

Psychological and Neuropsychological Testing

MEDICAL POLICY NUMBER: 274

Effective Date: 6/1/2023	COVERAGE CRITERIA	2
Last Review Date: 3/2023	POLICY CROSS REFERENCES.....	5
Next Annual Review: 3/2023	POLICY GUIDELINES.....	5
	REGULATORY STATUS.....	7
	CLINICAL EVIDENCE AND LITERATURE REVIEW	7
	BILLING GUIDELINES AND CODING	11
	REFERENCES.....	13
	POLICY REVISION HISTORY.....	15
	BILLING GUIDELINES APPENDIX	15

INSTRUCTIONS FOR USE: Company Medical Policies serve as guidance for the administration of plan benefits. Medical policies do not constitute medical advice nor a guarantee of coverage. Company Medical Policies are reviewed annually and are based upon published, peer-reviewed scientific evidence and evidence-based clinical practice guidelines that are available as of the last policy update. The Company reserves the right to determine the application of medical policies and make revisions to medical policies at any time. The scope and availability of all plan benefits are determined in accordance with the applicable coverage agreement. Any conflict or variance between the terms of the coverage agreement and Company Medical Policy will be resolved in favor of the coverage agreement. Coverage decisions are made on the basis of individualized determinations of medical necessity and the experimental or investigational character of the treatment in the individual case. In cases where medical necessity is not established by policy for specific treatment modalities, evidence not previously considered regarding the efficacy of the modality that is presented shall be given consideration to determine if the policy represents current standards of care.

SCOPE: Providence Health Plan, Providence Health Assurance, Providence Plan Partners, and Ayin Health Solutions as applicable (referred to individually as “Company” and collectively as “Companies”).

PLAN PRODUCT AND BENEFIT APPLICATION

Commercial

Medicaid/OHP*

Medicare**

*Medicaid/OHP Members

Oregon: Services requested for Oregon Health Plan (OHP) members follow the OHP Prioritized List and Oregon Administrative Rules (OARs) as the primary resource for coverage determinations. Medical policy criteria below may be applied when there are no criteria available in the OARs and the OHP Prioritized List.

**Medicare Members

This Company policy may be applied to Medicare Plan members only when directed by a separate Medicare policy. Note that investigational services are considered “**not medically necessary**” for Medicare members.

COVERAGE CRITERIA

Psychological Testing

- I. Psychological testing may be considered **medically necessary** when both of the following criteria are met (A.-B.):
 - A. The psychological test is administered, scored, and interpreted by a trained professional (e.g. clinical psychologist, psychologist, advanced nurse practitioner with education in this area, or a physician assistant who works with a psychiatrist with expertise in the appropriate area); **and**
 - B. Psychological testing is intended for any of the following (1.-4.):
 1. To assist with diagnosis and management following clinical findings where a mental illness or psychological abnormality is suspected; **or**
 2. To provide a differential diagnosis from a range of neurological/psychological disorders that present with constellations of symptoms (e.g. differentiation between pseudodementia and depression); **or**
 3. To determine the clinical and functional significance of a brain abnormality; **or**
 4. To delineate the specific cognitive basis of functional complaints.
- II. Psychological testing is considered **not medically necessary** when criterion I. above is not met, including but not limited to any of the following:

Frequency Limits

- III. Billing of psychological testing (including evaluation, administration, scoring, and

interpretation) in excess of 8 hours or more than once (1) per calendar year is subject to medical necessity review.

Non-Covered Testing

- IV. Psychological testing is considered **not medically necessary** when criterion I. above is not met, including, but not limited to the following:
- A. The patient is not neurologically and cognitively able to participate in a meaningful way in the testing process;
 - B. Used as screening tests given to the individual or to general populations;
 - *Note: This policy does not address the use of standardized screening tools in primary care and other settings (e.g. Patient Health Questionnaire-9, Generalized Anxiety Disorder-7), as these are not considered psychological testing services.*
 - C. Performed when abnormalities of brain function are not suspected;
 - D. Used for self-administered or self-scored inventories, or screening tests of cognitive function (whether paper-and-pencil or computerized) (e.g., AIMS, Folstein Mini-Mental Status Examination);
 - E. Repeated when not required for medical decision-making (i.e., making a diagnosis or deciding whether to start or continue a particular rehabilitative or pharmacologic therapy);
 - F. Administered when the patient has a substance abuse background and the patient has ongoing substance abuse such that test results would be inaccurate, or the patient is currently intoxicated;
 - G. The patient has been diagnosed previously with brain dysfunction, such as Alzheimer's diseases and there is no expectation that the testing would impact the patient's medical management.
 - H. Testing for any vocational or educational purposes
 - I. Return to sports or recreational activities assessment
 - J. Disability determination
 - K. General screening without symptoms of a neurologic disorder
 - L. Legal competency determination
 - M. Determining age-appropriate mental changes
 - N. Migraine headache
 - O. Mild cognitive impairment
 - P. Chronic fatigue syndrome
 - Q. Baseline assessments in the absence of signs or symptoms
- V. Computerized psychological testing (CPT: 96146) is considered **not medically necessary** for the treatment of any indication.

Neuropsychological Testing

Non-computerized Neuropsychological Testing

VI. The medical application of non-computerized neuropsychological testing may be considered **medically necessary** when **all** of the following (A.-B.) criteria are met:

- A. The patient meets **one or more** of the following (1.-3.) criteria:
 - 1. Testing is required for the diagnosis of a neurologic disorder or injury (see note below for examples of disorders or injuries that may require neuropsychological testing); **or**
 - 2. Testing is required to measure changes in functional impairment or disease progression (e.g., head injury, stroke, concussion); **or**
 - 3. The patient has an established diagnosis of a neurologic disorder or injury and testing is required for the formulation of rehabilitation and/or management strategies; **and**
- B. Neuropsychological testing is intended to alter patient management.

