Update on the INESSS-ONF Clinical Practice Guideline for the Rehabilitation of Adults with Moderate to Severe Traumatic Brain Injury in Canada - Development and Implementation

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An inter-provincial partnership

INESSS-ONF Guideline Development Team:

- **Corinne Kagan**, BA., BPS Cert. – ONF
- **Catherine Truchon**, Ph.D., MSc. Adm – INESSS
- **Shawn Marshall**, MD, MSc (Epi), FRCPC, Ottawa Hospital Research Institute & University of Ottawa
- **Marie-Eve Lamontagne**, Ph.D. Université Laval, CIRRIS
- **Project coordinators**
  - **Ailene Kua**, M.Sc (ONT), **Anne-Sophie Allaire**, M.Sc (QC) & **Pascal Marier-Deschenes** (QC)
- **+++ Collaborators**
Aim of Presentation

To provide an update of the development and implementation of the INESSS-ONF clinical practice guideline (CPG) for moderate to severe traumatic brain injury
Learning objectives

- Recognize the topics and clinical resources contained in the INESSS-ONF clinical practice guideline for use with persons with moderate to severe TBI;

- Identify relevant priorities for improving the quality and efficacy of TBI rehabilitation;

- Identify components of the INESSS-ONF guideline website for future navigation.
Plan of the presentation

- Review the concept of clinical practice guidelines: why they are needed and who uses them

- Provide background to the development and adaptation of the CPG

- Provide an overview of the content of the guidelines and highlight some of its recommendations using examples (clinician/manager & person with TBI/family member)

- Discuss the implementation plan for Québec and Ontario
What is a Guideline?

- What is evidence-based practice?
- Why are guidelines needed?
- Who uses guidelines?
Evidence-Based Practice

• The conscientious, explicit and judicious use of the current best evidence in making decisions about the care of individual patients. (Sackett, 1996, BMJ 312, 71-72)

• Clinicians who want to use EBP must find trusted and readily accessible sources for the best evidence, relevant to their practice area.
Clinical Practice Guidelines

- Systematically developed statements that help clinicians and patients identify and deliver appropriate health care
Why Guidelines?

CPGs can:

• Identify the nature, volume and quality of research evidence supporting clinical recommendations
• Improve decision making and ultimately, clinical outcomes
• Improve consistency of care
• Inform patients and other stakeholders regarding the treatment they should be receiving
• Influence health policy to enhance treatment efficiency and access to services

Guideline Development and Adaptation

1. Review and evaluation of existing CPGs
   May – Nov. 2013

2. Validation of the end-users’ needs and expectations

3. Synthesis of all existing documentation and evidence
   Mar. – Nov. 2014

4. Consensus process amongst experts
   Nov. 2014

5. Adaptation of the recommendations and production of the guidelines
   Nov. 2014 – May 2015

Final Product

INESSS-ONF Guideline

Implementation/Evaluation: INESSS-ONF Guideline
May 2015– May 2016
Fall 2016

Presentations / Publications

Guideline Development Process
Validation of the end-users’ needs and expectations

Survey of end-users needs & expectations

- 53% were not aware of any CPGs for the rehabilitation of adults with moderate and severe TBI

Identification of relevant topics

- Comments and suggestions regarding new elements

Key implementation process elements

- Want training and think use of the CPG by the colleagues/team would facilitate implementation
### Stakeholder consultation: Guidelines topics

