

MCIR ALL USER LEVELS REFERENCE GUIDE:

HL7 MESSAGE VIEWER

Table of Contents:

MCIR HL7 Message Viewer	3
What is the HL7 Message Viewer?	3
HL7 Message Viewer Benefits	3
Accessing the Viewer	3
Site Access	3
User Access	3
MCIR Landing Page Access	3
Alternate HL7 Viewer Access	4
Navigating the HL7 Viewer	5
Site Search.....	5
Recent Activity	5
Date Specific Messages Detail View	6
Message Received Date	7
Navigating a Specific Date's Message Activity	7
Filtering a Specific Date's Messages.....	8
ACK Messages Defined.....	9
View & Filter by MCIR HL7 Transfer Report Statistics	10
View & Filter a Single Message by Message Control ID.....	10
Using the MCIR HL7 Transfer Report with the Viewer	11
Switching Sites for Users with Access to More Than One Site	12

Information and instructions included in this reference guide periodically change with system updates and are subject to annual review. Please be advised: Images and directions may no longer replicate current system function.

MCIR HL7 MESSAGE VIEWER

What is the HL7 Message Viewer?

The HL7 Message Viewer is a data quality tool for reviewing Health Level-7 (HL7) Unsolicited Vaccine Record Update (VXU) messages submitted to MCIR's HL7 interface for Onboarding (OBRD) or Production (PROD).

You can use this tool to locate HL7 VXU messages, and view details about what was submitted to MCIR and how MCIR responded. The HL7 Viewer displays each HL7 VXU message submitted to MCIR by an authorized provider site, including information from the original message, the ACK that was returned, the HL7 Transfer Report data on a message and the timestamp for when each message was received.

HL7 Message Viewer Benefits

- makes HL7 messages easily readable.
- assists in finding data quality issues (troubleshooting).
- assists in determining the required data correction measures.

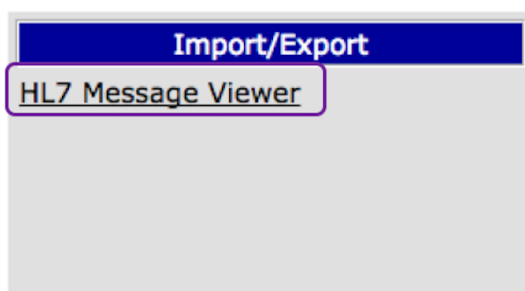
ACCESSING THE VIEWER

Site Access: Any site with an approved HL7 interface will have access to the Viewer.

User Access: Users with access to multiple sites will only have access to the Viewer for those sites with an approved HL7 interface.

MCIR Landing Page Access

From the MCIR Landing Page (“home screen”), click on the **HL7 Message Viewer** link, found under the **Import/Export** section of the screen.



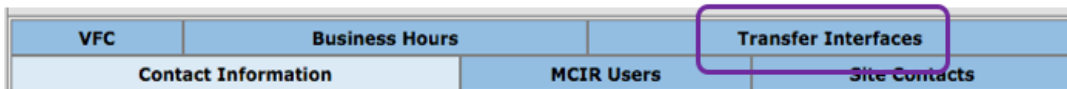
Alternate HL7 Viewer Access

A Provider Administrator can access the Viewer from the MCIR Landing Page or from the **Edit My Site** screen. To access from the **Edit My Site** screen:

Step 1: Click on the **Edit My Site** link, under the **My Site** section of the MCIR Landing Page.



Step 2: From the **Site Information** screen, click on the **Transfer Interfaces** tab.



Step 3: Click on your site **Name**.

A screenshot of a table titled "Transfer Interfaces" within a "Site Information" context. The table has columns: "Name", "Target", "Pin", "Data", "Format", "Gateway", "Type", and "Data Flow". The first row of data is highlighted with a purple rectangular box around the "Name" cell. The data in the first row is: Name (redacted), Target (PROD), Pin (redacted), Data (Prv Imms), Format (HL7V2), Gateway (HTTPS), Type (REALTIME), and Data Flow (In/Out).