Note: Clinical *examples* of neurologic disorders or injuries that may require neuropsychological testing when the above criteria are met, include, but are not limited to:

- A. Early, undifferentiated dementia (not age related)
- B. Differential diagnosis of Alzheimer's disease, Pick's disease, Lewy body disease, etc.
- C. Diseases of the brain, including tumors, malformations, demyelinating, and extrapyramidal disease
- D. History of intracranial surgery
- E. Cerebral anoxic or hypoxic event
- F. Toxic, infectious, metabolic, or anoxic encephalopathy
- G. Encephalitis or meningitis
- H. Seizure disorders
- I. Stroke or cerebral vascular injury (e.g., brain aneurysm, subdural hematoma)
- J. Moderate or severe traumatic brain injury, including post-concussion syndrome

VII. Non-computerized neuropsychological testing is considered **not medically necessary** when criterion X. above is not met, including, but not limited to the following:

- A. Testing for any vocational or educational purposes
- B. Return to sports or recreational activities assessment
- C. Disability determination
- D. General screening without symptoms of a neurologic disorder
- E. Legal competency determination
- F. Determining age appropriate mental changes
- G. Migraine headache
- H. Mild cognitive impairment
- I. Chronic fatigue syndrome
- J. Baseline assessments in the absence of signs or symptoms

Repeat Non-computerized Neuropsychological Testing

VIII. Repeat non-computerized neuropsychological testing may be considered **medically necessary and is covered** when **all** of the following (A.-C.) criteria are met:

- A. The initial test was completed within the last 12 months; **and**
 - B. Repeat testing is needed to measure changes in functional impairment or disease progression (e.g., head injury, stroke, concussion); **and**
 - C. Results of repeat neuropsychological testing will alter the patient's treatment plan.
- IX. Repeat non-computerized neuropsychological testing is considered **not medically necessary** when criterion III. above is not met.

Frequency Limitation

- X. Billing of neuropsychological testing (including evaluation, administration, scoring, and interpretation) in excess of 8 hours or more than once (1) per calendar year is subject to medical necessity review.

Computerized Neuropsychological Testing

- XI. Computerized neuropsychological testing with computerized cognitive assessment systems is considered **not medically necessary** for any indication.

Link to [Evidence Summary](#)

POLICY CROSS REFERENCES

None

The full Company portfolio of current Medical Policies is available online and can be [accessed here](#).

POLICY GUIDELINES

This policy may be primarily based on the following Center for Medicare and Medicaid Services (CMS) guidance resources:

- Local Coverage Document, Psychological and Neuropsychological Testing ([L34646](#))¹

DOCUMENTATION REQUIREMENTS

- The medical record and assessment report should document the diagnosis and treatment recommendations.
- The patient's medical record should contain documentation that fully supports the medical necessity for testing performed. This documentation includes, but is not limited to, relevant medical history, physical examination, and results of pertinent diagnostic tests or procedures. Documentation should include the following information:

- Any suspected mental illness or neuropsychological abnormality or central nervous system dysfunction
 - The initial clinical findings that determine the need for testing
 - The types of testing indicated
 - The time involved and whether this is initial testing or follow-up
 - Previous testing by the same or different provider, and efforts to obtain previous test results performed
 - The test(s) administered, scoring and interpretation, treatment recommendations
- Documentation should be legible, signed, and maintained in the patient's medical record.
 - If the total time for the tests exceeds eight hours, a report may be requested asking for the medical necessity of the extended testing.
 - The administration of psychological testing and/or neuropsychological testing must result in the generation of material that will be formulated into a report that will be given to the referring provider.

BACKGROUND

Psychological Testing

A psychological test is an instrument designed to measure unobserved constructs, also known as latent variables. Psychological tests are typically, but not necessarily, a series of tasks or problems that the respondent has to solve. Psychological tests can strongly resemble questionnaires, which are also designed to measure unobserved constructs, but differ in that psychological tests ask for a respondent's maximum performance whereas a questionnaire asks for the respondent's typical performance. A useful psychological test must be both valid (i.e., there is evidence to support the specified interpretation of the test results) and reliable (i.e., internally consistent or give consistent results over time, across raters, etc.).¹

Non-computerized Neuropsychological Testing

Neuropsychological testing is a performance-based method to assess a patient's cognitive functioning.² Testing can be used to examine the cognitive consequences of brain damage, brain disease, and severe mental illness. "There are several specific uses of neuropsychological assessment, including collection of diagnostic information, differential diagnostic information, assessment of treatment response, and prediction of functional potential and functional recovery."² Neuropsychological evaluation involves a clinical interview along with the administration, scoring, and interpretation of assessments that objectively and quantitatively assess the functional integrity of the brain.

Computerized Neuropsychological Testing

Computerized cognitive assessment systems, such as MindStreams® Cognitive Health Assessment (Neuropteran); Cambridge Neuropsychological Testing Automated Battery (CANTAB); Alzheimer's, CANTAB ADHD; CANTAB's Core Cognition battery; CNS Vital Signs; MicroCog; and Computer-Administered Neuropsychological Screen for Mild Cognitive Impairment (CANS-MCI) are computerized cognitive testing systems for the assessment and treatment of cognitive health. "Computerized

neurocognitive assessments have been deemed advantageous due to the ease of administration, ability for immediate scoring, and reported increases in test-retest reliability.”³

REGULATORY STATUS

U.S. FOOD AND DRUG ADMINISTRATION (FDA)

Approval or clearance by the Food and Drug Administration (FDA) does not in itself establish medical necessity or serve as a basis for coverage. Therefore, this section is provided for informational purposes only.

