NACRS

National Ambulatory Care Reporting System

Open-Year Data Quality Test Specifications

2023–2024

Canadian Institute for Health Information
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Table of contents

Introduction

As part of the Canadian Institute for Health Information's (CIHI's) commitment to quality data, the National Ambulatory Care Reporting System (NACRS) is routinely analyzed for data quality issues during the submission year and after database closure. Suspect findings are communicated back to the submitting facilities for investigation and correction while the database is still open for submission.

Purpose

This document was created to

- Accompany the Open-Year Data Quality (OYDQ) reports flagging suspect data quality issues; and
- Help NACRS clients create their own local data quality audits to identify abstracts with suspected data quality issues and to submit corrections in a timely manner.

This document lists the OYDQ tests performed on NACRS, along with their rationale, rule, patient care type, submission level, selection criteria and the data elements used in the analysis. Each test is indexed by a reference number and this number is used for all communication with clients.

The quarterly NACRS OYDQ reports are made available to facilities and/or Provincial/ Territorial Ministries of Health via the DAD and NACRS Applications web page. Automated email notifications are sent to clients when these reports are posted. Click on the following links: Operational Reports, NACRS and then on Open Year Data Quality Reports by clicking the Open-Year DQ Reports link.

Facilities are asked to review errors and to resubmit the corrected abstracts, where applicable. Each OYDQ detailed report references the DQ test number and name along with the NACRS abstract identification data elements, such as Chart Number, Fiscal Year, Fiscal Period, Abstract Number and Registration Date. The abstract identification information helps facilities link the abstracts with suspect data quality issues to the matching abstracts in their systems. A summary report is also provided. It includes the number of abstracts with errors, number of total eligible abstracts and the percent error for each applicable OYDQ test. Provincial and national error percentages are also shown as comparison.

Note: The same abstract may be identified as having more than one data quality issue, therefore it may appear in several tests.

Updates

The NACRS Open-Year Data Quality Test Specifications document is updated every fiscal quarter with new or modified OYDQ tests. An OYDQ test may be deleted if new edits are created or if the data quality issue is no longer relevant. An OYDQ test may also be modified to reflect enhancements to the data collection instructions in the NACRS Abstracting Manual, the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Canada (ICD-10-CA), the Canadian Classification of Health Interventions (CCI) and/or to align with the most recent version of the Canadian Coding Standards for ICD-10-CA and CCI.

Please submit your questions to CIHI at cad@cihi.ca.

Open-year data quality tests: Summary and rationale

The following table provides a brief summary of the NACRS OYDQ tests for the current fiscal year. In the rationale column, the table also highlights a number of key impacts of correcting these DQ issues. Each test is described in greater details in the following section.

OYDQ test number	OYDQ test title	Short description	Rationale
N0027-146	Length of Stay Greater Than 120 Hours	Ambulatory care records are primarily expected to have a length of stay shorter than 120 hours (5 days).	Impacts length of stay analysis and Time Spent in ED indicator. Accurate data are required for analysis.
N0035-176	Visit Disposition Inconsistent With Institution To	The Visit Disposition and the CIHI Institution Type assigned to the Institution To number must match.	Accurate data is important for data analysis.
N0044-185	U07.4 *Post COVID-19 condition* Assigned as Main Problem	When U07.4 Post COVID-19 condition is assigned on an abstract, it must be assigned as Other Problem.	Accurate data is required for in-depth analyses on the impact of COVID-19 on health care systems.
N0044-185	U07.4 *Post COVID-19 condition* Assigned as Main Problem	When U07.4 *Post COVID-19 condition* is assigned on an abstract, it must be assigned as Other Problem.	Accurate data is required for in-depth analyses on the impact of COVID-19 on health care systems.
N0044-193	R57.2 *Septic shock* as Main Problem	R57.2 *Septic shock* must never be the Main Problem.	Accurate data is required for in-depth analyses.
N0045-128	Missing Additional Diagnosis Code to Identify the Specific Condition Complicating Pregnancy Childbirth and the Puerperium O99	When a code from any one of the subcategories within O99 *Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium,* is assigned, it is mandatory to assign an additional code to identify the specific condition per the use additional code instruction in the tabular at this category.	Research on obstetrical complications is adversely affected by incomplete data.
N0045-129	Missing Additional Diagnosis Code to Specify the Type of Sepsis in SIRS of Infectious Origin and/or Septic Shock	When R65.0 *Systemic inflammatory response syndrome of infectious origin without organ failure* or R65.1 *Systemic inflammatory response syndrome of infectious origin with acute organ failure* or R57.2 *Septic shock* is assigned, it is mandatory to assign an additional code to identify the type of sepsis.	Impacts In-Hospital Sepsis Rate and Sepsis Mortality Rate. Accurate data are required for analysis.

