## Outcome Domain:

Effort/Symptom Validity

### Domain Description and Relevance in TBI:

Poor results on tests of memory and cognition may be due to lack of effort or malingering. Tests in this domain help to evaluate the likelihood that cognitive impairment explains the participant’s/subject’s test results.

Table CDE Classification by Type of TBI Study and Relevant Population for Recommended Effort/Symptom Validity Outcome Measures.

| Outcome Measure Name | Relevant TBI Population | Acute Hospitalized | Moderate/ Severe Rehabilitation | Concussion/ Mild TBI | Epidemiology |
| --- | --- | --- | --- | --- | --- |
| Medical Symptom Validity Test | Adult and Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Test of Memory Malingering (TOMM) | Adult and Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Victoria Symptom Validity Test | Adult and Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Word Memory Test | Adult and Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |

## Word Memory Test

### DESCRIPTION:

The Word Memory Test is a computerized test of verbal memory and symptom/performance validity, in which patients are presented 20 semantically-related word pairs. Six subtests include a mix of easy and difficult tests: Immediate Recognition, Delayed Recognition, Multiple Choice, Paired Associates, Free Recall and Long Delay Free Recall.

### PERMISSIBLE VALUES:

Raw scores and percent of answers correct are scored per subtest.

### PROCEDURE:

Administered via computer. The testing portion can be completed in 10 to 15 minutes.

### COMMENTS:

Can be used in adults and children, although not appropriate for individuals who have less than a 3rd grade reading level.

### RATIONALE:

Available in multiple languages and with norms from different groups across a variety of settings. Validity measures are sensitive to inadequate effort and quite insensitive to individual ability-based differences. Profile analysis can further differentiate true impairment from noncredible effort. Appears resistant to coaching.

### REFERENCES:

Green, P. (2003, revised 2005) Word Memory Test for Windows: User's manual and program. Green's Publishing, Edmonton.

Green, P. (2002). The Word Memory Test and the validity of neuropsychological test scores. Journal of Forensic Neuropsychology, 2(3–4), 97–124.

Green, P. (2006). The pervasive influence of effort on neuropsychological test. International Journal of Forensic Psychology, 1(3), 1–21.

Green, P. , Flaro, L. & Courtney, J. (2009). Examining false positives on the WMT in adults with mild traumatic brain injury. Brain Injury, 23(9): 741-750

## Medical Symptom Validity Test

### DESCRIPTION:

The Medical Symptom Validity Test is a shorter version of the Word Memory Test, in which patients are presented with 10 semantically-related word pairs. Four conditions are tested: Immediate Recognition, Delayed Recognition, Paired Associate, and Free Recall.

### PERMISSIBLE VALUES:

Raw scores and percent of answers correct scored per subtest.

### PROCEDURE:

Administered via computer. The testing portion can be completed in 5 minutes.

### COMMENTS:

Can be used in adults and children, although not appropriate for individuals who have less than a 2nd grade reading level.

### RATIONALE:

Available in multiple languages and with norms from different groups across a variety of settings. Short administration time makes MSVT a good choice for screening. Validity measures are sensitive to inadequate effort and quite insensitive to individual ability-based differences. Profile analysis can further differentiate true impairment from effort-related problems. Appears resistant to coaching.

### REFERENCES:

[Armistead-Jehle P](http://www.ncbi.nlm.nih.gov/pubmed?term=Armistead-Jehle%20P%5BAuthor%5D&cauthor=true&cauthor_uid=20146122). (2009). Symptom validity test performance in U.S. veterans referred for evaluation of mild TBI. Applied Neuropsychology, 17, 52-59.

Green, P. (2003, revised 2005) Medical Symptom Validity Test for Windows: User's manual and program, Green's Publishing, Edmonton.