Step 4: From the **Transfer Interface Edit** screen, click on your site's **PIN** number.

A screenshot of a "Transfer Interface Edit" form. At the top right, it says "Site Id: 20000010574". The form has several fields: "Name" (redacted), "Pin" (redacted), "Type" (Stand-alone), "Target" (Production System), "Gateway" (Secure HTTP), "Data Flow" (In/Out), "Data" (Provider Immunizations), "Format" (HL7 v2.x), "Mode" (Realtime), and "EMR Type" (None Specified). There are also checkboxes for "Enabled" (checked) and "QBP Allowed" (unchecked). The "Pin" field is highlighted with a purple rectangular box.

Step 5: The Viewer should open.

NAVIGATING THE HL7 VIEWER

Site Search

Once logged into the Viewer, users connected to only one HL7 provider site will be directed to the site's **Recent Activity** screen (next section of this reference guide)

Users with access to multiple HL7 provider sites will be required to perform a **Site Search** before being directed to the site's **Recent Activity** screen. A site search can be performed by using either the site's name or HL7 Pin. When searching by pin, be sure to include all 8 digits with hyphens (Ex: XXXX-XX-XX).

Recent Activity

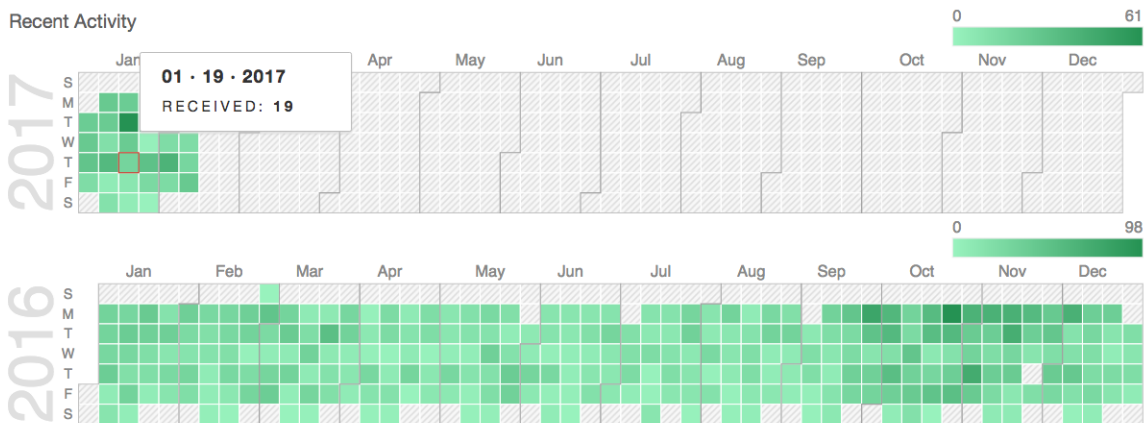
The **Recent Activity** screen provides a calendar summary for a site's past two years of messages. Hovering your mouse over a date will display the total number of messages sent on that day. The darker the green, the higher the message count. Dates in white have "No Activity."

Note: Calendar dates appear in chronological order, reading up to down, left to right. It may be necessary to decrease the display of your computer screen to see the entire year at a glance.

HL7 Message Viewer

Site:

Recent Activity



Date Specific Messages Detail View

Double-clicking a date on the **Recent Activity** screen will display a summary of all messages sent on the selected date.

A single day's HL7 message activity:

- is displayed in order of the **Message Received Date** timestamp.
- can be navigated by using the **page numbers**, **Prev** and **Next** at the far bottom of the screen.
- filtered by a text search and/or the message's ACK status (defined on pg. 8).
- viewed and filtered by MCIR HL7 Transfer Report Statistics (defined on pg. 10).
- viewed and filtered by a single Message Control ID.