OYDQ test number	OYDQ test title	Short description	Rationale
N0045-163	Alcohol Poisoning External Cause Code Without Corresponding Alcohol Poisoning T-Code	When an alcohol poisoning external cause code (X45, X65 or Y15) is recorded, it requires a corresponding alcohol poisoning T-code from category T51.	Impacts CIHI's Problematic Substance Use indicator development.
N0045-194	Incorrect J44.– (COPD) Code Assigned with Lower Respiratory Infection Code	When a patient is diagnosed with acute bronchiolitis (J21.–), acute bronchitis (J20.–) or pneumonia in any form (J10.0, J11.0, J12.–, J13, J14, J15.–, J16.–, J18.–) and also has chronic obstructive pulmonary disease (COPD), the COPD is classified to J44.0 *Chronic obstructive pulmonary disease with acute lower respiratory infection*.	Accurate data is required for in-depth analyses.
N0047-180 (NEW)	Cementless Hip/Knee Replacement CCI Codes and the Presence of Cement Sticker	When a cement product number is present, the 10th digit of the corresponding hip/knee replacement CCI code must be "N" or "Q" — with synthetic material.	Accurate data is required for in-depth analyses on hip/knee replacements.
N0050-86 (NEW)	Extent Attribute UN (Unknown) With Hip Replacement	The Extent Attribute UN (Unknown) should be used rarely for the implantation of hip prosthesis as the documentation should identify the components implanted.	Attributes are used by CIHI to report on hip replacements.
N0050-166 (NEW)	Incorrect Value of Extent Attribute for Hip Arthroplasty Codes 1.VA.53.^^	When recording hip arthroplasty with implantation prosthetic device codes 1.VA.53.^^, ensure that the value of the extent attribute matches the corresponding Intervention Code.	Generate correct procedure types for primary hip arthroplasty for the Canadian Joint Replacement Registry (CJRR).
N0171-190	Type of Restraint N Recorded With Type of Restraint M, C, P or S	When Type of Restraint M, C, P or S is recorded, Type of Restraint N (None) should not be recorded.	Accurate data is required for analysis.
N0171-191	Type of Restraint M, C, P, S or N Recorded More Than Once	When Type of Restraint M, C, P, S or N is recorded, it must be recorded only once.	Accurate data is required for analysis.
N0172-192	Frequency of Restraint Use N Recorded With Type of Restraint M, C, P or S	When Type of Restraint M, C, P or S is recorded, Frequency of Restraint Use N (None) should not be recorded.	Accurate data is required for analysis.
N9340-99	Project 340 — Project Not Completed When an "Applicable Condition" Is Recorded	When a stroke Diagnosis Code is recorded, the Project Number 340 must be completed.	Stroke is a high-priority health initiative.

OYDQ test number	OYDQ test title	Short description	Rationale
N9340-103	Project 340 — Not Applicable, Unknown or Invalid Value for Prescription for Antithrombotic Medication at Discharge	When Project 340 is recorded, it is mandatary to complete the field Prescription for Antithrombotic Medication at Discharge whether patients with a diagnosis of ischemic stroke received a prescription for antithrombotic medication from the ED.	Stroke is a high-priority health initiative.
N9340-121	Project 340 — Missing, Invalid or Unknown Value for Date and Time of Acute Thrombolysis Administration When Administration of Acute Thrombolysis) Is Y or P	When Project 340 is recorded, it is mandatory to complete Fields 149 to 156 (Date and Time of Acute Thrombolysis Administration). This field captures the specific date and time that a patient with acute ischemic stroke received acute thrombolysis, for those who were administered this medication.	Stroke is a high-priority health initiative.
N9340-123	Project 340 — Invalid or Unknown Value for Stroke Symptom Onset Date and Time	When Project 340 is recorded, it is mandatory to complete Fields 158 to 169 (Stroke Symptom Onset Date and Time). This field captures the date and time that the patient first started to experience stroke symptoms, regardless of the location of the patient at the time of symptom onset.	Stroke is a high-priority health initiative.
N9340-125	Project 340 — High Volume of N Referral to Stroke Prevention Services at ED Discharge	When Project 340 is recorded, it is mandatory to complete Field 147 (Referral to Stroke Prevention Services at ED Discharge). This field captures whether patients with a diagnosis of stroke or transient ischemic attack receive a referral for stroke prevention follow-up at discharge.	Stroke is a high-priority health initiative.
NCJ10-161 (NEW)	Scanner Used to Input Product Number and Cement — Product Number but AIM Code Was Not Enabled	AIM (Automatic Identification and Mobility) code was not enabled when the scanner was used to input Product Number and Cement — Product Number. AIM code is a scanner parameter that is enabled by scanning a barcode or series of barcodes in the scanner’s product reference manual.	The presence of the AIM code ensures that CIHI can appropriately extract the product number.

