CJRR Web-Based Data Submission and Reports Tool, User Manual

2017–2018
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1 Introduction

1.1 CJRR background

The Canadian Joint Replacement Registry (CJRR) is a pan-Canadian information system for hip and knee replacement operations. Its mandate is to record and analyze clinical parameters and outcomes of primary and revision hip and knee replacement operations over time. The registry was developed through a joint effort between the Canadian Institute for Health Information (CIHI) and orthopedic surgeons in Canada. The goal of CJRR is to provide information to help improve the quality of care and clinical outcomes of joint replacement recipients.

CIHI captures administrative information (including diagnoses and procedure codes) and demographic information on all discharges from acute care facilities in Canada, including hip and knee joint replacements and revisions, through the Hospital Morbidity Database (HMDB). CJRR was developed to provide a rich set of additional patient, clinical, surgical and prosthesis information to complement what is captured in the HMDB, to enable more in-depth analysis of hip and knee replacements and revisions. The goal of CJRR is to provide information that is designed to help improve the quality of care and clinical outcomes of joint replacement recipients.

For more information about CJRR, visit cihi.ca/cjrr.

1.2 CJRR Minimum Data Set

For procedures done as of April 1, 2012, CJRR has implemented its new minimum data set (MDS) across Canada, with the release of a revised, shorter version of the data collection form and new applications for web-based and electronic file data submission. The goals of the MDS are to align CJRR data elements with the standards recommended by the International Society of Arthroplasty Registries (ISAR), reduce the burden of data collection for providers while retaining key elements required for analysis and reporting, and increase participation in the registry.

Access to procedure information is limited to data submitted in MDS format only.

1.3 Privacy and confidentiality

As the custodian of numerous registries and databases, CIHI has stringent policies for ensuring that the privacy, confidentiality and security of its data holdings are protected. Information on CIHI’s privacy and confidentiality policies and procedures is available on its website at cihi.ca. CJRR’s privacy impact assessment is also available on the website at cihi.ca/cjrr.
Role-based access to the CJRR Web-Based Data Submission and Reports Tool ensures that all users are granted the appropriate level of access. Prior to use, all users of the tool must agree to the terms and conditions of use for the application, as specified on the Privacy and Confidentiality Agreement page.

1.4 Important references

These are some important references for users of the CJRR Web-Based Data Submission and Reports Tool:

- **CJRR Web-Based Data Submission and Reports Tool video demo**: Available at [cihi.ca/cjrr](http://cihi.ca/cjrr) in the section Participating in CJRR, Information for web-based data submitters.

- **CJRR Minimum Data Set Manual, 2017–2018**: Available at [cihi.ca/cjrr](http://cihi.ca/cjrr) in the section Participating in CJRR, Information for all data providers.

- **CJRR web page**: [cihi.ca/cjrr](http://cihi.ca/cjrr)

1.5 System overview

The CJRR Web-Based Data Submission and Reports Tool is a web-based application that

1. Allows you to submit hip and knee replacement data to CJRR online in a secure manner;
2. Provides real-time reports on a surgeon’s or hospital’s own data; and
3. Allows you to save pre-operative data and update records post-operatively. The application is accessible 24 hours a day, 7 days a week, via CIHI’s Client Services site (see Section 2.2.2, Logging in to the CJRR application) and is available in both English and French.

When you register with CJRR, you will be assigned 1 of 2 user roles based on the level of access you require (see Section 2.1, User roles, for more information regarding each user role). Patient information is available based on your user role. To register with CJRR, please contact Central Client Services at help@cihi.ca.

You can employ the web-based application to create records of patient and procedure information. When this data is saved, it undergoes a variety of quality checks. Once the mandatory data quality checks have been passed, the data is saved into the CJRR database. You also have access to various reports, in either English or French, detailing your submitted patient information and demographic and surgical statistics.
1.6 System configuration and registration requirements

1.6.1 System requirements to access the application

To access the CJRR Web-Based Data Submission and Reports Tool, you need a computer and live internet connection. Requirements for the operating system and internet browser are listed in Table 1.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Product and version</th>
<th>Service pack (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system</td>
<td>Windows 2000 or newer</td>
<td>Up-to-date service pack for all operating systems is recommended</td>
</tr>
<tr>
<td>Internet browser</td>
<td>Internet Explorer 6.0 or higher, Firefox, Chrome</td>
<td>n/a</td>
</tr>
<tr>
<td>Keyboard language</td>
<td>“US” (English) or “Canadian French”; other languages may be used only if you are not scanning barcodes</td>
<td>n/a</td>
</tr>
</tbody>
</table>

The recommended computer configurations for best screen quality include the following:

- **Zoom**: 100%
- **Screen resolution**: Highest colour quality (1152 × 864 pixels)
- **Encoding**: Western European (ISO)
- **Pop-up blocker**: Enabled (turned on)

**Note**: CIHI strongly encourages you to use only 1 browser window or tab when using the CJRR Web-Based Data Submission and Reports Tool. Opening the CJRR application in multiple browsers or tabs concurrently will create system errors and may result in the loss of information.
1.6.2 Registration requirements to access the CJRR system

Users who wish to access the CJRR Web-Based Data Submission and Reports Tool must satisfy these requirements:

- Users must request and sign a CIHI service agreement and other relevant documents by contacting Central Client Services at help@cihi.ca.
- Surgeons must be registered with CJRR; those not registered should contact CIHI by sending an email message to help@cihi.ca. CIHI’s Central Client Services will coordinate all steps of the registration process and access set-up.
- All users must be registered with the Client Services application on CIHI’s website, the access point to the CJRR system (see Section 2.2, Logon procedures).

