

Appendix F

Other Links/References for Resources to Consider

Section 1: Diagnosis/Assessment of Concussion/mTBI

Ohio State University TBI Identification Method - Short Form

This tool is used to assess a patient's lifetime history of any previous TBI. It consists of a series of questions to be administered to the patient by a healthcare professional.

Corrigan JD, Bogner J. Initial reliability and validity of the Ohio State University TBI Identification Method. *Journal of Head Trauma Rehabilitation*. 2007;22(6):318-329.

Section 3: Sport-Related Concussion/mTBI

IMPACT (Immediate Post-Concussion Assessment and Cognitive Testing)

A computerized concussion evaluation system developed to assist qualified practitioners and provide useful information in making sound return-to-play decisions following concussions by measuring one's symptoms and cognition, such as verbal and visual memory, reaction time, processing speed, and impulse control. Also includes a self-report symptom checklist and concussion history questionnaire.

<http://www.impacttest.com/products/?The-IMPACT-Test-2>

King-Devick Test for Concussions

A saccadic (quick, simultaneous eye movement) test measuring the speed of rapid-number naming, utilizing three test cards with a series of single-digit numbers that are read aloud from left to right.

<http://kingdevicktest.com/for-concussions/>

Recommendations for Assessment/Management of Non-Game High-Risk Sports:

American Association of Cheerleading Coaches and Administrators (AACCA) Concussion Management and Return-to-Play Protocol

<https://www.aacca.org/content.aspx?item=Resources/concussions.xml>

Concussion in Gymnastics

http://usagym.org/pages/home/publications/technique/2009/03/26_concussions.pdf

Baseline Concussion Testing in Figure Skating

<http://skatecoach.wordpress.com/2012/06/07/baseline-concussion-testing-in-figure-skating/>

Section 6: Post-Traumatic Headache

Migraine Disability Assessment Questionnaire (MIDAS)

A 5-item self-report questionnaire which captures information on lost time from work for pay, housework, and leisure activities due to migraines in order to determine how severely migraines affect a patient's life.

Stewart WF, Lipton RB, Dowson AJ, Sawyer J. Development and testing of the Migraine Disability Assessment (MIDAS) Questionnaire to assess headache-related disability. *Neurology*. 2001;56:S20-S28.

Section 7: Persistent Sleep-Wake Disturbances

Insomnia Severity Index

A brief 7-item self-report questionnaire that was designed to assess the severity, nature, and impact of both nighttime and daytime components of insomnia.

Morin CM, Belleville G, Bélanger L, Ivers H. The Insomnia Severity Index: psychometric indicators to detect insomnia cases and evaluate treatment response. *Sleep*. 2011;34(5):601-608.

Pittsburgh Sleep Quality Index

A 10-item self-report questionnaire that is designed to measure sleep quality in clinical populations, and assess usual sleep habits during the past month. This scale generates seven “component” scores: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. Items 1-4 inquire about the amount of sleep and responses are recorded in free-text boxes. Items 5-10 inquire about specific sleep behaviors and quality, which are rated on 4-point scale.

Buysse DJ, Reynolds III CF, Monk TH, Berman SR, Kupfer DJ. The Pittsburgh Sleep Quality Index: A New Instrument for Psychiatric Practice and Research. *Journal of Psychiatric Research*. 1989;28(2):193-213.

For detailed information regarding specific classes of medications and their impact on/interactions with sleep, please refer to:

1. Larson EB, Zollman FS. The effect of sleep medications on cognitive recovery from traumatic brain injury. *Journal of Head Trauma Rehabilitation*. 2010;25:61-67.
2. Flanagan SR, Greenwald B & Weiber S. Pharmacological treatment of insomnia. *Journal of Head Trauma Rehabilitation*. 2007;22:67-70.
3. Mollayeva T, Shapiro CM. (2013). Medication Effects. In Kushida C. (ed.) *The Encyclopedia of Sleep V2* p330-337. Academic Press.

Section 8: Persistent Mental Health Disorders

Beck Anxiety Inventory (BAI)

A 21-item multiple-choice self-report inventory that is used for measuring the severity of an individual's anxiety. It can be used for screening, diagnosis, and monitoring of therapeutic progress in both inpatient and outpatient settings.

