

# Management of Moderate and Severe TBI - Getting Real!

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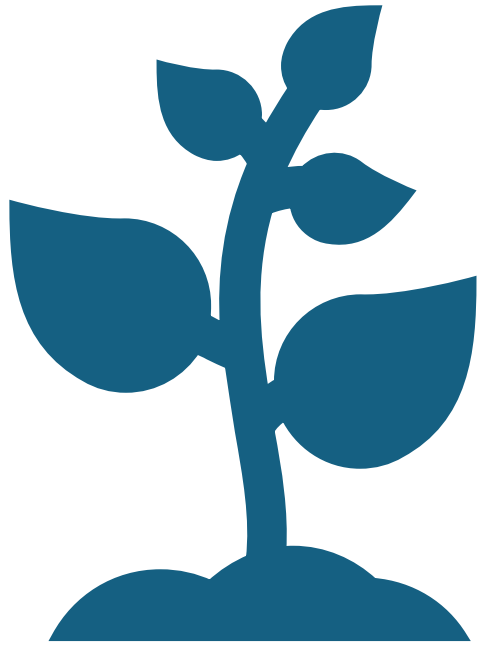
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# Presenter Disclosure

- Relationships with financial sponsors: None
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  - Patents: None
  - Other: Employment relationship with UHN Toronto Rehabilitation Institute



## Statement of Acknowledgement of Traditional Land

We acknowledge this sacred land on which the University Health Network operates. For thousands of years it has been the traditional territory of the Huron-Wendat, the Haudenosaunee, and most recently, the Mississaugas of the Credit River. Today, the meeting place of Toronto is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work and learn on this territory.

# Objectives



To discuss real-world challenges in managing patients with chronic moderate-severe TBI as highlighted by a case



To review recommendations at each stage of the TBI recovery continuum



To be able to list some key resources for TBI patients in the community

# This Talk in One Slide

- Moderate-severe TBI is a life-altering injury that affects not only patients but also their loved ones
- Management requires a coordinated, individualized and holistic approach that involves patients, caregivers, peers, and multidisciplinary clinicians
- Expectation setting, prognostication and education are critical



Source: Pixabay

# Outcomes 5 years after mod-severe TBI (CDC)

- 57% are moderately or severely disabled
- 55% do not have a job (but were employed at the time of their injury)
- 50% return to a hospital at least once
- 33% rely on others for help with everyday activities
- 29% are not satisfied with life
- 29% use illicit drugs or misuse alcohol
- 12% reside in nursing homes or other institutions



Source: Pixabay

# Prognostic factors in TBI

Pre-injury factors	Post-injury factors
Previous TBI	Increased severity of TBI (Longer duration of coma and PTA, Low GCS (<7))
Older Age	Delay to accessing rehab, Reduced intensity of rehab
Comorbidities (psychiatric conditions, dementia, mild cognitive impairment, seizure disorder)	Longer rehab length of stay
Substance abuse (alcohol, drugs)	Neuroimaging findings: bilateral hemispheric involvement on MRI; Diffuse Axonal Injury (DAI); traumatic SAH; midline shift
Poor psychosocial support (social stressors/lack of support)	
Low socioeconomic status (education, employment status)	

