

Clinical Practice Guideline: Occupational Therapy Medical Policy/Guidelines

Date of Implementation: October 18, 2012

Effective Date: January 1, 2026

Product: Specialty

Related Policies:

CPG 12: Medical Necessity Decision Assist Guideline for Rehabilitative Care
 CPG 30: Laser Therapy (LT)
 CPG 110: Medical Record Maintenance and Documentation Policies
 CPG 111: Patient Assessments: Medical Necessity Decision Assist Guideline for Evaluations, Re-evaluations, and Consultations
 CPG 112: Exercise Therapy for Treatment of Non-Specific Low Back Pain
 CPG 113: Exercise Therapy for Treatment of Neck Pain
 CPG 121: Passive Physiotherapy (Therapeutic) Modalities
 CPG 133: Techniques and Procedures Not Widely Supported As Evidence-Based
 CPG 135: Physical Therapy Medical Policy/Guideline
 CPG 143: Strapping and Taping
 CPG 144: Prosthetic Training and Evaluation
 CPG 146: Range of Motion Testing
 CPG 148: Wheelchair Management
 CPG 152: Orthotic Training and Evaluation
 CPG 165: Autism Spectrum Disorder (ASD) – Outpatient Rehabilitation Services (Speech, Physical, and Occupational Therapy)
 CPG 166: Speech-Language Pathology/Speech Therapy Guidelines
 CPG 175: Extra-Spinal Joint Manipulation/Mobilization for the Treatment of Upper Extremity Musculoskeletal Conditions
 CPG 178: Dry Needling
 CPG 257: Developmental Delay Screening and Testing
 CPG 269: H-Wave® Electrical Stimulation
 CPG 270: Cognitive Rehabilitation
 CPG 272: Electric Stimulation for Pain, Swelling and Function
 CPG 273: Superficial Heat and Cold
 CPG 274: Deep Heating Modalities (Therapeutic Ultrasound and Diathermy)
 CPG 276: MEDEK Therapy
 CPG 277: Non-invasive Interactive Neurostimulation (InterX®)
 CPG 286: Intensive Model of Therapy
 CPG 295: Physical Performance Testing or Measurement
 CPG 305: Virtual Physical & Occupational Therapy Services

TABLE OF CONTENTS

(CTRL+Click on Section Heading to Follow Link)

1.	PROVIDERS OF OCCUPATIONAL THERAPY SERVICES.....	4
2.	REHABILITATIVE OCCUPATIONAL THERAPY SERVICES	5
3.	MAINTENANCE OCCUPATIONAL THERAPY SERVICES.....	9
4.	HABILITATIVE OCCUPATIONAL THERAPY SERVICES.....	10
5.	REDUNDANT THERAPEUTIC EFFECTS AND REHABILITATIVE OR HABILITATIVE SERVICES	11
6.	THERAPEUTIC MODALITIES AND PROCEDURES.....	12
6.1	Passive Care and Active Care.....	13
6.2	Treatment Interventions.....	16
6.3	Precautions and Contraindications to Therapeutic Modalities and Procedures	22
7.	CLINICAL DOCUMENTATION	26
7.1	Evaluation and Re-evaluations	27
7.2	Treatment Sessions	29
7.3	Discharge/Discontinuation of Intervention.....	30
7.4	Duplicated / Insufficient Information	30
7.5	Centers for Medicare and Medicaid Services (CMS)	31
8.	CLINICAL REVIEW PROCESS.....	31
8.1	Definition of Key Terminology used in Clinical Reviews	32
8.2	Clinical Review for Medical Necessity	34
8.3	Critical Factors during Clinical Reviews.....	36
8.3.1	General Factors.....	37
8.3.2	Factors that Influence Adverse Determinations of Clinical Services (Partial Approvals/Denials)	42
8.3.3	Referral / Coordination of Services	47
9.	EVIDENCE REVIEW	48
9.1	Occupational Therapy for Conditions Considered Unproven.....	48
9.2	Specific Occupational Therapy Treatments Considered Unproven.....	48
10.	CODING/BILLING INFORMATION.....	52
11.	References	58

DESCRIPTION

This document addresses Occupational Therapy Services which may be delivered by an Occupational Therapist acting within the scope of a professional license. This document also addresses the processes associated with Medical Necessity Determinations performed by American Specialty Health (ASH) clinical quality evaluators on services submitted for review.

The availability of coverage for rehabilitative and/or habilitative services will vary by benefit design as well as by State and Federal regulatory requirements. Benefit plans may include a maximum allowable rehabilitation benefit, either in duration of treatment or in number of visits or in the conditions covered or type of services covered. When the maximum allowable benefit is exhausted or if the condition or service are not covered, coverage will no longer be provided even if the medical necessity criteria described below are met.

The determination of medically necessary care, as outlined in this guideline, protects against inappropriate care that may be wasteful, unsafe, and harmful to the patient, while assuring approved care is safe, appropriate, curative, and improves the patient's function and quality of life. To protect the health and safety of patients, American Specialty Health (ASH) has implemented medical necessity review strategies to educate practitioners of the need to implement methods to reduce clinical errors and improve patient safety. These medical necessity review strategies include encouraging practitioners to adopt evidence-based health care approaches to patient care, implement professional standards of care, and follow applicable care management guidelines. Conducting risk management procedures via medical necessity review minimizes potential adverse outcomes and harm to the patient and prevents wasteful, unsafe and inappropriate care.

Care approved through medical necessity review is safe, appropriate, and directed at specific treatment goal resolution to ensure clinical benefit and improvement to the patient's quality of life.