Open-year data quality tests

1 Length of Stay Greater Than 120 Hours (N0027-146)

Rule

Ambulatory care records are primarily expected to have a Length of Stay (LOS) shorter than 120 hours (5 Days). However, a LOS longer than 120 hours may be acceptable in some situations.

This data quality test identifies records with potential error with the date/time data elements (listed below) used to calculate the derived LOS Hours.

Note: This test will be completed for all records where the derived LOS Hours is available.

Criteria	Description
Patient care type	All patient care types
Submission levels	Levels 1–3
Selection criteria	Abstracts where the derived LOS Hours is greater than 120 hours
Data elements	Triage Date; Triage Time; Date of Registration/Visit; Registration/Visit Time; Visit Disposition; Disposition Date; Disposition Time; Date Patient Left Emergency Department (ED); Time Patient Left Emergency Department (RD)
Reference	NACRS Abstracting Manual

2 Visit Disposition Inconsistent With Institution To (N0035-176)

Rule

The Visit Disposition and the CIHI Institution Type assigned to the Institution To number must match.

Note: There are known provincial variations. Ontario and Alberta clients should refer to the Notes tab in their OYDQ report.

Criteria	Description
Selection criteria	NACRS ED Level 3 abstracts where Visit Disposition is not consistent with CIHI Institution Type assigned to Institution To number: Where • Visit Disposition 16 is not mapped to CIHI Institution Type 0, 6, 8, F, J, M, N, U or Blank OR • Visit Disposition 30 is not mapped to CIHI Institution Type 4, T, P or U OR • Visit Disposition 40 is not mapped to CIHI Institution Type G, H or U
Data elements	Visit Disposition, Institution To
Correct case example	Visit Disposition 16 — Home With Support/Referral is recorded along with an Institution To number assigned to CIHI Institution Type 6 — Nursing Stations.
Reference	• Jurisdictional Disposition reference guides can be downloaded via the DAD/NACRS Abstracting Manual link in My Services (with the exception of Yukon). The Instructions tab describes how to use the Disposition Reference Guide. Alberta facilities should refer to the Alberta Supplement to 2022–2023 NACRS manual. • NACRS Abstracting Manual: DE 35 Visit Disposition, DE 39 Institution To • Job Aid — Ensuring Accurate Discharge/Visit Disposition and Institution To Assignment

3 U07.4 *Post COVID-19 condition* Assigned as Main Problem (N0044-185)

Rule

When U07.4 *Post COVID-19 condition* is assigned on an abstract, it must be assigned as Other Problem.

Note: U07.4 *Post COVID-19 condition* is to be used in multiple coding to identify a case in which the physician/primary care provider documented that a condition or symptom has a relationship or association with past COVID-19.

Criteria	Description
Selection criteria	Abstracts where U07.4 is assigned as Main Problem
Data elements	Main Problem
Correct case example	U07.4 is recorded as Other Problem
Reference	Canadian Coding Standards for Version 2022 ICD-10-CA and CCI — Addendum: Pandemics and Epidemics (COVID-19)

4 R57.2 *Septic shock* as Main Problem (N0044-193)

Rule

R57.2 *Septic shock* must never be the Main Problem.

Criteria	Description
Patient care type	All patient care types
Submission levels	Level 3
Selection criteria	Abstracts where R57.2 is assigned Main Problem
Data elements	Main Problem
Correct case example	A41.9 (MP) Sepsis, unspecified R57.2 (OP) Septic shock
References	Canadian Coding Standards: *Use Additional Code/Code Separately Instructions*; *Underlying Symptoms or Conditions*; *Septicemia/Sepsis*; *Systemic Inflammatory Response Syndrome (SIRS)*

5 Missing Additional Diagnosis Code to Identify the Specific Condition Complicating Pregnancy Childbirth and the Puerperium O99 (N0045-128)

Rule

When a code from any one of the subcategories within O99 *Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium* is assigned, it is mandatory to assign an additional code to identify the specific condition as per the use additional code instruction in the tabular at this category.

