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Subject: Neuropsychological Testing

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

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DESCRIPTION:

Neuropsychological assessment is the normatively informed application of performance-based assessments of various cognitive skills. Typically, neuropsychological assessment is performed with a battery approach, which involves tests of a variety of cognitive ability areas, with more than one test per ability area. These ability areas include skills such as memory, attention, processing speed, reasoning, judgment, and problem-solving, spatial, and language functions. Neuropsychological tests are intrinsically performance-based. They are structured to require individuals to exercise their skills in the presence of an examiner/observer.

POSITION STATEMENT:

Neuropsychological testing **meets the definition of medical necessity** when performed for the evaluation of individuals with cognitive dysfunction due to injury or disease.

Medically necessary indications for neuropsychological testing include:

- Detection of neurologic disease based on quantitative assessment of neurocognitive abilities in conditions such as:
 - Head injuries (open or closed)
 - Anoxic injuries
 - Neurodegenerative disorders (e.g., AIDS dementia)
 - Brain tumor
 - Cerebrovascular disease
 - CNS infections (e.g., HIV, herpes encephalitis, Reyes)
 - Demyelinating disease (e.g., multiple sclerosis)

- Seizure disorder
- Congenital or developmental disorders (e.g., cerebral palsy)
- Extrapyrimalid disease (e.g., Parkinson's disease, Huntington's chorea)
- Chronic alcohol or drug abuse
- Metabolic encephalopathy
- Exposure to agents know to be associated with cerebral dysfunction (e.g., lead poisoning)
- Differentiation between psychogenic and neurogenic syndromes such as depression vs. dementia
- Delineation of the neurocognitive effects of central nervous system disorders
- Assessment of neurocognitive functions for the formulation of rehabilitation **OR** management strategies among individuals with neurologic disorders

Neuropsychological testing **meets the definition of medical necessity** for neurologically complicated cases of ADHD (e.g., post head trauma, seizures).

Neuropsychological testing **does not meet the definition of medical necessity** for uncomplicated cases of attention deficit disorder with or without hyperactivity (ADD / ADHD). ADD / ADHD is considered complicated when there is strong evidence of a possible underlying neurological disorder.

Neuropsychological testing **does not meet the definition of medical necessity** when performed for the following:

- Individuals with ongoing substance abuse problems, currently intoxicated at the time of the testing, or are less than 10 days post-detox
- Self-administered or self-scored inventories, or screening tests of cognitive function
- Educational purposes without a medical diagnosis

BILLING/CODING INFORMATION:

CPT Coding:

96116	Neurobehavioral status exam (clinical assessment of thinking, reasoning and judgment, [eg, acquired knowledge, attention, language, memory, planning and problem solving, and visual spatial abilities]), by physician or other qualified health care professional, both face-to-face time with the patient and time interpreting test results and preparing the report; first hour
96121	Neurobehavioral status exam (clinical assessment of thinking, reasoning and judgment, [eg, acquired knowledge, attention, language, memory, planning and problem solving, and visual spatial abilities]), by physician or other qualified health care professional, both face-to-face time with the patient and time interpreting test results and preparing the report; each additional hour (List separately in addition to code for primary procedure)
96132	Neuropsychological testing evaluation services by physician or other qualified health care professional, including integration of patient data, interpretation of standardized test results & clinical data, clinical decision making, treatment planning & report, & interactive feedback to the patient, family member(s) or caregiver(s), when performed; first hour

96133	Neuropsychological testing evaluation services by physician or other qualified health care professional, including integration of patient data, interpretation of standardized test results & clinical data, clinical decision making, treatment planning & report, & interactive feedback to the patient, family member(s) or caregiver(s), when performed; each additional hour (List separately in addition to code for primary procedure)
96136	Psychological or neuropsychological test administration and scoring by physician or other qualified health care professional, two or more tests, any method; first 30 minutes
96137	Psychological or neuropsychological test administration and scoring by physician or other qualified health care professional, two or more tests, any method; each additional 30 minutes (list separately in addition to code for primary procedure)
96138	Psychological or neuropsychological test administration and scoring by technician, two or more tests, any method; first 30 minutes
96139	Psychological or neuropsychological test administration and scoring by by technician, two or more tests, any method; each additional 30 minutes [List separately in addition to code for primary procedure]
96146	Psychological or neuropsychological test administration, with single automated, standardized instrument via electronic platform, with automated result only

REIMBURSEMENT INFORMATION:

Neuropsychological testing, from initial evaluation to final treatment recommendations, is limited to 10 hours total.