1.6.3 Registering additional users

If you are registered to use the CJRR Web-Based Data Submission and Reports Tool and would like to create additional user accounts for your office, please contact Central Client Services by sending an email to help@cihi.ca. If the additional user to be registered is a surgeon who is not already participating in CJRR, he or she will have to complete a registration form; please contact Central Client Services at help@cihi.ca to receive a registration form.

Once the additional user profile has been created, you will be contacted with details about how the new user can access the system.

1.6.4 System availability

The CJRR Web-Based Data Submission and Reports Tool is available for use 24 hours a day, 7 days a week, with the exception of regularly scheduled maintenance and update periods.

During these periods, a message will appear on the main CJRR page notifying users that the system is undergoing maintenance. If this message is not present on your screen and the application is not functioning, please contact CIHI by sending an email to cjrr@cihi.ca.
2 Application access

2.1 User roles

There are 3 different user roles. Each user role has a different level of access.

- **Submitter**: This type of user has permission to create patient information records, create and update procedure information records, run reports and download data related to procedures performed at the designated facility. This user role may not be assigned in addition to the Viewer user role.

- **Viewer**: This type of user has permission to only view patient and procedure information, run reports and download own data. This user cannot create or update patient or procedure information records. This user role may not be assigned in addition to the Submitter user role.

- **Own Data Cut**: This role enables the user to download the Own Data Cut Report. It may be assigned in addition to either a Submitter or a Viewer user role.

All users will have their access limited to specific surgeon(s) within specific facility(s) that they have been authorized to view. This access will be managed by the Central Client Services team; please contact them at help@cihi.ca for any access changes.

2.2 Logon procedures

2.2.1 Logging in to Client Services

To access the tool, you must log in to CIHI’s website at cihi.ca. On CIHI’s home page, click the Applications link and then click CJRR — Web-Based Data Submission. This will bring you to the Client Services Login page (see Figure 1).
Enter your username and password into the appropriate fields and click **Login**.

After successfully logging in to Client Services, you will be directed to the Terms and Conditions of Access and Use page.

Please read through the terms and conditions to ensure you understand them (see Figure 2).
At the bottom of the Terms and Conditions of Access and Use page are buttons to indicate agreement with the terms and to request a printable format of them.

Click I Agree only if you understand and concur with the terms and conditions.

- Click to be forwarded to the My Services section of Client Services.
- Click to print a hard copy of the agreement.

The services to which you have access will be listed on the My Services page. The service required to access the CJRR application is CJRR — Web-Based Data Submission. All CIHI services, including the CJRR Web-Based Data Submission and Reports Tool, are restricted and require permission from CIHI. Please send an email to CIHI at help@cihi.ca to obtain access to CJRR’s web-based system.

### 2.2.2 Logging in to the CJRR application

Upon clicking CJRR — Web-Based Data Submission on the My Services page, you will be directed to the main CJRR welcome page (see Figure 3).

**Figure 3** CJRR welcome page

![CJRR welcome page](image-url)
2.2.3 Logging out of the CJRR application

You may exit the application and return to the My Services page from any location in the application. Before exiting the application, make sure you save any new or updated information.

**Note:** The CJRR application will automatically log you out if it is idle for 5 minutes or more.

To exit the CJRR application, click Log out — Back to Client Services in the menu to the left of the page.

This will bring you to the My Services page, where you must click Logout from the menu on the left side of the page to log out of Client Services (see Figure 4).

**Figure 4** Logging out of Client Services

![Figure 4](image)

**Note:** You must properly log out of both the CJRR application and Client Services to maintain privacy of the data. Please do not close your browser window without logging out of both the CJRR application and Client Services.
3 Entering information into the system

3.1 Patient information

3.1.1 Searching for patients

All users must first conduct a patient search to ensure the patient does not already exist for the given surgeon before doing any of the following:

- Creating a record for a new patient;
- Reviewing records for an existing patient;
- Creating a record for a new procedure for a patient; and
- Updating/viewing records for an existing procedure.

To begin a patient search, click Patient & Procedures on the left side of the page to see the submenu. From the submenu, click Patient Search. This will forward you to the Patient Search page (see Figure 5).
3 steps are involved in conducting a patient search:

**Step 1:** Identify the surgeon who performed the patient’s procedure.

- Users with permissions for 1 surgeon: The surgeon’s name will be displayed in the Surgeon field.
- Users with permissions for multiple surgeons: Select the appropriate surgeon name from the drop-down menu.

**Step 2:** Conduct a patient search by entering search criteria.

- Complete any or all of the fields to find the patient. When you click [Search], the relevant search results will be displayed.
- Users may leave the patient search fields blank. When you click [Search], a list of all of the surgeon’s patients will be displayed.

**Note for users assigned to multiple surgeons:** If you complete all patient information fields and subsequently change the surgeon’s name, all patient information will be cleared and must be entered again.

**Step 3:** Click [Search].

If all the search fields have been completed correctly, any patients matching the search criteria will be displayed.

