Applied Behavior Analysis for the Treatment of Autism

Original Effective  
Date: December 2016  
Reviewed: December 2016  
Revised: August 2017

This policy applies to all products unless specific contract limitations, exclusions or exceptions apply. Please refer to the member’s benefit certificate language for benefit availability. Managed care guidelines related to referral authorization, precertification of inpatient hospitalization, home health, home infusion and hospice services apply.

Description

Applicability: Federal Employee Program (FEP)

Note: The member’s benefit plan determines coverage, applied behavior analysis therapy for all other indications except for the treatment of autism will be considered a non-covered benefit.

Providers will need to complete the following forms for prior approval requests:

The Prior Approval Form will need to be completed for all prior approval requests for ABA therapy for initial and ongoing therapy services.

Prior Approval Form: This form is to be used for submitting all prior approval requests for ABA therapy services. Contracting providers may use the online Utilization Management Tool for submitting a prior approval request.

After initial assessment and development of individualized treatment plan is completed, the following forms will need to be completed for all prior approval requests to determine medical necessity for ongoing ABA therapy services.

- ABA Therapy Individualized Treatment Plan Document
- ABA Therapy Progress Report Document
**Autism Spectrum Disorder**

The diagnosis of autism spectrum disorder has been validated by a documented comprehensive assessment demonstrating the presence of the following diagnostic criteria for autism spectrum disorder (ASD) based on The Diagnostic and Statistical Manual of Mental Disorders (DSM-5):

A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive):

1. Deficits in social-emotional reciprocity, ranging, for example from abnormal social approach and failure of normal back-and-forth conversation; to reduce sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.
2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.
3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers

**Specify Current Severity**: Severity is based on social communication impairments and restricted, repetitive patterns of behavior. (See below)

B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by a least two of the following, currently or by history (examples are illustrative, not exhaustive):

1. Stereotyped or repetitive motor movements, use of objects or speech (e.g., simple motor stereotypes, lining up toys or flipping objects, echolalia, idiosyncratic phrases).
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day).
3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
4. Hyper or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).
Specify current severity: Severity is based on social communication impairments and restricted, repetitive patterns of behavior. (See below)

C. Symptoms must be present in the early development period (but may not become fully manifested until social demands exceed limited capacities, or may be masked by learned strategies in later life).
D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning
E. These disturbances are not better explained by intellectual disability (intellectual development disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.

Severity Levels for Autism Spectrum Disorder

<table>
<thead>
<tr>
<th>Severity Level</th>
<th>Social Communication</th>
<th>Restricted, Repetitive Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 3 – Requiring very substantial support</strong></td>
<td>Severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning, very limited initiation of social interactions, and minimal response to social overtures from others. For example, a person with few words of intelligible speech who rarely initiates interaction and, when he or she does, makes unusual approaches to meet needs only and responds to only very direct social approaches.</td>
<td>Inflexibility of behavior, extreme difficulty coping with change, or other restricted/repetitive behaviors markedly interfere with functioning in all spheres. Great distress/difficulty in changing focus or action.</td>
</tr>
<tr>
<td><strong>Level 2 – Requiring substantial support</strong></td>
<td>Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions; and reduced or abnormal responses to social overtures from others. For example, a person who speaks simple sentences, whose interaction is limited to narrow special interests, and who has markedly odd nonverbal communication.</td>
<td>Inflexibility of behavior, difficulty coping with change, or other restricted/repetitive behaviors appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. Distress and/or difficulty changing focus or action.</td>
</tr>
<tr>
<td><strong>Level 1 – Requiring support</strong></td>
<td>Without supports in place, deficits in social communication cause noticeable impairments. Difficulty initiating social interactions, and clear examples of atypical or unsuccessful responses to</td>
<td>Inflexibility of behavior causes significant interference with functioning in or more contexts. Difficulty switching between</td>
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</tbody>
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<td>social overtures of others. May appear to have decreased interest in social interactions. For example, a person who is able to speak in full sentences and engages in communication but whose to-and-fro conversation with others fails, and whose attempts to make friends are odd and typically unsuccessful.</td>
<td>activities. Problems of organization and planning hamper independence.</td>
</tr>
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</table>

Applied Behavior Analysis (ABA) Strategies

Applied Behavior Analysis (ABA), is a behavioral therapy intervention founded by Ivar Lovaas and colleagues in the 1960’s and uses various strategies to address behavioral problems prevalent in individuals with autism spectrum disorders (ASD). The Lovaas model of ABA suggests that treatment should begin by the age of three years old, the treatment may be intensive, and must involve the ABA techniques aimed to develop social and communications skills which should be provided in a 1:1 treatment format.

- Discrete Trial Teaching is a method of teaching in simplified and structured steps. Instead of teaching an entire skill in one go, the skill is broken down and built-up using discrete trials that teach each step one at a time.
- Pivotal Response Training (PRT) targets pivotal areas of a child’s development, such as motivation, responsivity to multiple cues, self-management and social initiations. By targeting these behaviors the results are to improve communication, social and behavioral domains. Motivational procedures including child choice, task variation, interspersing maintenance and acquisition tasks, rewarding attempts and use of direct natural reinforcers that are incorporated to make the intervention more effective and efficient. The goal of PRT is to move the child with ASD towards a more typical developmental trajectory through individualized intervention objective based on the child’s needs.
- Incidental teaching is behaviorally based instruction where the interaction between the adult and child occurs in the context of a natural situation where the child expresses an interest in something and the adult responds with prompts and praise.
- Treatment and Education of Autistic and Communication Handicapped Children (TEACCH) is not a curriculum, but instead is a framework to support achievement of educational and therapeutic goals. “Structured TEACCHing” is an array of teaching or treatment principles and strategies based on the learning characteristics of individuals with ASD, including strengths in visual information processing, and difficulties with social communication, attention, and executive function. The goal of Structured TEACCHing is to promote meaningful engagement in activities, flexibility, independence and self-efficacy (to succeed in specific situations or accomplish a task).
Applied Behavior Analysis