- For risk-reduction and the protection of patients, the review process does not approve treatment when a condition should be referred to a medical physician, the treatment is unsafe, or when treatment is not providing measurable health improvement.
- For the benefit of patients, the review process approves services when the evidence and practitioner treatment plan supports the use of conservative treatment for conditions known to be amenable to the services provided so that patients may recover from conditions without the need for more costly or high-risk treatments such as prescription opioids, injections, or surgery.

1 GUIDELINES

2 1. PROVIDERS OF OCCUPATIONAL THERAPY SERVICES

3 Covered, medically necessary rehabilitative or habilitative services must be delivered by a
4 qualified Occupational Therapist acting within the scope of their license as regulated by
5 the Federal and State governments. Some services may be performed by ancillary providers
6 (e.g., licensed occupational therapy assistant) under the direction and supervision of, and
7 in collaboration with, a licensed Occupational Therapist; however, generally, only those
8 healthcare practitioners who hold an active license, certification, or registration with the
9 applicable state board or agency may provide such services. Benefits for services provided
10 by these ancillary healthcare providers may also be dependent upon the patient's benefit
11 contract language.

12
13 Aides and other nonqualified personnel are limited to provision of non-skilled services
14 such as preparing the individual, treatment area, equipment, or supplies; assisting a
15 qualified therapist or assistant; and transporting individuals.

16
17 According to the American Occupational Therapy Association, occupational therapists and
18 occupational therapy assistants help people across their lifespan participate in the things
19 they want and need to do through the therapeutic use of everyday activities (occupations).
20 Occupational therapists provide services to patients who have impairments, functional
21 limitations, disabilities, or changes in physical function and health status resulting from
22 injury, disease, or other causes. OT addresses physical, cognitive, psychosocial, sensory,
23 communication, and other areas of performance in various contexts and environments in
24 everyday life activities that affect health, well-being, and quality of life. The overarching
25 goal of occupational therapy is “to support [people’s] health and participation in life
26 through engagement in occupations.”

27
28 A service is not considered a skilled therapy service merely because it is furnished by a
29 therapist or by a therapist/therapy assistant under the direct or general supervision, as
30 applicable, of a therapist. If a service can be self-administered or safely and effectively
31 furnished by an unskilled person, without the direct or general supervision, as applicable,
32 of a therapist, the service cannot be regarded as a skilled therapy service even though a
33 therapist furnishes the service. Similarly, the unavailability of a competent person to
34 provide a non-skilled service, notwithstanding the importance of the service to the patient,
35 does not make it a skilled service when a therapist furnishes the service.

36
37 Services that do not require the professional skills of a therapist to perform or supervise
38 are not medically necessary, even if they are performed or supervised by a therapist,
39 physician or non-physician practitioner (NPP). Therefore, if a patient’s therapy can proceed
40 safely and effectively through a home exercise program, self-management program,
41 restorative nursing program or caregiver assisted program, occupational therapy services

are not indicated or medically necessary. Occupational therapy is used for both rehabilitation and habilitation. Skilled occupational therapy services may be necessary to improve a patient's current condition, to maintain the patient's current condition, or to prevent or slow further deterioration of the patient's condition.

The plan of care for medically necessary occupational therapy services is established by a licensed occupational therapist. The amount, frequency and duration of the occupational therapy services must be reasonable (within regional norms and commonly accepted practice patterns); the services must be considered appropriate and needed for the treatment of the condition and must not be exclusively palliative in nature. Thus, once therapeutic benefit has been achieved, or a home exercise program could be used for further gains without the need for skilled occupational therapy, continuing supervised occupational therapy is not considered medically necessary.

Rehabilitative services are intended to improve, adapt or restore functions which have been impaired or permanently lost as a result of illness, injury, loss of a body part, or congenital abnormality involving goals an individual can reach in a reasonable period of time. If no improvement is documented after two weeks of treatment, an alternative treatment plan should be attempted. Treatment is no longer medically necessary when the individual stops progressing toward established goals.

Habilitative services are defined by the National Association of Insurance Commissioners as "health care services that help a person keep, learn or improve skills and functioning for daily living." Habilitative services are intended to maintain, develop or improve skills needed to perform activities of daily living (ADLs) or instrumental activities of daily living (IADLs) which have not (but normally would have) developed or which are at risk of being lost as a result of illness, injury, loss of a body part, or congenital abnormality. Examples include therapy for a child who is not walking at the expected age.

Note: The availability of rehabilitative and/or habilitative benefits for occupational therapy services, state and federal mandates, and regulatory requirements should be verified and followed in addition to the benefit plan provisions and medical necessity criteria defined in this document.

2. REHABILITATIVE OCCUPATIONAL THERAPY SERVICES

Medically Necessary

(1) Rehabilitative occupational therapy (OT) services to improve, adapt, compensate, or restore functions which have been impaired or permanently lost as a result of illness, injury, loss of a body part, or congenital abnormality are considered **medically necessary** when **ALL** the following criteria are met:

1. The services are delivered by a qualified practitioner of occupational therapy services (i.e., appropriately trained and licensed by the state to perform occupational therapy services); and
2. Rehabilitative occupational therapy occurs when the judgment, knowledge, and skills of a qualified practitioner of occupational therapy services (as defined by the scope of practice for therapists in each state) are necessary to safely and effectively furnish a recognized therapy service due to the complexity and sophistication of the plan of care and the medical condition of the individual, with the goal of improvement of an impairment or functional limitation.
3. The patient demonstrates a physical and/or functional impairment as demonstrated by the inability to perform basic activities of daily living (ADLs) or instrumental activities of daily living (IADLs), or usual daily activities.
4. The patient demonstrates signs and symptoms of physical and/or functional impairment in one or more of the following areas:
 - a) Sensory and/or motor
 - b) Cognitive/psychological
 - c) Cardiopulmonary status and circulation
 - d) Skin
5. The patient's condition has the potential to improve or is improving in response to therapy, maximum improvement is yet to be attained; and there is an expectation that the anticipated improvement is attainable in a **reasonable and generally predictable period of time*** and will result in a clinically significant level of functional improvement; and
6. Improvement or restoration of function could not be reasonably expected as the individual gradually resumes normal activities without the provision of skilled rehabilitative services; and
7. The documentation objectively verifies progressive functional improvement over specific time frames and clinically justifies the initiation of continuation of rehabilitative services; and
8. The program is individualized, and there is documentation outlining quantifiable, attainable treatment goals.

