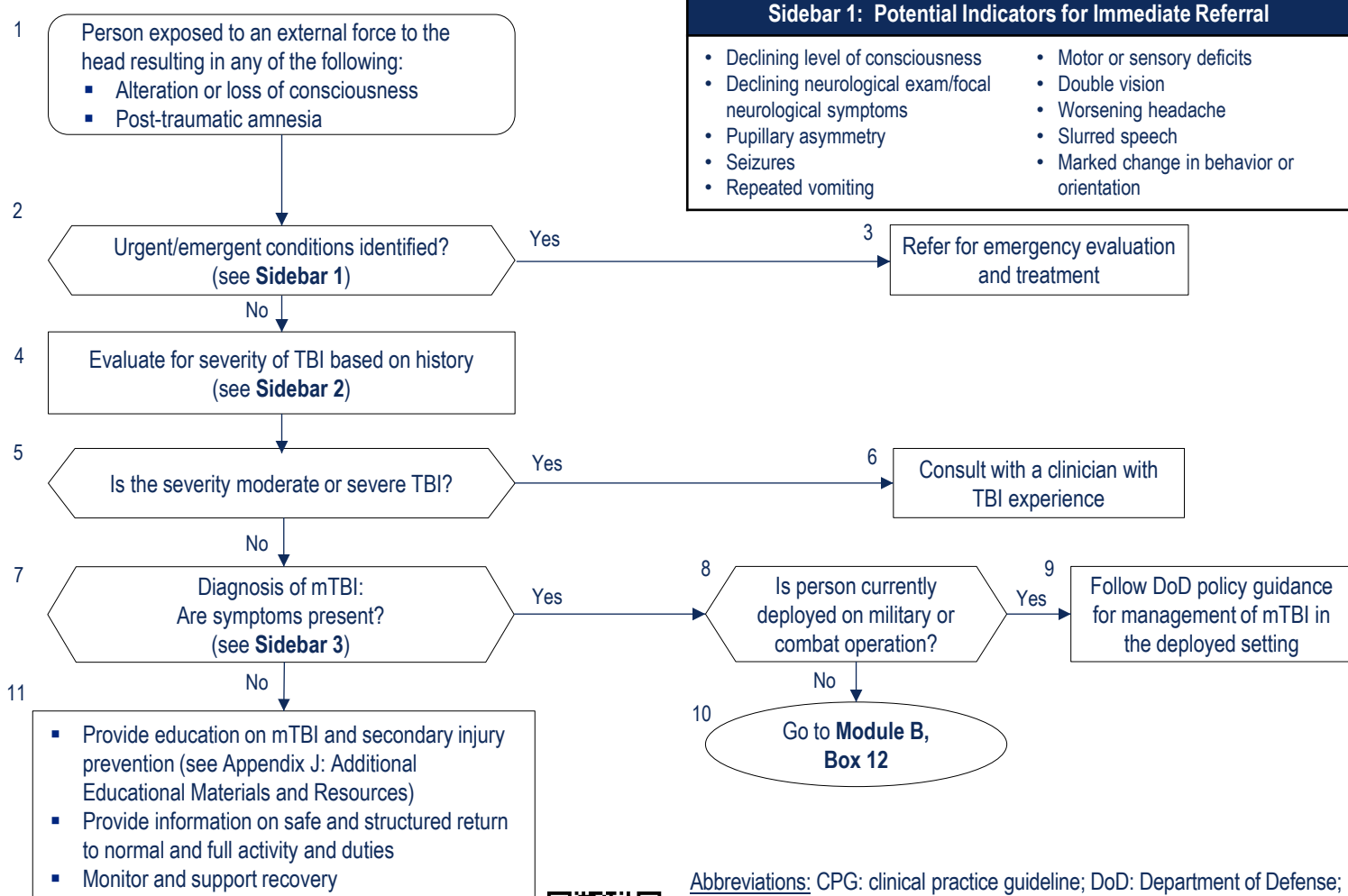


The Management and Rehabilitation of Post-Acute Mild Traumatic Brain Injury



Module A: Initial Presentation (>7 Days Post-Injury)



