Implementing a Coordinated Approach to Collecting Stroke Rehabilitation Intensity Data across Ontario

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Background

• Quality-Based Procedures for Stroke1 recommend that persons with stroke receive a minimum of 3 hours of individualized inpatient rehabilitation intensity (RI) per day.
• As current databases do not capture patient therapy time, the Ontario Stroke Network (OSN) collaborated with the Ministry of Health and Long-Term Care and Canadian Institute for Health Information (CIHI) to capture RI within the National Rehabilitation Reporting System (NRS),
• Mandatory collection of stroke RI data in Ontario began April 1, 2015.
• The objective of this work was to develop a standard approach to support provincial implementation of stroke RI data collection.

Provincial Definition of Stroke Rehabilitation Intensity

Rehabilitation intensity* is defined as:

The amount of time the patient spends in a mandatory goal-oriented rehabilitation therapy, focused on physical, functional, occupational, communicative and social goals to maximize the patient’s recovery, over a seven day period.

*The rehabilitation intensity definition was developed through literature review, expert consensus, and stakeholder engagement, and was approved by the Ontario Stroke Network (OSN) Stroke Reference Group.

Methods

• In 2014, a provincial working group was struck to develop and implement a province-wide strategy to support RI data collection.
• A review of existing data gathered on workload measurement systems (WMSs) was conducted.
• Site interviews occurred at four hospitals.
• Pilot data was collected at one site.
• Based on the information gathered, resources were developed and disseminated by OSN Regional Rehabilitation Coordinators to all organizations** that report stroke RI data to the NRS.
• These OSN members also gathered feedback from their respective sites to identify emerging issues and inform implementation.
• An electronic survey was then administered to 48 sites that submit to the NRS three weeks post implementation to evaluate the clinicians’ experiences in the uptake of the RI data collection.

**Organizations that submit RI data to the NRS include rehabilitation and non-free-standing inpatient rehabilitation hospital programs/services and integrated stroke units.

Results

Based on site interviews, a process map (Figure 2) was developed to support modification of the 3 most commonly used WMSs. This process map included factors for clinical managers and decision support leads to consider when preparing their sites for RI collection and reporting.

Site interview results also included a focus on sustainability, with the following suggestions:
1. Inclusion of staff, managers and senior leadership in the design and implementation of the WMS tool.
2. Data quality checks or audits in place to ensure:
   a. Accuracy of data collection in the data being collected by front line staff;
   b. Consistency in collection amongst front line staff;
   c. Confirmation that each step of the change process is not unintentionally impacting or skewing the data (i.e., not leading to translation errors or in written cursive/misread);
3. Provision of feedback/data to front line staff to ensure data accuracy and consistency of data collection; and
4. Utilization of OSN or regional stroke network resources.

To further support emerging clinical needs in collecting RI data, guiding questions (Figure 3) and other resources were also developed by the group.

Current Mechanisms for Collecting RI Data

Of the 47 hospitals that responded to the survey, all 2 sites were able to collect RI data for April 1, 2015, with 64% of sites collecting RI data using their WMS (Figure 4).

FIGURE 2: A process map to support RI data collection implementation.

Figure 5A; and

FIGURE 5: Two common approaches for modifying WMS screens.

A)

B)

Three methods for capturing RI data included:
1. Modifying existing WMS fields and adding new data fields to collect granular information per day (e.g., collecting RI time that is specific for co-treatment and collaborative treatment sessions) - Figure 5A;
2. Not modifying existing WMS fields and adding new data field(s) to collect the total time of RI per day - Figure 5B; and
3. Recording RI data on paper or other methods.

Conclusions

• The OSN leveraged regional structures and relationships to effectively implement RI data collection across the province.
• Regional stakeholder engagement allowed for tailored development and creation of resources to meet emerging needs.
• Future work will include the development of educational resources to address issues related to quality assurance and supports needed for clinical implementation of RI.

REFERENCES


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FIGURE 4: Common methods for collecting RI data across Ontario.

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