for Intelligent Query Broker.

Viewing Consent Information

The Patient Viewer module can also be used to view available patient consent documents as shown in ***Figure 67.*** This is accomplished by clicking on the "Consent" tab under the patient summary.

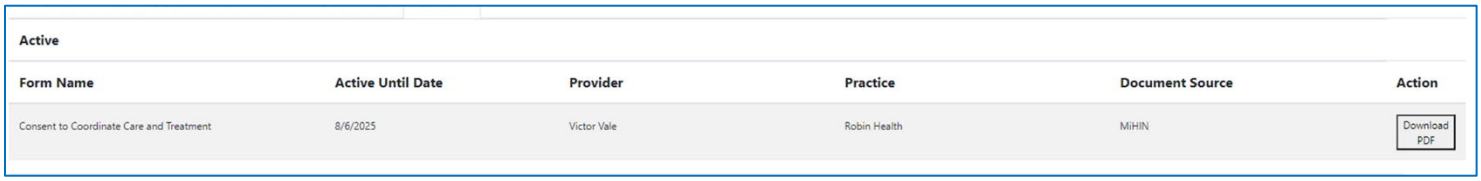


Figure 67. Consent Tab Screen

Please note: While information is included in this user guide, the eCMS module is still being finished and will only be available in a future version of MIGateway® after its initial release. When available, the "Consent" tab will only be present for users that have signed up for the eCMS Module.

The resulting view lists all active and inactive consent forms on file, as well as summary information about each consent form, including:

- The date the form is/was active until
- The provider that the consent authorized for use
- The practice that the listed provider was a part of
- The source of the consent document

A more detailed view of the complete consent document can be reviewed by clicking the "Download PDF" button under "Actions" as shown in ***Figure 68***.

Figure 68. View Documents Button

3.3.2.3 Exporting Patient Documents and Consent Forms

In addition to viewing the documents and consent forms listed for each patient, selected documents and consent forms can be exported for use. In either case, the user will select the format they wish to export the document in. The options can vary depending on the document, but in general, the options available are:

- XML – Export the raw XML file for a CCD (May not be applicable for all document types)
- PDF – Export a human-readable version of the document

Once the user has determined what format the document should be exported in, they will click the appropriate button under the "Action" header in the patient summary view, or alternatively, can click the appropriate format option within the detailed document view itself, also under the "Action" header as shown in ***Figures 69 and 70***.

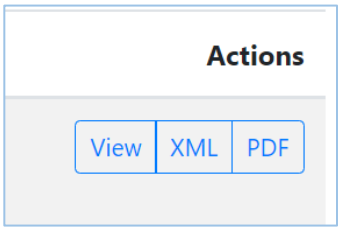


Figure 69. Document Format Export Options in Patient Summary

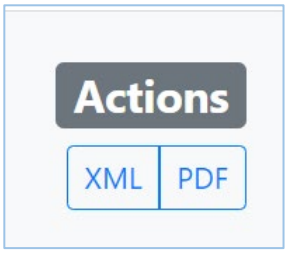


Figure 70. Document Format Export Options Within Document View

Once selected, MIGateway® will generate the document in the chosen format and download it to the user's system. An example of an exported PDF is displayed in ***Figure 71***.

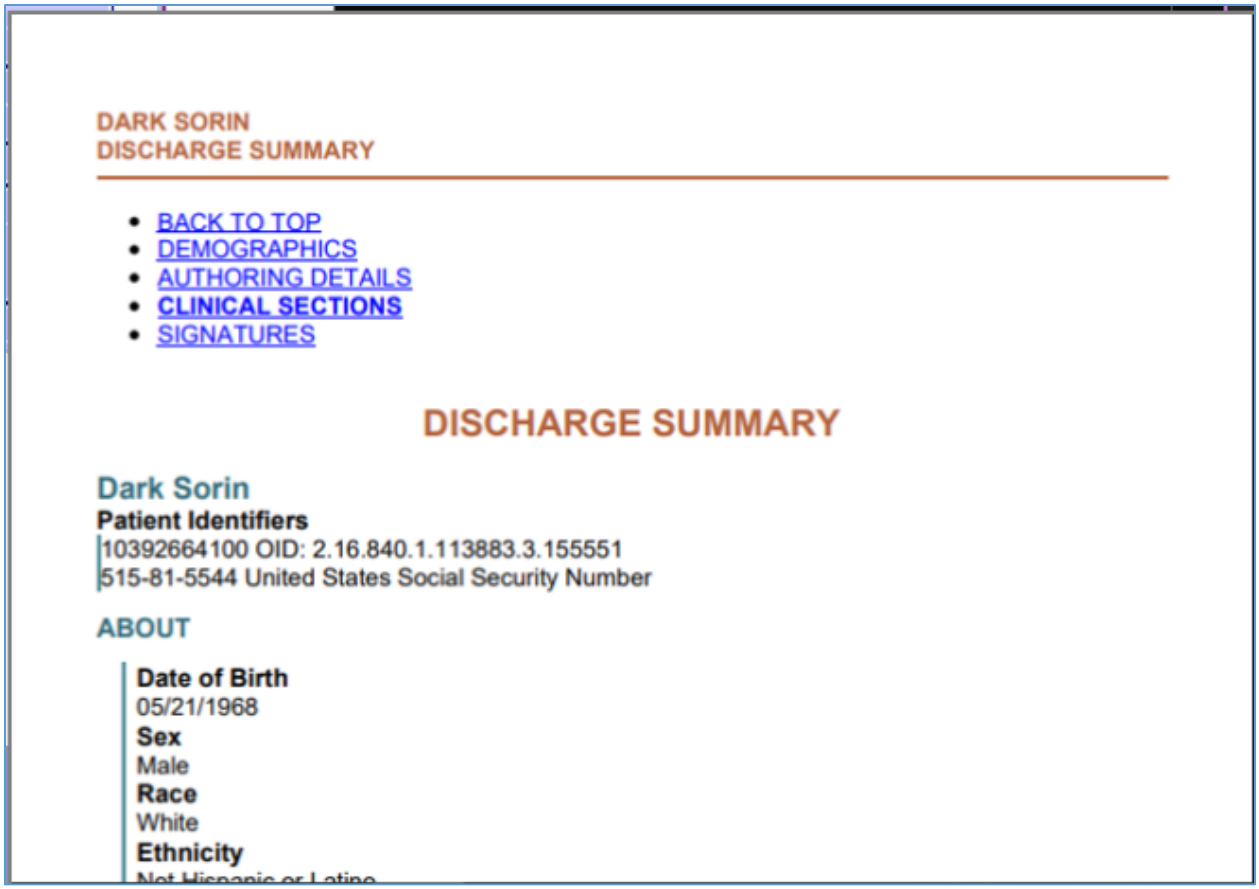


Figure 71. Chart Summary PDF Example

3.3.2.4 Using ACRS® CareLink

As mentioned previously, if a user is configured in their MIGateway profile, the Patient Viewer module has the ability to enable users to quickly and easily create new ACRS® relationships with patients they don't currently have one with. This functionality is referred to as ACRS® CareLink.

In situations where the User is associated with an ACRS® population that has an active care relationship established with the patient launched for view in the Patient Viewer, they will be allowed to view additional data for the patient including data included in the Longitudinal Record Viewer as shown in **Figure 72**.

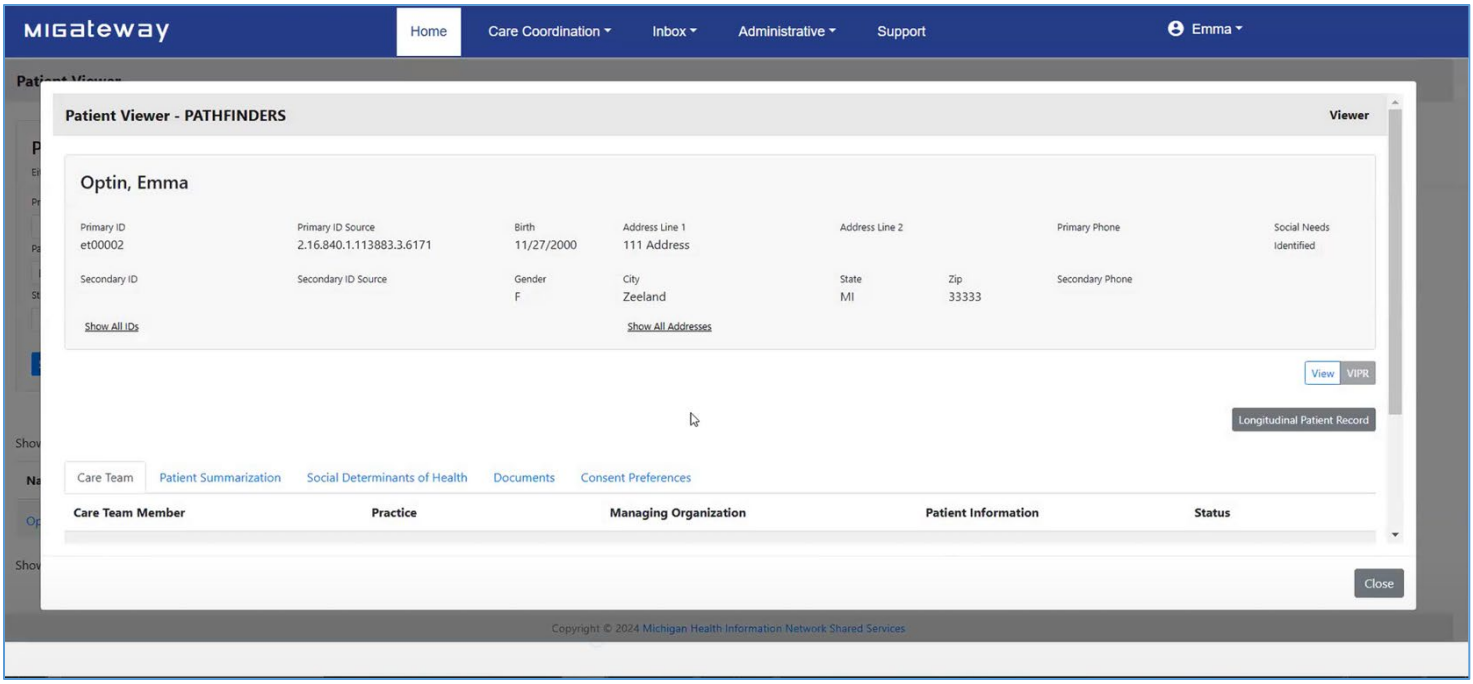


Figure 72. Longitudinal Record Information Accessible to Users with Established ACRS® Relationship with Patient

If, however, the User is not associated with an ACRS® population that contains an active care relationship with the patient launched for view in the Patient Viewer, the User may utilize the ACRS® CareLink functionality to declare a relationship with the patient. This is accomplished by creating a relationship on the following screen as shown in **Figure 73**.

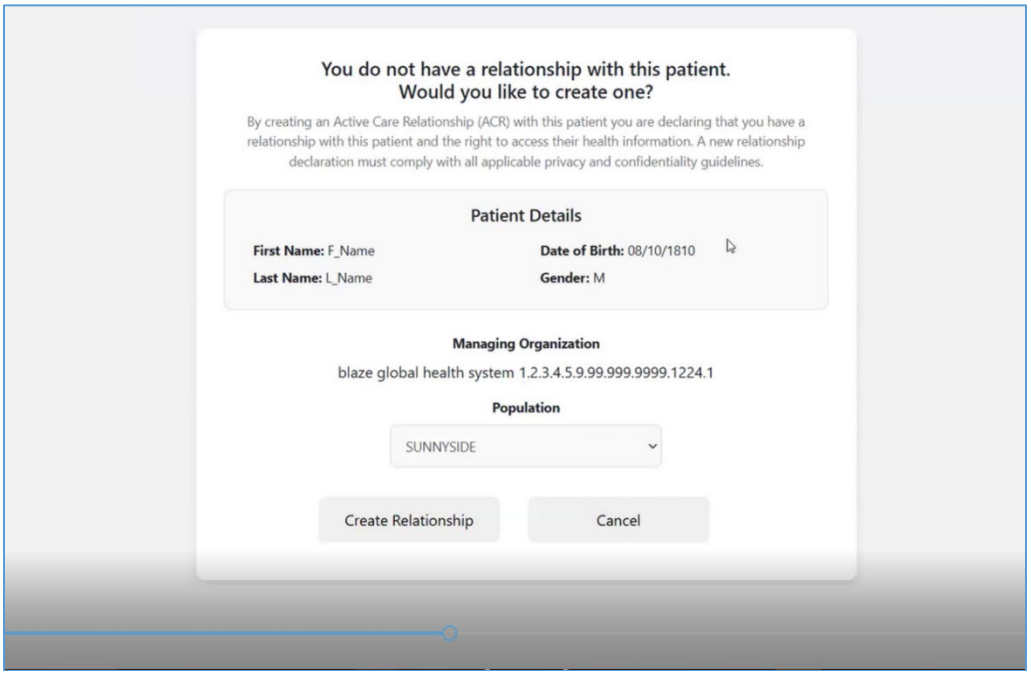


Figure 73. ACRS® Relationship Creation Pop-up Screen

The user will choose the ACRS® population they want the relationship to exist in and then click the “Create Relationship” button. Once created, the User can view additional information for the patient including data found in the Longitudinal Record, like that found in **Figure 72**.

In situations where the User is not granted permission to create an active care relationship, when the attempt to click on the patient they will be shown an error message like the one shown in **Figure 74**.

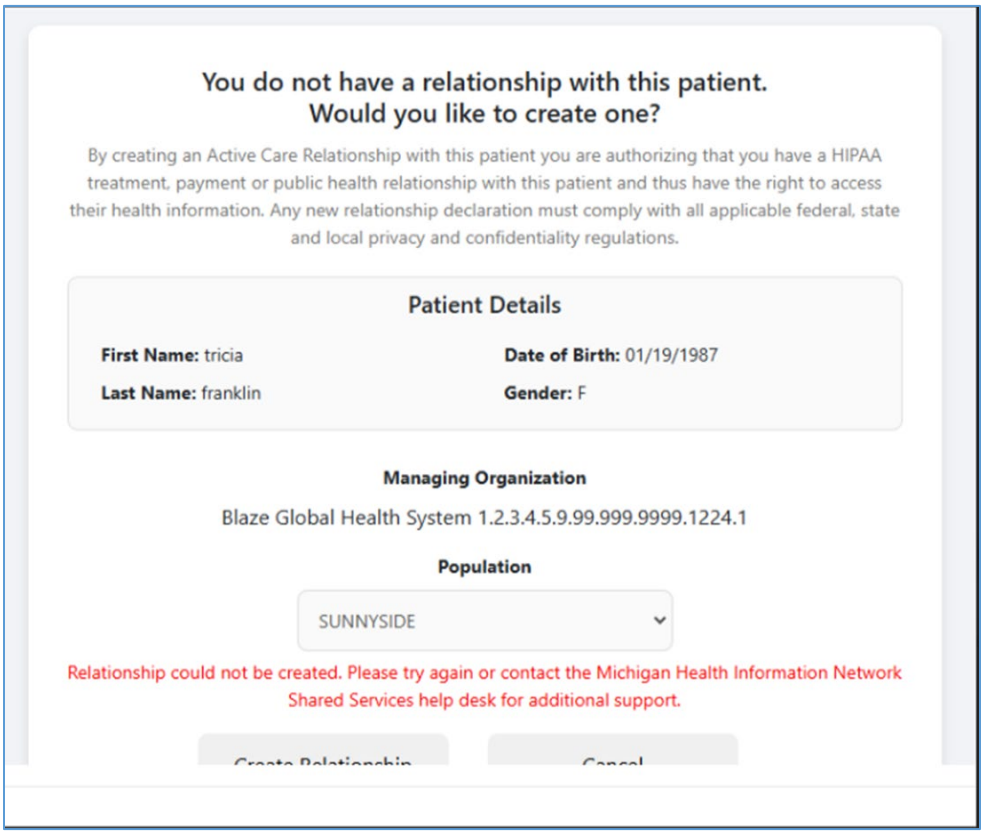


Figure 74. Error Message for Patients that User Does Not have an Active Care Relationship With

3.4 Transitions of Care (TOC) Viewer

Users can view various electronic messages regarding patients in the Transition of Care (TOC) Viewer, including the following message types:

- Admission, Discharge, Transfer Notifications
- Discharge Medication Reconciliation
- Ambulatory CCDs

The features included with the TOC Viewer allow users to:

- See human-readable versions of ADT Notifications that are sent for patients
- Filter received ADT notifications for a given message type, patient, organization, etc.
- View medication reconciliation messages that are associated with specific ADT notifications (A03 event types)
- Work through a notification queue and act on messages

3.4.1 TOC Viewer UI Elements

TOC Viewer can be accessed by navigating to the Care Coordination dropdown and selecting the TOC Viewer option, as illustrated in ***Figure 75***.

