

# Electronic Data Submission (EDS)

*2021 Member Instructions*

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## What is Electronic Data Submission (EDS)?

Electronic Data Submission (EDS) is an optional method for submitting NICU data to CPQCC. Instead of entering infant records one at a time through the NICU Data website, centers can submit many records at once in a comma separated values (.csv or .txt) file, saving time and effort. Extracting the data from the center's electronic medical record (EMR) removes the requirement for abstracting that information out by hand, which makes the process much more efficient.

### Caveats and Considerations

Centers that elect to participate in EDS are those that have set up mechanisms to extract data from their EMR into electronic files in the required format. This format's specifications are in this manual.

Each participating center must build a system that is compatible with their own resources. It is very important that the system produces output files that meet CPQCC requirements for both data submissions and for documentation of the eligibility and enrollment status of individual infants.

An experienced programmer or software developer is an integral part of the data collection team for a center interested in participating in EDS. Only centers with programming staff available for building and testing data extraction procedures are encouraged to participate in EDS.

## How to Participate in EDS

Centers who are interested in participating in EDS must read these instructions and assess their resources. If your center has the appropriate resources (at minimum, a programmer or developer available to build a system capable of producing CPQCC-standard files based on data extracted from the EMR), we will be happy to facilitate your participation. Centers will not be able to submit EDS files unless they have been approved by the Data Center team. Please submit a [Help Desk](#) ticket to discuss your center's capacities and to make specific plans for submitting 2021 data via EDS.

## Important Terms

### Files (or Data Files)

Files must be sent as comma-separated value (.csv or .txt) text files only.

### File Names

Data files submitted to CPQCC must follow the specific file naming system explained below, or the files will be rejected.

File names must follow this pattern: **HnnnnEDSxxxx** where:

- “nnnn” represents the four-digit center ID number with leading zero(s). If you do not know your center ID number, please submit a [Help Desk Ticket](#).
- “xxxx” represents a four-digit sequential file number.

The file number should be sequentially numbered by the member’s system to uniquely identify each electronic file submitted to CPQCC (optimally with no gaps in sequence). Members can find the last file submitted by reviewing the EDS Activity report. A file is not processed if the file number was previously used. If a file's file numbers is not in sequence the user will receive a warning, but the file can still be uploaded.

As an example, the first EDS file submitted by Center 999 would be called H0999EDS0001, the second H0999EDS0002, etc.

**NOTE:** Each file must contain records from **one** birth year **only**. For example, you cannot include an infant born in 2020 in a file with infants born in 2021.

## Fields

A [field](#) contains a single piece of information about each unique episode of care being submitted to the NICU database. The new 2021 EDS Specifications for the NICU list the fields required for electronic submission of data beginning in 2021. The 2021 EDS Specifications specify the ranges and coding rules for each field.

## File Contents

The first row of data must contain the field names, in correct order, for every file submitted. The field names and their order are listed in the new [2021 EDS Specifications](#). A text file submission is a “flat file” named either **HnnnnEDSxxxx.csv** or **HnnnnEDSxxxx.txt**.

**When submitting a file, it must contain all of the fields as listed in the EDS Specifications.** The following fields should not be empty to pass the initial test for EDS submission: FILENUM, FILEDATE, DELETED, HOSPNO, ID, and BYEAR.

We recommend that EDS participants submit at a minimum the variables needed to save an online data entry: Birth Year, Infant ID, Birth Weight, Birth Date, Sex, Delivery Room Death, Acute Transport In.

If the “Delivery Room Death” and “Acute Transport In” indicator fields are are not included in the EDS file the record will be considered an A/D record without CPeTS form.

**NOTE:** EDS file users **MUST** submit all date/time variables as string variable values enclosed in double quotes. In other words, in a comma separated ascii file, a date variable must be submitted as “12/12/2021 {space} 12:00” instead of 12/12/2021 {space} 12:00.

## Episode of Care

An episode of care is defined as the entire period of care before an infant is discharged home. This can include multiple stays in one NICU, if the infant is transferred from the NICU to

another service within the hospital and subsequently readmitted to the NICU, or multiple stays at other NICUs, if the infant is transported from another hospital's NICU, as long as the infant is not discharged home at any point. Readmission after discharge home starts another episode of care and thus a new NICU record for the infant.

## Records

Each unique episode of care constitutes a record. A record is made up of its component fields (for definition of **field**, see [above](#)). For more on eligibility and episodes of care, please see [Is That Baby Eligible?](#)

### New Record

A record that is sent to CPQCC for the first time.

### Updated Record

A record which has been sent to CPQCC previously.

### Deleted Record

An updated record that is submitted with the “deleted” field set to 1. ID numbers for submitted records that have the "deleted" field set to 1 cannot be reused for another infant's episode of care.