The Patient Search Results page contains a patient information bar for each patient found in the search (see Figure 6).
The patient information bar provides a quick view of the requested patient. The following columns are provided for each patient record:

- **Surgeon/Patient ID**: The patient number assigned by the system.
- **Patient First Name** and **Patient Last Name**: The patient’s given name and surname.
- **Gender**: The patient’s gender.
- **Province**: The province that issued the patient’s health card.
- **Health Card**: The patient’s health card number.
- **Birth Date**: The patient’s date of birth.
- **Surgeon Name**: The name of the patient’s surgeon.
- **View Patient**: A link to the Patient Data page, where you can view the patient’s information.
- **Add/Modify Procedure(s)**: A link to the Procedure History for Patient page, where you can create and update information on the patient’s procedure.

If there is no match for the search criteria, you will be directed to a page where you can either begin another search or create a new patient record.
3.1.2 Creating a new patient

Submitter users can create new patient records associated with the surgeon who conducted the procedure. New patient records may be created after a patient search confirms that the patient does not exist (see Section 3.1.1, Searching for patients). When this occurs, the Patient Search Results page will give you 2 options:

- Click Back to Patient Search if you are sure the patient exists or if there was an error in your patient search fields. Selecting this option will return you to the Patient Search page.
- Click Create New Patient to create records for a new patient for a given surgeon. This will bring you to the New Patient Data page (see Figure 7).

Figure 7  New Patient Data page

On the New Patient Data page (Figure 7), red asterisks (*) denote the fields that must be filled in when you create a new patient record. These mandatory fields are the following:

- **First Name**: Enter the patient’s given name. This must be a minimum of 2 characters and a maximum of 25 characters.
- **Last Name**: Enter the patient’s surname. This must be a minimum of 2 characters and a maximum of 25 characters.
- **Gender**: Select male, female or other from the drop-down menu.
• **Health Card Issuing Authority***: From the drop-down menu, select the province that issued the health card. If you select N/A, do not fill in the Health Card Number field; if you do, an error message will appear prompting you to remove the information. N/A should be selected only in cases where the health card number is not known (i.e., the patient does not have a health card number).

• **Health Card Number***: This field is mandatory when a valid Health Card Issuing Authority is selected. It is an essential field in the CJRR database to allow for functions such as following patients over time.

• **Birth Date***: Select the year, month and day of the patient’s date of birth from the drop-down menus.

**Note:** If any of these fields are incomplete or not completed correctly, an error message pertaining to the relevant field will appear at the top of the screen. The records will not be saved until all errors related to mandatory fields are corrected.

Once you have correctly completed the mandatory fields on this page, click **Save** to save the new patient record in the database.

Once the information has been saved, the Patient Data page will appear (Figure 8).

**Figure 8** Patient Data page
There are 2 buttons at the bottom of the Patient Data page:

**Go to Procedures:** Click this button to create and modify information for the procedures associated with the chosen patient and relevant surgeon. Clicking this button will forward you to the Procedure History for Patient page.

**Back to Search Results:** Click this button to return to the Search Results page.

### 3.1.3 Correcting/deleting patient information

If any existing patient information needs to be corrected or deleted, you must contact CJRR. **Do not send personal health information via email or fax.**

To review records for an existing patient, perform a search for the patient. This will bring you to the Patient Search Results page (see Figure 9). The steps to follow to conduct a patient search are outlined in Section 3.1.1, Searching for patients.

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**Figure 9** Patient Search Results page

To view a patient profile, click View Patient (see Figure 9).
3.2 Procedure information

3.2.1 Creating joint procedure records

Submitters can create and update a patient’s procedure record.

To create a record for a patient’s hip or knee procedure, the patient must already exist for that surgeon; otherwise, a new patient record must be created.

Creating a new procedure for a patient who already exists

Note: Only those procedures submitted in the minimum data set format will be displayed on the Procedure History for Patient page. Users will be permitted to access procedures that pertain to their own facility only for restricted surgeons.

- Begin by searching for your patient (see Section 3.1.1, Searching for patients).
- You will be forwarded to the Patient Search Results page that lists patients for a particular surgeon.
- Click the Add/Modify Procedure(s) arrow for the required patient.
- This will forward you to the Procedure History for Patient page.
- Click the appropriate button (either Create New Hip Procedure or Create New Knee Procedure) to create the new procedure record (see Figure 10).

Figure 10 Procedure History for Patient page
Creating a procedure for a new patient

- Create a record for a new patient (see Section 3.1.2, Creating a new patient).
- Once this is done, you will be forwarded to the Patient Data page.
- On the Patient Data page, click Go to Procedures.
- You will be forwarded to the Procedure History for Patient page (see Figure 10).
- Click the appropriate button (either Create New Knee Procedure or Create New Hip Procedure) to create the new procedure.

3.2.2 Creating a new hip or knee procedure record

This section outlines the steps for creating a hip or knee procedure record. Please note that the steps for creating hip and knee procedure records are similar, although specific fields may vary.

Hip/knee procedure — Patient & Procedure Information (Page 1 of 2)

From the Procedure History for Patient page, click Create New Hip Procedure to create a hip procedure record or Create New Knee Procedure to create a knee procedure record. This will bring you to the Patient & Procedure Information (Page 1 of 2) page for the type of procedure (hip or knee) selected (see Figure 11). This is the first of 2 pages that must be completed. (Note: All fields are mandatory.)
Page 1 is divided into 4 sections, which are described below. At the very top of the page is the **Submission Date**, which is blank in the external application.