***Reasonable and predictable period of time:** The specific time frames in which one would expect practical functional improvement is dependent on various factors including whether the services are Rehabilitative or Habilitative services. A reasonable trial of care for rehabilitative services to determine the patient's potential for improvement in or restoration of function is influenced by the diagnosis; clinical evaluation findings; stage of the condition (acute, sub-acute, chronic); severity of the condition; and patient-specific elements (age, gender, past and current medical history, family history, and any relevant psychosocial factors). Habilitative services may be prolonged and are primarily influenced by the type of ADLs or IADLs which have not developed, or which are at risk of being lost.

- (2) An occupational therapy evaluation is considered medically necessary for the assessment of a physical impairment.

Not Medically Necessary

- (1) Rehabilitative OT services are considered not medically necessary if any of the following is determined:

1. Rehabilitative services are NOT intended to improve, adapt, or restore functions which have been impaired or permanently lost as a result of illness, injury, loss of a body part, or congenital abnormality.
2. Improvement or restoration of function could reasonably be expected to improve as the individual gradually resumes normal activities without the provision of skilled therapy services. For example:
 - A patient suffers a transient and easily reversible loss or reduction in function which could reasonably be expected to improve spontaneously as the patient gradually resumes normal activities.
 - A fully functional patient who develops temporary weakness from a brief period of bed rest following abdominal surgery.
3. Therapy services that do not require the skills of a qualified practitioner of OT services. Examples include but are not limited to:
 - General exercises (basic aerobic, strength, flexibility, or aquatic programs) to promote overall fitness/conditioning.
 - Services for the purpose of enhancing athletic or recreational sports performance or for return to sport after injury or surgery.
 - Massages and whirlpools for relaxation.
 - General public education/instruction sessions.
 - Repetitive gait or other activities and services that an individual can practice independently and can be self-administered safely and effectively.
 - a) Activities that require only routine supervision and NOT the skilled services of an occupational therapy practitioner.
 - b) When a home exercise program is sufficient and can be utilized to continue therapy (examples of exceptions include but would not be limited to the following: if patient has poor exercise technique that requires cueing and feedback, lack of support at home if necessary for exercise program completion, and/or cognitive impairment that doesn't allow the patient to complete the exercise program).
4. The expectation does **not** exist that the service(s) will result in a clinically significant improvement in the level of functioning within a reasonable and predictable period of time.
 - If, absent supervised care, function could reasonably be expected to improve at the same / similar rate as the individual gradually resumes normal activities, then the service is considered **not** medically necessary.

- The patient's condition does not have the potential to improve or is not improving in response to therapy; or would not produce a meaningful improvement relative to the extent and duration of therapy required; and there is an expectation that further improvement is NOT attainable.
 - The documentation fails to objectively verify functional progress over a reasonable period of time.
 - The patient has reached maximum therapeutic benefit.
5. A passive modality is **not** preparatory to other skilled treatment procedures or is not necessary in order to provide other skilled treatment procedures safely and effectively.
 6. A passive modality has insufficient published evidence to support a clinically meaningful physiological effect on the target tissue or improve the potential for a positive response to care for the condition being treated.
 7. Reevaluations or assessments of a patient's status that are not necessary to continue a course of therapy nor related to a new condition or exacerbation for which the reevaluation will likely result in a change in the treatment plan.
 8. The treatments/services are not supported by and are not performed in accordance with nationally recognized clinical standards or peer-reviewed literature as documented in applicable ASH CPGs or other literature accepted by ASH Clinical Quality committee.

(2) The following treatments/programs are not considered medically necessary because they are nonmedical, non-rehabilitative, educational, or training in nature. In addition, these treatments/programs may be specifically excluded under many benefit plans:

- Back school
- Driving safety/driver training
- Vocational rehabilitation programs and any program or evaluation with the primary goal of returning an individual to work
- Work hardening programs
- Health and wellness intervention
- Education and achievement testing, including Intelligence Quotient (IQ) testing.
- Educational interventions (e.g., classroom environmental manipulation, academic skills training and parental training).
- Services provided within the school setting and duplicated in the rehabilitation setting.

(3) Use of any of the following treatments is unproven. Refer to *Techniques and Procedures Not Widely Supported as Evidence-Based (CPG 133)* and/or the specific guideline below for additional information.