Controlled clinical trials of ABA therapy rarely include children younger than 18 months of age. Without such research, there is insufficient evidence to evaluate the effectiveness of ABA therapy in children younger than age 18 months. Also, there have been few studies conducted to assess treatment approaches for adolescents and young adults (ages 13 to 30) with autism spectrum disorder (ASD), and as such there is very little evidence available for specific treatment approaches in this population. Of the small studies available, most were of poor quality. Behavioral, educational, and adaptive/life skills studies were typically small and short term and suggested some potential improvements in social skills and functional behavior. There is lack of evidence to support the use of medical or allied health interventions in the adolescent and young adult population. The medical studies that have been conducted focused on the use of medications to address specific challenging behaviors, including irritability and aggression, for which effectiveness in this age group is largely unknown and inferred from studies including mostly younger children.

Among the methodologies/strategies available for the management of autism spectrum disorder, applied behavior analysis (ABA) is the most studied treatment modality in the field. It is generally believed that ABA is the process of applying interventions that are based on the principles of learning (e.g. positive reinforcement) derived from research to systematically change behavior. It can also be used to teach new skills and demonstrate that the interventions used are responsible for the observable improvements in behavior. ABA methods are reportedly used to replace maladaptive, interfering behaviors with more desirable, adaptive behaviors and to narrow the conditions under which maladaptive, interfering behaviors occur. In addition, ABA is believed to teach new skills through implicit instruction and repetition, generalize behaviors to new environments or situations, and maintain learned behaviors. For example, clear instruction with assistance (e.g. demonstration, prompting) is given to the individual, and when the individual gives a correct response, the provider gives positive reinforcement.

ABA interventions require a demonstration of the events that are responsible for the occurrence, or non-occurrence of behavior. Applied behavior analysis (ABA) uses methods of analysis that yield convincing, reproducible, and conceptually sensible demonstrations of how to accomplish specific behavior changes. These behaviors are evaluated within relevant settings such as schools, homes and the community programs based upon ABA methodologies. This process includes the following components:

- Selection of interfering behavior or behavioral skill deficit
- Identification of goals and objectives
- Establishment of a method of measuring target behaviors
- Evaluation of the current levels of performance (baseline)
- Design and implementation of the interventions that teach new skills and/or reduce interfering behaviors
- Continuous measurement of target behaviors to determine the effectiveness of the intervention(s)
- Ongoing evaluation of the effectiveness of the intervention, with modifications made as necessary to maintain and/or increase both the effectiveness and the efficiency of the intervention.
Types of applied behavior analysis interventions include but are not limited to the following: Early Start Denver Model (ESDM); Picture Exchange Communication System (PECS); Functional Communication Training and Verbal Behavior; Developmental, Individual Difference, Relationship-based Model (DIR); and Social Communication, Emotional Regulation, & Transactional Support (SCERTS).

Goals of Therapy

Overall goal of treatment is to:

- Maximize functioning
- Move the child toward independence
- Improve the quality of life for the child and family

Specific goals are to:

- Improve social functioning and play skills
- Improve communication skills (both functional and spontaneous)
- Improve adaptive skills
- Decrease nonfunctional or negative behaviors
- Promote academic functioning and cognition

Measuring Behavior

When measuring behavior, there are both dimensions of behavior and quantifiable measures of behavior. In applied behavior analysis, the quantifiable measures are a derivative of the dimensions. These dimensions are repeatability, temporal extent, and temporal locus.

Repeatability: response classes occur repeatedly throughout time i.e. how many times the behavior occurs.

- Count: is the number of occurrences in behavior
- Rate/frequency: is the number of instances of behavior per unit of time
- Celeration: is the measure of how the rate changes over time

Temporal Extent: this dimension indicates that each instance of behavior occupies some amount of time i.e. how long the behavior occurs.

- Duration: is the amount of time in which the behavior occurs

Temporal Locus: each instance of behavior occurs at a specific point in time i.e. when the behavior occurs.

- Response latency: is the measure of elapsed time between the onset of a stimulus and the initiation of the response
- Interresponse time: is the amount of time that occurs between two consecutive instances of a response class.
Individuals with autism spectrum disorder (ASD) have varying degrees of impairment in social and behavior function. Management of ASD is individualized according to age and specific needs. Therefore, each individual requires an individualized treatment plan outlining the services including variations in the duration and intensity including applied behavior analysis.

Components of ABA Therapy include the following:

- An initial assessment through observations that focus on strengths and weaknesses of the individual.
- The individualized treatment plan which include the identification of target behaviors, with individualized treatment goals that are guided by the data from the assessment and are defined in observable terms.
- A written treatment plan or set of instructions for teaching each behavior and/or skill, developed by a professional provider
- A curriculum that focuses on the following:
  - Breaking down skills into manageable pieces
  - Building upon skills so that an individual can learn in a natural environment
  - Teaching the individual to combine skills acquired in more complex ways
- Training for the individual’s parent(s) and/or caregiver(s) to implement the treatment plan consistently both within and outside formal treatment sessions.
- Documented assessments and adjustments to the treatment plan when required. Documentation of the individual’s progress is in measurable outcomes, using direct observational measurement methods. As progress is made, guidance is systematically reduced.
- No reinforcement for problem behaviors

Management of autism spectrum disorder (ASD) requires a multidisciplinary approach which may include the following service providers:

- **Board Certified Behavior Analysts**: Conduct behavioral assessments and provide interpretations of the results of such assessments. They design and supervise behavior analytic interventions to address both the acquisition of skills and the reduction of challenging behaviors. Many board certified behavior analysts also hold licenses or certifications in other disciplines (e.g. psychology).
- **Counseling/Psychological Service Providers**: These individuals may include clinical psychologists, counseling psychologists, marriage and family counselors, social workers, psychiatric nurses or related professionals, as well as certified behavior analysts. They may provide parent training or support, social skills groups, clinical behavior therapy, play therapy. In some cases, the involvement of these providers may be restricted to conducting evaluations and making recommendations.
- **Early Intervention Providers**: Early intervention providers seek to address the needs of children suspected of disabilities from birth to three years of age. In some states, early intervention is defined as birth to five years of age. As is the case with special education services, children in this age group must meet eligibility criteria in order to qualify for services. Priorities in early intervention often include addressing deficits in cognitive, language, motor, social, play and self-care skills, reducing the gap between the child’s skills and those of his/her typically developing agemates, and preparing the child for
public school. Early intervention providers deliver an array of services to both the child and the family and these should be clearly identified on a child’s Individualized Family Services Plan (IFSP).

- **General Education Teachers**: General education teachers work with students in preschool, elementary and secondary schools. They provide services to large groups of students although class sizes range from school to school. Given the federal mandate that children participate to the fullest extent possible in least restrictive settings, children with autism and related disorders have considerable contact with general education teachers. This may involve an all-day placement or parts of the day (selected carefully by the team). A child with autism may participate in general education classroom or classrooms with or without the support of a paraprofessional.

- **Special Education Teachers**: In contrast to general education teachers, special education teachers focus upon meeting the unique educational needs of children with identified disabilities such as autism. They provide an array of services which should be clearly identified on a student’s Individualized Education Plan (IEP). Many special education teachers either work with students with autism in self-contained classrooms or in resource rooms with the distinction related to the amount of time the child spends with the special education teacher. In addition, the special education teacher typically supervises the efforts of paraprofessionals. When a student is determined to be eligible for special education services, the special education teacher often assumes a case management role to help coordinate the services of various providers on the multidisciplinary team.

- **Paraprofessionals**: The goal of paraprofessional teaching staff is to support the efforts of the teachers. Their involvement varies widely with respect to both the amount and nature of contact. For example, paraprofessionals may be involved in one to one teaching, small group instruction, and shadowing and supporting the child with autism in a general education classroom. Given the role they serve and the amount of direct contact that they have with their students, it is imperative that they receive the training, mentorship, and supervision necessary to maximize their skills and competencies.

- **Occupational Therapists (OT)**: Occupational therapists provide training in daily living skills such as dressing and hygiene, as well as fine motor skills related to holding objects, handwriting, cutting and other activities. Their treatments rely on the use of specific tasks or goal-directed activities designed to improve the functional performance of an individual as it relates to the smaller muscle groups. They may also work on sitting, posture, and perceptual skills (i.e. recognizing differences in color, shape and size) and many occupational therapists specialize in feeding and swallowing.

- **Physical Therapists (PT)**: As is the case with occupational therapists, physical therapists are also concerned with improving or restoring physical function; however, they focus upon the larger muscle groups. They also use therapeutic exercises to reduce pain or improve posture, locomotion, strength, endurance, balance, coordination, joint mobility and range of movement and flexibility. Exercises may be active or passive (i.e. performed by the individual or performed on the individual by the therapist or by specialized equipment) and are based upon biomechanical and neurophysiologic principles. Physical therapy does not include adaptive physical education or dance therapy.
• **Speech and Language Pathologists (SLPs):** Speech and language pathologists are involved in the treatment of communication and speech impairments. Treatment areas may include muscle control related to speech production, articulation, prosody, vocabulary development, receptive and expressive language skills, conversation skills, and social pragmatics.

Applied behavior analysis (ABA) therapy is typically provided by a treatment team rather than individual provider. Team is composed of paraprofessionals (registered behavior technician (RBT)), who are primarily responsible for the direct implementation of skill acquisition and behavior reduction plans developed by a board certified BCBA/BCBA-D. They may also collect data and conduct certain types of assessments (e.g. stimulus preference assessments). The board certified behavior analyst professionals (BCBA/BCBA-D), conducts descriptive and systematic behavior assessments, including functional analysis and providers behavior analytic interpretation and results. They also design and supervise behavior analytic interventions by the paraprofessionals and board certified assistant behavior analysts (BCaBA).

**Behavior Analyst Certification Board, Inc**

The Behavior Analyst Certification Board, Inc (BABC) is a nonprofit 501(c)(3) corporation that was established in 1998 to meet professional credentialing needs identified by behavior analysts, governments and consumers of behavior analysis services. The BACB adheres to international standards for boards and grant professional credentials. The BACB certification procedures and content undergo regular psychometric review and validation, pursuant to a job analysis survey of the profession and standards established by content experts in the field.

The Behavior Analyst Certification Board’s credentialing programs are accredited by the National Commission for Certifying Agencies in Washington, DC. NCCA is the accreditation body of the Institute for Credentialing Excellence.

**BACB’s Mission:** Protect consumers of behavior analysis services by systematically establishing, promoting and disseminating professional standards.

**Behavior Analyst Certification Board, Inc Credentials**

**Board Certified Behavior Analyst (BCAB, BCBA-D):**
The BCBA and BCBA-D are independent practitioners who also may work as an employee or independent contractors for an organization.

**BCBA-D** - are board certified behavior analysts who have earned a Doctorate Degree and the BCBA-D certification with all the training and experience requirements set forth by the Behavioral Analyst Certification Board.