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<th>Response</th>
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<tbody>
<tr>
<td>Access mechanisms</td>
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<td>25%</td>
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<tr>
<td>Continuity-of-care mechanisms</td>
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<td>59%</td>
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<td>Coordination mechanisms</td>
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<td>36%</td>
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<td>Duration of interventions</td>
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<td>Length of stay</td>
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<td>Intensity / frequency of interventions</td>
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<td>79%</td>
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<td>Rehabilitation models or reference frameworks</td>
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<td>74%</td>
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<td>Program evaluation measures</td>
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<td>Incidence and prevalence of TBI and its associated conditions</td>
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<td>General physical health</td>
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<td>TBI-related conditions (e.g.: heterotopic ossification)</td>
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<td>Epilepsy and other neurological disorders</td>
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<td>Endocrine disorders</td>
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<td>Vestibular and sensory impairments</td>
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<td>Diet and nutrition</td>
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<td>Motor impairments</td>
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<td>Cognitive function impairments</td>
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<td>Communication</td>
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<td>Behaviour disorders</td>
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<td>Orthotic devices and technical aids</td>
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<td>Positioning and mobility</td>
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<td>Fatigue and sleep disturbances</td>
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<td>Sexuality</td>
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<td>Mental health (psychological and emotional conditions)</td>
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<td>Pharmacological treatments</td>
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<td>Substance abuse</td>
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<td>Alternative medicine (e.g.: acupuncture)</td>
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<td>TBI education</td>
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<td>Vegetative state and individuals with low potential for recovery</td>
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Total Responses 303
Sharing Survey Results

The project aimed at developing a clinical practice guideline (CPG) for the rehabilitation of adults with moderate to severe traumatic brain injury (TBI) is progressing well. The following tasks have now been completed:

- Systematic review of existing practice guidelines
- Evaluation of the existing scientific literature
- Creation of the evidence committee and scientific committee (including an advisory subcommittee)
- Development of the expert panel required for the document, meeting scheduled for the fall of 2014
- Several consultation sessions with the experts involved, aimed at identifying and including the different aspects and perspectives of the guidelines, in addition to involving as many as possible.

We would like to thank everyone who participated in the consultation, (where) as this information is extremely useful in developing the next steps. The project team will continue with the next stages involving: the gathering of information and documentation that will be used to develop an expert recommendation, as well as the scientific literature and consultation of experts in the field. This information will be used to develop an expert recommendation.

If you have any questions or comments, please contact us:
Catherine Legault, catherine@fineshark.ca
Catherine Trudel, catherine@fineshark.ca

In November 2014, an online survey was conducted by the team charged with developing the CPG. The purpose of the survey was to determine the needs and expectations of professionals involved in the field of TBI rehabilitation.

A total of 487 people responded to the survey, with 80% from Quebec and 5% from the rest of Canada. Three-quarters of the respondents were clinicians, technologists, therapists, and managers. All types of practice settings (acute, inpatient, long-term care, community, outpatient, rehabilitation, and social services) were represented, and the different health regions of Quebec were well-represented.

Although close to 50% of respondents indicated that they were familiar with at least one clinical practice guideline (CPG) already in use, the vast majority of respondents stated a positive expectation of it, and most of them made little or no use of the guidelines in their daily practice.

Survey respondents also supported the concept of a CPG, with 71% indicating they would use a CPG, and 85% stating they would use it at least once in a while. When asked about the usefulness of a CPG, 92% of respondents indicated it would be useful.

The questionnaire included questions about the different types of guidelines currently used, and the purpose and content of the guidelines. The respondents were also asked about their role in the development of the CPG, and the expected impact of the CPG on their practice.

The survey results are currently being prepared and will be presented in the near future.
Expert Panel

PROJECT TEAM
- Anne-Sophie Allaire
- Mark Bayley
- David Caplan
- Mario De Bellefeuille
- Corinne Kagan
- Ailene Kua
- Shawn Marshall
- Bonnie Swaine
- Catherine Truchon

CLINICIANS
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- Chantal Boutin
- Nora Cullen
- Jehane H. Dagher
- Carol DiSalle
- Soumiya El Fassi
- Elizabeth Farquharson
- Melissa Felteau
- Connie Ferri
- Josée Fortier *
- Stéphane Gagnier
- Shaun Gray
- Marie-Clothilde Grothé
- Denise Johnson
- Danièle Labrèche
- Marie-Claude Lemay
- Carolyn Lemsky
- Geneviève Léveillé *
- Heather MacKenzie
- Scott McCullagh
- Suzanne McKenna
- Laura Moll
- Nancie Poulin
- Colin Pryor
- Laura Rees *
- Marie-Claude Roberge
- Robert Teasell *
- Alexis Turgeon
- Diana Velikonja
- Penny Welch-West

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- Patsy McNamara
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- John Zsofcsin *
- Debbie Furlotte *

