Lucet™

Medical Policy Name	Applied Behavior Analysis for the Treatment of Down Syndrome
Medial Policy Number	20.5.006
Issued By	Chief Medical Officer
Approved By	Medical Directors, Provider Advisory Committee, Corporate Quality Improvement Committee
Original Effective Date	01/2017

Applies To: 1/1/2025 to 12/31/2025

Description of Treatment

ABA attempts to increase skills related to behavioral deficits and reduce behavioral excesses including eliminating barriers to learning. ABA involves a structured environment, predictable routines, individualized treatment, transition and aftercare planning, and family involvement.

When Services May Be Eligible for Coverage

Coverage for eligible treatments or procedures may be provided only if:

- Benefits are available in the member's contract/certificate, and
- Medical necessity criteria and guidelines are met.

Criteria

Overview

Lucet Behavioral Health® manages Applied Behavior Analysis (ABA) benefits for various health plans. This medical policy is used to review and make benefit decisions for ABA service requests for members with the diagnosis of Down syndrome (DS). This benefit for Down Syndrome is mandated in the State of Florida, beginning July 1, 2016. Note that comorbid diagnoses of Down syndrome and Autism Spectrum Disorder (ASD) will be managed by policy 20.5.005 Applied Behavior Analysis for the Treatment of Autism Spectrum Disorder.

Treatments other than ABA do not fall under the scope of this policy. Those alternative ASD treatment approaches not contemplated in this policy include: Cognitive Training, Auditory Integration Therapy, Facilitated Communication, Higashi Schools/Daily Life, Individual Support Program, LEAP, SPELL, Waldon, Hanen, Early Bird, Bright Start, Social Stories, Gentle Teaching, Response Teaching Curriculum Holding Therapy, Movement Therapy, Music Therapy, Pet Therapy, Psychoanalysis, Son-Rise Program, Scotopic Sensitivity Training, Sensory Integration Training and Neurotherapy (EEG biofeedback). Members are encouraged to consult with their Service Plan Description to determine benefit coverage for non-ABA treatment approaches for Down syndrome.

Down syndrome is a condition in which a person has extra chromosomal material. Typically, an individual is born with 46 chromosomes. People with Down syndrome have an extra copy of one of these chromosomes 21. This disorder is also called Trisomy 21. This extra genetic material changes how the body and brain develop, which can cause both mental and physical challenges. Even though people with Down syndrome might act and look similar, there are significant individual differences. The IQ is generally in the mildly-to-moderately low range and language development is delayed.
Some common physical features of Down syndrome include:

- A flattened face, especially the bridge of the nose
- Almond-shaped eyes that slant up
- A short neck
- Small ears
- A tongue that tends to stick out of the mouth
- Tiny white spots on the iris (colored part) of the eye
- Small hands and feet
- A single line across the palm of the hand (palmar crease)
- Small pinky fingers that sometimes curve toward the thumb
- Poor muscle tone or loose joints
- Shorter in height as children and adults

There are three types of Down syndrome. Despite these differences in genetic material, the physical features and behaviors are similar.

Trisomy 21: About 95% of people with Down syndrome have Trisomy 21. With this type of Down syndrome, each cell in the body has 3 separate copies of chromosome 21 instead of the usual 2 copies.

Translocation Down syndrome: This type accounts for a small percentage of people with Down syndrome (about 3%). This occurs when an extra part or a whole extra chromosome 21 is present, but it is attached to a different chromosome rather than being a separate chromosome 21.

Mosaic Down syndrome: This type affects about 2% of the people with Down syndrome. Mosaic means mixture or combination. For children with mosaic Down syndrome, some of their cells have 3 copies of chromosome 21, but other cells have the typical two copies of chromosome 21. Children with mosaic Down syndrome may have the same features as other children with Down syndrome. However, they may have fewer features of the condition due to the presence of some (or many) cells with a typical number of chromosomes

The defining characteristics of ABA are applied, behavioral, analytic, technological, conceptually systematic, effective and capable of appropriately generalized outcomes. ABA involves a structured environment, predictable routines, individualized treatment, transition and aftercare planning, and family involvement. ABA attempts to increase skills

related to behavioral deficits and reduce behavioral excesses including eliminating barriers to learning. Behavioral deficits may occur in the areas of communication, social and adaptive skills, but are possible in other areas as well. Examples of deficits include a lack of expressive language, inability to request items or actions, limited eye contact with others and inability to engage in age-appropriate self-help skills such as tooth brushing or dressing. Examples of behavioral excesses include physical aggression, property destruction, elopement, self-stimulatory behavior, self-injurious behavior and vocal stereotypy.

