

What Good Is Knowing Information If You Do Not Share It? Enhancing Traumatic Brain Injury Recovery Through Knowledge Translation

Methodology

Two Guides were developed to facilitate communication from TBI specializing clinicians to patients with TBI and non-TBI specializing clinicians.

The development followed a structured process:

- Reviewing the Canadian Clinical Practice Guideline for the Rehabilitation of Adults with Moderate to Severe TBI and the Neurotrauma Care Pathways (NCP) to ensure alignment with evidenced-based practices
- Leveraging the NCP's pilot implementation projects to identify key resources
- Consulting with end-users, including persons with lived experience, caregivers, and healthcare providers

To ensure broad and easy access of the Guides, a wide-reaching knowledge mobilization strategy was used, including collaborating with the Neurosurgery Education & Outreach Network, communicating with Acquired Brain Injury Navigators, presenting at conferences to raise awareness among healthcare professionals, and leveraging social media platforms.

Conclusion

Introduction

Many patients with Traumatic Brain Injury (TBI) receive care from non-specialized or community healthcare providers who do not have the experience to manage this complex and chronic condition. The communication gap between specialized clinicians and (1) **patients** with TBI and (2) **non-TBI specializing clinicians** further exacerbates this problem and can result in poor information transfer.

Objective

Develop clear Guides that improve care coordination and communication for patients after TBI, ultimately enhancing healthcare delivery and outcomes.

Outcomes

Patient Guide

Written in lay language, the Patient Guide includes a primary care checklist (i.e., questions to ask before, during, and after an appointment with a primary care provider), and information on what to do if you don't have a primary care provider and in an emergency. It also highlights Ontario-wide and regional (for example, Greater Toronto Area) TBI resources. This Guide is designed to be distributed to the patient with TBI upon discharge and/or transfer from specialized acute care.

Both patient and provider Guides can be scaled and incorporated in standardized healthcare delivery models.

B

Traumatic Brain Injury

If you have experienced a Traumatic Brain Injury (TBI), you deserve the right care, provided at the right time, by the right professionals.

This information should be given to patients just before discharge from acute care and/or rehabilitation. Patients should be encouraged to use the following information, tools, and resources to help their transition back into the community.

Importance of Primary Care (Family Doctor) Follow-Up

Primary Care Checklist

Before Your Appointment:

- ☐ Bring a copy of all your relevant medical records
- ☐ Prepare a list of all the medications that you are taking
- ☐ Document any new, ongoing, or worsening symptoms you have been experiencing
- ☐ Write down the questions and concerns you want your doctor to address
- ☐ Ask a friend/family member/caregiver to come to your appointment with you if needed

During Your Appointment:

- ☐ Talk about your current progress and any challenges that you are facing (e.g., anxiety, depression, issues with memory, sexual function, and relationships)
- ☐ Discuss the things that you can do in your daily activities to help you keep improving (e.g., be active, engaging in activities that you like, etc.)
- ☐ Inquire about any necessary referrals to specialists and/or community-based service providers that should be made
- ☐ Confirm the schedule for any follow-up appointments and/or tests

After your Appointment:

- ☐ Continue monitoring your recovery and documenting any changes in symptoms
- ☐ Contact your local brain injury association (e.g., for information and resources) * See Page 2 for contracts that might be helpful
- ☐ Reach out to a peer support group to connect with others who might understand your experiences

Bring this checklist with you to your appointment with your Primary Care Provider (Family Doctor)


! Need a Family Doctor? Access HealthCare Connect.

No Primary Care Provider (Family Doctor)?

Call Health HOT (Toll free TTY line: 1-866-797-0007) and:







- ☐ Monitor and document any new, ongoing, or worsening symptoms
- ☐ Engage your support system (family, friends, caregivers)
- ☐ Access community resources, tools, and TBI educational material (see Page 2)


! You experience any concerning symptoms and cannot connect with your primary care provider, or you do not have a Primary Care Provider, go to your nearest emergency room. Make sure to inform them about your TBI history.