1. Intensive model of constraint-induced movement therapy

2. Intensive Model of Therapy (IMOT) programs [*Intensive Model of Therapy (CPG 286 - S)*]
3. Dry hydrotherapy/aqua massage/hydromassage
4. Non-invasive Interactive Neurostimulation (e.g., InterX®) [*Non-invasive Interactive Neurostimulation (e.g., InterX®) (CPG 277 – S)*]
5. Microcurrent Electrical Nerve Stimulation (MENS)
6. H-WAVE ® [*H-WAVE® Electrical Stimulation (CPG 269 – S)*]
7. Equestrian therapy (e.g., hippotherapy)
8. MEDEK Therapy [*MEDEK Therapy (CPG 276 – S)*]
9. The Interactive Metronome Program
10. Elastic therapeutic tape/taping (e.g., Kinesio™ tape, KT TAPE/KT TAPE PRO™, Spidertech™ tape) [*Strapping and Taping (CPG 143 – S)*]
11. Dry Needling [*Dry Needling (CPG 178 – S)*]
12. Laser therapy [*Laser Therapy (LT) (CPG 30 – S)*]
13. Low-Frequency, Non-Contact, Non-Thermal Ultrasound

3. MAINTENANCE OCCUPATIONAL THERAPY SERVICES

According to the Centers for Medicare and Medicaid Services (CMS) guidelines, or when covered by private carriers, maintenance occupational therapy services are a covered benefit when skilled occupational therapy care is medically necessary to maintain functional status or to prevent or slow further deterioration in function. Unlike coverage for rehabilitative therapy, coverage for maintenance therapy does not depend on the presence or absence of a patient's potential for improvement for therapy; the deciding factors are always whether the services are considered reasonable, effective treatments for the patient's condition and require the skills of a therapist. A maintenance program is considered medically necessary when any of the following criteria are met:

- If the specialized skill, knowledge and judgment of a qualified occupational therapist are required to establish or design a maintenance program to maintain the patient's current condition or to prevent or slow further deterioration.
- If skilled occupational therapy services by a qualified occupational therapist, or occupational therapist assistant under the supervision of a qualified therapist, are needed to instruct the patient or appropriate caregiver regarding the maintenance program.
- If skilled occupational therapy services are needed for periodic reevaluations or reassessments of the maintenance program.

Once a maintenance program is designed or established, a maintenance program can generally be performed by the patient alone or with the assistance of family member, caregiver or unskilled personnel. In such situations, coverage is not medically necessary. The performance or delivery of the maintenance therapy program is considered medically

necessary only when the documentation establishes that the following criteria has been met:

1. The individualized assessment of a patient's clinical condition demonstrates that the specialized judgment, knowledge, and skills of an occupational therapy practitioner (skilled care) are necessary for the performance of an effective maintenance program.
2. When the needed therapy procedures required to maintain the patient's current function or to prevent or slow further deterioration are of such complexity and sophistication that the skills of a qualified occupational therapy practitioner (as defined by scope of practice in each state) are required to furnish the therapy procedure or
3. The particular patient's special medical complications require the skills of a qualified occupational therapy practitioner to furnish a therapy service required to maintain the patient's current function or to prevent or slow further deterioration, even if the skills of an occupational therapy practitioner are not ordinarily needed to perform such therapy procedures.

The plan of care must be developed by the physician, NPP (non-physician practitioner) or OT who will provide the OT services.

4. HABILITATIVE OCCUPATIONAL THERAPY SERVICES

Habilitative services may or may not be covered services. If the member's contract excludes habilitative services, the contract prevails.

Medically Necessary

(1) Habilitative OT services are considered medically necessary when ALL the following criteria are met:

1. The therapy is intended to maintain or develop skills needed to perform Activities of Daily Living (ADLs) or Instrumental Activities of Daily Living (IADLs) which have not (but normally would have) developed or which are at risk of being lost as a result of illness (including developmental delay), injury, loss of a body part, or congenital abnormality.
2. The occupational therapy services are evidence-based and require the judgment, knowledge, and skills of a qualified practitioner of occupational therapy services due to the complexity and sophistication of the plan of care and the medical condition of the individual.
3. There is an expectation that the therapy will assist development of function or maintain an acceptable level of functioning.

4. An individual would either not be expected to develop the function or would be expected to permanently lose the function (not merely experience fluctuation in the function) without the habilitative service. If the undeveloped or impaired function is not the result of a loss of body part or injury, a physician experienced in the evaluation and management of the undeveloped or impaired function has confirmed that the function would not either be expected to develop or would be permanently lost without the habilitative service. This information also concurs with the written treatment plan, which is likely to result in meaningful development of function or prevention of the loss of function.
5. There is a written treatment plan documenting the short and long-term goals (including estimated time when goals will be met) of treatment, frequency and duration of treatment, and what quantitative outcome measures will be used to assess function objectively.
6. Documentation objectively verifies that, at a minimum, functional status is maintained or developed.
7. The services are delivered by a qualified practitioner of occupational therapy services.

Not Medically Necessary

- (1) Habilitative OT services are considered not medically necessary if any of the criteria above are not met.

5. REDUNDANT THERAPEUTIC EFFECTS AND REHABILITATIVE OR HABILITATIVE SERVICES

1. Redundant rehabilitative or habilitative therapy services expected to achieve the same therapeutic goal are considered not medically necessary and it would be inappropriate to provide these services to the same body region during the same treatment session. This includes treatments, such as but not limited to:
 - multiple modalities procedures that have similar or overlapping physiological effects (e.g., multiple forms of superficial or deep heating modalities).
 - massage therapy and myofascial release.
 - orthotics training and prosthetic training.
 - whirlpool and Hubbard tank.
2. Duplicative (same or similar) rehabilitative or habilitative therapy services provided as part of an authorized therapy program through another therapy discipline are not medically necessary and inappropriate in the provision of care for the same patient.

- When individuals receive physical, occupational, or speech therapy, the therapists should provide different treatments that reflect each therapy discipline's unique perspective on the individual's impairments and functional deficits and not duplicate the same treatment. They must also have separate evaluations, treatment plans, and goals. This applies to chiropractic services as well.
- As an example, when individuals receive manual therapy services from an occupational therapist and chiropractic or osteopathic manipulation, the services must be documented as separate and distinct, performed on different body parts, and must be justified and non-duplicative.

