

National Rehabilitation Reporting System: Case Mix Rehabilitation Patient Group Resource Materials and Frequently Asked Questions, 2013–2014

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Our Vision

Better data. Better decisions.
Healthier Canadians.

Our Mandate

To lead the development and maintenance of comprehensive and integrated health information that enables sound policy and effective health system management that improve health and health care.

Our Values

Respect, Integrity, Collaboration,
Excellence, Innovation

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Introduction

The Canadian Institute for Health Information (CIHI) maintains and updates the Rehabilitation Patient Group (RPG) grouping and weighting methodology on behalf of Ontario’s Ministry of Health and Long-Term Care (MOHLTC). CIHI also produces record-level data files that contain RPG metrics in NRS Operational Reports and summary reports of National Rehabilitation Reporting System (NRS) data grouped and weighted using the RPG grouping and weighting methodology in NRS eReports; these are produced on a quarterly basis for all participating facilities across Canada that have inpatient rehabilitation beds. These data files and reports are used by Canadian rehabilitation inpatient facilities for the following purposes:

1. To review completeness of NRS data;
2. To measure patient acuity; and
3. To inform resource usage.

Following the release of the RPG reports, the NRS and Case Mix teams often receive questions regarding how RPG reports are produced and how to interpret the facility-level RPG information provided in the NRS eReports. This document is intended to address the most frequently asked questions received from NRS clients relating to RPG grouping and weighting of NRS data.

Accessing RPG-Related Products

Various documents and education products are available as general reference materials:

Rehabilitation Patient Group Grouping Methodology and Weights, 2013–2014

The RPG grouping methodology may be used to support facility, regional or provincial/territorial service planning and analysis of resource utilization in inpatient rehabilitation care. The product includes SAS program code, detailed flowcharts (program diagrams), the weight values and trim points for 2013–2014, and test data in comma-separated value (CSV) format.

This product is available to CIHI Core Plan subscribers through [CIHI's eStore](#).

NRS Operational Reports

Record-level data files containing key RPG grouping and weighting data elements and metrics for each episode of care within a participating facility are available via the RPG Reports link in NRS Operational Reports. These quarterly record-level data files present all records that have ever been submitted to the NRS for a given facility.

This application is available through [CIHI Client Services](#) for designated users at NRS-participating facilities.

NRS eReports

RPG Resource Utilization reports, which contain key RPG grouping and weighting metrics for NRS clients and episodes of care, are available in NRS eReports. These aggregate reports are presented by fiscal year and can be further drilled down to the fiscal quarter or month.

This application is available through [CIHI Client Services](#) for designated users at NRS-participating facilities.

Introduction to the Rehabilitation Patient Group Methodology for NRS Workshop (half day)

This half-day workshop will explore the grouping methodology and how episodes of care are weighted. CIHI's experts will explain how NRS assessments are grouped and how administrative and clinical data is used to ultimately derive RPG weight values for NRS episodes. The workshop will include exercises and time for questions.

Details on registration and dates for this workshop for CIHI Core Plan subscribers can be found through the [CIHI Learning Centre](#).

Introduction to the Rehabilitation Patient Group Methodology for NRS Self-Study Course (1 hour)

This course will provide basic information regarding the NRS RPG methodology, such as how episodes are assigned to Rehabilitation Groups (RGs) and RPGs, and how episodes are weighted.

This product is available to CIHI Core Plan subscribers through the [CIHI Learning Centre](#).

RPG Grouping Methodology and Rehabilitation Cost Weights (high-level information document)

This high-level information document provides a summary of the RPG grouping and weighting methodologies and points readers to key resources. It is suitable for all audiences, including senior management, financial and decision-support personnel, and clinical front-line staff.

This document is available on CIHI's [Case Mix web page](#).

Frequently Asked Questions

What is the Rehabilitation Patient Group (RPG) grouping methodology?

The RPG grouping methodology is used to categorize client data submitted by participating organizations to CIHI's National Rehabilitation Reporting System (NRS) database. Based on a client's reason for receiving inpatient rehabilitation services, and using the client's admission age and admission motor and cognitive functional status scores, client episodes are assigned to 1 of 83 RPGs. Upon discharge, episodes are then weighted based on their length of stay, RPG and associated Rehabilitation Cost Weights.

What is a Rehabilitation Client Group (RCG)?

A client's RCG reflects the health condition that best describes the primary reason for admission to inpatient rehabilitation.

What is a Rehabilitation Group (RG)?

