

# Sustaining Stroke Rehabilitation Intensity: Evaluating Clinician Knowledge Across Ontario, Canada

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## Background

Intensive rehabilitation is important for optimal recovery post stroke<sup>1,2</sup>. To support stroke best practices, rehabilitation intensity (RI) data collection and reporting to the National Rehabilitation Reporting System (NRS) was mandated on April 1, 2015 for all stroke inpatient rehabilitation patients within Ontario, Canada. RI data is reported provincially in the Ontario Stroke Report Card<sup>3</sup>.

### Ontario Definition of Stroke Rehabilitation Intensity

The amount of time the patient spends in individual, goal-directed rehabilitation therapy, focused on physical, functional, cognitive, perceptual, communicative and social goals to maximize the patient's recovery, over a seven day/week period. It is time that a patient is engaged in active face-to-face treatment, which is monitored or guided by a therapist.

## Issue

RI data collection relies on clinicians self-reporting and documenting patient rehabilitation time. To ensure data quality, Ontario's Stroke Rehabilitation Coordinators Group and stakeholders identified that consistent application of the RI definition amongst clinicians was needed.

## Methods

A provincial working group was formed to address the issue. Through discussion and consensus, it was determined that a resource consisting of an electronic learning module and quiz would support clinicians to use a consistent approach when reporting RI. Between April and November 2017, the resource was drafted, refined and validated by clinicians and other stakeholders. In November 2017, a pilot version was disseminated provincially (Figure 1) along with a feedback form. Quiz results and feedback were reviewed and incorporated, resulting in a 13-item quiz. To identify those who required additional education:

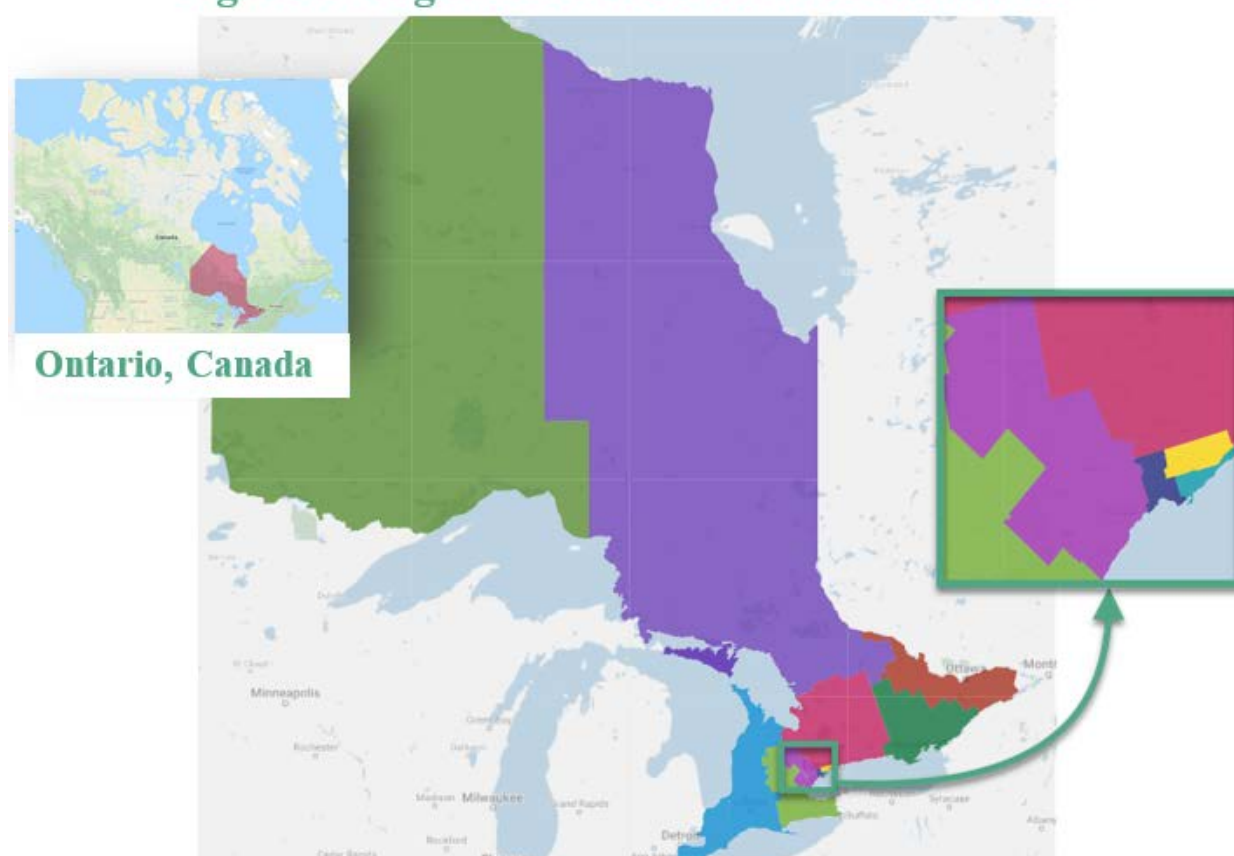
- a cutoff score of 90% was established
- participants who scored >90% rated their confidence in their knowledge of the RI definition.