# Poll – Slido.com, Code # 3746743

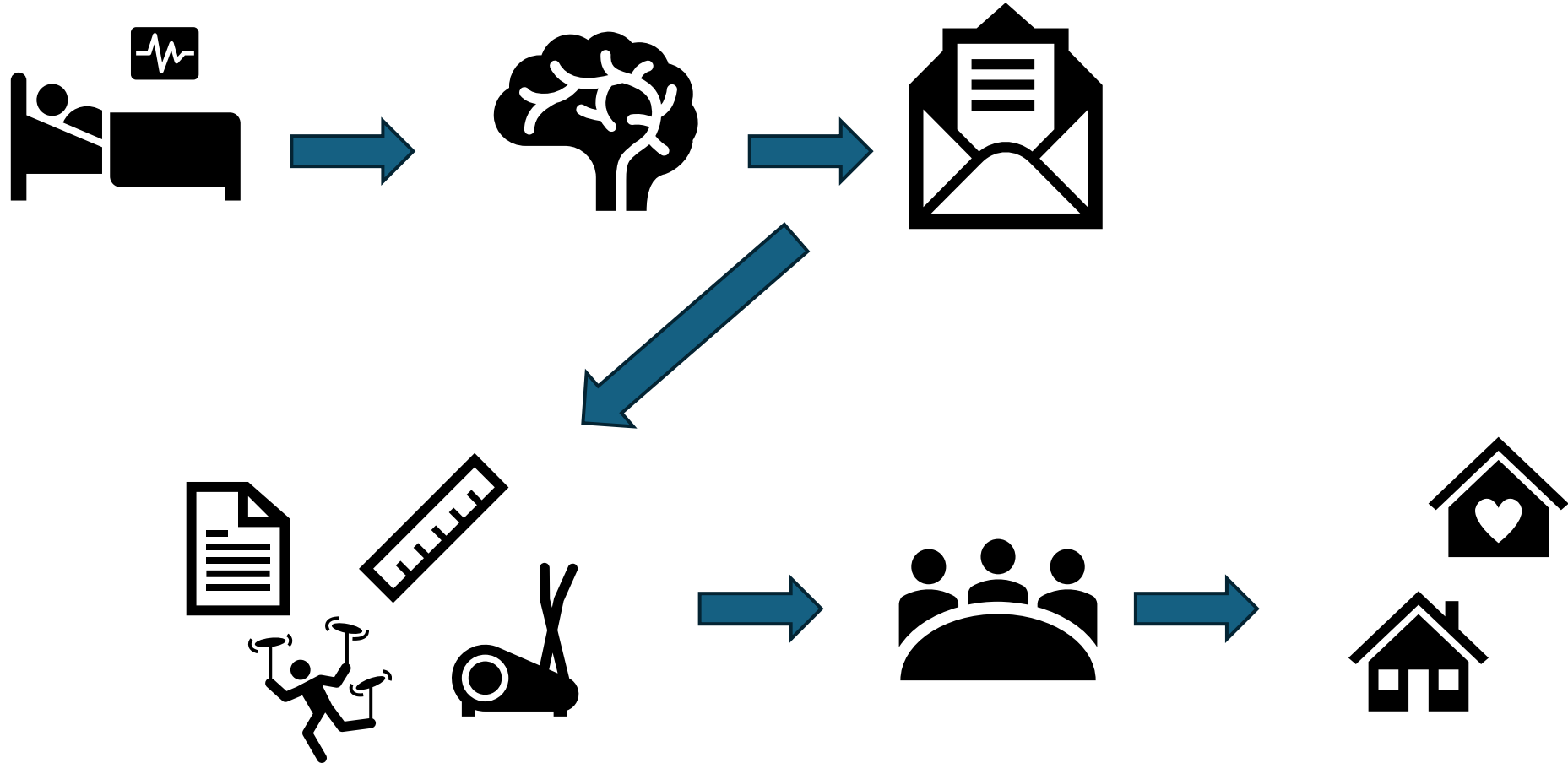
- What are the biggest challenges you face in caring for patients with moderate-severe TBI?



Source: Pixabay



# Journey To Recovery – Role For Rehab



# Role for Inpatient Rehab

- Time-limited window for neuro-recovery (up to 2 years, but greatest in the first 3-6 months)
- Rehab intensity matters – directly linked to outcomes
- May be difficult to get patient buy-in when insight is limited



Source: Pixabay

# Rehabilitation Team Members

- Patient and caregivers
- Behavioural Specialist
- Dieticians
- Doctor – General Practitioner, Physiatrist, Psychiatrist, Geriatrician
- Leadership
- Nurses – Registered Nurses, Registered Practical Nurses, Advanced Practice Nurses, Nurse Practitioners
- Occupational Therapists, Occupational Therapy assistants
- Pharmacists
- Physiotherapists, Physiotherapy assistants
- Program Administrators
- Psychology
- Rehab Therapists
- Social Workers
- Speech Language Pathologists
- Spiritual Care
- Volunteers



Source: Pixabay

# Some of the Issues affecting Chronic Mod-Severe TBI Patients

Physical  
Symptoms

Emotional  
Symptoms

Loss of Life Roles  
(work, school,  
familial,  
recreation)

Cognitive  
Symptoms

Social Isolation,  
Relationship  
Strain

Invisibility of the  
Injury

# Community Follow-up - Recommendations

- All persons with TBI discharged from a specialized TBI rehabilitation program (inpatient, outpatient, residential) should have access to scheduled follow-up contact with a professional trained in working with TBI
- The discharging rehab team should provide the person with TBI and/or their family/caregivers with written information on how to access community brain injury supports and services
- Persons with ongoing disability after TBI should have timely (e.g., within the first six months of injury) access to specialized outpatient or community-based rehabilitation to facilitate continued progress and successful community reintegration

# Theory vs Reality

- Access to interval care (e.g., re-admission to inpatient and/or outpatient rehabilitation) should be allowed so that persons with TBI can access needed treatment as their impairments, ability, and participation goals change in relation to aging, or new challenges create a renewed need for services.
- NOTE:
  - Access to interval care should be primarily determined by the person's needs, goals, and the potential benefit of services, rather than the time since injury or history of previous treatment.
  - It is important to recognize that inpatient rehabilitation has been found to benefit patient outcomes into the chronic stage of TBI (more than 12 months post-injury).