Sidebar 1: Potential Indicators for Immediate Referral	
<ul style="list-style-type: none"> Declining level of consciousness Declining neurological exam/focal neurological symptoms Pupillary asymmetry Seizures Repeated vomiting 	<ul style="list-style-type: none"> Motor or sensory deficits Double vision Worsening headache Slurred speech Marked change in behavior or orientation

Sidebar 2: Classification of TBI Severity ^a			
Criteria	Mild	Moderate	Severe
Structural imaging (see Recommendation 4)	Normal ^b	Normal or abnormal	Normal or abnormal
Loss of Consciousness	0-30 min	>30 min and <24 hours	>24 hours
Alteration of consciousness/mental state ^c	up to 24 hours	>24 hours; severity based on other criteria	
Post-traumatic amnesia	0-1 day	>1 and <7 days	>7 days
Glasgow Coma Scale (best available score in first 24 hours) ^d	13-15	9-12	<9

^a If patient meets criteria in more than one category of severity, the higher severity level is assigned

^b No clinically relevant findings

^c Alteration of mental status must be immediately related to the trauma to the head; typical symptoms would be: looking and feeling dazed and uncertain of what is happening, confusion, difficulty thinking clearly or responding appropriately to mental status questions, and/or being unable to describe events immediately before or after the injury event

^d In April 2015, the DoD released a memorandum recommending against the use of Glasgow Coma Scale scores to diagnose TBI (see the memorandum for additional information: <https://www.health.mil/Reference-Center/Policies/2015/04/06/Traumatic-Brain-Injury-Updated-Definition-and-Reporting>)

Sidebar 3: Possible Post-Concussion Symptoms ^{a,b}		
Physical Symptoms	Cognitive Symptoms	Behavior/Emotional Symptoms
<ul style="list-style-type: none"> Headache Dizziness/vertigo Balance problems Nausea Fatigue Sleep disturbance Visual disturbance Sensitivity to light Hearing difficulties/loss Tinnitus Sensitivity to noise 	Problems with: <ul style="list-style-type: none"> Attention Concentration Memory Speed of processing Judgment Executive functions Speech and language Visual-spatial function 	<ul style="list-style-type: none"> Depression Anxiety Agitation Irritability Impulsivity Aggression

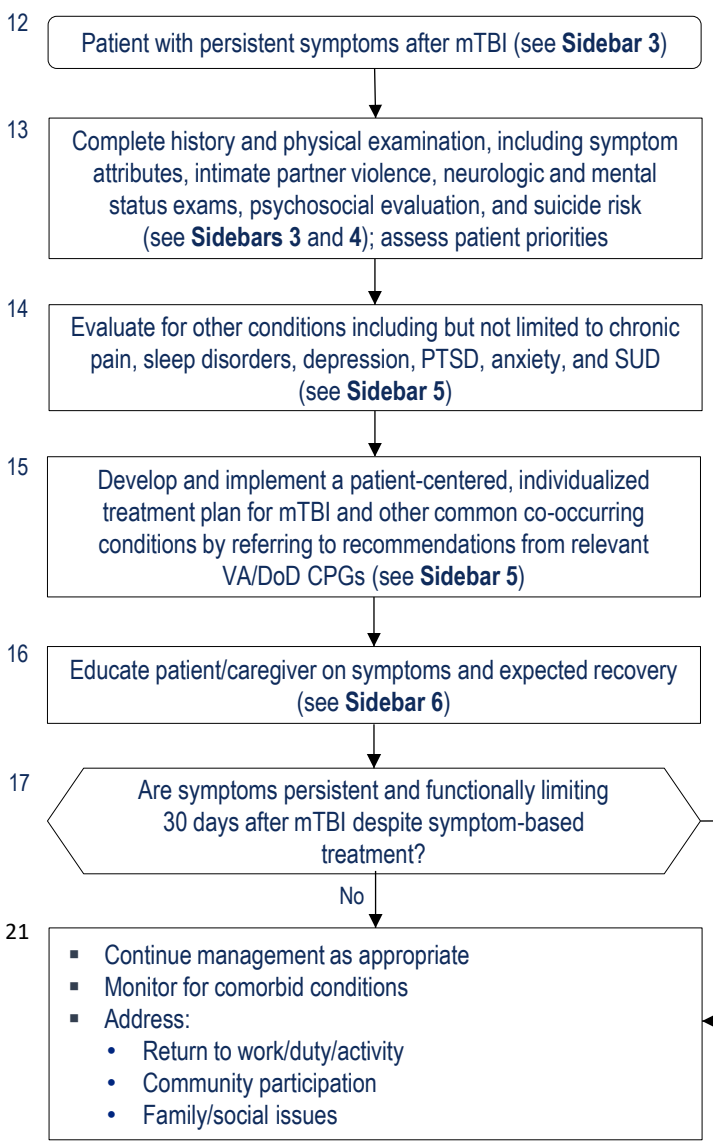
Abbreviations: CPG: clinical practice guideline; DoD: Department of Defense; mTBI: mild traumatic brain injury; NSI: Neurobehavioral Symptom Inventory; PTSD: posttraumatic stress disorder; RPCQ: Rivermead Post-Concussion Questionnaire; SUD: substance use disorder; TBI: traumatic brain injury; VA: Department of Veterans Affairs