The RCG is used, along with admission age and admission motor and cognitive function status scores, to assign client episodes to 1 of 21 RGs and 1 of 83 RPGs to assess resource utilization.

What are RPG Resource Utilization reports?

NRS weighted episodes are used to produce RPG Resource Utilization reports. CIHI produces these reports quarterly to summarize clinical and resource characteristics of individuals and facilities. A

variety of audiences may use weighted RPG reports, including financial and decision-support analysts, facility administrators and management teams within health regions and ministries of health.

What is the RPG Length of Stay (LOS)?

The RPG LOS is the length of a rehabilitation episode. It is calculated as the number of days from admission to discharge.

What is the Case Mix Length of Stay (LOS)?

The Case Mix LOS is the number of days between admission and discharge for completed episodes. It is calculated as the discharge date minus the admission date. The convention for counting days for LOS is that the admission date counts but the discharge date does not. The Case Mix LOS is used when RPG reports are produced.

Are follow-up episodes included in the RPG or weighting process?

Some NRS episodes also include a follow-up assessment, but that information is not included in the RPG grouping or weighting process.

How are RPG weights assigned to NRS episodes?

An NRS episode can be weighted only after the discharge assessment has been completed; this means that both an admission and a discharge assessment have been successfully submitted to the NRS. The weighting methodology is based on the assigned RPG, the Case Mix LOS and the weighting values for that RPG. The weight used depends on whether the episode was classified as a short-stay outlier, long-stay outlier or typical (non-outlier) stay.

What is the Rehabilitation Cost Weight (RCW)?

The RCW represents the average relative resource utilization for inpatients in a given RPG. RCW is used to weight NRS typical- and long-stay episodes.

What is the Short-Stay Trim Point ($Trim_{SS}$)?

The $Trim_{SS}$ is the number of days below which an episode is considered a short stay for a given RPG. Episodes with an LOS less than or equal to this trim point will be considered short-stay episodes.

What is the Short-Stay per Diem Rehabilitation Cost Weight ($PDRCW_{SS}$)?

The $PDRCW_{SS}$ is used to weight each patient day for NRS short-stay episodes.

What is the Long-Stay Trim Point ($Trim_{LS}$)?

The $Trim_{LS}$ is the number of days beyond which an episode is considered a long stay for a particular RPG. Episodes with an LOS greater than this trim point will be considered long-stay episodes.

What is the Long-Stay per Diem Rehabilitation Cost Weight ($PDRCW_{LS}$)?

The $PDRCW_{LS}$ is used to weight patient days that go beyond the $Trim_{LS}$ for NRS long-stay episodes.

What is a short-stay episode and how is it weighted?

NRS episodes with a Case Mix LOS shorter than or equal to the $Trim_{SS}$ are called short-stay episodes. The $PDRCW_{SS}$ is used to weight each day of these episodes. The same cost weight is used to weight the days for short-stay episodes within each of the 83 RPG groups.

What is a typical-stay episode and how is it weighted?

NRS episodes that have a Case Mix LOS longer than the $Trim_{SS}$ and equal to or shorter than the $Trim_{LS}$ are called typical-stay episodes. For typical-stay episodes, the RCW is used to weight the entire episode regardless of the length of stay. All RPGs within an RG use the same RCW.

What is a long-stay episode and how is it weighted?

NRS episodes that have a Case Mix LOS longer than the $Trim_{LS}$ are called long-stay episodes. When an episode continues beyond the $Trim_{LS}$, the $PDRCW_{LS}$ is used to weight the days that extend beyond the trim point. A separate $PDRCW_{LS}$ is defined for each RG; all RPGs within an RG use the same $PDRCW_{LS}$. The episode weight is the RCW—for the days up to the trim point—plus the $PDRCW_{LS}$ for each long-stay outlier day.

When are the RPG reports generated?

Each fiscal quarter, RPG reports are generated based on data cuts taken after the NRS error-correction deadline (45 days after the end of the quarter). These reports are typically posted to NRS Operational Reports within three weeks of this deadline.

What kinds of RPG information are available from CIHI?

CIHI produces two kinds of RPG products:

1. NRS facility- or jurisdiction-based record-level data cuts that contain key RPG grouping data elements, groups and weights for each episode of care: These record-level data cuts are available on NRS Operational Reports and present all data that has ever been submitted to the NRS for that facility or jurisdiction.
2. RPG Resource Utilization reports that contain key RPG grouping and weighting metrics for each episode of care: These reports, available in NRS eReports, are presented by fiscal year and can be further drilled down to the fiscal quarter or month.