**Patient Information**

This section displays the patient’s demographic data, which cannot be updated on this page. If any patient information needs to be corrected, you must contact CJRR to request the correction. **Do not send personal health information by email or fax.**

**Home Postal Code**: This is a mandatory field. The patient’s valid Canadian postal code must be entered in the format A1A1A1, with no spaces. For patients who do not reside in Canada, enter Z9Z9Z9. The postal code will be validated against the province that issued the health card before you continue to the next page.
Facility Information

The fields in this section are the following:

- **Facility**: This is a mandatory field. The options in the drop-down menu will correspond to the facilities that the previously selected surgeon is registered with and that you have been granted access to.

  Select the facility where the surgery was performed from the drop-down menu of Canadian facilities. The facility chosen may or may not be the surgeon’s primary facility. Facilities are sorted by institution number.

- **Facility Chart Number**: This is a mandatory field. The patient’s chart number is the one on the chart in the facility where the surgery was performed (also known as Hospital Chart Number).

  **Note**: Health Card Number is not permitted in the Chart Number field. For instances where Chart Number is not available or Health Card Number is included in the Chart Number, enter “UNKNOWN.”

- **Surgery Date**: This is a mandatory field. Choose the year, month and date from the drop-down menus to form a valid date that is not later than the current date.

Key Procedure Identifiers

The fields in this section are the following:

- **Side (Location)**: This is a mandatory field, and only 1 option can be selected. This field represents the side on which the procedure was performed.

- **Type of Replacement**: 
  - Selecting Primary will disable the Reason for Revision option on page 2.
  - Selecting Revision will disable the Diagnosis Grouping section on page 2.

- **Type of Primary Procedure**: This is a mandatory field only if Type of Replacement is Primary. This selection determines which component stickers need to be completed.

Comments Related to This Procedure

This section allows you to add or view comments regarding the joint replacement. Clicking Add/View Comments will forward you to the Comments page.

The Comments page is optional and allows you to make additional comments of up to 1,000 characters pertaining to the hip or knee procedure. The Comments page is available from each page of the procedure record; comments are added cumulatively from one page to the next.

Once you have added comments, click Back to return to the first page of the procedure information record.
At the bottom of the page, the following buttons are used to save the partially completed record or to continue to the next page:

- Click **Save Back to Procedure History** to save only page 1. This action will validate the data on page 1 before returning to the procedure history. If mandatory fields are missing, you must complete them before returning to the Procedure History for Patient page.

- This partially saved procedure can be updated at a future date (e.g., once the patient’s procedure has been completed). Once the data has been saved, the page will return to the patient’s procedure history.

- Click **Next** to save the data entered on page 1 and continue to the second Patient & Procedure Information page. This action will validate the data on page 1 before continuing to page 2. If any mandatory fields are missing, they must be completed before continuing to page 2.

- Once page 2 has been completed and saved, the user will no longer be able to save from the first procedure page. Instead, the Save button will be replaced by **Back to Procedure History**.

**Error messages for mandatory fields**

If any of the mandatory fields are incomplete or invalid when you save the record, error messages will appear at the top of the page describing the error, and the relevant fields will be highlighted in red. You must correct these errors to continue to the subsequent page.

**The record will be successfully saved only if all mandatory fields are completed accurately.**

**Hip or knee procedure — Clinical Information (Page 2 of 2)**

Upon successfully completing the first page, you will be forwarded to the Hip Procedure — Clinical Information page (see Figure 12) or the Knee Procedure — Clinical Information page (see Figure 13).
**Figure 12** Hip Procedure — Clinical Information (Page 2 of 2)
### Figure 13  Knee Procedure — Clinical Information (Page 2 of 2)

#### Knee - Clinical Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis Grouping (Primary only)</td>
<td>Degenerative arthritis (e.g. OA), Inflammatory arthritis (e.g. RA, PsA), Osteoarthritis (e.g. OA)</td>
</tr>
<tr>
<td>Reason for Revision</td>
<td>Tumor (primary or metastatic), including revision, Fracture (ilium or tibia), Other</td>
</tr>
</tbody>
</table>

#### Knee - Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Femoral Component Involved</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Product Number</td>
<td></td>
</tr>
<tr>
<td>Lot Number</td>
<td></td>
</tr>
<tr>
<td>Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Tantal Component Involved</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Product Number</td>
<td></td>
</tr>
<tr>
<td>Lot Number</td>
<td></td>
</tr>
<tr>
<td>Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Tantal Inlay Involved</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Product Number</td>
<td></td>
</tr>
<tr>
<td>Lot Number</td>
<td></td>
</tr>
<tr>
<td>Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Patellar Component Involved</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Product Number</td>
<td></td>
</tr>
<tr>
<td>Lot Number</td>
<td></td>
</tr>
<tr>
<td>Contact Name</td>
<td></td>
</tr>
</tbody>
</table>

#### Comments related to this procedure:
- Previous
- Save/Back to
- Send/Print Report/Review
Diagnosis Grouping (for Primary Replacement Only)

This section describes the most responsible diagnosis for surgery and is mandatory only if the Type of Replacement (on page 1) is Primary. If the Type of Replacement is Revision, this field will be disabled.

