
Renal Healthcare Association
Health Information Exchange

EQRS Data Submission
User's Guide

MANAGED BY

OneHealthPort | **HIE**

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1 Overview

Welcome to the Renal Healthcare Association's (formerly National Renal Administrator's Association) Health Information Exchange (HIE). EQRS quality data reporting is a requirement set forth by the Centers for Medicare and Medicaid Services (CMS) for patients receiving renal dialysis treatment. The Renal Healthcare HIE provides a secure connection and submission method for contracted renal dialysis facilities to comply with the monthly EQRS data reporting requirement.

1.1 Purpose

The EQRS Data Submission User's Guide provides contracted Renal Healthcare HIE organizations and their facilities with:

- An overview of the EQRS data submission flow supported by the Renal Healthcare HIE.
- Steps for preparing and submitting EQRS data files to CMS.
- Tips and techniques for managing and monitoring EQRS data submissions.

1.2 Intended Audience

This document is intended for:

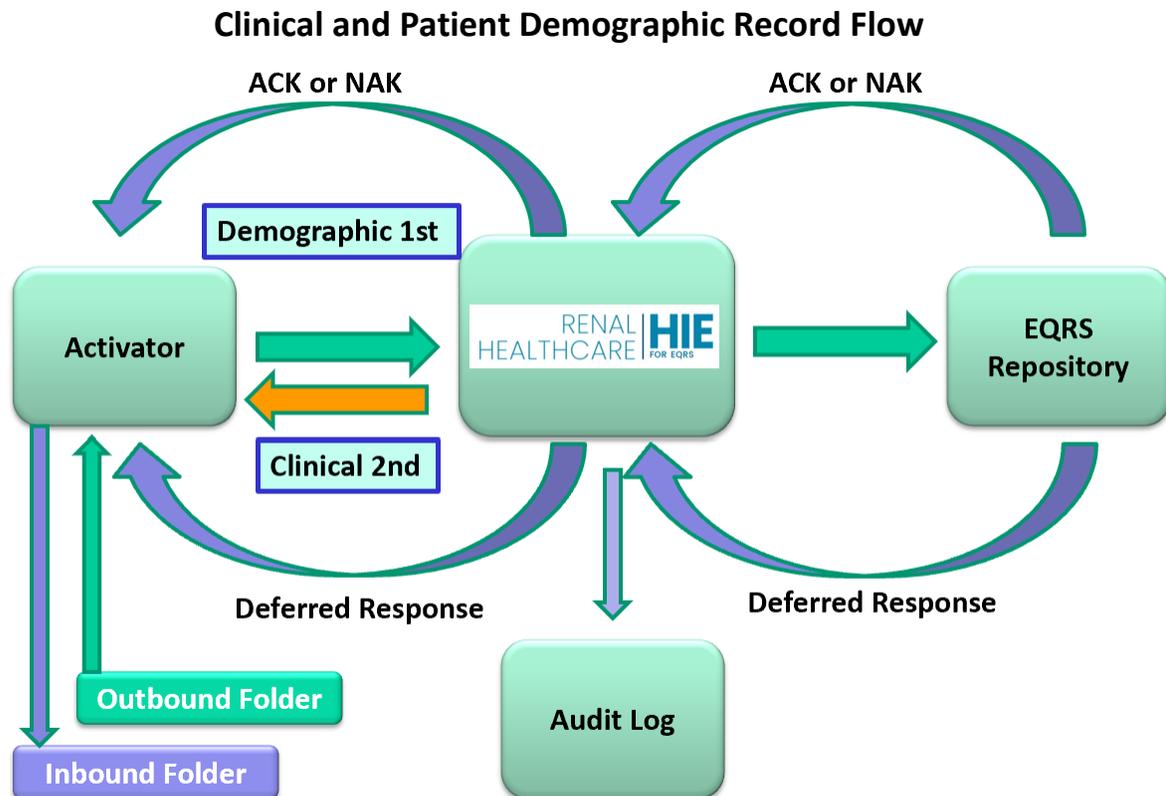
- Renal dialysis organizations and facilities responsible for submitting monthly EQRS data quality reports.
- Vendors providing EQRS data quality report submission services on behalf of renal dialysis organizations and facilities.