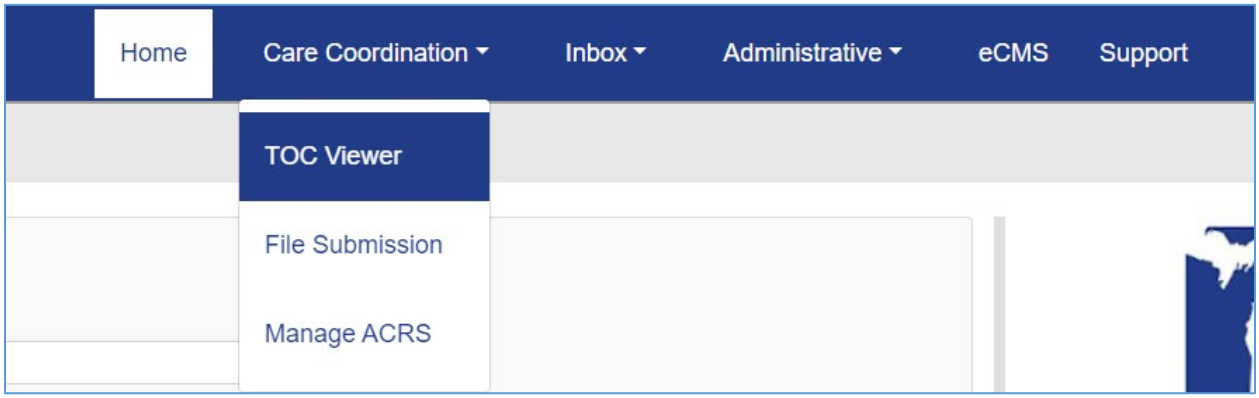


Figure 75. TOC Viewer Menu Location

3.4.1.1 TOC Viewer - ADT Filter View

The main user interface element used within the TOC Viewer module is the ADT Filter, which can be selected by clicking the "Viewer" option in the upper right-hand corner of the screen as shown in ***Figures 76 and 77***.

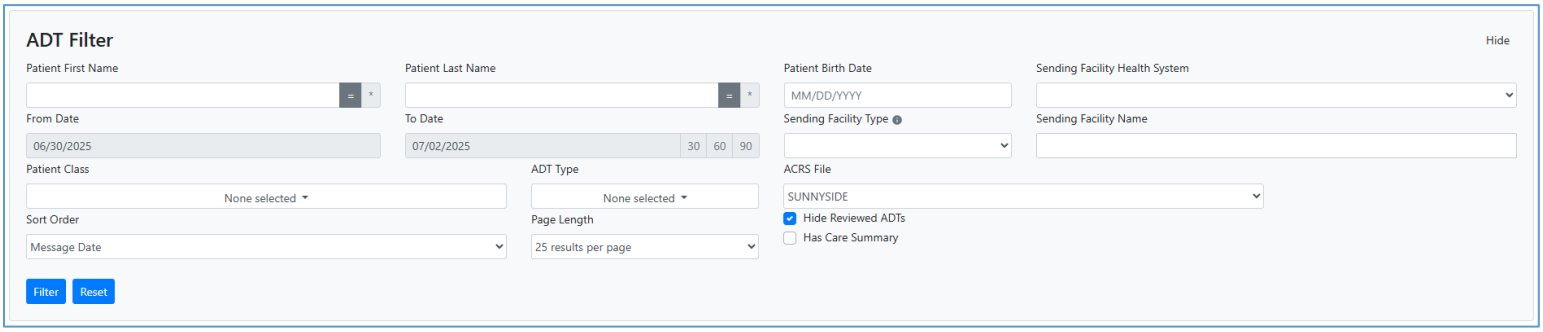


Figure 76. ADT Filter Screen Layout

Figure 77. Viewer Tab Location

The filter has several elements to search for and look up information about applicable ADT and Med Rec messages. A breakdown of these elements is illustrated in ***Figures 78 and 79***.

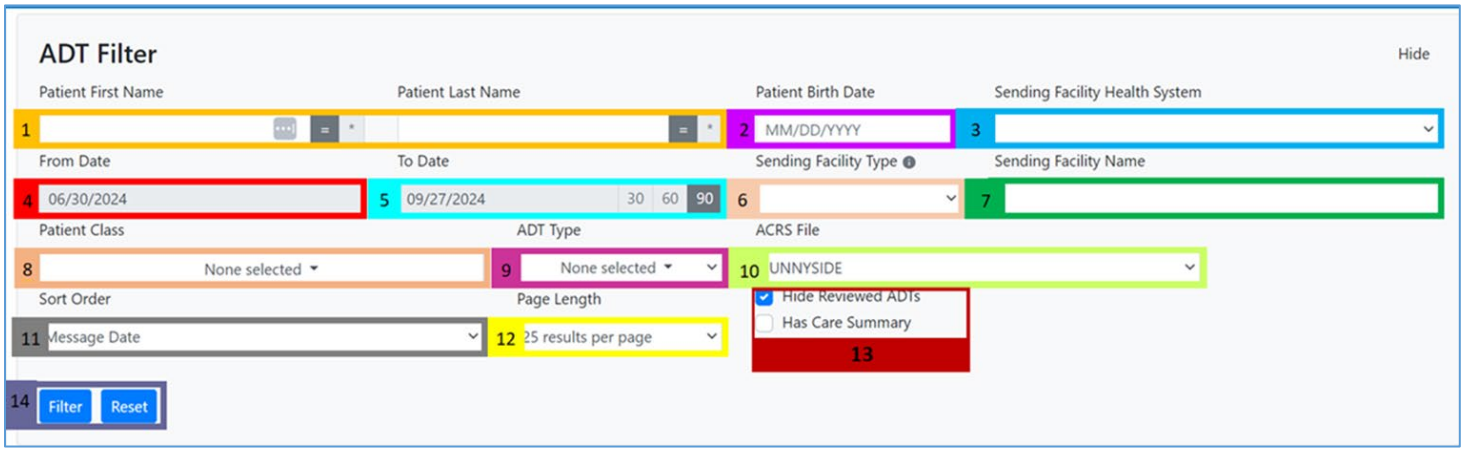


Figure 78. ADT Filter UI Elements

1	**Patient First and Last Name:** Filter by patient first/last name with optional wildcard search functions (for more information on wildcard searches, see Appendix 4.5 E)
2	**Patient Birth Date:** Filter by patient date of birth in the format: **MM/DD/YYYY**
3	**Sending Facility Health System:** Filter for ADTs within a health system ■ Type first three letters of a sending facility health system for drop-down suggestions – not a free entry field
4	**From Date:** Filter by specific start date
5	**To Date:** Filter by specific end date within 90 days or 30, 60, 90-day date range
6	**Sending Facility Type:** Filter by facility type: ■ Hospital ■ Skilled Nursing Facility

	■ Home Health Used in conjunction with the “Sending Facility Name” filter
7	**Sending Facility Name:** Filter for ADTs within a health system ■ Type first three letters of the sending facility name for drop-down suggestions to appear
8	**Patient Class:** Filter by patient class: ■ Inpatient ■ Outpatient ■ Emergency ■ Observation
9	**ADT Type:** Filter to view messages of specific event types from the following: ■ Admission (A01) ■ Transfer (A02) ■ Discharge (A03) ■ Register (A04) ■ OP to IP (A06) **Please Note**: Having the “Select All” option has the same functionality as “None Selected” as the TOC viewer will only be looking at A01, A02, A03, A04, and A06 message types.
10	**ACRS® File:** Filter to view multiple Active Care Relationship Service (ACRS®) patient populations (if applicable)
11	**Sort Order:** Sort results based on data elements: ■ Message Date ■ Patient Name
12	**Page Length:** Adjust results shown per page (25, 50, 100 or 200 results)
13	**Hide Reviewed ADTs/Has Care Summary:** Selecting either of these check boxes will refine the search to include messages already reviewed by the user and/or refine the search to only show ADTs that have a care summary, respectively. The “Hide Reviewed ADTs” box is checked by default.
14	**Filter/Reset:** The “Filter” button will refresh page results with applied filter(s). The “Reset” button will refresh page results with default TOC Viewer settings.

Figure 79. ADT Filter UI Element Descriptions

After the filter has been configured and refreshed, all TOC message entries meeting the search criteria are displayed under the headers shown in ***Figures 80 and 81***.

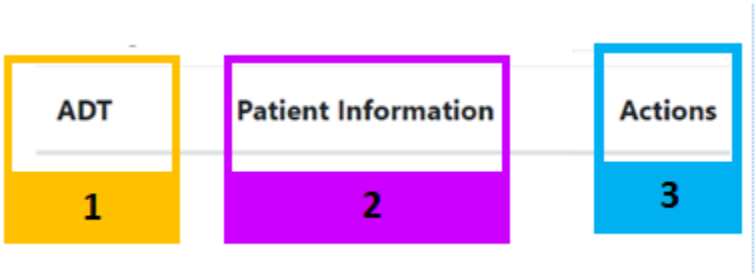


Figure 80. TOC Viewer Message Result Headers

1	**ADT:** Displays the event type associated with the displayed messages: ■ Admission (A01) ■ Transfer (A02) ■ Discharge (A03) ■ Register (A04) ■ OP to IP (A06)
2	**Patient Information:** Lists information about the patient associated with the displayed TOC message: ■ Name of the patient, date of birth, location of event type, and date of encounter ■ Provider ■ Message Date/Time ■ Patient Class ■ Diagnosis Type ■ Diagnosis ■ Insurance Company Name ■ Admission Type ■ Admit Reason ■ Assigned Location Admission Time (A01) ■ Discharge Disposition ■ Discharge Location ■ Discharge Time (A03) **Note:** Some patient information entries may indicate that the patient associated with the selected messages is deceased. This status is marked with the symbol. Hovering over this symbol will display the message, “Patient is marked as deceased.”

3	**Actions:** Lists several actions that can be taken to see additional views associated with the TOC message, the associated patient, and the CCD, including the following: ■ Care Summary – If applicable ■ View ■ HL7 ■ PDF

Figure 81. TOC Viewer Message Result Header Descriptions

3.4.1.2 TOC Viewer – Reporting

The TOC Viewer – Reporting interface is accessed by clicking the "Reporting" option in the upper righthand corner of the TOC Viewer Screen, as pictured in ***Figure 82***.

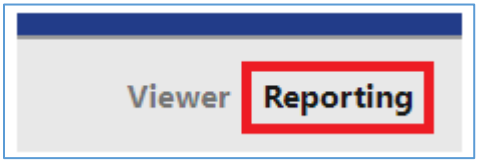


Figure 82. TOC Viewer - Reporting Button

The resulting screen has several UI elements used in generating report information relevant in Meaningful Use Stage 3 attestations, which will be covered in greater detail in section 3.4.2.3. The UI elements are as shown in ***Figures 83 and 84***.

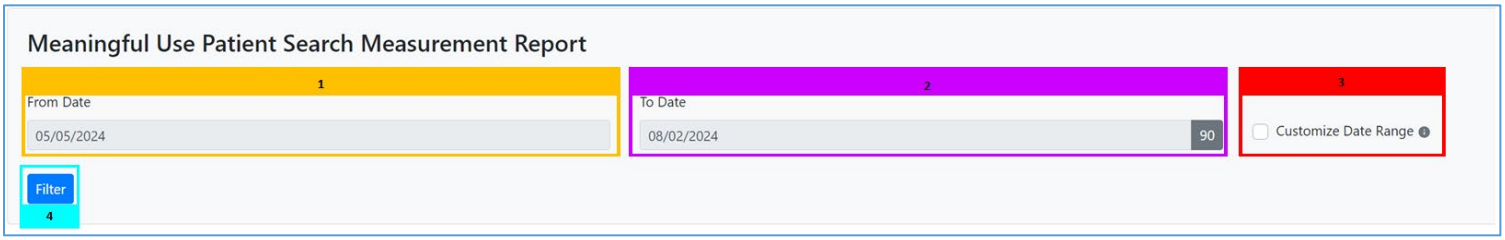


Figure 83. Meaningful Use Reporting UI Elements

1	**From Date:** Earliest date in the range that the user would like to run a report on Patient Search metrics (maximum range of 90 days)
2	**To Date:** Latest date in the range that the user would like to run a report on Patient Search Metrics (maximum r of 90 days)
3	**Customize Date Range:** When checked, allows users to run a report on Patient Search metrics outside of the maximum 90-day range

4	**Filter:** Filters results based on the above criteria and produces results within the specified range of dates

Figure 84. Meaningful Use Reporting UI Element Descriptions

3.4.2 Working with Transitions of Care Messages

3.4.2.1 ADT and Care Summary Overview

A List of messages and corresponding patients appear after criteria have been defined in the ADT Filer. **Figure 85** shows an example of the ADT message overview.