Source: Pixabay



# Supporting Rural/Remote Communities



Temiskaming Hospital

# Telerehab - Recommendations

- Clinicians should consider the use of telerehabilitation (telerehab), in addition to in-person visits to provide timely and equitable access to care for individuals with a TBI
- Hybrid models may be required if the person requires training in the use of technology or if there are concerns about safety
- Group interventions provided by telerehab are recommended if there is evidence supporting that intervention using an in-person format and they are feasible in the telerehab environment

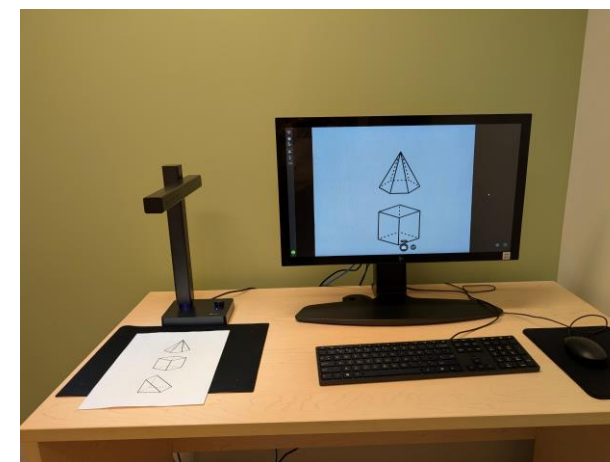
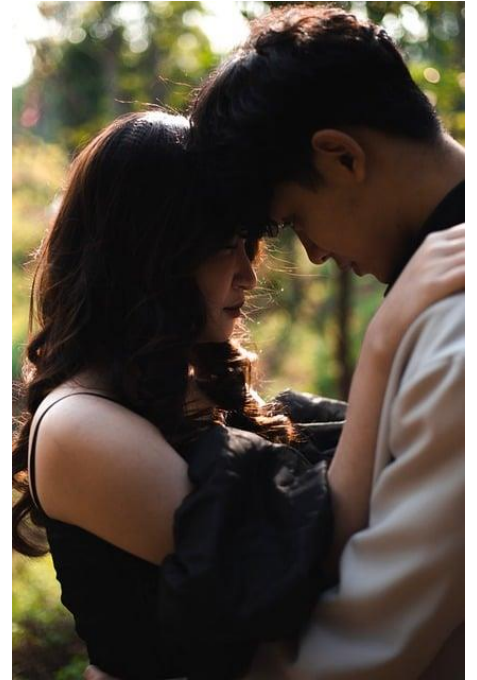


Photo Credit – Dr. Elias Jeffay



# Sexuality and Intimacy - Recommendations

- All interprofessional team members should have a basic understanding and training on how brain injury can affect sexuality/intimacy
- If the patient/partner does not initiate a discussion about sexuality, then the clinician should seek permission to discuss sexuality and intimacy with the partner present, as appropriate, taking into consideration potential cultural factors
- Patients and their partners should be provided with written materials, at a minimum, regarding sexuality, relationships, and intimacy early during inpatient and/or outpatient rehabilitation and should provide patients with the opportunity to discuss and ask questions



Source: Pixabay

# Other Recommendations

- If the person with TBI endorses strains in their existing relationship with their partner, they should be referred for individual and couples counselling
- Participation in personally relevant and meaningful productive activities, including work, should be included as early as possible in the individualized treatment planning of the person with TBI while considering the person's actual capacities
- A community-based, age-appropriate peer support program should be available to individuals with TBI and their family members in order to promote social integration, coping, and psychological functioning



Source: Pixabay

# Poll – Slido.com, Code # 3746743

- What resources have you found to be most helpful for supporting your practice with TBI patients?



Pixabay

# Poll – Slido.com, Code # 3746743

- Have you accessed the new website for the Canadian Clinical Practice Guideline for Rehabilitation of Adults with Moderate to Severe TBI (formerly the INESSS-ONF Guideline)?



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



# Community Connections

## Support Service Agencies



## What is ECHO?

Medical Education program connecting healthcare providers across Ontario with inter-professional specialist teams, for weekly didactics and case-based learning.



## Why join?

- Open to all health care providers
- No cost (*fully funded by the MOH*), accredited
- Gain support for your difficult, complex patient cases.
- Learn up to date, evidence based, clinical information



ECHO programs at UHN: Liver diseases, **Concussion**, Chronic Pain/Opioids, Rheumatology  
For more information and to register: Visit <https://www.echoontario.ca/#1>

## Summary – Take-Home Points

- Moderate-severe TBI is a life-altering injury that affects not only patients but also their loved ones
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# Objectives



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# Thank You!

- Questions?



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Source: Pixabay

# Practice with the Canadian TBI Guideline

- Canadian Clinical Practice Guideline for Rehabilitation of Adults with Moderate to Severe TBI (formerly the INESSS-ONF Guideline) - <https://kite-uhn.com/brain-injury/en/guidelines>
- Go to [braininjuryguidelines.org](https://braininjuryguidelines.org)

