

# Electronic Data Submission (EDS)

*2020 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 whole process much more efficient.

### Benefits of EDS Participation

EDS allows a member center to upload many records at once, which can be very efficient, rather than having a staff member entering the records on the NICU Data website, one infant at a time. EDS may also get rid of the need to abstract data out of the EMR for entry.

### Caveats and Considerations

Centers that elect to participate in EDS are those that have set up database queries or other types of programs to extract data from their EMR into electronic files in the CPQCC NICU format, the specifications for which 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.

For more information on infant eligibility, please see the manual *Is That Baby Eligible?* on the CPQCC website.

An experienced programmer or software developer is an integral part of the data collection team for any 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 Currently Participating in EDS

Centers who have participated in EDS in past years are encouraged to continue. Please read through these instructions and contact the CPQCC Data Center team with any specific questions you may have by submitting a [support](#) ticket.

### Centers That are New to EDS

Centers who are interested in participating in EDS are encouraged to 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 through EDS unless they have been approved by the Data Center team. Please submit a [ticket](#) to discuss your center’s capacities and to make specific plans for submitting 2020 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.

Filenames 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 [ticket](#).
- “xxxx” represents a four-digit sequential file number.

The file number must be sequentially numbered by the member’s system to uniquely identify each electronic file submitted to CPQCC (no gaps in sequence). Since 2006, CPQCC has required members to assign their first file with number 1000. File numbers must stay sequential for all subsequent data submissions. Every file submitted after the first submission must have the file number incremented by 1 so that missing file submissions can be identified. Every record in a data file must have the same file number, and no file will be processed until the previous file number has been received and processed. In other words, you will eventually have files 1000, 1001, 1002, etc. **For example, the first EDS file submitted by Center 999 would be called H0999EDS1000, the second H0999EDS1001, etc.**

**NOTE:** each file must contain records from **only one** birth year. For example, you cannot include an infant born in 2019 in a file with infants born in 2020.

### Fields

A field contains a single piece of information about each unique admission being submitted to the NICU database. The new 2020 EDS Specifications for the NICU Database (which contain the NICU and Transport data sets) list the fields required for electronic submission of data beginning in 2020. The 2020 EDS Specifications specifies 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 2020 EDS Specifications document available on [CPQCC’s website](#). These files do not have component tables or worksheets. A text file

submission would simply be a “flat file” named either **HnnnnEDSxxxx.csv** or **HnnnnEDSxxxx.txt**.

**NOTE:** For 2020, text file submitters **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 “12/12/2020 {space}12:00” instead of 12/12/2020 {space}12:00.

## Records

Each unique admission reported in your data constitutes a record. A record is made up of its component fields (for definition of , see below). This glossary contains common terminology that we use in describing the records contained in submitted EDS files. A record describes one infant’s episode of care in the NICU. For more on eligibility and definitions of episodes of care, please see *Is That Baby Eligible?*

### New Record

A record that has been sent to CPQCC for the first time, in a file that is compatible with our specifications, and is processed.

### Updated Record

A record which has been changed since its submission to CPQCC.

### Deleted Record

A record that has been resubmitted with the “delete” field set to 1 (coding the delete field as 1 instructs the CPQCC Data Center team to delete the record from the center’s data). ID numbers for submitted records that are later deleted cannot be reused for another infant’s record.

## Values for “Record Status” in NICU Database

Once you have uploaded your EDS file, you can examine the uploaded records by selecting **Edit Data > 2020** from the navigation pane on the NICU Data site. The “status” field (header **STTS**) will show the status of each individual record, whether it has been added to the NICU Database, is pending, and so on. See below for status codes.

### Complete Record (CMPLT)

A processed record in which there are no blank fields.

### Pending Record (PND)

An incomplete record with blank fields.

### Error (ERR)

A record which contains inconsistencies. i.e., birth date on AD form does not match birth date on CPeTS form.

### Still in Hospital (SIH)

A record for an infant that is still in the hospital.

### Not Eligible (N)

A record that is not eligible for the NICU Database.

## Summary of EDS Procedures for 2020

### What to Expect

As explained above, for successful EDS, it is important to closely follow the rules about file names, contents, and so on. Once you submit your EDS file or files, the NICU Data Center team will screen the file within 24 hours and let you know if there are any problems, including not following the specifications.

