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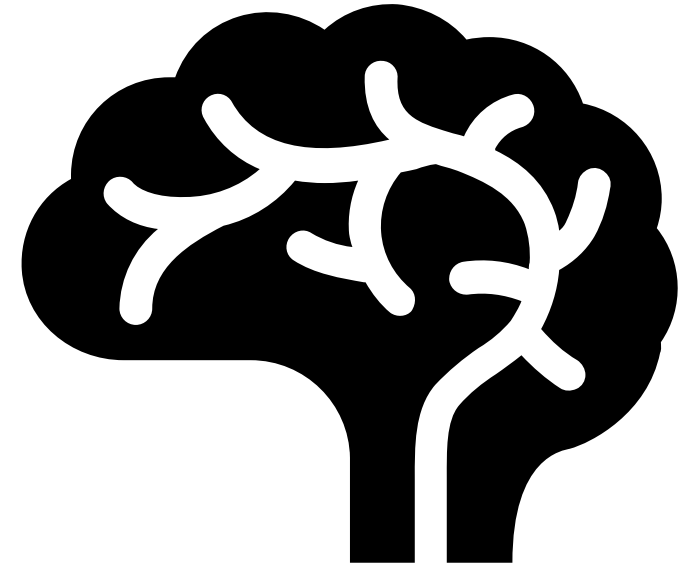
# AMA Guides® Editorial Panel

**Virtual Panel Meeting**  
**Thursday, April 15<sup>th</sup>, 2021**

*The meeting will begin shortly. Participants will be placed in the waiting room until the meeting begins at 10:00 am CT*

# Topic

Mild Traumatic Brain Injury  
proposal to update the AMA  
Guides



# Attendance

- Attendance will be taken to establish a quorum.

## Panel Members

Helene Fearon, PT  
Steven Feinberg, MD  
David Gloss, MD  
Robert Goldberg, DO  
Rita Livingston, MD, MPH

Doug Martin, MD  
Kano Mayer, MD  
Mark Melhorn, MD  
Lylas Mogk, MD  
Marilyn Price, MD

Noah Raizman, MD  
Michael Saffir, MD  
Jan Towers, PhD

## Panel Advisors

Chris Brigham, MD  
Hon. Shannon Bruno Bishop, JD  
Barry Gelinas, MD, DC

Abbie Hudgens, MPA  
Hon. David Langham, JD

# Confidentiality/COI Reminders

- Confidentiality
  - It is at the discretion of the AMA, the publisher and convener, which topics, news items, or policy decisions resulting from this or any Editorial Panel meeting will be announced publicly at the appropriate time. Until and unless the AMA makes such a public announcement, all discussion and decisions made during AMA Guides® Editorial Panel Meetings are confidential.
  - Please refrain from tweeting or participating in podcasts, interviews, or news articles about Panel meetings, discussions, or deliberations. Recording devices by Panel members and co-chairs is strictly prohibited. The AMA will record all Panel meetings for reference materials and will be the only recording of Panel meetings allowed.
- Conflict of Interest (COI)
  - You are here because of your interest and/or experience with the AMA Guides®, but your affiliations could pose a potential conflict of interest. Please mention all of your disclosures if they are relevant to the topic being discussed or the opinions you hold and express.
  - While you were nominated by a society, remember that your Editorial Panel duty is to the AMA Guides®. You are not here to represent the interests of any society, profession, or employer.