**BCBA** – are board certified behavior analysts who have earned a Master’s Degree and the BCBA certification with all the training and experience requirements set forth by the Behavior Analyst Certification Board.
The BCBA or BCBA-D is primarily responsible for the following:

- Conducts descriptive and systematic behavioral assessments, including functional analyses, and provides behavior analytic interpretations of the results.
- Designs and supervises behavior analytic interventions.
- Able to effectively develop and implement appropriate assessment and intervention methods for use in unfamiliar situations and for the range of cases.
- Seeks the consultation of more experienced practitioners when necessary.
- Teaches others to carry out ethical and effective behavior analytic interventions based on published research and designs and delivers instruction in behavior analysis.
- Supervise the work of Board Certified Assistant Behavior Analysts (BCaBA) and others who implement behavior analytic interventions (Registered Behavior Technician (RBT)).

Board Certified Assistant Behavior Analyst (BCaAB)

BCaBA is an undergraduate-level certification in behavior analysis. Professionals who are certified at the BCaBA level may not practice independently, but must be supervised by someone at the BCBA/BCBA-D level. In addition, BCaBAs can supervise the work of Registered Behavior Technicians, and others who implement behavior-analytic interventions.

BCaBA - are board certified assistant behavior analysts who have earned a bachelor’s degree and the BCaBA certification with all the training and experience requirements set forth by the Behavior Analyst Certification Board.

Registered Behavior Technician (RBT):

The Registered Behavior Technician (RBT) is a paraprofessional who practices under the close, ongoing supervision of a BCBA or BCaBA. The RBT is primarily responsible for the direct implementation of behavior analytic services. The RBT does not design intervention or assessment plans. It is the responsibility of the RBT supervisor to determine which tasks an RBT may perform as a function of his or her training, experience and competence. The BACB certificant supervising the RBT is responsible for the work performed by the RBT on the cases they are overseeing.

RBT – must be at least 18 years of age, possess a minimum of a high school diploma or national equivalent, complete 40 hours of training, pass RBT Competency Assessment and pass the RBT exam.
Treatment Plan Requirements
Applied Behavior Analysis (ABA) programs must have an individualized documented treatment plan with clear written descriptions of treatment goals and objectives that includes all of the following:

- Diagnosis of autism spectrum disorder (ASD) consistent with the (DSM-5) criteria above
- Age
- Identification and detailed description of targeted symptoms and behaviors. Targeted symptoms and behaviors must be those which are preventing the individual from adequately participating in age appropriate home, school or community activities, or that are presenting a safety risk to self, others or property. The information should include but is not limited to the following:
  - Communication/language
  - Social/family interactions
  - Behaviors interfere with functioning/relationships
    - Repetitive restricted behaviors
    - Disruptive/Aggressive or self-injurious behaviors;
- Behavioral targets (goals) defined by objective baseline measurements, based upon clinical observation and tailored to the patient;
- Records frequency, rate, symptom intensity or duration or other objective measures of baseline levels;
- Detailed description of treatment modality or modalities and interventions for each targeted symptom and behavior
  - Describe behavioral intervention techniques appropriate to the target behavior, re-enforces selected and strategies for generalization of learned skills to focus on the development of spontaneous social communication, adaptive skills and appropriate behaviors;
- Treatment goals and measures of progress for each targeted symptom and behavior, with established timeframes for achieving the goals;
- If applicable the plan for communication and coordination with other providers and agencies including but not limited to day care, preschool, school, early intervention services provider(s) and/or other allied health services (i.e. occupational therapy, speech therapy, physical therapy and any other applicable providers) and include the following:
  - Types of therapy provided;
  - Number of therapies per week;
  - Behaviors/deficits targeted; and
  - Progress related to treatment/services being provided.

This will reduce the likelihood of unnecessary duplication of services, the delivery of conflicting interventions or instructions, and the provision of more therapy hours than the patient is able to tolerate or benefit from;

- Parent(s) or caregiver(s) (active caretakers or legal guardians) are available and committed to full participation in the program, are engaged in training and will follow through on treatment recommendations beyond that provided by the board certified behavior analyst or professional:
Detailed description of interventions with parent(s) or caregiver(s) including the following:

- Parental or caregiver education
- Training
- Coaching
- Support
- Overall goals for parent(s) or caregiver(s)
- Plan for transferring interventions to the parent(s) or caregiver(s)

- Document the plan for transition through the continuum of care to include interventions, services and settings involving the parent(s) or caregiver(s), school, state disability programs and others as applicable;
- Documents the discharge criteria
  - Measurable criteria for completing treatment, with projected plan for continued care after discharge from ABA
- Total number of days per week and hours per day of direct services to the patient and parent(s) or caregiver(s) to include duration and location of the requested ABA therapy;
- Licensure, certification and credentials of the professionals providing services to the individual through the Applied Behavior Analysis (ABA) Therapy Program.

**Evaluation of Progress**

- Progress is assessed and documented for each targeted symptom and behavior, including progress towards the defined goals, and including the same mode of measurement that were utilized for baseline measurements of specific symptoms and behaviors.
- When goals have been achieved, either new goals should be identified that are based on targeted symptoms and behaviors which are preventing the individual from adequately participating in age-appropriate home, school or community activities, or that are presenting a safety risk to self, others or property; or, the treatment plan should be revised to include a transition to less intensive interventions.
- When there has been inadequate progress re: targeted symptoms and behaviors, or no demonstrable progress within a six month period, or specific goals have not been achieved within the estimated timeframes, there should be an assessment of the reason for inadequate progress or not meeting the goals, and treatment interventions should be modified or changed in order to attempt to achieve adequate progress.
- When there is continued absence of adequate improvement or when progress plateaus, and there is no reasonable expectation of further progress, the treatment plan should be revised to reflect a planned discontinuation of ABA and referral to other resources as appropriate.
Documentation Requirements
The following documentation (not an all inclusive list) may be requested and reviewed in making medical necessity determinations for applied behavior analysis (ABA) therapy:

- Copy of the Applied Behavior Analysis individualized treatment plan.
- Applied behavior analysis therapy progress report that documents the progress of treatment goals for the individual and also progress related to the parent/caregiver goals, to include any progress notes.
- Any documented reports completed for psychological indications and/or other completed testing.
- If applicable copy of the patient’s Individualized Education Program Plan (IEP).
- If applicable progress notes related to Early Intervention Plan or Pre-school/Special Education Program or allied health services.
- Frequency, duration and location of the requested ABA therapy.
- Certification and credentials of the professional(s) providing the ABA therapy.