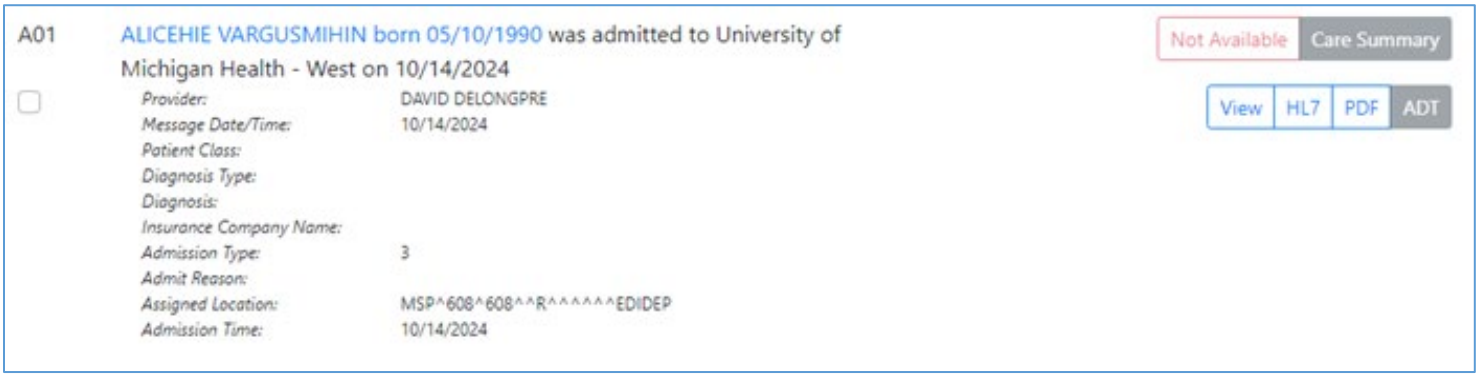


Figure 85. ADT Message Overview Example

Clicking on the patient's name/date of birth will open the Patient Viewer page for the patient. More information on this module and view is covered in Section 3.3.

Clicking the "View" Button, as shown in ***Figure 86***, will open an additional screen showing the full ADT message for the patient as shown in ***Figure 87***.

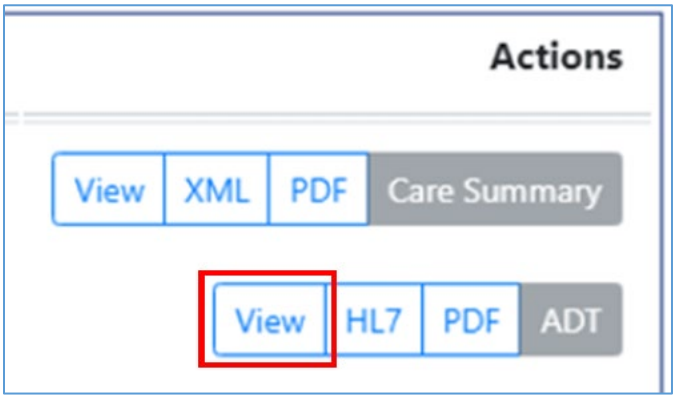
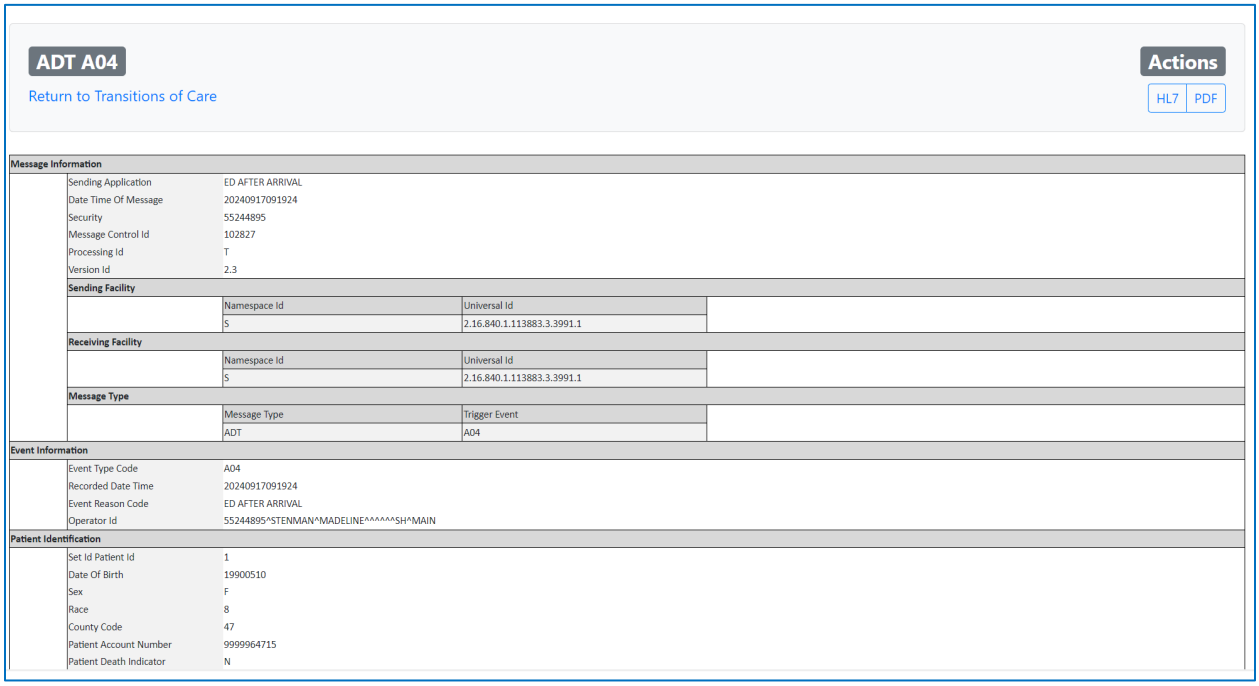


Figure 86. View Button for Full ADT View



Message Information			
	Sending Application	ED AFTER ARRIVAL	
	Date Time Of Message	20240917091924	
	Security	55244895	
	Message Control Id	102827	
	Processing Id	T	
	Version Id	2.3	
	Sending Facility		
		Namespace Id	Universal Id
		S	2.16.840.1.113883.3.3991.1
	Receiving Facility		
		Namespace Id	Universal Id
		S	2.16.840.1.113883.3.3991.1
	Message Type		
		Message Type	Trigger Event
		ADT	A04
Event Information			
	Event Type Code	A04	
	Recorded Date Time	20240917091924	
	Event Reason Code	ED AFTER ARRIVAL	
	Operator Id	55244895^STENMAN^MADELINE^^^^^^SH^MAIN	
Patient Identification			
	Set Id Patient Id	1	
	Date Of Birth	19900510	
	Sex	F	
	Race	8	
	County Code	47	
	Patient Account Number	9999964715	
	Patient Death Indicator	N	

Figure 87. Full ADT Message View

Additionally, users can view a more detailed discharge care summary CCD by clicking the other “View” button next to Care Summary under the “Actions” header, as shown in ***Figure 88***.

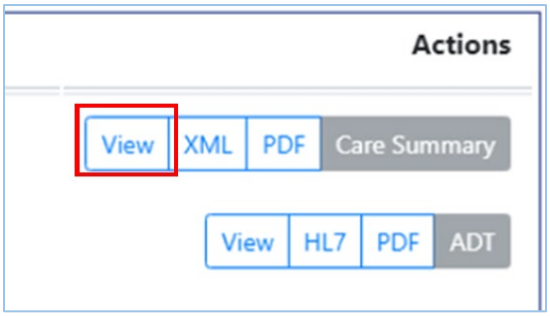


Figure 88. View Button for Complete Care Summary View

In the resulting view, the full Discharge Care Summary is displayed as shown as illustrated in ***Figure 89.***

Figure 89. Discharge Care Summary Example

3.4.2.2 Exporting ADTs and Care Summaries

The TOC viewer also offers export options for both ADT and Care Summary messages. These can be found in the same areas as the "View" buttons described in the previous section under the "Actions" header. These can be exported in the formats shown in ***Figures 90 and 91***, depending on which summary is needed:

Care Summary Export Options:

- **XML:** Download the raw care summary XML file
- **PDF:** Download the human readable Care Summary in PDF format

Figure 90. Care Summary Export Option Buttons

ADT Export Options:

- **HL7:** Download the raw HL7 ADT File
- **PDF:** Download the human readable ADT in PDF format

Figure 91. ADT Message Export Option Buttons

Note: Only Discharge ADTs (A03) will have an associated Care Summary attached to the ADT Notification. Additionally, the following information must match what is

included in the A03 ADT, as well as the Care Summary, for the CCD to be attached to the A03 ADT Notification:

- Patient First Name
- Patient Last Name
- Patient Date of Birth
- Patient Gender
- Encounter ID/Visit ID

Additionally, export options are also available for the detailed ADT and Care Summary message view as HL7, XML, or PDF options, as shown in ***Figures 92 and 93***.

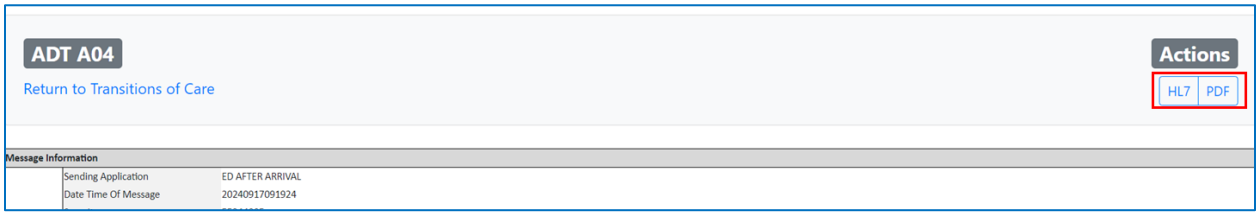


Figure 92. ADT Message Export Options

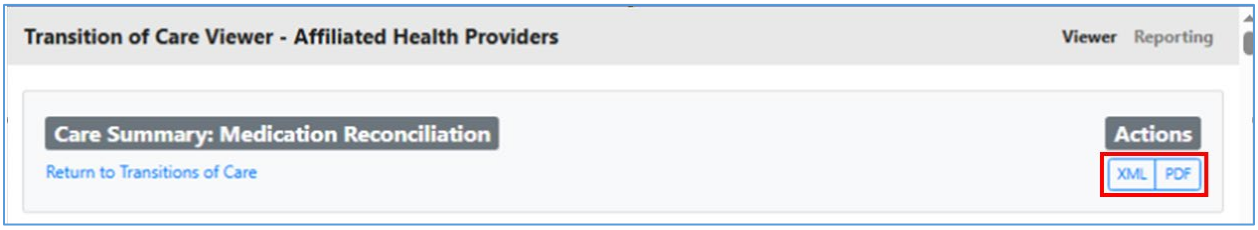


Figure 93. Care Summary Message Export Options

3.4.3 Reporting with TOC Viewer

3.4.3.1 Meaningful Use Patient Search Measure Report

The TOC Viewer Reporting functionality can generate reports to show how many patients the user successfully searched for during a given 90-day period. This data is useful in Meaningful Use Reporting attestations. This reporting functionality allows the user to do the following:

- Filter based on a specified period to see the number of patients successfully searched in TOC Viewer when the patient's first name, last name, and date of birth are entered

    - The data also includes the number of patients found, as well as the number of patients found with a CCD
- Download a PDF version of the report to support Meaningful Use Stage 3 attestations

For a patient to be counted in the report, a patient's first name, last name, and date of birth must have been searched during the time range set by the filter. If only the first name and last name are provided while using TOC viewer and one or more patients are returned, they will not be counted in the report.

To run the report, a user must select a date range using the options outlined previously in section 3.4.1.2. Once selected, clicking the "Filter" button will generate a report with two sections: a high-level overview of the results and a table of patients the user has searched. These are covered in greater detail below:

Results Overview

At the top of the results section, information is returned on the established search criteria, including the date the report was ran and the date range provided in the filter menu. This includes the following information:

- Total Patients Searched – Number of patients searched for during the chosen search date range using first name, last name, and date of birth
- Total Patients Returned in Search
- Total Patients Returned in Search with a CCD

An example of this report is shown in **Figure 94**, along with its search criteria.

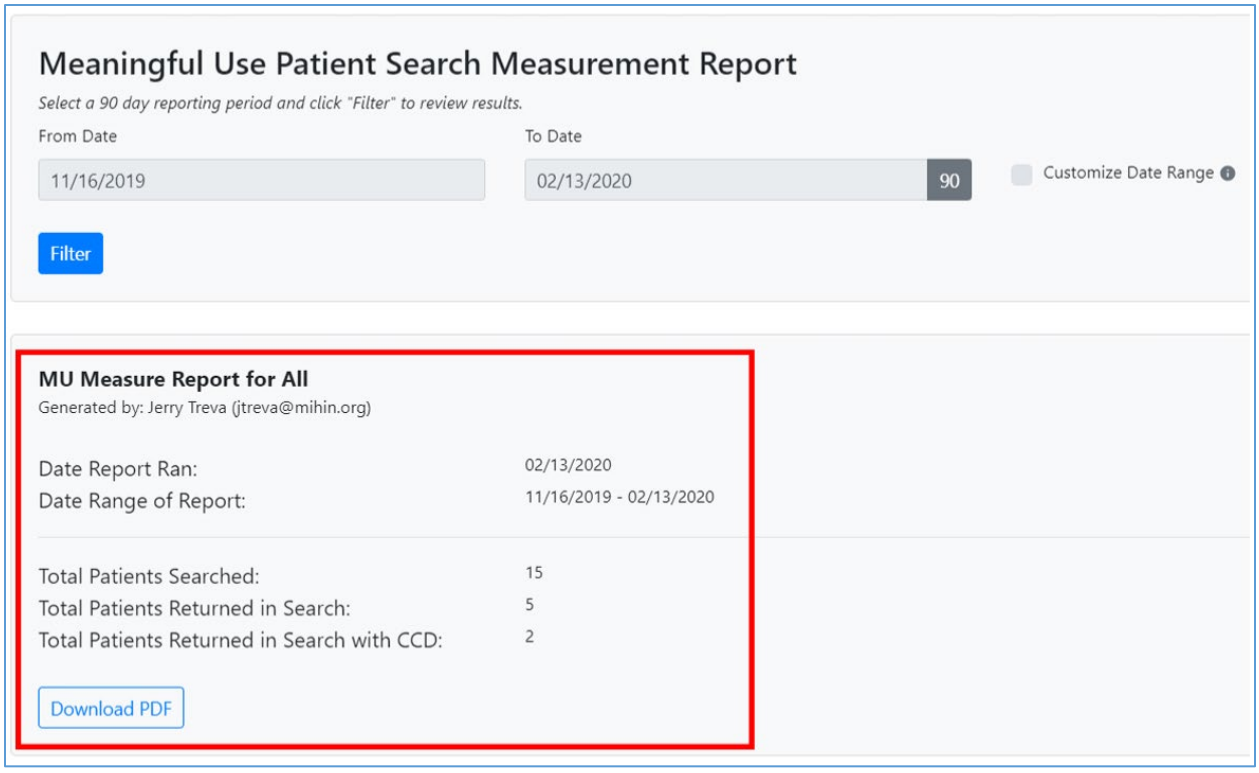


Figure 94. Meaningful Use Patient Search Measurement Report Results

Searched Patient Table

Search data that meets the criteria will also be displayed in a table within the user interface, as shown in **Figure 95**.