# Professional.

# Ethical.

# Welcoming.

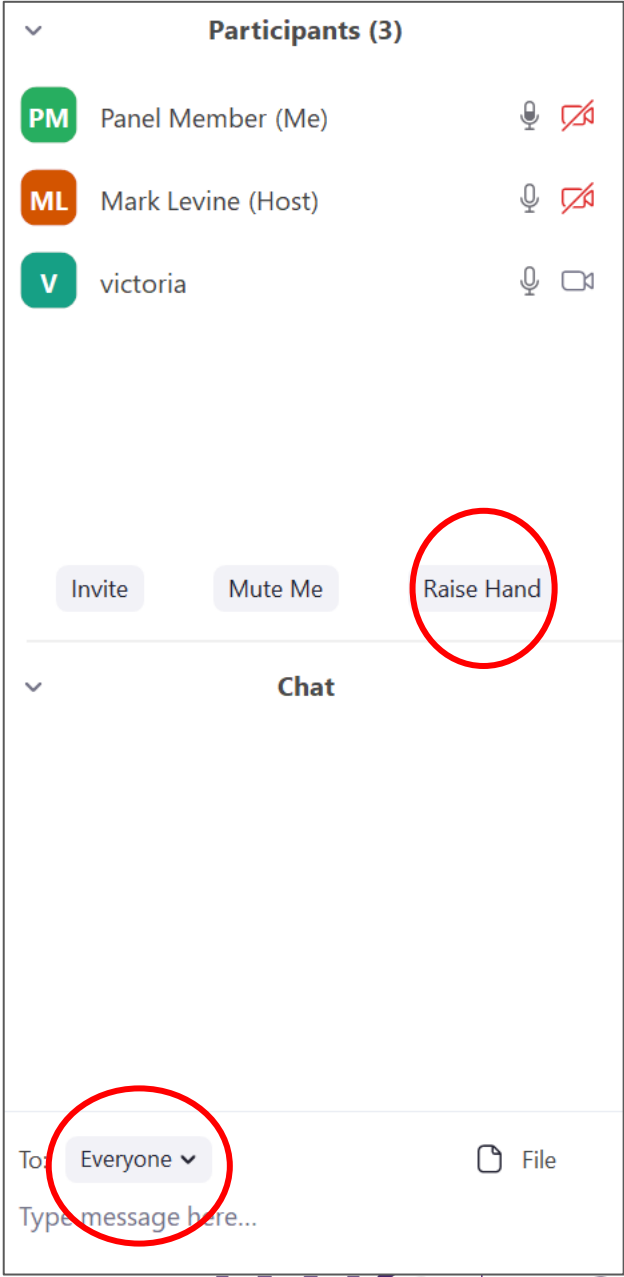