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- Élaine De Guise
- Robin Green
- Shannon Janzen
- Marie-Josée Lever
- Michelle McKerral
- Marie-Christine Ouellet
- Mary Stergiou-Kita

DECISION-MAKERS and CONSUMER ASSOCIATION REPRESENTATIVES
- Gilles Bourgeois
- Jonathan Jean-Vézina
- Danie Lavoie
- Charissa Levy
- Jean-François Lupien
- Ruth Wilcock

* Advisory Committee Members
# Recommendations Matrix

## ORGANIZATION OF REHAB SERVICES

### Principles/Approaches to Rehabilitation Across Continuum

<table>
<thead>
<tr>
<th>A</th>
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<td>7</td>
<td>A1.1 Every patient with a moderate to severe acquired brain injury should have access to timely specialized interdisciplinary rehabilitation services.</td>
<td>(ABIKUS 2007, G2, p. 16)</td>
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<td>9</td>
<td>A1.2 Interdisciplinary protocols or integrated care pathways should be in place for management of common problems.</td>
<td>(ABIKUS 2007, G5, p. 16)</td>
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<td>11</td>
<td>A1.3 Care should follow a client centered approach responding to the needs and choices of persons with moderate to severe Acquired Brain Injury (ABI) as they evolve over time.</td>
<td>(ABIKUS 2007, G1, p. 16)</td>
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<td>13</td>
<td>A1.4 Common goals of the team should be consumer centred.</td>
<td>(NZGG 2007, 4.4, p. 76)</td>
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<td>15</td>
<td>A1.5 A holistic view should be taken of the person with traumatic brain injury and their care(s) within the context of their wider family and social networks.</td>
<td>(NZGG 2007, 13, p. 458)</td>
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<td>17</td>
<td>A1.6 Rehabilitation programs should be developed in collaboration with family, caregivers or nursing staff to ensure that the program is carried over into daily activities.</td>
<td>(ABIKUS 2007, 698, p. 33)</td>
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<td>19</td>
<td>A1.7 Health care practitioners working with people with traumatic brain injury should be aware of who the primary carers are, including both paid, formal carers and unpaid, informal carers who are usually family members.</td>
<td>(NZGG 2007, 13, p. 458)</td>
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Revising Recommendations / Developing Novel Recommendations

- Level of evidence used by existing guidelines varies depending on the individual methodology.
- To achieve consistency among the recommendations, the level of evidence for each recommendation was assigned the INESSS-ONF grade.

### INESSS-ONF LEVEL OF EVIDENCE

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>Recommendation supported by at least 1 meta-analysis, systematic review, or randomized controlled trial of appropriate size with relevant control group.</td>
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<td>B</td>
<td>Recommendation supported by cohort studies that at minimum have a comparison group, well-designed single subject experimental designs, or small sample size randomized controlled trials.</td>
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<tr>
<td>C</td>
<td>Recommendation supported primarily by expert opinion based on their experience though uncontrolled case series without comparison groups that support the recommendations are also classified here.</td>
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What Makes a Good Recommendation

- A good recommendation should:
  - Be short
  - Be clear
  - Specify who
  - Specify what
  - Specify how
  - Specify when
  - Be operationalizable
  - Be implementable
  - Be measurable

“It’s good that you’re eating more fresh fruit and vegetables, but be careful to chew more thoroughly.”
Finalized set of recommendations

262 RECOMMENDATIONS DIVIDED IN TWO SECTIONS

SECTION I
Components of the Optimal TBI Rehabilitation System”
68 recommendations: 32 new & 36 existing

SECTION II
Assessment and Rehabilitation of Brain Injury Sequelae
194 recommendations: 87 new & 107 existing

Indicators & Outcome measures
1. How will you know that people have followed CPG?
   • What are your Process Indicators? (Measurement of presence/absence/timing/quality of care process)

2. How will you know that the person with brain injury is better because of the implementation of CPG?
   • What are the Clinical Outcomes Measures? (Outcome measures typically measure impairments, activity level, roles in life or quality of life domains)
Process Indicators (Examples)

- **Recommendation:** People with severe TBI who have not recovered independently in self care should be admitted to comprehensive inpatient rehabilitation as soon as they are medically stable and able to participate.
  