Beck AT, Epstein N, Brown G, Steer RA. An inventory measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*. 1988;56:893–897.

Beck Depression Inventory (BDI-II)

A 21-item multiple-choice self-report inventory that measures characteristic attitudes and symptoms of depression. It can be used for screening, diagnosis, and monitoring of therapeutic progress in both inpatient and outpatient settings. The BDI-II features new items that will bring it in line with current depression criteria of the Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM-IV).

Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. *Archives of General Psychiatry*. 1961;4(6):561–571.

Beck AT, Steer RA, Brown, GK. (1996). *Manual for the Beck Depression Inventory-II*. San Antonio, TX: Psychological Corporation.

Section 9: Persistent Cognitive Difficulties

Montreal Cognitive Assessment (MOCA)

A screening tool for individuals with mild cognitive dysfunction. It assesses different cognitive domains: attention and concentration, executive functions, memory, language, visuospatial skills, conceptual thinking, calculations, and orientation.

Nasreddine, Z.S., Phillips, N.S., Bédirian, V., Charbonneau, S., Whitehead, V., Collin, I., et al. The Montreal Cognitive Assessment, MoCA: A brief screening tool for mild cognitive impairment. *Journal of the American Geriatrics Society*, 2005: 53(4), 695-699.

Section 10: Persistent Vision and Vestibular (Balance/Dizziness) Dysfunction

Balance Error Scoring System (BESS)

A portable and objective method of assessing static postural stability. More specifically, the BESS can be used to assess the effects of traumatic brain injury on static postural stability. The BESS utilizes a combination of stances (feet in a narrow stance, preferably touching; single leg stance; and tandem stance) and footing surfaces (bare feet on the floor or a medium density foam surface).

Guskiewicz KM. Postural stability assessment following concussion: one piece of the puzzle. *Clinical Journal of Sports Medicine*. 2001;11:182–189.

Links for Dix-Hallpike and Repositioning Manoeuvre Video Demonstrations

<http://www.youtube.com/watch?v=kEM9p4EX1jk>

<http://www.youtube.com/watch?v=1-hsUU7MDqc>

<http://www.youtube.com/watch?v=RQV-oz0baFM>

Brain Injury Vision Symptom Survey (BIVSS)

A 28-item self-report vision symptom questionnaire, on symptoms such as dry eyes, depth perception, peripheral vision. This questionnaire may make it possible to identify different symptom profiles in TBI patients.

Laukkanen H, Scheiman M, Hayes J. Brain Injury Vision Symptom Survey (BIVSS) Questionnaire. *American Journal of Optometry*. 2016; 94(1):43-50.

Section 11: Persistent Fatigue

Fatigue Severity Scale (FSS)

A 9-item self-report questionnaire designed to assess disabling fatigue in all individuals. The scale was designed to look at fatigue/function measures; that is the connection between fatigue intensity and functional disability.

Krupp LB, LaRocca NG, Muir-Nash J, Steinberg AD. The fatigue severity scale. Application to patients with multiple sclerosis and systemic lupus erythematosus. *Archives of Neurology*. 1989 Oct;46(10):1121-1123.

Fatigue Impact Scale (FIS)

A 40-item self report questionnaire that measures functional limitation from fatigue over the past month.

John D. Fisk, Ritvo, P., Lynn Ross, David A. Haase, Marrie, T., & Walter F. Schleich. Measuring the Functional Impact of Fatigue: Initial Validation of the Fatigue Impact Scale. *Clinical Infectious Diseases*, 1994; 18, S79-S83. Retrieved from <http://www.jstor.org/stable/4457604>

Mental Fatigue Scale

A 15-item multidimensional self-report questionnaire to assess persistent fatigue in brain injured patients. The questions concern fatigue in general, lack of initiative, mental fatigue, mental recovery, concentration difficulties, memory problems, slowness of thinking, sensitivity to stress, increased tendency to become emotional, irritability, sensitivity to light and noise, decreased or increased sleep as well as 24-hour symptom variations.

Johansson B, Starmark A, Berglund P, Rödholm M, Rönnbäck L. A self-assessment questionnaire for mental fatigue and related symptoms after neurological disorders and injuries. *Brain Injury*. 2010;24(1):2-12.