## Values for “Record Status” in NICU Database

Once you have uploaded a 2021 EDS file via the NICU Data website, you can examine the uploaded records by selecting 2021 from the year drop-down in the left menu bar and clicking on **Edit Data**. The “status” field (header **STTS**) shows the status of each individual record as follows:

### Complete Record (CMPLT, CMPLT+, CMPLT-)

A processed record in which there are no blank fields. If a NICU participates in optional data collections, CMPLT is suffixed by a + / - if all optional data elements have been submitted / not submitted.

### Pending Record (PND)

An incomplete record with blank fields, but no errors. The column PND shows the number of pending fields.

### Still-in-house (SIH)

A record that is complete with the exception of items that can only be provided when the infant is discharged, in other words, the episode of care relevant for the NICU Data collection has not yet ended.

### **Error (ERRSPND)**

A record with some blank fields and with one or more inconsistencies. The number of inconsistencies or errors is shown in the ERR column specific to each form. The errors can be reviewed using the error report.

### **Error (ERRSIH)**

A record with one or more inconsistencies related to SIH fields, i.e., fields that can only be provided when the infant is discharged and the episode of care has ended.

### **Error (ERRS)**

A record without blank fields, but with one or more inconsistencies. For instance, if based on the CPeTS form the infant was on nasal CPAP at referral, however Nasal CPAP or DR CPAP are not answered Yes.

### **Deleted (DEL)**

A record that has been marked as deleted

## **Summary of EDS Procedures for 2021**

### **What to Expect**

It is important to closely follow the rules about the EDS file name and its structure. If your NICU is approved for EDS submissions, the EDS intake process is facilitated through the NICU data website, in other words EDS files can be uploaded and are immediately processed upon upload.

There is no restriction to the number of EDS files that can be uploaded per day. 2021 EDS files are accepted through the end of close-out of the 2021 birth year in June 2022.

### **Submitting EDS Files for the 2021 Birth Year**

1. Prepare your EDS file according to the specifications outlined above regarding file name and file structure.
2. Log in to the NICU Data site at [www.cpqccdata.org](http://www.cpqccdata.org).
3. Select **Upload EDS File** in the left sidebar.
4. Follow the menu to upload your EDS file.
  - In the first upload step, the intake system verifies that your EDS file is named correctly and follows the required specifications.

- If your EDS file passes this check, you may complete the upload using the menu returned. This second step processes the records in your EDS file and adds them to the NICU Data data files.
  - If your EDS file does not pass this check, you will receive a message explaining the problem. For example: If the length of the filename including the extension and period is not equal to 16, the following error message will appear: *“Error: The length of the filename including the extension and period is not equal to 16. Unable to process EDS file. Please contact CPQCC Support if you have questions.”* You have to address the problem(s) and then retry uploading your file.
5. After the records in your EDS file are processed, a summary page is displayed describing the content of the upload including any record rejections. Please review this summary carefully.
  6. To verify that your records were uploaded as intended, review the records submitted for your NICU by clicking on Edit Data in the left sidebar. Sort your list by date of last update by clicking the header **“Last Updated.”** All the records added from your EDS file should have the same date of last update. The STTS (record status) column can be used to identify records with errors and incomplete records.
  7. To locate uploaded records with errors, click on Data Reports in the left sidebar and select Error Report to obtain a list of fields in error. You can either fix these errors using the web interface, or you can include these records in another EDS file and correct them with another EDS upload.

**NOTE:** There is no limit to the number of files that can be submitted per day.

## Updating Records for Infants born in 2020 who were Still In-House Infants on the 2020 Close-Out Date

Records for infants born in 2020 who were SIH at the time of the 2020 close-out in June 2021 MUST be updated through the NICU Data site at [www.cpqccdata.org](http://www.cpqccdata.org). 2020 EDS files are no longer accepted after a birth year's close-out process has completed.

## Common File Errors

Here are some of the more common errors that you may see, and how to correct them.

1. File name does not begin with the letter H. Make sure the file name fits the specifications in the [File Name](#) section.
2. File name does not have EDS in positions 6 through 8. The file must be named in the format “HmmmEDSxxxx”, where *mmm* is your center number and *xxxx* is the file number in order of submission. For details, please see the [File Name](#) section.
3. File does not have the .zip extension. All files submitted must be compressed using the “zip” utility, which appends “.zip” to the file name. Make sure that your file is properly compressed and named before submitting.
4. Center is not approved for EDS submission based on the center ID number in the file name. Before starting your first EDS submission, make sure your center is approved for EDS submissions.
5. The EDS password is incorrect. Review your NICU's EDS password on the NICU Settings page and ensure that this password is used to encrypt your EDS file.