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Tools and Resources		
Province-Wide (Ontario)		
Tool/Resource	Services Provided to Patients/Families	Contact
Ontario Brain Injury Association (OBIA)	<ul style="list-style-type: none"> - Information and resources on Acquired Brain Injury (ABI) - Personal advocacy and support - Training and education for professionals and families - Online support groups/peer support - "OBIA has 21 local brain injury association members across the province." 	 https://www.obia.on.ca/ Helpline: 1-800-265-5404
Provincial ABI Navigators	There are 14 Regional ABI System Navigators across the province. Services provided include: <ul style="list-style-type: none"> - Education - Resource navigation 	http://www.abinavigators.ca/ 
Neurotrauma Care Pathways	<ul style="list-style-type: none"> - Ideal Care Pathways linked to evidence-based guidelines - Resources about what to expect and what to do on your care journey 	https://www.oncc.ca/neurotrauma-care-pathways/ 
Canadian TBI Clinical Practice Guideline	Information on best practices in TBI rehabilitation	https://www.clinicalguidelines.ca/canadian-traumatic-brain-injury-clinical-practice-guideline/ 
Regional Tools and Resources (Greater Toronto Area) *Some of these tools and resources are in the process of being expanded across the province.		
Tool/Resource	Services Provided to Patients/Families	Contact
The Central Link ABI Resource Library	Provides links to community based Supports, services and resources that people after ABI might find helpful	http://www.thecentrallink.ca/central-link-abi-resource-library/ 
Toronto Concussion Navigator	Helps adults find publicly funded concussion care	https://www.toronto.ca/care-and-support/concussion-navigator/ 
Toronto ABI Network	Provides a central source for information for patients and families and help finding (1) publicly funded services, (2) a lawyer, and (3) fee-for-service healthcare providers	http://www.abinetworktoronto.ca/ 416-597-5551 Email: info@brainnetwork.ca



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TBI

Traumatic Brain Injury

This website provides clinicians in specialized acute care settings with information to communicate during TBI patient transfer.

To facilitate a smooth transition for TBI patients, make sure the information in this Guide is communicated to the receiving clinician

*This Guide is adapted from the **IPASS** handoff tool

Illness Severity

Ensure that all relevant clinical, behavioural, and psychosocial information regarding the patient and their illness is recorded clearly and comprehensively, including:

- Physical, behavioural, and functional status (e.g., cognitive abilities related to daily activities of living, mobility, need for assistive devices, symptoms)

☐ In the patient:
☐ Stable
☐ "Watcher" – Requires Close Monitoring
☐ Unstable

P

Patient Summary – Key TBI Clinical Practices

✓ Has there been any communication about potential conditions (i.e., screening results) and physical and socio-demographic factors?

Examples:

<ul style="list-style-type: none"> • Head Injury • Substance Use • Family Support • Cognitive Function • Cardiovascular • Diabetes 	<ul style="list-style-type: none"> • Education and Income • Language • Previous Accidents to Neurological Conditions • Current Medication • Current Lifestyle
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✓ Have any responsive TBI behaviours and their antecedent status been documented?

Examples:

<ul style="list-style-type: none"> • Aggressive Behaviour • Agitation • Anxiety • Delirium • Disorientation • Incontinence • Irritability 	<ul style="list-style-type: none"> • Antecedent Cause – Example • Physical Discomfort • Pain • Communication Barriers • Prevalent Cultural Norms
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✓ How have you communicated the agreed neurological assessment approach for TBI patients and the importance of consciousness?

- Regular Use of "Standardized Tools" (e.g., Glasgow Coma Scale (GCS))
- Standardized Communication
- Regular Documentation of Patient Progress

✓ How have you communicated the TBI observational information that has been provided to patients and families? Have there been discussions about family/caregivers' degree of staff engagement?

If this information has already been shared, it is still important to have discussions regarding objectives to achieve and reinforce the importance of education and support.

✓ Rehabilitation

Communicate the following:

- How much potential for rehabilitation has been assessed?
- Assessment (e.g., Cognitive Function, Mobility, Physical Status, Neurological and Emotional Status, Family and Caregiver Support)

Would you recommend Family Support?

