

Magellan Healthcare, Inc.*

2023 – 2024

Magellan Care Guidelines

Introduction

Effective November 18, 2023

Updated July 19, 2023



*In California, Magellan does business as Human Affairs International of California, Inc. and/or Magellan Health Services of California, Inc. – Employer Services. Other Magellan entities include Magellan Healthcare, Inc. f/k/a Magellan Behavioral Health, Inc.; Merit Behavioral Care; Magellan Health Services of Arizona, Inc.; Magellan Behavioral Health of Florida, Inc.; Magellan Behavioral of Michigan, Inc.; Magellan Behavioral Health of New Jersey, LLC; Magellan Behavioral Health of Pennsylvania, Inc.; Magellan Providers of Texas, Inc.; and their respective affiliates and subsidiaries; all of which are affiliates of Magellan Health, Inc. (collectively “Magellan”).

Table of Contents

Preamble - Principles of Medical Necessity Determinations..... 3

Medical Necessity Definition 5

Levels of Care & Service Definitions 6

Magellan Care Guidelines 10

Term Definitions 12

Preamble - Principles of Medical Necessity Determinations

Magellan uses MCG *Guidelines*®, along with its proprietary clinical criteria, Magellan Healthcare Guidelines, as the primary decision support tools for our Utilization Management Program. Collectively, they are known as the *Magellan Care Guidelines*. Magellan uses The ASAM Criteria® and other state-developed guidelines for management of substance use services when required by state regulations or an account. In addition, other guidelines, including the Level of Care Utilization System (LOCUS®), Child and Adolescent Level of Care/Service Intensity Utilization System (CALOCUS-CASII®), Early Childhood Service Intensity Instrument (ECSII®) and state-specific guidelines, are used when required by state regulations or an account. All guidelines meet federal, state, industry accreditation, and account contract requirements. They are based on sound scientific evidence for recognized settings of behavioral health services and are designed to decide the medical necessity and clinical appropriateness of services.

Individualized, Needs-Based, Least-Restrictive Treatment

Magellan is committed to the philosophy of providing treatment at the most appropriate, least-restrictive level of care necessary to provide safe and effective treatment and meet the individual patient’s biopsychosocial needs. We see the continuum of care as a fluid treatment pathway, where patients may enter treatment at any level and be moved to more or less-intensive settings or levels of care as their changing clinical needs dictate. At any level of care, such treatment is individualized, active and takes into consideration the patient’s stage of readiness to change/readiness to participate in treatment.

The level of care criteria that follow are guidelines for determining medical necessity for the *Diagnostic and Statistical Manual of Mental Disorders Fifth Edition, Text Revision (DSM-5-TR™)* disorders. Individuals may at times seek admission to clinical services for reasons other than medical necessity, e.g., to comply with a court order, to obtain shelter, to deter antisocial behavior, to deter runaway/truant behavior, to achieve family respite, etc. However, these factors do not alone determine a medical necessity decision. Further, coverage for services is subject to the limitations and conditions of the member benefit plan. Specific information in the member’s contract and the benefit design for the plan dictate which medical necessity criteria are applicable.

Although the Magellan Care Guidelines are divided into “psychiatric” and “substance-related” sets to address the patient’s primary problem requiring each level of care, psychiatric and substance-related disorders are often co-morbid. Thus, it is very important for all treatment facilities and providers to be able to assess these co-morbidities and address them along with the primary problem.

Clinical Judgment and Exceptions

The Magellan Care Guidelines direct both providers and reviewers to the most appropriate level of care for a patient. While these criteria will assign the safest, most effective and least restrictive level of care in nearly all instances, an infrequent number of cases may fall beyond their definition and scope. Thorough and careful review of each case, including consultation with supervising clinicians, will identify these exceptions. As in the review of non-exceptional cases, clinical judgment consistent with the standards of good medical practice will be used to resolve these exceptional cases.

All medical necessity decisions about proposed admission and/or treatment, other than routine outpatient visits as permitted by the member's plan, are made by the reviewer after receiving a sufficient description of the current clinical features of the patient's condition that have been gathered from a face-to-face evaluation of the patient by a qualified clinician. Medical necessity decisions about each patient are based on the clinical features of the individual patient relative to the patient's socio-cultural environment, the medical necessity criteria, and the real resources available. We recognize that a full array of services is not available everywhere. When a medically necessary level does not exist (e.g., rural locations), we will support the patient through extra-contractual benefits, or we will authorize a higher than otherwise necessary level of care to ensure that services are available that will meet the patient's essential needs for safe and effective treatment.

Medical Necessity Definition

Magellan reviews mental health and substance abuse treatment for medical necessity. Magellan defines medical necessity as: *“Services by a provider to identify or treat an illness that has been diagnosed or suspected. The services are:*

- 1. *consistent with:*
 - a. *the diagnosis and treatment of a condition; and*
 - b. *the standards of good medical practice;*
- 2. *required for other than convenience; and*
- 3. *the most appropriate supply or level of service.*

*When applied to inpatient care, the term means: the needed care can only be safely given on an inpatient basis.” **

Each criteria set within each level of care category is a more detailed elaboration of the above definition for the purposes of establishing medical necessity for these health care services. Particular rules in each criteria set apply in guiding a provider or reviewer to a medically necessary level of care (please note the possibility and consideration of exceptional patient situations described in the preamble when these rules may not apply). The criteria set is characterized by admission, or initiation of treatment, and continued care criteria. The admission and continued care of a patient at a particular level of care requires the criteria to be met, as indicated (Note: this often requires that the admission criteria are still fulfilled). Specific rules for the admission and continued care groupings are noted within the criteria sets.

Magellan Care Guidelines do not supersede state or federal law or regulation, including Medicare National or Local Coverage Determinations, concerning scope of practice for licensed, independent practitioners, e.g., advanced practice nurses.

*Magellan utilizes its customers’ definition of “medical necessity” as required.

Levels of Care & Service Definitions

Magellan believes that optimal, high-quality care is best delivered when patients receive care that meets their needs in the least-intensive, least-restrictive setting possible. Magellan's philosophy is to endorse care that is safe and effective, and that maximizes the patient's independence in daily activity and functioning.

Magellan has defined levels of care as detailed below. These levels of care may be further qualified by the distinct needs of certain populations who frequently require behavioral health services. Children and adolescents and those with substance use and eating disorders often have special concerns not present in adults with mental health disorders alone. In particular, special issues related to family/support system involvement, physical symptoms, medical conditions and social supports may apply. More specific criteria sets in certain of the level of care definitions address these population issues. ***These levels of care are specific to the account or health plan benefit design and may not all apply to all Magellan accounts.*** The levels of care definitions are:

1. Hospitalization

- a. Hospitalization describes the highest level of skilled psychiatric and substance abuse services provided in a facility. This could be a freestanding psychiatric hospital, a psychiatric unit of general hospital or a detoxification unit in a hospital. Settings that are eligible for this level of care are licensed at the hospital level and provide 24-hour medical and nursing care.
- b. This definition also includes crisis beds, hospital-level rehabilitation beds for substance use disorders and 23-hour beds that provide a similar, if not greater, intensity of medical and nursing care. For crisis and 23-hour programs, the Inpatient Behavioral Health Level of Care guidelines apply for medical necessity reviews. For hospital-level substance abuse rehabilitation, the Substance-Related Disorders, Inpatient Behavioral Health Level of Care guidelines apply.

2. 23-Hour Observation

- a. The main objective of 23-hour observation is to promptly evaluate and stabilize individuals presenting in a crisis situation. This level of care provides up to 23 hours and 59 minutes of observation and crisis stabilization, as needed. Care occurs in a secure and protected environment staffed with appropriate medical and clinical personnel, including psychiatric supervision and 24-hour nursing coverage.
- b. Aspects of care include a comprehensive assessment and the development and delivery of a treatment plan. The treatment plan should emphasize crisis intervention services intended to stabilize and restore the individual to a level of functioning that does not necessitate hospitalization. In addition, 23-hour observation may be used to complete an evaluation to determine diagnostic clarification to establish the appropriate level of

care. As soon as the risk level is determined, diagnostic clarity is established, and/or crisis stabilization has been achieved, appropriate referral and linkage to follow-up services will occur.

- c. If clinical history or initial presentation suggested that the individual required a secure and protected inpatient level of care for more than 23 hours and 59 minutes, this level of care would not be appropriate.

3. Residential Treatment

Residential Treatment is defined as a 24-hour level of care that provides persons with long-term or severe mental disorders and persons with substance-related disorders with residential care. This care is medically monitored, with 24-hour medical and nursing services availability. Residential care typically provides less intensive medical monitoring than subacute hospitalization care. Residential care includes treatment with a range of diagnostic and therapeutic behavioral health services that cannot be provided through existing community programs. Residential care also includes training in the basic skills of living as determined necessary for each patient. Residential treatment for psychiatric conditions and residential rehabilitation treatment for alcohol and substance abuse are included in this level of care. Settings that are eligible for this level of care are licensed at the residential intermediate level or as an intermediate care facility (ICF). Licensure requirements for this level of care may vary by state.

4. Partial Hospitalization

These programs are defined as structured and medically supervised day, evening and/or night treatment programs. The services include medical and nursing, but at less intensity than that provided in a hospital setting. The patient is not considered a resident at the program. The range of services offered is designed to address a mental health and/or substance-related disorder through an individualized treatment plan provided by a coordinated multidisciplinary treatment team.

5. Intensive Outpatient Programs

Intensive outpatient programs are defined as having the capacity for planned, structured, service provision over the course of multiple weeks, and may include service provision over weekends. These encounters are usually comprised of coordinated and integrated multidisciplinary services. The range of services offered are designed to address a mental or a substance-related disorder and could include group, individual, family or multi-family group psychotherapy, psychoeducational services, and adjunctive services such as medical monitoring. These services would include multiple or extended treatment/rehabilitation/counseling visits or professional supervision and support. Program models include structured “crisis intervention programs,” “psychiatric or psychosocial rehabilitation,” and some “day treatment.” (Although treatment for substance-related disorders typically includes involvement in a self-help program, such as Alcoholics Anonymous or Narcotics Anonymous,

program time as described here excludes times spent in these self-help programs, which are offered by community volunteers without charge).

6. Outpatient Treatment

Outpatient treatment is typically individual, family and/or group psychotherapy, and consultative services (including nursing home consultation). Times for provision of these service episodes range from fifteen minutes (e.g., medication checks) to fifty minutes (e.g., individual, conjoint, family psychotherapy), and may last up to two hours (e.g., group psychotherapy).

7. Ambulatory

Ambulatory services are outpatient treatment services, provided by qualified mental health professionals and directed toward reversing symptoms of acute mental health disorders, and/or substance use disorders in order to facilitate improvement, maintain stability and increase functional autonomy for persons with various forms of mental health and substance use disorders. Outpatient services are specific in targeting the symptoms or problem being treated. Examples of types of Counseling and Psychotherapy include the following:

- individual psychotherapy
- behavioral therapy
- medication management
- shared medical appointments
- psychiatric, psychological, and psychosocial assessment
- group psychotherapy
- conjoint/marital therapy
- family therapy
- outpatient detox services
- outpatient buprenorphine maintenance services

Common settings or sites for these services include providers' offices and clinics.

8. Day Treatment

Day treatment consists of a community-based mix of psychosocial treatment (including individual, family, and group-based psychotherapy), educational, and recreational activities for patients with behavioral health conditions associated with functional impairment (e.g., inability to maintain full-time engagement in work, school, or home environment as appropriate). Day treatment is designed to address issues that are chronic in nature, rather than acute exacerbations or urgent clinical issues; services tend to overlap with regular school or work schedules, and typically are of longer duration than intensive outpatient or partial hospital programs (e.g., an adolescent in day treatment may be enrolled in a program which lasts for the entire school year. While patients for whom day treatment is indicated do not require the intensity of services available in an intensive outpatient or

partial hospital program, some day treatment programs provide diagnostic, medical, psychiatric, or other adjunctive treatment modalities, either directly or through arrangements made by the program. These services may be provided over an extended period of time.

Magellan Care Guidelines

MCG Guidelines®

Below is a list of the MCG *Guidelines*® Magellan will use for 2023 – 2024 (varies by account). To view a copy of the MCG *Guidelines*®, please contact Magellan Healthcare.