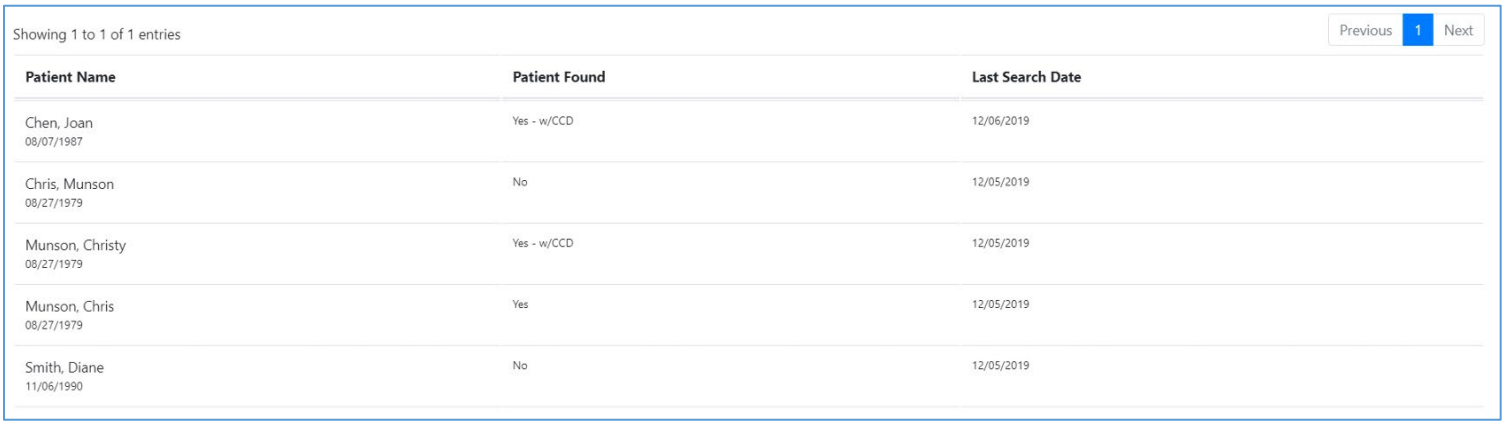


Figure 95. Meaningful Use Patient Search Measurement Report Patient Table

Each displayed row will show whether a patient was found at the time of the last search date and if the patients found have a related CCD.

Users can download a copy of the report in PDF format by clicking the “Download PDF” button, as shown in **Figure 96**.

Figure 96. Download PDF of Meaningful Use Patient Search Measurement Report

3.5 Diretto®

MiHIN's Health Information Service Provider (HISP), Diretto®, makes sending direct secure messages with patient Protected Health Information (PHI) quick, easy, and efficient. Users can access Diretto® from within the MIGateway® application.

The login screen for the Diretto® inbox tab is shown in ***Figure 97***. Users must enter credentials for their Diretto® account.

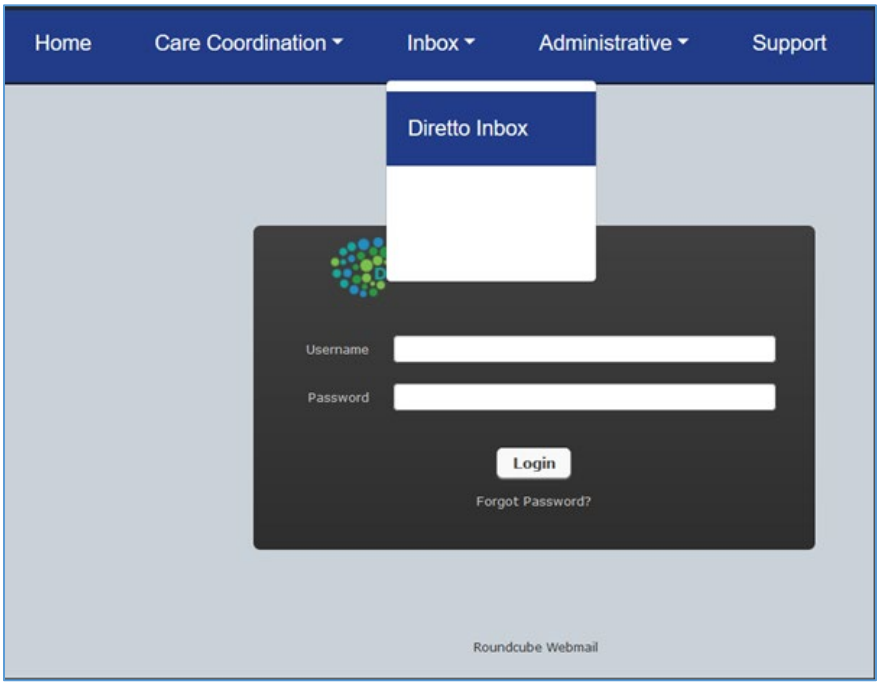


Figure 97. Diretto® UI and Login Screen

3.5.1 Diretto® Interface

Once logged in, the user will be taken to the main mailbox page, as shown in ***Figure 98***.

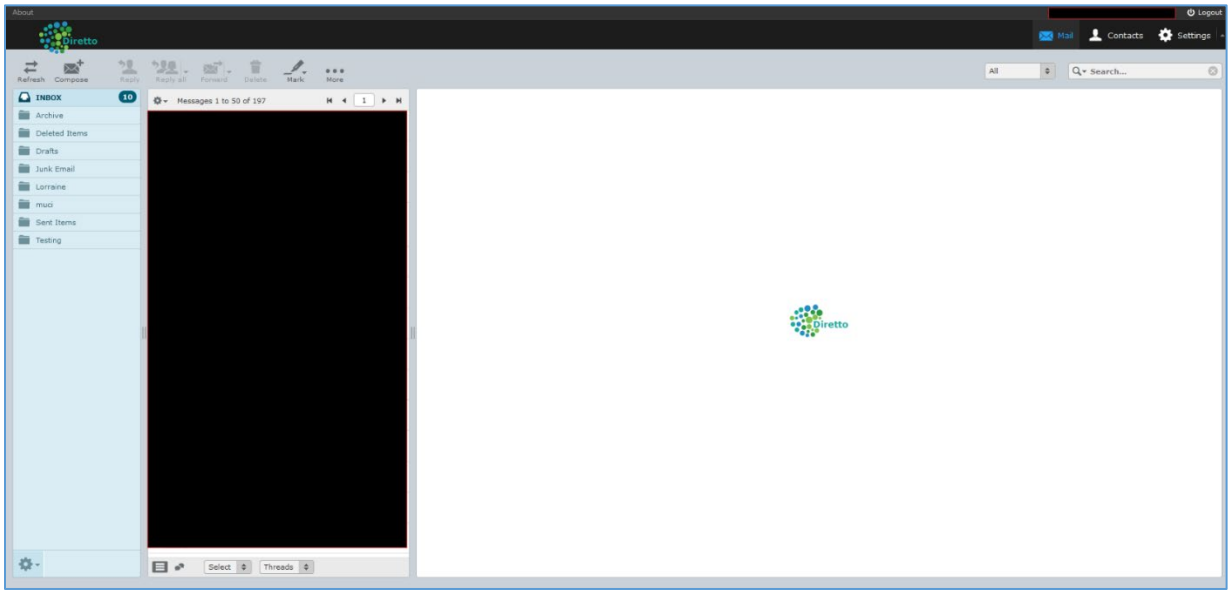


Figure 98. Diretto® Email Interface

The layout is like any email client with the following folders:

- Inbox – Location of all incoming messages
- Archive – Location where older messages are stored after a certain period
- Deleted Items – Any items deleted out of any of the other folders will be placed in this folder. From here, they can either be restored to their original folder or deleted permanently.
- Junk Email – Location of unwanted messages sent from unrecognized sources. The messages that qualify as junk mail can be defined as needed.
- Sent Items – Location of a copy of all sent messages

In addition, custom folders may be created to further organize the inbox, and rules can be set to automatically sort incoming mail by selecting the "More" button.

Users can request an account if interested in this service. To do so, please go to https://mihin.org/requesthelp/.

For more information on Diretto®, visit https://mihin.org/services/diretto/.

3.6 Longitudinal Patient Record

The Longitudinal Patient Record is a comprehensive patient record comprised of data from several ACRS® Populations across the healthcare continuum. It is designed to be one record per patient by using comprehensive patient matching logic wrapped in a consent management model. The Longitudinal Patient Record module provides an interface for users to access this patient record in a convenient and digestible manner and provides tools to work with the data displayed. This module allows users to:

- Access clinical data efficiently, including data needed for:
    - Treatment
    - Payment
    - Operations
    - Public Health
    - Federal Programs
    - Individual Authorizations
- Provides information needed for resolution of:
    - Care Coordination
    - Population Health Management
    - Medication Management
    - Clinical Decision Support

The Longitudinal Patient Record module seeks to present data in a timely manner and in a usable and actionable format so recipients can deliver efficient and effective patient care.

3.6.1 Longitudinal Record UI Elements

The Longitudinal Record is accessed via the Patient Viewer described in more detail in section 3.3. A user can access the Longitudinal Record in the Patient Summary view by clicking the gray "Longitudinal Patient Record" button located in the lower right corner, as shown in **Figure 99**.

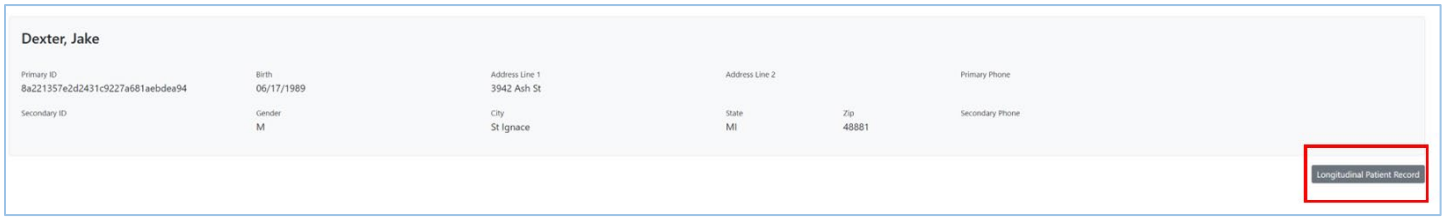


Figure 99. Longitudinal Record Access via Patient Viewer

The resulting screen will display the Longitudinal Record for the selected patient. This view has sections and UI elements that display a wide range of information about the patient and their summary of care. These are broken into the following sections:

3.6.1.2 General Setting UI Elements

There are several UI elements on the main Longitudinal Record page, which are designed to allow the user to better define and work with the information provided throughout the rest of the page as shown in ***Figures 100 and 101***.

Figure 100. General Longitudinal Record UI

1	**"Star":** Currently, the star toggle does not have a function. It may serve as a way to favorite and create shortcuts to specific records, but at this point, it is unusable.
2	**Lookback:** Drop-down menu that allows a user to define the period they would like information on the patient for in the following increments: ■ All Time ■ 12 Months ■ 6 Months ■ 5 Years
3	**Refresh:** Refreshes the Patient Summary page, considering any changes to the specified period

Figure 101. LR General UI Element Descriptions

3.6.1.1 Patient Information

The patient information section of the Longitudinal Record displays individual details about the patient, including name, identifiers, demographics, and address information. These details are organized into a series of tabs as shown in ***Figures 102 and 103***.

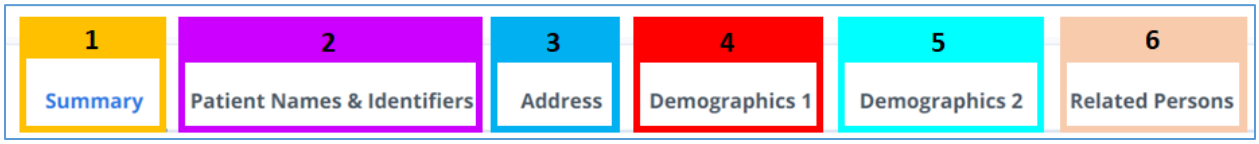


Figure 102. Patient Summary – Patient Information Headers

1	**Summary:** Displays a summary of the basic patient information included in all other tabs, including: ■ Patient Information • EID • First Name • Middle Name • Last Name ■ Demographics • Date of Birth in the format: YYYY-MM-DD • Gender • Marital Status • Deceased ■ Contact Information • Email • Phone

	• Address in the format: Street Number, Street Name, City, State, Zip Code
2	**Patient Names & Identifiers:** Displays all unique identifiers (both primary and secondary), as well as any names attributed to the patient in the following sections: ■ Primary IDs • Source • Patient ID ■ Secondary IDs • Source • Value • Type ■ Names • First – All first names attributed to patient • Last – All last names attributed to patient • Last Updated – The last date that the patient's name was updated in the format of YYYY-MM-DD
3	**Address:** Displays address information for the patient, including the following information: ■ Source – The source the address information was pulled from ■ Address Line 1 – Street number and name ■ Address Line 2 – Apt/Unit Number or P.O. Box ■ City ■ State ■ Postal – 5 Digits ■ Last Updated – The last date that the patient's address was updated in the format: YYYY-MM-DD
4	**Demographics 1:** Displays additional demographic information for the patient, including the following: ■ Language • Language • Preferred Status: True or False • Source • Last Updated – The last date that the patient's language was updated in the format: YYYY-MM-DD ■ Religion • Religion • Source

	• Last Updated – The Last date that the patient's religion was update in the format: YYYY-MM-DD ■ Citizenship
5	**Demographics 2:** Displays additional demographic information for the patient, including the following: ■ Birthplace ■ Race ■ Ethnicity
6	**Related Persons:** Displays a list of individuals related to the patient

Figure 103. Patient Summary - Patient Information Header Descriptions

3.6.1.2 Problems

This section lists diagnosed health issues and conditions recorded for the patient. It may include chronic illnesses, past medical conditions, or newly diagnosed problems. This is used to quickly understand the patient's medical history and current health concerns. This section and its headers are shown in ***Figures 104 and 105***.

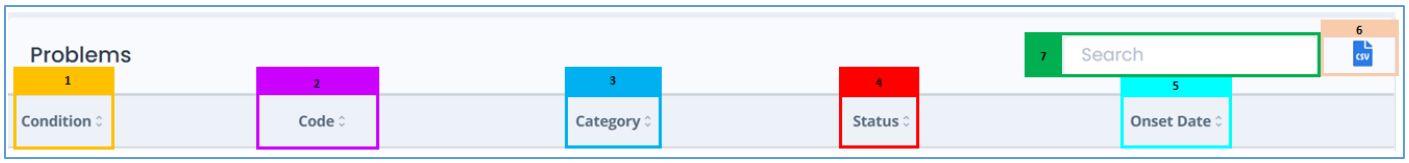


Figure 104. Problems Section Headers

1	**Condition:** Lists the name of a clinical condition, problem, diagnosis, or other event, situation, issue, or clinical concept that has risen to a level of concern
2	**Code:** Code associated with the identification of the condition, problem, or diagnosis. This is a comma-delimited list and can include, but is not limited to the following: ■ **SNOMED** ■ **ICD-10**
3	**Category:** Displays the category assigned to the condition. It is contextual based on a provider's list of category types. ■ Problem List Item – An item on a problem list that can be managed over time and can be expressed by a practitioner (e.g., physician, nurse), patient, or related person ■ Encounter Diagnosis – A point in time diagnosis (e.g., from a physician or nurse) in context of an encounter
4	**Status:** Displays the status of the listed problem from the following:

	■ Active ■ Inactive
5	**Onset Date:** Estimated date, actual date, or date-time the condition, situation, or concern began in the opinion of the clinician: **MM/DD/YYYY**
6	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
7	**Search:** Filters list of all problems and devices on the entered terms

Figure 105. Problems Section Header Descriptions

3.6.1.3 Medication Orders and Requests

The Medication Orders and Requests section shows medications that have been prescribed or recommended for a patient by a healthcare provider. These may include active prescriptions, past orders, or instructions shared between providers and care teams. This section should be used when you need to review what a provider intended the patient to take—whether it's a current prescription, something planned, or even a discontinued medication order. The information in this section is detailed in ***Figures 106 and 107***.

