



## CLINICAL PRACTICE GUIDELINE FOR THE REHABILITATION OF ADULTS WITH MODERATE TO SEVERE TBI

Mai 2017

### INDICATORS EXAMPLES

SECTIONS	INDICATORS
A. Key Components of TBI Rehabilitation	Proportion of individuals with TBI who required and received rehabilitation services within two working days of the transfer from acute care.
	Average time between trauma and start of rehabilitation interventions.
	Presence of written rehabilitation admission criteria for individuals with TBI which include all four fundamental elements: <ol style="list-style-type: none"> <li>1) A traumatic brain injury diagnosis;</li> <li>2) Medical stability;</li> <li>3) The ability to improve through the rehabilitation process;</li> <li>4) The ability to learn and engage in rehabilitation</li> </ol>
B. Management of Disorders of Consciousness	Proportion of individuals with a severe disorder of consciousness who are assessed monthly during the first year post injury.
C. Subacute Rehabilitation	Proportion of individuals with TBI for whom a target length of stay was recorded in the medical chart within 7 days following admission to the rehabilitation program.
	Proportion of individuals with TBI for whom at least one objective in the rehabilitation plan specifically targets advanced cognitive functions, including: <ul style="list-style-type: none"> <li>• Problem solving</li> <li>• Mathematical skills</li> <li>• Memory</li> </ul>
	Proportion of individuals with TBI receiving a minimum of 3 hours/day of therapeutic interventions with focus on cognitive tasks during inpatient rehabilitation stay.
	Proportion of discharge reports sent to the treating general practitioners

D. Promoting Reintegration and Participation	Average time between referral and admission to outpatient/community-based rehabilitation services.
	Proportion of individuals with ongoing disability following TBI who have access to a specialized outpatient / community based rehabilitation service.
	Proportion of individuals with TBI with a documented assessment of daily living and instrumental activities of daily living (ADL/IADL) in the person's chart.
E. Caregivers and Families	Proportion of patients for whom the rehabilitation program was developed in collaboration with the principal caregiver(s).
F. Brain Injury Education and Awareness	<p>P Proportion of the following nine topics which are addressed in the written information package provided to individuals and their caregivers:</p> <ol style="list-style-type: none"> <li>1) Common physical, cognitive, behavioral and emotional consequences of traumatic brain injury;</li> <li>2) Reassurance about symptoms and signs which might be expected;</li> <li>3) The possibility of long-term problems;</li> <li>4) Advice on high-risk situations, safety and self-care measures;</li> <li>5) Advice on the interactions between alcohol and psychoactive drugs;</li> <li>6) Advice on alcohol or drug misuse for individuals who initially presented with drug or alcohol intoxication;</li> <li>7) Rehabilitation services and resources;</li> <li>8) Community resources;</li> <li>9) The difficulty of detecting traumatic brain injury-related problems by those who do not know about the injury.</li> </ol>
G. Capacity and Consent	Proportion of individuals with TBI for whom the capacity to consent to evaluation and interventions has been assessed and documented in the person's chart.
H. Comprehensive Assessment of the Person with TBI	<p>Proportion of conscious individuals with TBI for whom there is evidence of assessment for each of the following six impairments:</p> <ol style="list-style-type: none"> <li>1) Motor impairments;</li> <li>2) Bulbar problems affecting speech and swallowing;</li> <li>3) Sensory dysfunction;</li> <li>4) Reduced control over bowels and bladder;</li> <li>5) Cognitive dysfunctions;</li> </ol> <p>Behavioural dysregulation</p>

	<p>Proportion of individuals with TBI for whom there is evidence of assessment for each of the following eight cognitive impairments after emergence from PTA/PTD:</p> <ol style="list-style-type: none"> <li>1) Attention (including speed of processing);</li> <li>2) Visuospatial function;</li> <li>3) Executive function;</li> <li>4) Language, social communication;</li> <li>5) Social cognition;</li> <li>6) Learning and memory;</li> <li>7) Awareness of impairments;</li> <li>8) Detection/expression of emotion</li> </ol>
	<p>Proportion of individuals with TBI for whom there is presence of a family/caregiver interview form completed in the chart.</p>
I. Disorders of Consciousness	<p>Number and proportion of patients with whom restraints are used.</p> <p>Frequency of the use of restraints / week.</p> <p>Average duration of the use of restraints.</p>
	<p>Presence of low stimulation rooms (LSR).</p> <p>Average length of LSR use (days).</p>
J. Cognitive Functions	<p>Presence of rehabilitation objectives that focus on activities perceived as meaningful by the person in the rehabilitation plan / chart.</p>
	<p>Proportion of individuals with TBI and memory impairments who are taught to use one or more of the following five instructional or metacognitive strategies:</p> <ol style="list-style-type: none"> <li>1) Visualization/visual imagery;</li> <li>2) Repeated practice;</li> <li>3) Retrieval practice;</li> <li>4) Preview, Question, Read, State, Test (PQRST);</li> <li>5) Self-cueing, self-generation, self-talk</li> </ol>
	<p>Proportion of individuals with TBI with memory impairment who are trained to use environmental supports and reminders.</p>
K. Cognitive Communication	<p>Proportion of individuals with TBI for whom a reliable yes/no response was tested within the first two days after admission in rehabilitation.</p>
L. Dysphagia and Nutrition	<p>Proportion of individuals presenting a risk factor for aspiration post-injury for whom there is evidence of complete assessment of swallowing function.</p>

	Proportion of individuals with TBI whose nutritional status was assessed.
M. Motor Function and Control	Proportion of individuals with TBI for whom exercise training is included as an objective in the rehabilitation plan.
N. Sensory Impairment	Proportion of individuals with TBI and visual disturbances assessed by at least two of the following professionals : <ul style="list-style-type: none"> <li>• Ophthalmologists</li> <li>• Orthoptists</li> <li>• Professionals with expertise in rehabilitation for the visually impaired</li> </ul>
O. Fatigue and Sleep Disorders	Proportion of individuals with TBI formally assessed for fatigue and sleep disorders.
	Proportion of individuals with TBI and fatigue and/or sleep disorder who received at least one of the following five non-pharmacological interventions: <ol style="list-style-type: none"> <li>1) Cognitive behavioural therapy (CBT);</li> <li>2) Light therapy;</li> <li>3) Regular exercise;</li> <li>4) Energy conservation strategies;</li> <li>5) Sleep hygiene</li> </ol>
P. Pain and Headaches	Proportion of individuals with TBI who benefitted from a pain management protocol.
	Proportion of individuals with TBI and post-traumatic headaches who received cognitive behavioural therapy (CBT).
Q. Psychosocial / Adaptation Issues	Proportion of individuals with TBI for whom a discussion about sexuality, covering physical and psychological aspects, was carried out and documented in the person's chart.
	Proportion of individuals with TBI for whom personally relevant and meaningful productive activities are clearly documented in the treatment plan within the first six weeks after admission to rehabilitation.
R. Neurobehaviour and Mental Health	Proportion of individuals with TBI who are screened for depression using a standardized tool monthly.
	Proportion of individuals with TBI and depressive symptoms undergoing mindfulness-based cognitive therapy.
S. Substance Use Disorders	Proportion of individuals with TBI who were screened for history of substance use, intoxication at time of injury and current substance use.

T. Medical / Nursing Management	Proportion of individuals with TBI and continence problems discharged home before appropriate continence aids and services have been arranged.
	Average delay between TBI and initiation of venous thromboprophylaxis.
	Proportion of individuals with TBI for whom specific target symptoms/behaviors are monitored during pharmacological treatment.