MCG Guidelines® for 2023-2024
Inpatient Behavioral Health Level of Care, Adult
Inpatient Behavioral Health Level of Care, Child or Adolescent
Outpatient Behavioral Health Level of Care, Adult
Outpatient Behavioral Health Level of Care, Child or Adolescent
Residential Behavioral Health Level of Care, Adult
Residential Behavioral Health Level of Care, Child or Adolescent
Partial Hospital Behavioral Health Level of Care, Adult
Partial Hospital Behavioral Health Level of Care, Child or Adolescent
Intensive Outpatient Program Behavioral Health Level of Care, Adult
Intensive Outpatient Program Behavioral Health Level of Care, Child or Adolescent
Eating Disorders, Inpatient Behavioral Health Level of Care, Adult
Eating Disorders, Inpatient Behavioral Health Level of Care, Child or Adolescent
Eating Disorders, Residential Behavioral Health Level of Care, Adult
Eating Disorders, Residential Behavioral Health Level of Care, Child or Adolescent
Eating Disorders, Partial Hospital Behavioral Health Level of Care, Adult
Eating Disorders, Partial Hospital Behavioral Health Level of Care, Child or Adolescent
Eating Disorders, Intensive Outpatient Program Behavioral Health Level of Care, Adult
Eating Disorders, Intensive Outpatient Program Behavioral Health Level of Care, Child or Adolescent
Substance-Related Disorders, Inpatient Behavioral Health Level of Care, Adult
Substance-Related Disorders, Inpatient Behavioral Health Level of Care, Child or Adolescent
Substance-Related Disorders, Residential Behavioral Health Level of Care, Adult
Substance-Related Disorders, Residential Behavioral Health Level of Care, Child or Adolescent
Substance-Related Disorders, Partial Hospital Behavioral Health Level of Care, Adult
Substance-Related Disorders, Partial Hospital Behavioral Health Level of Care, Child or Adolescent
Substance-Related Disorders, Intensive Outpatient Program Behavioral Health Level of Care, Adult
Substance-Related Disorders, Intensive Outpatient Program Behavioral Health Level of Care, Child or Adolescent
Substance-Related Disorders, Outpatient Behavioral Health Level of Care, Adult
Substance-Related Disorders, Outpatient Behavioral Health Level of Care, Child or Adolescent
Medication-Assisted Opioid Withdrawal
Day Treatment Behavioral Health Level of Care
Observation Behavioral Health Level of Care, Adult
Electroconvulsive Therapy (ECT)

Magellan Healthcare Guidelines

Below is a list of Magellan Healthcare Guidelines we will use for 2023-2024 (varies by account). To view a copy of the Magellan Healthcare Guidelines, see the following pages of this document.

Magellan Healthcare Guidelines for 2023 - 2024
Transcranial Magnetic Stimulation Treatment
Outpatient Applied Behavior Analysis
Psychological Testing
Neuropsychological Testing

Term Definitions

1. Family:

Individuals identified by an adult as part of his/her family or identified by a legal guardian on behalf of children. Examples would include parents/step-parents, children, siblings, extended family members, guardians, or other caregivers.

2. Support System:

A network of personal (natural) or professional contacts available to a person for practical, clinical, or moral support when needed. Examples of personal or natural contacts would include friends, church, school, work and neighbors. Professional contacts would include primary care physician, psychiatrist, psychotherapist, treatment programs (such as clubhouse, psychiatric rehabilitation), peer specialists, and community or state agencies.

3. Significant Improvement:

- a. Services provided at any level of care must reasonably be expected to improve the patient's condition in a meaningful and measurable manner. The expectation is that the patient can accomplish the following in the current treatment setting: continue to make measurable progress, as demonstrated by a further reduction in psychiatric symptoms, or
- b. Acquire requisite strengths in order to be discharged or move to a less restrictive level of care.
- c. The treatment must, at a minimum, be designed to alleviate or manage the patient's psychiatric symptoms so as to prevent relapse or a move to a more restrictive level of care, while improving or maintaining the patient's level of functioning. "Significant Improvement" in this context is measured by comparing the effect of continuing treatment versus discontinuing it. Where there is a reasonable expectation that if treatment services were withdrawn, the patient's condition would deteriorate, relapse further, or require a move to a more restrictive level of care, this criterion would be met.
- d. For most patients, the goal of therapy is restoration to the level of functioning exhibited prior to the onset of the illness. For other psychiatric patients, particularly those with long-term, chronic conditions control of symptoms and maintenance of a functional level to avoid further deterioration or hospitalization is an acceptable interpretation of "significant improvement".

4. Qualified Healthcare Professional:

An individual that is independently licensed and credentialed by and contracted, who performs a service within their scope of practice as permitted by applicable state and/or federal law.

5. Physician:

Doctors of medicine (MD) and doctors of osteopathic medicine (DO) with an unrestricted license to practice medicine.

6. Adolescent:

Experts generally agree that no one chronological age defines the end of adolescence. Rather, it is determined by considering a number of factors including chronological age, maturity, school and social status, family relationships, and living situation. For purposes of consistency, it is suggested that child and adolescent criteria sets be applied to individuals 17 years of age or younger.

7. Standardized Screening Tools:

Tools used for cognitive assessment include, but are not limited to, the Mini-Mental Status Examination (MMSE) and the Montreal Cognitive Assessment (MoCA).

2023-2024 Magellan Healthcare Guidelines

Guideline: Transcranial Magnetic Stimulation Treatment –Commercial

Effective Date: November 18, 2023

Last Review Date: July 19, 2023

Background

Transcranial magnetic stimulation (TMS) may be considered for treatment of major depressive disorder for adults who, by accepted medical standards, can be expected to improve significantly through medically necessary and appropriate TMS treatment.

The treating psychiatric provider must demonstrate that the patient’s symptoms are treatment-resistant to both a course of medication management and a course of psychotherapy. Resistance to treatment is defined in this guideline as a failure to achieve a fifty percent (50%) reduction in depressive symptoms after adequate trials of antidepressant therapy and evidence-based psychotherapy.

Standardized rating scales that reliably measure depressive symptoms must be used to document both severity of illness and response to treatment.

I. Indications for Treatment

ALL of the following must be met:

- A. The patient has a confirmed DSM-5 diagnosis of major depressive disorder, severe (single or recurrent episode) documented by standardized rating scales that reliably measure depressive symptoms.
- B. Is used only for adults 18 years or older who are not pregnant.
- C. One or more of the following:
 - 1) The patient has demonstrated medication treatment resistance during the current depressive episode as evidenced by lack of a clinically significant response to at least two (2) failed trials of psychopharmacologic agents from at least two (2) different agent classes. The psychopharmacological agents are administered for the treatment of depression at both an adequate dose and adequate duration consistent with the FDA label and with a duration that would elicit a favorable response;¹ *or*

¹ Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Repetitive Transcranial Magnetic Stimulation (rTMS) for Adults with Treatment Resistant Major Depressive Disorder (L34998, R5), “Definitions.”

- 2) The patient has demonstrated an inability to tolerate psychopharmacologic agents as evidenced by two (2) trials of psychopharmacologic agents from at least two (2) different agent classes, with distinct side effects;² *or*
 - 3) The patient has a history of good response to TMS during an earlier episode of the treatment-resistant major depressive disorder as evidenced by a greater than 50% improvement in a standard rating scale for depressive symptoms; *or*
 - 4) Is a candidate for electroconvulsive therapy (ECT); however, there is a clinical contraindication for ECT or the patient refuses ECT.
- D. An evidence-based psychotherapy of an adequate frequency and duration addressing the current depressive episode was attempted without significant improvement in depressive symptoms as documented by standardized rating scales that reliably measure depressive symptoms.
- E. The use of TMS in patients with any of the following is considered not reasonable and necessary (ALL of the following are absent):
- 1) Seizure disorder or any history of seizures (except those induced by ECT or isolated febrile seizures in infancy without subsequent treatment or recurrence or any condition or treatment that may lower the seizure threshold); *or*
 - 2) Presence of acute or chronic psychotic symptoms or disorders, such as schizophrenia, schizophreniform disorder, or schizoaffective disorder, in the current depressive episode;
 - 3) Neurologic conditions that include epilepsy, cerebrovascular disease, dementia, increased intracranial pressure, having a history of repetitive or severe head trauma, or with primary or secondary tumors in the central nervous system.
 - 4) Presence of an implanted magnetic-sensitive medical device located less than or equal to 30 cm from the TMS magnetic coil or other implanted metal items including, but not limited to a cochlear implant, implanted cardiac defibrillator (ICD), pacemaker, vagus nerve stimulator (VNS), or metal aneurysm clips or coils, staples or stents.
 - 5) Concomitant esketamine intranasal, ketamine infusion or other infusion therapies for major depressive disorder.
 - 6) Used for maintenance therapy, continuous therapy, rescue therapy or extended active therapy as these are not supported by controlled clinical trials and are therefore considered not reasonable and necessary.

² Intolerance of a psychopharmacologic agent: Intolerable side effect(s) that are not expected to diminish or resolve with continued administration of the medication. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Repetitive Transcranial Magnetic Stimulation (rTMS) for Adults with Treatment Resistant Major Depressive Disorder (L34998, R5), "Definitions."

- 7) TMS is considered investigational as a treatment of all other psychiatric and neurologic disorders, including but not limited to any of the following: bipolar disorder; migraine headaches, obsessive-compulsive disorder; schizophrenia.

II. Treatment Guidelines

- A. TMS is reasonable and necessary for up to thirty (30) visits over a seven (7) week period, followed by six (6) tapered treatments. The number of treatments is evaluated against patient response and the published evidence-based literature. If medically necessary and appropriate for a member, additional sessions will be authorized.
- B. The order for treatment (or retreatment) is written by a psychiatrist who has examined the patient and reviewed the record. The psychiatrist will have experience in administering TMS therapy. The treatment shall be given under the direct supervision of this psychiatrist, i.e. the physician must be present in the area, but does not necessarily personally provide the treatment³
- C. Physician and non-physician treating personnel must meet all provider qualifications, trainings, expectations and documentation requirements.
- D. Treatment must be provided by use of a device approved or cleared by the FDA for the purpose of supplying TMS for these indications.
- E. Standardized rating scales that reliably measure depressive symptoms must be used to document severity of illness and response to treatment. These rating scales include:⁴
 - 1) The Personal Health Questionnaire Depression Scale (PHQ-9)
 - 2) The Beck Depression Inventory (BDI)
 - 3) The Montgomery-Asberg Depression Rating Scale (MADRS)
 - 4) Geriatric Depression Scale (GDS)
 - 5) The Quick Inventory of Depressive Symptomatology (QIDS)
 - 6) The Hamilton Rating Scale for Depression (HAM-D)
 - 7) The Inventory for Depressive Symptomatology Systems Review (IDS-SR).

III. Retreatment

Repeat treatment (retreatment) may be considered for patients who meet ALL of the following:

³ ANCC certified Psychiatric-Mental Health Nurse Practitioners (PMHNP-BC) with licensure for full authority practice/ autonomous practice who meet the "Provider Qualifications and Other Requirements" may order, administer and supervise TMS treatment under this clinical guideline where permitted by state licensure, applicable regulations and the member's benefit plan.

⁴ See "Appendix: Depression Monitoring Scales"

- A. Patient met guidelines for initial treatment and subsequently developed relapse of depressive symptoms;
- B. Patient responded to prior TMS treatments as evidenced by a greater than fifty percent (50%) improvement in standard rating scale measurements for depressive symptoms;
- C. Retreatment is not requested as maintenance therapy or continuous therapy. The time between treatment episodes should allow for assessment clinically and by one of the aforementioned rating scales to clearly document that the patient responded and then relapsed, typically three (3) months since the last TMS session.
- D. If the patient meets the relapse criteria, up to thirty (30) visits for treatment followed by an additional six (6) visits for tapering is considered reasonable and necessary. The number of treatments is evaluated against patient response and the published evidence-based literature. If medically necessary and appropriate for a member, additional sessions will be authorized.

IV. Provider Qualifications and Other Requirements

- A. There is documentation of a clinical evaluation performed by a physician or psychiatric-mental health nurse practitioner (PMHNP-BC) who is appropriately trained to provide TMS, to include:
 - 1) A psychiatric history, including past response to antidepressant medication(s) and/or TMS and/or ECT, mental status and current functioning; *and*
 - 2) A medical history and examination when clinically indicated.
- B. The order for treatment or retreatment is written by a physician (MD or DO) or PMHNP-BC (“provider”) who has examined the patient and reviewed the medical record. The treatment shall be given under direct supervision of this provider, i.e., he or she must be in the area and immediately available. The provider will assess the patient at each treatment, and be present in the area, but not necessarily provide the treatment. The attending provider must monitor and document the patient’s clinical progress during treatment. The attending physician must use evidence-based, validated depression monitoring to monitor treatment response and the achievement of remission of symptoms.
- C. Provider education and training:
 - 1) Physicians: The physician utilizing this technique must have completed a psychiatric residency program accredited by the Accreditation Council for Graduate Medical Education (ACGME) or the American Osteopathic Association (AOA) or the Royal College of Physicians and Surgeons of Canada (RCPSC); Board certification in psychiatry by the American Board of Psychiatry and Neurology is preferred. The physician must have completed a university-based course in TMS, or the course approved by the device manufacturer. The training must be specific to the device in use at the authorization request.
 - 2) Psychiatric mental health nurse practitioners: Psychiatric-mental health nurse practitioners (PMHNP-BC) who meet the following qualifications may order, administer and supervise TMS treatment under this clinical guideline when within the scope of their license and training, in accordance with applicable regulations and permitted by the member’s benefit plan:
 - a. current ANCC certification as a psychiatric-mental health nurse practitioner (PMHNP-BC);
 - b. licensure for full authority or autonomous practice;
 - c. must have completed a university-based course in TMS, or the course approved by the device manufacturer. The training must be specific to the device in use at the authorization request.