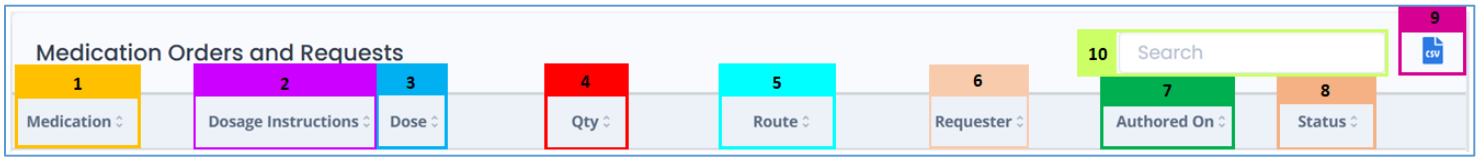


Figure 106. Medication Orders and Requests Headers and UI Elements

1	**Medication:** Displays the name and type of the medication ordered/requested
2	**Dosage Instructions:** Displays instructions for the listed medications, including method and frequency of administration
3	**Dose:** Displays the number of dosages to be administered for the listed medication. The unit of measurement within a singular dose is listed in the next section.
4	**Quantity:** Displays the unit of measurement used to measure a dosage of the listed medications. This field supports any free text that is populated in the CDR. Examples include: ■ Mg ■ Ug ■ {Each} ■ G ■ {Puff}

5	**Route:** Displays the method of intake for the listed medication. May include, but is not limited to the following: ■ Oral ■ Topical ■ Inhalation
6	**Requester:** Displays the name of the care provider requesting the medication order
7	**Authored Date:** Displays the date that the medication order and/or request was written in the format: **M/DD/YYYY**
8	**Status:** Displays the status of the ordered medication with the listed patient. Field may include, but is not limited to the following examples: ■ Active ■ Stopped
9	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
10	**Search:** Filters list of all medication orders and requests on the entered terms

Figure 107. Medication Orders and Requests Headers and UI Element Descriptions

3.6.1.4 Medication Statements

The Medication Statements section lists information regarding the details and status of active medications prescribed to the patient and allows for searches to filter the list for specific information. The information in this section is detailed in ***Figures 108 and 109.***

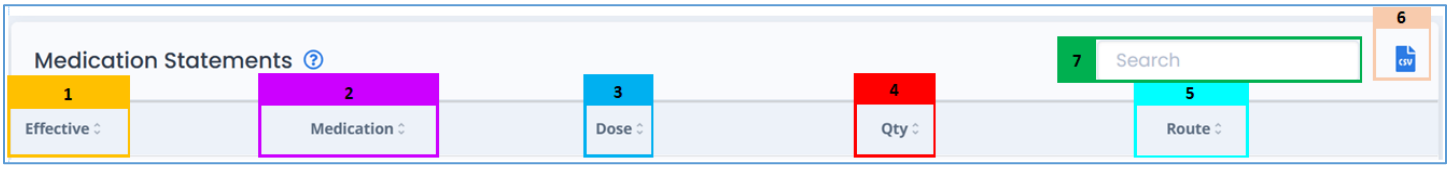


Figure 108. Medication Statements Headers and UI Elements

1	**Effective:** Displays the date upon which the listed mediation was first effective in the format: **MM/DD/YYYY**
2	**Medication:** Displays the name and the measurement per dosage of the listed medication
3	**Dose:** Displays the number of dosages to be administered for the listed medication. The unit of measurement within a singular dose is listed in the next section.

4	**Quantity:** Displays the unit of measurement used to measure a dosage of the listed medications listed in formats including but not limited to the following: ■ Mg ■ Ug ■ {tbl} ■ mL/h
5	**Route:** Displays the method of intake for the listed medication from the following: ■ Oral ■ Topical ■ Inhalation ■ Intravenous
6	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
7	**Search:** Filters list of all medication orders and requests on the entered terms

Figure 109. Medication Statements Header and UI Element Descriptions

3.6.1.5 Procedure/Devices

This Procedure/Devices section displays surgeries, treatments, and medical devices the patient has received or is using. This includes procedures like a knee replacement or the insertion of a pacemaker. This section is helpful for reviewing a patient's surgical history or device use across different visits. The information detailed in this section is described in ***Figures 110 and 111***.

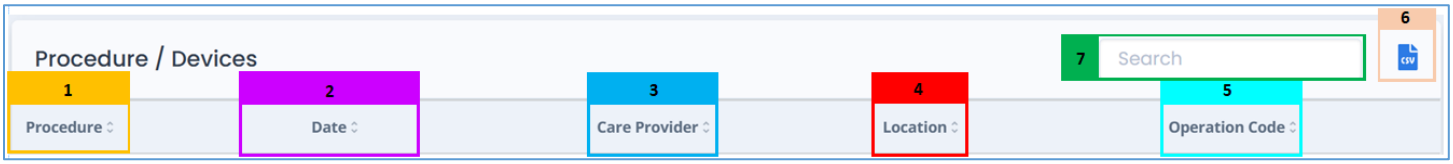


Figure 110. Procedure/Devices Headers and UI Elements

1	**Procedure:** Displays the action that is being or was performed on an individual
2	**Date**: Displays the date of the given procedure in the format: **MM/DD/YYYY**
3	**Care Provider:** Displays the name of the provider that performed the listed procedure in the format: **Last Name, First Name**
4	**Location:** Displays the location where the procedure was performed

5	**Operation Code**: Displays the procedure's number identification, as defined by the associated code set in the format: **00000**
6	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
7	**Search:** Filters list of all listed procedures based on the information entered

Figure 111. Procedure/Devices Header and UI Elements Descriptions

3.6.1.6 Immunizations

The Immunizations section shows a record of vaccines administered to the patient. This may include childhood immunizations, flu shots, COVID-19 vaccines, and others. This section is used to verify a patient's vaccination status or identify any gaps in immunization history. The details of this section are described in ***Figures 112 and 113***.

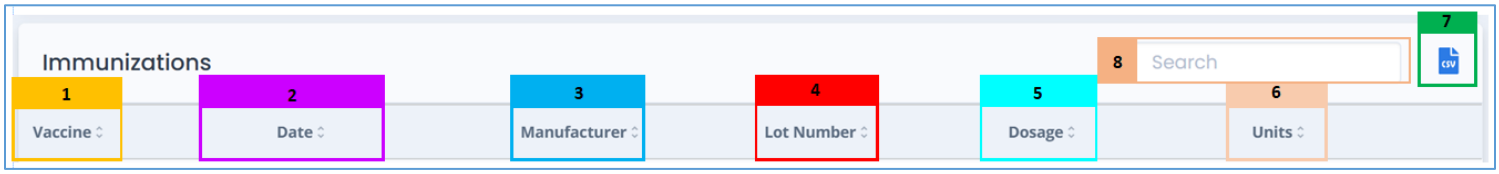


Figure 112. Immunizations Headers and UI Elements

1	**Vaccine:** Displays the vaccine product administered
2	**Date:** Displays the date on which the listed vaccination was administered in the format: **MM/DD/YYYY**
3	**Manufacturer:** Displays the name of the organization that administered the listed vaccine
4	**Lot Number:** Displays the identifying code representing the lot number for the listed vaccine in the format: **0123L45A**
5	**Dosage:** Displays the amount of the vaccine administered. Value is a number value. The unit of measurement that applies to this is listed in the following section
6	**Units:** Displays the units of measurement of the vaccine administered including, but not limited to the following: ■ mL
7	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
8	**Search:** Filters list of all listed immunizations based on the information entered

Figure 113. Immunizations Header and UI Element Descriptions

3.6.1.7 Encounters

The Encounters section Lists past visits to healthcare facilities, including office visits, hospital stays, and emergency room visits. This can be useful for tracking where and when a patient received care, along with the reason for the visit. The details of this section are described in ***Figures 114 and 115***:

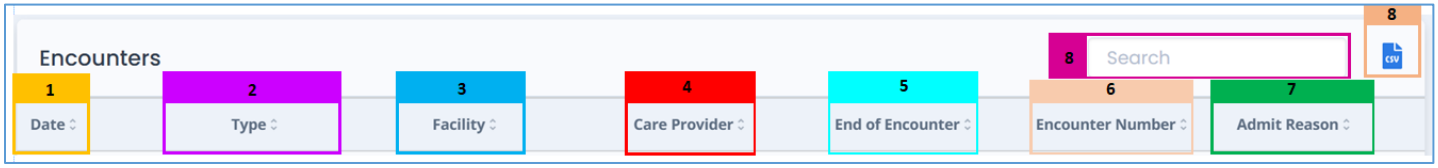


Figure 114. Encounters Headers and UI Elements

1	**Date:** Displays the start date of the encounter in the format: **MM/DD/YYYY**
2	**Type:** Displays the specific type of encounter. Due to the substantial number of encounters, it is not possible to have a list of values.
3	**Facility:** Displays the name of the facility where the encounter occurred
4	**Care Provider:** Displays the service provider that managed the encounter in the following format: **Last Name, First Name**
5	**End of Encounter:** Displays the concluding date of the encounter in the format: **MM/DD/YYYY**
6	**Encounter Number:** Displays the number assigned to the encounter by the care provider in the format: **00000 (May include more digits)**
7	**Admit Reason:** Displays the reason the patient was admitted. This is a free text field and will reflect what reasons were entered.
8	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
9	**Search:** Filters list of all listed encounter entries based on the information entered

Figure 115. Encounter Header and UI Element Descriptions

3.6.1.8 Allergies

The Allergies section Displays any known allergies or intolerances, such as reactions to medications, foods, or environmental triggers. This is critical for ensuring safe

treatment and avoiding allergic reactions. The details in the section are described in ***Figures 116 and 117***.

Figure 116. Allergies Headers and UI Elements

1	**Substance:** Lists the substance the patient has an allergy to taken from a value set of substances
2	**Reaction:** Describes the clinical symptoms/signs associated with the substance exposure event
3	**Severity:** Lists the severity of the reaction associated with the substance exposure event from the following options: ■ Mild ■ Moderate ■ Severe
4	**Criticality:** Describes the impact of the allergic reaction regarding the need to treat the reaction of the associated exposure event from the following: ■ Low ■ High ■ Unable-to-Assess
5	**Onset Date:** Lists the date of the last known occurrence of a reaction in the format: **MM/DD/YYYY**
6	**Recorded Date:** Lists the date the occurrence of a reaction was recorded by provider in the format: **MM/DD/YYYY**
7	**Status:** Lists the status of the patient in relation to the substance exposure event from the following: ■ Active ■ Recurrence ■ Relapse ■ Inactive ■ Remission ■ Resolved ■ Unknown

8	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
9	**Search:** Filters list of all allergy entries based on the information entered

Figure 117. Allergies Header and UI Element Descriptions

3.6.1.9 Insurance

The Insurance Provides details about the patient's health insurance coverage, including plan names and policy information when available. This section is used to confirm eligibility and understand potential coverage for care or medications. The details of this section are described in ***Figures 118 and 119***.

Figure 118. Insurance Headers and UI Elements

1	**Payor:** Displays the name of the organization providing coverage for the listed patient
2	**Plan:** Displays information about the plan the patient is covered by including:
3	**Period Start:** Displays the insurance plan's start date in the format: **MM/DD/YYYY**
4	**Period End:** Displays the insurance plan's end date in the format: **MM/DD/YYYY**
5	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
6	**Search:** Filters list of all Coverage entries based on the information entered

Figure 119. Insurance Header and UI Element Descriptions

3.6.1.10 Diagnostic Imaging

The Diagnostic Imaging section shows radiology reports from imaging studies like X-rays, CT scans, MRIs, or ultrasounds. The focus here is on written findings, not the images themselves. This section is used to review how radiologists interpreted the imaging. The details of this section are described in ***Figures 120 and 121***.

Figure 120. Diagnostic Imaging Headers and UI Elements

1	**Source:** Displays the facility from which the listed imaging report came from
2	**Report:** Displays the name and type of report performed on the listed patient
3	**Date:** Displays the clinically relevant date for the report in the format: **DD/MM/YYYY**
4	**Status:** Displays the diagnostic status of the listed diagnostic report. Values can include, but are not limited to the following: ■ Unknown ■ Final
5	**Search:** Filters list of all Diagnostic Report entries based on the information entered
*	**Please Note:** Each entry in this section includes a ˅ which can be clicked to expand or collapse the row, revealing more information about the individual tests performed in any listed lab and can further describe the reason for any Flagged results

Figure 121. Diagnostic Imaging Header and UI Element Descriptions

3.6.1.11 Other Results

The Other Results section covers specialized tests and reports that do not fall under standard lab results. Examples include pathology reports, tissue biopsies, ECGs, and EKGs. Check this section for advanced diagnostic findings that require clinical interpretation. The details included in this section are described in ***Figures 122 and 123***.

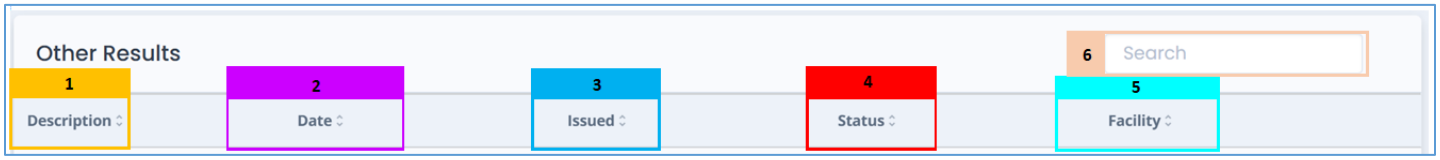


Figure 122. Other Results Headers and UI Elements

1	**Description:** Displays a description of the test, exam or report conducted for the listed patient.
2	**Date:** Displays the date the tests that the results came from was performed in the format: **DD/MM/YYYY**
3	**Issued:** Displays the date results were issued to the patient in the format: **DD/MM/YYYY**

4	**Status:** Displays the status of the results. Includes, but is not limited to the following: ■ Final
5	**Facility:** Displays the name of the facility that the testing and the corresponding results came from
6	**Search:** Filters list of all Laboratory entries based on the information entered
*	**Please Note:** Each entry in this section includes a ˅ which can be clicked to expand or collapse the row, revealing more information about the individual tests performed in any listed lab and can further describe the reason for any Flagged results

Figure 123. Other Results Header and UI Elements Descriptions

3.6.1.12 Lab/Observation Results

The Lab/Observation Results section shows results from routine lab tests such as blood work, urine tests, or metabolic panels. This section is used to monitor trends in patient health over time or evaluate recent lab findings.

Note – Observation Results from CCD data (Lab, Diagnostic, Other) will also appear on the Lab Results widget at this time. The details included in this section are described in ***Figures 124 and 125***.