  **Potential Indicators:**
  - Proportion of people with severe TBI (i.e. GCS<9) referred to inpatient rehabilitation
  - Average time from injury to onset of inpatient rehabilitation

- **Recommendation:** All patients with TBI should be screened for depression during inpatient rehabilitation and at all transitions.
  
  **Potential Indicators:**
  - Proportion of TBI patients admitted to inpatient rehab with documented depression screening tool used
Outcomes Measures

Measurement at Patient level of recovery from brain injury

- Cognitive recovery as measured by the Wisconsin Card Sorting Test
- Physical recovery - 6 minute walk test
- Quality of Life measures
- Glasgow Outcome Scale
The website

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

INESSS-ONF Guideline
Let’s say you are a

- Manager of an ABI program wanting to improve your program or put in place recommendations for your program...
- You are wondering how to expedite referrals to inpatient rehab and measuring your teams performance
Two Key Sections

- **Components of the Optimal TBI Rehabilitation System**
  - target audience is health system leaders who are designing system

- **Assessment/Rehabilitation of TBI Sequelae**
  - specific strategies targeted at clinicians
Part 1 General Principles for Organization of Rehabilitation Services

- Specialized Health Professional Training
- Case Management
- Specific Risk Management

Rehabilitation in the Acute Phase
- Management of Altered Level of Consciousness
- Transfer to Rehabilitation Services

Intensive SubAcute Rehabilitation
- Models of Traumatic Brain Injury Inpatient Rehabilitation
- Intensity and Duration of Treatment
- Discharge to the Community

Rehabilitation to promote Reintegration/ Participation in Community Roles
- Post-discharge Follow-up and Support
- Models of Community Rehabilitation
- Intensity and Duration of Community Based Therapy
- Optimizing Performance in Daily Living Tasks
- Leisure and Recreation
- Driving
- Vocational/ Education

Caregivers and Families
Brain injury Education and Awareness
Capacity and Consent
Two key types of recommendations

➢ **Fundamental Recommendations**
  - elements that rehabilitation programs need to have in place in order to build the rest of the system properly primarily for program managers and their leaders as they reflect upon the service conditions for optimal rehabilitation provision.

➢ **Priority Recommendations**
  - clinical practices or processes deemed most important to implement and monitor during rehabilitation practices most likely to bring on positive outcomes for people with TBI.
SECTION 1: Components of the Optimal TBI Rehabilitation System

A. Key Components of TBI Rehabilitation
B. Management of Disorders of Consciousness
C. Subacute Rehabilitation
D. Promoting Reintegration and Participation
E. Caregivers and Families
F. Brain Injury Education and Awareness
G. Capacity and Consent

SECTION 2: Assessment and Rehabilitation of Brain Injury Sequelae

H. Comprehensive Assessment of the Person with TBI
I. Disorders of Consciousness
J. Cognitive Functions
K. Cognitive Communication
L. Dysphagia and Nutrition
M. Motor Function and Control
N. Sensory Impairment
O. Fatigue and Sleep Disorders
P. Pain and Headaches
Q. Psychosocial / Adaptation Issues
R. Neurobehaviour and Mental Health
S. Substance Use Disorders
T. Medical / Nursing Management
SECTION 1: Components of the Optimal TBI Rehabilitation System

A. Key Components of TBI Rehabilitation
   A1. Principles for Organizing Rehabilitation Services
   A2. Coordinating Management of Comorbid Conditions

B. Management of Disorders of Consciousness
C. Subacute Rehabilitation
D. Promoting Reintegration and Participation
E. Caregivers and Families
F. Brain Injury Education and Awareness
G. Capacity and Consent
Two main parts...