- D. An attendant/individual trained in basic life support, the management of complications such as seizures, in addition to training in the application of the TMS apparatus, must be present at all times with the patient while the treatment is applied.
- E. The attending provider provides personal supervision for the initial motor threshold determinations, treatment parameter definition and TMS treatment course planning and documentation supportive of the level of supervision. The patient has either the attending provider or the attendant physically present at all times during the TMS session.
- F. During subsequent delivery and management of TMS sessions, the attending provider must meet face to face with the patient when there is a change in the patient's mental status and/ or other significant change in clinical status.
- G. Access to emergency equipment, including cardiac defibrillator, is readily available while the patient is receiving TMS.
- H. The treatment must be provided by use of a device approved or cleared by the FDA for the purpose of supplying transcranial magnetic stimulation for this indication.
- I. When clinically indicated, the patient is released in the care of a responsible adult who can monitor and provide supportive care as needed.

Bibliography

1. American Psychiatric Association. Practice Guideline for the Treatment of Patients with Major Depressive Disorder, Third Edition. 2010.
2. Avery DH, Holtzheimer PE, Fawaz W, Russo, Neumaier J, Dunner DL, Haynor DR, Claypoole KH, Wajdik C, Roy-Byrne P. A Controlled Study of Repetitive Transcranial Magnetic Stimulation in Medication-Resistant Major Depression. *Biol Psychiatry* 2006; 59: 187-194.
3. Avery DH, Isenberg KE, Sampson SM, Janicak PG, Lisanby SH, Maixner DF, Loo C, Thase MR, Demitrack MA, George MS. Transcranial magnetic Stimulation in the Acute Treatment of Major Depressive Disorder: Clinical Response in an Open-Label Extension Trial. *J Clin Psychiatry* 69:3 March 2008.
4. Best, S. R. D., Pavel, D. G., & Hastrup, N. (2019). Combination therapy with transcranial magnetic stimulation and ketamine for treatment-resistant depression: A long-term retrospective review of clinical use. *Heliyon*, 5(8), e02187. <https://doi.org/10.1016/j.heliyon.2019.e02187>
5. Blue Shield of California Medical Policy 2.01.50. Transcranial Magnetic Stimulation as a Treatment of Depression and Other Psychiatric/Neurologic Disorders. Last review date: 12/1/2022.
6. Blumberger, D. M., Vila-Rodriguez, F., Thorpe, K. E., Feffer, K., Noda, Y., Giacobbe, P., Knyahnytska, Y., Kennedy, S. H., Lam, R. W., Daskalakis, Z. J., & Downar, J. (2018). Effectiveness of theta burst versus high-frequency repetitive transcranial magnetic stimulation in patients with depression (THREE-D): a randomised non-inferiority trial. *Lancet* (London, England), 391(10131), 1683–1692. [https://doi.org/10.1016/S0140-6736\(18\)30295-2](https://doi.org/10.1016/S0140-6736(18)30295-2)
7. Burt, Lisanby SH, Sackeim HA, Neuropsychiatric applications of transcranial magnetic stimulation: a meta-analysis. *Int J Neuropsychopharmacol*, 2002, 5: 73-103.
8. Carmi L, Tendler A, Bystritsky A, et al. Efficacy and Safety of Deep Transcranial Magnetic Stimulation for Obsessive-Compulsive Disorder: A Prospective Multicenter Randomized Double-Blind Placebo-Controlled Trial. *Am J Psychiatry*. Nov 01 2019; 176(11): 931-938. PMID 31109199.
9. Carpenter LL, Janicak PG, Aaronson ST, Boyadjis T, Brock DG, Cook IA, Dunner DL, Lanocha K, Solvason HB, Demitrack MA. Transcranial magnetic stimulation (TMS) for major depression: a multisite, naturalistic, observational study of acute treatment outcomes in clinical practice. *Depression and Anxiety* 29: 587-596 (2012).
10. Carpenter L, Neurostimulation in resistant depression. *Journal of Psychopharmacology*, 2006, 20 (3): 35-40.
11. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Repetitive Transcranial Magnetic Stimulation (rTMS) for Adults with Treatment Resistant

Major Depressive Disorder (L34998, R5), Limitations. Novitas Solutions, Inc; Mechanicsburg, PA.

12. Cohen RB, Boggio PS, Fregni F. Risk Factors for Relapse after Remission with Repetitive Transcranial Magnetic Stimulation for the Treatment of Depression. *Depression and Anxiety* 0: 1-7 (2009).
13. Connolly KR, Helmer A, Cristancho MA, Cristancho P, O'Reardon JP. Effectiveness of Transcranial Magnetic Stimulation in Clinical Practice Post-FDA Approval in the United States: Results Observed With the First 100 Consecutive Cases of Depression at an Academic Medical Center. *J Clin Psychiatry* 73:4, April 2012.
14. Couturier JL, Efficacy of rapid-rate repetitive transcranial magnetic stimulation in the treatment of depression: a systematic review and meta-analysis. *J Psychiatry Neurosci*, 2005, 30: 83-90.
15. Cuijpers P, Dekker J, Hollon SD, Andersson G. Adding psychotherapy to pharmacotherapy in the treatment of depressive disorders in adults: a meta-analysis. *J Clin Psychiatry* 2009a; 70; 1219-29.
16. Cuijpers P, Geraedts AS, van Oppen P, et al. Interpersonal psychotherapy for depression: a meta-analysis. *Am J Psychiatry* 2011b; 168: 581-92.
17. Demirtas-Tatlided A, Mechanic-Hamilton D, Press DA, Pearlman C, Stern WM, Thall M, Pascual-Leone A. An Open-Label, Prospective Study of Repetitive Transcranial Magnetic Stimulation (rTMS) in the Long-Term Treatment of Refractory Depression: Reproducibility and Duration of the Antidepressant Effect in Medication-Free Patients. *J Clin Psychiatry* 69:6, June 2008.
18. Demitrack Mark A., MD, Examining the Safety and Effectiveness of Transcranial Magnetic Stimulation for Depression, *Psychiatric Annals*, Volume 35, Number 2, February 2005.
19. Demitrack MA, Thase ME. Clinical significance of Transcranial Magnetic Stimulation (TMS) in the Treatment of Pharmacoresistent Depression: Synthesis of Recent Data. *Psychopharmacology Bulletin*. 2009; 42 (2): 5-38.
20. Demitrack MA. NeuroStar Transcranial Magnetic Stimulation (TMS) Therapy for Major Depressive Disorder (PowerPoint presentation), July 27, 2010.
21. Eranti S, Mogg A, Pluck G, et al. A Randomized, Controlled Trial with 6-Month Follow-Up of Repetitive Transcranial Magnetic Stimulation and Electroconvulsive Therapy for Severe Depression. *Am J Psychiatry*. 2007 Jan; 164 (1): 73-81.
22. Eranti, S., Mogg, A., Pluck, G., Landau, S., Purvis, R., Brown, R.G... McLoughlin, D.M. (2007). A Randomized, Controlled Trial with 6-Month Follow-Up of Repetitive Transcranial Magnetic Stimulation and Electroconvulsive Therapy for Severe Depression. *Am Journal Psychiatry*, 164(1), 73-81.
23. FDA Clears Neurostar TMS Therapy for the Treatment of Depression Press Release. Accessed website on November 11, 2008 www.neuronetics.com.

24. FDA Executive Summary. 501(k) pre-market notification submission, K061053, submitted by Neuronetics, Inc. to the Restorative Devices Branch of the Division of General, Restorative and Neurological Devices at the Center for Devices and Radiological Health of the Food and Drug Administration (FDA).
25. FDA Panel Recommends Against Depression-Treatment Device. *Psychiatric News* March 2, 2007, Volume 42, Number 5, page 2.
26. Fitzgerald PB, Benitez J, de Castella A, et al. A randomized, controlled trial of sequential bilateral repetitive transcranial magnetic stimulation for treatment-resistant depression. *Am J Psychiatry*. 2006 Jan; 163(1): 88-94.
27. Fitzgerald PB, Daskalakis ZJ. The Use of Repetitive Transcranial magnetic Stimulation and Vagal Nerve Stimulation in the Treatment of Depression. *Curr Opin Psychiatry* 2008; 21 (1): 25-29. Accessed website on October 13, 2008 www.medscape.com.
28. Fitzgerald Paul B, MBBS, MPM, Transcranial Magnetic Stimulation Effective for Medication-Resistant Major Depression. *Arch Gen Psychiatry*. 2003; 60: 1002-1008. Accessed website www.medscape.com on March 29, 2005.
29. Fregni F, Repetitive Transcranial Magnetic Stimulation Helpful for Depression in Parkinson's disease, *J Neurol Neurosurg Psychiatry*. 2004; 75: 1171-1174. Accessed website www.medscape.com on March 29, 2005.
30. Garcia KS, Flynn P, Pierce KJ, Caudle M. Repetitive transcranial magnetic stimulation treats postpartum depression. DOI: 10.1016/j.brs.2009.06.001.
31. Gaynes N Bradley, MD, MPH, et al. Repetitive Transcranial Magnetic Stimulation for Treatment-Resistant Depression: A Systematic Review and Meta Analysis. *J Clin Psychiatry*. 75:5, May 2014: 477-489.
32. Gaynes BN, Asher G, Gartlehner G, Hoffman V, Green J, Boland J, Lux L, Weber RP, Randolph C, Bann C, Coker-Schwimmer E, Viswanathan M, Lohr KN. Definition of Treatment-Resistant Depression in the Medicare Population. Technology Assessment Program. Project ID: PSYT0816. (Prepared by RTI-UNC Evidence-Based Practice Center under Contract No. HHS290201500011I_HHS29032006T). Rockville, MD: Agency for Healthcare Research and Quality. February 2018. <http://www.ahrq.gov/clinic/epcix.htm>
33. George MS, Lisanby SH, Avery D, McDonald WM, Durkalski V, Pavlicova M, Anderson B, Nahas Z, Bulow P, Zarkowski P, Holtzheimer PE, Schwartz T, Sackeim HA.. Daily Left Prefrontal Transcranial magnetic Stimulation Therapy for Major Depressive Disorder. *Arch Gen Psychiatry*/Vol. 67 (No. 5), May 2010.
34. Gershon AA, Dannon PN, Grunhaus L. Transcranial magnetic stimulation in the treatment of depression. *Am J Psychiatry*. 2003 May; 160 (5): 835-45.
35. Grunhaus L, Dannon PN, et al. Repetitive transcranial magnetic stimulation is as effective as electroconvulsive therapy in the treatment of nondelusional major depressive disorder: an open study. *Biol Psychiatry*, 200 Feb 15; 47 (4): 314-24.

36. Grunhaus L, Schreiber S, et al. A randomized controlled comparison of electroconvulsive therapy and repetitive transcranial magnetic stimulation in severe and resistant nonpsychotic major depression. *Biol Psychiatry*, 2003 Feb 15; 53 (4): 324-31.
37. Guidance for Industry and FDA Staff - Class II Special Controls Guidance Document: Repetitive Transcranial Magnetic Stimulation (rTMS) Systems. July 26, 2011. Retrieved from <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm265269.htm>.
38. Hausmann A, Kemmler G, et al. No benefit derived from repetitive transcranial magnetic stimulation in depression: a prospective, single centre, randomized, double blind, sham controlled "add on" trial. *J Neurol Neurosurg Psychiatry*. 2004 Feb; 75 (2): 320-2.
39. Holtzheimer PEIII, Russo J, Avery DH, A meta-analysis of repetitive transcranial magnetic stimulation in the treatment of depression. *Psychopharmacol Bulletin*, 2001, 35: 149-169.
40. Holtzheimer PE, Russo J, et al. Shorter duration of depressive episode may predict response to repetitive transcranial magnetic stimulation. *Depress Anxiety*. 2004; 19 (1): 24-30.
41. Janicak Philip G., MD, Dowd Shiela M., Ph.D. et al. The Potential Role of Repetitive Transcranial Magnetic Stimulation in Treating Severe Depression, *Psychiatric Annals*, Volume 35, Number 2, February 2005.
42. Janicak PG, Dowd SM et al. Repetitive transcranial magnetic stimulation versus electroconvulsive therapy for major depression: preliminary results of a randomized trial. *Biol Psychiatry*. 2002 April 15; 51 (8); 659-67.
43. Janicak PG, Nahas Z, Lisanby SH, Solvason HB, Sampson SM, McDonald WM, Marangell LB, Rosenquist P, McCall WV, Kimball J, O'Reardon JP, Loo C, Husain MH, Krystak A, Gilmer W, Dowd SM, Demitrack MA, Schatzberg AF. Durability of clinical benefit with transcranial magnetic stimulation (TMS) in the treatment of pharmacoresistent major depression: assessment of relapse during a 6-month, multi-site, open-label study. *Brain Stimulation* 2010 doi: 10.1016/j.brs. 2010.07.003.
44. Jorge R, Moser DJ, Acton L, Robinson RG. Treatment of Vascular Depression Using Repetitive Transcranial Magnetic Stimulation. *Arch Gen Psychiatry*/vol. 65 (No. 3) Mar 2008.
45. Jorge RE, Robinson RG, et al. Repetitive transcranial magnetic stimulation as treatment of post stroke depression: a preliminary study. *Biol Psychiatry*. 2004 Feb 15; 55 (4): 398-405.
46. Karsen, E., Watts, B., & Holtzheimer, P. (2014). Review of the effectiveness of transcranial magnetic stimulation for post-traumatic stress disorder. *Brain Stimulation*, 7(2), 151-157.