6. Either the zip file could not be unzipped successfully (the EDS password is incorrect), or the file or files in the zip archive are not named correctly (see the [File Name](#) section).
7. File number previously used. This means that the file number has already been used; please select the next available number in sequence after the last one submitted. File numbers can be viewed as follows:
  - a. Log into NICU Data
  - b. Select birth year 2021
  - c. Select **Data Reports** from the navigation pane.
  - d. Select **EDS Activity**
8. Incorrect extension (extension is not .txt or .csv). Example: The .zip file could be unzipped, but the file it contained did not have the correct extension. Check to be sure that the file is of the correct type and then correct the extension before re-zipping) and uploading to the NICU data site.
9. Data fields required are not present or not in the correct order in submitted data.
10. The submitted file does not have the same file number and center number for all records.
11. The length of the file name, including the extension and period, does not equal to 16. See the [File Name](#) section for instructions on how to name data files, and correct the file name.
12. ZIP file is corrupted. Cannot use this file. The .zip file cannot be properly unzipped and read. You may need to recreate the .zip archive file. Use the test archive feature of your archiving software to ensure that the archive is not corrupt.
13. The BYEAR is not 2021 for all records.

You might also encounter the message that the file number is not in sequence. Note that this message is a warning, the EDS upload is still allowed. If an EDS file has an out-of-sequence number, this may mean that one or more files were not uploaded when they should have been. Please check to make sure all files were uploaded properly as intended.

## EDS Specification Sections

CPQCC's NICU Database includes delivery room death (DRD), admission/discharge (A/D) and acute transport-in (CPeTS) data.

The 2021 EDS file is divided into three sections:

1. Tracking fields section (described below)
2. CPeTS section (described in the [2021 CPQCC EDS Specifications](#))
3. DRD and A/D section (described in the [2021 CPQCC EDS Specifications](#))

### Tracking Fields

The following fields are used for file control. Although – with the exception of the DELETED and BYEAR fields – these fields are not included on the CPeTS, DRD or A/D databases and the on-line data collection forms, these fields are important for EDS file tracking.

#### File Number (FILENUM)

Files must be named in the format “HxxxxEDSnnnn.csv” or “HxxxxEDSnnnn.txt” and the **FILENUM** field must be the same as the file number *nnnn*.

A file is not processed if the file number was previously used.

### **File Date (FILEDATE)**

The **FILEDATE** field contains the date that the file was generated on your system.

Every record in a file must have the same file date (mm/dd/yyyy). An EDS file is rejected otherwise.

### **Deleted Records (DELETED)**

There are situations when an infant’s record must be removed from the database. For example, a user may discover that a reported infant is not eligible. For these situations, such a record should have the **DELETED** field set to 1.

For all other records, the **DELETED** field should be left blank.

Records with the **DELETED** field set to 1 remain in the NICU Database, and their record ID cannot be re-used.

**NOTE:** Records deleted before ever being exported to CPQCC may be removed from the center’s computer system entirely and the record ID may be re-used.

### **Application Used to Submit Records (APPLICATION)**

This optional field is used to specify the name of the application your center uses to generate the EDS file. Although not required, the application name can be useful if assistance is needed from the Data Center team to resolve file submission problems.

### **Application Version (VERSION)**

This optional field allows a user to report the version number of the application used to generate EDS files. Although not required, the application version information can be useful if assistance is needed from the Data Center team to resolve file submission problems.

### **Birth Year (BYEAR)**

This field must contain the infant's birth year. All birth years in the file must be the same, because the file’s format may change from year to year.

### **Acute Transport-In Eligibility (ACUTETRS)**

This field must contain a “1” if the infant was acutely transported **into** your NICU and qualifies for a CPeTS form, and a “0” if they were not. If an infant was acutely transported in, all CPeTS data fields must be filled in, otherwise they may be left blank.

**NOTE:** Not all acute transports require a CPeTS form, for only the first transport.

## Record Keys

### Center ID (HOSPNO)

This field must contain the center's network ID number. It must match the network ID number in the file name ("xxxxx" as explained previously). All records must contain the same center network ID.

### Record ID (ID)

Each infant record must include a unique Record Identification Number (ID). No two infants at a center may have the same ID. A record ID is the unique identifier for an infant within one NICU during a single [episode of care](#).

## Records for Infants Who Are Not Transported-Out

If an infant does not transport-out from your center to another hospital, all fields on the Transport/Post-Transport Form should be submitted with the appropriate N/A codes.

## Delivery Room Death Records

For infants who die in the delivery room, per EDS specifications, the fields that appear on the Admission/Discharge Form and CPeTS Form, but which do not appear on the Delivery Room Death Form, must be coded using the appropriate not applicable N/A code.

## Appendices

### Appendix A. 2021 CPQCC EDS Specifications

## Appendix B. 2021 CPeTS Special Situation Overrides