2 Renal Healthcare HIE and EQRS Data Submission

EQRS data processing begins with the submission of patient demographic, clinical or administrative data through a series of secure connections starting with the Renal Healthcare HIE Activator (a software gateway application that manages the secure electronic submission of EQRS data) to the ultimate destination at CMS – the EQRS data repository. The sections below provide an overview of the data flow, clinical data reporting periods, data submission messages, deferred responses and data error codes.

2.1 EQRS Data Submission Flow

An overview of the data flow of the patient demographic and clinical records is presented below. Administrative data submitted through the Renal Healthcare HIE to the EQRS data repository follow the same processing flow.



1. EQRS data files are loaded in the Activator Outbound folder that encrypts and sends the files (messages) to the Renal Healthcare HIE Hub.
 - a. Patient demographic files must be successfully sent to the EQRS repository first to confirm the patient exists in the repository.
 - b. Once patient demographic files are successfully submitted then the clinical data records can be submitted.
 - c. Form 2728 and 2746 (administrative data) are also submitted following successful submission of a patient demographic file.
2. The Renal Healthcare HIE Hub stores a copy of the received message's **meta data** (information about the data submission) in the audit log. The Audit log is stored on the Renal Healthcare HIE Hub. The

demographic, clinical and administrative messages are encrypted during transport and are not accessible to HIE staff. Message handling is done programmatically by the Hub systems.

3. The Renal Healthcare HIE HUB performs the following processes for each message:
 - a. Programmatically decrypts the message from the facility or vendor.
 - b. Tests the message formatting against the current EQRS data map and creates a **ResMPE** (message processing error) if there are formatting errors.
 - c. Packages the properly formatted message before sending to CMS and the EQRS repository.
 - d. Encrypts the message with the required certificates.
4. The CMS Hub sends a synchronous **ACK** (acknowledgement) message to the Renal Healthcare HIE Hub indicating the file was successfully received and was properly secured. The CMS Hub sends a **NAK** (negative acknowledgement) if the message security does not meet requirements or if the CMS system is down.
5. The Renal Healthcare HIE Hub forwards the **ACK** or **NAK** message (for each submitted file) to the Activator from which the file was originally sent and places it in the secure mailbox for the specific Activator. The Activator is set up to “poll” the secure mailbox for messages at certain time intervals or when manually requested by the manager of the Activator. Messages are pulled from the secure mailbox to the Inbound folder in the Activator.
6. When the data files are processed by CMS systems, the EQRS Repository then sends a **Deferred Response** (DefRes) message to the Renal Healthcare HIE Hub.
7. The Renal Healthcare HIE Hub forwards the **Deferred Response** (DefRes) message to the secure mailbox for access by the Activator from which the file was originally sent. The Activator pulls the Deferred Response from the secure mailbox and places it in the Inbound folder.

2.2 Clinical Reporting Periods for Data Submissions

CMS determines and communicates the clinical data reporting periods for EQRS data submissions. What this means is once CMS announces a deadline for submission of clinical data for a designated time period, clinical data submitted *after* the deadline date will not be accepted by EQRS. For example, if the clinical data submission deadline for the month of January is February 28 and clinical data for the month of January is submitted on March 1, the January clinical data will be rejected by the EQRS repository.

Note: Patient demographic data is not impacted by the clinical data reporting periods.

CMS clinical data submission period closures are posted on the Renal Healthcare HIE website for facility use in planning data submission production schedules and to ensure timely reporting.

2.3 Data Submission Messages

As depicted in the data flow diagram above, the Renal Healthcare HIE Hub provides data submission messages that submitters can review in the Message Tracker feature of the Activator. Examples of

messages as displayed in the Activator Message Tracker and explanations of the messages are provided below.