47. Koerselman F, Laman DM, et al. A 3-month, follow-up, randomized, placebo-controlled study of repetitive transcranial magnetic stimulation in depression. *J Clin Psychiatry*. 2004 Oct; 65(10); 1323-8.
48. Kozel Frank Andrew, MD, MS, Nahas Ziad, MD et al., Functional Magnetic Resonance Imaging and Transcranial Magnetic Stimulation for Major Depression, *Psychiatric Annals*, Volume 35, Number 2, February 2005.
49. Kozel FA, George MS, Meta-analysis of left prefrontal repetitive transcranial magnetic stimulation (rTMS) to treat depression. *J Psychiatr Pract*, 2002, 8: 270-275.
50. Lisanby SH, Husain MM, Rosenquist PB, Maixner D Gutierrez R, Krystal A, Gilmer W, Marangell LB, Aaronson S, Daskalakis ZJ, Canterbury R, Richelson E, Sackeim HA Griorg MS. Daily Left Prefrontal Repetitive Transcranial Magnetic Stimulation in the Acute Treatment of Major Depression: Clinical Predictors of Outcome in a Multisite, Randomized Controlled Clinical Trial. *Neuropsychopharmacology* (2008), 1-13.
51. Lisanby SH, Husain MM, Rosenquist PB, Maixner D Gutierrez R, Krystal A, Gilmer W, Marangell LB, Aaronson S, Daskalakis ZJ, Canterbury R, Richelson E, Sackeim HA George MS. Daily Left Prefrontal Repetitive Transcranial Magnetic Stimulation in the Acute Treatment of Major Depression: Clinical Predictors of Outcome in a Multisite, Randomized Controlled Clinical Trial. *Neuropsychopharmacology* (2009), 34, 522-534.
52. Market Notification K083538 NeuroStar TMS System. Accessed website on November 11, 2008 http://www.accessdata.fda.gov/cdrh_docs/pdf8/K083538.pdf.
53. Martin JL, Barbanoj MJ, Repetitive transcranial magnetic stimulation for the treatment of depression. Systematic review and meta-analysis. *Br J Psychiatry*. 2003 Jun; 182: 480-91.
54. McClintock, S. M., Reti, I. M., Carpenter, L. L., McDonald, W. M., Dubin, M., Taylor, S. F., Cook, I. A., O'Reardon, J., Husain, M. M., Wall, C., Krystal, A. D., Sampson, S. M., Morales, O., Nelson, B. G., Latoussakis, V., George, M. S., Lisanby, S. H., National Network of Depression Centers rTMS Task Group, & American Psychiatric Association Council on Research Task Force on Novel Biomarkers and Treatments (2018). Consensus Recommendations for the Clinical Application of Repetitive Transcranial Magnetic Stimulation (rTMS) in the Treatment of Depression. *The Journal of Clinical Psychiatry*, 79(1), 16cs10905. <https://doi.org/10.4088/JCP.16cs10905>
55. McNamara B, Ray JL, Arthurs OJ, Boniface S, Transcranial magnetic stimulation for depression and other psychiatric disorders, *Psychol Med*, 2001, 31: 1141-1146.
56. Milne, David, Severe Depression Responds to Low-Frequency Stimulation. *Psychiatric News*, May 7, 2004.
57. Mirman, A. M., Corlier, J., Wilson, A. C., Tadayonnejad, R., Marder, K. G., Pleman, C. M., Krantz, D. E., Wilke, S. A., Levitt, J. G., Ginder, N. D., Ojha, R., Daskalakis, Z. J., Leuchter, A. F., & Lee, J. C. (2022). Absence of early mood improvement as a robust predictor of rTMS nonresponse in major depressive disorder. *Depression and anxiety*, 39(2), 123–133. <https://doi.org/10.1002/da.23237>

58. Montgomery SA, Asberg M. A new depression scale designed to be sensitive to change. *Br J Psychiatry* 1979; 134: 382-389.
59. Mosimann UP, Schmitt W, et al. Repetitive transcranial magnetic stimulation: a putative add-on treatment for major depression in elderly patients. *Psychiatry Res.* 2004 April 30; 126(2): 123-33.
60. Nahas Z, Li X, et al. Safety and benefits of distance-adjusted prefrontal transcranial magnetic stimulation in depressed patients 55-75 years of age: a pilot study. *Depress Anxiety.* 2004; (4): 249-56.
61. National Institute for Health and Care Excellence (NICE). Repetitive transcranial magnetic stimulation for depression [IPG542]. 2015; <https://www.nice.org.uk/guidance/ipg542>. Accessed June 15, 2023. .
62. O'Reardon JP, Blumner KH, Peshek AD, et al., Long-Term Maintenance Therapy for Major Depressive Disorder With rTMS. *J Clin Psychiatry* 66:12, December 2005.
63. O'Reardon JP, Solvason HB, Janicak PG, Sampson S, Isenberg KE, Nahas Z, McDonald WM, Avery D, Fitzgerald PB, Loo C, Demitrack MA, George MS, Sackeim HA. Efficacy and Safety of Transcranial Magnetic Stimulation in the Acute Treatment of Major Depression: A Multisite Randomized Controlled Trial. *Biol. Psychiatry* 2007, 62: 1208-1216.
64. Poulet E, Brunelin J, et al. Repetitive transcranial magnetic stimulation does not potentiate antidepressant treatment. *Eur Psychiatry.* 2004 Sep; 19 (6): 382-3.
65. Pridmore S, Bruno R, Comparison of unlimited numbers of rapid transcranial magnetic stimulation (rTMS) and ECT treatment sessions in major depressive episode. *Int J Neuropsychopharmacol.* 2000 Jun; 3 (2): 129-134.
66. Rachid F, Bertschy G, Safety and efficacy of repetitive transcranial magnetic stimulation in the treatment of depression: a critical appraisal of the last 10 years.
67. Rosenbaum Jerrold F, MD, Judy Amy E., New Brain Stimulation Therapies for Depression. Medscape coverage of the American Psychiatric Association 2004 Annual Meeting. Accessed website www.medscape.com on February 22, 2005.
68. Rossini D, Magri L, Lucca A, et al. Does rTMS Hasten the Response to Escitalopram, Sertraline, or Venlafaxine in Patients With Major Depressive Disorder? A Double-Blind, Randomized, Sham-Controlled Trial. *J Clin Psychiatry* 66:12, December 2005.
69. Rumi DO, Gattaz WF, et al. Transcranial magnetic stimulation accelerates the antidepressant effect of amitriptyline in severe depression: a double-blind placebo-controlled study. *Biol Psychiatry.* 2005 Jan 15; 57 (2): 162-6.
70. Schulze-Rauschenbach SC, Harms U, Schlaepfer TE, Maier W, Falkai P, Wagner M. Distinctive neurocognitive effects of repetitive transcranial magnetic stimulation and electroconvulsive therapy in major depression. *Br J Psychiatry,* 2005 May; 186: 410-6.

71. Schutter DJLG. Antidepressant efficacy of high-frequency transcranial magnetic stimulation over the left dorsolateral prefrontal cortex in double-blind sham-controlled designs: a meta-analysis. *Psychological Medicine* (2009), 39, 65-75.
72. Slotema CW, Blom JD, Hock HW, Sommer IEC. Should We Expand the Toolbox of Psychiatric Treatment Methods to Include Repetitive Transcranial Magnetic Stimulation (rTMS)? A Meta-Analysis of the Efficacy of rTMS in Psychiatric Disorders. *J Clin Psychiatry*, March 9, 2010 online ahead of print, (doi: 10:4088/JCP.08m04872gre).
73. Tenev V, Robinson RG, Jorge RE. Citalopram for continuation therapy following repetitive transcranial magnetic stimulation (rTMS) in vascular depression. *Am J Geriatr Psychiatry*. 2008 August; 17 (8): 682-687.
74. TMS Therapy Overview. Accessed website on November 11, 2008 www.neuronetics.com.
75. Turner EH, Matthews AM, Linardatos E, Tell RA, Rosenthal R. Selective Publication of Antidepressant Trials and Its Influence on Apparent Efficacy. *N Engl J Med* 358:3, January 17, 2008.
76. Yesavage, J. A., Fairchild, J. K., Mi, Z., Biswas, K., Davis-Karim, A., Phibbs, C. S., Forman, S. D., Thase, M., Williams, L. M., Etkin, A., O'Hara, R., Georgette, G., Beale, T., Huang, G. D., Noda, A., George, M. S., & VA Cooperative Studies Program Study Team (2018). Effect of Repetitive Transcranial Magnetic Stimulation on Treatment-Resistant Major Depression in US Veterans: A Randomized Clinical Trial. *JAMA psychiatry*, 75(9), 884–893. <https://doi.org/10.1001/jamapsychiatry.2018.1483>
77. Zimmerman M, Martinez JH, Young D, Chelminski I, Dalrymple K. Severity classification on the Hamilton depression rating scale.. *J Affect Disord*. 2013 Sep 5;150(2):384-388 (doi: 10.1016/j.jad.2013.04.028).

APPENDIX: Depression Monitoring Scales

Standardized Rating Scale Name	Note	Acronym	Scale Range	None OR Normal	Mild	Moderate	Moderate Severe	Severe	Very Severe
Geriatric Depression Scale	Long Version 30 Questions	GDS	0-30	0-9	10-19	NA	NA	20-30	NA
The Personal Health Questionnaire Depression Scale	NA	PHQ-9	0 - 27	0-4	5-9	10-14	15-19	20-27	NA
The Beck Depression Inventory	Original Version	BDI	0-63	0-9 (minimal)	10-18	19-29	NA	30-63	NA
The Hamilton Rating Scale for Depression	17 Questions	HAM-D	0 - 52	0-7	8-16	17-23	NA	≥24	NA
The Hamilton Rating Scale for Depression	24 Questions	HAM-D	0-15	0-4	5-8	8-11	NA	12-15	≥23
The Inventory for Depressive Symptomatology	Self Reported Version 30 Questions	IDS-SR	0-84	0-13	4-25	26-38	NA	39-48	49-84
The Montgomery-Asberg Depression Rating Scale	NA	MADRS	0-60	0-6	7-19	20-34	NA	NA	35-60
The Quick Inventory of Depressive Symptomatology	Clinician Administered Version- 16 Questions	QIDS-16	0-27	0-5	6-10	11-15	NA	16-20	21-27

2023 – 2024 Magellan Healthcare Guidelines

Guideline: Outpatient Applied Behavior Analysis

Effective Date: November 18, 2023

Last Review Date: July 19, 2023

Introduction

The following Medical Necessity Criteria (MNC) are provided as a guideline for coverage decisions. Policies can be highly technical and complex and are provided here for informational purposes (see Appendix). The policies do not constitute medical or behavioral health advice or care. Treating healthcare providers are solely responsible for diagnosis, treatment and advice consistent with evidence-based care and clinical best practices. Members should discuss the information in the policies with their treating healthcare providers. Technology is constantly evolving and these policies are subject to change without notice. Additional policies may be developed from time to time and some may be withdrawn from use. The policies were developed after extensive review of the available literature on the provision of applied behavior analysis (ABA) for the treatment of autism spectrum disorders. A multidisciplinary committee of healthcare professionals within and external to Magellan Health developed and approved the guidelines based on this review. The guidelines were developed in consultation with experts in the treatment of autism spectrum disorders from major research and treatment centers like The Mind Institute at the University of California at Davis, Baylor University and Duke University. The guidelines rely heavily on known best practices in the treatment of developmental disorders including the requirement for a complete assessment utilizing validated tools and standardized developmental norms; symptom focused interventions; caregiver participation and measurable goals (additional information is available in the Appendix).

Description of the Technology

Applied behavior analysis (ABA) is a discipline that applies human behavior principles in various settings, i.e., clinics, homes, and communities, to diminish substantial deficits in a recipient's adaptive functioning or significant behavior problems due to autism spectrum disorder. This technique applies interventions to address three core areas of behavioral functioning:

1. Deficits in developmentally appropriate self-care include, but are not limited to:
 - a. Feeding
 - b. Grooming
 - c. Activities of daily living (e.g., dressing, preparing for school)
 - d. Preoccupation with one or more restricted, stereotyped patterns of behavior that are abnormal in intensity or focus
 - e. Inflexible adherence to specific, nonfunctional routines or rituals
 - f. Stereotyped, repetitive motor mannerisms
 - g. Persistent preoccupation with parts of objects.