SECTION 1: Components of the Optimal TBI Rehabilitation System

A. Key Components of TBI Rehabilitation
B. Management of Disorders of Consciousness
C. Subacute Rehabilitation
D. Promoting Reintegration and Participation
E. Caregivers and Families
F. Brain Injury Education and Awareness
G. Capacity and Consent

SECTION 2: Assessment and Rehabilitation of Brain Injury Sequelae

H. Comprehensive Assessment of the Person with TBI
I. Disorders of Consciousness
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P. Pain and Headaches
Q. Psychosocial / Adaptation Issues
R. Neurobehaviour and Mental Health
S. Substance Use Disorders
T. Medical / Nursing Management
A1. Principles for Organizing Rehabilitation Services

Medications should only be prescribed by qualified physicians, and guideline users should consult the section on "Principles of medication management" before prescribing.

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<th>Recommendations</th>
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<td>Rational</td>
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<td>System Implications</td>
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<td>Key Indicators</td>
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<td>Implementation Tools</td>
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<tr>
<td>Summary Of Evidence</td>
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</table>
Format of the Guideline

C. Intensive Sub-Acute Rehabilitation

- RATIONALE
- SYSTEM IMPLICATIONS
- PERFORMANCE MEASURES
- IMPLEMENTATION RESOURCES AND KNOWLEDGE TRANSFER TOOLS
- SUMMARY OF THE EVIDENCE
Traumatic brain injury results in complex physical, emotional and cognitive changes. There is solid evidence that rehabilitation can improve outcomes however because of complexity a large interprofessional team is required. There is also evidence that earlier rehabilitation will result in better outcomes than delayed. Because of the emotional changes, a quiet environment may reduce the incidence of challenging behaviours. Furthermore, each individual has unique needs therefore a case manager can coordinate the program to ensure that the person’s goals are met and to facilitate transition back into normal living.
There is a need for coordination between acute care and rehabilitation teams. Processes for referral to rehabilitation need to respond quickly. Development of clinical pathways requires clinician engagement in ensuring reasonable approach. Traumatic brain injury rehabilitation teams require adequate staffing to provide daily therapy. Rehabilitation should be provided in a secure environment where cognitively impaired individuals will not wander off.
## Format of the Guideline

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<tr>
<th>PERFORMANCE MEASURES</th>
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</table>

- Proportion of Patients admitted to acute care who access inpatient rehabilitation
- Average time post injury to admission to inpatient rehabilitation
- Proportion of patients assessed and treated by each discipline (PT, OT etc)
- Total number of hours of therapy during inpatient
- Average number of direct therapy hours per day
- Proportion of people with TBI who have a case manager
- LOS
- Change in FIM
- Fim efficiency (Change in FIM/LOS)
Format of the Guideline

IMPLEMENTATION RESOURCES AND KNOWLEDGE TRANSFER TOOLS
A1. Principles for Organizing Rehabilitation Services

Recommendations

Medications should only be prescribed by qualified physicians, and guideline users should consult the section on "Principles of medication management" before prescribing.

A.1.1  
Every individual with traumatic brain injury should have timely, specialized interdisciplinary rehabilitation services.

(Adapted from ABIKUS 2007, G2, p. 16)

A.1.2  
Rehabilitation interventions should be initiated as soon as the condition of the person with traumatic brain injury allows 12. (INESSS-ONF, 2015)

Suggested tool: Health Canada Indications of Use

References:

- ERABI Module 3- Efficacy and Models of Care Following an Acquired Brain Injury, p. 30. 3.3.2

A.1.3  
Rehabilitation programs should have clearly stated admission criteria, which include a traumatic brain injury diagnosis, medical stability, the ability to improve through the rehabilitation process, the ability to learn and engage in rehabilitation and sufficient tolerance for therapy duration. (INESSS-ONF, 2015)
Recommendations

A1. Principles for Organizing Rehabilitation Services

Recommendations

P PRIORITY F FUNDAMENTAL NEW LEVEL OF EVIDENCE A B C

A.1.1 F L-C

Every individual with traumatic brain injury should have timely, specialized interdisciplinary rehabilitation services.