Kirkwood, M.W. & Kirk, J.W. (2010). The base rate of suboptimal effort in a pediatric mild TBI sample: Performance on the Medical Symptom Validity Test. *The Clinical Neuropsychologist, 24,* 860-872*.*

## Test of Memory Malingering (TOMM)

### DESCRIPTION:

The Test of Memory Malingering (TOMM) is a widely used 50-item test designed to assess symptom/performance validity. In two learning trials and an optional retention trial, pictures of objects are presented serially to the patient. Following the learning trials, the patient must choose the drawings previously shown in the learning trials.

### PERMISSIBLE VALUES:

0 to 50 correct answers

### PROCEDURE:

Administered by trained examiners.Thetest can be administered by booklet or via computer. Administration time is 15 to 20 minutes for standard administration, plus another 5 to 10 minutes if the optional retention trial is administered.

### COMMENTS:

**The test was designed for ages** 16 to 84, but has been shown to be appropriate for children as young as 5 years.

### RATIONALE:

The TOMM is fairly insensitive to ability-based differences, though caution is needed when using recommended cutoffs in the case of extreme impairment such as moderate-severe dementia or intellectual disability. Has undergone psychometric validation in a range of populations including TBI. The test shows resistance to coaching.

### REFERENCES:

[Lange RT](http://www.ncbi.nlm.nih.gov/pubmed?term=Lange%20RT%5BAuthor%5D&cauthor=true&cauthor_uid=20437284), [Iverson GL](http://www.ncbi.nlm.nih.gov/pubmed?term=Iverson%20GL%5BAuthor%5D&cauthor=true&cauthor_uid=20437284), [Brooks BL](http://www.ncbi.nlm.nih.gov/pubmed?term=Brooks%20BL%5BAuthor%5D&cauthor=true&cauthor_uid=20437284), & [Rennison VL](http://www.ncbi.nlm.nih.gov/pubmed?term=Rennison%20VL%5BAuthor%5D&cauthor=true&cauthor_uid=20437284). (2010). Influence of poor effort on self-reported symptoms and neurocognitive test performance following mild traumatic brain injury. J Clin Exp Neuropsychol, 32, 961-972.

Rees L.M, T.N Tombaugh, D.A Gansler, N.P Moczynski Five validation experiments of the Test of Memory Malinger (TOMM) Psychological Assessment, 10 (1998), pp. 10–20

Tombaugh, T. N. (1996). Test of Memory Malingering (TOMM). New York: Multi-Health Systems, Inc.

Tombaugh T.N. The Test of Memory Malingering (TOMM): Normative data from cognitively intact and cognitively impaired individuals. Psychological Assessment, 9 (1997), pp. 260–268

## Victoria Symptom Validity Test

### DESCRIPTION:

The Victoria Symptom Validity Test is a computerized test designed to assess the validity of a patient’s cognitive symptoms. It includes 48 items classified as easy or difficult and employs a forced-choice model. The subject’s score can be compared to what would be expected based on chance alone.

### PERMISSIBLE VALUES:

Two subscores of 0-24 for each item correct.

### PROCEDURE:

Test is individually administered via computer by trained examiners and can be completed in 18-25 minutes.

### COMMENTS:

The test has been validated for use in patients aged 18 to 72 years

### RATIONALE:

This symptom validity test has been shown to be sensitive to effort-related problems and to be affected minimally by TBI. Easy to read reports are generated.

### REFERENCES:

Loring DW, Larrabee GJ, Lee GP, Meador KJ. (2007). Victoria Symptom Validity Test performance in a heterogenous clinical sample. Clin Neuropsychologist, 21, 522-531.

Macciocchi SN, Seel RT, Alderson A, Godsall R. Vic[toria Symptom Validity Test performance in acute severe traumatic brain injury: implications for test interpretation.](http://www.ncbi.nlm.nih.gov/pubmed/16889930) Arch Clin Neuropsychol. 2006 Aug ;21(5):395-404. Epub 2006 Aug 4.

Slick, D., Hopp, G., Strauss, E., & Thompson, G. B. (1997). VSVT: Victoria Symptom Validity Test (Version 1.0). Odessa, Florida: Psychological Assessment Resources.