1. Yes, see "Benefits" to the right
2. Undetermined at this time
3. No, e.g., poor prognosis for recovery, poor response to prior intervention, severe psychiatric issues

BENEFITS

- Improving physical, cognitive, and functional outcome, thereby promoting independence
- Providing emotional support
- Providing opportunities for social interaction and peer support
- Offering personalized goal setting and modification to achieve recovery milestones

Engaging in a structured rehabilitation program offers numerous benefits to TBI patients, including:

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A **Action List**

1. Ensure the patient summary and illness severity details are communicated clearly to the receiving clinicians.





2. Provide the receiving clinicians with patient and family/ caregiver education materials and resources.

Province-Wide Ontario

Trial/Resource

Services Provided to Patients/Families

Contact

<p>Injury Brain Injury Association (OBIA)</p>	<ul style="list-style-type: none"> - Information and resources on Acquired Brain Injury (ABI) - Personal advocacy and support - Training and education for professionals and families - Online support groups/peer support <p>OBIA has 21 local brain injury association members across the province.</p>	<div style="text-align: center;">  https://obia.ca/ Helpline: 1-800-255-4044 </div>
<p>Provincial ABI Navigators</p>	<p>There are 14 Regional ABI System Navigators across the province. Services provided include:</p> <ul style="list-style-type: none"> - Education - Resource navigation 	<div style="text-align: center;">  http://www.abinavigators.ca/ 416-922-2222 ext. 2222 1-800-267-8888 ext. 2222 </div>
<p>Neurotrauma Care Pathways</p>	<ul style="list-style-type: none"> - Ideal Care Pathways linked to evidence-based guidelines - Resources about what to expect and what to do on your care journey 	<div style="text-align: center;">  http://www.abinavigators.ca/neurotrauma </div>
<p>Parachute</p>	<p>Education on preventing serious injury (including concussion) in homes, sports and recreation, and on roads.</p>	<div style="text-align: center;">  https://www.parachute.ca/abibibli </div>



Regional Tools and Resources (Greater Toronto Area)

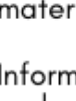
*Some of these tools and resources are in the process of being expanded across the province.

Trial/Resource


Services Provided to Patients/Families

Contact


<p>The Central Link ABI Resource Library</p>	<p>Provides links to community based Supports, services and resources that people after ABI might find helpful.</p>	<div style="text-align: center;">  https://www.abinavigators.ca/central-link </div>
<p>Toronto Concussion Navigator</p>	<p>Helps adults find publicly funded concussion care</p>	<div style="text-align: center;">  https://toronto.abinavigators.ca/concussion/navigation </div>



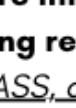
Situation Awareness & Contingency Planning




Ensure the receiving clinicians are knowledgeable about the patient and TBI educational material and resources. See Section I, P, and A of this Guide.



Inform the receiving clinician that they should plan for potential patient complications, such as neurological concerns, behavioural crises, and psychosocial stress.



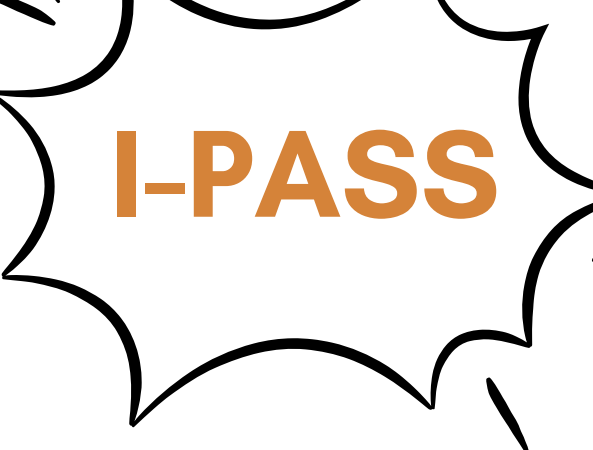
Synthesis by Receiver




Give a contact for the receiving clinicians to contact with should they have any questions or concerns.

For more information on the I-PASS Handoff Tool, reference the following resources:

- *I-PASS: a Mnemonic to Standardize Verbal Handoffs*
- *I-PASS Illness Severity Identifies Patients at Risk for Overnight Clinical Deterioration*



I-PASS: Illness severity, Action list, Situation awareness and contingency planning, Synthesis by reviewer



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Provider Guide

The Guide for non-TBI specializing clinicians uses the I-PASS patient handoff framework and focuses on key clinical practices (e.g., addressing responsive behaviours, co-morbid conditions, disorders of consciousness), rehabilitation assessment, potential complications, and resources. While the Patient Guide is generalizable to all patients with TBI, the Provider Guide must be tailored using the format provided for each patient .

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