If the Type of Replacement is Primary, select the most appropriate diagnosis from the radio buttons provided. Only 1 button may be selected.

Reason for Revision (for Revision Replacement Only)

This section describes the most responsible reason for revising the original surgery and is mandatory only if the Type of Replacement (on page 1) is Revision. If the Type of Replacement is Primary, this field will be disabled.

If the Type of Replacement is Revision, select the most appropriate reason for revision from the radio buttons provided. Only 1 button may be selected.

Hip/Knee — Components

This section provides information on the components that were implanted. The selections available will be enabled or disabled based on your previous selections for Type of Replacement or Type of Primary Procedure. You may add up to 3 implant stickers for each component, except Cement Used, where you may add up to 2 stickers only. Click + to add an additional sticker to a component.

- **Catalogue/Reference Number**: Enter the catalogue number of the replacement part used. This field has a maximum length of 60 alphabetical/numerical characters.
- **Lot Number**: Enter the lot number of the replacement part used. This field has a maximum length of 60 characters.
- **Manufacturer**: Select the part manufacturer from the drop-down menu. If the manufacturer is not listed, select Other and, in the field provided, enter the name of the manufacturer. This field has a maximum length of 60 alphabetical/numerical characters.
- **Cement Name**: Select the name of the cement used from the drop-down menu. Select the most appropriate option. If the cement used is not listed, select Other and, in the field provided, enter the cement name. This field has a maximum length of 60 alphabetical/numerical characters.
Note: As of April 2013, the CJRR electronic file submission and Web-Based Data Submission and Reports Tool systems were modified to accept product and lot numbers for implant components and cement that have been scanned directly from barcodes. The CJRR system is still able to accept manually entered implant information when scanning barcodes is not an option. Refer to the appendix for detailed instructions for both methods of data entry.

3.2.3 Updating/deleting an existing hip or knee procedure record

Updating an existing hip or knee procedure record

Submitter users have permission to update a patient’s existing procedure information.

Step 1: Perform patient search

First, you must perform a search for the patient whose procedure will be updated (see Section 3.1.1, Searching for patients).

On the Patient Search Results page, click the Add/Modify Procedure(s) arrow (see Figure 14).

Figure 14 Patient Search Results page

This will bring you to the Procedure History for Patient page (see Figure 15).
**Step 2: Select the procedure**

Click the Procedure ID for the relevant procedure to be updated. You will be forwarded to the first Patient & Procedure Information page (see Figure 16).
You can access the second Patient & Procedure Information page by clicking the Next button. Make the required changes on the relevant procedure page(s) and save the procedure on page 2 by clicking Save — Back to Search Result Page.

**Deleting a hip or knee procedure record**

To delete a procedure record, please contact CJRR at cjrr@cihi.ca and provide the Procedure ID.
4 Reports

All users are permitted to access the Reports section of the tool.

**Note:** All reports are available in PDF format. Only data submitted in the minimum data set format will be shown.

Click Reports from the left side menu of the main welcome page. This will bring you to the Report List page (see Figure 17).

**Figure 17** Report List page

The Report List page allows you to view reports regarding your surgeon’s data and to print them in PDF format. By clicking the hyperlinked report name, you may view and print 3 types of reports, which are described in the following sections.
4.1 Data Submission Report

The Data Submission Report provides details on data submitted to CJRR, by surgeon. This report is based on a specified date range.

To view or print this report, click Data Submission Report on the Report List page.

This will forward you to the Data Submission Report page (see Figure 18).

Figure 18 Data Submission Report page

On the Data Submission Report page, complete the mandatory fields to view the report.

The mandatory fields are the following:

- **Surgeon***: Select the appropriate surgeon. If you have access to multiple surgeons, you may view their reports in 1 combined report. To do this, press the Shift and End keys to select all of the surgeons in the Surgeon field. You may select a maximum of 20 surgeons at a time.

- **Date Type***: Use the drop-down menu to select the type of date the report will be based on. The surgery date is the actual date the surgery took place and the submission date is when a procedure record was created in the CJRR system.

- **Start Date*** and **End Date***: Select the start and end dates for the required report. The end date must be later than the start date. The start date must be within the previous 5 years.
Note: To view the Data Submission Report, please disable your pop-up blocker.

Click [View Report] to generate the report based on the criteria entered. If any of the fields in the report request page are incomplete, an error message will appear at the top of the page prompting you to complete the fields.

Figure 19 displays a sample Data Submission Report for 1 surgeon.

**Figure 19 Sample Data Submission Report**

The Data Submission Report summarizes the data that each surgeon contributed to the CJRR application and by which method the data was submitted — electronic, paper or web. All information in the report is presented separately by submission type.

The report has the following columns:

- **Surgeon Name**: Name of the surgeon who submitted patient information.
- **Facility**: Facility where the patient’s procedure was performed.
- **Submission Type**: The medium by which the data was submitted.
- **Total Procedures Accepted**: The number of procedures submitted with all the mandatory fields correctly completed.
- **New Records**: The number of new records that were submitted within the selected date range.
- **Updated Records**: The number of records that were updated within the selected date range.
- **Partial Records**: The number of procedure records that have only the first page completed (if entered using the web tool), meaning the record is partially completed.
- **Records With Warnings**: The number of records that were saved with warnings. Warnings indicate possible data quality errors.
4.2 Surgeon’s Procedure Detailed Report

The Surgeon’s Procedure Detailed Report provides a summary of certain key elements relating to hip and knee procedures performed by the selected surgeon during the date range specified.