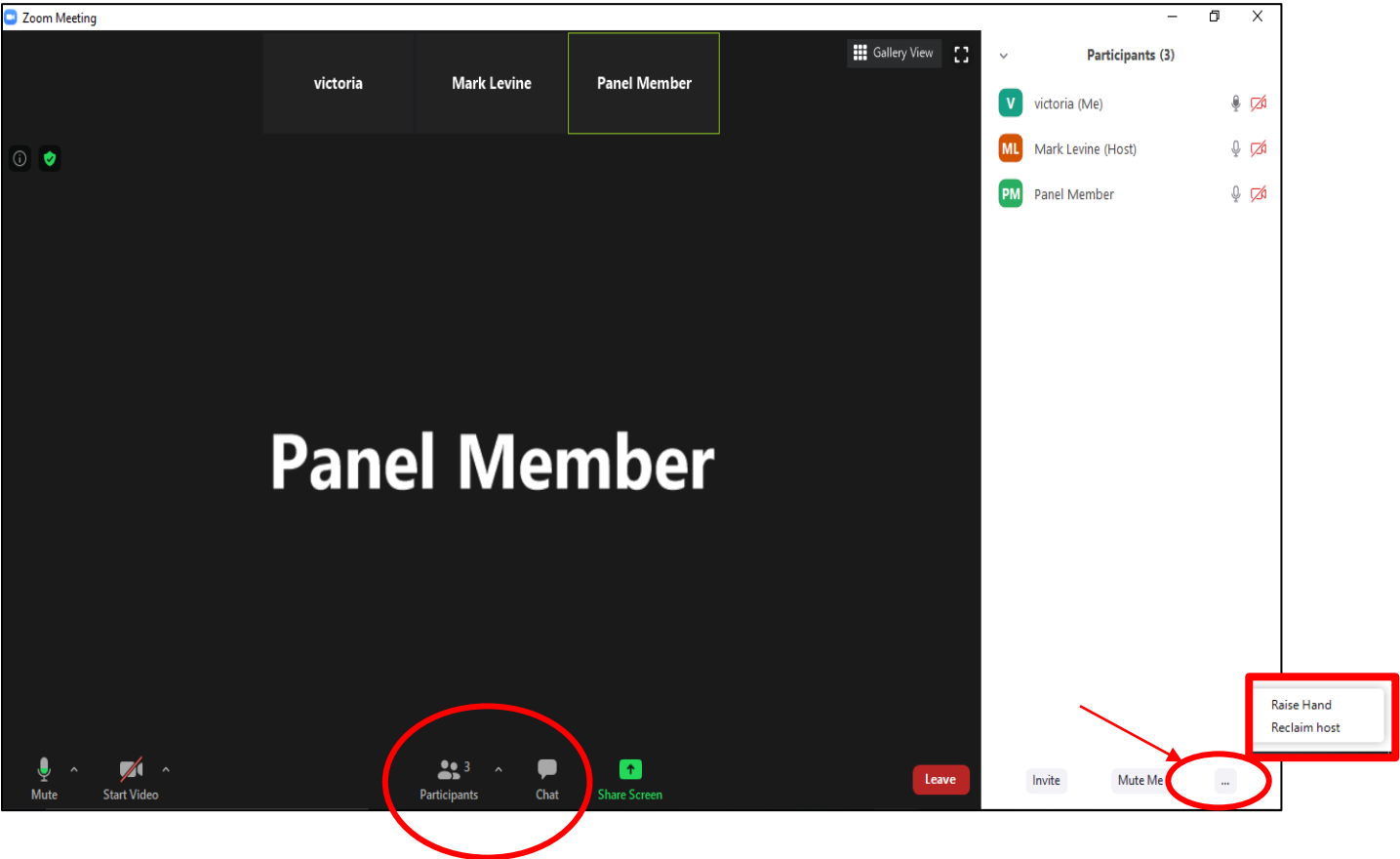
# Safe.

