Clinical Policy: Applied Behavioral Analysis

Reference Number: CP.MP.104 Coding Implications
Last Review Date: 02/19 Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description

Applied Behavioral Analysis (ABA) is the application of behavioral principles to everyday situations, intended to increase or decrease targeted behaviors. ABA has been used to improve areas such as language, self-help, and play skills, as well as decrease behaviors such as aggression, self-stimulatory behaviors, and self-injury. For those with autism spectrum disorder (ASD), treatment may vary in terms of intensity and duration, complexity and treatment goals, and the extent of treatment provided characterized as focused or comprehensive. Focused ABA is direct care provided for a limited number of behavioral targets. It is appropriate for those who need treatment only for a limited number of key functional skills or have such acute problem behavior that its treatment should be the priority. Comprehensive ABA is for treatment of multiple affected developmental domains, such as cognitive, communicative, social, emotional, and adaptive functioning. It ranges from 25 - 40 hours of treatment per week (plus direct and indirect supervision and caregiver training)[16] to increase the potential for behavior improvement. ABA can also be referred to as Lovaas therapy and intensive behavioral intervention (IBI).

Policy/Criteria

I. When ABA is a **covered benefit**, the *initiation of services* is considered **medically necessary** for members meeting all of the following criteria:

A. Diagnosis of ASD has been made by a qualified licensed professional prior to request for services and confirmed by one of the following diagnosis specific tests/screening tools:

1. Checklist for Autism in Toddlers (CHAT);
2. Modified Checklist for Autism in Toddlers/Modified Checklist for Autism in Toddlers, Revised with follow-up (M-CHAT/M-CHAT-R/F);
3. Screening Tool for Autism in Two-Year Olds (STAT);
4. Social Communication Questionnaire (SCQ);
5. Autism Spectrum Screening Questionnaire (ASSQ);
6. Childhood Autism Spectrum Test, formerly known as the Childhood Asperger's Syndrome Test (CAST);
7. Krug Asperger's Disorder Index (KADI);
8. Autism Diagnostic Observation Schedule/Autism Diagnostic Observation Schedule - 2nd edition (ADOS/ADOS-2);
9. Autism Diagnostic Interview Revised (ADI-R);
10. Childhood Autism Rating Scale/ Childhood Autism Rating Scale -2nd edition (CARS/CARS-2);
11. Gilliam Autism Rating Scale (GARS);
12. A valid form of approved evidenced based assessment result/summary.

B. A DSM-IV or DSM-5 diagnosis validates ASD, identifying the justified need for ABA services and falls within one or both of the following categories:

1. Limitations in social interaction and social communication as manifested by any of the following:
   a. Child shows little interest in making friends;
   b. Initiates social interactions primarily to have immediate needs met (e.g., to get food, preferred toy);
   c. Tends not to share accomplishments and experiences;
   d. Lack of eye contact;
   e. Absent or limited and atypical gestures (e.g., using someone's hand as a tool for opening the door);
   f. Loss of language.
2. Restricted interests and repetitive behaviors as manifested by any of the following:
   a. Intensely repetitive motor movements or use of objects;
   b. Consumed with a single item, idea, or person;
   c. Difficulty with changes in environment or transitions from one situation to another;
   d. Frequent tantrums;
   e. Aggressive or self-injurious.

C. The treatment plan is built upon individualized goals and projected time to achieve those goals with measurable objectives tailored to the member. Treatment is either focused or comprehensive based on the following guidelines:
1. Focused ABA treatment meets both of the following:
   a. Identifies hourly breakout for individual and group hours ranging from 10 - 25 hours per week including 1:1 direct and indirect, group, supervision, and caregiver training;
   b. Identifies measureable outcomes for every goal and objective.
2. Comprehensive ABA treatment plan meets all of the following:
   a. Identifies hourly breakout for individual and group hours ranging from 25 - 40 hours per week inclusive of all 1:1 direct and indirect, group, supervision, and caregiver training;
   b. Identifies measureable outcomes for every goal and objective;
   c. Hours of therapy per day are individualized with the goal of increasing or decreasing the intensity of therapy as the member's ability to tolerate and participate permits.

