



QCMitt

AUTOMATING DATA COLLECTION
FOR THE ACS NSQIP

AMERICAN COLLEGE OF SURGEONS

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Data Automation vs. Manual Data Entry

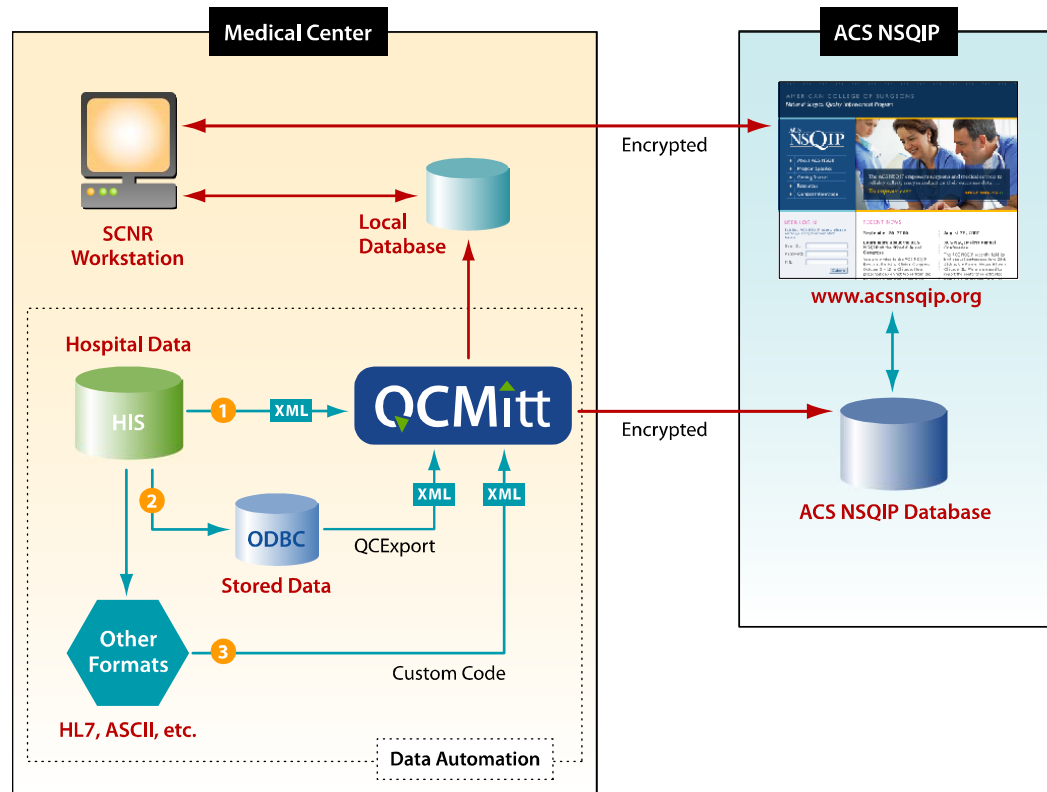
For each surgical case entered in the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP), there are over 150 separate variables that need to be collected and entered in the program database. Multiply that number times the weekly case requirement and you're talking a lot of manual data entry—of data that often already exists in other hospital information systems.

As provider of the ACS NSQIP infrastructure and manager of the day-to-day operations of the program, QCMetrix fully understands the demands of the Surgical Clinical Reviewers (SCRs) in collecting and entering all this clinical data. That is why we developed QCMitt as a way for hospitals to securely—and automatically—extract the required variables directly from their IT systems and transmit them to the central ACS NSQIP data store.

The results? Analysis has shown that *QCMitt reduces the SCR's workload by up to 30%*. Freeing up time that can be much better spent assessing the quality of the data, collecting more cases, following up with patients, and performing other facets of their job.

HOW IT WORKS

QCMitt (also known as “The Catcher’s Mitt”) is a data automation tool that allows a medical site to transmit ACS NSQIP information to a remote data capture interface. QCMitt “catches” an export document (written to a specified XML schema), parses the file, and delivers the HIPAA-compliant data to the ACS NSQIP database while storing any patient-identifying information in a local database safe within the confines of the hospital’s firewall.



The very basic concept of QCMitt boils down to:

- **First, Extract the Data** – Under the medical center’s control, the data is extracted into the XML document. *NOTE: QCMitt does not extract data from the various computer systems found in a medical center. It is the responsibility of the medical center to either extract the data into an XML document or extract the data into any ODBC-compatible data source.*

There are actually three ways to extract the required variables from internal hospital systems. Data can be exported:

- directly out of a particular system in the defined XML schema.
 - out of the system and stored in an ODBC-compliant database. Using custom code written by the medical center, the data is extracted out of the hospital information system(s) and stored in an ODBC-compliant database. QCMetrix provides the medical center with QCEXport, a utility that translates the stored data into the proper XML schema for use with QCMitt.
 - using another defined format such as ASCII, or HL7. Custom development by the medical center can translate these formats into QCMitt’s XML format.
- **Then, Submit the Data** – Under the medical center’s control, the XML document is transmitted to the ACS NSQIP database. Medical centers have the option of either writing their own applications to consume the QCMitt Web services, or by running the *Submit Client* program provided by QCMetrix.

