

# Submitting Data to the Vermont Oxford Network:

## Introduction and Reference Guide for Interface Developers

**About Vermont Oxford Network:** Vermont Oxford Network (VON) is a non-profit voluntary collaboration of health care professionals dedicated to improving the quality and safety of medical care for newborn infants and their families. Established in 1988, the Network is today comprised of over 1200 Neonatal Intensive Care Units around the world.

In support of its mission, the Network maintains a Database including information about the care and outcomes of high-risk newborn infants. The Database provides unique, reliable and confidential data to participating units for use in quality management, process improvement, internal audit and peer review.

More detail about the Vermont Oxford Network's mission, history, and projects is available at [www.vtoxford.org](http://www.vtoxford.org).

**About the VON Databases:** Member hospitals choose to submit data to the Very Low Birth Weight (VLBW) Database, or to the Expanded Database.

**Overview of the Data Collection Process:** Member centers are expected to submit data periodically throughout the year, so at any given point there are likely to be records in different stages of the data collection process. Depending on the business process created, vendor software may be involved with one or more of the stages of the data collection process.

**Eligibility:** The process of determining which infants meet VON eligibility requirements differs based on whether a member center participates in the VLBW Database or the Expanded Database. The eligibility requirements are described in detail within the [Manual of Operations, Part 1](#).

**Completion:** Once eligible infants have been identified, all of the applicable data items must be completed based on the data definitions described in Part 2 of the Vermont Oxford Network Database Manual of Operations. When using an entry from another data source (e.g., an EHR system) to complete a VON data item, it is critical to ensure that the item from the other data source is an *exact* match to the Vermont Oxford Network's data definition for the item.

[www.vtoxford.org/downloads](http://www.vtoxford.org/downloads)

**Submission:** Data is sent to VON, either by uploading directly to [www.vtoxford.org](http://www.vtoxford.org) or via the eNICQ 6 Infant Data Collection System, which is software produced by Vermont Oxford Network. More information about the submission options is provided below.

**Validation:** VON utilizes extensive error checking to ensure the quality of data collected. For member centers that use the eNICQ software, data is checked within eNICQ before it is submitted to VON. Records with blank data items or errors are not submitted to VON by eNICQ. Regardless of the format in which they are submitted, all records are validated once they are received by VON. Data collection representatives at member centers are notified of any errors or blanks in submitted records, either via documentation sent by a VON Account Manager, or using the Data Management area in Portal at [www.vtoxford.org](http://www.vtoxford.org).

**Correction:** Any data items left blank or containing errors must be completed or corrected. This aspect of the process will vary depending on whether the center submits data using the VON website or using the eNICQ software.

**Resubmission:** Corrected records are resubmitted to VON, and are validated again upon receipt.

**Data Submission Options:** There are several options for submitting data to VON, each of which has advantages and drawbacks.

**Submitting Data using eNICQ 6:** Data from an external source may be imported into eNICQ 6, which includes user-driven submission capabilities. Data may be added to eNICQ 6 via direct update to the eNICQ 6 External Tables in the application, or a CSV or XML file may be imported through the application. The eNICQ 6 user initiates the transfer of data from the External Tables to the live eNICQ 6 database, and also initiates the submission of data to VON.

<b>Advantages</b>
Reduced interface maintenance burden: eNICQ 6 allows for data files containing extraneous fields, or data files that do not include fields that are contained in the External Tables. This reduces the urgency to update the data interface between the external source and eNICQ 6 when annual changes to the dataset collected are made by VON.
Validation of data is handled within eNICQ 6, allowing for errors or missing data items to be corrected manually by the eNICQ 6 user before data is submitted to VON.
Automated configuration of member center's certification information reduces the potential for conflict caused by improper record ID assignment, errors in encryption password entry, confusion about which database the center participates in.
Dynamic data definition display helps a user to understand and resolve any errors or blank data items.
<b>Drawbacks</b>
Member center must install, secure and maintain eNICQ 6 application and database.
The vendor assumes responsibility for the design and maintenance of the interface between the data source and eNICQ 6.
Increased responsibility for the eNICQ 6 user to manually import data, correct and complete data items as needed, and submit data to VON.

**Resources for Interfacing With eNICQ 6:**

(available at <https://public.vtoxford.org/enicq-6> )

eNICQ 6 Installation Guide

eNICQ 6 Installer

(available at <https://vtoxford.zendesk.com/hc/en-us> )

eNICQ EDI: eNICQ 6 External Data Interface Developer's Guide

**Submitting Data to [www.vtoxford.org](http://www.vtoxford.org):** XML Data may be routed directly to the Vermont Oxford Network's Web Service, or a CSV or XML file can be created and sent to VON by HTTPS using the Upload Data section of the website.

<b>Advantages</b>
No need to maintain a second application.
Reduced need for user interaction with the data submission process.
No need to keep data in synch between applications.
Greater vendor control over the data collection process.
<b>Drawbacks</b>
Because records are not error checked by eNICQ before they are sent, there are likely to be more errors that require correction, which must be done by submitting updated records.
Greater need for attention to compliance with VON data definitions, as data will not be validated within eNICQ before being submitted to VON.
Annual updates to the data collection system will be required, as most years some data items are added, changed, or removed from collection. At the beginning of each new year, centers will not be able to submit data until the format has been updated.

**Resources for Submitting Data to [www.vtoxford.org](http://www.vtoxford.org):**

(available at [www.vtoxford.org/downloads](http://www.vtoxford.org/downloads))

EDS Instructions

Manual of Operations: Part 1

Manual of Operations: Part 2, Data Definitions, Data Forms, Submission Timeline