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products:

The following Local Coverage Determination (LCD) was reviewed on the last guideline reviewed date: Psychological and Neuropsychological Tests (L34520), located at fcso.com.

DEFINITIONS:

Cognitive: of, relating to, or being conscious; intellectual activity (as thinking, reasoning, remembering, imagining, or learning words).

Cognitive therapy: psychotherapy that emphasizes the substitution of desirable patterns of thinking for undesirable ones (e.g., for depression).

Neurocognitive: of relating to, or involving the central nervous system and cognitive abilities.

Neurogenic: originating in nervous tissue; induced, controlled, or modified by nervous factors; disordered because of abnormally altered neural relations.

Pathognomonic: distinctively characteristic of a particular disease or condition (i.e., when the patient's attitudes are pathognomonic of one of the classical psychoneuroses).

Psychogenic: originating in the mind or in mental or emotional conflict.

RELATED GUIDELINES:

None applicable.

OTHER:

None applicable.

REFERENCES:

1. Able SL, Johnston JA, Adler LA, Swindle RW. Functional and psychosocial impairment in adults with undiagnosed ADHD. *Psychol Med.* 2007 Jan;37(1):97-107.
2. Adler L, Shaw D, Sitt D, Maya E, Morrill MI. Issues in the diagnosis and treatment of adults ADHD by primary care physicians. *Primary Psychiatry*, 16(5), 57-63.
3. Agency for Healthcare Research and Quality (AHRQ). National Guideline Clearinghouse: Guideline Summary NGC-2048. Practice parameter: screening and diagnosis of autism. Report of the Quality Standards Subcommittee of the American Academy of Neurology and the Child Neurology Society. August 2000.
4. Agency for Healthcare Research and Quality (AHRQ). National Guideline Clearinghouse: Guideline Summary NGC-6933. Recommendations for the diagnosis and management of Alzheimer's disease and other disorders associated with dementia: EFNS guideline. European Federation of Neurological Societies. January 2007.
5. Agency for Healthcare Research and Quality (AHRQ). National Guideline Clearinghouse: Guideline Summary NGC-7193. Attention deficit hyperactivity disorder. Diagnosis and management of ADHD in children, young people and adults. National Institute for Health and Clinical Excellence (NICE). September 2008.
6. Agency for Healthcare Research and Quality (AHRQ). National Guideline Clearinghouse: Guideline Summary NGC-8514. Head (trauma, headaches, etc., not including stress & mental disorders). Work Loss Data Institute. 2011.
7. Agency for Healthcare Research and Quality (AHRQ). National Guideline Clearinghouse: Guideline Summary NGC-8985. The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care. National Institute for Health and Clinical Excellence (NICE). January 2012.
8. American Academy of Child and Adolescent Psychiatry (1997), Practice parameters for the assessment and treatment of children, adolescents, and adults with attention-deficit/hyperactivity disorder. *J Am Acad Child Adolesc Psychiatry* 36(10suppl).
9. American Academy of Child and Adolescent Psychiatry: Practice Parameter for the Assessment and Treatment of Children and Adolescents With Attention-Deficit/Hyperactivity Disorder. *J. AM. ACAD. CHILD ADOLESC. PSYCHIATRY*, 46:7, JULY 2007.
10. American Academy of Neurology Practice parameter: Evaluation of the child with global developmental delay: Report of the Quality Standards Subcommittee of the American Academy of Neurology and The Practice Committee of the Child Neurology Society. *Neurology* 2003;60;367.
11. American Academy of Neurology. Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. Assessment: Neuropsychological Testing of Adults. Considerations for Neurologists. *Neurology*. 1996; 47:592-599.