Practice Guidelines and Position Statements

American Academy of Pediatrics
In 2012 the American Academy of Pediatrics issued the following: Nonmedical Interventions for Children with ASD: Recommended Guidelines and Further Research Needs, which states that the TEP (Technical Expert Panel) consisting of practitioners, researchers, and parents agreed that children with ASD should have access to at least 25 hours per week of comprehensive intervention to address social communication, language, play skills and maladaptive behavior. They agreed that applied behavioral analysis, integrated behavioral/development programs, the Picture Exchange Communication System, and various social skills interventions have shown efficacy. Based on identified gaps, they recommend further research focus on assessment and monitoring of outcomes, addressing the needs of pre/non-verbal children and adolescents, and identifying the most effective strategies, dose and duration to improve specific core deficits.

The creation of treatment guidelines and recommendations for future research represents an effort by leading experts to improve access to services for children with ASDs while acknowledging that research evidence has many gaps.

National Research Council
The National Research Council, one of four agencies that make up the National Academies including the Institute of Medicine, recommends that the educational services begin as soon as a child is suspected of having an ASD. The services should include a minimum of 25 hours a week in which the child is engage in systematically planned, and developmentally appropriate educational activity toward identified objectives.

National Autism Center (NAC)
National Standards Project Phase 1 and Phase 2: Addressing the need for evidence-based practice guidelines for autism spectrum disorder (ASD). Its primary goal is to provide critical information about which interventions have been shown to be effective for individuals with ASD.
The National Standards Project seeks to:

- Provide the strength of evidence supporting educational and behavioral interventions that target the core characteristics of these neurological disorders
- Describe the age, diagnosis, and skills/behaviors targeted for improvement associated with intervention options
- Identify the limitations of the current body of research on autism interventions
- Offer recommendations for engaging in evidence-based practice for ASD

Who benefits from national standards?
We believe that parents, caregivers, educators, and service providers who must make complicated decisions about intervention selection will benefit from national standards.

2009 Phase 1 of the National Standards Project:

- Phase 1 (NSP1) examined and quantified the level of research supporting interventions that target the core characteristics of ASD in children, adolescents, and young adults (under 22 years of age) on the autism spectrum.

2015 Phase 2 of the National Standards Project:

- Phase 2 (NSP2) reviewed studies published between 2007 and February of 2012. As in the first iteration of the National Standards Project, the focus was an evaluation of educational and behavioral intervention literature for individuals with ASD. This review updated our summary of ASD intervention literature for children and youth under age 22. We have updated our original findings, added information, and evaluated whether any of the Emerging interventions in NSP1 had moved into the Established or Unestablished categories of NSP2.
- We also analyzed intervention outcome studies for individuals ages 22 years and older. Because the first phase of NSP focused solely on interventions for individuals under age 22, the NSP literature search for individuals ages 22+ spanned several decades. The earliest intervention outcome study for individuals ages 22+ was published in 1987.

Results from the NSP2 Research Findings
For Children, Adolescents, and Young Adults Under 22 Years of Age:

- There are 14 Established Interventions that have been thoroughly researched and have sufficient evidence for us to confidently state that they are effective.
- There are 18 Emerging Interventions that have some evidence of effectiveness, but not enough for us to be confident they are truly effective.
- There are 13 Unestablished Interventions for which there is no sound evidence of effectiveness.
For Adults Ages 22 and Older:

- There is one Established Intervention that has been thoroughly researched and has sufficient evidence for us to confidently state that it is effective.
- There is one Emerging Intervention that has some evidence of effectiveness, but not enough for us to be confident that it is truly effective.
- There are four Unestablished Interventions for which there is no sound evidence of effectiveness.

Based on the findings and conclusions of the NSP2, Behavioral Interventions is one of the Established Interventions for children, adolescents and young adults under 22 years of age and also for adults 22+ years.

The Behavioral Interventions category is comprised of interventions typically described as antecedent interventions and consequent interventions.

- Antecedent interventions involve the modification of situational events that typically precede the occurrence of target behavior. These alterations are made to increase the likelihood of success or reduce the likelihood of problems occurring.
- Consequent interventions involve making changes to the environment following the occurrence of a targeted behavior. Many of the consequent interventions are designed to reduce problem behavior and teach functional alternative behaviors or skills through the application of basic principles of behavior change.

**Skills Increased**

- Higher cognitive functions
- Motor skills
- Academic, communication, interpersonal, learning readiness, personal responsibility, play and self-regulation

**Behaviors Decreased**

- Sensory or emotional regulation
- Problem behaviors
- Restricted, repetitive, nonfunctional patterns of behavior, interests, or activity

Established Interventions is defined as: Sufficient evidence is available to confidently determine that intervention produces favorable outcomes for individuals on the autism spectrum. That is, these interventions are established as effective.
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Policy

The intent of this medical policy is to address applied behavior analysis (ABA) therapy for the treatment of autism.

Note: The member’s benefit plan determines coverage, applied behavior analysis therapy for all other indications except for the treatment of autism will be considered a non-covered benefit.

Based upon evidenced based literature applied behavior analysis (ABA) therapy is an intensive treatment that is to be rendered face-to-face and on a 1:1 basis with the patient. Therefore, the following will be considered not medically necessary or contract exclusion:

- Group therapy formats (0366T, 0367T, 0371T, 0372T)
- Telemedicine formats

Parent/Caregiver support is expected to be a component of the applied behavior analysis (ABA) therapy program, as they will need to provide additional hours of behavioral interventions. However, parent support groups are considered not medically necessary or contract exclusion.