Further education was recommended for scores <90% and low confidence ratings.

Education was built into the resource in two ways. First, all quiz respondents received immediate feedback and rationale for correct and incorrect responses. Second, the resource provided links to education resources and a local contact for more information.

The final resource "*Rehabilitation Intensity: What is Included? Education and Quiz*", was released May 2018 and dissemination approaches were tailored within each stroke region.

Figure 1: Regional Stroke Network Boundaries



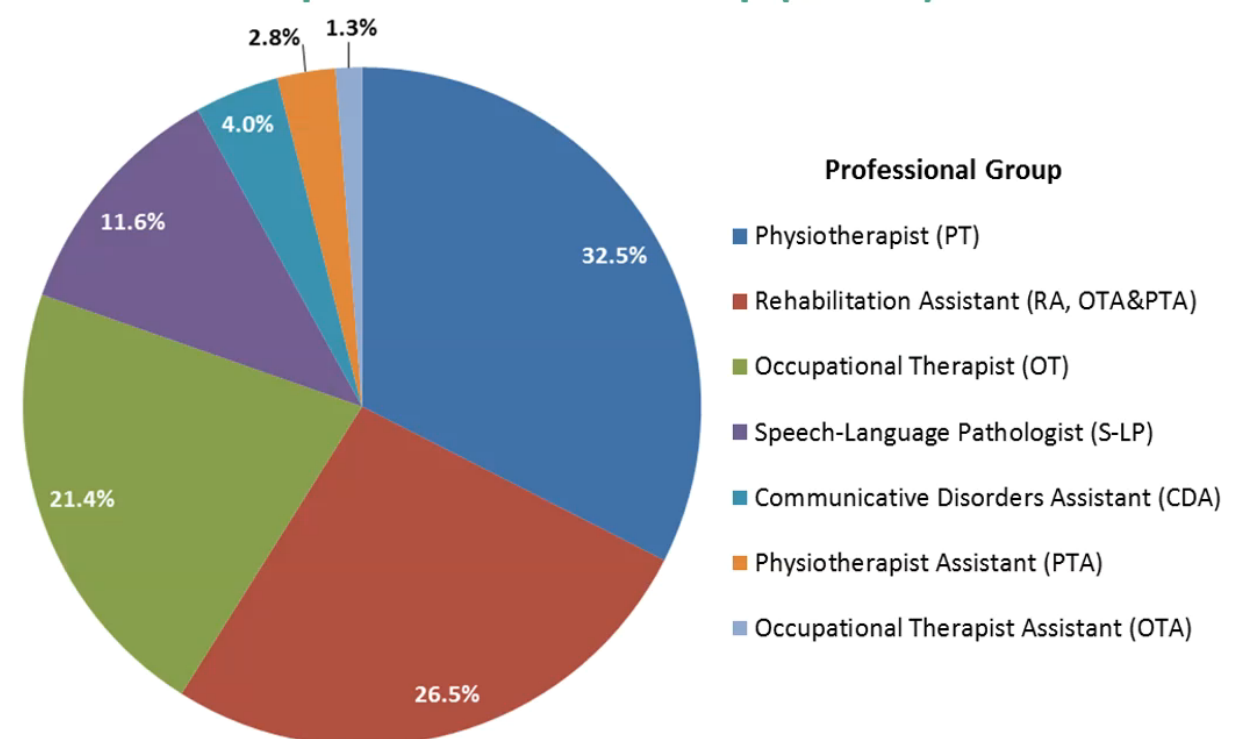
## Results

Within 10 months post implementation, 397 clinicians from 38 facilities with designated rehabilitation beds, had completed the learning module and quiz. 71.7% of facilities across Ontario had at least one quiz completed. Clinicians represented all applicable professions involved in RI with the greatest proportion being physiotherapists (PTs) and rehabilitation assistants (RAs) (Figure 2). All eleven of Ontario's Regional Stroke Networks (Figure 1) were represented in the 397 responses. The proportion of respondents from each network varied from 31.7% to 0.5% (Figure 3).

Quiz scores ranged from 43-100% (median 93%; mean 88%) (Figure 4). The proportion of tests with a score falling below 90% was 45.3%. The most challenging questions related to the recording of therapist assistant time when collaborating with a therapist (67%) and determining RI time with respect to patient assessment activities (80%) (Figure 5). Based on clinician feedback, the impact of the RI learning module and quiz has been positive within organizations that have implemented the resource (Figure 6).

For Figures 2 - 6, click on the image below and play the video.

Figure 2: Proportion of Respondents per Professional Group (N=397)