6. THERAPEUTIC MODALITIES AND PROCEDURES

In some states, occupational therapists are required to hold a specific certification to use modalities in practice. The CPT[®] codebook defines a modality as "any physical agent applied to produce therapeutic changes to biologic tissue; includes but is not limited to thermal, acoustic, light, mechanical, or electric energy." Modalities may be supervised, which means that the application of the modality doesn't require direct one-on-one patient contact by the practitioner. Or modalities may involve constant attendance, which indicates that the modality requires direct one-on-one patient contact by the practitioner.

Supervised modalities are untimed therapies. Untimed therapies are usually reported only once for each date of service regardless of the number of minutes spent providing this service or the number of body areas to which they were applied. Untimed services billed as more than one unit will require significant documentation to justify treatment greater than one session per day. Examples of supervised modalities include application of:

- Hot or cold packs
- Mechanical traction
- Unattended electrical stimulation
- Whirlpool
- Paraffin bath
- Diathermy

Modalities that require constant attendance, are timed and reported in 15-minute increments (one unit) regardless of the number of body areas to which they are applied. Examples of modalities that require constant attendance include:

- Contrast baths
- Ultrasound
- Electrical stimulation
- Iontophoresis

The CPT® codebook defines therapeutic procedures as “A manner of effecting change through the application of clinical skills and/or services that attempt to improve function.” Except for Group Therapy (97150) and Work Hardening/Conditioning (97545-6), therapeutic procedures require direct (one-on-one) patient contact (constant attendance) by the Occupational Therapist, are timed therapies, and must be reported in units of 15-minute increments. Only the actual time that the Occupational Therapist is directly working with the patient performing exercises/activities, instruction, or assessments is counted as treatment time. The time that the patient spends not being treated because of a need for rest or equipment set up is not considered treatment time. Any exercise/activity that does not require, or no longer requires, the skilled assessment and intervention of a health care practitioner is not considered a medically necessary therapeutic procedure. Exercises often can be taught to the patient or a caregiver as part of a home/self-care program. Examples of therapeutic procedures that require the Occupational Therapist to have direct (one-on-one) patient contact include:

- therapeutic exercises
- neuromuscular reeducation
- gait training
- manual therapy (e.g., soft tissue mobilization)
- therapeutic activities
- sensory integrative techniques
- wheelchair training

Documentation Requirements to Substantiate Medical Necessity of Therapeutic Modalities and Procedures

Proper patient specific evaluation and sufficient documentation is essential to establish the clinical necessity and effectiveness of each modality and procedure, aid in the determination of patient outcomes management, and support continuity of patient care. At a minimum, documentation is required for every treatment day and for each therapy performed. Each daily record should include: the date of service, the name of each modality and/or procedure performed, the parameters for each modality (e.g., amperage/voltage, location of pads/electrodes), area of treatment, total treatment time spent for each therapy (mandatory for timed services), the total treatment time for each date of service, and the identity of the person(s) providing the services. Failure to properly identify and sufficiently document the parameters for each therapy on a daily progress note may result in an adverse determination (partial approval or denial).

6.1 Passive Care and Active Care

Passive Care

Passive care are those interventions applied to a patient with no active participation on the part of the patient. Passive care includes various skilled therapeutic procedures (e.g.,

chiropractic manipulation, manual therapy [CPT® 97140], acupuncture) as well as passive therapeutic modalities, such as heat, cold, electrical stimulation, and ultrasound. The following guidelines are relevant to the use of passive therapeutic modalities:

- Generally used to manage the acute inflammatory response, pain, and/or muscle tightness or spasm in the early stages of musculoskeletal and related condition management (e.g., short term and dependent upon patient condition and presentation; a few weeks). When the symptoms that prompted the use of certain passive therapeutic modalities begin to subside (e.g., reduction of pain, inflammation, and muscle tightness) and function improves, the medical record should reflect the discontinuation of those modalities, so as to determine the patient's ability to self-manage any residual symptoms.
- Use in the treatment of sub-acute or chronic conditions beyond the acute inflammatory response time frame requires documentation of the anticipated benefit and condition-specific rationale (e.g., exacerbation, inclusion with active care as an alternative for pharmacological management of chronic pain) to be considered medically necessary. Passive therapeutic modalities can be appropriate in these situations when they are preparatory and essential to the safe and effective delivery of other skilled therapeutic procedures (e.g., chiropractic manipulation, manual therapy [CPT® 97140], therapeutic exercise, acupuncture) that are considered medically necessary.
- Used as a stand-alone treatment is rarely therapeutic, and thus not required or indicated as the sole treatment approach to a patient's condition. Therefore, a treatment plan should not consist solely of passive therapeutic modalities but should also include skilled therapeutic procedures (e.g., chiropractic manipulation, manual therapy [CPT® 97140], therapeutic exercise, acupuncture).
- Should be based on the most effective and efficient means of achieving the patient's functional goals. Seldom should a patient require more than one (1) or two (2) passive therapeutic modalities to the same body part during the therapy session. Use of more than two (2) passive therapeutic modalities on a single visit date and for a prolonged period is unusual and should be justified in the documentation for consideration of medical necessity.

Active Care

Active care involves therapeutic interventions that require patients to engage in specific exercises, movements, or activities to improve their health. Unlike passive care, which relies on external treatments (such as passive therapeutic modalities), active care emphasizes patient involvement and responsibility. Examples of active care include:

- Therapeutic Exercise Prescription (CPT® Code 97110): This service may be considered when healthcare professionals are present and supervising tailored exercises performed by the patient based on the patient's condition, goals, and

limitations. These exercises may be considered medically necessary to restore/develop strength, endurance, range of motion and flexibility which has been lost or limited as a result of illness, injury, loss of a body part, or congenital abnormality. (Refer to the “Treatment Interventions” section 6.2 of this CPG for further information.)