Criteria	Description
Patient care type	All patient care types
Submission levels	Levels 1–3
Selection criteria	Abstracts where a Diagnosis Code of: • O99.0– is recorded without a code from D50–D64 • O99.1– is recorded without a code from D65–D89 • O99.2– is recorded without a code from E00–E07, E15–E34, E50–E89 • O99.3– is recorded without a code from F00–F52, F54–F99, G00–G99 • O99.4– is recorded without a code from I00–I09 or I20–I99 • O99.5– is recorded without a code from J00–J99 • O99.6– is recorded without a code from K00–K63, K65–K66, K80–K93 • O99.7– is recorded without a code from L00–L99 • O99.8– is assigned without a code from B90–B94, C00–D48, H00–H95, M00–M82, M83.2–M99, N14–N15.0, N15.8–N15.9, N20–N39, N60–N64, N80–N90, Q00–Q99, R00–R94.8
Data elements	Main Problem; Other Problem
Correct case examples	O99.001 (MP) *Anaemia complicating pregnancy, childbirth and the puerperium delivered with or without mention of antepartum condition* D64.9 (OP) *Anaemia, unspecified*
References	Use Additional Code instruction within ICD-10-CA direction at category O99 Canadian Coding Standards: Use additional Code/Code Separately Instructions Complicated Pregnancy Versus Uncomplicated Pregnancy

6 Missing Additional Diagnosis Code to Specify the Type of Sepsis in SIRS of Infectious Origin and/or Septic Shock (N0045-129)

Rule

When R65.0 *Systemic inflammatory response syndrome of infectious origin without organ failure* or R65.1 *Systemic inflammatory response syndrome of infectious origin with acute organ failure* or R57.2 *Septic shock*, is assigned, it is mandatory to assign an additional code to identify the type of sepsis.

Note: If the documentation does not specify the type of sepsis, then the additional code to assign is A41.9 *Sepsis, unspecified*.

Criteria	Description
Patient care type	All patient care types
Submission levels	Levels 1–3
Selection criteria	Abstracts where a Diagnosis Code(s) of R65.0, R65.1 or R57.2 is recorded without one of the following Diagnosis Codes to identify the specific type of sepsis: A02.1, A03.9, A20.7, A21.7, A22.7, A23–, A24.1, A26.7, A28.0, A28.2, A32.7, A39.2, A39.3, A39.4, A40.–, A41.–, A42.7, A54.86, B37.7, P36, P37.2 or P37.51
Data elements	Main Problem, Other Problem
Correct case examples	T81.4 (MP) Infection following a procedure, not elsewhere classified [Dx Cluster A] A41.0 (OP) Sepsis due to Staphylococcus aureus [Dx Cluster A] T81.1 (OP) Shock during or resulting from a procedure, not elsewhere classified [Dx Cluster A] R57.2 (OP) Septic shock [Dx Cluster A] Y83.2 (OP) Surgical operation with anastomosis, bypass or graft [Dx Cluster A]
References	Use additional Code Instruction within ICD-10-CA at category R65 and R57.2 Canadian Coding Standards: Use additional Code/Code Separately Instructions Septicemia/Sepsis; Systemic Inflammatory Response Syndrome (SIRS)

7 Alcohol Poisoning External Cause Code Without Corresponding Alcohol Poisoning T-Code (N0045-163)

Rule

When one of the following alcohol poisoning external cause codes is recorded

- X45 Accidental poisoning by and exposure to alcohol
- X65 Intentional self-poisoning by and exposure to alcohol
- Y15 Poisoning by and exposure to alcohol, undetermined intent

The corresponding alcohol poisoning T-code from category T51.– *Toxic effect of alcohol* must also be recorded.

Criteria	Description
Patient care type	All patient care types
Submission levels	Level 3
Selection criteria	Abstracts with external cause code X45, X65 or Y15 without a Diagnosis Code from category T51.–
Data elements	Main Problem, Other Problem
Correct case examples	T51.9 (MP) Toxic effect of alcohol, unspecified X45 (OP) Accidental poisoning by and exposure to alcohol
References	ICD-10-CA Table of Drugs Coding Standard: *Adverse Reactions in Therapeutic Use Versus Poisoning*

8 Incorrect J44.– (COPD) Code Assigned With Lower Respiratory Infection Code (N0045-194)

Rule

When a patient is diagnosed with acute bronchiolitis (J21.–), acute bronchitis (J20.–) or pneumonia in any form (J10.0, J11.0, J12.–, J13, J14, J15.–, J16.–, J18.–) and also has chronic obstructive pulmonary disease (COPD), the COPD is classified to J44.0 *Chronic obstructive pulmonary disease with acute lower respiratory infection*.

Criteria	Description
Selection criteria	Abstracts with Diagnosis Code J44.1, J44.8 or J44.9 as Main Problem AND Other Problem (OP) as either J10.0, J11.0, J12.–, J13, J14, J15.–, J16.–, J18.–, J20.– or J21.–
Data elements	Main Problem, Other Problem
Correct case example	J44.0 (MP) Chronic obstructive pulmonary disease with acute lower respiratory infection J18.9 (OP) Pneumonia, unspecified
References	Canadian Coding Standards: *Pneumonia in Patients With Chronic Obstructive Pulmonary Disease (COPD)* ICD-10-CA alphabetical index

9 Cementless Hip/Knee Replacement CCI Codes and the Presence of Cement Sticker (N0047-180)

Rule

When a cement product number is present in Field CJ05, the 10th digit of the corresponding hip/knee replacement CCI code must be N or Q — with synthetic material.