### Submitting EDS Files (2020 Birth Year)

1. EDS Upload. Log in to the NICU Data site at [www.cpqccdata.org](http://www.cpqccdata.org). The files must follow the specifications listed in this manual, must be named correctly (see \_\_\_\_\_), and must be zipped and password protected with the EDS password, which is provided by the data center once the center has been approved for EDS uploads. If you do not know your password, please file a [Help Desk](#) ticket.
2. Select **Upload EDS File** on the navigation pane and choose your EDS file from your file system.
  - a. After uploading the EDS file, you will get a summary report on the number of records uploaded and updated.
    - i. If the EDS file does not meet the specifications described in these instructions, the following error message will appear: *“Unable to process EDS file. Please contact CPQCC Support if you have questions”* along with the error description. 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.”*
  - b. Select **Edit Data > 2020** from the navigation pane. Sort your list by date of last update by clicking the header **“Last Updated”**; this will put all of the new records together, and allow you to verify that the new records were added. They all should have the same date and time of last update. By filtering by the date of last update, you will be able to verify that all records in your EDS file were successfully uploaded. To filter by a particular date, enter the date into the search box at the top right, just as it is displayed in the data table (e.g. “2020-12-21”).

- c. Filter the list so only the most recent updates are included and add ERR to the filter, so you can see whether the new records have any errors (you can also just enter ERR in the search box, but that will include any records with errors, not just those uploaded). To do this, enter the most recent update date into the search box as noted above, and select “Record status in-error due to errors on any form (ERRS)” from the drop-down box above the data table.
- d. If you find errors, run an error report by selecting **Data Reports > 2020** and selecting “Error Report” or “Error and Warning Report” from the list. This will display a table with a list of records showing errors (or errors and warnings). You will see:
  - i. **Record ID** – this identifies the individual record and is also a link directly to that record so you can correct it easily
  - ii. **Issue #** - if there are multiple issues with a single record, this number identifies each error individually. Records with a single error will display “1” here.
  - iii. **Description of Data Issues** – this will explain the problem with the record. If there is a warning, two radio buttons will show: Followed Up and Not Yet Followed Up. After reviewing the warning, select “follow up done” and “Save warning” otherwise, it will be left as “not yet followed up”.
  - iv. **Form** – where the error shows up: Admission/Discharge (AD) form, Delivery Room Death (DRD) form, Transport Form (CPeT’s)
  - v. **Item #** – the number and name of the field with the error.
  - vi. **Current Data Value** – the current value of the field with the error.

If you find a systematic error, please talk to your data team who creates the EDS files to have them address the problem.

- e. Note that you can also find all records that are pending after the update. To do this:
  - i. Select **Edit Data > 2020**
  - ii. Enter the most recent update date into the Search field
  - iii. Select “Record status pending due to pending (non-SIH) items on any form (PND)”.

This will cause a list of records with pending status to be displayed; these records will require additional edits.

## Submitting EDS Files (2019 Birth Year)

As noted before, records for infants born in 2019 may not be included in an EDS file with records for infants born in 2020.

Records for infants born in 2019 must be submitted or updated in the 2019 EDS format, as described in the 2019 EDS Instructions available on the [CPQCC website](#).

Send any new records or updates to records for infants born in 2019 as zipped and EDS password protected files to the NICU Data site.



## Updating Records for Still In-House Infants Born in 2019

Records for infants born in 2019 **MUST** be submitted or updated through the NICU Data site at [www.cpqccdata.org](http://www.cpqccdata.org).

### Common File Errors

Here are some of the more common errors that you may see, and how to correct them. (Refer to submitting EDS Files section for instructions on how to review errors.)

The EDS Error Check function issues errors for any of the following conditions:

1. File name does not begin with the letter H. Make sure the file name fits the specifications in the \_\_\_\_\_ section.
2. File name does not have EDS in positions 6 through 8. The file must be named in the format “H*nnnn*EDS:*xxxx*”, where *nnnn* is your center number and *xxxx* is the file number in order of submission. For details, please see the \_\_\_\_\_ 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 you have followed the instructions in the \_\_\_\_\_ section.
5. File number is not in sequence (still allows addition of EDS file, but issues a user warning). As noted in #2 above, the file number (part of the file name) must be incremented by one for each submission (for example, 0120, 0121, 0122). If a file is detected with an out of sequence number (e.g. 0125), 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.
6. The EDS password is incorrect.
7. 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 \_\_\_\_\_ section).
8. File number already present in master database. 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 **Data Reports > 2020** from the navigation pane.
  - c. Select **EDS Activity**
9. Incorrect extension (extension is not .txt or .csv). Example: The .zip file was opened, the file or files 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.
10. Data fields required are not present or not in the correct order in submitted data (CSV files).
11. The submitted .csv file does not have the same file number and center number for all records.