Examples of Successful Messages Displayed in the Activator Message Tracker

Document type	Origination	From	To	Status	Original filename
Receipt	Apr 17, 2012 01:42:28 PM PDT	Satellite Health	OHP	Delivered	
Receipt	Apr 17, 2012 01:42:28 PM PDT	Satellite Health	OHP	Delivered	
	Apr 17, 2012 01:42:28 PM PDT	OHP	Satellite Health	Delivered	ACK_nraa90004@_SHC_Clinical_HD_MER_13_20120300_20120416.xml
	Apr 17, 2012 01:42:28 PM PDT	OHP	Satellite Health	Delivered	DefResS_nraa90004@SHC_Clinical_HD_MER_13_20120300_20120416.xml
Receipt	Apr 17, 2012 01:41:39 PM PDT	OHP	Satellite Health	Delivered	
	Apr 17, 2012 01:41:37 PM PDT	Satellite Health	OHP	Delivered	SHC_Clinical_HD_MER_13_20120300_20120416.xml

Successful Message Descriptions

ACK - Message accepted by CMS gateway (synchronous response).

Message Delivery Receipts - Sent (Activator to the Renal Healthcare HIE Hub) or received (Renal Healthcare HIE Hub to Activator) for each step in the message flow and are displayed as *Receipt* in the *Document type* column of the Activator Message Tracker screen. Note: Receipts will not display in Message Tracker if the message receipt feature is turned off on the Activator.

Deferred Response - Provides information regarding the outcome of the data processing of the file by the EQRS repository. The Deferred Responses are identified by prefixes that indicate the processing outcome. For example, a *DefResS* prefix in the file name of a Deferred Response indicates that the message was *successfully* processed by EQRS.

Examples of Failed Messages Displayed in the Activator Message Tracker

Document type	Origination	From	To	Status	Original filename
Receipt	Apr 23, 2012 03:43:26 PM MST	codling_act7	OHP	Delivered	
	Apr 23, 2012 03:43:26 PM MST	OHP	codling_act7	Delivered	ResMPE_Demographic_Structureerror.xml
Receipt	Apr 23, 2012 03:43:06 PM MST	OHP	codling_act7	Delivered	
	Apr 23, 2012 03:43:05 PM MST	codling_act7	OHP	Delivered	Demographic_Structureerror.xml
Receipt	Apr 23, 2012 03:40:09 PM MST	OHP	codling_act7	Delivered	
	Apr 23, 2012 03:40:05 PM MST	codling_act7	OHP	Negative response	SAT_CROWNWeb_Demographic_v4_120711.xml

Failed Message Descriptions

ResMPE – Indicates a file format mapping failure at the Renal Healthcare HIE Hub. This file has a significant structural format issue that must be corrected and resubmitted.

Negative response - A negative response (NAK) in the status column indicates that the file was not accepted by the CMS gateway for processing because of a problem with the message security, format or system availability. Messages receiving a NAK do not receive a Deferred Response.

Deferred Response – If the message receives an ACK from the CMS gateway, the file can still fail the EQRS data validation process for a number of reasons. Deferred Responses will be sent for each of the files with one of the below prefixes appended to the original file name and will include appropriate error codes (and error descriptions) contained within the Deferred Response message that provides the submitter with information about why the file failed processing. Examples of the Deferred Response prefixes for files containing *errors* follow:

DefResE = Error

DefResF = Failure

DefResW = Warning

DefResU = Unknown

2.4 Deferred Responses

The final messages received for data submissions are Deferred Responses. Deferred Responses are produced by the EQRS repository and let the submitter know whether the data was successfully processed or if there were errors discovered in the message during data processing.

As described in Section 2.3 Data Submission Messages, Deferred Responses will be sent for each of the files that received an ACK from the EQRS repository with one of the below prefixes attached to the original file name. The Deferred Response includes appropriate error codes (and error descriptions) contained within the Deferred Response message. Deferred Response file name prefixes and descriptions are listed below:

- **DefResS (Success)** - Indicates a successfully submitted and validated record. Data contained in this file was recorded to the EQRS repository.
- **DefResW (Warning)** - Indicates record content needs additional clarification to be accepted by EQRS. The message severity level needs to be identified and error message needs review to determine whether the:
 - Message is a severity level **“Error”** indicating information needs to be corrected in the record that was originally submitted and then resubmitted to EQRS, or
 - Message is a severity level **“Warning”** where corrections *are not required*, the information in the submitted file was recorded to the EQRS database and the record *does not* have to be resubmitted to EQRS.
- **DefResF (Failure)** - Indicates a data error that results from an interruption in EQRS system processing. The data file will need to be resubmitted.