OR

When the 10th digit of the hip/knee replacement CCI code is N or Q, a cement product number must be present in Field CJ05.

Note: This test also checks that a cement sticker has not been overlooked. When a chart review reveals that cement was not used during the intervention, no correction is necessary.

Criteria	Description
Patient care type	All patient care types
Submission levels	Levels 1–3
Selection criteria	If a Cement — Product Number is present and the 10th digit of the corresponding hip/knee replacement CCI codes (1.VA.53.^^, 1.SQ.53.^^, 1.VG.53.^^, 1.VP.53.^^) is neither N nor Q OR If the 10th digit of the corresponding hip/knee replacement CCI codes (1.VA.53.^^, 1.SQ.53.^^, 1.VG.53.^^, 1.VP.53.^^) is N or Q and a Cement — Product Number is missing
Data elements	Main Intervention, Other Intervention, Cement — Product Number
Correct case example	1.VG.53.LA-PM-N *Implantation of internal device, knee joint with synthetic material (e.g., bone paste, cement) single component prosthetic device* with 1 cement sticker product number 6191-0-001 in Field CJ05.
Reference	CCI v2022

10 Extent Attribute UN (Unknown) With Hip Replacement (N0050-86)

Rule

Select the Extent Attribute UN (Unknown) only when there is no information to select a specific value from the extent attribute options. UN (Unknown) should be used rarely as the documentation will identify the component used with a hip replacement procedure 1.VA.53.^^ *Implantation of internal device, hip joint*.

Criteria	Description
Patient care type	All patient care types
Submission levels	Levels 1–3
Selection criteria	Abstracts where the Intervention Code from rubric 1.VA.53.^^ is recorded with the Extent Attribute UN Exclude hip replacement procedures where Out-of-Hospital Indicator is Y (Yes) or Status Attribute is A (Abandoned)
Data elements	Main Intervention, Other Intervention, Extent Attribute, Status Attribute, Out-of-Hospital Indicator
Correct case examples	1.VA.53.LA-PN-N *Implantation of internal device, hip joint, open approach (direct lateral, posterolateral, posterior, transgluteal) using synthetic material (e.g., bone paste, cement) dual component prosthetic device [femoral with acetabular]* Status Attribute: R (revision) Location: L (left) Extent Attribute: FH (Modular ball (with or without modular neck) with stem remaining in situ [this component value requires Status value R = Revision])

11 Incorrect Value of Extent Attribute for Hip Arthroplasty Codes 1.VA.53.^^ (N0050-166)

Rule

When recording hip arthroplasty with implantation prosthetic device codes 1.VA.53.^^, ensure that the value of the extent attribute matches the corresponding Intervention Code.

- For a hip arthroplasty involving both femoral with acetabular components, the Intervention Code from rubric 1.VA.53.LA-PN-^ or 1.VA.53.LL-PN-^ should have extent attribute FH, MU, MO, RE or UN.
- For a hip arthroplasty involving a femoral component only, the Intervention Code from rubric 1.VA.53.LA-PM-^ or 1.VA.53.LL-PM-^ should have extent attribute FH, M1, M2, MO, RE or UN.
- For a hip arthroplasty involving a cement spacer, the Intervention Code 1.VA.53.LA-SL-N or 1.VA.53.LL-SL-N should have extent attribute CS.

Note: To generate a correct procedure type for a primary hip arthroplasty for the Canadian Joint Replacement Registry (CJRR), it is strongly recommended coders check the clinical documentation to avoid assigning extent attribute UN (Unknown) for hip arthroplasty with dual or single component.

