



# STROKE REHABILITATION INTENSITY NEWSLETTER

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## High Impact Changes Influencing RI

We reached out to 5 of the top performers on the latest Stroke Report Card for the Rehab Intensity indicator to share their high impact changes and strategies. Read on to see if there are any ideas that you could implement.

### Awareness of RI

Education sessions for physicians, nurses and other health professionals about RI

### Collaboration

Buddied OT and PT pairs collaborate and plan sessions to maximize RI, including assigning care to assistants

### Patient scheduling

Visualization: -Therapy schedule is posted in central area to let patients and staff know when the therapy is taking place.

-Therapy times are noted on a whiteboard at the patient bedside

-Therapy times displayed on a smart board in the dining room  
Readiness: Increased attention to getting patients to therapy on time. This 'on-time-for-therapy' metric is displayed on a huddle board and results are shared at monthly team meeting.

### Roles

-Review the assistant's role and assign indirect care such as

wheelchair pool maintenance, allowing more direct patient care time for the therapists

### Team Rounds

Timing: Interprofessional team rounds moved to the afternoon to maximize therapy time in the morning

Duration: Discussion times decreased from 15 minutes to 10 minutes per patient. Notes prepared prior to the meeting and key points are added during discussion.

### Team communication

-A morning RI huddle takes place with OT, PT, SLP and nursing to identify barriers and maximize therapy for patients  
-RI is part of all conversations around planning care – bullet rounds, multidisciplinary rounds, goal setting after admission assessment etc.  
-White boards in the therapists' office to plan care, add extra time with assistant(s)

### Other Innovations

-Small hand therapy classes and other options for class sessions to provide social interaction while maximizing RI  
-ADL re-training program with Rehab assistants

- OT and assistant do ADL training for appropriate patients by shifting starting time between 0700 and 0730

-Guidelines to ensure stroke rehab and general rehab occur effectively on the same unit (i.e. caseload size limits, assignment to assistants)

-Real time data about RI enables staff to plan strategies and assess their impact

Are there any strategies that you could implement within your team? Do you have other innovative ideas to share with us? Please share with your Stroke Network Rehab Coordinator.

One of our stroke partners shared their thoughts about RI and we couldn't agree more: "Ensure everyone involved in RI understands that it is not just a number we are trying to achieve. I keep hearing that we 'shouldn't be treating to a number' and that therapy needs to be meaningful. I've heard '90 minutes of bad therapy isn't helpful'. Stakeholders who are new to RI need to also understand the best practice guidance that underpins the numbers, and that RI goes hand in hand with ensuring clinicians with advanced stroke competencies are in place. The number represents the highest intensity of stroke specific and appropriate rehabilitation, towards clinically proven optimal outcomes."

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## Did You Know....that there is a Provincial Maximum Rehab Intensity Calculation Template?

Your Regional Rehabilitation Coordinator can provide your facility with a provincial template that is designed to help estimate the maximum number of minutes per patient per day available towards Rehabilitation Intensity. It is a quick and simple process to populate the template - your facility inputs the inpatient stroke rehab staffing levels and provides data on patient volumes from the National Rehabilitation Reporting System (NRS).

As it is a provincial template there are background assumptions (hours per week, weeks per year of staffing (sick time, holidays (including stats) accounted for), and percentage of day that is direct patient care) that are pre-populated. These assumptions can be customized if they do not reflect your facility's practices.

Discipline	Total FTE per Discipline for the Unit providing inpatient stroke rehab	Total patient days per year for all RPPs Stroke only	Total patient days per year for all RPPs (including stroke)	Estimated % of caseload that is stroke	Estimated FTE treating stroke	Hours per week	Weeks per year of staffing	Hours per Year	Minutes per Hour	Amount of day that is direct patient care	Total direct patient care minutes available per year	Maximum minutes per patient per day available towards Rehab Intensity
PT	3.0	4,509	7,580	59%	1.8	35	46	1,610	60	80%	137,911	30.6
OT	3.0	4,509	7,580	59%	1.8	35	46	1,610	60	80%	137,911	30.6
SLP	2.0	4,509	7,580	59%	1.2	35	46	1,610	60	80%	91,941	20.4
Rehab Assistant	1.0	4,509	7,580	59%	0.6	35	46	1,610	60	80%	45,970	10.2
OTA	0.0	4,509	7,580	59%	-	35	46	1,610	60	80%	-	-
PTA	0.0	4,509	7,580	59%	-	35	46	1,610	60	80%	-	-
CDA	1.0	4,509	7,580	59%	0.6	35	46	1,610	60	80%	45,970	10.2
Total RI minutes available for all professions											102.0	

The combination of the data you provide based on your current staffing model along with the background assumptions generate the predicted maximum rehab intensity. This data can provide your facility with a sense of how close your stroke rehab team can be to providing 180 minutes of rehab intensity per day per patient. This information can lend support to actions your team undertakes as you strive to establish realistic targets for rehab intensity initiatives.

## Higher Intensity Therapy Linked to Better Outcomes

A systematic review of eight observational studies from skilled nursing facilities\* (SNF) in the U.S. found that patients might benefit from higher intensity therapy. The sample size across all eight studies was 923,711 short-stay (<100days) SNF patients (neurologic, orthopedic, medical) admitted between 1998 and 2016. Five of the studies included people with stroke. Therapy intensity was collected from the disciplines of OT, PT and SLP.

Higher intensity therapy was associated with  
 -higher rates of community discharge (**moderate evidence**)  
 -shorter length of stay (**moderate evidence**)  
 -improvements in function, i.e. FIM change, FIM efficiency, Short Physical Performance Battery (gait speed, sit-to-stand, balance), gait speed, independence in ADLs (**low-level evidence**)

The author reports that a “...shorter length of stay, while less costly for payers, should not be primary rehabilitation goal if shortened LOS comes at the expense of other patient outcomes”, i.e. higher readmission rates. They conclude that careful monitoring is recommended to ensure that patients receive high-quality and cost-effective care that translates to improved outcomes.

*\*Note that findings are specific to the SNF setting in the U.S. and cannot be entirely generalized. Skilled nursing facilities offer subacute rehabilitation, which is similar but less intensive than in an inpatient rehab setting e.g., 3x/ week vs 5-7x/week.*

**Rehabilitation Intensity and Patient Outcomes in Skilled Nursing Facilities in the United States: A Systematic Review**  
 Rachel A Prusynski, DPT, NCS, Allison M Gustavson, DPT, PhD, Siddhi R Shrivastav, BPT, MSPT, Tracy M Mroz, PhD, OTR/L; Physical Therapy, Volume 101, Issue 3, March 2021.  
[\(Full article\)](#)

## Knowledge check: Collaborative treatment when it is two different disciplines

**Question:** How do you accurately account for Rehabilitation Intensity (RI) minutes when the collaborative treatment involves a therapist and an assistant from two different health disciplines, for example, an OT and a PTA?

**Answer:** The therapist when co-treating with an assistant and who is present for the duration of the treatment time, regardless of discipline, would count the RI minutes. It does not matter if the therapist and assistant are from the same health discipline, if the therapist is present for the duration of the session, the therapist's time in direct therapy in this situation would count towards RI.

### Do you have a question about Rehabilitation Intensity?

Connect with your Regional Stroke Rehabilitation Coordinator, Shelley Huffman at [shelley.huffman@kingstonhsc.ca](mailto:shelley.huffman@kingstonhsc.ca).