



Kaiser Foundation Health Plan of Washington

**Clinical Review Criteria
Applied Behavioral Analysis Therapy (ABA)**

- [Early Intensive Behavior Interventions \(EIBI\) for Young Children with Autism](#)

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**Criteria
For Medicare Members**

Source	Policy
CMS Coverage Manuals	Medicare Benefit Policy Manual, Chapter 12 - Comprehensive Outpatient Rehabilitation Facility (CORF) Coverage
National Coverage Determinations (NCD)	None
Local Coverage Determinations (LCD)	None
Local Coverage Article	None

Non-Medicare Members

- **For plans where the contract includes coverage for ABA therapy,** [click here to view the criteria](#)
- **For those with a Microsoft contract,** [click here to view the criteria.](#)
- **For plans without a benefit,** the service is not covered at this time.

The following information was used in the development of this document and is provided as background only. It is provided for historical purposes and does not necessarily reflect the most current published literature. When significant new articles are published that impact treatment option, KPWA will review as needed. This information is not to be used as coverage criteria. Please only refer to the criteria listed above for coverage determinations.

Background

Autism is a neurodevelopmental disorder in the category of pervasive developmental disorders (PDD), which is a group of conditions that also include Rhetts disorder, childhood disintegrative disorder, Asperger's disorder, and pervasive developmental disorder not otherwise specified (PDD NOS). Autism is characterized by a triad of deficits involving impaired language development, reciprocal social interaction, and stereotyped repetitive patterns of behaviors and interests. The prevalence estimates released by the CDC based on 2002 data show that approximately one in fifty children in the US is autistic. These estimates indicate a dramatic increase in the recent years, which may be due to an actual increase in the occurrence of the disorder as well as the increased awareness of the disorder among the clinicians. There are no definitive medical tests to indicate the presence of any form of autism spectrum disorders (ASD). Diagnostic assessment includes use of ICD and DSM-IV diagnostic criteria and standardized methods to assess core and co-morbid conditions. Parents usually become aware of developmental problems in their child starting around the age of 18 months, but diagnosis is often not made until 2 years after the expression of parents' concerns. It may sometimes be delayed until close to the age of six (Ospina 2008, Granpeesheh 2009, Levy 2009, Spreckley 2009).

Autism is a lifelong condition with variable clinical course throughout childhood and adolescence. Many adults with autism may still require full-time care. While there is no known cure, the general agreement is that early diagnosis followed by appropriate treatment may improve outcomes in later years for most individuals. Over the past twenty years, a variety of therapies have been proposed to improve the symptoms associated with ASD, many of which

have not been validated scientifically. These include pharmacological therapies, complementary therapies as diet modifications and vitamin therapy, speech and language therapy, and psychosocial treatments.

The well-researched treatment programs are based on the principles of applied behavioral analysis (ABA), sometimes called behavioral therapy or behavioral modification. The approach has been outlined by Lovaas and colleagues in the 1980s and, as originally described, involves teaching appropriate behaviors by breaking tasks down into small discrete steps and training in a systematic and precise way called discrete trial training. It is delivered on a 1:1 basis, for 40 hours a week over a three-year period.

The approach of ABA is based on the concept that children with ASD have significant difficulties with learning, being unable to learn through imitation, and listening as normal children do. Its overall goal is to motivate the child to want to be successful. ABA is founded on behavioral principles of learning and motivation, consisting of reinforcement, extinction, stimulus control, and generalization. The basic learning principle at the core of ABA is the idea that the consequences of a behavior can either strengthen or weaken it; behavior that is followed by the presentation of desirable consequences will be strengthened (reinforcement), whereas behavior that is followed by aversive consequences or the removal of desirable consequences will be weakened.