A ONE-WAY STREET

QCMitt transmits data to the ACS NSQIP via secure HTTPS transport protocols. This encrypted communication always occurs in one and only one direction: a push from the hospital’s server to the ACS NSQIP Web server. *Data is never pulled by the Web server.* This feature adds significant security and control to the participating medical center.

Benefits

Data required for the ACS NSQIP has already been entered manually in various IT systems throughout the hospital. Why gather this data and enter it again by hand when QCMitt can automate the entire process? It streamlines the program’s entire variable-collection process including the transmission, reception, and validation of the data.

The many significant benefits of the application include:

- An estimated savings of 13.3 hours per week, or approximately 30% of the SCR’s weekly workload.
- Elimination of double data entry.
- Decreased paperwork.
- Improved quality in the data transmitted to the ACS NSQIP.
- A higher volume of cases entered in the program.
- Faster, earlier transmission of cases.
- More efficient use of staffing resources.

System Requirements

To properly install and run QCMitt, your computer needs the following:

- Microsoft .NET Framework Version 2.0 Redistributable Package.
 - **Supported Operating Systems** – Windows 2000 Service Pack 3; Windows 98; Windows 98 Second Edition; Windows ME; Windows Server 2003; Windows XP Service Pack 2.
 - **Required Software** – Windows Installer 3.0 (except for Windows 98/ME which require Windows Installer 2.0).
 - IE 5.01 or later.
- Microsoft Data Access Components 2.8 or later.
- **Memory** – 32 megabytes (MB) of RAM, 96 MB recommended.
- **Hard Disk** – 1 MB of hard disk space required, 25 MB additional hard disk space is required if .NET framework is not installed.
- **Database** (Optional) – Any ODBC-compliant database used for the local data in conjunction with the SCNR Workstation.

Frequently Asked Questions

If my hospital is part of the ACS NSQIP, do we have to use the QCMitt application?

No. Use of QCMitt is entirely optional. It was designed simply to lighten the load of the SCR by automating much of the data collection process. Hospitals can always elect to do all of the data entry manually.

Is there an additional charge for QCMitt?

Use of QCMitt and help getting it implemented at your site is included in your annual participation fee. You just need to budget for an IT personnel resource at your site to work with us for approximately 1-3 months to get the application up and running.

Can we get started with QCMitt right away?

Not quite. We require that your hospital be an active participant in the ACS NSQIP for 3-6 months before becoming eligible for QCMitt. This initial period ensures that your new SCRs get acclimated to the program and understand all the facets of the data collection process before moving to any automation. The SCR is always ultimately responsible for correct data being submitted to the program and is therefore integral to the implementation of QCMitt.

Who is typically involved in setting up QCMitt?

A successful installation of QCMitt requires the participation of three parties: the SCR; the medical center's IT staff; and QCMetrix. Usually the process takes 1-3 months from start to finish.

Does QCMitt work with the SCR Workstation?

Yes, these two applications can work together to make an SCR more efficient. The SCR Workstation is a desktop application used for carrying out many of the administrative duties of the ACS NSQIP such as submitting requests for medical records, sending out 30-day follow-up letters, and creating patient call lists. It utilizes a *local* database—residing inside a hospital's firewall—containing patient-identifying information not transmitted to the national database due to HIPAA restrictions (see SCR Workstation Manual). QCMitt, when transmitting the extracted data, can separate out these patient demographics and store them in the local database before sending the rest of the data to the ACS NSQIP. Please note that both applications work together and independently so you can use one or both of them. Of course, for the greatest efficiency we strongly recommend adoption of both.

Can I use QCMitt to update existing cases?

Yes, QCMitt can transmit data from brand new cases, as well as cases already in progress. To update an existing case the medical center must provide the Web Case Number (WCN) in the XML document.

What if we can't get all of the program-required data from internal systems?

Not a problem. In fact, many participating sites use a combination of QCMitt automation and manual data entry. Our advice is to automate what you can. And the more you automate, the more time you'll save the SCR.

Does QCMitt have a direct interface to my system(s)?

No, QCMitt does not connect directly to any internal systems. Instead, data is pushed/exported from these systems in the form of an XML file. QCMitt then receives this XML file and validates the data before transmitting it on to the national database and the local database (if the hospital is using the SCR Workstation).

How do we receive updates to QCMitt?

Updates to QCMitt rarely require updates to the client software. Most if not all changes are done to the remote Web services. If an upgrade to the client is required, QCMetrix will work with each site in providing the required software and performing the upgrade.

Is there ongoing support for QCMitt?

Yes, QCMitt, as with all ACSNSQIP products, is fully supported by QCMetrix.

What if we have no XML knowledge at our site?

There are other data formats you can use. You can export the required data from the internal systems to an ODBC-compliant database and use QCExport to generate the required XML.

Will it work with my firewall?

Yes. QCMetrix will work with your IT staff to safely and securely configure QCMitt to work with your firewall.

Getting Started

If your site participates in ACS NSQIP you're eligible to use QCMitt. First identify an IT resource that can assist in the implementation and introduce that person to the SCR as they'll be working together in getting QCMitt up and running. Once those two tasks are done, give QCMetrix a call at 781-290-5900, #2 and we'll take it from there!