2. Impairments in social adaptive skills include, but are not limited to:
 - a. Delay in or lack of spoken language
 - b. Inability to sustain adequate conversation with others
 - c. Impairment in non-verbal behaviors in social interaction
 - d. Failure to develop peer relationships
 - e. Lack of spontaneous seeking to share emotions in relationships
 - f. Lack of social or emotional reciprocity.
3. Prevention of harm to self or others (safety concerns) include, but are not limited to:
 - a. Aggression directed to self or others (e.g., hitting, biting)
 - b. Engaging in dangerous behaviors (e.g., eating nonfood items, running into the street, elopement).

The first demonstrations of the effectiveness of this treatment model occurred in the 1960s with the employment of highly structured operant conditioning learning programs to improve the condition of recipients with autism and mental retardation. Many techniques, strategies, and approaches have been developed using ABA as a foundation. ABA treatments derive from the experimental analysis of behavior – a field dedicated to understanding how environmental events affect behavior.

ABA systematically applies interventions based on learning theory to improve social interaction, verbal and nonverbal communication, and maladaptive or challenging behavior while demonstrating that the interventions employed are responsible for the improvement. Deficits in functioning may be due to environmental factors, physical conditions, mental health disorders, and psychological factors. The severity and frequency of maladaptive behavior, e.g., aggression, violence, destructiveness, and self-injury, may result in risk to the physical safety of the individual or others. ABA involves the analysis, design, implementation, and evaluation of behavior modification plans to produce significant improvement in behavior. ABA programs include multiple techniques (e.g., discrete trial training and naturalistic teaching) and integrate different strategies based on the recipient's needs and target goals. The ABA literature universally cites the need for caregiver training and caregiver assumption of treatment interventions. ABA methodologies incorporate data collection to monitor the recipient's progress and evaluate the effectiveness of the intervention.

General ABA behavior goals in autism include: (1) increasing selected behaviors, (2) teaching new skills, (3) maintaining selected behaviors, (4) generalizing or transferring selected behaviors, (5) restricting or narrowing conditions under which interfering behaviors occur, (6) reducing interfering behaviors, and (7) parental skill development and the application of those skills in natural settings. Socially significant behaviors frequently targeted include addressing underlying issues that impair social skills, communication and adaptive living skills, e.g., eating and food preparation, toileting, dressing, personal self-care, domestic skills, time and punctuality, money and value, home and community orientation and work skills.

Functional Behavior Assessment (FBA) or Functional Analysis is a rigorous method of gathering information about problem behaviors. The underlying theory of FBA is that most problem behaviors serve some type of an adaptive function reinforced by consequences.

FBA is used in both designing a behavior program for maximum effectiveness and serves as the foundation of the individualized treatment plan.

The decision about the need for comprehensive versus focused interventions is generally determined, in part, by an evaluation of the level of impairment as demonstrated on validated developmental assessment tools (please note that Magellan considers additional factors to be equally important when making a medically necessary opinion on a client, such as severity, length of treatment history, response to intervention, etc.). The severity of impairment is often based on how far the person's scores are from the mean (average). A customary statistic for describing how far someone is from the mean is the standard deviation score (SD). SD scores of less than 1 are considered within the range of normal development. A SD score of 1 but less than 1.5 is considered mild impairment, 1.5 but less than 2 is considered moderate impairment, and 2 or more is considered severe.

Definitions

Comprehensive Intervention: Services may range from 30 to 40 hours per week, early in the recipient's development (for example, under the age of 7). More than 40 hours will be approved where medically necessary for the member. Services are provided for multiple targets across most or all developmental domains. Comprehensive interventions may close the gap between a recipient's level of functioning and that of a typically developing peer. The standard of care for comprehensive services has been for durations of 1 to 2 years.

Focused Intervention: Services are provided up to 25 hours per week and are directed to a more limited set of problematic behaviors or skills deficits in areas such as self-care, communication and personal safety. More than 25 hours will be approved where medically necessary for the member. Focused services introduce and strengthen more adaptive behaviors to address specific behaviors that are problematic for the recipient.

Functional behavior analysis (FBA): A functional assessment that is a rigorous method of gathering information about adaptive functioning and dysfunctional behaviors. The underlying theory of FBA is that most problem behaviors serve some type of an adaptive function reinforced by consequences. FBA is used in both designing a behavior program for maximum effectiveness and guides development of an individualized treatment plan.

Telehealth: Telehealth is defined as the use of electronic information and telecommunication technologies to support long-distance clinical health care, patient and professional health-related education, health administration, and public health. Types of technologies that make up telehealth are: video conferencing, store-and-forward imaging, streaming media and land and wireless communications. Telehealth has expanded over the past decades. Telehealth experienced significant growth during and since the COVID-19 Public Health Emergency. Coordinating care has improved due

to the advancement and role of technology. Research tends to support telehealth as an efficacious delivery method of behavioral health treatment interventions.¹

Criteria to Initiate Care

All of following criteria must be met:

1. There is an established and current (within 24 months) DSM-5 diagnosis of autism spectrum disorder using validated assessment tools, e.g., Autism Diagnostic Observation Schedule (ADOS), Autism Diagnostic Interview (ADI-R), Parent Evaluation Developmental Stages (PEDS), or Brigance Diagnostic Inventory of Early Development II; and
2. Unless a longer timeframe is mandated by state law or customer contract, developmental assessment has been completed within the last six (6) months using validated assessment tools (i.e., Vineland, ABAS). Note: Where permitted by state law and customer contract Magellan may ask for a developmental assessment to be completed more frequently than every six (6) months as clinically indicated; and
3. As determined by validated developmental assessment tools, the eligible recipient cannot participate at an age-appropriate level in home, school or community activities because of the presence of behavioral excess and/or the absence of functional skills that interfere with participation in these activities², and the target behaviors or skill deficits identified for ABA intervention meet one or more of the following:
 - a. The target behavior or skill is one (1) standard deviation or more below the mean, or
 - b. Represents a behavior that poses significant threat of harm to the recipient or others.
4. There is an expectation on the part of a qualified treating healthcare professional, who has completed an initial evaluation of the recipient that the individual's behavior and skills will improve to a clinically meaningful extent, in at least two settings (home, community) with ABA therapy provided by, or supervised by, a certified ABA provider.
5. A functional assessment using validated tools has been completed by a qualified behavior analyst certified by the Behavior Analyst Certification Board (BACB®). This assessment will include baseline information on the recipient's adaptive functioning within the last six (6) months or longer timeframe if required by state law or customer contract.
6. The recipient's caregivers commit to participate in the goals of the treatment plan.
7. The recipient is medically stable and does not require 24-hour medical/nursing monitoring or procedures provided in a hospital level of care.
8. There is a treatment plan with the following elements:

¹ Nohelty, K., Hahs, A. D., Rodriguez, K. A., Rue, H., Cameron, M. J., & Dixon, D. R. (2023). Assessing the social validity of telehealth-based applied behavior analysis services for autism spectrum disorder. *Behavioral Interventions*, 1–21.

² Additional information on age-appropriate skills can be found in the Appendix.

- a. There are specific, quantifiable goals that relate to developmental deficits or behaviors that pose a significant risk of harm to the recipient or others.
- b. Objective, observable, and quantifiable metrics are utilized to measure change toward the specific goal behaviors.
- c. Documentation that adjunctive treatments (e.g., psychotherapy, social skills training, medication services, educational services) have been considered for inclusion in the treatment plan, with the rationale for exclusion.

Criteria for Continued Care

All of the following criteria must be met:

1. The recipient shows improvement from baseline in skill deficits and problematic behaviors targeted in the approved treatment plan using validated assessments of adaptive functioning.
2. As determined by validated developmental assessment tools, the eligible recipient still cannot participate at an age-appropriate level in home, or community activities because of the presence of behavioral excess and/or the absence of functional skills that interfere with participation in these activities, and the target behaviors or skill deficits identified for ABA intervention meet one or more of the following:
 - a. The target behavior or skill is one (1) standard deviation or more below the mean, or
 - b. Represents a behavior that poses significant threat of harm to the recipient or others.
3. The recipient's caregivers demonstrate continued commitment to participation in the recipient's treatment plan and demonstrate the ability to apply those skills in naturalized settings as documented in the clinical record.
4. The gains made toward developmental norms and behavior goals cannot be maintained if care is reduced.
5. Behavior issues are not exacerbated by the treatment process.
6. The predicted beneficial outcome of services outweighs potential harmful effects.
7. The recipient has the required cognitive capacity to benefit from the care provided and to retain and generalize treatment gains.
8. An updated diagnosis (as outlined in the "Criteria to Initiate Care") must be submitted every 24-months, or as requested by Magellan, the primary care provider (PCP), psychologist or other licensed professional.

Criteria for Discharge from Care

The desired outcomes for discharge should be specified at the initiation of services and refined throughout the treatment process. Transition and discharge planning from a treatment program should include a written plan that specifies details of monitoring and follow-up as is appropriate for the

individual and the family.³ Parents, community caregivers and other involved professionals should be consulted ongoing and prior to the planned reduction of service hours. Additional services, including behavioral therapies and other supports, should be considered for the child and family as care is faded to lower frequency.

One of the following criteria must be met:

1. The recipient shows improvement from baseline in targeted skill deficits and problematic behaviors such that goals are achieved or maximum benefit has been reached.
2. Caregivers have refused treatment recommendations.
3. Behavioral issues are exacerbated by the treatment.
4. Recipient is unlikely to continue to benefit or maintain gains from continued care.
5. The client does not demonstrate progress towards goals for two or more successive authorization periods.
6. Continued care would be provided primarily for the convenience of the child or caregivers.

Appendix

This document is provided as companion to Magellan Healthcare’s Guidelines for the use of applied behavior analysis (ABA). Magellan supports the use of clinical best practices and strongly encourages participating providers to consult resources such as those published by the Behavior Analyst Certification Board (BACB®).

ABA systematically applies interventions based on learning theory to improve social interaction, verbal and nonverbal communication, and maladaptive or challenging behavior while demonstrating that the interventions employed are responsible for the improvement. Deficits in functioning may be due to environmental factors, physical conditions, mental health disorders, and psychological factors. The severity and frequency of maladaptive behavior (e.g., aggression, violence, destructiveness, and self-injury) may result in risk to the physical safety of the individual or others. ABA involves the analysis, design, implementation, and evaluation of behavior modification plans to produce significant improvement in behavior. ABA programs include multiple techniques (e.g., discrete trial training and naturalistic teaching) and integrate different strategies based on the recipient’s needs and target goals. ABA methodologies incorporate data collection to monitor the recipient’s progress and evaluate the effectiveness of the intervention and evaluate behavior with validated tools and objective developmental norms. An ABA program is directed to promoting the greatest level of independence possible for the recipient and provides training and support for the caregivers. An ABA program that does not include the substantial involvement of the recipient’s caregivers does not meet Magellan’s expectations of a successful treatment plan based on an extensive review of the available literature on the effectiveness of ABA, and as such, cannot be authorized for reimbursement.

³ The Council of Autism Service Providers (“CASP”). “Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers.” p. 41. Copyright © 2020 by The Council of Autism Service Providers (“CASP”). Second Edition.

Essential Elements of Effective ABA Treatment

1. An objective assessment and analysis of the client's condition by observing how the environment affects the client's behavior, as evidenced through appropriate data collection and the use of validated assessment tools and developmental norms.
2. An understanding of the context of the behavior and the behavior's value to the individual, the family, and the community and a plan to address the most socially significant deficits in skill or problem behaviors that will allow the independent functioning for the recipient across these environments.
3. A thorough review of the recipient's medical, educational, and psychological and behavioral history and ongoing coordination of care with other providers involved in the recipient's treatment (e.g., physical therapists, social workers, occupational therapists, pediatricians, speech therapists).
4. The use of ongoing, objective assessments and data analysis to inform clinical decision making.
5. A focus on the recipient's quality of life, with care provided only for as long as necessary to achieve goals, or maximize clinical benefit, and promote independence for the recipient.
6. The facilitation of opportunities for the recipient to interact with typically-developing peers.
7. The inclusion of the recipients' caregivers in a formalized program of training that allows them to develop skills and apply these in naturalized settings to further the recipient's treatment goals.
8. A strong program of support for the caregivers that addresses the stresses and strains of caregiving including community connection to supportive resources.