- Updated policy in early 2019.
- This is what we expect of our members and guests at AMA-sponsored events.
- We take harassment and conflicts of interest seriously. Read our policy or file a claim at **[ama-assn.org/codeofconduct](https://ama-assn.org/codeofconduct)** or call **(800) 398-1496**.

# Meeting Mechanics

- Webcams are optional but may be used if Panel Members and Advisors wish to do so
- Panel members and advisors are open-line participants and may speak at any time throughout the duration of the event.
  - Please consider muting your phone to prevent background noise and raising your hand to pose a question or comment.
- All other attendees are open line participants but have been auto-muted to prevent background noise.
- Hand raise or chat feature encouraged to indicate desire to speak. **Please unmute yourself prior to speaking.**

# Zoom Features – Chat and Raise Hand

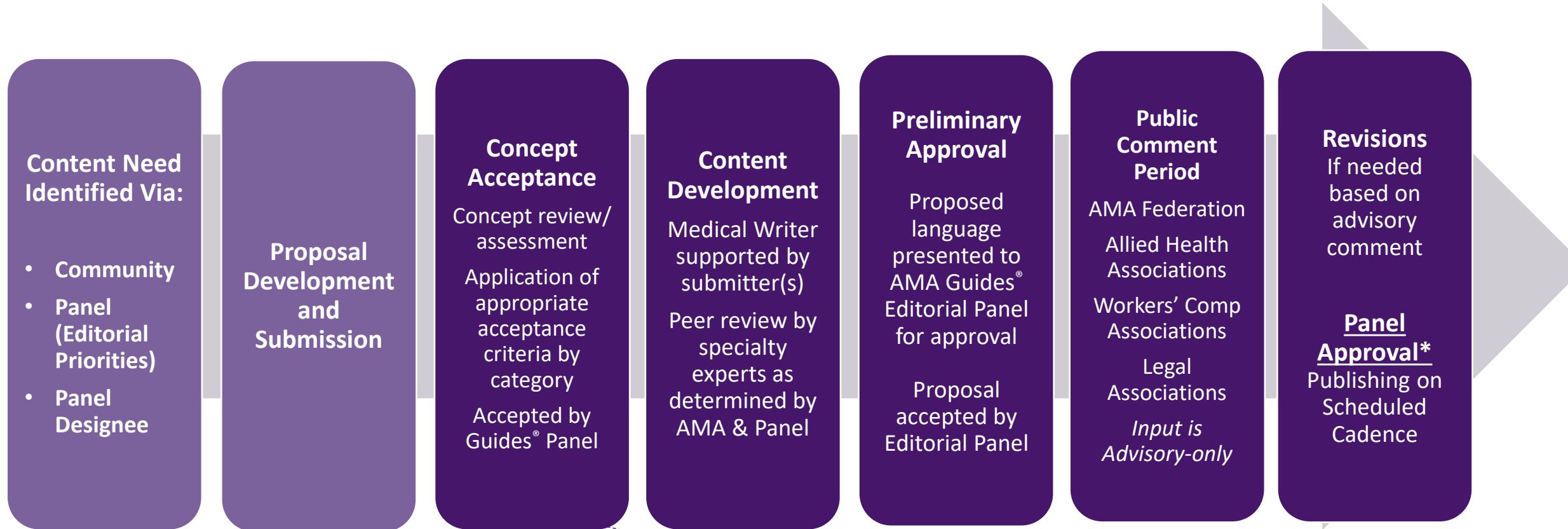


# Meeting Mechanics (con't)

- Co-chairs will introduce proposals and presenters.
- Presenters will provide an overview of the proposal.
- Primary and secondary reviewers will be called upon first to lead discussion and recommend action.
- Editorial panel members and advisors are encouraged to contribute to discussion.
  - Oral disclosures are not required of panel members and advisors during the meeting but might be helpful when expressing a strong opinion.
- Public participants are also invited to participate towards the end of discussion and are asked to disclose any conflicts of interest.



# Editorial Review Process



mTBI

# Potential Panel Actions

Action	Description	Outcome
Approve	Proposed change is approved; Panel recommends AMA action to implement ECP.	Applicant(s) notified of Panel's decision, after AMA staff has determined early next steps toward deployment or implementation.
Reject	Proposed change is rejected; ECP might be out of scope, lacking evidence, premature, or not suitable for AMA Guides.	Applicant(s) notified and provided rationale for the decision (i.e., application criteria not met).
Revise	Revisions are requested in effort to make ECP more acceptable; application will be reconsidered at later Panel meeting following revisions.	Applicant(s) notified regarding decision, summary of suggested revisions, and provided rationale for the decision.
Table	Decision is postponed or suspended until further notice.	Applicant(s) notified and provided rationale for the decision.

# Proposed Update to the mTBI section of Chapter 13

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James Underhill, PsyD

Diana Kraemer, MD

Les Kertay, PhD

Bhavesb Robert Pandya, MD

# Background

- The Guides' Axioms

- 1) Adopt terminology from the International Classification of Functioning, Disability, and Health
- 2) Use diagnosis-based impairment
- 3) Optimizing interrater and intrarater reliability
- 4) Base ratings on functioning
- 5) Create conceptual congruity between organ systems

## Background (cont'd)

- The Guides methodology does not rate the injury itself.
- Chapter 2 calls for rating of the functional impact of pathology produced by an injury.
- Chapter 13 instructs examiners to rate the secondary effects of any CNS pathology (e.g., mood, extremities, pain, and otolaryngological systems).
- This methodology is also found in the DSM-5, the International Classification of Headache Disorders, 3rd edition, and Guides editorial content.

# The Problem?

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Mild traumatic brain injury  
is not a formal diagnosis.

# mTBI is a Heterogenous Clinical Description

**Table 2** Comparison of threshold criteria for mild TBI diagnosis across organization and expert group case definitions