A defining feature of ABA programs is that they are applied consistently. This is accomplished by the use of explicitly written programs for each skill to be taught or maladaptive behavior to be treated, and by having the behavioral analyst train everyone who works with the child to implement it. To increase the likelihood of the generalization of the treatment efforts, it is critical for the therapists and parents to be trained to implement the programs across situations, settings, and people. Typically, teaching trials are repeated until they are mastered. Maladaptive behaviors such as aggression and self-injury are not reinforced, whereas specific, appropriate alternative behaviors are either taught or maintained through positive reinforcement. Each child's program is unique to his/her needs that evolve with the child's progress. Accurate records are kept so that progress can be assessed and programmatic changes made (Spreckley 2009, Granpeesheh 2009).

Treatment based on ABA represents a wide range of early intervention strategies for children with autism. As indicated earlier, the first types of behavioral treatment programs developed, the discrete trial training, were very intensive and structured. Investigators found that children may have difficulty generalizing the information from these very structured sessions to group and community settings. One comprehensive intervention program reviewed by the National Research Council (NRC) was early intensive behavioral intervention (EIBI) based on the UCLA Young Autism Project Model. This is an intensive home-based program using the manual published by Lovaas, and involves up to 40 hours of therapy per week for at least 2 years. Other EIBI programs were developed by other researchers (Howlin 2009, Reichow 2009).

Less structured more naturalistic behavior programs e.g. incidental teaching and pivot response training (PRT) have been developed but were not researched in a randomized controlled fashion. Currently, even structured sessions include naturalistic methods for increasing generalization and maintenance. Parent mediated interventions have been reported to be an important aspect of intervention. Overall, structured programs share a common core of set features including: 1. starting the intervention at the earliest possible age (3-4 years), 2. Intervention is intensive (20-40 hours per week), 3. Intervention is individualized, comprehensive, and targeting a wide range of skills, 4. Multiple behavior analytic procedures are used to develop adaptive repertoires, 5. Treatment is delivered in one-to-one format with gradual transition to group activities and natural contexts, 6. Treatment goals are guided by normal developmental sequence, and 7. Parents are, to different extents, trained and become active co-therapists (Levy 2009, Virues-Ortega 2010).

Authorization Process: Requests for ABA services need to be reviewed to determine whether they meet Clinical Review Criteria. Preauthorization is needed for ABA treatment. Also ABA treatment can only be delivered by providers who are contracted with Kaiser Permanente and meet Kaiser Permanente Credentialing Criteria. The authorization process is as follows:

- There is an initial review of a referral to determine whether an enrollee meets eligibility criteria for ABA services (i.e. diagnosis, coverage, presence of autistic behaviors that are having clinically significant impact on functioning, in home, school, and and/or community).
- If enrollee meets criteria for ABA services, then initial authorization is for development of an individualized treatment plan (ITP).
- Once the ITP is completed, it is reviewed and if it meets Kaiser Permanente Clinical Review Criteria, authorization is typically given for six months of ABA therapy.

- After six months, a progress report needs to be submitted to determine whether enrollee continues to meet criteria for ABA therapy and if so, an additional six months of ABA therapy is authorized.
- Initial Treatment and Progress Plans should be sent to: Review Services, FAX: 1-800-377-8853
- Kaiser Permanente criteria for ABA therapy, copies of Kaiser Permanente ITP and progress reports are available using information in above criteria links

Completing the ITP:

1. The ITP must be based on a diagnostic assessment within no more than 12 months of initiating treatment.

A diagnostic assessment is a child's performance on standardized developmental assessment, checklists or rating scales. Examples of assessments are as follows:

- a) Self – Help Skills: Vineland Adaptive Behavior Scales
- b) Communication Skills: Preschool Language Scale-5 (PLS-5), Clinical Evaluation of Language Fundamentals-5 (CELF-5)
- c) Social Skills: Social Skills Rating Scales (SSRS), Assessment of Basic Language and Learning Skills (ABBLs), Achenbach System of Empirically Based Assessment (ASEBA)
- d) Behavior Rating Scales: ASEBA, Behavior Assessment System for Children Second Edition (BASC-2)

It is recommended that the goals in the ITP be based upon where there is the most significant developmental and/or standardized gap in the diagnostic assessment.