Each of these features defined and explained above is outlined in greater detail on pages 8-11 of this reference guide.

The screenshot displays the HL7 Viewer interface. At the top, there is a 'Filter' button and search criteria: 'Message Search: MMRV' and 'Ack Status: AA,AE'. A calendar for 2016 is shown, with a green bar indicating message activity on October 5th. Below the calendar, the 'ESSR Statistics' section shows 'Messages (850)'. A table lists the details of these messages, including Message Control ID, Patient Name, CVX, Message Received Date, and Ack Status.

Message Control ID	Patient Name	CVX	Message Received Date	Ack Status
402I-BASE.V1	Grady, Polixenes	94 (MMRV)	2016-10-05 16:22:34	AA
402I-I.01.00.xs	Schoolcraft, Schmetterling	94 (MMRV), 94 (MMRV), 21 (Varicella)	2016-10-05 16:22:42	AA
402I-A.01.05.2lz	Mee, Yazid	03 (MMR), 94 (MMRV)	2016-10-05 16:22:50	AA
402I-A.01.07.2J	Dimmit, Aliya	21 (Varicella), 94 (MMRV), 94 (MMRV)	2016-10-05 16:22:52	AA
402I-K.01.05.2n7	Keith, Shelley	94 (MMRV)	2016-10-05 16:22:55	AE
402I-K.01.07.2nr	Figgens, Joey		2016-10-05 16:22:56	AE
402I-K.01.09.2nL	Loup, Stoddard	94 (MMRV)	2016-10-05 16:22:57	AE
402I-K.01.11.2o8	Hougen, Kyra	null (MMRV)	2016-10-05 16:22:58	AA
402I-K.01.12.2ol	Dahl, Holden	14000BADVALUE (MMRV)	2016-10-05 16:22:58	AA
402I-B.01.02.2rc	Dunn, Wylie	94 (MMRV)	2016-10-05 16:23:03	AA

At the bottom of the table, there is a pagination control with 'Prev', '1', '2', '3', '4', '5', '6', '7', '8', '9', '10', '...', '85', and 'Next' buttons.

Message Received Date:

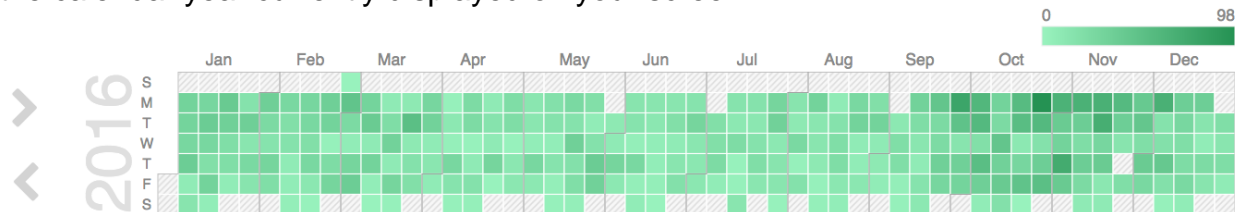
All messages, for a single date, are displayed in order of the **Message Received Date's** timestamp.

To change the activity date for the messages you are viewing, toggle the arrows to the right and left of the date currently being displayed (upper right corner of your screen). Note: The dates will only toggle between days where activity (a message count) was recorded.

Example: If HL7 VXU messages were submitted on January 23rd and not again until January 25th, the calendar date's arrows (image below) will take you directly from January 23rd to January 25th. The calendar will skip January 24th because "No Activity" was recorded for that date.

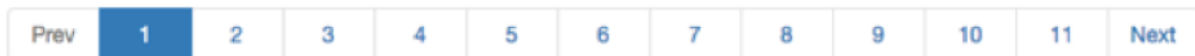


To change the year of the activity you are viewing, click the large arrows to the left of the calendar year currently displayed on your screen.



