Scanning Product Barcodes for the Canadian Joint Replacement Registry

This bulletin outlines the steps for capturing implant and cement information from product stickers using barcode scanners. Since product stickers are not standardized across and even within manufacturers, providers must take care to ensure that the correct barcode is scanned and that information appears in the appropriate data field (i.e., Product Number versus Lot Number). All samples of product stickers provided in this bulletin are fictitious yet resemble actual product stickers from a variety of manufacturers.

Background

The Canadian Joint Replacement Registry (CJRR) is a pan-Canadian medical device registry that associates implant information with the corresponding patient record. This data supports quality-of-care and outcome monitoring for hip and knee replacement patients in Canada. Therefore, it is essential that data providers accurately capture product information for implants and cements.

Starting with 2018–2019 data, CJRR information will be submitted via the Discharge Abstract Database (DAD) or the legacy CJRR electronic file submission system. Both systems are able to accept product and lot numbers that have been scanned directly from barcodes. A built-in algorithm takes the scanned data and extracts the necessary product and lot information for the CJRR database.

If barcode scanning is not an option for your facility, manually entered implant information is also accepted in the DAD and the legacy CJRR electronic file system.

> For vendor-based systems that already support barcode scanning as part of their CJRR data capture systems, the CJRR team recommends that data providers maintain their existing business processes. In these instances, the correct product and lot numbers are already being extracted from the barcodes and submitted to CJRR.

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Step 1: Getting started — Setting up your barcode scanner

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

Step 2: Verifying that AIM code transmission is enabled

To verify that the AIM code transmission is enabled, **please scan the barcode below**. Onscreen, you should see the following: **]C0123456789**. Note the right square bracket ( ]) at the beginning of the output.

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.

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

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║▌║▌║▌║▌║▌║▌║▌║▌║
123456789
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Step 3: Scanning barcodes

Currently, product stickers are not standardized across manufacturers and, sometimes, within manufacturer lines. This section outlines specific instructions for scanning barcodes based on the characteristics of the sticker. Please study the variations in stickers in your facility to become familiar with how they should be scanned using the instructions below.

Note: In a few circumstances, there are special handling exceptions for certain manufacturers. Across all stickers, the terms "catalogue number" and "reference number" are used interchangeably.

a) Stickers with 2 barcodes

In most cases, there will be character strings below each barcode; they contain the catalogue or reference number (top barcode) and the lot number (bottom barcode).

Link products: Do not scan the barcodes. The product and lot numbers need to be entered manually.
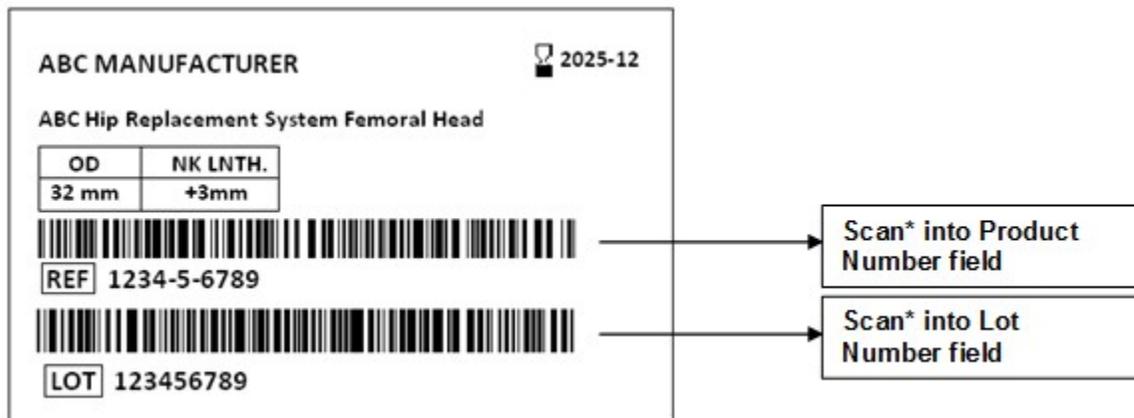
📌 Bulletin

All other manufacturers: Scan the top barcode into the Product Number field and the bottom barcode into the Lot Number field. The scanned output may contain additional symbols or numbers. **Do not edit or change the character string that appears in the scanned output.**