The ITP should address autistic symptoms in one or more of the following areas:

- a) Communication
- b) Social interaction
- c) Behavior (to include restricted, repetitive, and/or stereotypical patterns of behavior, interests, and/or activities)

When the member contract includes coverage of ABA services it is for behaviors and/or symptoms related to the core symptoms of Autism as noted above.

ABA treatment is not covered for symptoms and/or behaviors that are not part of core symptoms of autism (i.e. impulsivity due to ADHD, reading difficulty due to learning disability, excessive worry due to anxiety disorder)

If academic or adaptive deficits are included in the ITP, then the focus should be on addressing autistic symptoms that are the impeding success in home environment (i.e. reduce frequency of self-stimulatory behavior to allow child to be able to complete mathematics sorting task and/or following through on toilet training instruction) rather than the academic and/or adaptive skill targets (i.e. child will read paragraph level information at grade level or be able to dress self independently),

- a) Objective, baseline measurement levels for each target behavior/symptoms in terms of frequency, intensity and duration, including use of standardized autism measures; and
- b) A comprehensive description of treatment interventions and techniques specific to each of the targeted behaviors/symptoms, including documentation of the number of service hours, in terms of frequency and duration for each intervention; and
- c) Establishment of treatment goals and objective measures of progress for each intervention specified;

Functional, objective and measurable goals should be established. As noted above each goal should include baseline performance, desired performance (imitate, label, list); quality of performance (with assistance, independently); criteria for meeting objective (frequency, duration, accuracy, speed, and intensity) and conditions of performance (location, prompts, audience). Again, goals should be related to areas of deficit/delay identified in developmental assessment. Kaiser Permanente will include coverage assessment of baseline performance in targeted goals when the contract includes coverage of ABA therapy. Target for goals should be what child is expected to achieve within six months.

EXAMPLE

Target Behavior: Improve receptive language as noted by standard score of 75 which is greater than 1.5 standard deviations from mean on receptive factor of preschool language scale. Child's performance indicates they are unable to follow 2-step directions.

Baseline: 20% accuracy following 2-step directions

Goal: In order to improve receptive language skills due to a diagnosis of autism spectrum disorder, patient will follow simple 2-step directions when provided with gesture cues across 80% of opportunities when presented with age appropriate instructional material across 3 treatment sessions.

- a) Strategies for generalized learning skills; and
- b) A description of parental education, goals, training, and support services;

Strategies for generalization of learning skills (for example having child respond to 2-step direction given by parents) should also have specific measurable goals and objectives.

Parent education should include the following:

- a) Role of parent for each target established in the ITP
- b) How the parent will integrate goals to promote generalization in home and other environments.
- c) Parent training goals need to be functional, objective, measurable and specific.

EXAMPLE

Target Behavior: Improve receptive language

Parent Goal: In order to promote generalization of receptive language skills, parents will provide simple 2-step directions, with gesture cue during structured homework activities.

Target: Patient is able to follow 2-step directions with gesture cue with 80% accuracy across one week.

- a) Strategies for coordinating treatment with school-based special education programs and other treatment programs

Targets should be developed in coordination with other services (SLP, BHS, IEP team). There should be awareness of what specific goals is being worked by Speech and Language Pathologist and the school (i.e. IEP) with treatment goals identified that can help facilitate generalization of skills learned in school based and/or therapy services to the home environment. While Kaiser Permanente only covers ABA services that are provided in the home or clinic, Kaiser Permanente will cover:

- a) Time needed to review IEP and/or other specialty service goals to incorporate these goals into the ITP and/or
- b) Meeting with school and/or other treatment providers to both coordinate care and to facilitate incorporation of school and/or treatment provider goals into the ITP.
- c) Measurable discharge criteria and a discharge plan.

As part of the ITP, there should be description of what needs to occur in order for the individual to be able to be discharged from ABA treatment. Typically individuals no longer need ABA services if a) their behaviors and/or symptoms do not prevent them from adequately participating in home, school, or community activities and/or no longer present a safety risk to self or others b) their behaviors and/or symptoms can be adequately addressed through alternative methods (i.e. school, developmental disability services, parent training) or c) functional and measurable progress toward treatment goals is not occurring and there is no reasonable expectation of further progress, then continued ABA services are not considered medically necessary.