## Discussion

This resource has provided a mechanism to evaluate clinician RI knowledge and respond to the need for education across the province, thereby ensuring consistent application of the RI definition amongst clinicians. As the quiz was not mandatory, uptake and implementation strategies have varied amongst regional stroke networks, facilities, and professions. Specifically, there was variation in implementation readiness, frequency of use, and target audience (new staff vs. all staff). As readiness evolves, uptake is expected to continue to increase.

Higher completion rates by PT and RA groups was an expected result due to a higher proportion of these professions relative to others.

Future steps to support sustainability of RI include utilizing the quiz results to inform ongoing development of RI knowledge translation tools. For example, questions identified as the most difficult (based on lowest mean scores) across respondents, highlight key areas for targeted education both locally and provincially.

## Conclusion

The resource, "*Rehabilitation Intensity: What is Included? Education and Quiz*" has become a useful tool in evaluating and supporting clinician knowledge of RI across Ontario, thereby having the potential to enhance data quality and support sustainability of RI across Ontario.

Scan here to try the quiz

<https://www.surveymonkey.com/r/RICongressVersion>



CorHealth Ontario's role is limited to enabling the sharing of this independently produced resource.

1 Health Quality Ontario; Ministry of Health and Long-Term Care. Quality-based procedures: clinical handbook for stroke (acute and postacute). Toronto: Health Quality Ontario; 2016 December. 132 p. Available from: [http://health.gov.on.ca/en/pro/programs/ecfa/docs/qbp\\_stroke.pdf](http://health.gov.on.ca/en/pro/programs/ecfa/docs/qbp_stroke.pdf)

2 Hebert D, Teasell R, on behalf of the Stroke Rehabilitation Writing Group. Stroke Rehabilitation Module 2015. In Lindsay MP, Gubitz G, Bayley M, and Smith EE (Editors) on behalf of the Canadian Stroke Best Practices and Advisory Committee. Canadian Stroke Best Practice Recommendations, 2015; Ottawa, Ontario Canada: Heart and Stroke Foundation.

3 <https://www.corhealthontario.ca/data-&-reporting/stroke-report-cards/ontario-stroke-report-card>