CLINICAL EVIDENCE AND LITERATURE REVIEW

EVIDENCE REVIEW

Non-Computerized Neuropsychological Testing

Neurologic disorders/injuries that may require neuropsychological testing:	Evidence:
Dementia, Alzheimer’s disease, Lewy body disease, etc.	<ul style="list-style-type: none"> - A 2017 systematic review and meta-analysis by Belleville et al. found high sensitivity and specificity values for 61 neuropsychological tests; thus indicating a good predictive value of neuropsychological testing to detect the progression of mild cognitive impairment to Alzheimer’s dementia.⁴ - In 2017, the Joint Program for Neurodegenerative Disease Work Group conducted a systematic review to evaluate the role of neuropsychological assessments in evaluating neurodegenerative dementias.⁵ Neuropsychological testing was shown to aid in the differentiation of Alzheimer’s dementia from dementia due to other causes (e.g., vascular disease). - In 2015, a study by Yoon et al. found that neuropsychological testing helped to predict conversion of mild cognitive impairment to dementia with Lewy bodies or Alzheimer’s dementia.⁶
Traumatic brain injury (TBI)	<ul style="list-style-type: none"> - Historical and more recent studies support the clinical utility of neuropsychological testing in patients with traumatic brain injury.^{7,8} These more recent studies indicate neuropsychological testing can aid in the classification of TBI (i.e., mild, moderate, severe) and help predict concurrent TBI symptoms.
Brain lesions, including tumors and malformations	<ul style="list-style-type: none"> - A 2017 study by Pranckeviciene et al. found that neuropsychological evaluation of brain tumor patients was predictive of cognitive impairments and psychological distress.⁹ - A 2016 systematic review by Meskal et al. found that neuropsychological testing in meningioma patients resulted in the adequate diagnosis and treatment of cognitive deficits. The results

	<p>also suggested that neuropsychological testing may lead to improved outcomes and quality of life in meningioma patients.¹⁰</p> <ul style="list-style-type: none"> - Cochereau et al. found that patients with low-grade gliomas (LGG) have neuropsychological impairments, and neuropsychological testing in LGG patients can aid in the diagnosis of insidious cognitive deficits.¹¹
Demyelinating diseases (e.g., multiple sclerosis)	<ul style="list-style-type: none"> - A 2018 study by von Bismarck et al. found a high prevalence of patients with early-stage multiple sclerosis had neuropsychological symptoms, and these symptoms were accurately diagnosed with neuropsychological testing.¹² - Ruet and Brochet (2018) found neuropsychological testing in patients with multiple sclerosis (MS) to be validated methods for evaluating and characterizing the extent and severity of cognitive impairment in MS patients.¹³ - A 2016 systematic review by Vollmer et al. found an association between neuropsychological testing diagnosed cognitive decline and associated brain volume loss in MS patients.¹⁴
Encephalopathies	<ul style="list-style-type: none"> - A 2017 study by Moore et al. established the clinical utility of neuropsychological testing for diagnosing cognitive impairment in adults living with HIV/AIDS.¹⁵ - A 2017 systematic review and meta-analysis by Burton et al. found that neuropsychological testing diagnosed ongoing specific cognitive impairments in post childhood acute disseminated encephalomyelitis.¹⁶
Epilepsy and seizure disorder	<ul style="list-style-type: none"> - A 2017 systematic review by Parra-Diaz and colleagues found that pre-surgical neuropsychological testing along with a functional MRI predict memory outcome after surgical treatment of refractory mesial temporal lobe epilepsy.¹⁷ - In 2017, Grau-Lopez evaluated neuropsychological and clinical features in predicting seizure control in patients with mesial temporal epilepsy.¹⁸ Neuropsychological testing identified moderate-severe cognitive impairment in patients with poor seizure control.
Neurotoxin exposure	<ul style="list-style-type: none"> - A 2016 study by Nascimento et al. demonstrated the clinical utility of neuropsychological testing for diagnosing neurotoxicity in children due to environmental exposure to manganese.¹⁹
Stroke	<ul style="list-style-type: none"> - Recent studies have demonstrated the clinical benefits of neuropsychological testing in post-stroke patients.^{20,21} The early diagnosis of neurological and functional deficits may improve quality of life and the rehabilitative process in these patients.

Computerized Neuropsychological Testing

Systematic Reviews

- In 2017, Farnsworth et al. conducted a systematic review and meta-analysis to evaluate the reliability of computerized neurocognitive tests (CNTs) for concussion assessment.²² The literature

review identified 18 studies encompassing 2,674 patients. Of the CNTs evaluated, the proportion of acceptable outcomes was highest for the Axon Sports CogState Test (75%) and lowest for the ImPACT test (25%). The authors concluded that the Axon Sports CogState Test may be a reliable CNT; however, “future studies are needed to compare the diagnostic accuracy of these instruments.”²²

Nonrandomized Studies

- In 2017, Nelson 2017 et al. conducted a nonrandomized study to evaluate the reliability and validity of three computerized neurocognitive assessment tools (CNTs) for assessing mild traumatic brain injury (mTBI).²³ A total of 94 mTBI patients and matched trauma control (n=80) patients were recruited from an emergency department and given neurocognitive assessments within 72 hours of injury and at 15 and 45 days post-injury.
- The CNTs evaluated did not yield significant differences between patients with mTBI versus other injuries. Other measures (e.g., symptom scores) better differentiated groups than CNTs. The authors concluded that, “(n)onspecific injury factors, and other characteristics common in ED settings, likely affect CNT performance across trauma patients as a whole and thereby diminish the validity of CNTs for assessing mTBI in this patient population.”²³

CLINICAL PRACTICE GUIDELINES

Non-computerized Neuropsychological Testing

American Academy of Neurology (AAN)

In 1996, the AAN published an evidence-based assessment of neuropsychological testing of adults.²⁴ The assessment indicated that neuropsychological testing in adults is most useful for the management and treatment of patients with suspected dementia, multiple sclerosis, Parkinson’s disease, traumatic brain injury, stroke, and HIV encephalopathy. The authors also concluded that neuropsychological testing is useful in patients undergoing epilepsy surgery.