For continued ABA coverage, at least every six months, providers need to submit a progress report that documents the following:

- Progress towards goals identified in the ITP.
- A description of parent/caregiver goals and participation in implementing the ITP.
- If the member has reached the previously defined goals, the re-evaluation should identify new goals toward progress or transition the member to less intensive interventions.
- If the member has not achieved the defined goals, there should be a re-evaluation that identifies the reasons for not meeting the goals and a revised ITP that addresses revised interventions to help the member meet defined goals.
- If functional and measurable progress toward treatment goals is not occurring and there is no reasonable expectation of further progress, then continued ABA services are not considered medically necessary.

As previously noted, it is expected that goals identified on the ITP should be achieved within six months. It is recognized that there needs to be some experience in working with a child to determine rate of progress and thus there will be some children where a number of goals identified in the ITP are not met after six months. If the goals are not met, it is important to develop a functional analysis to determine the reason for lack of progress (i.e. child continuing to have difficulty maintaining eye contact, child continues to engage in self-stimulatory behaviors

that prevent follow through with discrete learning) as well as then how intervention will be modified to address lack of progress.

If a child is unable to demonstrate progress towards meeting majority of goals after two six month periods of ABA treatment, then consideration will be made as to whether there is a reasonable expectation that child is capable of making progress with ABA therapy. If so, then enrollee no longer meets criteria for continued ABA therapy.

Medical Technology Assessment Committee (MTAC)

ABA Therapy

04/19/2010: MTAC REVIEW

Evidence Conclusion: There is lack of published well-conducted randomized controlled trials on behavioral interventions for young children with autism. The published trials had their limitations; they had small sample sizes, the majority were not randomized, the participants were frequently diagnosed without using standardized tools, the studies examined different treatments, with different delivery approaches and intensities, over different time spans (ranging from 12 weeks to 2 years), and had different measurement approaches for assessing outcomes. IQ was a major outcome for the majority of studies, and it might not be possible to determine whether an improved IQ results from true improvement of cognitive skills, or better test taking ability. In addition, IQ is not necessarily the main problem in autistic functioning. Autism treatment needs to address every developmental area, all areas of adaptive behavior, and then a whole set of aberrant behavioral responses, involving both positive and negative symptoms (Rogers 2008). A number of systematic reviews and meta-analyses of the published studies were conducted by several authors. The methodology of the analyses were valid in general, however even a well conducted meta-analysis is only as good as the studies it includes. The studies on intensive behavioral intervention, as indicated earlier, had their limitations and biases and varied widely in the treatments intensity, duration, mode of delivery, and outcome measures; all of which limits generalization of the pooled results. The meta-analyses either pooled the results of controlled studies only or all studies with or without comparison groups. Their results were conflicting, while, Virues-Ortega (2010), Eldevik (2009), Reichow (2009), Howlin (2009) and others show that that ABA /EIBI interventions were associated with improved outcome (primarily measured by IQ) among some children with autism, Ospina (2008) and Spreckley et al (2009) showed no statistically significant additional benefit of APA/EIBI intervention vs. other interventions applied to young children with ASD. Dawson and colleagues' study (2010), a more recently published randomized controlled trial with valid methodology, can be considered the most rigorous RCT on comprehensive development behavioral intervention. The authors randomized 48 young children to receive Early Start Denver Model (ESDM), a comprehensive behavioral intervention, or to be referred to community providers for intervention commonly available in the community. They were followed up for 2 years and the primary outcome was change in Mullen Scales of Early learning (MSEL) and the Vineland Adaptive Behavior Scales (VABS) composite standard scores. The results of the trial suggest that very young children with autistic disorders may achieve higher cognitive and adaptive scores and improvement in diagnosis after a 2-year comprehensive intervention strategy that includes parental involvement. The study however does not allow determining if the benefits gained would be sustained over time. Conclusions: There is insufficient evidence from well-conducted large randomized comparative trials with long term follow-up to determine which comprehensive treatment approach is best for young children with autism, and in particular the most effective treatment for teaching specific skills given certain profiles and characteristics of the child.

