

Background

Provision of Rehabilitation Intensity in Inpatient Rehabilitation: Striving Towards Three Hours of Therapy per Day

Current State:

Research shows that people with stroke hospitalized in inpatient rehabilitation units spend most of their day inactive (48%), alone (54%) and in their bedroom (57%).¹ This is contrary to the stroke best practices, which states that “stroke patients should receive, via an individualized treatment plan, at least 3 hours of direct task-specific therapy per day by the interprofessional stroke team for at least six days per week.”^{2,3}

Evidence:

- Patients who received total therapy time less than 3 hours per day had significantly lower total functional gain than those treated for greater than 3 hours per day.⁴
- Daily average and total amount of therapy time provided by occupational therapists, physiotherapists, and speech-language pathologists are significantly correlated with gains in activities of daily living, cognition and mobility, as well as overall functional improvement on the Functional Independence Measure (FIM®).^{4,5}
- Core therapies of Physiotherapy (PT), Occupational Therapy (OT) and Speech-Language Pathology (S-LP) have been shown to be most sensitive to intensity.⁴

Hence, through literature review, expert consensus and stakeholder engagement by the Ontario Stroke Network Stroke Reference Group, a provincial definition of Rehabilitation Intensity was developed in 2012:

Rehabilitation Intensity is defined as 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.

*In 2018, this definition was revised by the Regional Stroke Rehabilitation Coordinators Group to include the term ‘communicative’.

Impact:

Striving towards the stroke best practice recommendations of a minimum of three hours of direct therapy will result in improved functional outcomes, shorter lengths of stay, improved flow through the system, and greater patient experience.

Other Important Considerations:

Three factors are required to optimize rehabilitation: increased intensity of therapy; practice of skills outside of therapy time; and a complex, stimulating environment.^{6,7} To achieve this, all rehab activities are essential to meet the client's rehab goals, including nursing, recreation therapy, social work, group therapy, volunteer programs, independent practice etc.

For more information on this topic, or to access provincial Rehabilitation Intensity resources, please contact your local Regional Stroke Rehabilitation Coordinator. If you do not know his or her contact information, contact CorHealth Ontario at service@corhealthontario.ca.

References:

- 1 West, T. &Bernhardt, J. (2012). Physical activity in hospitalised stroke patients. *Stroke Research and Treatment*, Volume 2012, Article ID 813765, 13 pages, doi: 10.1155/2012/813765.
- 2 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/gbp_stroke.pdf.
- 3 Meyer, M., O'Callaghan C., Kelloway L., Hall, R., Teasell R., Meyer, S., Allen L., Leci, E. (2012). The Impact of Moving to Stroke Rehabilitation Best Practices in Ontario. Final Report. Retrieved from: <https://www.corhealthontario.ca/The-impact-of-moving-to-stroke-rehabilitation-best-practices-in-Ontario-OSN-Final-Report-Sept-14-2012.pdf>.
- 4 Wang, H., Camicia, M., Terdiman, J., Mannava, M., Sidney, S., Sandel, M. (2013). Daily treatment time and functional gains of stroke patients during inpatient rehabilitation. *Journal of Injury, Function, & Rehabilitation*, 5(2): 122-128.
- 5 Foley, N., McClure, A., Meyer, M., Salter, K., Bureauz, Y., Teasell, R. (2012). Inpatient rehabilitation following stroke: amount of therapy received and associations with functional recovery. *Disability & Rehabilitation*, 34(25): 2132–2138.
- 6 Teasell, R. (2012). Intensity of Stroke Rehabilitation. Presented at the Southwestern Ontario Stroke Rehabilitation Forum "Time is Function: Making It Real".
- 7 Consensus Panel on the Stroke Rehabilitation System. (2007). *Time is Function*. Toronto, ON: Heart and Stroke Foundation of Ontario.