	ACRM 1993	CDC 2003	WHO 2005	CDE 2010	VA/DoD 2016	CISG 2017	ONF 2018
Trauma-related intracranial lesion on conventional CT or MRI can be present	Yes*	Yes	Yes	Yes	No <sup>†</sup>	No <sup>†</sup>	Yes <sup>‡</sup>
Focal neurologic deficit	Yes	Yes*	Yes <sup>§</sup>	Yes <sup>§</sup>	Yes	Yes*, <sup>§</sup>	Yes <sup>‡</sup>
Loss of consciousness	Yes	Yes	Yes <sup>§</sup>	Yes	Yes	Yes*, <sup>§</sup>	Yes
Decreased consciousness	Yes*	Yes	Yes*, <sup>§</sup>	Yes	Yes	Yes*, <sup>§</sup>	Yes
Retrograde amnesia	Yes	Yes	No	Yes	Yes	?	Yes
Post-traumatic amnesia	Yes	Yes	Yes <sup>§</sup>	Yes <sup>§</sup>	Yes	Yes*, <sup>§</sup>	Yes
Confusion/disorientation (objectively assessed, including GCS<15)	Yes <sup>‡</sup>	Yes	Yes <sup>§</sup>	Yes <sup>§</sup>	Yes	Yes <sup>‡,§</sup>	Yes
Confusion/disorientation (subjective)	Yes	Yes	?	Yes*, <sup>§</sup>	Yes*	Yes*, <sup>§</sup>	?
Dazed (subjective)	Yes	No	No	?	Yes	Yes*, <sup>§</sup>	?
Difficulty thinking/slowed thinking (subjective)	?	No	No	Yes <sup>  </sup>	Yes <sup>  </sup>	Yes <sup>§</sup>	Yes <sup>  </sup>
Physical symptoms	No	No	No	No	No	Yes <sup>§</sup>	Yes
Cognitive or emotional symptoms	No	No	No	No	No	Yes <sup>§</sup>	No

NOTE. "Yes" in a cell indicates that the presence of the clinical feature in that row is sufficient to rule-in a diagnosis of mild TBI, according to the case definition for that column. All case definitions specify or imply that any alteration in consciousness or mental status has an abrupt onset ("at the time of injury" or "immediately following the event"). Onset of subjective symptoms may be delayed by "minutes to hours" (CISG 2017). No case definitions specify a minimum duration for signs or symptoms.

Abbreviations: ?, unclear whether or not this feature is considered sufficient evidence of mild TBI; CDC, Centers for Disease Control and Prevention; CDE, Demographics and Clinical Assessment Working Group of the International and Interagency Initiative toward Common Data Elements for Research on Traumatic Brain Injury and Psychological Health; CISG, Concussion in Sport Group; ONF, Ontario Neurotrauma Foundation; VA/DoD, Department of Veterans Affairs and the Department of Defense; WHO, World Health Organization Collaborating Centre Task Force on Mild Traumatic Brain Injury.

\* Implied, but not explicitly stated, that this feature is considered sufficient evidence of mild TBI.

<sup>†</sup> Exclusion criterion.

<sup>‡</sup> Exclusion for "concussion" but not mild TBI.

<sup>§</sup> Must rule out alternative explanations for acute alteration in brain function.

<sup>||</sup> Unclear if difficulty thinking/slowed thinking is a sign (observable behavior) or symptom (self-reported).

# Using The Term “mTBI” Contradicts the Guides Principles Of:

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- Diagnosis-based impairment
- Interrater reliability
- Intrarater reliability



# What Is The Solution?

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Use the existing methodology  
in the 6<sup>th</sup> Edition

# What Is The Solution? (cont'd)

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This is the same methodology as:

- Guides content
- Diagnostic and Statistical Manual, 5<sup>th</sup> edition
- International Classification of Headache Disorders, 3rd edition

# The Proposed Methodology



# Step One

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Establish a Diagnosis:

- Determine the relevant head injury diagnosis from the ICD-10.

# Step Two

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Identify secondary diagnoses:

- Use the existing Guides methodology to determine if there are any causally related, secondary diagnoses.

# Step Three

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Rate the secondary diagnoses:

- Rate the secondary diagnoses, using the methodology described in the relevant chapter.