The 2010 AAN (reaffirmed in 2013) evidence-based practice parameter regarding the evaluation and management of driving risk in patients with dementia indicated there was inadequate or conflicting data to reach a conclusion regarding the clinical utility of neuropsychological testing or other interventions for drivers with dementia.²⁵

The 2013 AAN evidence-based guideline for the evaluation and management of concussion in sports recommends the use of neuropsychological testing of memory performance, reaction time, and speed of cognitive processing to identify the presence of concussion.²⁶

A 2018 AAN evidence-based practice guideline for mild cognitive impairment (MCI) concluded the following regarding neuropsychological testing to diagnose MCI:

“When screening or assessing for MCI, validated assessment tools should be used. Various instruments have acceptable diagnostic accuracy for detecting MCI, with no instrument being superior to another. Because brief cognitive assessment instruments are usually calibrated to maximize sensitivity rather

than specificity, patients who test positive for MCI should then have further assessment (e.g., more in-depth cognitive testing, such as neuropsychological testing with interpretation based on appropriate normative data) to formally assess for this diagnosis.”²⁷

American Psychological Association (APA)

The 2012 evidence-based APA guidelines for the evaluation of dementia and age-related cognitive changes recommended the following:

- “Neuropsychological evaluation and cognitive testing remain the most effective differential diagnostic methods in discriminating pathophysiological dementia from age-related cognitive decline, cognitive difficulties that are depression related, and other related disorders. Even after reliable biological markers have been discovered, neuropsychological evaluation and cognitive testing will still be necessary to determine the onset of dementia, the functional expression of the disease process, the rate of decline, the functional capacities of the individual, and hopefully, response to therapies.
- Comprehensive neuropsychological evaluations for dementia and cognitive change include tests of multiple cognitive domains, typically including memory, attention, perceptual and motor skills, language, visuospatial abilities, reasoning, and executive functions.”²⁸

American Psychiatric Association (APA)

The 2007 evidence-based APA guideline for the treatment of patients with Alzheimer’s disease and other dementias recommends the following regarding neuropsychological testing:

“Neuropsychological testing may be helpful in a number of ways. It may help in deciding whether a patient with subtle or atypical symptoms actually has dementia as well as in more thoroughly characterizing an unusual symptom picture. It is particularly useful in the evaluation of individuals who present with mild cognitive impairment, which requires evidence of memory and/or other cognitive difficulties in the presence of intact functioning, and in the evaluation of individuals with the onset of dementia early in life. Testing may help to characterize the extent of cognitive impairment, to distinguish among the types of dementias, and to establish baseline cognitive function. Neuropsychological testing may also help identify strengths and weaknesses that could guide expectations for the patient, direct interventions to improve overall function, assist with communication, and inform capacity determinations.”²⁹

American Heart Association/American Stroke Association (AHA/ASA)

A 2016 evidence-based AHA/ASA guideline for adult stroke rehabilitation and recovery recommended the following regarding neuropsychological testing in post-stroke patients:

“A formal neuropsychological examination (including assessment of language, neglect, praxis, memory, emotional responses, and specific cognitive syndromes) may be helpful after the detection of cognitive impairment with a screening instrument. Neuropsychological protocols must be sensitive to a wide range of abilities, especially the assessment of executive and attentional functions.”³⁰

The guidelines go on to state that screening for cognitive deficits is recommended for all stroke patients before being discharged, and if deficits are identified a more detailed neuropsychological evaluation may be beneficial.

Computerized Neuropsychological Testing

American Psychological Association (APA)

The 2012 evidence-based APA guidelines for the evaluation of dementia and age-related cognitive changes stated the following regarding computerized neuropsychological testing:

“Technology assisted assessments (e.g., computer administered cognitive batteries, telehealth visits) are rapidly advancing, but appropriate psychometric properties and normative data are nascent. These technologies may have significant advantages for older persons with limited mobility or health care access but may also disadvantage older persons with limited experience and expertise interacting with technology.”²⁸

EVIDENCE SUMMARY

Evidence demonstrates the clinical validity and utility of non-computerized neuropsychological testing for diagnosing neurologic disorders or injuries. These neurologic disorders or injuries include, but are not limited to, dementia, Alzheimer’s disease, traumatic brain injury, brain lesions, demyelinating diseases, encephalopathies, seizure disorders, neurotoxin exposure, and stroke. In addition, several evidence-based clinical practice guidelines recommend neuropsychological testing for the evaluation and treatment of neurologic disorders and injuries.

There is insufficient published evidence to establish the accuracy and clinical utility of computerized neuropsychological testing. Additional studies of good methodological quality are required to establish the validity of these neuropsychological assessment technologies.

BILLING GUIDELINES AND CODING

For all lines of business except Providence St. Joseph Health (except Providence St. Joseph Health Northern California):

- The CPT codes below will pay when paired with one of the diagnosis codes present in the [Billing Guidelines Appendix](#) below.
- Billing of psychological or neuropsychological testing (including evaluation, administration, scoring, and interpretation) in excess of 8 hours or more than once (1) per calendar year is subject to medical necessity review.
- This policy does not address the use of standardized screening tools in primary care and other settings (e.g. Patient Health Questionnaire-9, Generalized Anxiety Disorder-7) that may be billed with CPT 96160, as these are not considered psychological testing services.