To view or print this report, click Surgeon Procedure Detailed Report on the Report List page.

This will forward you to the Surgeon Procedure Detailed Report page, as illustrated in Figure 20.

Figure 20 Surgeon Procedure Detailed Report page

Complete the mandatory fields to view the report. These are the following:

- **Surgeon***: Select the appropriate surgeon. If you have access to multiple surgeons, you may view their reports in 1 combined report. To do this, press the Shift and End keys to select all the surgeons in the Surgeon field. You may select a maximum of 20 surgeons at a time.

- **Date Type***: This drop-down menu allows you to select the type of date the report will be based on. The surgery date is the actual date the surgery took place and the submission date is when a procedure record was created in the CJRR system.

- **Start Date*** and **End Date***: These fields indicate the start and end dates for the required report date range. The end date must be later than the start date.

- **Joint Type***: Indicates which joint to view the report by: hip, knee or both.
Note: To view the Surgeon’s Procedure Detailed Report, please disable your pop-up blocker.

Click **View Report** to generate the report based on the criteria entered.

If any of the fields in the report request page are blank, an error message will appear at the top of the page prompting you to complete the fields. If there are no errors, a second window will appear with the PDF report.

Figure 21 displays a portion of a sample Surgeon’s Procedure Detailed Report for hip replacements.

**Figure 21** Sample Surgeon’s Procedure Detailed Report

![Sample Surgeon’s Procedure Detailed Report](image-url)
Each page of the report contains 4 columns of information. These are the following:

- **Elements**: Includes patient and procedure information, further portioned into values.
- **Values**: Divides the Elements column into more descriptive and precise components of patient/procedure information.
- **Total**: Provides the total counts per value.
- **% of Group Total**: Provides the percentage based on the element’s total.

If the report is generated for more than 1 surgeon, a summary page will be provided at the end of the report.

### 4.3 Surgeon’s Procedure Summary Report

The Surgeon’s Procedure Summary Report summarizes patient/procedure information submitted by each surgeon. The report is based on a specified date range and displays the total procedures by the type of surgery and joint type.

To view or print this report, click Surgeon Procedure Summary Report on the Report List page.

This will forward you to the Surgeon Procedure Summary Report page (see Figure 22).

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**Figure 22** Surgeon Procedure Summary Report page
On the Surgeon Procedure Summary Report page, complete the mandatory fields to view the report. These are the following:

- **Surgeon***: Select the appropriate surgeon. If you have access to multiple surgeons you may view their reports in 1 combined report. To do this, press the Shift and End keys to select the surgeons you wish to view in the Surgeon field. You may select a maximum of 20 surgeons at a time.

- **Date Type***: This drop-down menu allows you to select the type of date the report will be based on. The surgery date is the actual date the surgery took place and the submission date is when a procedure record was created in the CJRR system.

- **Start Date*** and **End Date***: These fields indicate the start and end dates for the required report date range. The end date must be later than the start date.

**Note:** To view the Surgeon’s Procedure Summary Report, please disable your pop-up blocker.

Click **View Report** to generate the report based on the criteria entered.

If any of the fields in the report request page are left blank, an error message will appear at the top of the page prompting you to complete the fields. If there are no errors, a second window will appear with the PDF report.

**Figure 23** Sample Surgeon’s Procedure Summary Report
The Surgeon’s Procedure Summary Report is displayed in a tabular format and provides monthly summaries on types of joint replacement procedures over a selected date range (see Figure 23).

The report displays a monthly summary of hip and knee procedures, broken down by type of procedure (number of primary and revision procedures) and joint type. An overall total of all procedures (hip and knee) is produced at the end of the report.

- **Hip replacements**: Columns for the 2 types of hip replacement provide a monthly breakdown of each; the sum of all hip replacements in a given month is tallied in the Sum of All Hip Replacements column.

- **Knee replacements**: Columns for the 2 types of knee replacement provide a monthly breakdown of each; the sum of all knee replacements in a given month is tallied in the Sum of All Knee Replacements column.

- **Hip and knee procedures**: The total of all hip and knee procedures for a given month of given year is tallied in the Total Hip & Knee Procedures column. At the bottom of the table, the row “Total procedures accepted” tallies the total of all the replacements for the dates requested.
5 Download Own Data Cut

The CJRR Own Data Cut feature of the CJRR Web-Based Data Submission and Reports Tool allows a designated user with the appropriate permissions to download data that a surgeon or hospital has provided to CJRR.

To download data, click Download Own Data Cut from the menu on the left side of the main welcome page.

5.1 Accessing the report: Obtaining the appropriate authorization

Clicking Download Own Data Cut will forward you directly to the Own Data Cut Report page. If you are not yet authorized to run this report, a message will appear to that effect (see Figure 24).

Figure 24 Own Data Cut Report — Not yet authorized message page

To request access to the Own Data Cut Report, please send an email to cjrr@cihi.ca requesting that you be granted access to the report. Please be sure to include the name of the surgeon and the facility for your access request.