During pre-treatment assessment, a treatment plan is developed that identifies the core deficits and aberrant behaviors, and includes designated interventions intended to address these deficits and behaviors and achieve individualized goals. Treatment plans are reviewed for medical necessity (defined below) twice annually (review frequency dependent upon the controlling state law) to allow re-assessment and to document treatment progress.

A Functional Behavioral Assessment (FBA) may also be a part of any assessment. An FBA consists of:

a. Description of the problematic behavior (topography, onset/offset, cycle, intensity, severity)
b. History of the problematic behavior (long-term and recent)
c. Antecedent analysis (setting, people, time of day, events)
d. Consequence analysis
e. Impression and analysis of the function of the problematic behavior

For additional information about ABA treatment, documentation requirements and other topics, please refer to your provider manual and Lucet's Autism Resource Center.

Medical Necessity

Medical necessity is defined in the controlling specific health plan and/or group documents.

For additional information about ABA treatment, CPT codes, documentation requirements and other topics, please refer to Lucet' provider manual.

ABA PRE-TREATMENT ASSESSMENT REQUEST
***MUST MEET ALL OF THE FOLLOWING*:**

1. The member has a diagnosis of Down Syndrome (without a comorbid diagnosis of ASD) from a clinician who is licensed and qualified to make such a diagnosis and confirmed by genetic testing.
2. Hours requested are not more than what is required to complete the pre-treatment assessment.
3. All assessment services are provided in a manner consistent with the Lucet Provider Manual, the Behavior Analysis Certification Board's *Ethics Code*

for Behavior Analysts or relevant ethics code, generally accepted standards of care, and applicable state laws.

INITIAL ABA TREATMENT AUTHORIZATION REQUEST
***MUST MEET ALL OF THE FOLLOWING*:**

1. Diagnostic Criteria as set forth in the previous section are met.
2. Documentation of psychological assessment, including adaptive behavior testing and cognitive evaluation to define baseline functioning. Any assessment should be accompanied by a formal report detailing the scores achieved and the results of the assessment.
3. The following baseline data must have been completed prior to or scheduled within 90 days of the assessment. Baseline data must have been completed no longer than 5 years prior to the pre-treatment assessment or as indicated below.
    a. Developmental and cognitive evaluation
    b. Adaptive behavior assessment completed within 6 months of start date of treatment
    c. Neurological evaluation as part of a comprehensive physical examination
    d. Information required by state law
4. Approved treatment goals and clinical documentation must be focused on active symptoms, substantial deficits that inhibit daily functioning, and clinically significant aberrant behaviors that require the expertise of a Behavior Analyst. This includes a plan for stimulus and response generalization in novel contexts.
5. ABA treatment is not designed to attain academic performance.
6. ABA treatment is not a substitute for psychotherapy, occupational therapy or other medical or behavioral health services.
7. Detailed, individualized coordination of care, safety planning, and discharge planning are conducted on an ongoing basis as part of treatment planning.
8. For comprehensive treatment, the requested ABA services are designed to reduce the gap between the member's chronological and developmental ages such that the member is able to develop or restore function to the maximum extent practical (OR) for focused treatment, the requested ABA services are designed to reduce the burden of selected targeted symptoms on the member, family and other significant people in the environment and to target increases in appropriate alternative behaviors.
9. Treatment is provided in the setting and intensity that is appropriate for the member's clinical needs, determined by where target behaviors are occurring and where treatment is likely to impact those target behaviors.
10. Treatment is provided in a manner consistent with the Lucet Provider Manual, the Behavior Analysis Certification Board's *Ethics Code for Behavior Analysts* or relevant ethics code, generally accepted standards of care, and applicable state laws. In the absence of a state law, line therapy services are to be provided by a Registered Behavior Technician (RBT), Board Certified Assistant Behavior Analyst, or Master level or Doctoral level Board Certified Behavior Analyst

11. The treatment plan must include a plan to support the member's ability to generalize skills across stimuli, contexts, and individuals, via caregiver training or an appropriate alternative. The provider should be able to demonstrate how instructional control will be transferred to caregivers. In the absence of successful caregiver involvement in treatment, provider should identify an appropriate alternate plan to promote the member's ability to generalize skills outside of therapy sessions, including post-discharge.

CONTINUED ABA TREATMENT AUTHORIZATION REQUEST
***MUST MEET ALL OF THE FOLLOWING*:**

1. Criteria 1-11 in the INITIAL ABA TREATMENT AUTHORIZATION REQUEST section are met.
2. Provider demonstrates:
    a. Documentation of clinical or social benefit to the child from treatment
    b. Identification of new or continuing treatment goals
    c. Development of a new or continuing treatment plan based on progress evidenced by the member's behavioral changes and increased skill acquisition.