CODES*		
CPT	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)
	96130	Psychological testing evaluation services by physician or other qualified health care professional, including integration of patient data, interpretation of standardized test results and clinical data, clinical decision making, treatment planning and report, and interactive feedback to the patient, family member(s) or caregiver(s), when performed; first hour
	96131	Psychological testing evaluation services by physician or other qualified health care professional, including integration of patient data, interpretation of standardized test results and clinical data, clinical decision making, treatment planning and report, and 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)
	96132	Neuropsychological testing evaluation services by physician or other qualified health care professional, including integration of patient data, interpretation of standardized test results and clinical data, clinical decision making, treatment planning and report, and 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 and clinical data, clinical decision making, treatment planning and report, and 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 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
--	-------	---

***Coding Notes:**

- The above code list is provided as a courtesy and may not be all-inclusive. Inclusion or omission of a code from this policy neither implies nor guarantees reimbursement or coverage. Some codes may not require routine review for medical necessity, but they are subject to provider contracts, as well as member benefits, eligibility and potential utilization audit.
- All unlisted codes are reviewed for medical necessity, correct coding, and pricing at the claim level. If an unlisted code is submitted for non-covered services addressed in this policy then it will be **denied as not covered**. If an unlisted code is submitted for potentially covered services addressed in this policy, to avoid post-service denial, **prior authorization is recommended**.
- **See the non-covered and prior authorization lists on the Company [Medical Policy, Reimbursement Policy, Pharmacy Policy and Provider Information website](#) for additional information.**
- HCPCS/CPT code(s) may be subject to National Correct Coding Initiative (NCCI) procedure-to-procedure (PTP) bundling edits and daily maximum edits known as “medically unlikely edits” (MUEs) published by the Centers for Medicare and Medicaid Services (CMS). This policy does not take precedence over NCCI edits or MUEs. Please refer to the CMS website for coding guidelines and applicable code combinations.

REFERENCES

1. Centers for Medicare & Medicaid Services. Psychological and Neuropsychological Testing (L34646). <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=34646>. Published 2022. Accessed 2/6/2023.
2. Harvey PD. Clinical applications of neuropsychological assessment. *Dialogues in clinical neuroscience*. 2012;14(1):91-99
3. Hayes Medical Technology Directory: Computerized Neurocognitive Testing (CNT) for Sports-Related Head Injury. <https://www.hayesinc.com/subscribers/displaySubscriberArticle.do?articleId=16249&§ionSelector=indexView>. Published 2014. Accessed 6/18/2018.
4. Belleville S, Fouquet C, Hudon C, Zomahoun HTV, Croteau J. Neuropsychological Measures that Predict Progression from Mild Cognitive Impairment to Alzheimer's type dementia in Older Adults: a Systematic Review and Meta-Analysis. *Neuropsychology review*. 2017;27(4):328-353
5. Costa A, Bak T, Caffarra P, et al. The need for harmonisation and innovation of neuropsychological assessment in neurodegenerative dementias in Europe: consensus document of the Joint Program for Neurodegenerative Diseases Working Group. *Alzheimer's research & therapy*. 2017;9(1):27
6. Yoon JH, Kim M, Moon SY, Yong SW, Hong JM. Olfactory function and neuropsychological profile to differentiate dementia with Lewy bodies from Alzheimer's disease in patients with mild cognitive impairment: A 5-year follow-up study. *Journal of the neurological sciences*. 2015;355(1-2):174-179
7. Hanks RA, Jackson AM, Crisanti LK. Predictive validity of a brief outpatient neuropsychological battery in individuals 1-25 years post traumatic brain injury. *The Clinical neuropsychologist*. 2016;30(7):1074-1086
8. Carlozzi NE, Kirsch NL, Kisala PA, Tulsy DS. An examination of the Wechsler Adult Intelligence Scales, Fourth Edition (WAIS-IV) in individuals with complicated mild, moderate and Severe traumatic brain injury (TBI). *The Clinical neuropsychologist*. 2015;29(1):21-37

