



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



ACHIEVING CONSENSUS AROUND A CLINICAL PRACTICE GUIDELINE FOR THE REHABILITATION OF ADULTS WITH MODERATE TO SEVERE TRAUMATIC BRAIN INJURY IN QUEBEC AND ONTARIO

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INESSS AND ONF PARTNERSHIP TO SUPPORT CLINICAL PRACTICE

There is evidence that healthcare professionals are not well integrating traumatic brain injury (TBI) evidence into practice[1-2]. Nevertheless, clinical practice guidelines (CPGs) are promising tools for assisting healthcare professionals and decision makers in this continuous improvement process.

A CPG for the rehabilitation of adults with moderate to severe TBI is currently being developed and jointly produced by the *Institut national d'excellence en santé et en services sociaux* (INESSS), in Québec, Canada, and the Ontario Neurotrauma Foundation (ONF), in Ontario, Canada. **The objective is to report on the consensus process results and the key recommendations generated.**

METHODS AND RESULTS

A **consensus meeting** was held with experts, key stakeholders, consumer representatives and professional associations covering all domains and perspectives relating to TBI to **determine** on the basis of the evidence synthesis matrix provided in advance, the:

- Existing recommendations to retain
- Existing recommendations to retain but needing some adaptation
- New recommendations to be formulated (based on existing evidence or expert consensus)
- Key recommendations to prioritize, and their potential indicators

INESSS-ONF Consensus Conference - November, 27-28th 2014 - Montreal, Canada

- 60 participants from Ontario and Québec formed the Expert panel
- Clinical, research, policy, management, consumer and knowledge translation expertise
- 6 working groups covering different areas to produce a preliminary set of recommendations
- Use of syntheses of scientific evidence and existing guidelines about the organization of rehabilitation services and the rehabilitation of specific brain injury-related impairments

Results:
405 new and existing Recommendations

INESSS-ONF Post-conference refinement of recommendations by working groups

- Additional suggestions concerning related indicators and clinical tools
- Formation of new working groups in the areas of "Neuropharmacological" and "Length of Stay-Intensity" to develop recommendations on these topic areas

Results:
325 new and existing Recommendations

Recommendations adapted, refined and compiled for voting rounds

Online vote to narrow down set of recommendations to the most important and relevant ones

- **Round 1 Voting:** Expert panel members eliminated recommendations with poor evidence or insufficient consensus support. Recommendations that received less than 80% support from the expert panel were further reviewed by the research team. The remaining recommendations were compiled for the second round
- **Round 2 Voting:** Expert panel members were asked to prioritize those recommendations for implementation and development of indicators

Finalized set of recommendations

- Set of guideline recommendations refined and finalized by the project team and the Advisory Working Group
- All recommendations included in the CPG received at least 78% agreement by the expert panel as important to include in the guidelines.

Results:
262 Recommendations included in the CPG

A total of **119 new recommendations** were formulated, highlighting the relevancy of producing a new CPG to respond to the needs and context of practice in Quebec and Ontario, with an emphasis placed on informing and standardizing practice while also providing practical, implementable guideline recommendations.

DIVIDING 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

PRIORIZATION OF RECOMMENDATIONS

Priority and Fundamental recommendations were identified by combining the strength of the evidence, high priority needs identified in the user survey and the prioritization of the expert panel members in Round 2 voting. They are highlighted in the CPG as follows:

- **Fundamental Recommendations** are the elements that settings/programs (where rehabilitation is provided) need to have in place to build the rest of the system properly. These are primarily for program managers and their leaders as they reflect the service conditions for optimal rehabilitation provision.

For example:

The rehabilitation plan should be goal oriented. There should be high degree of involvement of the person with traumatic brain injury, their family/caregivers and the rehabilitation team members in goal setting early in the course of rehabilitation, so that they can be monitored throughout the rehabilitation program.

- **Priority Recommendations** are clinical practices or processes deemed most important to implement and monitor during the course of TBI rehabilitation.

For example:

Cognitive rehabilitation in the acute phase for individuals with traumatic brain injury should be managed in a structured and distraction-free environment.

DISCUSSION AND CONCLUSION

The consensus process was successful. However, the ongoing efforts and forthcoming CPG present unique challenges and opportunities:

- A bi-provincial, bilingual partnership, promoting links and exchanges between clinicians and managers in Ontario and Québec, facilitating the sharing of knowledge, tools and practices;
- A tight alignment with clinicians, administrators and researchers from the onset of the project, increasing the complexity of the process but also the potential of successful uptake of the CPG;
- An innovative consultation phase to explore and validate end-users' needs and expectations, helping to guide the development of the CPG as well as the implementation process.

The finalized **bilingual** guideline will:

- Be available in both English and French;
- Be based on the most up-to-date evidence and other guidance available in the literature;
- **Reflect expert consensus** where evidence is lacking – notably for issues of intensity and duration of treatment;
- Apply to **adults with moderate to severe TBI**, and do not extend to acquired brain injury (ABI) (anoxia, focal tumours, infection, etc.);
- Focus on **rehabilitation phases following TBI**, including sub-acute early rehabilitation, intensive functional rehabilitation and rehabilitation towards social integration;
- Be formulated from an **interdisciplinary viewpoint** rather than a profession-specific perspective;
- Feature practical tools aimed at clinicians (e.g., forms and rating scales, algorithms) along with some information material (e.g. brochures) for individuals with TBI, their family and caregivers;
- Help service providers to enhance rehabilitation practice and benefit from tools/indicators for successful implementation.

References

1. Johnson MJ, May, CR. Promoting professional behaviour change in healthcare: what interventions work, and why? A theory-led overview of systematic reviews. *BMJ Open* 2015;5:9. doi:10.1136/bmjopen-2015-008592
2. Heskestad B, Waterloo K, Ingebrigtsen T, Romner B, Harr ME, Helseth E. An observational study of compliance with the Scandinavian guidelines for management of minimal, mild and moderate head injury. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* 2012;20:32. doi:10.1186/1757-7241-20-32.