Criteria	Description
Patient care type	All patient care types
Submission levels	Levels 1–3
Selection criteria	Abstracts where An Intervention Code from rubric 1.VA.53.LA-PN-^ or 1.VA.53.LL-PN-^ is recorded without one of following extent attributes: FH, MU, MO, RE or UN OR An Intervention Code from rubric 1.VA.53.LA-PM-^ or 1.VA.53.LL-PM-^ is recorded without one of following extent attributes: FH, M1, M2, MO, RE or UN OR An Intervention Code 1.VA.53.LA-SL-N or 1.VA.53.LL-SL-N is recorded without extent attribute CS
Data elements	Main Intervention, Other Intervention, Extent Attribute
Correct case examples	1.VA.53.LA-PN-N *Implantation of internal device, hip joint open approach (direct lateral, posterolateral, posterior, transgluteal) using synthetic material (e.g., bone paste, cement) dual component prosthetic device [femoral with acetabular]* Status Attribute: P (Primary) Location: L (left) Extent Attribute: MU (Modular total arthroplasty [Includes: Total hip replacement (femoral and acetabular)]) 1.VA.53.LA-PM-N *Implantation of internal device, hip joint open approach (direct lateral, posterolateral, posterior, transgluteal) using synthetic material (e.g., bone paste, cement) single component prosthetic device [femoral]* Status Attribute: P (Primary) Location: L (left) Extent Attribute: M2 (Modular hemiarthroplasty, bipolar femoral component [Includes: Femoral head with larger outer head (ball in ball) with a plastic acetabular liner for partial hip replacement; articulates with the native acetabulum]) 1.VA.53.LA-SL-N *Implantation of internal device, hip joint open approach (direct lateral, posterolateral, posterior, transgluteal) using synthetic material (e.g., bone paste, cement) cement spacer* Status Attribute: R (Revision) Location: L (left) Extent Attribute: CS (Cement spacer)
Reference	CCI v2022

12 Type of Restraint N Recorded With Type of Restraint M, C, P or S (N0171-190)

Rule

Type of Restraint value N (None) is assigned for all cases fitting the collection criteria (i.e., patients with a Main Problem or Other Problem that is selected from ICD-10-CA Chapter V: Mental and Behavioural Disorders [excluding Organic Disorders F00–F09] or Intentional Self-Harm ICD-10-CA categories X60–X84), where no restraint use is documented.

Do not record Type of Restraint value N (None) when Type of Restraint values M, C, P or S are also assigned (M — Mechanical restraint, C — Chair, P — Physical or manual restraint by staff, S — Seclusion room).

Criteria	Description
Patient care type	ED
Submission levels	Levels 1–3
Selection criteria	Abstracts where Type of Restraint N is recorded with Type of Restraint M, C, P or S.
Data elements	Type of Restraint
Correct case example	Type of Restraint M (Mechanical restraint) is recorded without Type of Restraint N (None).
Reference	NACRS Abstracting Manual: DE 171 — Type of Restraint

13 Type of Restraint M, C, P, S or N Recorded More Than Once (N0171-191)

Rule

The Type of Restraint field is recorded for all restraint devices meeting the collection criteria (i.e., patients with a Main Problem or Other Problem that is selected from ICD-10-CA Chapter V: Mental and Behavioural Disorders [excluding Organic Disorders F00–F09] or Intentional Self-Harm ICD-10-CA categories X60–X84). Record all devices that were used but record each device only once.

Criteria	Description
Patient care type	ED
Submission levels	Levels 1–3
Selection criteria	Abstracts where Type of Restraint M, C, P, S or N is recorded more than once.
Data elements	Type of Restraint
Correct case example	Mechanical restraints were used multiple times for a patient meeting the above collection criteria. Type of Restraint M (Mechanical restraint) is recorded only once.
Reference	NACRS Abstracting Manual: DE 171 — Type of Restraint

14 Frequency of Restraint Use N Recorded With Type of Restraint M, C, P or S (N0172-192)

Rule

The Frequency of Restraint Use field is value N (None) for cases fitting the collection criteria (i.e., patients with a Main Problem or Other Problem that is selected from ICD-10-CA Chapter V: Mental and Behavioural Disorders [excluding Organic Disorders F00–F09] or Intentional Self-Harm ICD-10-CA categories X60–X84) and no restraint use is documented. Assign Frequency of Restraint Use value N (None) only when Type of Restraint value N (None) is assigned.

- Do not record Frequency of Restraint Use value N (None) in combination with Type of Restraint values M, C, P or S (M — Mechanical restraint, C — Chair, P — Physical or manual restraint by staff, S — Seclusion room).
- Assign Frequency of Restraint Use values C, D, I or U (C — Constant, D — Day or Night only, I — Intermittent, U — Unknown/not documented) when Type of Restraint values M, C, P or S are assigned.

Criteria	Description
Patient care type	ED
Submission levels	Levels 1–3
Selection criteria	Abstracts where Frequency of Restraint Use N is recorded with Type of Restraint M, C, P or S.
Data elements	Type of Restraint, Frequency of Restraint Use
Correct case example	Type of Restraint M (Mechanical restraint) and Frequency of Restraint Use I (Intermittent — used occasionally) are recorded.
Reference	NACRS Abstracting Manual: DE 172 — Frequency of Restraint Use

15 Project 340 — Project Not Completed When an “Applicable Condition” Is Recorded (N9340-99)

Rule

Special Project 340 Canadian Stroke Strategy Performance Improvement is mandatory for all Ontario Level 3 emergency department records, with the exception of cases admitted to the acute care facility via its own ED or transferred to another ED facility in the same continuous episode of care.