- Neuromuscular Reeducation (NMR) (CPT® Code 97112): This service may be considered when healthcare professionals are present and supervising tailored exercises/movements performed by the patient for the purpose of retraining the connection of the brain and muscles, via the nervous system to improve balance, coordination, kinesthetic sense, posture and/or proprioception for sitting and/or standing activities. This procedure may be considered medically necessary for impairments which affect the neuromuscular system. (Refer to the “Treatment Interventions” section 6.2 of this CPG for further information.)
- Therapeutic Activities Prescription (CPT® code 97530): This service may be considered when healthcare professionals are present and supervising tailored therapeutic activities or functional activities performed by the patient to improve function when there has been a loss of mobility, strength, balance or coordination. This intervention may be considered necessary when a patient needs to improve function-based activities. (Refer to the “Treatment Interventions” section 6.2 of this CPG for further information.)
- Independent Exercise Programs: Patients are provided with appropriate exercise routines to perform on their own (e.g., home exercise programs [HEPs]). Supervised skilled care is provided in the development, modification, and progression of the HEPs.
- Education and Self-Management: Patients receive education about their condition, proper body mechanics, and strategies to prevent recurrence. Empowering patients with knowledge helps them actively manage their health.

Use of various forms of active care should be started as soon as treatment is initiated and documented in the medical record, including instructions supporting Independent Exercise, Education and Self-Management. Active therapeutic procedures requiring the supervision of a skilled practitioner (e.g., therapeutic exercise, therapeutic activities, NMR) are initiated as soon as possible to patient tolerance. Patients should progress from active therapeutic procedures requiring the supervision of a skilled practitioner to solely an independent exercise program as soon as reasonably possible.

The goal for active therapeutic procedures requiring the supervision of a skilled practitioner is to provide the necessary skilled care (e.g., exercise technique and movement correction, technique feedback, modification, and/or exercise progression) to empower patients to successfully adopt and maintain an independent exercise program more efficiently and effectively than if they tried to do it on their own.

The length of time per session and the duration for medically necessary, active therapeutic procedures requiring the supervision of a skilled practitioner will vary depending upon multiple factors including but not limited to the patient's knowledge of exercise techniques and health status of the patient, the diagnosis, co-morbidities, phase of care, chronicity, and subjective and objective findings, especially the nature and severity of complaints, orthopedic, neurologic, and functional impairments.

The following guidelines are relevant to supervised therapeutic exercise (97110) and other active therapeutic procedures (e.g., 97112 and 97530) requiring the supervision of a skilled practitioner:

- For most patients, the duration of visits for medically necessary care typically does not exceed four (4) timed units, with the majority of codes utilized as active therapeutic procedures. The use of active therapeutic procedures is dependent upon patient tolerance and established goals. More than four (4) timed units per visit requires documentation to support this level of skilled care in the outpatient setting.
- More than two (2) or three (3) supervised active therapeutic procedure (e.g., 97110, 97112, 97530) sessions per week is expected to be a rare occurrence. Frequency of greater than three (3) times per week requires documentation to support this level of supervision.
- The duration of the treatment plan for active therapeutic procedures (e.g., 97110, 97112, 97530) varies based on the patient's condition, progress, treatment goals, and whether skilled services are necessary. It may span a visit or two, or several weeks or months, with periodic sessions to achieve functional improvement and address specific deficits. Certain patient factors may influence this duration (e.g., post-surgical status; significant trauma; significant orthopedic/neurological findings).

6.2 Treatment Interventions

Below are descriptions and medical necessity criteria, as applicable, for different treatment interventions, including specific modalities and therapeutic procedures associated with occupational therapy. This material is for informational purposes only and is not indicative of coverage, nor is it an exhaustive list of services provided.

Hydrotherapy/Whirlpool/Hubbard Tank

These modalities involve supervised use of agitated water in order to relieve muscle spasm, improve circulation, or cleanse wounds e.g., ulcers, skin conditions. Hydrotherapy may be considered medically necessary for pain relief, muscle relaxation and improvement of movement for persons with musculoskeletal conditions or for wound care (cleansing and debridement).

Fluidotherapy®

This modality is used specifically for acute and subacute conditions of the extremities. Fluidotherapy® is a dry superficial thermal modality that transfers heat to soft tissues by agitation of heated air and Cellux particles. The indications for this modality are similar to paraffin baths and whirlpool and it is an acceptable alternative to other heat modalities for reducing pain, edema, and muscle spasm from acute or subacute traumatic or non-traumatic musculoskeletal disorders of the extremities, including complex regional pain syndrome (CRPS). A benefit of Fluidotherapy® is that patients can perform active range of motion (AROM) while undergoing treatment.

Vasopneumatic Devices

These special devices apply pressure for swelling/edema reduction, either after an acute injury, following a surgical procedure, due to lymphedema, or due to pathology such as venous insufficiency. Education sessions for home use are considered medically necessary (up to two sessions). Cooling systems such as Game Ready® Systems, Cryocuff, Polar Care Wave or any similar cold compression system devices are not considered vasopneumatic devices and should not be billed as such.

Hot/Cold Packs

Hot packs increase blood flow, relieve pain and increase flexibility. Cold packs decrease blood flow to an area for reduction of pain and swelling. They may be considered medically necessary for musculoskeletal conditions that include significant pain and/or swelling.