Is it possible to receive the RPG Resource Utilization report with just the data for a specific quarter within the reporting period?

Yes. CIHI's RPG Resource Utilization reports, located within NRS eReports, are presented by fiscal year but can be further drilled down to display the data by fiscal quarter and month.

Why do CIHI's RPG Resource Utilization reports produce different results from those generated by my vendor's software?

The RPG Resource Utilization reports, located within NRS eReports, are produced by CIHI on behalf of Ontario's MOHLTC. The methodology used to produce the RPG reports for NRS facilities was developed by the Ontario Joint Policy and Planning Committee (JPPC) Rehabilitation Technical Working Group. See the Ontario Government Documents website for the [JPPC technical report](#) that describes the RPG research.

NRS vendor systems are not required to produce RPG reports. However, some have opted to include this functionality. While the NRS provides a vendor testing process to help ensure the quality of data submissions, CIHI does not review the methodology used by vendors to replicate RPG reports. Accordingly, CIHI cannot comment on differences between values in CIHI's RPG reports and those produced through a vendor's software. Differences may arise because CIHI's reports are based on data that has been successfully accepted into the NRS database prior to the most recent data cut; this may be different from the data reflected by vendor software.

How can I find out more details about NRS episodes that cross fiscal years?

As long as information about an episode that was discharged by March 31 is successfully submitted to the NRS before the May 15 data cut, the episode will be weighted in CIHI's RPG Resource Utilization reports, located in NRS eReports. Episodes for which only an admission record has been submitted will also appear in RPG reports that are available via the NRS Operational Reports application, but these clients will not be weighted until there is a corresponding discharge assessment accepted into the NRS database. For further information, feel free to contact the Rehabilitation team at CIHI at nrs@cihi.ca.

If the RCG submitted on the Discharge Form is different from that submitted on the Admission Form, which RCG is used to assign the RPG?

In such cases, the discharge RCG is used to assign the RPG. Basically, coding the RCG (data element 34: Rehabilitation Client Group) is mandatory on the admission assessment. On the discharge assessment, the RCG code should default to the same code as on the admission assessment. However, the RCG may be modified on the discharge assessment if necessary.

Therefore, if a report is generated when a client has only an admission record present, the RPG will be assigned based on the RCG from the admission record. If the report is generated when a client has both admission and discharge records submitted, and if the RCG has been updated on discharge, then the RPG will be assigned based on the updated (discharge assessment) RCG. As such, a client may be grouped into one RPG on a given report and then re-grouped into another RPG on a later report. Note that we expect RCG changes to be very infrequent occurrences.

Also, given that only discharged episodes are weighted, any reports that involve weights would use the discharge assessment RCG in determining the RPG. As mentioned, in most cases this will be the same as the admission assessment RCG.

Do the RPG reports in NRS eReports take into account unplanned discharges?

Most reports available in our NRS eReports environment (that is, via MicroStrategy) disregard unplanned discharges. RPG reports available via the Operational Reports application (that is, not MicroStrategy), however, are simply record-level listings of all clients ever admitted to the facility. As such, unplanned discharges will appear with everyone else. Note that in either case these clients do not typically receive an RPG because the vast majority of them do not have admission function scores recorded, which are necessary for RPG assignment. (As such, most receive an RPG of “-7” or something similar.)

Who codes the RCGs and how are they coded?

The RCG code is determined by the service provider(s) or rehabilitation team at the time of admission and at discharge (if the assigned group is different). Appendix D (available in modules 1 and 2) of the *Rehabilitation Minimum Data Set Manual* contains the list of valid RCG codes that may be recorded. Facilities are encouraged to be as specific as possible with the RCG coding. Module 1 (page 138) contains the specifications for data element 34: Rehabilitation Client Group.

Has there been any assessment of the quality of the RCG variable in the past?

Although no comprehensive quality analysis of RCG coding has been completed recently, the correct interpretation of RCG coding guidelines receives significant attention during NRS training and client support sessions. For instance, greater detail was added in the technical notes at the end of Appendix D of the *Rehabilitation Minimum Data Set Manual* to assist users in selecting the correct category. When inconsistencies are found during regular analysis, the NRS team uses focused communications with all facilities in the form of newsletter articles and updates outlining specific coding recommendations for given patient groups. The NRS team also provides responsive and timely client support for RCG selection, including use of the eQuery knowledge platform, an online searchable database of past questions and answers.

Questions

If you have questions, please contact CIHI's staff through the [eQuery tool](#) or send an email to nrs@cihi.ca.