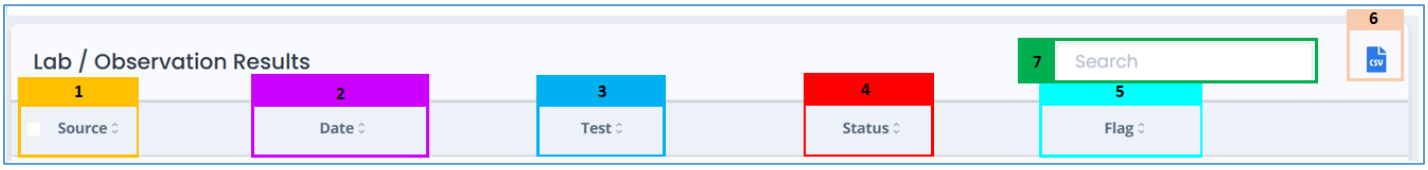


Figure 124. Laboratories Headers and UI Elements

1	**Source:** Displays the name of the facility that the lab or observation was performed and produced from
2	**Date:** Displays the date the lab or observation was performed in the format: **DD/MM/YYYY**
3	**Test:** Displays the type of test that was performed. May include the medium of the test and what was being tested for
4	**Status:** Displays the status of the performed test. Includes, but is not limited to the following: ■ Final
5	**Message Flag:** Displays a symbol to flag healthcare providers associated with the listed lab result, indicating that they would benefit from the additional information included in the expanded view. This view is described below.

6	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
7	**Search:** Filters list of all Laboratory entries based on the information entered
*	**Please Note:** Each entry in this section includes a ˅ which can be clicked to expand or collapse the row, revealing more information about the individual tests performed in any listed lab and can further describe the reason for any Flagged results

Figure 125. Laboratories Header and UI Element Descriptions

3.6.1.13 Documents/Clinical Notes

The Documents/Clinical Notes section Includes clinical summaries, visit notes, discharge summaries, and other provider-written documentation. The information included in this section is described in ***Figures 126 and 127***.

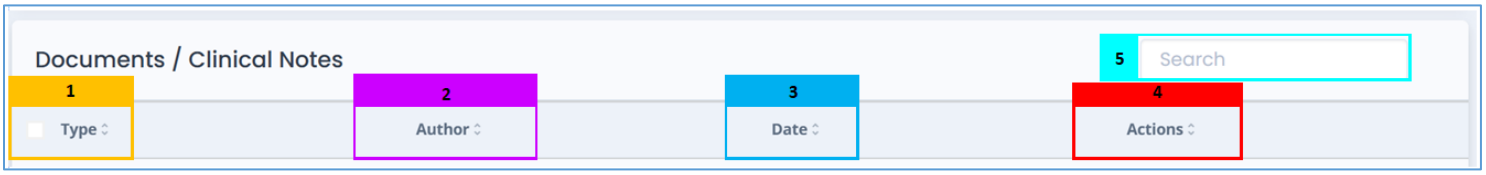


Figure 126. Documents/Clinical Notes Headers and UI Elements

1	**Type:** Lists the type of document from a comprehensive value set
2	**Author:** Lists the name of the Source Organization that document, or clinical notes were received from.
3	**Date:** Displays the date the document or clinical note was created in the format: **DD/MM/YYYY**
4	**Actions:** Displays actions that the user can take with this listed document include the following: ■ View – Opens a copy of the listed document for the user to view ■ Download – Downloads a copy of the listed document into the user's local system
5	**Search:** Filters list of all Documents and Clinical Note entries based on the information entered

Figure 127. Documents/Clinical Notes Header and UI Element Description

3.6.1.14 Vital Signs

The Vital Signs section displays basic health measurements like blood pressure, heart rate, temperature, weight, and oxygen levels. This information is essential for monitoring current health status and tracking changes over time. The details included in this section are described in ***Figures 128 and 129***.

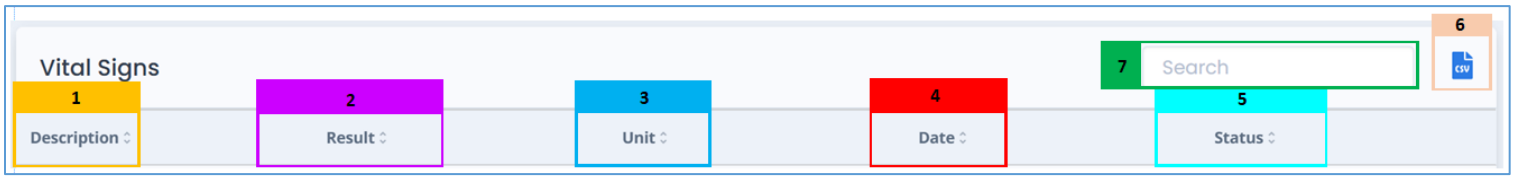


Figure 128. Vital Signs Headers and UI Elements

1	**Description:** Displays the description of the vital sign measured such as: ■ Heart Rate ■ Respiratory Rate ■ Height ■ Weight ■ Temperature
2	**Result:** Displays the numeric value of the measured vital sign
3	**Unit:** Displays the represented unit that applies to the listed vital sign
4	**Date:** Displays the date the listed vital signs were taken in the format: **DD/MM/YYYY**
5	**Status:** Displays the status of the listed vital sign values from the following: ■ Registered ■ Preliminary ■ Final ■ Amended ■ Corrected ■ Cancelled ■ Entered-in-Error ■ Unknown
6	**CSV Icon:** Creates and downloads a .csv file with information listed in this section for the patient.
7	**Search:** Filters list of all Laboratory entries based on the information entered

Figure 129. Vital Signs Header and UI Element Descriptions

3.6.2 Getting Started with Longitudinal Patient Record

3.6.2.1 Customizing the Longitudinal Record

By default, a patient's Longitudinal Record will default to displaying records and information as far back as is possible. Users can change this period by clicking the "Lookback" button and selecting a different time range and clicking the refresh button, as shown in ***Figure 130***.

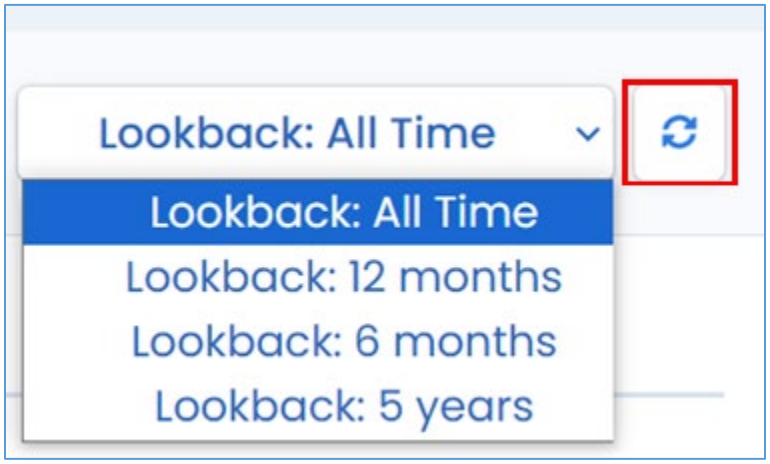


Figure 130. Lookback Dropdown Menu Options and Refresh Button

Once the page refreshes, entries for all sections of the patient's Longitudinal Record will now display data only for the specified range.

3.6.2.2 Viewing and Downloading Patient Documents

The Longitudinal Record module offers several methods for users to view patient summary information and documents associated with the patient's care coordination.

Creating .CSV Files

For any of the Longitudinal Record sections displayed for a patient, the listed information can be exported to a .csv format if applicable.

In any of the sections, clicking the "CSV"  icon will download the displayed information in .csv format to the user's computer. An example of this file is shown in ***Figure 131***.

Id	Source	Authored (	Medicatior	Dose	Qty	Requester	Status
14790196	#1ok7HUAHXcGmpJv		azithromycin 500 MG Oral Tablet				active
14788600	#N9lbOpsX6CGfBla3		azithromycin 500 MG Oral Tablet				active
14790194	#Ae5jC6RHvKCyaH4E		azithromycin 500 MG Oral Tablet				active
65d95e83I	#YxokzWLaF3fjESfw		azithromycin 500 MG Oral Tablet				active
14789158	#eGGRaZWaXOZFMV		azithromycin 500 MG Oral Tablet				active
14788597	#vYGsETxMxWk9Cp4I		azithromycin 500 MG Oral Tablet				active
65d95e83I	#OoL3jv1YcJKelnLj		azithromycin 500 MG Oral Tablet				active
14789156	#oTpI3nt9Xr9MgUQg		azithromycin 500 MG Oral Tablet				active
14788594	#28x80jjf6nI7rWtl		azithromycin 500 MG Oral Tablet				active
65d95e83I	#gGU4R6sXcRpovl2b		losartan potassium 25 MG Oral Tablet				active

Figure 131. Exported .CSV File Example

Viewing Documents and Clinical Notes

In the Documents/Clinical Notes section of the Longitudinal Record, users click the "View"  icon to open the full document in another tab on their internet browser.

In addition to viewing clinical documents and notes, users can download and export the documents by clicking the "Download"  icon. This will save the associated document to the user's computer in the file's applicable format.

3.7 Provider Results Viewer

The Provider Results Viewer (PRV) is a tool which functions like an email inbox and is accessed via MIGateway to receive patient diagnostic and results information. ADT, lab, radiology, and transcription messages are sent in real time to the PRV. Consolidating this data within a single viewer offers a convenient way to manage it from a single location, as well as streamline into existing workflows for increased efficiency.

The PRV is designed for easy navigation, allowing users to customize their message display through multiple search and filter capabilities. Furthermore, a pdf report of every message is available, including the ability to download them individually or in bulk.

3.7.1 Provider Results Viewer UI Elements

Users that have the Provider Results Viewer configured during their MIGateway onboarding can access the Patient Results Viewer once logged in.

Once on the Patient Viewer landing page, the user can access the Provider Results Viewer by hovering over the **Care Coordination** tab and clicking on the **Provider Results Viewer** as shown in **Figure 132.**

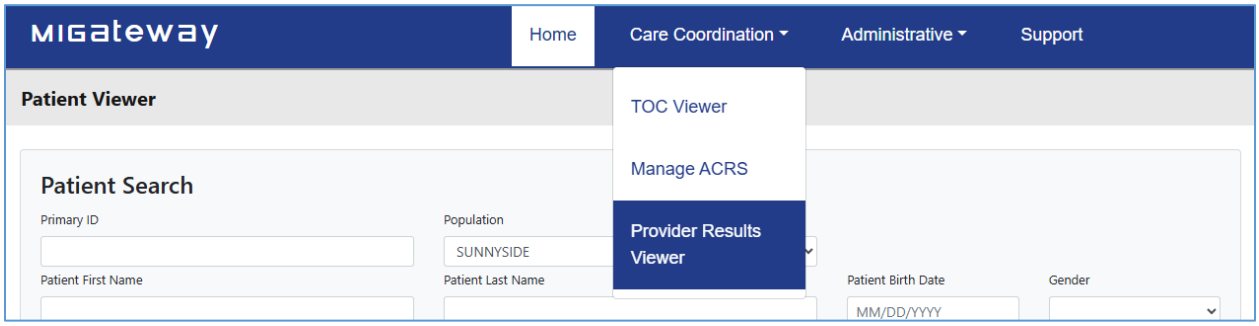


Figure 132. Provider Results Viewer Navigation

From here, the user should find themselves on the Inbox page on the resulting screen, as shown in **Figure 133.**

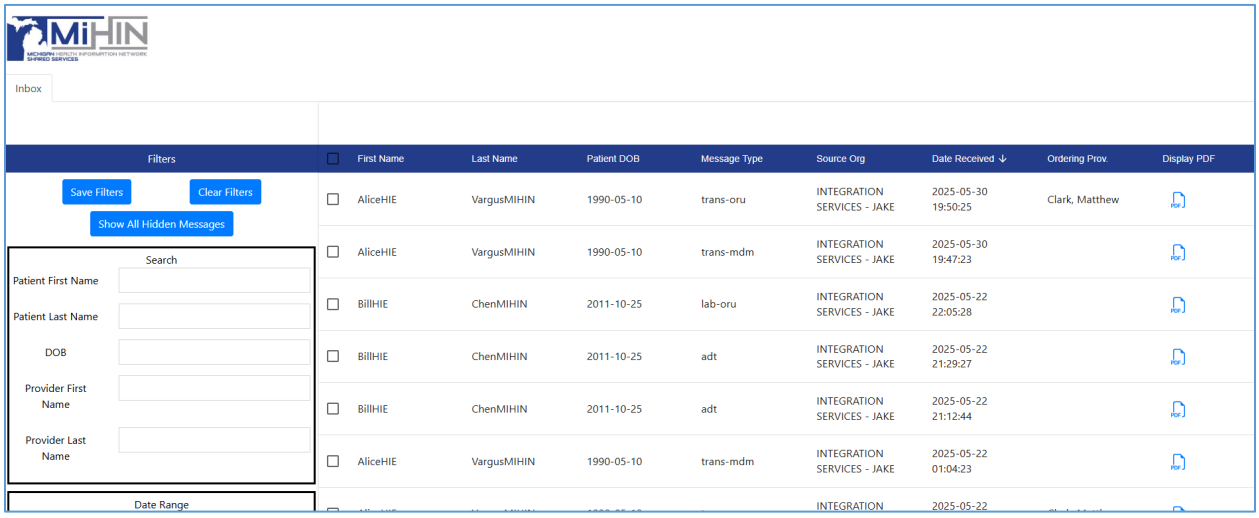


Figure 133. Provider Results Viewer Inbox Page

The Provider Results Viewer interface is broken up into two main components:

- Filters – can be used to search and filter patients and their associated messages based on the information entered

- Resulting Patient – the columns that list information regarding all messages that meet the current search criteria

The following sections will cover each in further detail.

3.7.1.1 Provider Results Viewer Filters

The PRV Filters allow users to search based on Patient or Provider information, Date Range, Message Type and Provider NPI. A view of all available elements and their descriptions can be found in **Figures 134a,134b and 135.**

Figure 134a. Filters User Interface

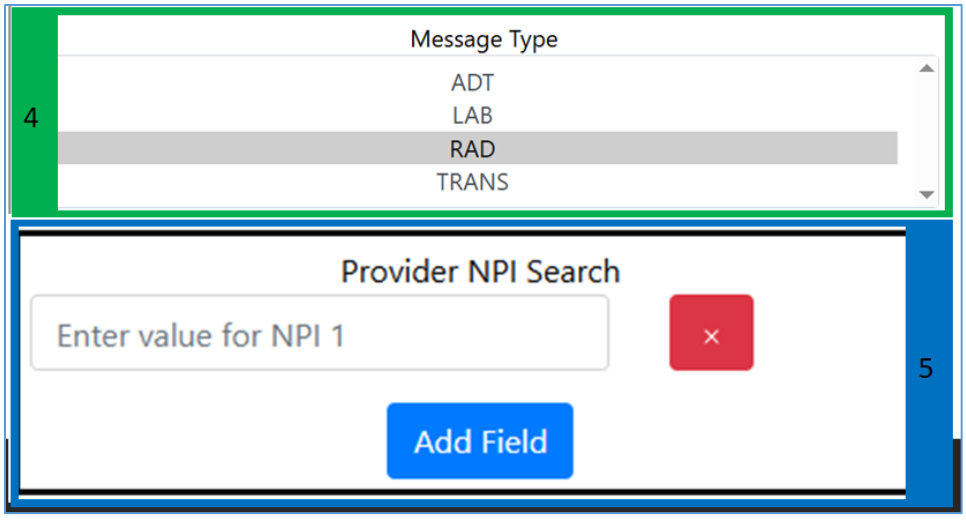


Figure 134b. Filters User Interface

1	**Filter Option Buttons** – Displays buttons that can be used to update the filter search as a whole, including: ■ Save Filters – Saves the current filter setting for future use ■ Clear Filters – Clears all entered and selected information and resets the view in the Resulting Patients Field ■ Show All Hidden Messages – Displays messages that are currently being hidden from the Resulting Patients Field results • Serves to view messages filtered out of the field without clearing the search filters
2	**Search Criteria -**Fields that can be populated with information to filter the list of displayed patients and their corresponding messages and documents. Includes: ■ Patient First Name – Filters list to include only entries with the listed first name of the patient ■ Patient Last Name – Filters list to include only entries with the listed last name of the patient ■ Date of Birth (DOB) – Filters list to include only entries with listed date of birth of the patient ■ Provider First Name – Filters list to include only entries with the listed first name of providers associated with the message ■ Provider Last Name Filters list to include only entries with the listed last name of providers associated with the message
3	**Date Range –** Filters displayed entries to only include those that fall within a specified period from the following:

	■ Yesterday ■ Last 7 days ■ Last 30 days
4	**Message Type –** Filters displayed entries to only include those of a specified message type, including: ■ ADT ■ Lab ■ Rad ■ Trans
5	**Provider NPI Search** – Filters displayed entries to only show those that contain the entered NPI number. Allows for the addition of NPI entries by clicking on the Add Field button

Figure 135. Filters User Interface Descriptions

3.7.1.2 Provider Results Viewer Resulting Patients Field

The Resulting Patients Field displays a series of columns that show information about the patient and types of messages and documents associated with them. Additionally, it also provides a way of viewing the documents. A view of each of the column UI elements and their descriptions can be found in Figures **136 and 137**.