ABA Therapy Provided Inpatient, Residential or Partial Hospitalization Settings
If ABA therapy is being provided as part of the treatment plan in an inpatient, residential or partial hospitalization setting, medical necessity at that level of care will be inclusive of this therapy, an additional authorization specific to the ABA therapy is not needed.

If prior to discharge from one of these higher levels of care, if ongoing ABA therapy will be part of the patient’s treatment plan a medical necessity review will need to be completed using the guidelines below for outpatient applied behavior analysis therapy.
Outpatient Applied Behavior Analysis Therapy

Coverage for applied behavior analysis may be subject to the following:

- Care management requirements
- Subject to any deductibles, copayments or coinsurance provisions that apply to the medical or surgical services covered under the plan.
- ABA therapy services are subject to prior approval, however, prior approval does not guarantee coverage.

Benefits are not available for the following:

- Therapy duplicates services provided by educational setting and/or is part of scholastic education
- Treatment is not clinically appropriate in terms of type, frequency, extent, site and duration
- Treatment is primarily for the convenience of the patient, physician, or other health care provider (ABA is therapy, not babysitting)
- Member does not have the diagnosis of Autism Spectrum Disorder (ASD)

**Required Elements for ABA Therapy and All of the Following Must be Met:**

- Individual has a diagnosis of autism spectrum disorder (ASD) consistent with the DSM-5 criteria above; **and**
- As determined by validated developmental assessment tools, the individual 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 activities, and the targeted behaviors or skill deficits for ABA meet either of the following:
  - The target behavior or skill deficit is one standard deviation or more below the mean (standard deviation is a set value point away from the mean [average]. Standard deviations are used to determine eligibility for services, standard deviations -1SD or -2SD would be 1 or 2 standards below the mean [average]); or
  - Represents a behavior that poses significant threat of harm to the individual or others; **and**
- Any person who is providing or supervising applied behavior analysis shall:
  - Be licensed as a medical doctor, doctor of osteopathy, or psychologist in the state in which the applied behavior analysis services are being performed; **or**
  - Behavior Analyst Certification Board, Inc (BACB) certified providers (undergraduate-level certification in behavior analysis must be supervised by someone certified at the BCBA/BCBA-D level; may supervise RBT’s, and others who implement behavior-analytic interventions); **and**
- Behavioral health treatment, considered as evidence based interventions that will:
  - Achieve specific improvements in functional capacity of a person; **and**
  - Are provided by a licensed or certified practitioner as required above; **and**
- Treatment, considered as evidence-based care is prescribed or ordered for a person diagnosed with an autism spectrum disorder by a licensed physician or psychologist, including:
  - Behavioral health treatment;
  - Pharmacy care; and
  - Therapeutic care; and
- If applicable the licensed or certified practitioner will coordinate treatment with the day care, preschool, school, early intervention services provider(s) and/or other allied health services (i.e. occupational therapy, speech therapy, physical therapy and any other applicable provider(s)) to reduce the likelihood of unnecessary duplication of services; and
- Parent(s) or caregiver(s) are available and committed to full participation in the program as prescribed, they must be involved and engaged in the training and follow through on treatment recommendations beyond that provided by licensed or certified practitioner(s) required above; and
- After initial completion of the assessment and development of the individualized treatment plan, the ABA therapy individualized treatment plan and progress report documents will be completed, updated and submitted every 6 months for medical necessity review.
  - The individualized treatment plan should be developed by a licensed professional provider e.g. medical doctor (M.D.), doctor of osteopathy (D.O.), or psychologist or by a BCBA or BCBA-D with a masters or doctoral degree certified by the nationally accredited Behavior Analyst Certification Board.

Note: After the initial authorization medical necessity review of the individual’s progress in meeting the objectives of the treatment plan for ongoing ABA therapy services shall be reviewed every six months unless it is determined that an earlier review is required, review requests for the treatment of an individual receiving ABA therapy may be requested no more than once every 3 months.
Medical Necessity Review for Initiation of Applied Behavior Analysis (ABA) Therapy
(Initial Assessment/Planning):

The initial review is to determine whether the individual meets eligibility criteria for the ABA therapy (i.e., diagnosis, presence of autistic behaviors that are having clinically significant impact on functioning in home, school, and/or community). If the individual meets the criteria i.e., the Required Elements above, then the initial authorization will be for 3 months for the completion of the assessment and development of an individualized treatment plan (ITP) including but not limited to the information outlined below.

For continuation of ABA therapy beyond this initial authorization please submit the assessment and individualized treatment plan to include the information outlined above and see below Medical Necessity Review for Continuation of ABA therapy.

- The Required Elements for ABA Therapy are met above; and
- A full assessment is planned to be completed within the first 3 months where specific, measurable target behaviors are clearly and objectively defined; and
- The assessment data is used to develop an individualized treatment plan as outlined above and will include:
  - Dates of service
  - Identification and detailed description of targeted symptoms and behaviors that are preventing the individual from adequately participating in age appropriate home, school, or community activities, or that are presenting a safety risk to self, others or property;
  - Objective baseline measurements of each target symptom or behavior;
  - Detailed description of treatment modality or modalities and interventions for each targeted symptom or behavior;
  - Treatment goals and measures of progress for each targeted symptom and behavior, with estimated timeframes for achieving the goals;
  - If applicable the plan for communication and coordination with other licensed or certified practitioner(s) or agencies including but not limited to the following: day care, preschool, school, early intervention service provider(s) and/or other allied health services (i.e., occupational therapy, speech therapy, physical therapy and any other applicable providers) to reduce the likelihood of unnecessary duplication of services
    - Types of therapy provided;
    - Number of therapies per week;
    - Behaviors/deficits targeted;
    - Progress related to treatment and services being provided; and
- Measureable criteria for completing treatment with projected plan for continuation of care after discharged from ABA therapy; and
- Total number of days per week and hours per day of direct services to patient and parent(s) or caregiver(s) to include duration and location of requested ABA therapy; and
- Licensure, certification, credentials of the professional providing services to the individual through ABA therapy program; and
• Parent(s) and/or caregiver(s) are available and committed to full participation in the program as prescribed, they are engaged in the training and follow through on treatment recommendations required beyond that provided by the licensed or certified practitioner(s) required above.