This project should be completed for all patients who have been diagnosed with an acute/current stroke, and certain other conditions that from an ICD-10-CA classification perspective are not classified as a hemorrhagic, ischemic or unspecified stroke. The other conditions included in this project are: transient ischemic attack (TIA), transient retinal artery occlusion, intracranial and intraspinal phlebitis and thrombophlebitis, nonpyogenic thrombosis of intracranial venous system and central retinal artery occlusion.

Note: The term **“applicable condition”** is used throughout the stroke projects documentation to refer to the ICD-10-CA codes/conditions included.

Inclusion Criteria ICD-10-CA Code List:

- I60.– *Subarachnoid haemorrhage*
- I61.– *Intracerebral haemorrhage*
- I63.– *Cerebral infarction*
- I64 *Stroke, not specified as haemorrhage or infarction*
- I67.6 *Nonpyogenic thrombosis of intracranial venous system*
- G08 *Intracranial and intraspinal phlebitis and thrombophlebitis*
- H34.0 *Transient retinal artery occlusion*
- H34.1 *Central retinal artery occlusion*
- G45.– *Transient cerebral ischaemic attacks and related syndromes* (**excluding** *G45.4 Transient global amnesia*)
- O22.5– *Cerebral venous thrombosis in pregnancy*
- O87.3– *Cerebral venous thrombosis in puerperium*

Note: There may be cases flagged with this test that do not require completion of Project 340.

Criteria	Description
Patient care type	ED
Submission level	Level 3
Selection criteria	Abstracts from ON where Project 340 is not completed when a Diagnosis Code for one of the “applicable conditions” is recorded as Main or Other Problem **Exclusions:** Cases admitted as inpatient within the same reporting facility (Visit Disposition is 06 or 07) Cases where an institution number classified as Ambulatory Care is recorded in the Institution To field **Exclusion:** Patients younger than 1
Data elements	Main Problem, Other Problem, Project Number
Reference	NACRS Abstracting Manual, Special Project Information (Data Elements 145 to 169) — Special Projects documentation is now accessible through the DAD/NACRS Abstracting Manual application on CIHI’s website.

16 Project 340 — Not Applicable, Unknown or Invalid Value for Prescription for Antithrombotic Medication at Discharge (N9340-103)

Rule

When Special Project 340 Canadian Stroke Strategy Performance Improvement is completed, it is mandatory to record Field 157 Prescription for Antithrombotic Medication at Discharge. This field captures whether a patient received a prescription for antithrombotic medication at discharge from ED.

Note: A high percent of abstracts with 8 (not applicable) or 9 (unknown) or invalid value may indicate a need to investigate practices around the capture of prescription for antithrombotic medication at discharge.

Criteria	Description
Patient care type	ED
Submission level	Level 3
Selection criteria	An “applicable condition” is recorded AND Field 157 Prescription for Antithrombotic Medication at Discharge is 8 (not applicable), 9 (unknown) or is invalid AND Visit Disposition is not 71 Dead on Arrival (DOA), 72 Died in Facility, 73 Medical Assistance in Dying (MAID) or 74 Suicide in Facility
Data elements	Project Number, Field 157
Reference	NACRS Abstracting Manual, Special Project Information (Data Elements 145 to 169) — Special Projects documentation is now accessible through the DAD/NACRS Abstracting Manual application on CIHI’s website.

17 Project 340 — Missing, Invalid or Unknown Value for Date and Time of Acute Thrombolysis Administration When Administration of Acute Thrombolysis Is Y or P (N9340-121)

Rule

When Special Project 340 Canadian Stroke Strategy Performance Improvement is completed, it is mandatory to record Fields 149 to 156 Date and Time of Acute Thrombolysis Administration. This field captures the specific date and time that a patient received acute thrombolysis. The start date/time for administration of the medication should be recorded in these fields. The year is not being recorded.

Note: A high percent of abstracts with missing (blank), invalid or 99 (unknown) date and time may indicate a need to investigate documentation practices.

Criteria	Description
Patient care type	ED
Submission level	Level 3
Selection criteria	An “applicable condition” is recorded AND Field 148 Administration of Acute Thrombolysis is Y (Yes) or P (Yes, prior) AND 1 or more of the following fields are blank, unknown or invalid: • Fields 149–150 (Month): is blank, or is 99 (unknown) or is not 01–12 • Fields 151–152 (Day): is blank, or is 99 (unknown) or is not 01–31 • Fields 153–154 (Hour): is blank, or is 99 (unknown) or is not 00–23 • Fields 155–156 (Minutes): is blank, or is 99 (unknown) or is not 00–59 **Exclusions:** • When acute thrombolysis was given for a condition other than an “applicable condition” • Hemorrhagic strokes
Data elements	Project Number, Fields 149 to 156
Reference	NACRS Abstracting Manual, Special Project Information (Data Elements 145 to 169) — Special Projects documentation is now accessible through the DAD/NACRS Abstracting Manual application on CIHI’s website.