- **DefResE (Error)** - Indicates a file format mapping failure at EQRS. This file has a significant structural format issue that must be corrected and resubmitted. The Deferred Response provides detailed information about where the formatting error exists.
- **DefResU (Unknown)** - Indicates the file failed processing due to an unspecified interruption. The data file will need to be resubmitted.

2.5 Data Error Codes

Data error codes (and error descriptions) are contained within the Deferred Response message for every patient demographic, clinical and administrative record received and processed by the CMS/EQRS repository. Error codes are generated when data content submitted in the patient demographic, clinical or administrative record do not meet the requirements of the repository's business rules or system processing logic.

A full listing and description of the EQRS error codes may be accessed on the Renal Healthcare HIE Vendor [website](#). The list is organized by patient demographic, clinical, Form 2728 and Form 2746 data error code types.

The sample Deferred Response message below displays the presentation of the data error code and the accompanying error message in an actual Deferred Response message received in the Activator Inbound folder. Many Renal Healthcare HIE Certified EHR vendor software applications programmatically retrieve this information from the Deferred Response message and present it in an error report for data submitters' use in correcting errors.

Deferred Response Data Error Code Example

```

<ns11:ValueList>
  <ns11:Value>Patient</ns11:Value>
</ns11:ValueList>
</ns11:Slot>
- <ns11:Slot slotType="String" name="documentName">
  <ns11:ValueList>
    <ns11:Value>nraa90001@010-demographic-559.xml</ns11:Value>
  </ns11:ValueList>
</ns11:Slot>
- <ns11:Slot slotType="String" name="orgPatientId">
  <ns11:ValueList>
    <ns11:Value>MM01723393</ns11:Value>
  </ns11:ValueList>
</ns11:Slot>
- <ns11:Slot slotType="String" name="crownPatientId">
  <ns11:ValueList>
    <ns11:Value>0</ns11:Value>
  </ns11:ValueList>
</ns11:Slot>
- <ns11:Slot slotType="String" name="orgFacilityCode">
  <ns11:ValueList/>
</ns11:Slot>
- <ns11:Slot slotType="String" name="crownFacilityId">
  <ns11:ValueList>
    <ns11:Value>0</ns11:Value>
  </ns11:ValueList>
</ns11:Slot>
- <ns11:Slot slotType="String" name="homeCommunityID">
  <ns11:ValueList>
    <ns11:Value>urn:oid:1.3.6.1.4.1.38630.2.1.2</ns11:Value>
  </ns11:ValueList>
</ns11:Slot>
</ns11:ResponseSlotList>
- <ns14:RegistryError severity="Error" location="MM01723393|null|null" errorCode="" codeContext="">Patient could not be processed due to possible match</ns14:RegistryError>
</ns14:RegistryErrorList>
</ns13:RegistryResponse>
tp/wz0b95/DefResW_nraa90001@010-demographic-559.xml#

```

Data Error Code and Message in the Body of the Deferred Response

3 Preparing for EQRS Data Submission

Before beginning submission of the EQRS data files, organizations need to register their facilities with the [Renal Healthcare HIE Facility Registration](#) application using the correct EQRS and CMS identifiers. Following the registration of each facility, the Renal Healthcare HIE Facility Codes are generated and must be entered in the organization's electronic medical record (EMR) system for use in properly identifying the EQRS data files submitted by the organization's facilities. The sections below describe this information and associated reporting and file configuration processes.

3.1 Reporting EQRS Identifiers

EQRS and CMS identifiers are collected for each facility during the Renal Healthcare HIE facility registration process. If you do not have this information for your facilities you will need to set up a QualityNet Identity Management System (QIMS) account to obtain them. To learn more and sign up for a QIMS account, please visit this [link](#) on the QualityNet website. A designated individual from each facility (or the parent organization) should maintain this information for the facility to ensure the information is current. **Note:** If the EQRS identifiers are not kept current for the facility, the EQRS repository will reject the facility's data submissions.