Note:

• The initial authorization to complete the assessment and individualized treatment plan is specific to applied behavior analysis and is not inclusive of other services being provided (i.e. occupational therapy, speech therapy, physical therapy, educational services (day care, preschool, school, early intervention services), etc.).
• Documentation of onsite supervision of the applied behavior analysis must be provided
• ABA therapy services are subject to prior approval, however, prior approval does not guarantee coverage.

Medical Necessity Review for Continuation of Applied Behavior Analysis (ABA) Therapy:

After the initial authorization for the assessment and individualized treatment plan (ITP) to be completed, this information will be reviewed to determine medical necessity of any ongoing ABA therapy service(s). With each medical necessity review for ongoing ABA therapy services an updated treatment plan and progress report(s) will be required for review, to include but not limited to the information outlined below.

The following will be required to be met in order to substantiate the medical necessity for the continuation of the ABA therapy:

• The Required Elements for ABA Therapy are met above; and
• There is expectation on the part of the treating provider that the individual’s behavior and skill deficits will improve to a clinically meaningful extent, in at least two settings (home, school, community) with ABA services; and
• The therapy is not making the skill deficits and/or behaviors persistently worse: and
• The individualized treatment plan and progress report(s) submitted and were updated and progress toward goals has been identified. Information provided should include but is not limited to the following:
  ▪ Progress is assessed and documented for each targeted symptom and behavior, including progress towards defined goals, and including the same modes of measurement that were utilized for baseline measurements of specific symptoms and behaviors. The treatment plan and progress report should reflect the following:
    o The individual shows improvement from baseline in skill deficits and problematic behaviors targeted in the approved treatment plan using validated assessments of adaptive functioning.
    o As determined by validated developmental assessment tools, the individual still 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 activities, and the target behaviors or skill deficits identified for ABA therapy meet one or more of the following:

- The target behavior or skill is one standard deviation or more below the mean (standard deviation is a set value point away from the mean [average]. Standard deviations are used to determine eligibility for services, standard deviations -1SD or -2SD would be 1 and 2 standards below the mean [average]); or
- Represents a behavior that poses significant threat or harm to the individual or others; or

- When there has been inadequate progress: targeted symptoms or behaviors, or no demonstrable progress within a six month period, or specific goals have not been achieved within the estimated timeframes, there should be an assessment of the reasons for inadequate progress or not meeting the goals, and treatment interventions should be modified or changed in order to attempt to achieve adequate progress. This information should include the following:
  - Increased time and/or frequency working on targets
  - Change in treatment techniques
  - Increased parent/caregiver training
  - Identification and resolution of barriers to treatment effectiveness
  - Any co-existing disorder newly identified
    - Anxiety
    - Psychotic disorder
    - Mood disorder
    - Other (please specify)
  - Goals reconsidered
    - Goals modified or removed
    - Parent(s)/caregiver(s) agrees to changes; and

- When goals have been achieved, either new goals should be identified that are based on targeted symptoms and behaviors that are preventing the member from adequately participating in age appropriate home, school or community activities, or that are presenting a safety risk to self, others, or property; or, the treatment plan should be revised to include a transition to less intensive interventions; and

- If applicable communication and coordination with other service providers and agencies, i.e. day care, preschool, school, early intervention services provider(s) and/or other allied health care providers (i.e. occupational therapy, speech
therapy, physical therapy and any other applicable providers) to reduce the likelihood of unnecessary duplication of services. Information should include the following:

- Types of therapy provided;
- Number of therapies per week
- Behaviors/deficits targeted; and
- Progress related to treatment/services being provided; **and**
  
  - Measureable criteria for completing treatment with projected plan for continue care after discharge from ABA therapy; **and**
  
  - Total number of days per week and hours per day of direct services to patient and parent(s) or caregiver(s) to include duration and location of requested ABA therapy; **and**
  
  - Dates of service requested; **and**
  
  - Licensure, certification and credentials of the professional(s) providing services to the individual through the ABA therapy program; **and**

  - Parent(s) and/or caregiver(s) remain engaged in the treatment plan, following all appropriate treatment recommendations (e.g. individual and/or family therapy, pharmacological therapy and techniques learned in ABA).

    - Detailed description of interventions with the parent(s) or caregiver(s), including:
      
      - Parental or caregiver education, training, coaching and support
      - Overall parent or caregiver goals, give a brief summary of progress. As part of the summary of progress the information should also include percentage of planned sessions attended; **and**

    - Plan for transitioning ABA interventions identified for the individual to the parent(s) or caregiver(s).

**Notes:**

- When describing measurable progress towards goals, describe goal and current performance using specific measurable performance as compared to baseline performance (for example: A goal for percentage of time the individual follows a two-step direction during instructional session was 80 percent. Baseline performance was 10 percent, current performance is 60 percent).
- Additional information may be requested as part of the medical necessity review determination, see Documentation Requirements above.

Continuation of ongoing ABA therapy services determined to be **medically necessary** to include meeting all of the requirements above will be authorized for 6 months. For any additional ABA therapy services beyond this authorization time frame, submit the prior approval request in
addition to the updated individualized treatment plan and therapy progress report documents above for ongoing medical necessity reviews.