Paraffin Bath

This modality uses hot wax for application of heat. It is indicated for use to relieve pain and increase range of motion of extremities (typically wrists and hands) due to chronic joint problems, post-injury, or post-surgical scenarios.

Mechanical Traction

This device provides a mechanical pull on the spine (cervical or lumbar) to relieve pain, spasm, and nerve root compression. Mechanical traction may be considered medically necessary only when there is no improvement after the application of other evidence-based therapeutic procedures to significantly improve symptoms for 3 weeks; the patient has signs of nerve root compression or radiculopathy; it is used in combination with other evidence-based treatments including therapeutic exercise with extension movements. A table or chair with moving rollers used against the spine or paraspinal tissues (e.g., Spinalator, AKA intersegmental traction) is not a form of mechanical traction.

Axial Decompression Therapy (AKA Decompression Therapy or Spinal Decompression Therapy) is considered unproven and not medically necessary.

Infrared Light Therapy

Infrared light therapy is a form of heat therapy used to increase circulation to relieve muscle spasm. Other heating modalities are considered superior to infrared lamps and should be considered unless there is a contraindication to those other forms of heat. Utilization of the Infrared Light Therapy CPT® code is not appropriate for low level laser treatment. This also does not refer to Anodyne® Therapy System.

Electrical Stimulation

Electrical stimulation is used in different variations to relieve pain, reduce swelling, heal wounds, and improve muscle function. Functional electric stimulation is considered medically necessary for muscle re-education (to improve muscle contraction) in the earlier phases of rehabilitation.

Iontophoresis

Electric current is used to transfer certain chemicals (medications) into body tissues. Use of iontophoresis may be considered medically necessary for the treatment of inflammatory conditions, such as plantar fasciitis and lateral epicondylitis.

Contrast Baths

This modality is the application of alternative hot and cold baths and is typically used to treat extremities with subacute swelling or chronic regional pain syndrome (CRPS). Contrast baths may be considered medically necessary to reduce hypersensitivity and swelling.

Ultrasound

This modality provides deep heating through high frequency sound wave application. Non-thermal applications are also possible using the pulsed option. Ultrasound is commonly used to treat many soft tissue conditions that require deep heating or micromassage to a localized area to relieve pain and improve healing. Ultrasound may be considered medically necessary to relieve pain and improve healing.

Low-Frequency, Non-Contact, Non-Thermal Ultrasound

This modality is a system that uses continuous low-frequency ultrasonic energy to produce and propel a mist of liquid and deliver continuous low-frequency ultrasound to the wound bed. This modality is often referred to as ‘MIST Therapy.’

Diathermy (e.g., shortwave)

Shortwave diathermy utilizes high frequency magnetic and electrical current to provide deep heating to larger joints and soft tissue, and may be considered medically necessary for pain relief, increased circulation, and muscle spasm reduction. Microwave diathermy presents an unacceptable risk profile and is considered not medically necessary.

1 **Therapeutic Exercises**

2 Therapeutic exercise includes instruction, feedback, and supervision of a person in an
3 exercise program specific to their condition. Therapeutic exercise may be considered
4 medically necessary to restore/develop strength, endurance, range of motion and flexibility
5 which has been lost or limited as a result of illness, injury, loss of a body part, or congenital
6 abnormality. Exercise performed by the patient within a clinic facility or other location
7 (e.g., home, gym) without a physician or therapist present and supervising would be
8 considered not medically necessary.

10 **Neuromuscular Reeducation (NMR)**

11 NMR generally refers to a treatment technique performed for the purpose of retraining the
12 connection of the brain and muscles, via the nervous system, to improve balance,
13 coordination, kinesthetic sense, posture and/or proprioception for sitting and/or standing
14 activities. The goal of NMR is to develop conscious control of individual muscles and
15 awareness of position of extremities. The procedure may be considered medically
16 necessary for impairments which affect the neuromuscular system (e.g., poor static or
17 dynamic sitting/standing balance, loss of gross and fine motor coordination) that may result
18 from musculoskeletal or neuromuscular disease or injury such as severe trauma to nervous
19 system, post orthopedic surgery, cerebral vascular accident and systemic neurological
20 disease. Example techniques may include proprioceptive neuromuscular facilitation (PNF),
21 quadriceps activation methods, activities that engage balance and core control, and
22 desensitization techniques. This does not include contract/relax or other soft tissue massage
23 techniques. NMR is typically used as the precursor to the implementation of Therapeutic
24 Activities.

26 **Aquatic Therapy**

27 Pool therapy (aquatic therapy) is provided individually, in a pool, to debilitated or
28 neurologically impaired individuals. (The term is not intended to refer to relatively normal
29 functioning individuals who exercise, swim laps or relax in a hot tub or Jacuzzi.) The goal
30 is to develop and/or maintain muscle strength and range of motion by reducing forces of
31 gravity through total or partial body immersion (except for head). Aquatic therapy may be
32 considered medically necessary to develop and/or maintain muscle strength and range of
33 motion when it is necessary to reduce the force of gravity through partial body immersion.

35 **Soft Tissue Mobilization**

36 Soft tissue mobilization techniques are more specific in nature and include, but are not
37 limited to, myofascial release techniques, friction massage, and trigger point techniques.
38 Specifically, myofascial release is a soft tissue manual technique that involves
39 manipulation of the muscle, fascia, and skin. Skilled manual techniques (active and/or
40 passive) are applied to soft tissue to effect changes in the soft tissues, articular structures,
41 neural or vascular systems. Examples are facilitation of fluid exchange, restoration of

movement in acutely edematous muscles, or stretching of shortened connective tissue. This procedure is considered medically necessary for treatment of pain and restricted motion of soft tissues resulting in functional deficits.

