

## Backgrounder

### Provision of Greater Intensity Therapy in Inpatient Rehabilitation: Daily Practice in Active and Complex Stimulating Environments

*Key elements to optimize stroke rehabilitation include:*

- *Daily activity that is intensive, challenging and meaningful*
- *Treatment in a complex, stimulating environment*
- *Additional practice outside of scheduled therapy time*

#### **Issue:**

More intensive therapy results in improved patient outcomes after stroke.<sup>1,2</sup> Contrary to best practices in stroke rehabilitation, research shows that hospitalized people with stroke in either acute or inpatient rehabilitation units spend most of their waking day inactive (48%), alone (54%) and in their bedroom (57%).<sup>3</sup> The provision of best-practice stroke rehabilitation holds tremendous opportunity to free up acute care beds and to help alleviate some of the issues surrounding Alternative Level of Care (ALC) in the acute hospital setting.<sup>4</sup>

#### **Evidence:**

Canadian best practice recommendations<sup>5</sup> state that:

- All patients with stroke should begin rehabilitation therapy within an active and complex stimulating environment as early as possible once medical stability is reached. (5.3)
- The team should promote the practice of skills gained in therapy into the patient's daily routine in a consistent manner. (5.3.iii)

Three factors are required to optimize rehabilitation – increased intensity of therapy (*refer to OSN Backgrounder: Provision of Greater Intensity Therapy in Inpatient Rehabilitation: Three Hours of Therapy per Day*); practice of skills outside of therapy time; and a complex, stimulating environment.<sup>6,7</sup> Enriched environments are defined as environments with access to greater sensory stimuli and more learning experiences. Animal studies have demonstrated improved recovery post-stroke with enriched environments;<sup>6</sup> a similar effect has also been reported in humans when studying specialized stroke units.<sup>6</sup>

#### **Opportunity for Change:**

Approaches to fostering an optimal rehabilitation environment include promotion of:

- a therapeutic environment (rather than clinical) - patients should not be limited to their room, looking at four walls or watching television
- opportunities to practice and integrate skills learned as an integral part of daily routines
- integrating individual goals into the patient's activities on the inpatient unit
- activities that are energizing, refreshing and arouse the senses

Opportunities to enrich the environment might include encouraging people with stroke to participate in:

- computer guided activities, interactive software or gaming e.g. Wii™, Kinect™
- playing cards or board games
- communal dining
- social interaction in a lounge
- patient and family resource library
- organized social activities such as music or other entertainment nights

Providing a well-furnished lounge affords an inviting environment for social activity. An additional benefit of this type of space is the informal support groups that may develop for people with stroke and their family members.

The interprofessional team, volunteers, friends and family/caregivers can all be enlisted to help create or foster an enriched environment. The provision of education and training opportunities regarding the importance of facilitating patient activity is encouraged.

Self-management principles and increasing self-directed patient activity can also help to foster an enriched hospital environment. For example, people with stroke can also be taught to do “homework” (such as the GRASP upper extremity program<sup>5,6</sup>, walking or sit to stand practice<sup>7</sup>) outside of scheduled therapy time, either independently or with support from non-therapy staff. Providing opportunities for weekend passes and community outings from the rehabilitation unit is also an important element of stroke rehabilitation that assists people with stroke and family/caregivers to transition home to a community environment upon discharge from hospital.

Time outside of scheduled therapy, often during evenings and weekends, offers a prime opportunity to enhance activity and positively influence both client and system level outcomes.

The Regional Stroke Networks in Ontario have designated individuals that can act as a resource in supporting your organization to implement best practices in stroke rehabilitation.

**For more information on this topic, please contact the:**

Ontario Stroke Network [www.ontariostrokenetwork.ca](http://www.ontariostrokenetwork.ca) or [info@ontariostrokenetwork.ca](mailto:info@ontariostrokenetwork.ca)

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