12. American Psychiatric Association. Practice guideline for the Psychiatric Evaluation of Adults. Second Edition. May 2006. Accessed on November 11, 2009.
13. American Psychological Association Services, Inc. 2019 Psychological and Neuropsychological Testing Billing and Coding Guide. © 2019 APA Services Inc. Accessed at <https://www.apaservices.org/>.
14. Bilder RM, Reise SP. Neuropsychological tests of the future: How do we get there from here?. *Clin Neuropsychol*. 2019;33(2):220-245. doi:10.1080/13854046.2018.1521993.
15. Edebol H, Helldin L, Norlander T. Objective Measures of Behavior Manifestations in Adult ADHD and Differentiation from Participants with Bipolar II Disorder, Borderline Personality Disorder, Participants with Disconfirmed ADHD as Well as Normative Participants. *Clinical Practice And Epidemiology In Mental Health*, 8, 134-143.
16. Filipek PA et al. Practice parameter: screening and diagnosis of autism: Report of the Quality Standards Subcommittee of the American Academy of Neurology and the Child Neurology Society. *Neurology* 2000 Aug 22;55(4):468-79.
17. First Coast Services Options, Inc. (FCSO). Local Coverage Determination (LCD): Psychological and Neuropsychological Tests (L34520) (10/01/15) (revised 07/01/20).
18. Florida Medicare Part B Local Coverage Determination. LCD for Therapy and Rehabilitation Services (L29289) (Retired 09/30/15).
19. Fuermaier ABM, Fricke JA, de Vries SM, Tucha L, Tucha O. Neuropsychological assessment of adults with ADHD: A Delphi consensus study. *Appl Neuropsychol Adult*. 2019;26(4):340-354. doi:10.1080/23279095.2018.1429441.
20. Gavett EB, et al. Reliable Change on Neuropsychological Tests in the Uniform Data Set. *J Int Neuropsychol Soc*. 2015 Aug;21(7):558-67. doi: 10.1017/S1355617715000582. Epub 2015 Aug 3.
21. Groom M, Young Z, Hall C, Hollis C, Gillott A. The incremental validity of a computerised assessment added to clinical rating scales to differentiate adult ADHD from autism spectrum disorder. *Psychiatry Research*, 243, 168-173.
22. Hall CL, et al. Protocol investigating the clinical utility of an objective measure of attention, impulsivity and activity (QbTest) for optimising medication management in children and young people with ADHD 'QbTest Utility for Optimising Treatment in ADHD' (QUOTA): a feasibility randomised controlled trial. *BMJ Open*. 2018 Feb 15;8(2):e021104. doi: 10.1136/bmjopen-2017-021104.
23. Hall C, Selby K, Guo B, Valentine A, Walker G. Innovations in Practice: an objective measure of attention, impulsivity and activity reduces time to confirm attention deficit/hyperactivity disorder diagnosis in children – a completed audit cycle. *Child And Adolescent Mental Health*, 21(3), 175-178. doi:10.1111/camh.12140.
24. Hall C, Valentine A, Walker G, Ball H, Cogger H, Groom M, Hollis C. Study of user experience of an objective test (QbTesting) to aid ADHD assessment and medication management: A multi-methods approach. *BMC Psychiatry*, 17(1), doi:10.1186/s12888-017-1222-5.
25. Harvey PD. Clinical applications of neuropsychological assessment. *Dialogues Clin Neurosci*. 2012;14(1):91-99.
26. HAYES Medical Technology Directory; Neuropsychological Assessment for Dementia (07/31/97; updated 02/24/03)
27. HAYES Medical Technology Directory; Neuropsychological Assessment for Traumatic Brain Injury (07/31/97; updated 02/24/03)
28. HAYES Medical Technology Directory; Neuropsychological Assessment for Infectious Disease Sequelae (11/28/97; updated 02/24/03)
29. Hollis C, Hall C, Guo B, Groom M, Brown N, Kaylor-Hughes C, Moldavsky, M. The impact of a computerised test of attention and activity (QbTesting) on diagnostic decision-making in children and

young people with suspected attention deficit hyperactivity disorder: Single-blind randomised controlled trial. *Journal Of Child Psychology And Psychiatry And Allied Disciplines*, doi:10.1111/jcpp.12921.