9. Prankeviciene A, Deltuva VP, Tamasauskas A, Bunevicius A. Association between psychological distress, subjective cognitive complaints and objective neuropsychological functioning in brain tumor patients. *Clinical neurology and neurosurgery*. 2017;163:18-23
10. Meskal I, Gehring K, Rutten GJ, Sitskoorn MM. Cognitive functioning in meningioma patients: a systematic review. *Journal of neuro-oncology*. 2016;128(2):195-205
11. Cochereau J, Herbet G, Duffau H. Patients with incidental WHO grade II glioma frequently suffer from neuropsychological disturbances. *Acta neurochirurgica*. 2016;158(2):305-312
12. von Bismarck O, Dankowski T, Ambrosius B, et al. Treatment choices and neuropsychological symptoms of a large cohort of early MS. *Neurology(R) neuroimmunology & neuroinflammation*. 2018;5(3):e446
13. Ruet A, Brochet B. Cognitive assessment in patients with multiple sclerosis: From neuropsychological batteries to ecological tools. *Annals of physical and rehabilitation medicine*. 2018
14. Vollmer T, Huynh L, Kelley C, et al. Relationship between brain volume loss and cognitive outcomes among patients with multiple sclerosis: a systematic literature review. *Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology*. 2016;37(2):165-179
15. Moore RC, Paolillo EW, Heaton A, Fazeli PL, Jeste DV, Moore DJ. Clinical utility of the UCSD Performance-Based Skills Assessment-Brief (UPSA-B) in adults living with HIV: Associations with neuropsychological impairment and patient-reported everyday functioning difficulties. *PLoS one*. 2017;12(8):e0183614
16. Burton KLO, Williams TA, Catchpole SE, Brunson RK. Long-Term Neuropsychological Outcomes of Childhood Onset Acute Disseminated Encephalomyelitis (ADEM): a Meta-Analysis. *Neuropsychology review*. 2017;27(2):124-133
17. Parra-Diaz P, Garcia-Casares N. Memory assessment in patients with temporal lobe epilepsy to predict memory impairment after surgery: A systematic review. *Neurologia (Barcelona, Spain)*. 2017
18. Grau-Lopez L, Jimenez M, Ciurans J, Caceres C, Becerra JL. Importance of neuropsychological and clinical features to predict seizure control in medically treated patients with mesial temporal epilepsy and hippocampal sclerosis. *Epilepsy & behavior : E&B*. 2017;69:121-125
19. Nascimento S, Baierle M, Goethel G, et al. Associations among environmental exposure to manganese, neuropsychological performance, oxidative damage and kidney biomarkers in children. *Environmental research*. 2016;147:32-43
20. Lo Buono V, Bonanno L, Palmeri R, et al. Relation among Psychopathological Symptoms, Neuropsychological Domains, and Functional Disability in Subacute Poststroke Rehabilitation. *Journal of stroke and cerebrovascular diseases : the official journal of National Stroke Association*. 2018;27(5):1381-1385
21. Tan HH, Xu J, Teoh HL, et al. Decline in changing Montreal Cognitive Assessment (MoCA) scores is associated with post-stroke cognitive decline determined by a formal neuropsychological evaluation. *PLoS one*. 2017;12(3):e0173291
22. Farnsworth JL, 2nd, Dargo L, Ragan BG, Kang M. Reliability of Computerized Neurocognitive Tests for Concussion Assessment: A Meta-Analysis. *Journal of athletic training*. 2017;52(9):826-833
23. Nelson LD, Furger RE, Gikas P, et al. Prospective, Head-to-Head Study of Three Computerized Neurocognitive Assessment Tools Part 2: Utility for Assessment of Mild Traumatic Brain Injury in Emergency Department Patients. *Journal of the International Neuropsychological Society : JINS*. 2017;23(4):293-303

24. Assessment: neuropsychological testing of adults. Considerations for neurologists. Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. *Neurology*. 1996;47(2):592-599
25. National Guideline C. Practice parameter update: evaluation and management of driving risk in dementia. Report of the Quality Standards Subcommittee of the American Academy of Neurology. 2010. <https://www.guideline.gov/summaries/summary/15853/practice-parameter-update-evaluation-and-management-of-driving-risk-in-dementia-report-of-the-quality-standards-subcommittee-of-the-american-academy-of-neurology?q=neuropsychologic>.
26. National Guideline C. Summary of evidence-based guideline update: evaluation and management of concussion in sports. Report of the Guideline Development Subcommittee of the American Academy of Neurology. 2013. <https://www.guideline.gov/summaries/summary/43947/summary-of-evidencebased-guideline-update-evaluation-and-management-of-concussion-in-sports-report-of-the-guideline-development-subcommittee-of-the-american-academy-of-neurology?q=neuropsychological+test>.
27. Petersen RC, Lopez O, Armstrong MJ, et al. Practice guideline update summary: Mild cognitive impairment: Report of the Guideline Development, Dissemination, and Implementation Subcommittee of the American Academy of Neurology. *Neurology*. 2018;90(3):126-135
28. Guidelines for the evaluation of dementia and age-related cognitive change. *The American psychologist*. 2012;67(1):1-9
29. Rabins PV, Blacker D, Rovner BW, et al. American Psychiatric Association practice guideline for the treatment of patients with Alzheimer's disease and other dementias. Second edition. *The American journal of psychiatry*. 2007;164(12 Suppl):5-56
30. Winstein CJ, Stein J, Arena R, et al. Guidelines for Adult Stroke Rehabilitation and Recovery: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*. 2016;47(6):e98-e169

POLICY REVISION HISTORY

DATE	REVISION SUMMARY
2/2023	Converted to new policy template.
3/2023	Eliminated test-specific psychological testing criteria. Psychological testing criteria now based on CMS guidance document L34646.

BILLING GUIDELINES APPENDIX

Psychological and neuropsychological testing may be considered medically necessary and covered when billed with any of the following ICD-10 codes:

E6601	F0280	F200	F202	F205
E662	F0281	F201	F203	F2081

F2089	F312	F323	F40210	F428
F209	F3130	F324	F40218	F429
F21	F3131	F325	F40220	F430
F22	F3132	F3281	F40228	F4310
F23	F314	F3289	F40230	F4311
F24	F315	F329	F40231	F4312
F250	F3160	F330	F40232	F4320
F251	F3161	F331	F40233	F4321
F258	F3162	F332	F40240	F4322
F259	F3163	F333	F40241	F4323
F28	F3164	F3340	F40242	F4324
F29	F3170	F3341	F40243	F4325
F3010	F3171	F3342	F40248	F4329
F3011	F3172	F338	F40290	F438
F3012	F3173	F339	F40291	F439
F3013	F3174	F340	F40298	F440
F302	F3175	F341	F408	F441
F303	F3176	F3481	F409	F442
F304	F3177	F3489	F410	F444
F308	F3178	F349	F411	F445
F309	F3181	F39	F413	F446
F310	F3189	F4000	F418	F447
F3110	F319	F4001	F419	F4481
F3111	F320	F4002	F422	F4489
F3112	F321	F4010	F423	F449
F3113	F322	F4011	F424	F450