Diagnosis of Autism Spectrum Disorder:

There is an established and current (within 24 months) DSM-5-TR diagnosis of autism spectrum disorder using validated assessment tools. The diagnosis is confirmed by a doctoral-level clinician including a physician (family practice, pediatrics, developmental pediatrician, neurodevelopmental pediatrics, pediatric neurology, or psychiatry) or psychologist (PhD or PsyD). Examples of assessment tools are: Autism Diagnostic Observation Schedule (ADOS), Autism Diagnostic Interview (ADI-R), Parent Evaluation Developmental Stages (PEDS), Brigance Diagnostic Inventory of Early Development II; Modified Checklist for Autism in Toddlers (M-CHAT), Childhood Autism Rating Scale, Second Edition (CARS 2), Social Communication Questionnaire, Autism Spectrum Rating Scales (ASRS), Screening Tool for Autism in Toddlers and Young Children (STAT), Rapid Interactive Screening Test for Autism in toddlers (RITA-T), Social Communication Questionnaire (SCQ). The diagnosis includes examples and direct observations specific to the member consistent with DSM-5-TR criteria A and B for Autism Spectrum Disorder. *Note:* Checklist behaviors or general terms from DSM-5-TR are not acceptable without examples and direct observations specific to the member.

Initial Evaluation

After an initial diagnosis of autism has been obtained from an appropriate provider (e.g., pediatrician, pediatric neurologist, developmental pediatrician, psychologist), a functional behavioral assessment should be completed that includes observation across all relevant settings (e.g., home, school and

community). The intent of the FBA is to develop a thorough plan of interventions that will target reductions in problematic behaviors, in addition to the promotion of more adaptive skills and behaviors. The FBA captures baseline data and will design a plan of ongoing data collection that will inform the duration and intensity of services. The FBA will include a plan for the training of the recipient's caregivers, complete with goals for the caregivers and a plan to train and support the caregivers. The FBA should include:

1. Validated developmental and adaptive skills assessment (i.e., ABAS or Vineland,) to establish baseline functioning.
2. Review of the recipient's medical, psychiatric, educational records.
3. An evaluation of the purpose of maladaptive behaviors using a validated assessment tool (e.g., QABF, FAST, FACT).
4. Caregiver interview.
5. Evidence of coordination of services with the recipient's other treatment providers.
6. Consideration for the recipient's medications and medical comorbidities.
7. A detailed description of behavior reduction goals with clear definition, antecedent, baseline, and mastery criteria for needed skills development.
8. A detailed description of replacement behavior and skill acquisition goal selection based on reported behaviors and developmental evaluation scores.
9. Caregiver training goals and a plan to provide necessary support and training to caregivers as well as a plan to evaluate their acquisition of these skills.
10. A detailed proposal for the intensity and duration of services, as well as the locations where those services will be provided.
11. Full documentation of any IEP services the recipient is receiving and a description of how the proposed care will coordinate with the established IEP.
12. An indication of other services that will be necessary such as physical therapy or family therapy, and documentation that such referrals have been provided.
13. A clear plan with objective milestones for the systematic reduction of care and the criteria for discharge from services.

Ongoing Services

1. Validated developmental and adaptive skills assessment (e.g., ABAS, Vineland) should be administered every six(6) months or as medically necessary to evaluate progress from baseline functioning.
2. Care should be applied as prescribed in the treatment plan, and behavior tracking should be completed such that the occurrence and frequency of maladaptive behaviors as well as replacement behaviors are captured graphically.
3. Antecedents to behavior should be noted as well as response to interventions.

4. The setting of ongoing services should be documented as well as participants present during the intervention.
5. Interventions should promote the recipient's independence and should be focused on those behaviors that interfere with the recipient's self-care abilities, the recipient's safety and those behaviors that interfere with the recipient's communication and interaction with others.
6. Caregivers should be present during the majority of interventions and should receive training on the intervention such that the treating professional can fade out of the intervention and the caregiver can effectively achieve the goal of the intervention over time.
7. Caregivers should have specific behavior goals that generalize treatment benefits across multiple settings and allow treatment progress to be maintained over time.
8. The recipient should be presented with opportunities to demonstrate skills acquisition with developmentally-typical peers.
9. Adjustments to treatment interventions will be made in consultation with the BACB supervisor, and the reason for these adjustments will be well documented in the clinical record, including the goals and the behavior tracking of these goals.
10. A detailed tracking of the intensity of services as well as the locations where those services are provided shall be maintained in the treatment record.
11. Coordination with other services such as physical therapy or family therapy should be ongoing.
12. Measurement of progression on milestones should be captured on an ongoing basis and progress to discharge goals should be noted.

Intensity of Services

The intensity and duration of services will be based on a careful evaluation of the level of the recipient's impairment from developmentally expected norms as well as the severity of maladaptive behaviors. Behaviors and skills deficits that prevent the recipient from performing activities of daily living related to self-care (e.g., self-feeding, toileting and grooming), socially effective communication (e.g., mutuality, emotional reciprocity, stereotypy, shared interests) or safety (e.g., aggression, pica, elopement) must be noted. The use of standardized testing is critical in the evaluation of the recipient's development against published developmental norms. Scores less than a standard deviation from developmental norms are considered within range of normal development: 1 standard deviation equates to mild impairment, 1.5-2 standard deviations equates to moderate impairment, and 2 or more standard deviations will be considered severe. The response to services must be evaluated on an ongoing basis with validated tools to monitor treatment progress. Treatment progress should also be evaluated against treatment goals through careful tracking of the frequency of maladaptive behaviors as well as replacement behaviors. The achievement of caregiver goals should be consistently tracked. Lack of skills acquisition or behavioral goals require immediate attention to required changes in the intervention and may lead to the discontinuation of services.

Comprehensive Interventions:

- Comprehensive services generally are typically restricted to younger children who have substantial impairments in most or all areas of functioning; behavior is of such a severe nature that the child or those around the child are in imminent risk of harm; and are generally authorized as time-limited.
- The overarching goal of comprehensive intervention is to close the gap between a recipient's level of functioning and that of a typically-developing peer.
- Comprehensive ABA of up to 40 hours per week is limited to treatment where there are multiple targets across most or all developmental domains that are impaired due to the child's autism. More than 40 hours will be approved where medically necessary for the member
- Comprehensive services are generally rendered when the recipient is early in his or her development and are generally not intended to be applied to older children or adolescents who are often more appropriate for focused interventions.
- Optimal treatment duration will vary by child, but literature generally supports total interventions (comprehensive) up to of 1-2 years of care.

Focused Interventions:

- Magellan will authorize medically necessary applied behavior analysis, based on individualized goals, provided in a focused or comprehensive manner:
 - Focused interventions are generally authorized for 10-25 hours per week of direct treatment. More than 25 hours will be approved where medically necessary for the member. (Additional authorization will be provided for direct and indirect supervision at 1 to 2 hours per 10 of direct care, as well as authorization for caregiver training.)
 - Focused intervention is authorized when the recipient needs to acquire skills such as communication, safety and self-care.
 - Focused intervention is authorized to reduce dangerous or maladaptive behavior.
 - Focused intervention is authorized to introduce and strengthen more appropriate and functional behavior.
- Magellan encourages providers to consult with a Magellan care manager if there are questions about the appropriateness of a planned intervention, and at any time a child's condition worsens for any reason.

Bibliography

1. American Psychiatric Association 168th Annual Meeting May 18, 2015. Autism spectrum disorders: diagnostic considerations, genetic research, and treatment review.
2. The Council for Autism Service Providers: Practice Guidelines for Healthcare Funders and Managers: Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice

Guidelines for Healthcare Funders and Managers, Second Edition. Accessed online March 14, 2023 at [ASD Guidelines - Council of Autism Service Providers \(casproviders.org\)](https://casproviders.org).

3. Behavior Analyst Certification Board, Inc (“BACB”). Clarifications Regarding Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers. 2019. Accessed online on March 14, 2023 at [https://www.bacb.com/wp-content/uploads/2020/05/Clarifications ASD Practice Guidelines 2nd ed.pdf](https://www.bacb.com/wp-content/uploads/2020/05/Clarifications_AS_D_Practice_Guidelines_2nd_ed.pdf)
4. Blacklock, K., Perry, A., & Geier, J. D. (2014). Examining the effectiveness of intensive behavioral intervention in children with autism aged 6 and older. *Journal on Developmental Disabilities*, 20(1), 37.
5. Blumberg, S, Zablostsky, B, Avila, RM, Colpe, LJ, Pringle, BA, Kogan, MD. Diagnosis lost: Differences between children who had and who currently have an autism spectrum disorder diagnosis. *Autism* 2016; 20(7): 783-795.
6. Boyd BA, Hume K, McBee MT, Alessandri M, Gutierrez A, Johnson L, Sperry L, Odom SL. Comparative efficacy of LEAP, TEACCH and non-model-specific special education programs for preschoolers with autism spectrum disorders. *J Autism Dev Disord* 2014; 44(2): 366-80.
7. Cohen, H., Amerine-Dickens, M., & Smith, T. Early intensive Behavior treatment: Replication of the UCLA model in a community setting. *Developmental and Behavior Pediatrics*, 2006; 27: S145-S155.
8. Dawson, G, Jones EJ, Merkle K, Venema K, Lowy R, Faja S, Kamara D, Murias M, Genson J, Winter J, Smith M, Rogers SJ, Webb SJ. Early Behavior intervention is associated with normalized brain activity in young recipient with autism *J Am Acad Recipient Adolesc Psychiatry* 2012; 51(11): 1150-9.
9. Eikeseth, S. Outcome of comprehensive psycho-educational interventions for young recipient with autism. *Research in Developmental Disabilities* 2009; 30: 158-178.
10. Eikeseth, S., Smith, T., Jahr, E., & Eldevik, S. Intensive Behavior treatment at school for 4- to 7-year-old recipient with autism: A 1-year comparison controlled study. *Behavior Modification* 2009; 26, 46-68.
11. Eldevik, S., Hastings, R. P., Hughes, J. C., Jahr, E., Eikeseth, S., & Cross, S. Using participant data to extend the evidence base for intensive Behavior intervention for recipient with autism. *American Journal on Intellectual and Developmental Disabilities* 2010; 115, 381-405.
12. Eldevik, S., Hastings, R. P., Hughes, J. C., Jahr, E., Eikeseth, S., & Cross, S. Analysis of early intensive Behavior intervention for recipient with autism. *Journal of Clinical Recipient and Adolescent Psychology* 2009; 38, 439-450.
13. Estes A, Munson J, Rogers SJ, Genson J, Winter J, Dawson G. Long-term outcomes of early intervention in 6-year-old recipient with autism spectrum disorder. *J Amer Acad Recipient Adolesc Psychiatry* 2015.

14. Fein D, Barton M, Eigsti IM, Kelley E, Naigles L, Schultz RT, Stevens M, Helt M, Orinstein A, Rosenthal M, Troyb DE, Tyson K. Optimal outcome in individuals with a history of autism. *J Recipient Psychol Psychiatry* 2013; 54(2): 195-205.
15. Ferguson, J., Craig, E.A. & Dounavi, K. Telehealth as a Model for Providing Behaviour Analytic Interventions to Individuals with Autism Spectrum Disorder: A Systematic Review. *J Autism Dev Disord* 49, 582–616 (2019). <https://doi.org/10.1007/s10803-018-3724-5>
16. Ferguson, J. L., Majeski, M. J., McEachin, J., Leaf, R., Cihon, J. H., & Leaf, J. B. (2020). Evaluating discrete trial teaching with instructive feedback delivered in a dyad arrangement via telehealth. *Journal of Applied Behavior Analysis*, 53(4), 1876-1888.
17. Feroe AG, Uppal N, Gutiérrez-Sacristán A, et al. Medication Use in the Management of Comorbidities Among Individuals With Autism Spectrum Disorder From a Large Nationwide Insurance Database. *JAMA Pediatr.* 2021;175(9):957–965.
18. Foxx, R. M. Applied behavior analysis treatment of autism: The state of the art. *Recipient and Adolescent Psychiatric Clinics of North America* 2008; 17, 821-834.
19. Goods KS, Ishijima E, Chang Y, Kasari C. Preschool based JASPER intervention in minimally verbal recipient with autism: pilot RCT. *J Autism Dev Disord* 2013; 43(5): 1050-1056.
20. Granpeesheh, D., Dixon, D. R., Tarbox, J., Kaplan, A. M., & Wilke, A. E. (2009) The effects of age and treatment intensity on behavioral intervention outcomes for children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 3(4), 1014-1022.
21. Granpeesheh D, Tarbox J, Dixon DR. Applied behavior analytic interventions for recipient with autism: a description and review of treatment research. *Ann Clin Psychiatry* 2009; 21(3):162-73.
22. Green, G., Brennan, L. C., & Fein, D. Intensive Behavior treatment for a toddler at high risk for autism. *Behavior Modification* 2002; 26, 69-102.
23. Hanley, G. P., Iwata, B. A., & McCord, B. E. Functional analysis of problem behavior: A review. *J Appl Behav Anal* 2003; 36, 147-185.
24. Hanley GP, Jin CS, Vanselow NR, Hanratty LA. Producing meaningful improvement in problem behavior of recipient with autism via synthesized analyses and treatments. *J Appl Behav Anal* 2014; 47:16-36.
25. Heitzman-Powell LS, Buzhardt J, Rusinko LC, Miller TM. Formative evaluation of an ABA outreach training program for parents of recipient with autism in remote areas. *Focus on Autism and Other Developmental Disabilities* 2014; 29(1): 23-38.
26. Howard, J. S., Sparkman, C. R., Cohen, H. G., Green, G., & Stanislaw, H. A comparison of intensive behavior analytic and eclectic treatments for young recipient with autism. *Research in Developmental Disabilities* 2005; 26, 359-383.
27. Howard JS, Stanislaw H, Green G, Sparkman CR, Cohen HG. Comparison of behavior analytic and eclectic early interventions for young recipient with autism after three years. *Res Dev Disabil* 2014; 35(12):3326-44.
28. Hyman, S. L., Levy, S. E., Myers, S. M., & COUNCIL ON CHILDREN WITH DISABILITIES, SECTION ON DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS (2020). Identification, Evaluation, and