Access to the full guideline and additional resources is available at the following link: <https://www.healthquality.va.gov/guidelines/Rehab/mtbi/>

^a Symptoms that may develop within 30 days post-injury

^b Symptoms can be monitored with instruments such as the NSI or RPCQ

Module B: Management of Symptoms Persisting >7 days After mTBI




Sidebar 4: Symptom Attributes

- Duration, onset, and location of symptom
- Previous episodes, treatment and response
- Patient perception of symptom
- Impact on functioning
- Factors that exacerbate or alleviate symptoms

Sidebar 6: Early Intervention


- Integrate patient and caregiver needs and preferences into assessment and treatment
- Provide information and education on symptoms and expected recovery
- Provide reassurance on expectation of positive recovery
- Educate about prevention of further injury
- Empower patient for self-management
- Consider teaching relaxation and stress management techniques as needed
- Recommend limiting use of caffeine/nicotine/alcohol
- Encourage monitored progressive return to normal duty/work/activity/exercise^a
- Discuss need for consistency with healthy nutrition, exercise, and sleep habits
- Provide information regarding the National Suicide Prevention Lifeline (1-800-273-8255) if appropriate

^a Provider resources for progressive return to activity (PRA) are available at: <https://www.health.mil/About-MHS/OASDHA/Defense-Health-Agency/Research-and-Development/Traumatic-Brain-Injury-Center-of-Excellence/Provider-Resources>



Sidebar 5: Relevant VA/DoD CPGs

- VA/DoD Clinical Practice Guideline for the Management of Chronic Insomnia Disorder and Obstructive Sleep Apnea. Available at: <https://www.healthquality.va.gov/guidelines/CD/insomnia/index.asp>
- VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder. Available at: <https://www.healthquality.va.gov/guidelines/MH/mdd/>
- VA/DoD Clinical Practice Guideline for the Management of Opioid Therapy for Chronic Pain. Available at: <https://www.healthquality.va.gov/guidelines/Pain/cot/>
- VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress Disorder and Acute Stress Reaction. Available at: <https://www.healthquality.va.gov/guidelines/MH/ptsd/>
- VA/DoD Clinical Practice Guideline for the Management of Substance Use Disorders. Available at: <https://www.healthquality.va.gov/guidelines/MH/sud/>
- VA/DoD Clinical Practice Guideline for the Primary Care Management of Headache. Available at: <https://www.healthquality.va.gov/guidelines/Pain/headache/>
- VA/DoD Clinical Practice Guideline for the Management of Chronic Multisymptom Illness. Available at: <https://www.healthquality.va.gov/guidelines/MR/cmii/>
- VA/DoD Clinical Practice Guideline for the Assessment and Management of Patients at Risk for Suicide. Available at: <https://www.healthquality.va.gov/guidelines/MH/srb/>



Sidebar 7: Case Management

Case managers may:

- Provide coordination of care as outlined in the individualized treatment plan (referrals, authorizations, appointments/reminders)
- Provide advocacy and support for Veteran/Service Member and caregivers
- Reinforce early interventions and education
- Address psychosocial issues (financial, family, housing, or school/work)
- Connect patient to available resources