Example 1

Scan* into Product Number field

Scan* into Lot Number field

REF: 12-3456   LOT 123546   ⚱ 2025-12

ABC Knee Replacement System
Tibial Stem   Cemented
100mm

+ABC123456XYZ

+$$325121234123456ABC

ABC MANUFACTURER   STERILE

Example 2

ABC MANUFACTURER   ⚱ 2025-12

ABC Hip Replacement System Femoral Head

OD	NK LNTH.
32 mm	+3mm

REF 1234-5-6789

LOT 123456789

Scan* into Product Number field

Scan* into Lot Number field

Note

* For Link products, manually enter the product/reference and lot numbers exactly as they are shown (for example 1, for the reference number, enter 12-3456, and for the lot number, enter 123456).
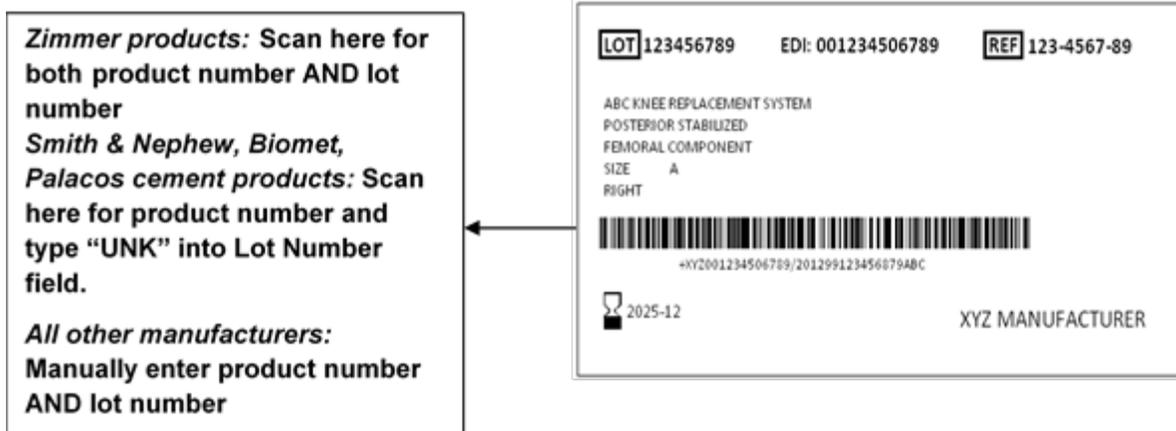
b) Stickers with a single barcode

Zimmer products: Zimmer product stickers contain 1 barcode that has both the catalogue/reference number and lot number embedded in the character string below the single barcode. Scan the barcode into the Product Number field and again into the Lot Number field.

Smith & Nephew or Biomet products, or Palacos cements: For Smith & Nephew and Biomet products or Palacos cements (with only 1 one-dimensional linear barcode), scan the barcode into the Product Number field and enter "UNK" into the Lot Number field.

Cerafix and all other manufacturers: *Manually enter* the catalogue/reference number into the Product Number field and the lot number into the Lot Number field.

Zimmer products: **Scan here for both product number AND lot number**
Smith & Nephew, Biomet, Palacos cement products: **Scan here for product number and type "UNK" into Lot Number field.**

All other manufacturers: **Manually enter product number AND lot number**

LOT 123456789   EDI: 001234506789   REF 123-4567-89

ABC KNEE REPLACEMENT SYSTEM
POSTERIOR STABILIZED
FEMORAL COMPONENT
SIZE   A
RIGHT

+XYZ001234506789/201299123456879ABC

2025-12   XYZ MANUFACTURER

c) Stickers with a 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 above instructions.
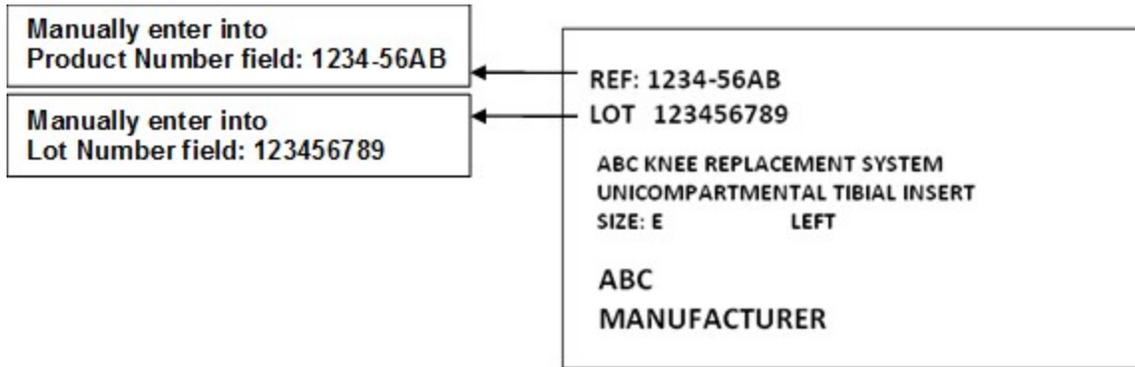
If only a square 2D barcode is available, scan the 2D barcode into the Product Number field and enter "UNK" into the Lot Number field.

Note: A compatible scanner is required to scan two-dimensional barcodes.

d) Stickers with no barcodes

Manually enter the catalogue/reference number into the Product Number field and the lot number into the Lot Number field. Include any dashes, as shown below.

Manually enter into Product Number field: 1234-56AB	←	REF: 1234-56AB
Manually enter into Lot Number field: 123456789	←	LOT 123456789

ABC KNEE REPLACEMENT SYSTEM
UNICOMPARTMENTAL TIBIAL INSERT
SIZE: E   LEFT

ABC
MANUFACTURER

For more information

As product labelling changes, we kindly ask data providers to report any discrepancies or issues to the CJRR team at cjrr@cihi.ca.

The CJRR team has compiled these guidelines based on input from Health Shared Services British Columbia (HSSBC) and Global Standards One (GS1) Canada.