F451	F5109	F552	F648	F910
F4520	F5111	F553	F649	F911
F4521	F5112	F554	F650	F912
F4522	F5113	F558	F651	F913
F4529	F5119	F59	F652	F918
F4541	F513	F600	F653	F919
F4542	F514	F601	F654	F930
F458	F515	F602	F6550	F938
F459	F518	F603	F6551	F939
F481	F519	F604	F6552	F940
F482	F520	F605	F6581	F941
F488	F521	F606	F6589	F942
F489	F5221	F607	F659	F948
F5000	F5222	F6081	F66	F949
F5001	F5231	F6089	F6810	F950
F5002	F5232	F609	F6811	F951
F502	F524	F630	F6812	F952
F5081	F525	F631	F6813	F958
F5082	F526	F632	F688	F959
F5089	F528	F633	F68A	F980
F509	F529	F6381	F69	F981
F5101	F530	F6389	F900	F9821
F5102	F531	F639	F901	F9829
F5103	F54	F640	F902	F983
F5104	F550	F641	F908	F984
F5105	F551	F642	F909	F985

A0101	A836	B0602	C719	F3013
A0221	A838	B1001	D8681	F302
A170	A839	B1009	E701	F303
A1782	A840	B261	F0670	F304
A203	A841	B262	F0671	F308
A2781	A848	B2702	F200	F309
A3211	A849	B2712	F201	F310
A3212	A850	B2782	F202	F3110
A390	A851	B2792	F203	F3111
A3981	A852	B375	F205	F3112
A4281	A858	B384	F2081	F3113
A4282	A86	B4081	F2089	F312
A5041	A870	B5741	F209	F3130
A5042	A871	B5742	F21	F3131
A5141	A872	B582	F22	F3132
A5213	A878	B6011	F23	F314
A5214	A879	B941	F24	F315
A5481	A9231	C710	F250	F3160
A6921	B003	C711	F251	F3161
A811	B004	C712	F258	F3162
A830	B010	C713	F259	F3163
A831	B020	C714	F28	F3164
A832	B021	C715	F29	F3170
A833	B050	C716	F3010	F3171
A834	B051	C717	F3011	F3172
A835	B0601	C718	F3012	F3173

F3174	F340	F40298	F440	G002
F3175	F341	F408	F441	G003
F3176	F3481	F409	F442	G008
F3177	F3489	F410	F444	G009
F3178	F349	F411	F445	G01
F3181	F39	F413	F446	G02
F3189	F4000	F418	F447	G030
F319	F4001	F419	F4481	G031
F320	F4002	F422	F4489	G032
F321	F4010	F423	F449	G038
F322	F4011	F424	F800	G039
F323	F40210	F428	F801	G0400
F324	F40218	F429	F802	G0401
F325	F40220	F430	F804	G0402
F3281	F40228	F4310	F8081	G041
F3289	F40230	F4311	F8082	G042
F329	F40231	F4312	F8089	G0430
F330	F40232	F4320	F809	G0431
F331	F40233	F4321	F840	G0432
F332	F40240	F4322	F900	G0439
F333	F40241	F4323	F901	G0481
F3340	F40242	F4324	F902	G0489
F3341	F40243	F4325	F908	G0490
F3342	F40248	F4329	F909	G0491
F338	F40290	F438	G000	G053
F339	F40291	F439	G001	G054

G10	G40509	G800	I6309	I63313
G300	G40801	G801	I6310	I63319
G3109	G40802	G802	I63111	I63321
G3184	G40803	G803	I63112	I63322
G35	G40804	G804	I63113	I63323
G40001	G40811	G808	I63119	I63329
G40009	G40812	G809	I6312	I63331
G40011	G40813	G910	I63131	I63332
G40019	G40814	G911	I63132	I63333
G40101	G40821	G912	I63133	I63339
G40109	G40822	G913	I63139	I63341
G40111	G40823	G914	I6319	I63342
G40119	G40824	G918	I6320	I63343
G40201	G4089	G919	I63211	I63349
G40209	G40901	G931	I63212	I6339
G40211	G40909	G9349	I63213	I6340
G40219	G40911	I6300	I63219	I63411
G40301	G40919	I63011	I6322	I63412
G40309	G40A01	I63012	I63231	I63413
G40311	G40A09	I63013	I63232	I63419
G40319	G40A11	I63019	I63233	I63421
G40401	G40A19	I6302	I63239	I63422
G40409	G40B01	I63031	I6329	I63423
G40411	G40B09	I63032	I6330	I63429
G40419	G40B11	I63033	I63311	I63431
G40501	G40B19	I63039	I63312	I63432

I63433	I6381	P0738	R41842	S061X4A
I63439	I6389	P0739	R41843	S061X4D
I63441	I639	Q040	R41844	S061X4S
I63442	I69391	Q041	R4189	S061X5A
I63443	P0700	Q042	R419	S061X5D
I63449	P0701	Q043	S060X0A	S061X5S
I6349	P0702	Q044	S060X0D	S061X6A
I6350	P0703	Q045	S060X0S	S061X6D
I63511	P0710	Q046	S060X1A	S061X6S
I63512	P0714	Q048	S060X1D	S061X7A
I63513	P0715	Q049	S060X1S	S061X8A
I63519	P0720	Q8501	S060X9A	S061X9A
I63521	P0721	Q8711	S060X9D	S061X9D
I63522	P0722	Q8719	S060X9S	S061X9S
I63523	P0723	Q9351	S061X0A	S062X0A
I63529	P0724	Q992	S061X0D	S062X0D
I63531	P0725	R410	S061X0S	S062X0S
I63532	P0726	R411	S061X1A	S062X1A
I63533	P0730	R412	S061X1D	S062X1D
I63539	P0731	R413	S061X1S	S062X1S
I63541	P0732	R414	S061X2A	S062X2A
I63542	P0733	R4181	S061X2D	S062X2D
I63543	P0734	R4182	S061X2S	S062X2S
I63549	P0735	R4183	S061X3A	S062X3A
I6359	P0736	R41840	S061X3D	S062X3D
I636	P0737	R41841	S061X3S	S062X3S