Your request will be processed by CIHI staff. Please allow at least 2 weeks for your request to be processed via CIHI’s internal approval process.
5.2 Accessing the report: Once authorization is granted

Clicking Download Own Data Cut will forward you directly to the Own Data Cut Report page, where you can select the criteria for generating the report (see Figure 25).

**Figure 25** Own Data Cut Report page

On the Own Data Cut Report page, complete the mandatory fields to view the report. The mandatory fields are the following:

- **Joint Type**: Select the joint to generate the data cut by: hip or knee. The column headings in the report will vary based on the type of joint selected.

- **Surgeon**: Select the appropriate surgeon and the appropriate facility. If you have access to multiple surgeons or facilities, you may generate their data cuts in 1 combined report. To do this, press the Shift and End keys to select all the surgeons in the Surgeon field.

- **Start Date** and **End Date**: The start and end dates represent surgery dates. Select the initial and final surgery dates for the required data cut. The end date must be later than the start date. The start date must be within the previous 5 years.

**Note:** To view the Own Data Cut Report, please disable your pop-up blocker.

Click **View Report** to generate the report based on the criteria entered.
The report will be produced in a comma-separated value (CSV) format and can be viewed or saved to your computer. Note that a maximum of 5,000 records may be downloaded per data cut.

If any of the mandatory fields in the report request page are incomplete, an error message will appear at the top of the page prompting you to complete the fields. If there are no errors, a second window will appear with the CSV report.

Figure 26 displays a portion of a sample Own Data Cut Report for a knee replacement.

**Figure 26**  Sample Own Data Cut Report

![Image of sample Own Data Cut Report](image_url)

**Note:** The information shown in the above figure is fictitious and is for demonstration purposes only. No real data is shown.

This report provides a listing of the surgeon's raw data on all patient and procedure records. The report is sorted by the surgeon’s last name.
6 Validations, error messages and warnings

6.1 Validations

Validations are data quality checks that are carried out on all the fields on a particular page to identify incomplete or inconsistent data in an effort to reduce the amount of erroneous information saved in the database. These checks are triggered when you press the Save button or when you navigate from one page to the next.

A variety of checks are carried out to identify invalid data:

- **Data quality checks on invalid characters**: This type of validity check is performed on all free-text fields where information is entered. Certain characters (e.g., <, >, #, *, {, }) are invalid and cannot be entered into the application. They produce an error and prevent the record from being saved in the database.

- **Data quality checks for inconsistent data**: This type of validity check is performed in all related fields where the value in one field determines the acceptable values in a related field. Other checks include values that fall outside of acceptable ranges. Examples of these validity checks include, but are not limited to, the following:
  - **Postal Code related to Province**: The Postal Code field and the Province field are validated together to ensure that the patient’s postal code is in his or her home province.
  - **Health Card Number related to Health Card Issuing Authority**: The Health Card Number field and Health Card Issuing Authority field are validated together to ensure that the patient’s health card number belongs to the correct health card issuing authority.
  - **Patient Age**: Patient cannot be younger than 13 or older than 130.

6.2 Error messages and warnings

Error messages are generated when invalid or inconsistent data is entered into a particular field. The messages serve as a visual warning to alert you to take corrective action.

Error messages are presented to you in 2 ways:

1) **Severe error messages**: These messages are highlighted in grey and appear at the top of the page. In addition, the field with the error is highlighted in red (see Figure 27). Note that the term “severe error” refers to an error that must be resolved before a record can be saved.
Figure 27  Example of severe error message

Once a severe error is generated, you will not be allowed to save or continue to the next page until all fields with severe errors have been entered correctly.

Severe error messages occur when

- A mandatory field is left blank;
- Invalid information is selected or entered; and
- Invalid characters are entered into a field.

**Note:** A severe error message at the top of the page when a search is being performed or when information is being saved indicates that the information entered was not saved, the search was not conducted or both.

2) **Warning page for Home Postal Code:** A warning message is generated to alert you to an incomplete (half-entered) Home Postal Code (e.g., M9M). This message appears in a separate window in the hip or knee procedure pages (see Figure 28). The partially entered postal code will save; however, the warning notifies you of this non-severe error to help improve the quality of the data submitted and ultimately to help improve information reported from the database.
The warning page tells you that the postal code is incomplete. A short description of the error and the reference page are provided.

The warning page presents you with 3 options:

- Click this button to return to the previous page to edit the postal code.

- Click this button to ignore the warnings and continue to the next page of the hip or knee information record.

- Click this button to print the warnings to your default printer.
7 Support

For registration and access inquiries, please contact Central Client Services at help@cihi.ca.

If you have any questions or comments about the CJRR Web-Based Data Submission and Reports Tool, please contact CJRR by sending an email to cjrr@cihi.ca.

If you would like to learn more about CJRR or inquire about requesting data from CJRR, please visit CJRR’s web page at www.cihi.ca/cjrr.

For all other inquiries, please contact CJRR at cjrr@cihi.ca.
Appendix — Entering prosthesis and cement information

Data submitters are provided with 2 options when entering product or cement information: barcode scanning and manual entry. This appendix presents instructions for both methods of entry along with samples of fictitious product labels based on actual manufacturer stickers. Note that this is not an exhaustive list and is intended for demonstration purposes only.

If you notice any discrepancies or new sticker variations, please inform CJRR by email at cjrr@cihi.ca.