The following identifiers are reported weekly by the Renal Healthcare HIE to EQRS Production for each facility submitting EQRS quality data.

- EQRS Facility ID – This is a unique identifier assigned to each renal dialysis facility registered with EQRS.
- CMS Certification Number (CCN) – This is the facility's 6-digit Medicare Provider Number and must be the renal dialysis facility's permanent CCN (temporary or parent organization CCNs cannot be submitted for the facility).
- EQRS Facility Name – The facility name as shown in the EQRS system and must match the facility's legal name.
- EQRS Network Number – This is the renal dialysis network number assigned to the facility.

Note: EQRS Network Number assignments are based on the facility's geographical location. Numbers range from 1-18 and are typically the first numbers in the facility's EQRS Facility ID.

3.2 Organization and Facility Preparation for EQRS Data Submissions

Properly preparing for submission of the EQRS patient (demographic) and clinical files significantly reduces errors encountered during the data submission process. Follow the preparation steps below for data submission success.

1. **Obtain Training from EMR Vendor for EQRS Data Submissions** – EMR vendors provide training for use of the EMR system to produce the EQRS data files, electronically submit files to EQRS, create data submission reports and correct data submission errors. Vendors also provide education about how the data should be entered in the fields of the EMR system used to populate the EQRS data files.
2. **Compare Patient Data in the EMR System with Data in EQRS** – Before submission of the first set of patient demographic files, compare patient data in the EMR system with patient data in EQRS. If any discrepancies are found, make corrections in the EMR system or EQRS (wherever appropriate) to ensure the data matches, i.e. first and last names are spelled correctly, birthdate is correct. **Note:** If the patient data in the EMR system does not match the data in EQRS, the patient demographic file will error during processing and clinical data submissions will fail as well. Patient demographic files must be submitted successfully to EQRS first then clinical files can be submitted.
3. **Review Clinical Data in the EMR System** – In addition to reviewing the demographic data, examine the clinical data for each patient to ensure that all clinical data fields are correctly populated including lab results electronically supplied by external sources.
4. **Organize for the Data Submission Process** – Vendors can provide tips and information about developing processes and workflows, allocating resources and managing timelines for EQRS data submissions.

3.3 EMR System Preparation for EQRS Data Submissions

Electronic medical record (EMR) systems certified by the Renal Healthcare HIE are set up to provide the correct identifiers and data fields for the EQRS data set. Two key Renal Healthcare HIE identifiers need to be presented in each EQRS data file submitted to be accepted by the repository for processing. The identifiers are listed below.

1. **Organization Affiliation ID:** This number is assigned by CMS to the submitting entity, in this case the Renal Healthcare HIE, and identifies the submitting entity to the EQRS repository. The identifier is 125 for the Renal Healthcare HIE. ***This information is contained in a data field the Renal Healthcare HIE Hub engine adds to every EQRS data file submitted by facilities during the submission process.*** Organizations, facilities, and vendors do not need to incorporate this identifier in the actual demographic, clinical or administrative files they generate from their electronic medical record (EMR) application. The Organization Affiliation ID is important for

organizations and facilities to understand and be aware of as it may be present in data submission reports received from EQRS or the Renal Networks.

- 2. Organization Facility Code:** This number is assigned by the Renal Healthcare HIE to each renal dialysis facility submitting EQRS data in order to be uniquely identified by CMS in the EQRS repository. The code or number is called a Renal Healthcare HIE Facility ID and starts out with nraa and is followed by 8 numbers **nraaxxxxxxxx**. ***This code needs to be added to the patient (demographic), clinical and administrative data files prior to submission to EQRS.*** Certified Renal Healthcare HIE EMR vendors are aware of this required code and have programmed their applications to populate the Renal Healthcare HIE Facility ID in the field in the data files where it needs to be incorporated. Vendors can show facilities where this identifier needs to be entered into the EMR application for use in the data files.