D. The plan of care includes an initial discharge plan outlining desired outcomes for treatment goals;

E. Roles and responsibilities of all providers, as well as effective dates for behavioral targets that must be achieved prior to the next phase of care, should be specified and coordinated with all providers, the member, and family members;

F. Parent or caregiver training and support is incorporated into the treatment plan;

G. Interventions are consistent with ABA techniques.

II. The *continuation of ABA services* is considered **medically necessary** when all of the following criteria are met:

A. The member continues to meet criteria for ASD diagnosis;

B. There is reasonable expectation that the member will benefit from the continuation of ABA therapy, as evidenced by mastery of skills defined in initial plan, or a change of treatment approach from the initial plan;
C. Interventions are consistent with ABA techniques;
D. The treatment plan documents progress toward goals and is submitted for review every 3 - 6 months, or as state-mandated;
E. The number of service hours necessary to effectively address the challenging behaviors is listed in the treatment plan and considers the member's age, school attendance requirements, and other daily activities when determining the number of hours of medically necessary direct service, group and supervision hours;
F. Roles and responsibilities of all providers, as well as effective dates for behavioral targets that must be achieved prior to the next phase, should be specified and coordinated with all providers, member, and family members;
G. Treatment hours are subsequently increased or decreased based on response to treatment and current needs;
H. Treatment is not making the symptoms worse;
I. There is a reasonable expectation, based on the member's clinical history, that withdrawal of treatment will result in decompensation/loss of progress made, or recurrence of signs and symptoms.

Background

A number of scientific studies have been conducted evaluating the effectiveness of ABA. The original and long-term follow-up study conducted by O. Ivar Lovaas included 38 children who were non-randomly assigned to ABA therapy or minimal therapy. Outcomes were compared to data from 21 children in another facility that had similar characteristics. Lovaas reported improvements in cognitive function and behavior that were sustained for at least 5 years. Almost half of the ABA group passed normal first grade and had an IQ score that was at least average. The flaws in this study included: small sample size, non-randomization of patients to treatment groups, potential selection bias, and endpoints that may not meet current standards (Hayes Medical Directory). More recent studies have reported effectiveness in some autistic children, especially in relatively high-functioning children, but none have replicated the results from the Lovaas study.

Multiple systematic reviews with meta-analyses have been conducted on ABA studies for ASD, with conflicting results. Ospina and colleagues (2008) systematically reviewed studies comparing behavioral and developmental interventions for ASD. The four randomized control trials (RCTs) reviewed that compared ABA to Developmental Individual-difference relationship-based intervention (DIR) or Integrative/Discrete trial combined with Treatment and Education of Autistic and related Communication Handicapped Children (TEACCH) found no significant difference in outcomes (Ospina et al., p. 4). Seven out of eight studies that reported significant improvements were not RCTs and have significant methodological limitations (Ospina et al., 2008, p. 5). Results from a meta-analysis of controlled clinical trials demonstrated that Lovaas is superior to special education for a variety of outcomes; however, there is no definitive evidence suggesting superiority of Lovaas over other active interventions (Ospina et al. 2008, p. 26). Additionally, five other systematic reviews found that ABA was an effective intervention for ASD, but still noted the substantial limitations of included studies, which could affect meta-

analysis results and the expected efficacy of ABA (Eldevik 2009; Reichow 2009; Makrygianni 2010; Virues-Ortega 2010; Warren et al. 2011).

Furthermore, Reichow and others (2014) conducted a systematic review of the RCTs, quasi-RCTs, and controlled clinical trials in the ABA literature, commenting that these were not of optimal design. Reichow and others (2014) concluded that the evidence suggests ABA can lead to improvements in IQ, adaptive behavior, socialization, communication and daily living skills. However, they strongly caution that given the limited amount of reliable evidence, decisions about using ABA as an intervention for ASD should be made on a case by case basis (Reichow et al. 2014, p. 33). In contrast, Spreckley and Boyd (2009) state in their systematic review that children receiving high intensity ABA did not show significant improvement in cognitive functioning (IQ), receptive and expressive language, and adaptive behavior compared to lesser interventions including parenting training, parent- applied behavior intervention supervised weekly by a therapist, or interventions in the kindergarten.

Further research needs to be done to determine the effectiveness of ABA at improving IQ, language skills, social skills, and adaptive behaviors, especially compared to other interventions. In addition, rigorous studies should examine which subgroups of children or adolescents with ASD benefit the most from ABA.