Navigating a Specified Date's Message Activity:

From the very bottom of the page, you can browse all messages for a specific day by clicking on the **Prev**, **Next** or a **page number**.



Filtering a Specified Date's Messages:

To filter message details for a selected date, click on the **Filter** button in the upper left corner of the screen, directly beneath your site's name.



From the **Message Filter** screen, choose your filters and click **OK**.

You can choose up to a total of 4 filters:

1 Full Text Search and one, two or all three ACK Statuses (AA, AR and AE).

When an ACK Status Filter is unselected, it will appear white. The default Message Filter is automatically set to include all three ACK Statuses. You must click to unflag any ACK status(es) you do not wish to include in your search (i.e., filter).

Message Filter

Full Text Search

Ack Status:



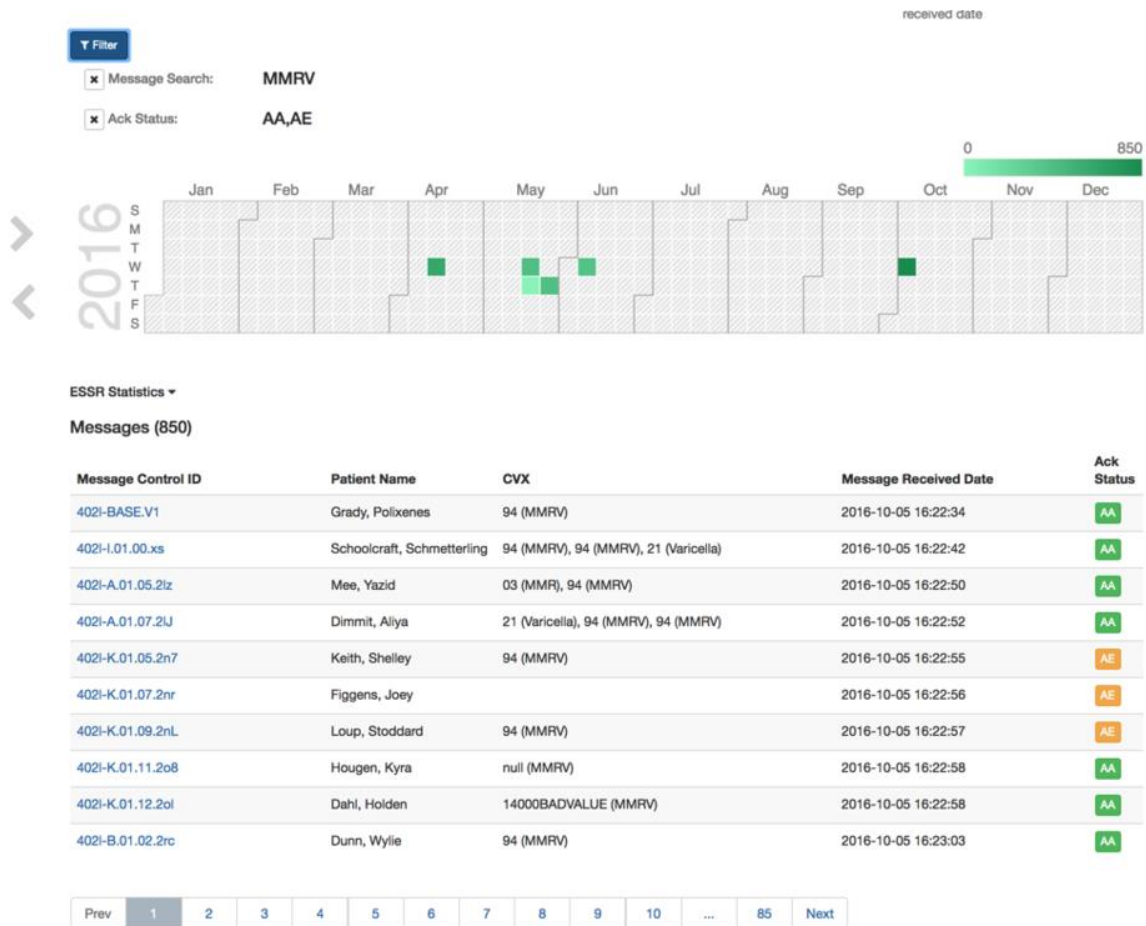
In the below example, "Alyce" is being searched, along with the AA and AR ACK Statuses. The AE ACK Status has been removed from the search:

Full Text Search

Ack Status:



The filters you have chosen will appear at the top of the screen. To remove a filter, click on the “X” preceding the filter.



Ack Messages Defined

- AA** Application Accept Message was accepted without error.
- AE** Application Error Message was processed and errors are being reported. AE is sent whenever an error is detected. This may range from data that are ignored because they are not wanted to rejection of the entire message.
- AR** Application Reject Message was rejected because one of the following occurred:
 - Unsupported Message Type
 - Unsupported Event Code
 - Unsupported Processing ID
 - Unable to process for reasons unrelated to format or content.

View & Filter by MCIR HL7 Transfer Report Statistics:

Along with the ability to filter by text and/or ACK Status, you can also choose to filter by a single HL7 Transfer Report Statistics option. The filter you choose will turn green. Changing an HL7 Transfer Report Statistics filter option will overwrite the previously selected HL7 Transfer Report Statistics filter.

ESSR Statistics ▶

Person

Persons Added/Updated	106	<input checked="" type="checkbox"/>
Persons Found/Unmodified	0	<input type="checkbox"/>
Persons Accepted	106	<input checked="" type="checkbox"/>
Persons Opted-Out	0	<input type="checkbox"/>
Persons Deceased	0	<input type="checkbox"/>
Multiple Persons found	0	<input type="checkbox"/>
Persons not found for Update	0	<input type="checkbox"/>
Other Persons Errors	0	<input type="checkbox"/>
Persons Rejected	0	<input type="checkbox"/>
Total Persons Processed	106	<input checked="" type="checkbox"/>

Responsible Party

Responsible Party Added	106	<input type="checkbox"/>
Responsible Party Updated	0	<input type="checkbox"/>
Responsible Party skipped having Person errors	0	<input type="checkbox"/>
Responsible Party Accepted	106	<input checked="" type="checkbox"/>
Responsible Party Rejected	0	<input type="checkbox"/>
Total Responsible Party Processed	106	<input checked="" type="checkbox"/>

Immunizations

Immunizations Added	5	<input type="checkbox"/>
Immunizations Deleted	0	<input type="checkbox"/>
Immunizations skipped having Person errors	0	<input type="checkbox"/>
Immunizations Accepted	5	<input checked="" type="checkbox"/>
Immunizations Rejected	0	<input type="checkbox"/>
Duplicate Immunizations	101	<input type="checkbox"/>
Total Immunizations Processed	106	<input checked="" type="checkbox"/>
Total Records Processed	106	<input checked="" type="checkbox"/>

View & Filter a Single Message by Message Control ID

To view details of a specific message, click on the Message Control ID. The Viewer will navigate to the **Message Information** screen.

Message Control ID	Patient Name	CVX	Message Received Date	Ack Status
402I-BASE.V1	Grady, Polixenes	94 (MMRV)	2016-10-05 16:22:34	<input checked="" type="checkbox"/>

To return to the full list of messages by date, click on the **Return to List** link in the upper left corner of the **Message Information** screen.

[← Return to list](#)

To filter data submitted in a single message, enter the **Value**, **Segment**, **Location**, **Field Repetition** or **Location Description** into the search bar.