Summary of Evidence

The Facts About Down Syndrome website starts out by describing DS. Diagnosing DS is done with the use of screening and diagnostic tests. Health care providers should also assess for comorbid conditions. Treatment is encouraged and should start early in the individual's life.

Applied Behavior Analysis, 3rd Edition provides a comprehensive and updated description of applied behavior analysis. It outlines the principles and procedures for changing and analyzing socially important behaviors. It covers selecting defining and measuring behavior, evaluating and analyzing behavior change, reinforcement, punishment, antecedent variables, verbal behavior, developing behavior, decreasing behavior without punishment, functional assessment, and promoting generalized behavior change, negative reinforcement, motivation, verbal behavior, functional behavioral assessment, and ethics.

This systematic review (Neil et al., 2021) evaluates single-case research design studies investigating applied behavior analytic (ABA) interventions for people with Down syndrome (DS). Thirty-six high-quality studies looking at whether ABA could help increase skills or decrease challenging behaviors showing a promise for this treatment in DS population, primarily involving communication and challenging behavior.

The cognitive profile of those with Down Syndrome (DS) is usually characterized by relative strengths in non-verbal skills and deficits in verbal processing, but high interindividual variability has been registered in the syndrome. The correlation between

cognitive profile and medical conditions, parents' education levels and developmental milestones was also explored. Ultimately, three cognitive profiles emerged, suggesting that educational support for children and adolescents with DS may need to be more specific (Onnivello et al., 2022).

Children with Down syndrome are at an increased risk for engaging in challenging behavior thought to be unique to the condition. The authors looked at studies where a subset of the population had DS, reviewing them in the context of functional behavior assessment and Positive Behavioral Supports. Drawing from these studies and the behavioral literature, as well as the authors' clinical experience and research, they recommend early intervention for challenging behavior with this type of ABA (Feeley and Jones, 2006).

This study (van Gameren-Oosterom et al., 2013) focused on assessing problem behavior in adolescents with Down syndrome and examining the association with sex and severity of intellectual disability. When screened, adolescents with DS were found to have the most issues with social functioning. Male sex and/or more severe mental disabilities were associated with more behavioral problems. The authors conclude that this demonstrates the need for assessment and treatment that supports general behavior improvement in individuals with Down syndrome.

The authors (Medeiros et al., 2013) recognize that behavior disorders, such as self-injurious, stereotypic, and aggressive behavior are common among individuals with intellectual or developmental disabilities. They examined the trajectory of these three forms of severe behavior disorders over a one year time period and found that without intervention the frequency of self-injury and stereotypic behavior and the severity of aggressive behavior remained stable over the 12-month period. Their findings did not vary significantly across diagnostic groups, suggesting that toddlers exhibiting behavior disorders may be assisted with interventions that target the specific frequencies or severities of behaviors, regardless of diagnostic category.

Exceptions

Exceptions to this medical policy must be approved by Lucet Chief Medical Officer or their designee.

References

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3. Neil N, Amicarelli A, Anderson BM, Liesemer K. A Meta-Analysis of Single-Case Research on Applied Behavior Analytic Interventions for People With Down Syndrome. Am J Intellect Dev Disabil. 2021 Mar 1;126(2):114-141. doi: 10.1352/1944-7558-126.2.114. PMID: 33651891.

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5. Feeley KM, Jones EA. Addressing challenging behaviour in children with Down syndrome: the use of applied behaviour analysis for assessment and intervention. Downs Syndr Res Pract. 2006 Sep;11(2):64-77. doi: 10.3104/perspectives.316. PMID: 17048800.

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7. Medeiros K, Curby TW, Bernstein A, Rojahn J, Schroeder SR. The progression of severe behavior disorder in young children with intellectual and developmental disabilities. Res Dev Disabil. 2013 Nov;34(11):3639-47. doi: 10.1016/j.ridd.2013.08.002. Epub 2013 Sep 4. PMID: 24012587; PMCID: PMC4453924.

Related Documents

GUIDES / HANDOUTS
N/A

FORMS
N/A

Document History

Date	Action	By Whom	Summary
09/2024	Annual Review	Chief Medical Officer	
01/2024	Ad hoc review	Chief Medical Officer	
09/2023	Annual Review	Chief Medical Officer	
09/2022	Revision	Chief Medical Officer	

08/2021	Revision	Chief Medical Officer	
10/2020	Revision	Chief Medical Officer	
09/2019	Revision	Chief Medical Officer	
12/2018	Revision	Chief Medical Officer	
01/2017	New Policy	Chief Medical Officer	

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