**Note:**

- The authorization approval for ongoing ABA therapy services is not inclusive of other services being provided (i.e. occupational therapy, speech therapy, physical therapy, educational services (day care, preschool, school, early interventional services), etc.). The approval is specific to applied behavior analysis therapy.
- Documentation of onsite supervision of the applied behavior analysis services must be provided.
- A medical necessity review of the individual’s progress in meeting the objectives of the treatment plan shall be reviewed every six months unless it is determined that an earlier review is required, medical necessity review requests for the treatment of an individual receiving ABA therapy may be requested no more than every 3 months.
- ABA therapy services are subject to prior approval, however, prior approval does not guarantee coverage.

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**Discharge Criteria for Applied Behavior Analysis (ABA) Therapy**

If any of the following criteria are met the individual will be considered discharged and any further ABA therapy services will be considered **not medically necessary**.

- Based on documentation provided the individual shows improvement from baseline in targeted skill deficits and behaviors such that goals are achieved or maximum benefit has been reached.
- Based on the documentation provided there has been no clinically significant progress/measurable improvement for a period of at least 3 months in the patient’s behavior(s) or skill deficits in any of the following measures:
  - Adaptive functioning
  - Communication skills
  - Language skills
  - Social skills
- The treatment is making the skill deficits and/or behaviors persistently worse.
- The individual is unlikely to continue to benefit or maintain long term gains from proposed plan of treatment.
- Parent(s) and/or caregiver(s) have refused the treatment recommendations or are unable to participate in the treatment program and/or do not follow through on treatment recommendations to a degree that compromises the effectiveness of the services prescribed/proposed.
Procedure Codes and Billing Guidelines

To report provider services, use appropriate CPT* codes, Alpha Numeric (HCPCS level 2) codes, Revenue codes and/or diagnosis codes.

- 0359T Behavior identification assessment, by the physician or other qualified health care professional, face-to-face with patient and caregiver(s), includes administration of standardized and non-standardized tests, detailed behavioral history, patient observation and caregiver interview, interpretation of test results, discussion of findings and recommendations with the primary guardian(s)/caregiver(s), and preparation report.
- 0360T Observational behavioral follow-up assessment, includes physician or other qualified health care professional direction with interpretation and report, administered by one technician; first 30 minutes of technician time, face-to-face with patient.
- 0361T Each additional 30 minutes of technician time, face-to-face with the patient.
- 0362T Exposure behavioral follow-up assessment, includes physician or other qualified health care professional direction with interpretation and report, administered by physician and other qualified health care professional with the assistance of one or more technicians; first 30 minutes of technician(s) time, face-to-face with the patient.
- 0363T Each additional 30 minutes of technician(s) time, face to face with the patient.
- 0364T Adaptive behavior treatment by protocol, adaptive behavior treatment by protocol, administered by technician, face-to-face with one patient; first 30 minutes of technician time.
- 0365T Each additional 30 minutes of technician time.
- 0366T Group adaptive behavior treatment by protocol, administered by technician, face-to-face with two or more patients; first 30 minutes of technician time.
- 0367T Each additional 30 minutes of technician time.
- 0368T Adaptive behavior treatment with protocol modification administered by physician or other qualified health care professional with one patient; first 30 minutes of patient face-to-face time.
- 0369T Each additional 30 minutes of face-to-face time.
- 0370T Family adaptive behavior treatment guidance, administered by physician or other qualified health care professional (without the patient present).
- 0371T Multiple family group adaptive behavior treatment guidance, administered by physician or other qualified health care professional (without the patient present).
- 0372T Adaptive behavior treatment social skills group, administered by physician or other qualified health care professional face-to-face with multiple patients.
- 0373T Exposure adaptive behavior treatment with protocol modification requiring two or more technicians for severe maladaptive behavior(s); first 60 minutes of technicians time, face-to-face with patient.
- 0374T Each additional 30 minutes of technicians time face-to-face.
Selected References

- **AHRQ** (Agency for Healthcare Research and Quality), Interventions for Adolescents and Young Adults with Autism Spectrum Disorders, August 2012.
- **Behavioral Analyst Certification Board**
- **Association for Science in Autism Treatment** Applied Behavior Analysis.
- **National Autistic Society, Applied Behavior Analysis** (ABA).
- Agency for Healthcare Research and Quality (AHRQ), Interventions for Adolescents and Young Adults with Autism Spectrum Disorders, August 2012. Also available at www.ncbi.nlm.nih.gov/books/NBK107275
- **National Autism Center** (NAC), National Standards Project Phase I and Phase 2, Addressing the Need for Evidence Based Practice Guidelines for Autism Spectrum Disorders.
- Hogopian L, Hardesty S. The Kennedy Krieger Institute and Johns Hopkins University School of Medicine Applied Behavior Analysis.

• ECRI Applied Behavior Analysis for Treating Adolescents and Young Adults with Autism Spectrum Disorder, Published 8/11/2014, Updated January 28, 2016.


• ABA International. Frequently Asked Questions on Applied Behavior Analysis Therapy Tracking Codes – CPT 0359T-0374T. Also available at https://www.abainternational.com


• Association for Behavior Analysis International. Applied Behavior Analysis CPT Coding Crosswalk Guide. Also available at https://www.abainternational.org

### Policy History

<table>
<thead>
<tr>
<th>Date</th>
<th>Reason</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2016</td>
<td></td>
<td>New Policy Created</td>
</tr>
<tr>
<td>January 2017</td>
<td>Interim Review</td>
<td>Policy Revised</td>
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<tr>
<td>August 2017</td>
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New information or technology that would be relevant for Wellmark to consider when this policy is next reviewed may be submitted to:

Wellmark Blue Cross and Blue Shield
Medical Policy Analyst
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Des Moines, IA 50306-9232