Find in message:

Prev 1 2 3 ... 7 Next

Value	Segment	Location	Field Repetition	Location Description
	0	MSH-1	1	Field Separator
^~\&	0	MSH-2	1	Encoding Characters
1366-70-91	0	MSH-4-1	1	Sending Facility - Namespace ID
MCIR	0	MSH-5-1	1	Receiving Application - Namespace ID
MDCH	0	MSH-6-1	1	Receiving Facility - Namespace ID
20170111112634	0	MSH-7-1	1	Date/Time Of Message - Time
ML345191	0	MSH-8	1	Security
VXU	0	MSH-9-1	1	Message Type - Message Code
V04	0	MSH-9-2	1	Message Type - Trigger Event
VXU_V04	0	MSH-9-3	1	Message Type - Message Structure

USING THE MCIR HL7 TRANSFER REPORT WITH THE VIEWER

The HL7 Message Viewer can be used in conjunction with the MCIR HL7 Transfer Report. If a system or user error is identified on the HL7 Transfer Report, the HL7 Message Viewer can be accessed to retrieve the raw data that was sent to MCIR.

Here are some examples:

Examples 1: The HL7 Transfer Report indicates no data was submitted during a specified time frame.

In this case, the HL7 Message Viewer would show detail for Historical or Patient Refusal Doses that were reported.

Example 2: The HL7 Transfer Report indicates that an MVX (Manufacturer) code does not match the type of vaccine that was administered.

The raw data string in the HL7 Message Viewer shows the exact data that was sent from the electronic health record (EHR) to MCIR and may indicate the MFR coding requires correcting by the vendor.

Example 3: Data from multiple clinics are being sent via HL7 under one MCIR site ID.

The raw data in the HL7 Message Viewer provides the name of the physician that ordered the vaccine. This information is often necessary if the HL7 Transfer Report indicates the lot number reported for an administered vaccine does not match the lot number in the inventory.

SWITCHING SITES FOR USERS WITH ACCESS TO MORE THAN ONE SITE

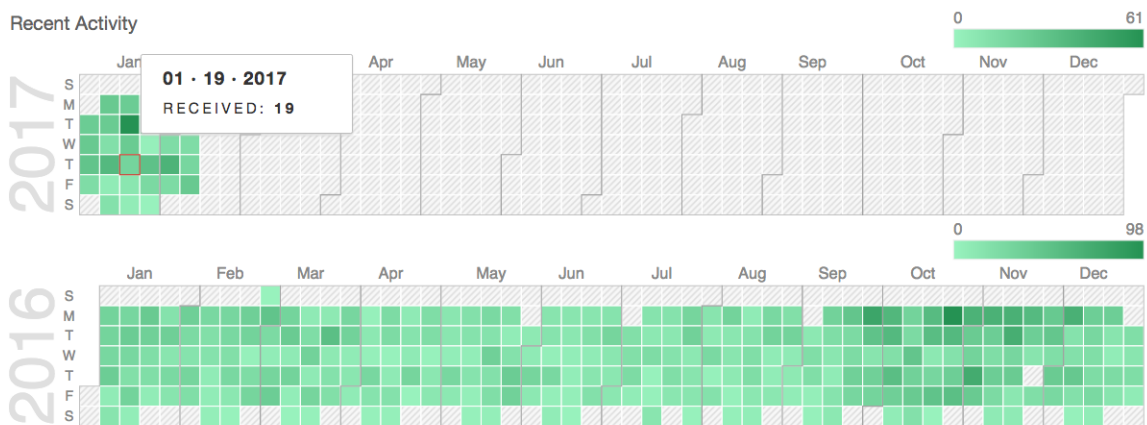
Users with access to multiple, approved HL7 sites can change sites without being required to log out of and back into the Viewer.

From the screen displaying a site's most recent two years' calendar summary, enter the new site into the search bar and hit Enter (on your keyboard).



Site:

Recent Activity



From the screen displaying a site's specific day/activity, click the **Select Site** hyperlink from the upper left corner of your screen.



[← Select Site](#)