30. Howieson D. Current limitations of neuropsychological tests and assessment procedures. *Clin Neuropsychol*. 2019;33(2):200-208. doi:10.1080/13854046.2018.1552762. PMID: 30608020.
31. Knouse LE, Bagwell CL, Barkley RA, Murphy K R. Accuracy of Self-Evaluation in Adults with ADHD: Evidence from a Driving Study. *Journal Of Attention Disorders*, 8(4), 221-234.
32. Kuzmickienė J, Kaubrys G. Specific Features of Executive Dysfunction in Alzheimer-Type Mild Dementia Based on Computerized Cambridge Neuropsychological Test Automated Battery (CANTAB) Test Results. *Med Sci Monit*. 2016 Oct 8;22:3605-3613.
33. Lindsay MP, Gubitz G, Bayley M, Hill MD, Davies-Schinkel C, Singh S, and Phillips S. Canadian Best Practice Recommendations for Stroke Care (Update 2010). On behalf of the Canadian Stroke Strategy Best Practices and Standards Writing Group. 2010; Ottawa, Ontario Canada: Canadian Stroke Network.
34. Marquardt L, et al. Event-Related-Potential (ERP) Correlates of Performance Monitoring in Adults With Attention-Deficit Hyperactivity Disorder (ADHD). *Front Psychol*. 2018 Apr 11;9:485. doi: 10.3389/fpsyg.2018.00485. eCollection 2018.
35. McIntyre RS, Kennedy SH, Soczynska JK, Nguyen HT, Bilkey TS, Woldeyohannes HO, Muzina, DJ. Attention-deficit/hyperactivity disorder in adults with bipolar disorder or major depressive disorder: results from the international mood disorders collaborative project. *Primary Care Companion To The Journal Of Clinical Psychiatry*, 12(3), doi:10.4088/PCC.09m00861gry.
36. Mörstedt B, Bitto H, Stieglitz, Corbisiero S. Attention-Deficit/Hyperactivity Disorder (ADHD) in adulthood: Concordance and differences between self- and informant perspectives on symptoms and functional impairment. *Plos ONE*, 10(11), doi:10.1371/journal.pone.0141342.
37. National Collaborating Centre for Mental Health. Attention deficit hyperactivity disorder. Diagnosis and management of ADHD in children, young people and adults. London (UK): National Institute for Health and Clinical Excellence (NICE); 2008 Sep. 59 p. (Clinical guideline; no. 72).
38. Parikh R, et al. Single neuropsychological test scores associated with rate of cognitive decline in early Alzheimer disease. *Clin Neuropsychol*. 2014;28(6):926-40. doi: 10.1080/13854046.2014.944937. Epub 2014 Aug 18.
39. Prado CE, Watt S, Treeby MS, Crowe SF. Performance on neuropsychological assessment and progression to dementia: A meta-analysis. *Psychol Aging*. 2019;34(7):954-977. doi:10.1037/pag0000410. PMID: 31682146.
40. Rizzutti S, Sinnes EG, Scaramuzza LF, Freitas L, Pinheiro D, Palma SM, Mello CB, Miranda MC, Bueno OF, Muszkat M. Clinical and neuropsychological profile in a sample of children with attention deficit hyperactivity disorders. *Arq Neuropsiquiatr*. 2008 Dec;66(4):821-7.
41. Sibley MH, Coxe S, Molina BG. Refining Diagnostic Procedures for Adults With Symptoms of ADHD: A Response to "Psychometrically Informed Approach to Integration of Multiple Informant Ratings in Adult ADHD Diagnosis in a Community-Recruited Sample". *Assessment*, 24(3), 290-296.
42. Stebbins, Glenn T: Goetz: *Textbook of Clinical Neurology*, 1st ed. WB Saunders Company, 1999.
43. Vogt C, Williams T. Early identification of stimulant treatment responders, partial responders and non-responders using objective measures in children and adolescents with hyperkinetic disorder. *Child And Adolescent Mental Health*, 16(3), 144-149. doi:10.1111/j.1475-3588.2010.00593.
44. Waldemar G et al. Recommendations for the diagnosis and management of Alzheimer's disease and other disorders associated with dementia: EFNS guideline. *Eur J Neurol* 2007 Jan;14(1):e1-26.

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy & Coverage Committee on 09/24/20.

GUIDELINE UPDATE INFORMATION:

09/15/01	Medical Coverage Guideline Reformatted and Revised.
09/15/03	Reviewed; no changes in coverage.
01/01/06	HCPCS coding update consisting of the deletion of 96117 and the addition of 96118, 96119 and 96120.
05/15/07	Medical Policy Archived (No longer Active).
01/15/10	Guideline revised and reformatted. Returned to active status.
11/15/12	Revision; added a coverage statement for neurologically complicated Attention Deficit Disorder with or without hyperactivity (ADD/ADHD); updated references and reformatted guideline.
05/11/14	Revision: Program Exceptions section updated.
01/01/18	Revision: deleted repeat testing in 12 months restriction; revised Billing/Coding Information section; reformatted guideline.
12/15/18	Scheduled review. Revised description, maintained position statement. Revised program exceptions section and related guidelines. Updated references.
01/01/19	Annual CPT/HCPCS coding update. Added 96132, 96133, 96136, 96137, 96138, 96139, 96146. Revised descriptor 96116. Deleted 96118, 96119, 96120. Reformatted Position Statement section.
03/15/20	Added code 96121.
10/15/20	Scheduled review. Revised description. Maintained position statement and updated references.
09/15/21	Revision: updated reimbursement section and references.