Management of Children With Autism Spectrum Disorder. *Pediatrics*, 145(1), e20193447.
<https://doi.org/10.1542/peds.2019-3447>

29. Kamio Y, Haraguchi H, Miyake A, Hiraiwa M. Brief report: large individual variation in outcomes of autistic recipient receiving low intensity Behavior interventions in community settings. *Recipient Adolesc Psychiatry Ment Health* 2015.
30. Koegel LK, Koegel RL, Ashbaugh K, Bradshaw J. The importance of early identification and intervention for recipient with or at risk for autism spectrum disorders. *Int J Speech Lang Pathol* 2014; 6(1): 50-56.
31. Landa RJ, Kalb LG. Long-term outcomes of toddlers with autism spectrum disorders exposed to short-term intervention. *Pediatrics* 2012; 130 Suppl 2: 186-90.
32. LeBlanc LA, Gillis G. Behavior interventions for recipient with autism spectrum disorders. *Pediatr Clin North Am* 2012; 59(1): 147-64.
33. Lindgren S, Wacker D, Suess A, et al. Telehealth and Autism: Treating Challenging Behavior at Lower Cost. *Pediatrics*. 2016;137(S2):e201528510
34. Lotfizadeh AD, Kazemi E, Pompa-Craven P, Eldevik S. Moderate effects of low-intensity behavioral intervention. *Behavior Modification* 2020;44(1):92-113.DOI: 10.1177/0145445518796204
35. Lovaas, O. I. (1987). Behavior treatment and normal educational and intellectual functioning in young autistic recipient. *Journal of Consulting and Clinical Psychology*, 55, 3-9.
36. Maglione MA, Gans D, Das L, Timbie J, Kasari C. Nonmedical interventions for recipient with ASD: recommended guidelines and further research needs. *Pediatrics* 2012; 130(2): S169-78.
37. Malik S. Role of applied behavior analysis in behavior modification of autistic recipient. *Int J Med Appl Health* 2013; 1(2):52-59.
38. Matson, J. L., Benavidez, D. A., Compton, L. S., Paclawskyj, T., & Baglio, C. (1996). Behavior treatment of autistic persons: A review of research from 1980 to the present. *Research in Developmental Disabilities*, 17, 433-465.
39. MacDonald R, Parry-Cruwys D, Dupere S, Ahearn W. Assessing progress and outcome of early intensive Behavior intervention for toddlers with autism *Res Dev Disabil* 2014 35(12): 3632-44.
40. McEachin, J. J., Smith, T., & Lovaas, O. I. (1993). Long-term outcome for recipient with autism who received early intensive Behavior treatment. *American Journal on Mental Retardation*, 97, 359-372.
41. Mohammadzaheri F, Koegel L, Rezaee M, Rafiee S. A randomized clinical trial comparison between pivotal response treatment (PRT) and structured applied behavior analysis (ABA) intervention for recipient with autism. *J Autism Dev Disord* 2014; 44(11): 2769-77.
42. National Institute for Health and Clinical Excellence (NICE). Autism spectrum disorder in under 19s: support and management. London (UK): National Institute for Health and Clinical Excellence (NICE); 2013 Aug; reviewed June 2021. (NICE clinical guideline; no. 170). Accessed March 2021. <http://guidance.nice.org.uk/CG170/>

43. National Standards Project. National Autism Center (2015). *Findings and conclusions: National standards project, phase 2*. Randolph, MA.
44. Nohelty, K., Hahs, A. D., Rodriguez, K. A., Rue, H., Cameron, M. J., & Dixon, D. R. (2023). Assessing the social validity of telehealth-based applied behavior analysis services for autism spectrum disorder. *Behavioral Interventions*, 1– 21.
45. Odom SL, Boyd BA, Hall LJ, Hume K. Evaluation of comprehensive treatment models for individuals with autism spectrum disorders. *Journal of Autism and Developmental Disorders*. Epub 2009 Jul 25.
46. Orinstein AJ, Helt M, Troyb E, Tyson KE, Barton ML, Eigsti I, Naigles L, Fein DA. Intervention for optimal outcome in recipient and adolescents with a history of autism. *J Dev Behav Pediatr* 2014; 35(4): 247-56.
47. Reichow B, Barton EE, Boyd BA, Hume K. Early intensive behavior intervention (EIBI) for young recipient with autism spectrum disorders (ASD). *Cochrane Database Syst Rev* 2012.
48. Rogers S, Estes A, Lord C, Vismara L, Winter J, Fitzpatrick A, Guo M, Dawson G. Effects of a brief early start denver model (ESDM)-based parent intervention on toddlers at risk for autism spectrum disorders: a randomized controlled trial. *J Am Acad Recipient Adolesc Psychiatry* 2012; 51(10): 1052-65.
49. Sallows, G. O., & Graupner, T. D. (2005). Intensive Behavior treatment for recipient with autism: Four-year outcome and predictors. *American Journal on Mental Retardation*, 110, 417-438.
50. Smith T, Groen AD, Wynn JW (2000). Randomized Trial of intensive early intervention for recipient with pervasive developmental disorder. *American Journal on Mental Retardation* 2000;105:269-285.
51. Tarbox RSF, Najdowski AC. Discrete trial training as a teaching paradigm. In: Luiselli JK, Russo DC, Christian WP, Wilczynski SM, editors. *Effective Practices for Recipients with Autism*. New York: Oxford University Press; 2008. p. 181-194.
52. TEACCH [Internet]. Chapel Hill, NC: UNC Chapel Hill Division TEACCH [cited 2009 Sept. 16]. Available from: <http://www.teacch.com/whatis.html/>.
53. Virués-Ortega, J. (2010). Applied behavior analytic intervention for autism in early recipient hood: Meta-analysis, meta regression and dose–response meta-analysis of multiple outcomes. *Clinical Psychology Review*, 30, 387-399.
54. Volkmar F, Siegel M, Woodbury-Smith M, King B, McCracken J, State M. Practice Parameter for the assessment and treatment of recipient and adolescents with autism spectrum disorder. *J Am Acad Recipient Adolesc Psychiatry* 2014; 53(2): 237-57.
55. Weitlauf AS, McPheeters ML, Sathe N, Travis R, Aiello R, Williamson E, Veenstra-VanderWeele J, Krishnaswami S, Warren Z. Therapies for Recipients with Autism Spectrum Disorder: Behavior interventions update. Agency for Healthcare Research and Quality 2014.
56. Wong, C., Odom, S. L., Hume, K., Cox, A. W., Fettig, A., Kucharczyk, S. et al. (2013). *Evidence-based practices for recipient, youth, and young adults with autism spectrum disorder*. Chapel Hill, NC: The University of North Carolina, Frank Porter Graham Recipient Development Institute, Autism Evidence-Based Practice Review Group.

57. Wong, C., Odom, S.L., Hume, K.A. et al. *Evidence-based practices for recipient, youth, and young adults with autism spectrum disorder*. J Autism Dev Disord 2015; 45: 1951.
<https://doi.org/10.1007/s10803-014-2351-z>

2023 – 2024 Magellan Healthcare Guidelines

Guideline: Psychological Testing

Effective Date: November 18, 2023

Last Review Date: July 19, 2023

Criteria for Authorization

The purpose of psychological testing includes, but is not limited to: assisting with diagnosis and management following clinical evaluation when a mental illness or psychological abnormality is suspected; providing a differential diagnosis from a range of neurological/ psychological disorders that present with similar constellations of symptoms, e.g., differentiation between pseudodementia and depression; determining the clinical and functional significance of a brain abnormality; or delineating the specific cognitive basis of functional complaints.

Prior to psychological testing, the individual must be assessed by a qualified behavioral healthcare provider. The diagnostic interview determines the need for and extent of the psychological testing. Testing may be completed at the onset of treatment to assist with necessary differential diagnosis issues and/or to help resolve specific treatment planning questions. It also may occur later in treatment if the individual's condition has not progressed since the institution of the initial treatment plan and there is no clear explanation for the lack of improvement.

I. Severity of Need

Criteria A, B, and C must be met:

- A. The reason for testing must be based on a specific referral question or questions from the treating provider and related directly to the psychiatric or psychological treatment of the individual.
- B. The specific referral question(s) cannot be answered adequately by means of clinical interview and/or behavioral observations.
- C. The testing results based on the referral question(s) must be reasonably anticipated to provide information that will effectively guide the course of appropriate treatment.

II. Intensity and Quality of Care

Criteria A and B must be met:

- A. A licensed doctoral-level psychologist (Ph.D., Psy.D. or Ed.D.), medical psychologist (M.P.), or other qualified provider as permitted by applicable state and/or federal law, who is credentialed by and contracted with Magellan, administers the tests.
- B. The requested tests must be standardized, valid and reliable in order to answer the specific clinical question for the specific population under consideration. The most recent version of

the test must be used, except as outlined in *Standards for Educational and Psychological Testing*.

III. Exclusion Criteria

Psychological testing will not be authorized under any of the following conditions:

- A. The patient is not neurologically and cognitively able to participate in a meaningful way in the testing process.
- B. The test is used solely as a screening tool given to the individual or to general populations.
- C. Administered for educational or vocational purposes that do not establish medical management.
- D. Performed when abnormalities of brain function are not suspected.
- E. Used for self-administered or self-scored inventories, or screening tests of cognitive function (whether paper-and-pencil or computerized), e.g., AIMS or Folstein Mini-Mental Status Examination.
- F. 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).
- G. Administered when the patient has a substance abuse background and any of the following apply:
 - 1) The patient has ongoing substance abuse and/or is going through withdrawal such that test results would be inaccurate, or
 - 2) The patient is currently intoxicated.
- H. The patient has been diagnosed previously with brain dysfunction such as Alzheimer's disease, and there is no expectation that the testing would impact the patient's medical management.
- I. Unless allowed by the individual's benefit plan, the testing is primarily for the purpose of determining if an individual is a candidate for a medical or surgical procedure.
- J. The testing is primarily for diagnosing attention-deficit hyperactivity disorder (ADHD), unless the diagnostic interview, clinical observations, and results of appropriate behavioral rating scales are inconclusive.
- K. The testing is primarily for legal purposes, including custody evaluations, parenting assessments, or other court or government ordered or requested testing.
- L. The requested tests are experimental, antiquated, or not validated.
- M. The testing request is made prior to the completion of a diagnostic interview by a behavioral health provider, unless pre-approved by Magellan.
- N. More than eight hours per patient per evaluation is considered excessive and supporting documentation in the medical record must be present to justify greater than eight hours per patient per evaluation.

- O. Two or more tests are requested that measure the same functional domain.
- P. The number of hours requested for the administration, scoring, interpretation and reporting exceeds the generally accepted standard for the specific testing instrument(s), unless justified by particular testing circumstances.
- Q. Testing to determine if an individual is a candidate for a specific medication or dosage is an excluded benefit.

Bibliography

1. Barkley, R. A. (2006). *Attention-Deficit Hyperactivity Disorder: A Handbook for diagnosis and treatment* (3rd Ed.). New York: Guilford Press.
2. Barnhill, J.W. (2019). The Psychiatric Interview and Mental Status Exam. In Roberts, L.W., editor: *The American Psychiatric Publishing Textbook of Psychiatry* (7th ed), Washington D.C. American Psychiatric Publishing, 3-30.
3. Carlson, J.F, Geisinger, K.F. & Jonson, J.L. (2017) (Eds.) *The Twentieth Mental Measurements Yearbook*. Lincoln, Neb.: Buros Institute of Mental Measurements, University of Nebraska-Lincoln.
4. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Psychological and Neuropsychological Tests (L34520). First Coast Service Options, Inc; Jacksonville, FL. Accessed April 24, 2023.
5. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Psychological and Neuropsychological Testing (L34646). Wisconsin Physicians Service Insurance Corporation: Madison, WI. Accessed April 24, 2023.
6. Cincinnati Children's Hospital Medical Center. *Evidence based clinical practice guideline for outpatient evaluation and management of attention-deficit/hyperactivity disorder*. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2004 Apr 30 :1-23.
7. Hunsley, J., & Mash, E. (2007). Evidence-based assessment. *Annual Review of Clinical Psychology*, 329-51.
8. Practice Parameters for the Assessment and Treatment of Children and Adolescents with Attention-Deficit/Hyperactivity Disorder (2007). *Journal of American Academy Child and Adolescent Psychiatry*, 46(7). 894-921.
9. Root, R. W. & Resnick, R. J. (2003). An update on the diagnosis and treatment of attention-deficit/hyperactivity disorder in children. *Professional Psychology: Research and Practice*, 34 (1), 34-41.
10. Standards for Educational and Psychological Testing. Revised (1999) Washington, D.C.: *AERA Publications*. p. 48.
11. U.S. Preventive Services Task Force (2020). Screening for Cognitive Impairment in Older Adults. US Preventive Services Task Force recommendation statement. *Journal of the American Medical Association*, 323(8) 757-763.