The following guidelines apply to the entry of implant sticker information (for manual entry of data, skip to Step 3C):

Step 1: Setting up a barcode scanner

The first step is to enable transmission of the Automatic Identification and Mobility (AIM) Code. Refer to the scanner’s user manual for more information. Scanner settings are often enabled or disabled by scanning special barcodes provided in the user manual.

Enabling the AIM Code is necessary for the CJRR internal system to recognize the entry as a scanned barcode rather than a manually entered value. Without the AIM Code, the CJRR system will not trigger the extraction of clean product and lot numbers.

Note: If the AIM Code is not enabled, the CJRR system will not extract the product and lot numbers from the scanned value.
Step 2: Verifying that the AIM Code transmission is enabled

Scan the barcode below.

![Barcode Image]

Correct onscreen result:

JC0123456789

Note: French keyboard users may see Ç0123456789

If the AIM Code was not enabled, the result would look like this:

123456789

Note: The language of your keyboard affects how a barcode scanner reads data; only the keyboard languages “US” (English) and “Canadian French” are supported by the CJRR system. “Canadian Multilingual Standard” and all other keyboard languages are not supported.

Step 3: Scanning barcodes

- With the AIM Code enabled, each scanned barcode should lead with a square bracket (“[“). If this is missing, it may be an indication that the AIM Code was not enabled. (See Step 1.)
  - French keyboard users: In place of the leading square bracket, the scanned output will lead with a cedilla (either “¸” or “Ç”).

- The 4 general categories of product label appearance
  
  A. Implant stickers with 2 barcodes
   
   1. Is this a product sticker from the manufacturer Link?
      
      - For Link products, do not scan the barcode. The product and lot numbers need to be manually entered (exactly as they appear on the sticker).
      - If not, proceed.
2. Does the sticker identify the product or lot number under each barcode?
   • If so, scan the applicable barcodes into the Product Number and Lot Number fields.

   ![Barcode Example]

   Scan into Product Number field
   Scan into Lot Number field

   • If not, scan the top barcode into the Product Number field and the bottom barcode into the Lot Number field.

   ![Barcode Example]

   Scan into Product Number field
   Scan into Lot Number field

B. Implant stickers with 1 barcode

1. Is this a product sticker from the manufacturer Zimmer?
   • For Zimmer products (with only 1 barcode), scan the same barcode into both the Product Number and Lot Number fields.
   • For Smith & Nephew and Biomet products (with only 1 one-dimensional linear barcode), scan the barcode into the Product Number field and type “UNK” in the Lot Number field.
   • For Cerafix and all other manufacturers, manually enter the catalogue/reference number in the Product Number field and the lot number in the Lot Number field.

   ![Barcode Example]

   Scanned barcode
   XYZ MANUFACTURER

   XYZ MANUFACTURER

   REF: 12-3456

   Scan here for both product number AND lot number

Zimmer products:
Scan here for both product number AND lot number

Smith & Nephew or Biomet products:
Scan the barcode into the Product Number field and type “UNK” in the Lot Number field
C. Stickers with two-dimensional (2D) barcode

- If both one-dimensional (linear) and two-dimensional (square, data matrix) barcodes are available, scan the one-dimensional barcode(s) according to the instructions above.
- If only a square 2D barcode is available, scan the 2D barcode into the Product Number field and type “UNK” in the Lot Number field.
  - Note: A compatible scanner is required to scan two-dimensional barcodes.

D. Implant stickers without a barcode or manual entry option

- Enter the catalogue/reference number in the Product Number field and the lot number in the Lot Number field.
- All information should be entered exactly as it appears on the sticker.

Manually enter in the Product Number field: 1234-56AB
Manually enter in the Lot Number field: 123456789

REF: 1234-56AB
LOT 123456789
ABC KNEE REPLACEMENT SYSTEM
UNICOMPARTMENTAL Tibial INSERT
SIZE: E LEFT
ABC MANUFACTURER

- For Zimmer products, the product number is often referred to as the EDI number.
  - If there is an EDI number, manually enter it in the implant Product Number field.
  - If there is no EDI number, manually enter the catalogue number (also known as the reference number) in the implant Product Number field.
Demonstration

These are instructions for scanning a product sticker with 2 unlabelled barcodes into the CJRR web tool. (These instructions apply to stickers that are not from the manufacturer Link.)

Step 1: In the CJRR web tool, place computer cursor in the appropriate Product Number field (where you want the information to be entered).

Step 2: Align barcode scanner to product label.

Step 3a: Scan the top number into the Product Number field.

Note: The Ref Number and the number written under the barcode may be different.

Step 3b: The resulting output should lead with a square bracket ( [ ) . If this is missing, it may be an indication that the AIM Code was not enabled.

Note: It is acceptable for the output to look completely different from the number under the barcode. Do not modify the scanned output (e.g., do not delete characters or symbols).

Step 4a: Scan the bottom barcode into the Lot Number field.

Note: The Lot Number and the number written under the barcode may be different.

Step 4b: The resulting output should lead with a square bracket ( [ ) . If this is missing, it may be an indication that the AIM Code was not enabled.

Note: It is acceptable for the output to look completely different from the number under the barcode. Do not modify the scanned output.

Note
French keyboard users: In place of the leading square bracket, scanned output will lead with a cedilla (either “¸” or “Ç”).