(Adapted from ABIKUS 2007, G2, p. 16)

References:

- CRABI Module 3 - Efficacy and Models of Care Following an Acquired Brain Injury. p. 30. 3.3.2

A 1.2 NEW P

Rehabilitation interventions allows 12. (INESSS-ONF, 2015)

Suggested tool: Health Canada Indications of Use

A 1.3 NEW P L-C

Rehabilitation programs should have clearly stated admission criteria, which include a traumatic brain injury diagnosis, medical stability, the ability to improve through the rehabilitation process, the ability to learn and engage in rehabilitation and sufficient tolerance for therapy duration. (INESSS-ONF, 2015)
A1. Principles for Organizing Rehabilitation Services

Recommendation

Medications should only be prescribed by qualified physicians, and guideline users should consult the section on "Principles of medication management" before prescribing.

Rehabilitation interventions should allow 12. (INESSS-ONF, 2015)

Suggested tool: Health Canada Indications of Use

References:
- CEBI Module 3: Efficacy and Models of Care Following an Acquired Brain Injury, p. 30, 3.3.2

Rehabilitation programs should have clearly stated admission criteria, which include a traumatic brain injury diagnosis, medical stability, the ability to improve through the rehabilitation process, the ability to learn and engage in rehabilitation and sufficient tolerance for therapy duration. (INESSS-ONF, 2015)
Rationale

Traumatic brain injury results in complex physical, emotional and cognitive changes. There is solid evidence that rehabilitation can improve outcomes. There is also evidence that earlier rehabilitation will result in better outcomes than delayed. However, because of complexity, a large interdisciplinary team is required. Furthermore, each individual has unique needs; therefore, a case coordinator can coordinate an individual’s rehabilitation program to ensure that the person’s goals are met and to facilitate transition back into normal living. Because of the emotional changes, a quiet environment may reduce the incidence of challenging behaviours.
System Implications

There is a need for coordination between acute care and rehabilitation teams. Processes for referral to rehabilitation need to respond quickly. Development of clinical pathways requires clinician engagement to ensure a reasonable approach. Traumatic brain injury rehabilitation teams require adequate staffing to provide daily therapy. This usually requires an environment with features such as wander bracelets for patient, secured access doors that limit exit for confused patients while allowing others to move in and out as their status improves.
Key indicators

- Proportion of Patients admitted to acute care who access inpatient rehabilitation
- Average time post injury to admission to inpatient rehabilitation
- Proportion of patients assessed and treated by each discipline (PT, OT, etc.)
- Total number of hours of therapy during inpatient
- Average number of direct therapy hours per day
- Proportion of people with TBI who have a case manager
- LOS
- Change in FIM
- FIM efficiency (Change in FIM/LOS)
Summary Of Evidence

Several studies have shown early rehabilitation to be beneficial in an individual's overall recovery from TBI. (Heinemann 1990; Cope et al. 1995; León-Carrión et al. 2013; Wagner et al. 2003; Kunik et al. 2006; Mackay et al. 1992). Leon-Carrion et al. (2013) reported that patients who received neurorehabilitation earlier demonstrated better global functioning at discharge than patients who began treatment at a later point. Length of stay was also positively impacted, with those admitted sooner requiring fewer days in rehabilitation (Kunik et al. 2006; Wagner et al. 2003).
Let’s say you are a

- Clinician or person with TBI wanting to know what is the best treatment for memory problems...
Part. 2 Assessment/Rehabilitation of TBI Sequelae

- Principles of Assessment of the Person with TBI
- Altered State of Consciousness
- Cognition Interventions
- Cognitive Communication
- Dysphagia and Nutrition Interventions
- Motor Function and Control
- Visual assessment and Rehab
- Fatigue and Sleep Disorders
- Pain and Headaches
- Psychosocial/Adaptation Issues
- Neurobehavioral / Emotional Mental Health Issues
- Special Challenges / Concomitant Issues e.g. Drug and Alcohol Use
### Format of the Guideline

C. Intensive Sub-Acute Rehabilitation

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Implementing our guidelines

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

Implementation/ Evaluation: INESSS-ONF Guideline
May 2015– May 2016
Fall 2016
Select, Tailor, Implement interventions

Monitor Knowledge Use

Evaluate Outcomes

Sustain Knowledge Use

Action Cycle (Application)