Note: The organization facility code (or Renal Healthcare HIE Facility ID) along with the other EQRS identifiers described in Section 3.1 is reported by the Renal Healthcare HIE to EQRS Production each week. The information reported to the EQRS system is used to identify the facility and validate the facility is approved to submit data via the Renal Healthcare HIE.

4 EQRS Data File Submission

The EQRS repository requires a specific order in which data files are submitted to successfully identify and process patient demographic, clinical and administrative information. Described below are process steps and tips for managing and monitoring the data submission process.

4.1 EQRS Data File Submission Process

When data preparation is complete you can begin the submission process. **Note:** The EQRS system requires the patient (demographic) files to be submitted first for each month's data submissions. Once these files are successfully submitted and accepted by EQRS, then the accompanying clinical or administrative files for those patients may be submitted.

Monthly Submission Process:

1. Submit the EQRS patient (demographic) files first. This is a requirement of the EQRS system. This establishes the patient in the EQRS system so clinical and administrative data can then be submitted and processed.

Submission Tip: Name the files using a naming convention that allows you to easily identify and track the files during the submission process. The file name and unique Organization Facility Code will be sent back from EQRS in the ACK/NAK and Deferred Response messages to allow cross-referencing back to the originally submitted data file. Also, make note the number of files submitted so you can track the return of ACKs/NAKs and Deferred Responses in the Activator Message Tracker during the submission process.

Sample File Naming Convention:

Facility File (facility's file naming convention): SHC_Demographic_HD_16729.xml

ACK/NAK Message: ACK_nraa90000@_SHC_Demographic_HD_16729.xml

Deferred Response: DefResS_nraa90000@SHC_Demographic_HD_16729.xml

Note: The facility's file name is sent back in the naming convention of both the ACK/NAK and Deferred Response messages.

2. To execute the data file submission, place the EQRS data files into the Activator Outbound folder. The data files will be sent from the Activator to the Renal Healthcare HIE Hub. From the Hub, the files will then be sent to the EQRS system. You will be able to monitor the ACKs/NAKs received in the Activator Message Tracker during this process and these messages are collected in the Activator Inbound folder.

Note: Some certified EMR vendors completely automate the EQRS data submission process. Check with your vendor to learn how this process is handled by the EMR system and what steps need to be taken to execute the data submission process.

3. Deferred Responses will be the next messages the EQRS system sends back to the data submitter and collected in the Activator Inbound folder. As described in Section 2.4, Deferred Responses provide either a message indicating the data file processed successfully or contain errors generating an error message/s specifying what was incorrect in the data file. Data files containing errors must be corrected and resubmitted to EQRS until successfully processed.
4. Once the patient demographic files are successfully submitted to EQRS, then the appropriate clinical or administrative files may be submitted. As with the patient demographic files you'll receive an ACK/NAK and Deferred Response that contains either a message that indicates the file processed successfully or that specific errors are present, need correction, then resubmitted for processing.

Submission Tip: As with the patient (demographic) file submissions, name the clinical and administrative files using a naming convention that allows you to easily identify and track the files during the submission process. Again, this file name and unique Organization Facility Code will be sent back from EQRS in the ACK/NAK and Deferred Response messages to allow cross-referencing back to the original file. Remember to make note the number of files submitted so you can track the return of ACKs/NAKs and Deferred Responses in the Activator Message Tracker during the submission process.

Important Data File Submission Note:

The EQRS data files are programmatically queued at the Renal Healthcare HIE Hub and metered to the CMS Hub to accommodate system processing requirements. Because of these metering requirements, data file submitters may experience delays in receiving ACKs/NAKs or Deferred Responses from the EQRS system. Please keep this in mind when tracking EQRS data file submissions and monitoring return of ACKs/NAKs and Deferred Responses.

Document History

Version	Date	Update Origin	Written by	Verified by
1.01	5/30/12	Initial Draft	Kelly Llewellyn	Sue Merk
1.02	12/17/14	Updated data submission process diagram and preparation information.	Kelly Llewellyn	
1.03	11/9/2020	Updated document for EQRS	Kelly Llewellyn	Karena Sullivan
1.04	1/17/2021	Updated document for Renal Healthcare HIE branding	Kelly Llewellyn	Karena Sullivan