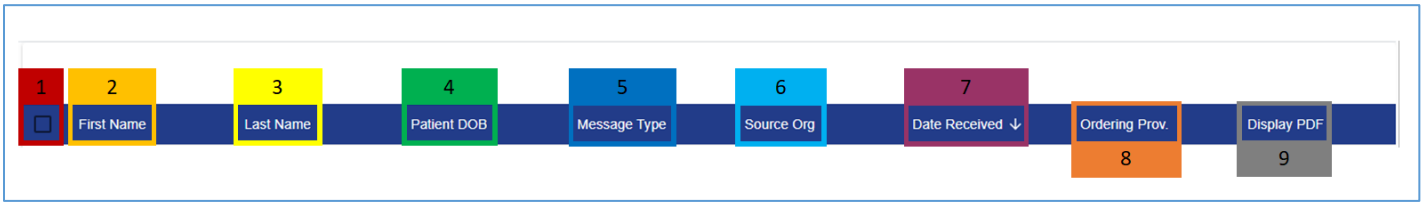


Figure 136. Resulting Patients User Interface

1	**Select All Box –** Allows for the selection and download of PDFs for all listed entries. Clicking this box will check the corresponding box in this column for every entry.
2	**First Name –** Lists the first Name of the patient for any entry.
3	**Last Name –** Lists the last name of the patient for any entry
4	**Patient Date of Birth (DOB) –** Lists the date of birth of the patient for any entry in the following format: YYYY-MM-DD
5	**Message Type –** Shows the type of message associated with the patient for any entry from the following: ■ trans-mdm

	■ trans-oru ■ rad-oru ■ lab-oru ■ ADT
6	**Source Organization –** Lists the organization or facility that the listed message/document for the patient originated from
7	**Date Received –** Lists the date and time that the message/document was received by the receiving provider in the format: YYYY:MM:DD:HH:MM:SS
8	**Ordering Provider –** Lists the name of the provider that ordered the lab/document listed in the entry in the format: Last Name, First Name
9	**Display PDF** – Includes a link to the document/message in question. Clicking the  icon will open the associated message/document in a new page.

Figure 137. Resulting Patients User Interface Descriptions

3.7.2 Using the Provider Results Viewer

3.7.2.1 Searching for Provider Results

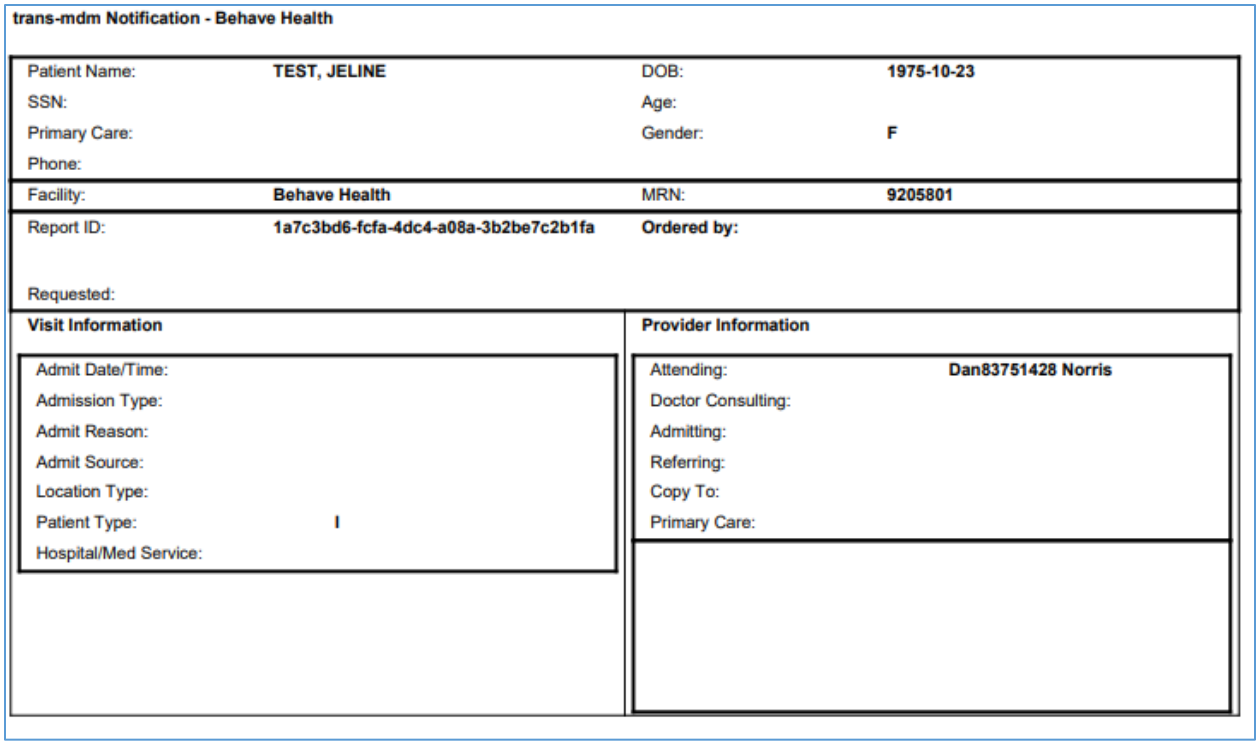
The Filter user interface allows Provider Results Viewer users to define any number of key terms and search criteria to filter their results to only include that combination of search parameters. The list of results is updated as criteria is entered into any of the fields as shown in **Figure 138.**

Figure 138. Provider Results when Criteria has Been Entered for First Name and Message Type

3.7.2.2 Viewing Provider Results

The Provider Results Viewer also offers the ability to open and view a full report of the listed message and patient. This is accomplished by navigating to the desired entry and clicking the PDF icon in the last column.

Once clicked, a new page opens displaying the desired information in PDF format like that displayed in **Figure 139.**



trans-mdm Notification - Behave Health

Patient Name:	TEST, JELINE	DOB:	1975-10-23
SSN:		Age:	
Primary Care:		Gender:	F
Phone:			
Facility:	Behave Health	MRN:	9205801
Report ID:	1a7c3bd6-fcfa-4dc4-a08a-3b2be7c2b1fa	Ordered by:	
Requested:			

Visit Information

Admit Date/Time:	
Admission Type:	
Admit Reason:	
Admit Source:	
Location Type:	
Patient Type:	I
Hospital/Med Service:	

Provider Information

Attending:	Dan83751428 Norris
Doctor Consulting:	
Admitting:	
Referring:	
Copy To:	
Primary Care:	

Figure 139. PDF Display of a trans-mdm Notification

Please Note: The data included in the report will depend on the type of message it is and what data is included by the sender.

3.7.2.3 Downloading Provider Results

The Provider Results Viewer also allows users to download the displayed record to their local system. This is accomplished by clicking the check box next to any of the displayed entries to select the messages the user wants to download, as shown in **Figure 140.** The user may click the check box in the main header to select all entries as described in the UI description in Section 3.2.1.2 .

Figure 140. Selection Check Box for a Provider Result Entry

Once selected, a pink dialogue box will display at the top of the screen asking if the user would like to download the selected messages or cancel as shown in **Figure 141**. Clicking the download button will download all selected messages to the specified location on the user's local device.

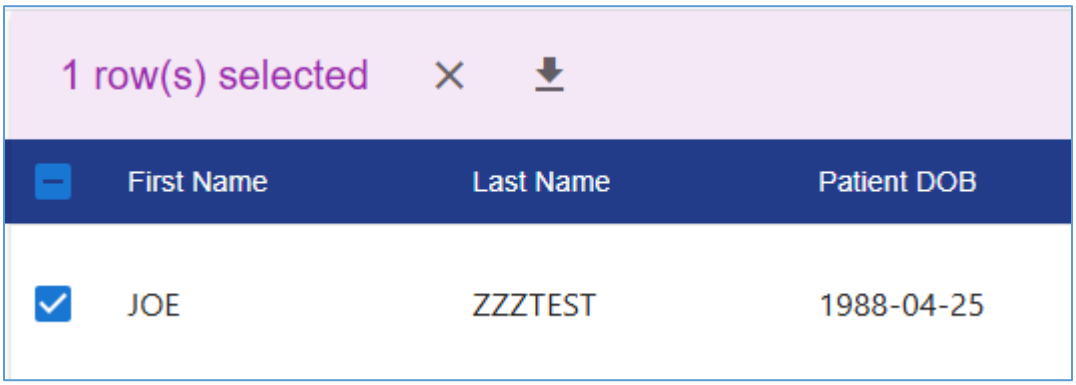


Figure 141. Download Confirmation Prompt

4. Appendices

4.1 Appendix A - Allowing Third-Party Cookies

MIGateway® applications (including TOC Viewer) require third-party application cookies since the applications are embedded inside of Amazon Web Services (AWS). Browsers like Google Chrome and Mozilla Firefox have this allowed by default; Internet Explorer and Microsoft Edge may require third-party cookies to be allowed manually.

In most browsers, this setting can be found by going into Browser Settings, then Security and Privacy, and then Allow Third-Party Cookies.

In Microsoft Edge, if ‘do not allow third-party cookies' is selected and the setting is grayed out (disabled), use the following steps to allow the cookies:

1. With an administrator account, click on the Windows search icon and type “gpedit.” Open the “Edit Group Policy” application.
2. Navigate to the Microsoft Edge Cookie settings through the following path: Computer Configuration > Administrative Templates > Windows Components > Microsoft Edge > Configure Cookies.
3. In the Configure Cookies window, select the “enable” radio button, and make sure “Allow All Cookies” is selected from the Configure Cookies drop-down.
4. Click Apply and Okay. Close Edit Group Policy.
5. This setting may need to be updated through the system using group policy. Open Command Prompt application.
6. In Command Prompt, type “gpupdate /force.” Once this has successfully completed, you can close Command Prompt.

4.2 Appendix B - MIGateway® Applications with Cut-Off Drop-Down View

This occurs when a user is using Google Chrome (Version 68+) on Windows, MIGateway® application is open on an external monitor, and the display scaling setting of the computer's monitors are different values (ex. 100% & 120%).

There is an open bug with the Chrome browser regarding dropdowns being cut off when display scaling sizes are different and the application loaded is in an Iframe (all MIGateway® applications are loaded in Iframes).

- https://bugs.chromium.org/p/chromium/issues/detail?id=877625

Steps to Troubleshoot:

Set the Scale and Layout setting to the same value for all displays.

1. Open display settings by right clicking on the desktop and clicking Display Settings.
2. All displays will appear numbered. For each display, do the following:
    a. Under Scale and Layout, set the drop-down to the same value (ex. 100%).
3. Refresh the MIGateway® web page and the dropdowns should not be cut off.

4.3 Appendix C - Service Communication

- **MIGateway® Service Downtime**: MiHIN will provide communication to MIGateway® users regarding service downtime.
    - An email notification will be sent to users for any downtime during normal business hours (8:00AM - 5:00PM Eastern Standard Time).
    - A follow-up email will be sent once MIGateway® services are available.
    - Users can sign up to receive these notifications by emailing help@mihin.org

4.4 Appendix D – Moving Away from Support of Internet Explorer (IE):

As of October 2019, Internet Explorer (IE) will no longer be a supported browser for MIGateway®. With the introduction of Microsoft Edge and the availability of more modern browsers (Mozilla Firefox, Google Chrome, etc.), more organizations are moving away from continuing to support IE integration with their applications.

MIGateway® will continue to support current and future versions of **Firefox**, **Chrome**, **Edge**, and for certain applicable modules, **Safari**.

For questions or concerns, please go to https://mihin.org/requesthelp/.

4.5 Appendix E – Wildcard Searches

Wildcard searches can be used in the First Name or Last Name MIGateway® filter fields within the Manage ACRS® or TOC Viewer modules to use partial spellings of names to find a wider array of results. The rules of wildcard searches are as follows:

- First Name + Date of Birth (DOB): First Name wildcard search must contain three (3) or more characters. E.g., 'car' + DOB.
- Last Name + Date of Birth (DOB): Last Name wildcard search must contain four (4) or more characters. E.g., 'Fran' + DOB.
- Searching BOTH First and Last Name + Date of Birth (DOB): Wildcard search will work if at least the First Name field has three (3) or more characters OR the Last Name field has four (4) or more characters.
    - E.g., First Name: 'c' and Last Name: 'Fran' + DOB.
    - E.g., First Name 'car' Last Name: 'F' + DOB
- Wildcard search will not work if one (1) or two (2) characters are specified for each field.