2023 - 2024 Magellan Healthcare Guidelines

Guideline: Neuropsychological Testing

Effective Date: November 18, 2023

Last Review Date: July 19, 2023

Criteria for Authorization

Neuropsychological tests are evaluations designed to determine the functional consequences of known or suspected brain dysfunction through testing of the neuro-cognitive domains responsible for language, perception, memory, learning, problem solving, adaptation, and constructional praxis.

These evaluations are requested for patients with a history of psychological, neurologic or medical disorders known to impact cognitive or neurobehavioral functioning. The evaluations include a history of medical or neurological disorders compromising cognitive or behavioral functioning; congenital, genetic, or metabolic disorders known to be associated with impairments in cognitive or brain development; reported impairments in cognitive functioning; and evaluations of cognitive function as a part of the standard of care for treatment selection and treatment outcome evaluations.

In addition, the evaluation includes a formal interview, a review of medical, educational, and vocational records, interviews with significant others, and a battery of standardized neuropsychological assessments. The testing quantifies a patient's higher cortical functioning and may include various aspects of attention, memory, speed of information processing, language, visual-spatial ability, sensory processing, motor ability, higher-order executive functioning, and intelligence. The goal of neuropsychological testing may be clarification of diagnosis, determination of the clinical and functional significance of a brain abnormality, or development of recommendations regarding neurological rehabilitation planning, but is always for the purpose of shaping treatment.

Neuropsychological testing should be considered for coverage through the patient's **mental health** benefit when:

- The referring practitioner is a psychiatrist, neuropsychologist, psychologist, or other behavioral health clinician.
- The primary diagnosis is psychiatric, even though medical problems are involved; the purpose of testing is to clarify whether it is a psychiatric diagnosis (e.g., dementia versus pseudo-dementia; head injury versus anxiety/depression; organic mood versus mood disorder not otherwise specified; or organic delusion versus schizophrenia).

Neuropsychological testing should be considered for coverage through the patient's **medical benefit** when:

- The referring practitioner is a neurologist, primary care physician, surgeon, or pain specialist.

- The primary diagnosis is medical (e.g., multiple sclerosis, head injury, tumors, Alzheimer's disease or stroke).

I. Severity of Need

Criteria A and B, **and one** of C-O must be met:

- A. The reason for testing must be based on a specific referral question and this specific referral question(s) cannot be answered adequately by means of clinical interview and/or behavioral observations.
- B. The testing results based on the referral question(s) are reasonably expected to provide information that will effectively guide the course of treatment.
- C. When there are mild or questionable deficits on standard mental status testing or clinical interview, and a neuropsychological assessment is needed to establish the presence of abnormalities or distinguish them from changes that may occur with normal aging, or the expected progression of other disease processes; or
- D. When neuropsychological data can be combined with clinical, laboratory, and neuroimaging data to assist in establishing a clinical diagnosis in neurological or systemic conditions known to affect CNS functioning; or
- E. When there is a need to quantify cognitive or behavioral deficits related to CNS impairment, especially when the information will be useful in determining a prognosis or informing treatment planning by determining the rate of disease progression; or
- F. When there is a need for a pre-surgical or treatment-related cognitive evaluation to determine whether one might safely proceed with a medical or surgical procedure that may affect brain function (e.g., deep brain stimulation, resection of brain tumors or arteriovenous malformations, epilepsy surgery or stem cell transplant) or significantly alter a patient's functional status; or
- G. When there is a need to assess the potential impact of adverse effects of therapeutic substances that may cause cognitive impairment (e.g., radiation, chemotherapy, antiepileptic medications), especially when this information is utilized to determine treatment planning; or
- H. When there is a need to monitor progression, recovery, and response to changing treatments, in patients with CNS disorders, in order to establish the most effective plan of care; or
- I. When there is a need for objective measurement of the patient's subjective complaints about memory, attention, or other cognitive dysfunction, which serves to determine treatment by differentiating psychogenic from neurogenic syndromes (e.g., dementia vs. depression); or
- J. When there is a need to establish a treatment plan by determining functional abilities/impairments in individuals with known or suspected CNS disorders; or
- K. When there is a need to determine whether a patient can comprehend and participate effectively in complex treatment regimens (e.g., surgeries to modify facial appearance, hearing, or tongue debulking in craniofacial or Down syndrome patients; transplant or bariatric surgeries in patients with diminished capacity), and to determine functional capacity for healthcare decision-making, work, independent living, managing financial affairs, etc.; or

- L. When there is a need to design, administer, and/or monitor outcomes of cognitive rehabilitation procedures, such as compensatory memory training for brain-injured patients; or
- M. When there is a need to establish treatment planning through identification and assessment of the neurocognitive sequelae of systemic disease (e.g., hepatic encephalopathy or anoxic/hypoxic injury associated with cardiac procedures); or
- N. When there is a need for assessment of neurocognitive functions for the formulation of rehabilitation and/or management strategies among individuals with neuropsychiatric disorders; or
- O. When there is a need to diagnose cognitive or functional deficits in children and adolescents based on an inability to develop expected knowledge, skills or abilities as required to adapt to new or changing cognitive, social, emotional, or physical demands.

II. Intensity and Quality of Care

Criteria A and B must be met:

- A. Tests are administered directly by either an appropriate state-licensed provider or by a trained technician. The technician who administers the neuropsychological test must be directly supervised by the provider.
- B. Requested tests must be standardized, valid and reliable in order to answer the specific clinical question for the specific population under consideration. The most recent version of the test must be used.

Neuropsychological tests include direct question-and-answer; object manipulation; inspection and responses to pictures or patterns; or paper-and-pencil written or multiple-choice tests that measure functional impairment and abilities in:

1. General intellect
2. Reasoning, sequencing, problem-solving, and executive function
3. Attention and concentration
4. Learning and memory
5. Language and communication
6. Visual-spatial cognition and visual-motor praxis
7. Motor and sensory function
8. Mood, conduct, personality, quality of life
9. Adaptive behavior (activities of daily living)
10. Social-emotional awareness and responsivity
11. Psychopathology (e.g., psychotic thinking or somatization)
12. Motivation and effort (e.g., symptom validity testing).

III. Exclusion Criteria

Neuropsychological testing will not be authorized under the following conditions:

- A. The patient is not neurologically and cognitively able to participate in a meaningful way in the testing process.
- B. The test is used solely as a screening tool given to the individual or to general populations.
- C. Administered for educational or vocational purposes that do not establish medical management.
- D. Performed when abnormalities of brain function are not suspected.
- E. Used for self-administered or self-scored inventories, or screening tests of cognitive function (whether paper-and-pencil or computerized), e.g., AIMS or Folstein Mini-Mental Status Examination.
- F. 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).
- G. Administered when the patient has a substance abuse background and any of the following apply:
 - 1) The patient has ongoing substance abuse such that test results would be inaccurate, or
 - 2) The patient is currently intoxicated.
- H. The patient has been diagnosed previously with brain dysfunction such as Alzheimer's disease, and there is no expectation that the testing would impact the patient's medical management.
- I. Unless allowed by the individual's benefit plan, the testing is primarily for the purpose of determining if an individual is a candidate for a medical or surgical procedure.
- J. The testing is primarily for diagnosing attention-deficit hyperactivity disorder (ADHD), unless the diagnostic interview, clinical observations, and results of appropriate behavioral rating scales are inconclusive.
- K. The testing is primarily for legal purposes, including custody evaluations, parenting assessments, or other court or government ordered or requested testing.
- L. The requested tests are experimental, antiquated, or not validated.
- M. The testing request is made prior to the completion of a diagnostic interview by a behavioral health provider, unless pre-approved by Magellan.
- N. More than eight hours per patient per evaluation is considered excessive and supporting documentation in the medical record must be present to justify greater than eight hours per patient per evaluation.
- O. Two or more tests are requested that measure the same functional domain.
- P. The number of hours requested for the administration, scoring, interpretation and reporting exceeds the generally accepted standard for the specific testing instrument(s), unless justified by particular testing circumstances.
- Q. Testing to determine if an individual is a candidate for a specific medication or dosage is an excluded benefit.

IV. Standardized Cognitive Testing

- A. Cognitive testing is considered a type of neuropsychological testing.
- B. Cognitive testing is authorized in compliance with CMS coding rules:
 - 1. Billing is limited to two hours on the same date of service.

Bibliography

1. American Academy of Clinical Neuropsychology (2010). *AACN response to AMA/PCPI Dementia Performance Measurement Set*. Retrieved 7/26/2011.
2. American Academy of Clinical Neuropsychology (2011). AACN letter to the Wisconsin Physicians Service on LCD. Accessed April 24, 2023.
3. American Medical Association (2006). *CPT Assistant*. American Medical Association.
4. American Psychological Association (2010). Ethical Principles of Psychologists and Code of Conduct. Amended August 3, 2016, effective January 1, 2017.
5. Baars, M. A. E., van Bostel, M. P. J., Dijkstra, J. B., Visser, P. J., van den Akker, M. Verhey F. R. J. et al., (2009). Predictive value of mild cognitive impairment for dementia. *Dementia and Geriatric Cognitive Disorders*, 27, 173-181.
6. Beck I, Gagneux-Zurbriggen A, Berres M, Taylor K, Monsch A. Comparison of verbal episodic memory measures: consortium to establish a registry for Alzheimer's disease Neuropsychological Assessment Battery (CERAD-NAB) versus California Verbal Learning Test (CVLT). *Archives Of Clinical Neuropsychology: The Official Journal Of The National Academy Of Neuropsychologists* [serial online]. August 2012;27(5):510-519. Available from: MEDLINE Complete, Ipswich, MA. Accessed January 2, 2015.
7. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Psychological and Neuropsychological Tests (L34520). First Coast Service Options, Inc; Jacksonville, FL. Accessed April 24, 2023.
8. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Psychological and Neuropsychological Tests (L34998). Novitas Solutions, Inc; Mechanicsburg, PA. Accessed April 24, 2023.
9. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Psychological and Neuropsychological Testing (L34646). Wisconsin Physicians Service Insurance Corporation: Madison, WI. April 24, 2023.
10. Cosentino, S., Metcalfe, J., Cary, M., De Leon, J., & Karlawish, J. (2011). Memory awareness influences everyday decision making capacity about medication management in Alzheimer's disease. *International Journal of Alzheimer's Disease*, Article ID 483897, 9 pages.
11. Cummings, J., Jones, R., Wikinson, D. Lopez, O. et al (2010). Effect of donepezil on cognition in Alzheimer's disease: a pooled data analysis. *Journal of Alzheimer's Disease*, 21, 843-851.
12. Farias, S. T., Harrell, E., Neumann, C., & Houtz, A. (2003). The relationship between neuropsychological performance and daily functioning in individuals with Alzheimer's disease: ecological validity of neuropsychological tests. *Archives of Clinical Neuropsychology*, 18, 655-672.

13. Ferman, T. J., Smith, G. E., Boeve, G. F., Graff-Radford, N. R., Lucas, J. A., Knopman, D. S., et al. (2006) Neuropsychological differentiation of dementia with Lewy Bodies from normal aging and Alzheimer's disease. *Clinical Neuropsychologist*, 20, 623-636.
14. Gavett, B. E., Lou, K. R., Daneshvar, D. H., Green, R. C., Jefferson, A. L., & Stern, R. A. (2012). Diagnostic accuracy statistics for seven Neuropsychological Assessment Battery (NAB) test variables in the diagnosis of Alzheimer's disease. *Applied Neuropsychology. Adult*, 19(2), 108-115.
15. Jak, A. J., Bondi, M. W., Delano-Wood, L., Wierenga, C., Corey-Bloom, J., Salmon, D. P., et al. (2009). Quantification of five neuropsychological approaches to defining mild cognitive impairment. *American Journal of Geriatric Psychiatry*, 17, 368-375.
16. Mittelman M.S., Haley, W. E., Clay, O. J., & Roth, D. L. (2006). Improving caregiver well-being delays nursing home placement of patients with Alzheimer's disease. *Neurology*, 67, 1592-1599.
17. *Neuropsychology Model LCD Taskforce*, a national workgroup representing The American Academy of Clinical Neuropsychology (AACN), the American Psychological Association (APA) Division of Clinical Neuropsychology, and the National Academy of Neuropsychology (NAN), 011.
18. U.S. Preventive Services Task Force (2020). Screening for Cognitive Impairment in Older Adults Recommendation Statement. US Preventive Services Task Force recommendation statement. *Journal of the American Medical Association*, 323(8) 757-763.