Identify Problem

Identify, Review, Select Knowledge

Knowledge Creation

Tailoring Knowledge

Knowledge Tools/Products

Knowledge Synthesis

Knowledge Inquiry

Assess Barriers to Knowledge Use

Adapt Knowledge to Local Context

Knowledge to Action Process
The implementation of the CPG

- Fundamental and priority recommendations too numerous to implement

- Surveyed 44 programs (n= 26 in Quebec, n= 18 in Ontario) about current situation, their opinions about priorities and feasibility of implementing recommendations (including potential obstacles)

- Identify a subset of recommendations not yet implemented in rehabilitation but of high priority and feasible to implement
# Pre-Implementation Survey

<table>
<thead>
<tr>
<th>#</th>
<th>RECOMMENDATION</th>
<th>LEVEL OF IMPLEMENTATION</th>
<th>LEVEL OF PRIORITY</th>
<th>LEVEL OF FEASIBILITY</th>
<th>MAIN OBSTACLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW</td>
<td>Rehabilitation interventions should be initiated as soon as the condition of the person with traumatic brain injury allows. (<a href="#">INESS-ONF, 2015</a>)</td>
<td>2 – Yes, it is implemented, but may not be followed on some occasions</td>
<td>1 – High priority</td>
<td>2 – Somewhat feasible</td>
<td>Lack of human resources</td>
</tr>
<tr>
<td>A1.6</td>
<td>Individuals with traumatic brain injury who require rehabilitation should have a case or clinical coordinator appointed at each phase of the continuum of care. (<a href="#">adapted from NZGHA 2007, 4.3.2.1, p. 75</a>)</td>
<td>4 – No, it is followed only occasionally, adherence to the recommendation is not systematic</td>
<td>3 – Low priority</td>
<td></td>
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<tr>
<td>A2.3</td>
<td>Health care professionals working with individuals having sustained a traumatic brain injury should be trained in behaviour disorders specific to traumatic brain injury in order to apply consistent neurobehavioral change strategies. (<a href="#">INESS-ONF, 2015</a>)</td>
<td>3 – It is partially implemented</td>
<td>2 – Medium priority</td>
<td>1 – Very feasible</td>
<td>To find someone to develop the training program and update it every year</td>
</tr>
<tr>
<td>B1.1</td>
<td>All individuals with a disorder of consciousness should be periodically assessed, throughout the first year post injury, by an interdisciplinary team with specialized experience in traumatic brain injury. (<a href="#">INESS-ONF, 2015</a>)</td>
<td></td>
<td></td>
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The implementation of the CPG

- Collaborative process
  - Clinicians, managers, policy makers

- Evidence-based implementation process
  - Strategies, stakeholders, timing, etc.
  - Tools (workshops, auditing) & having designated time to read the guideline and familiarize with it

- Pilot projects in a few settings
An Implementation Strategy

Identification of key recommendations by panel of experts (post consensus conference)

PRESENTATION OF FINALIZED CPG TO MAIN STAKEHOLDERS
(method + key recommendations + implementation strategy)
Directors - managers - coordinators - ministry - health agencies

Destination of implementation champions in each facility

SELECTION BY STAKEHOLDERS OF 2-3 MANDATORY RECOMMENDATIONS + INDICATORS to implement province-wide
- 1 in acute care facilities?
- 1-2 in rehab facilities?

Same - Diff?

ELABORATION OF IMPLEMENTATION EVALUATION PROCESS
Project team + Stakeholders

TRAIN-THE-TRAINER WORKSHOP for implementation champions
(presentation of CPG + method + selected recommendations + implementation process)

IMPLEMENTATION PROCESS IN EACH FACILITY
- Gap analysis between recommendation and practice (NIPN tools!)
- Adjustment of local implementation strategy
- Training of TBI team by local Champion
- Implementation of indicators
- Practice change
- Selection of additional optional site recommendations

PHASE 1

PHASE 2

REGULAR CHAMPIONS MEETINGS (with Project lead)
- Site reports
- Sharing of tools/strategies
- Preparation of implementation evaluation process

Evaluation of Implementation Process

PHASE 3

PHASE 4

PHASE 5

PHASE 6
Summary

- CPGs are important to evidence-based practice
- CPG has been adapted to improve TBI rehabilitation in Ontario and Québec
- Website launch of CPG
- Implementation of the CPG