- E.g., First Name ‘c’ and Last Name: ‘F’
- First Name ‘ca’ and Last Name: ‘Fr’

4.6 Appendix F – Validation Email Examples

Validation	Status /Scenario	Description	Example Email Body
Individual File Validation	Attribution/Delivery Valid	Validation email received for valid attribution or delivery file submission.	Thank you for your recent submission of ACRS® (2.0) Attribution(s). We received 1 file(s) and 1 passed successfully. The following files were validated successfully. 3 of 3 rows were valid.
Individual File Validation	Attribution/Delivery Rows Invalid (via File Submission); Delivery Rows Invalid (via SFTP Submission)	Validation email received for invalid rows found in the attribution or delivery files during validation.	Thank you for your recent submission of ACRS® (2.0) Attribution(s). We received 1 file(s) and 0 validated successfully. The following file(s) that you recently submitted failed validation. 12 of 15 rows were valid.
Individual File Validation	Attribution Rows Invalid (via SFTP Submission)	Validation email received for invalid rows found in the attribution file during validation when submission was received via SFTP Submission.	Thank you for your recent submission of ACRS® (2.0) Attribution(s). We received 1 file(s) and 0 validated successfully. The following file(s) that you recently submitted failed validation. 2 of 6 rows were valid. If the attribution file submitted via SFTP is

			50% or more cross valid, it will load.
Individual File Validation	Attribution/Delivery Format Invalid (via File Submission or SFTP Submission)	Validation email received if the attribution or delivery file failed validation due to formatting errors.	Thank you for your recent submission of ACRS® (2.0) Attribution(s). We received 1 file(s) and 0 validated successfully. The following file(s) that you recently submitted failed validation. The file format was invalid.
Cross File Validation	Cross Validation Success (via File Submission or SFTP Submission)	Cross-validation email received when an attribution and delivery file were submitted together and are found to have no cross-validation issues.	Thank you for your recent ACRS® (2.0) file submission. Cross validation passed successfully. The following file(s) were submitted. 100% of the attribution file rows cross validated successfully. File(s) are now being loaded.
Cross File Validation	Cross Validation Skipped (via File Submission)	Cross-validation email received when either the attribution or delivery files are submitted independently and the file submitted was valid and is being loaded.	Thank you for your recent ACRS® (2.0) file submission. Cross validation was skipped because only one file was uploaded. The following file(s) were submitted. File(s) are now being loaded.
Cross File Validation	Cross Validation Skipped (via File Submission)	Cross-validation email received when either the attribution or delivery files are submitted independently, and the file submitted was invalid and did not load automatically after validation.	Thank you for your recent ACRS® (2.0) file submission. Cross validation was skipped because only one file was uploaded. The following file(s) were submitted. File(s) were not loaded because the

			Attribution or Delivery file was invalid.
Cross File Validation	Cross Validation Skipped (via SFTP Submission)	Cross-validation email received when attribution and delivery files are submitted together, and either delivery or attribution files have errors.	Thank you for your recent ACRS® (2.0) file submission. Cross validation was skipped because the attribution file was invalid. The following file(s) were submitted. File(s) were not loaded because the Attribution or Delivery file was invalid.
Cross File Validation	Cross Validation Failed (via File Submission)	Cross-validation email received when attribution and delivery files are submitted together and there are cross-validation errors found.	Thank you for your recent ACRS® (2.0) file submission. Cross validation failed. The following file(s) that you recently submitted failed cross validation. 33% of the attribution file rows cross validated successfully. The file(s) were not loaded.
Cross File Validation	Cross Validation Failed (via SFTP Submission)	Cross-validation email received when attribution and delivery files are submitted together and there are cross-validation errors found. *Does not mean that the SFTP Submission did not load; that would depend on the percentage of cross-validated rows successfully, as indicated in the email.	Thank you for your recent ACRS® (2.0) file submission. Cross validation failed. The following file(s) that you recently submitted failed cross validation. 66% of the attribution file rows cross validated successfully. At least 50% of valid attribution rows must cross validate successfully for files to load via SFTP.

Partial Upload	Partial Upload Triggered	Email received when validation or cross-validation errors are found, and the errors are accepted, and the submission is loaded anyway. *Note: only invalid rows from the attribution or delivery file are removed during partial upload. Rows with cross-validation errors are not removed from loading to ACRS.	Thank you for your recent ACRS® (2.0) file submission. Please note: upon initial validation, some rows in the file were marked as invalid. The end user opted to delete those rows and proceed with loading only the valid rows. The valid rows from the following files were submitted and are now being loaded.
Loaded	Attribution File Loaded to DB (via Submission or SFTP Submission)	Email received to notify the submitter of the attribution file successfully loaded to the ACRS DB	Thank you for your recent ACRS® (2.0) file submission. All files loaded successfully.

4.7 Appendix G – C-CDA Documents

C-CDA Templates

US Realm CDA Header	Diagnostic Imaging Report (DIR) V2	Patient Questionnaire Summary Document
US Realm Header (V2)	Procedure Note	MDS Patient Questionnaire Summary Document
Continuity of Care Document	Procedure Note V2	OASIS Patient Questionnaire Summary Document
Continuity of Care Document V2	Operative Note	Transfer Summary Document (MASS HIE)
History and Physical	Operative Note V2	Transfer Summary (C-CDA)
History and Physical V2	Discharge Summary	Referral Summary (C-CDA)

Consultation Note	Discharge Summary V2	Care Plan (C-CDA)
Consultation Note V2	Progress Note	Care Plan (Nutrition)
Diagnostic Imaging Report (DIR)	Progress Note V2	Minimally Structured Document (Xdoc)
Unstructured Document (V2)	Unstructured Document	

4.8 Appendix H – Expiration Notice Email

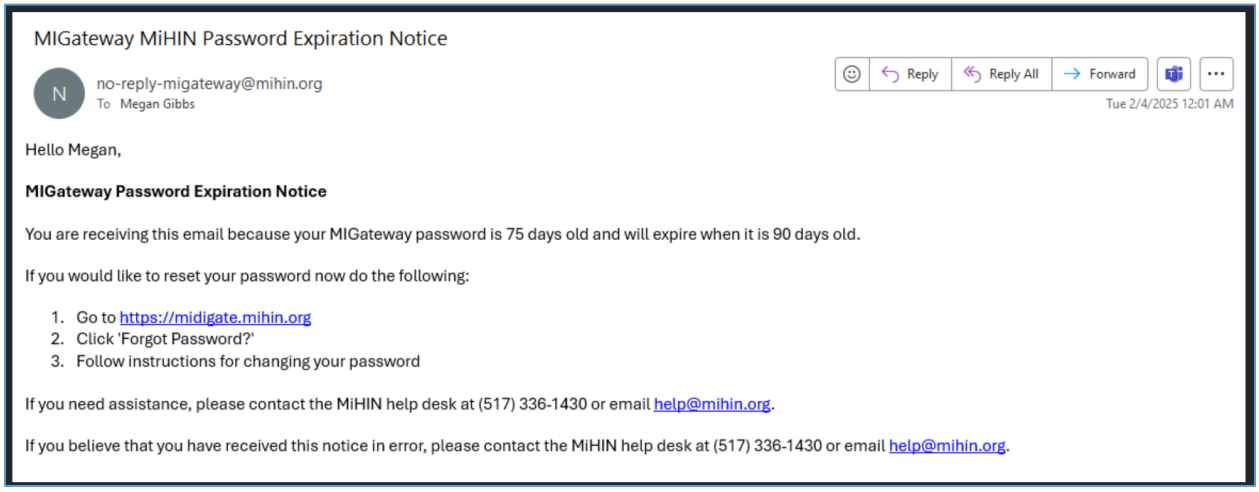


Figure 142. Expiration Notice Email Example

4.9 Appendix I – Troubleshooting Optional Fields when Adding a new Patient/Relationship

Providers and Practices

- If you do not see any Providers or Practices available in the filter or dropdown menus, please wait for the full list to load before attempting any further actions. These are large lists and may have a slight delay when loading.
- If you've waited and still do not see any Providers or Practices or if you receive a "Providers in ACRS File cannot be found…." error message at the top of the page, try refreshing and wait again.
- If after refreshing and waiting they still do not populate and they are not needed for your intended activity, please proceed without this. If they are needed, please email help@mihin.org or submit a Help Desk ticket

5. Production Support

	Severity Levels			
	1	***2***	***3***	***4***
Description	A critical production system is down or does not function at all, and there is no circumvention or workaround for the problem; a significant number of users are affected, and a production business system is inoperable.	More than 90% of messages received and delivered successfully, but some messages are not delivered/received with required accuracy. Service component severely restricted in one of the following ways: • High impact risk or actual occurrence of patient care affected or operational impairment • Business critical service has a partial failure for multiple TDSOs • A critical service is online however, is operating in a degregated state and having a significant impact on multiple TDSOs	Service component restricted in one of the following ways: • A component is not performing as documented or there are unexpected results • Business critical service has failed for a two or more TDSOs • A critical service is usable however, a workaround is available or less significant features are unavailable .	No operational impact to MiHIN. A non-critical service component is malfunctioning, causing minimal impact, or a test system is down.
Initiation Method	***Call (844) 454-2443 and submit a ticket online at www.mihin.org/requesthelp***	***Call (844) 454-2443 and submit a ticket online at www.mihin.org/requesthelp***	**Submit** a ticket online at www.mihin.org/requesthelp	**Submit** a ticket online at www.mihin.org/requesthelp
Initial Response	Within **30 minutes**	Within **30 minutes**	Within **3 business hours**	Within **6 business hours**
Resolution Goal	**<2** hours Restore Time from 7 am – 6 pm EST Monday-Friday and **<4** hours nights, weekends and holidays	**<4** hours Restore Time from 7 am- 6 pm EST Monday-Friday and **<8** hours nights, weekends and holidays	**<12** hours Restore Time from 7 am -6 pm EST Monday –Friday and **<24** hours nights, weekends and holidays.	Within **5 business days**

A list of frequent questions regarding the MIGateway® application can be found at: *https://mihin.org/migateway/*. If you have questions, please contact the MiHIN Help Desk:

- www.mihin.org/requesthelp
- help@mihin.org
- Phone: 844-454-2443
- Monday – Friday 8:00 AM – 5:00 PM EST

6. Acronyms and Abbreviations Guide

ACK	HL7 Acknowledgment message
ACRS®	Active Care Relationship Service
API	Application Programming Interface
CCHD	Critical Congenital Heart Disease
CMS	Centers for Medicare & Medicaid Services
DDE	Direct Data Entry
DQA	Data Quality Assurance
EHR	Electronic Health Record
FHIR	Fast Healthcare Interoperability Resources
HIE	Health Information Exchange
HIN	Health Information Network
HISP	Health Internet Service Provider
HL7	Health Level Seven
HPD	Health Provider Directory
MDHHS	Michigan Department of Health and Human Services
MIGateway®	Medical Information Direct Gateway
MiHIN	Michigan Health Information Network Shared Services
MUCA	Master Use Case Agreement
NACK	Negative Acknowledgement
NBS	Newborn Screening
NwHIN	Nationwide Health Information Network
OID	Object Identifier
PO	Participating Organization
RAS	Registration and Attestation System
REST	Representational State Transfer
SAML	Security Assertion Markup Language
SMTP	Simple Mail Transfer Protocol
SOM	State of Michigan
TDSO	Trusted Data Sharing Organization
UCE	Use Case Exhibit
UCS	Use Case Summary
VPN	Virtual Private Network
XCA	Cross-Community Access
XDS	Cross-Enterprise Document Sharing

7. Definitions

Active Care Relationship (ACR). An ACR may be any of the following:

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 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 HIPAA.
D. A relationship with a health provider asserted by a consumer and approved by the health provider.
E. (e) Any person or Trusted Data Sharing Organization (TDSO) 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® (ACRS®).

Active Care Relationship Service® (ACRS®). ACRS® is MiHIN's care mapping service supporting the ability to exchange real-time notifications and updates on a patient to all of those in the health ecosystem legally caring for that person. ACRS® creates an electronic roadmap between care team members so any changes to a patient's status can be sent to the relevant providers, even if they are part of different organizations or medical groups and work on different systems.

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 ADT event occurs when a patient is discharged from a hospital. An ADT event also occurs when a patient arrives in a care setting such as a health clinic or hospital.

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.

Attribution. The connection between a consumer and their health care 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 deliver the service.

Conforming Message. A message that is in a standard format that strictly adheres to the implementation guide for its applicable use case.

Critical Congenital Heart Disease (CCHD). A group of serious heart defects that are present from birth. These abnormalities result from problems with the formation of one or more parts of the heart during the initial stages of embryonic development.

Data Sharing Agreement. Any data sharing organization agreement signed by both 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 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 SMTP) or secure URL (SOAP / XDR / REST / FHIR). Communication with an electronic address may require a digital certificate or participation in a trust bundle.

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 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, or query for patient/provider/healthcare data). 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).

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 Veterans Affairs)

Health Directory. The statewide shared service established by MiHIN 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 7 (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 health care to an individual; or the past, present, or future payment for the provision of health care to an individual.

Health Information Network (HIN). An organization or group of organizations responsible for coordinating the exchange of protected health information (PHI) 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 plans further include those entities defined as a health plan under HIPAA, 45 C.F.R 160.103.

Health Professional.(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. Facilities/hospitals, health professionals, health plans, caregivers, pharmacists/other qualified professionals, or any other person or organization involved in providing healthcare.

Information Source. Any organization that provides information that is added to a MiHIN infrastructure service.

Master Use Case Agreement (MUCA). Legal document covering expected rules of engagement across all use cases. Trusted data sharing organizations sign the master use case agreement once, then sign use case exhibits for participation in specific use cases.

Message. A mechanism for exchanging message content between the participating organization to MiHIN 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 MiHIN services. Message content includes the message content header.

Message Header ("MSH") or Message Content Header. The MSH segment present in every HL7 message type defines the message's source, purpose, destination, and specific syntax 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 state-designated HIE, serving as a consolidated, statewide, public-private partnership.

Medical

MiHIN Infrastructure Service. Certain services that are shared by numerous use cases. MiHIN infrastructure services include, but are not limited to, Active Care Relationship Service (ACRS®), Health Directory, Statewide Consumer Directory (SCD), and the Medical Information Direct Gateway (MIGateway®).

MiHIN Services. The 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.

Negative Acknowledgment (NAK or NACK). "Not acknowledged" and is used to negatively acknowledge or to reject previously received message content or to indicate an error.

Newborn Screening. Screening to detect conditions such as critical congenital heart disease (CCHD) in newborns. The newborn screening is not limited to this test.

Notice. A message transmission that is not message content and which may include an acknowledgement of receipt or error response, such as an ACK or NACK.

Patient Data. Any data about a patient or a consumer that is electronically filed in a participating organization's systems or repositories. The data may contain protected health information (PHI), personal credit information (PCI), and/or personally identifiable information (PII).

Person Record. Any record in a MiHIN infrastructure service that primarily relates to a person.

Pilot Activity. The activities set forth in the applicable exhibit, which typically include sharing message content through early trials of a use case that is still being defined and is still under development. A pilot activity may include participating organization feedback to MiHIN to assist in finalizing a use case exhibit upon conclusion of the pilot activity.

Principal. A person or a system utilizing a federated identity through a federated organization.

Promoting Interoperability. Using certified EHR 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.

Provider Community. A healthcare provider with an active care relationship with the applicable patient.

Send / Receive / Find / Use (SRFU). It means sending, receiving, finding, or using message content. Sending involves the transport of message content. Receiving involves accepting and 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 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.

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.

Transactional Basis. The transmission of message content or a notice within a period of receiving message content or notice from a sending or receiving party 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, etc.) 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 MiHIN 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 TDSO must follow to share specific message content with the MiHIN.

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 a participating organization, MiHIN, and other TDSOs. 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 MiHIN upon request and via the MiHIN website at www.mihin.org.

View Download Transmit (VDT). A requirement for Meaningful Use with the objective of providing 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 IHE (Integrating the Healthcare Enterprise®) standard for Cross-Community Access which provides specifications to query and retrieve patient-relevant health information held by other communities.

XDS.b. The IHE (Integrating the Healthcare Enterprise®) standard for Cross-Enterprise Document Sharing Revision B, which provides specifications to query and retrieve patient-relevant healthcare data held within a community.