# What About Cognitive Impairment?

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# How the 6<sup>Th</sup> Edition Rates Cognitive Disorders

**TABLE 13-8.** Criteria for Rating Neurologic Impairment due to Alteration in Mental Status, Cognition, and Highest Integrative Function (MSCHIF)

ALTERATION IN MSCHIF					
CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
WHOLE PERSON IMPAIRMENT RATING (%)	0%	1%-10%	11%-20%	21%-35%	36%-50%
EXTENDED MENTAL STATUS EXAM	Normal	Mild abnormalities	Moderate abnormalities	Severe abnormalities	Most profound abnormalities
NEUROPSYCHOLOGICAL ASSESSMENT AND TESTING <sup>a</sup>	Normal	Mild abnormalities	Moderate abnormalities	Severe abnormalities	Most profound abnormalities
DESCRIPTION	Normal MSCIF	Alteration in MSCHIF but patient is able to assume all usual roles and perform ADLs	Alteration in MSCHIF that interferes with ability to assume some normal roles or perform ADLs	Alteration in MSCHIF that significantly interferes with ability to assume normal roles or perform ADLs	Alteration in MSCHIF that prohibits performance of normal roles or performance of ADLs

<sup>a</sup> Neuropsychological testing may not always be required but may serve as a useful resource.



# DSM-5 Major Neurocognitive Diagnostic Criteria

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## Major Neurocognitive Disorders:

- Neuropsychological test performance is 2 or more standard deviations below appropriate norms.
- The cognitive deficits interfere with independence in everyday activities (i.e., at a minimum, requiring assistance with complex instrumental activities of daily living such as paying bills or managing medications).

# DSM-5 Mild Neurocognitive Diagnostic Criteria

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## Mild Neurocognitive Disorders:

- Neuropsychological test performance typically lies in the 1-2 standard deviation range.
- The cognitive deficits do NOT interfere with capacity for independence in everyday activities (i.e., complex instrumental activities of daily living such as paying bills or managing medications are preserved, but greater effort, compensatory strategies, or accommodation may be required.)

# MSCHIF and DSM5

- Class 0 • No NCD
- Class 1 • Mild NCD
- Class 2 • Mild NCD
- Class 3 • Major NCD
- Class 4 • Major NCD

# Examples

## Example 13-7 (a)

Example 13-7: A 62-year old man who slips on icy pavement, LOC of a few minutes and a brief seizure. Negative head CT. Headache resolved in one week.

ICD-10 Diagnostic Codes:

- **S06.0X1**, concussion with LOC less than 30 minutes;
- **R56.1**, post traumatic seizures;
- **G44:880**, acute headache attributed to mild traumatic injury to the head.

**Table 13-8: Alteration in MSCHIF:**  
**Class 0, 0% WPI**

## Example 13-7 (b)

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Example 13-7: The same 62-year old man who slips on icy pavement, LOC of a few minutes and a brief seizure.

CT positive for a right frontal brain contusion. Headache resolved in one week.

ICD-10 Diagnostic Codes:

- S06.341, traumatic hemorrhage of right cerebrum with loss of consciousness less than 30 minutes;
- R56.1, post traumatic seizures;
- G44:880, acute headache attributed to mild traumatic injury to the head

Table 13-8: Alteration in MSCHIF:

Class 0, 0% WPI

## Example 13-7 (c)

Example 13-7: A 62-year old man who slips on icy pavement, LOC of a few minutes and a brief seizure.

CT positive for a left frontal brain contusion. Headache resolved in one week. Permanent non-fluent dysphasia.

ICD-10 Diagnostic Codes:

- S06.351A, Traumatic hemorrhage of left cerebrum with loss of consciousness of less than 30 minutes, Initial Encounter
- S06.351S, Traumatic hemorrhage of left cerebrum with loss of consciousness of less than 30 minutes, sequelae.
- R47.02, Dysphasia;
- R56.1 post traumatic seizure;
- G44.880, acute headache attributed to mild traumatic injury to the head.

Table 13-8: Alteration in MSCHIF:

Class 1, 10% WPI or Class 2, 11-20% (based on severity)

# Questions?

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# Closing

- Thank you to today's presenters. This now concludes the public meeting.
- Summary of Panel Actions will be posted on the AMA Guides website.
- The next public Editorial Panel Meeting will be held virtually on **May 20<sup>th</sup> at 6:00 pm CT.**
- Panel members and advisors will convene in Executive Session momentarily.