12. The length of the file name, including the extension and period, does not equal to 16. See the [section for instructions on how to name data files](#), and correct the file name.
13. 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.

## Tracking Fields of the EDS Specifications

### NICU Database

CPQCC's NICU Database includes transport data. The 2020 EDS file is divided into three sections:

1. Tracking fields section (described below)
2. Transport data section (described in the [Transport Data Section](#))
3. NICU data section (described in the [NICU Data Section](#))

### Tracking Fields

The following fields are used for record and file control. Although these fields are not included on the transport and the NICU data collection forms, they are an important part of the export file and help to keep your data secure and organized.

#### File Number (FILENUM)

This must be the same as the number in the file's name. Files must be named in the format "HxxxxEDSnnnn.csv" (or .txt) and the **FILENUM** field must contain the file number *nnnn*. As noted earlier, all EDS files must be sequentially numbered to uniquely identify each file submitted to CPQCC (no gaps in sequence). The first file number submitted in 2020 **MUST** sequentially follow the last file number that was submitted in 2019. For example, if the last file number submitted in 2019 was 0999, then the first file number submitted for 2020 should be 1000. Every file submitted after the first submission must have the file number incremented by 1 so that missing file submissions can be identified (i.e., 1000, 1001, 1002). Every record in a data file must have the same file number, and no file will be processed until the previous file number has been processed.

#### File Date (FILEDATE)

The **FILEDATE** field contains the date that the file was uploaded or sent from your system. Every record in a file must have the same file date (mm/dd/yyyy).

#### Deleted Records (DELETED)

There are occasions when an infant's record must be removed from the database. For example, a user may discover that a reported infant was not eligible. To accommodate these situations, each record must include a field named **DELETED**. To delete a record, the **DELETED** field must

contain the numeric value 1. For records that should not be deleted, the **DELETED** field should be left blank. Whenever a valid or deleted record has been submitted to CPQCC, the ID number of the infant must not be re-used for another infant, because submitted records which have been deleted remain in the NICU Database.

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

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

This optional field is used to specify the name of the application used for data submissions. Although not required, the application name will 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 for data submissions. Although not required, the application version information will be useful if assistance is needed from the Data Center team to resolve file submission problems.

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

This field must contain the birth year for the infant. All birth years in the file must be the same, because the file's format may change from year to year. For files containing records for infants born in 2019, please see the 2019 EDS Instructions available on the .

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

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

## **Record Keys**

### **Center ID (HOSPNO)**

This field must contain the center's ID number. It must match the ID number in the file name ("xxxx" as explained previously). All records must contain the same center 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. For example, a record ID would identify the care an infant received upon being admitted to NICU A up until the point they were either discharged home or transferred to another hospital. If the infant was transferred to another hospital before being discharged home, the care received in NICU B would fall under the same episode of care; however, a new record ID

would be generated by NICU B. Discharge home from either NICU A or NICU B would trigger the end to that episode of care.

**NOTE:** The Center ID (HOSPNO) and Record ID fields must uniquely identify each record in an exported file.

In 2020 all members are advised NOT to skip 10 IDs between submission years UNLESS the user has not yet closed out the center's data for 2019. For example, if you are still submitting IDs for infants born in 2019 AND are also submitting new IDs for infants born in 2020, you may still skip 10 IDs between submission years to avoid overlapping. Otherwise, please continue with the next ID number that is in sequence with the previous ID number. For example, if the last infant in 2019 was 490, then the 2020 Starting ID Number should be 491. If you are unsure about your starting ID Number, please submit a ticket.

## Records of Infants Who Do Not Transfer

If an infant does not transfer 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, the fields that appear on the Admission/Discharge Form and Transport/Post-Transport 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. 2020 CPQCC EDS Specifications

## Appendix B. 2020 CPeTS Special Situation Overrides