Coding Implications

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CPT®* Codes	Description
97151	Behavior identification assessment, administered by a physician or other qualified health care professional, each 15 minutes of the physician's or other qualified health care professional's time face-to-face with patient and/or guardian(s)/caregiver(s) administering assessments and discussing findings and recommendations, and non-face-to-face analyzing past data, scoring/ interpreting the assessment, and preparing the report/treatment plan
97152	Behavior identification-supporting assessment, administered by one technician under the direction of a physician or other qualified health care professional, face-to-face with the patient, each 15 minutes
97153	Adaptive behavior treatment by protocol, administered by technician under the direction of a physician or other qualified health care professional, face-to-face with one patient, each 15 minutes

CPT®* Codes	Description
97154	Group adaptive behavior treatment by protocol, administered by technician under the direction of a physician or other qualified health care professional, face-to-face with two or more patients, each 15 minutes
97155	Adaptive behavior treatment with protocol modification, administered by physician or other qualified health care professional, which may include simultaneous direction of technician, face-to-face with one patient, each 15 minutes
97156	Family adaptive behavior treatment guidance, administered by physician or other qualified health care professional (with or without the patient present), face-to-face with guardian(s)/caregiver(s), each 15 minutes
97157	Multiple-family group adaptive behavior treatment guidance, administered by physician or other qualified health care professional (without the patient present), face-to-face with multiple sets of guardians/caregivers, each 15 minutes
97158	Group adaptive behavior treatment with protocol modification, administered by physician or other qualified health care professional, face-to-face with multiple patients, each 15 minutes
0362T	Behavior identification supporting assessment, each 15 minutes of technicians' time face-to-face with a patient, requiring the following components: administration by the physician or other qualified health care professional who is on site; with the assistance of two or more technicians; for a patient who exhibits destructive behavior; completion in an environment that is customized to the patient's behavior.
0373T	Adaptive behavior treatment with protocol modification, each 15 minutes of technicians' time face-to-face with a patient, requiring the following components: administration by the physician or other qualified health care professional who is on site; with the assistance of two or more technicians; for a patient who exhibits destructive behavior; completion in an environment that is customized to the patient's behavior

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
F84.0	Autistic disorder
F84.2	Rett's syndrome
F84.3	Other childhood disintegrative disorder
F84.5	Asperger's syndrome
F84.8	Other pervasive developmental disorders
F84.9	Pervasive developmental disorder, unspecified

Reviews, Revisions, and Approvals	Date	Approval Date
Initial approval		08/09

Reviews, Revisions, and Approvals	Date	Approval Date
Updated policy to "Applied Behavioral Analysis" and description Split criteria into initial and continuation and removed authorization protocols Combined diagnostic specific screening tools into one section and removed Confirmation of diagnosis by specialist type in II.B Add DSM-5 to list in II.D Added length of failure for less intensive treatments Changed treatment provided by requirements to a credentialed provider In continuation criteria, added reasonable expectations of therapy points	12/14	01/15
Updated template Updated background with recent studies Changed policy reference number from CP.BH.02 to CP.MP.103 Specialist reviewed	01/16	01/16
Reviewed and updated references. Added ICD-10 codes.	12/16	01/17
Added language to further define ABA therapy to the section- Description. Revised I. C.2 to state that lead poisoning rather than heavy metal poisoning has been ruled out per American Academy of Neurology recommendation.	01/18	01/18
Specified which DSM-IV and DSM-5 diagnoses apply, and broke these into separate criteria points. Added pediatric psychiatrist, neurologist, or developmental pediatrician as clinicians that can validate the ASD diagnosis.	05/18	05/18
Updated description to include definition of focused and comprehensive ABA treatment. Moved providers qualified to make diagnosis of ASD to I. A. and added PCP to this group. Added updated versions of various screening/diagnostic tests noted in in I.B and #12, " A valid form of approved evidenced based assessment result/summary" per recommendation of specialist. Removed requirement that neurological disorder, lead poisonings and primary speech or hearing disorder has been ruled out as this is implied. Added I.C., description of categories that justify ABA treatment; Added I.D treatment plan criteria for focused and comprehensive ABA. Under continuation of services, section II, removed requirement that treatment plan be reviewed on a monthly basis, revised review from 12 to 6 months in D & E. Added additional criteria I.F-H. Removed statement that an appropriate diagnostician has ruled out intellectual disability or global developmental delay as a sole explanation for symptoms of ASD as this implied in I.A. References reviewed and updated. Specialist reviewed.	01/19	02/19
Removed examples of physician types under I.A and added "qualified licensed professional". Removed four year old requirement from I.A.4. Removed section specifying which individual therapies ABA is not for the sole purpose of providing in I.H.	03/19	

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Important reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

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Note: For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.