Articles: The literature search revealed around 100 articles on ABA/ EIBI for young children with autism. The majority were reviews or articles not related to the current review. There were at least 6 systematic reviews with or without meta-analyses on ABA /EIBI intervention for young children with autism. A small more recent RCT (N=48) on the Early Start Denver Model for toddlers with autism was identified. The search also revealed a systematic review by Clinical Evidence on all interventions for autism including early multidisciplinary interventions based on APA and including home-based, school based, community based or multisite interventions. Three of the meta-analyses on ABA/EIBI for young children were selected for critical appraisal as well as the recently published randomized trial. Dawson G, Rogers S, Munson J, et al. Randomized controlled trial of an intervention for toddlers with autism: The Early Start Denver Model, *Pediatrics* 2010;125:1:e17-e23 See [Evidence Table](#) Eldevik S, Hastings RP, Hughes JC, et al. Meta-analysis of early intensive behavioral intervention for children with autism *J Clin Child Adolesc Psych* 2008;38:439-450 See [Evidence Table](#) Spreckley M, Boyd R. Efficacy of applied behavioral intervention in preschool children with autism for improving cognitive, language, and adaptive behavior: A systematic review and meta-analysis. *J Pediatr* 2009;154:338-344. See [Evidence Table](#) Virues-Ortega J. Applied behavioral analytic intervention for autism in early childhood: Meta-analysis, meta-regression and dose-response meta-analysis of multiple outcomes. *Clinical Psychology Review*. 2010 , doi:10.1016/j.cpr.2010.01.008 See [Evidence Table](#)

The use of applied behavioral analysis therapy (ABA), early intensive behavior interventions (EIBI) for the treatment of young children with autism does not meet the *Kaiser Permanente Medical Technology Assessment Criteria*.

Creation Date	Review Date	Date Last Revised
05/07/2010	05/04/2010 ^{MDCRPC} , 05/03/2011 ^{MDCRPC} , 04/03/2012 ^{MDCRPC} , 12/04/2012 ^{MDCRPC} , 10/03/2013 ^{MPC} , 12/03/2013 ^{MPC} , 08/05/2014 ^{MPC} , 11/04/2014 ^{MPC} , 04/07/2015 ^{MPC} , 02/02/2016 ^{MPC} , 12/06/2016 ^{MPC} , 10/03/2017 ^{MPC} , 08/07/2018 ^{MPC}	01/09/2018

^{MDCRPC} Medical Director Clinical Review and Policy Committee

^{MPC} Medical Policy Committee

Revision History	Description
02/07/2017	Revised ABA criteria for commercial members
12/05/2017	MPC approved to delete indication related to school coverage for ABA Therapy (commercial members, except MS)
01/09/2018	MPC approved to modify criteria to remove any language regarding school practices
11/1/2018	Removed the H codes and added the ABA Reimbursable Services

Codes

ABA Reimbursable Services	
2019 Category I/III CPT® Codes	Description
0362T	Behavior identification supporting assessment, face-to-face with patient, requiring the following: (1) administration by physician or other qualified healthcare professional who is on site, (2) assistance of two or more technicians, (3) for a patient who exhibits destructive behavior, and (4) completed in an environment customized to the patient's behavior.
0373T	Adaptive behavior treatment with protocol modification requiring the following: (1) administered by physician or other qualified healthcare professional who is on site, (2) assistance of two or more technicians, (3) for a patient who exhibits destructive behavior, and (4) completed in an environment customized to the patient's behavior.
97151	Behavior identification assessment, administered by a physician or other QHCP, each 15 minutes of the physician's or other QHCP 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 direction of a physician or other qualified healthcare professional, face-to-face with one patient.

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
H2017	Face to Face supervision of unlicensed professional by qualified health professional when patient is not present. Maximum of two hours of weekly supervision for every 10 hours of weekly ABA therapy services by unlicensed professional.
97153 (with HO modifier)	Adaptive behavior treatment by protocol, administered by physician or other qualified health professional, face-to-face with one patient.