18 Project 340 — Invalid or Unknown Value for Stroke Symptom Onset Date and Time (N9340-123)

Rule

When Special Project 340 Canadian Stroke Strategy Performance Improvement is completed, it is mandatory to record Fields 158 to 169 Stroke Symptom Onset Date and Time. This field captures the date and time that the patient first started to experience stroke symptoms for the "applicable condition," regardless of the location of the patient at the time of symptom onset. In most cases, this information is known by the patient or a witness to the event.

Note: A high percent of abstracts with missing, invalid or unknown date and time may indicate a need to investigate practices around the capture of stroke symptom onset date and time.

Criteria	Description
Patient care type	ED
Submission level	Level 3
Selection criteria	An "applicable condition" is recorded AND 1 or more of the following fields are unknown or invalid: • Fields 158–161 (Year): is 9999 (unknown) or is not a valid 4-character code less than or equal to current calendar year • Fields 162–163 (Month): is 99 (unknown) or is not 01–12 • Fields 164–165 (Day): is 99 (unknown) or is not 01–31 • Fields 166–167 (Hour): is 99 (unknown) or is not 00–23 • Fields 168–169 (Minutes): is 99 (unknown) or is not 00–59
Data elements	Project Number, Fields 158 to 169
Reference	NACRS Abstracting Manual, Special Project Information (Data Elements 145 to 169) — Special Projects documentation is now accessible through the DAD/NACRS Abstracting Manual application on CIHI's website.

19 Project 340 — High volume of N for Referral to Stroke Prevention Services at ED Discharge (N9340-125)

Rule

When Special Project 340 Canadian Stroke Strategy Performance Improvement is completed, it is mandatory to record Field 147 Referral to Stroke Prevention Services at ED Discharge. This field captures whether patients with an “applicable condition” receive a referral for stroke prevention follow-up at discharge.

A percentage higher than 50% of abstracts with value N (No) may indicate a need to investigate practices around the capture of referral to stroke prevention services at ED discharge.

Criteria	Description
Patient care type	ED
Submission level	Level 3
Selection criteria	An “applicable condition” is recorded AND At least 50% of these records have Field 147 Referral to Stroke Prevention Services at ED Discharge recorded as N.
Data elements	Project Number, Field 147
Reference	NACRS Abstracting Manual, Special Project Information (Data Elements 145 to 169) — Special Projects documentation is now accessible through the DAD/NACRS Abstracting Manual application on CIHI’s website.

20 Scanner Used to Input Product Number and Cement — Product Number but AIM Code Was Not Enabled (NCJ10-161)

Rule

AIM (Automatic Identification and Mobility) code is a scanner parameter, enabled by scanning a barcode or series of barcodes in the scanner's product reference manual. The presence of the AIM code ensures that CIHI can appropriately extract the product number. There are 2 main barcode formats, HIBC and GS1, to encode the data in the current prosthesis stickers.

Examples

- HIBC format

When the barcode is scanned, the output will look like this:

]C0+H132005764015511/2215162099277E12

The AIM code is composed of the first 3 digits:]C0

- GS1 format

When the barcode is scanned, the output will look like this:

]C10110603295014577

The AIM code is composed of the first 3 digits:]C1

Criteria	Description
Patient care type	All patient care types
Submission levels	Levels 1–3
Selection criteria	If the first digit of Product Number/Cement — Product Number is “+”, “H” or “h” OR If the first 2 digits of the Product Number/Cement — Product Number are “01” and the total length of Product Number/Cement — Product Number is greater than or equal to 16 OR If the first 2 digits of the Product Number/Cement — Product Number are “10” or “11” and the total length of Product Number/Cement — Product Number is greater than or equal to 14
Data elements	Product Number, Cement — Product Number
Correct case examples	**Applies to data inputted using a barcode scanner only** HIBC format • Scanned output Product Number:]C0+H132005764015511/2215162099277E12 Lot Number:]C0+H132005764015511/2215162099277E12 GS1 format • Scanned output GTIN:]C10110603295014577
References	CJRR barcode bulletin: https://www.cihi.ca/en/entering-product-barcodes-for-the-canadian-joint-replacement-registry HIBC specification: https://www.hibcc.org/wp-content/uploads/SLS-2.6-Final.pdf GS1 general specification https://www.gs1.org/sites/default/files/docs/barcodes/GS1_General_Specifications.pdf

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