S062X4A	S06304A	S06314A	S06324A	S06334A
S062X4D	S06304D	S06314D	S06324D	S06334D
S062X4S	S06304S	S06314S	S06324S	S06334S
S062X5A	S06305A	S06315A	S06325A	S06335A
S062X5D	S06305D	S06315D	S06325D	S06335D
S062X5S	S06305S	S06315S	S06325S	S06335S
S062X6A	S06306A	S06316A	S06326A	S06336A
S062X6D	S06306D	S06316D	S06326D	S06336D
S062X6S	S06306S	S06316S	S06326S	S06336S
S062X7A	S06307A	S06317A	S06327A	S06337A
S062X8A	S06308A	S06318A	S06328A	S06338A
S062X9A	S06309A	S06319A	S06329A	S06339A
S062X9D	S06309D	S06319D	S06329D	S06339D
S062X9S	S06309S	S06319S	S06329S	S06339S
S06300A	S06310A	S06320A	S06330A	S06340A
S06300D	S06310D	S06320D	S06330D	S06340D
S06300S	S06310S	S06320S	S06330S	S06340S
S06301A	S06311A	S06321A	S06331A	S06341A
S06301D	S06311D	S06321D	S06331D	S06341D
S06301S	S06311S	S06321S	S06331S	S06341S
S06302A	S06312A	S06322A	S06332A	S06342A
S06302D	S06312D	S06322D	S06332D	S06342D
S06302S	S06312S	S06322S	S06332S	S06342S
S06303A	S06313A	S06323A	S06333A	S06343A
S06303D	S06313D	S06323D	S06333D	S06343D
S06303S	S06313S	S06323S	S06333S	S06343S

S06344A	S06354A	S06364A	S06374A	S06384A
S06344D	S06354D	S06364D	S06374D	S06384D
S06344S	S06354S	S06364S	S06374S	S06384S
S06345A	S06355A	S06365A	S06375A	S06385A
S06345D	S06355D	S06365D	S06375D	S06385D
S06345S	S06355S	S06365S	S06375S	S06385S
S06346A	S06356A	S06366A	S06376A	S06386A
S06346D	S06356D	S06366D	S06376D	S06386D
S06346S	S06356S	S06366S	S06376S	S06386S
S06347A	S06357A	S06367A	S06377A	S06387A
S06348A	S06358A	S06368A	S06378A	S06388A
S06349A	S06359A	S06369A	S06379A	S06389A
S06349D	S06359D	S06369D	S06379D	S06389D
S06349S	S06359S	S06369S	S06379S	S06389S
S06350A	S06360A	S06370A	S06380A	S064X0A
S06350D	S06360D	S06370D	S06380D	S064X0D
S06350S	S06360S	S06370S	S06380S	S064X0S
S06351A	S06361A	S06371A	S06381A	S064X1A
S06351D	S06361D	S06371D	S06381D	S064X1D
S06351S	S06361S	S06371S	S06381S	S064X1S
S06352A	S06362A	S06372A	S06382A	S064X2A
S06352D	S06362D	S06372D	S06382D	S064X2D
S06352S	S06362S	S06372S	S06382S	S064X2S
S06353A	S06363A	S06373A	S06383A	S064X9S
S06353D	S06363D	S06373D	S06383D	S065X3D
S06353S	S06363S	S06373S	S06383S	S065X3S

S065X4A	S066X4A	S06814A	S06824A	S06894A
S065X4D	S066X4D	S06814D	S06824D	S06894D
S065X4S	S066X4S	S06814S	S06824S	S06894S
S065X5A	S066X5A	S06815A	S06825A	S06895A
S065X5D	S066X5D	S06815D	S06825D	S06895D
S065X5S	S066X5S	S06815S	S06825S	S06895S
S065X6A	S066X6A	S06816A	S06826A	S06896A
S065X6D	S066X6D	S06816D	S06826D	S06896D
S065X6S	S066X6S	S06816S	S06826S	S06896S
S065X7A	S066X7A	S06817A	S06827A	S06897A
S065X8A	S066X8A	S06818A	S06828A	S06898A
S065X9A	S066X9A	S06819A	S06829A	S06899A
S065X9D	S066X9D	S06819D	S06829D	S06899D
S065X9S	S066X9S	S06819S	S06829S	S06899S
S066X0A	S06810A	S06820A	S06890A	S069X0A
S066X0D	S06810D	S06820D	S06890D	S069X0D
S066X0S	S06810S	S06820S	S06890S	S069X0S
S066X1A	S06811A	S06821A	S06891A	S069X1A
S066X1D	S06811D	S06821D	S06891D	S069X1D
S066X1S	S06811S	S06821S	S06891S	S069X1S
S066X2A	S06812A	S06822A	S06892A	S069X2A
S066X2D	S06812D	S06822D	S06892D	S069X2D
S066X2S	S06812S	S06822S	S06892S	S069X2S
S066X3A	S06813A	S06823A	S06893A	S069X3A
S066X3D	S06813D	S06823D	S06893D	S069X3D
S066X3S	S06813S	S06823S	S06893S	S069X3S

S069X4A	S069X5S	S069X8A	Z77010	Z87820
S069X4D	S069X6A	S069X9A	Z77011	Z982
S069X4S	S069X6D	S069X9D	Z77012	Z98890
S069X5A	S069X6S	S069X9S	Z77018	
S069X5D	S069X7A	Z01818	Z77098	