Joint Mobilization

Joint mobilization is utilized to reduce pain and increase joint mobility. Most often mobilizations are indicated for the upper extremity, especially the hand.

Therapeutic Activities

Therapeutic activities or functional activities (e.g., bending, lifting, carrying, reaching, pushing, pulling, stooping, catching and overhead activities may be considered medically necessary) to improve function when there has been a loss or restriction of mobility, strength, balance or coordination. These dynamic activities must be part of an active treatment plan and directed at a specific outcome. As an example, this intervention may be considered medically necessary in conjunction with or after a patient has completed exercises focused on strengthening and range of motion but needs to improve function-based activities.

Activities of Daily Living (ADL) Training

This procedure is considered medically necessary to enable the patient to perform essential activities of daily living, instrumental activities of daily living, and self-care including bathing, feeding, preparing meals, toileting, dressing, walking, making a bed, and transferring from bed to chair, wheelchair or walker. Services provided concurrently by physical therapists and occupational therapists may be considered medically necessary if there are separate and distinct functional goals.

Self-Care/Home Management Training

Self-Care/Home Management Training involves instructing and training patients with impairments in essential activities of daily living (ADL) and self-care activities (e.g., bathing, feeding, dressing, preparing meals, toileting, walking, making bed, and transferring from bed to chair, wheelchair or walker). This also includes compensatory training for ADLs, safety procedures, and instructions in the use of adaptive equipment and assistive technology for use in the home environment. Self-Care/Home Management Training may be considered medically necessary only when training is designed to address specific needs and goals of the patient for self-management skill development.

Cognitive Skills Development

This procedure is considered medically necessary for persons with acquired cognitive deficits resulting from head trauma, or acute neurologic events including cerebrovascular accident, pediatric developmental condition, or other situations. It is not appropriate for persons without potential for improvement. Occupational therapists and speech language

1 pathologists with specific training typically provide this care. This procedure should be
 2 aimed at improving or restoring specific functions which were impaired by an identified
 3 illness or injury.

5 **Sensory Integration**

6 Sensory integration involves perceiving, modulating, organizing, and interpreting these
 7 sensations to optimize occupational performance and participation. Sensory integration (SI)
 8 is mainly an intervention for children with developmental and behavioral disorders. The
 9 activities included in SI provide vestibular, proprioceptive, auditory, and tactile stimuli, which
 10 in turn organize the sensory system. See the *Sensory Integrative (SI) Therapy* (CPG 149 – S)
 11 clinical practice guideline for medical necessity criteria.

13 **Orthotic Management and Training**

14 Orthotic management and training may be considered medically necessary when the
 15 documentation specifically demonstrates that the specific knowledge, skills, and judgment
 16 of an Occupational Therapist are required to train the patient in the proper use of braces
 17 and/or splints (orthotics). Many braces or splints do not require specific training by the
 18 Occupational Therapist in their use and can be safely procured and applied by the patient.
 19 Patients with cognitive, dexterity, or other significant deficits may need specific training
 20 where other patients do not.

22 **Prosthetic Training**

23 Prosthetic training may be considered medically necessary when the professional skills of
 24 the practitioner are required to train the patient in the proper fitting and use of a prosthetic
 25 (an artificial body part, such as a limb). Periodic return visits beyond the third month may
 26 be necessary.

28 **Wheelchair Management Training**

29 This procedure is considered medically necessary only when it is part of an active treatment
 30 plan directed at a specific goal. The member must have the capacity to learn from
 31 instructions. Typically, three (3) sessions are adequate.

33 **Active Wound Care Management**

34 The CPT® codebook defines active wound care procedures as those procedures "performed
 35 to remove devitalized tissue and/or necrotic tissue and promote healing" (AMA, current
 36 year). The practitioner is required to have direct one-on-one contact with the patient.
 37 Examples of active wound care management include non-selective debridement of an open
 38 wound, including topical application; use of whirlpool or other modalities; and negative
 39 pressure wound therapy. Occupational therapy state rules and regulations will dictate if
 40 occupational therapists can perform wound care.

Pulmonary Rehabilitation

Pulmonary rehabilitation (PR) is a widely accepted therapeutic tool used to improve the quality of life and functional capacity of individuals with chronic lung disease. It is a multidisciplinary, comprehensive program of care that is individually tailored and designed to optimize autonomy and physical performance in patients with chronic respiratory impairment. The goal of PR is to help the individual achieve the highest level of independent functioning by improving pulmonary function, increasing exercise endurance and exercise work capacity, reducing dyspnea and normalizing blood gases. Manipulation of the chest wall, such as cupping, percussing, and vibration to facilitate lung function may be an important component of a multi-modal treatment plan for individuals with pulmonary conditions. Specific therapeutic procedures to increase strength or endurance of respiratory muscles may also be an acceptable intervention as well.

Lymphedema Management

For more information, see the *Lymphedema (CPG 157 – S)* clinical practice guideline.

6.3 Precautions and Contraindications to Therapeutic Modalities and Procedures

Thermotherapy

The use of thermotherapy is contraindicated for the following:

- Recent or potential hemorrhage
- Thrombophlebitis
- Impaired sensation
- Impaired mentation
- Local malignant tumor
- IR irradiation of the eyes
- Infected areas

Precautions for use of thermotherapy include:

- Acute injury or inflammation
- Pregnancy
- Impaired circulation
- Poor thermal regulation
- Edema
- Cardiac insufficiency
- Metal in the area
- Over an open wound
- Large scars
- Over areas where topical counterirritants have recently been applied

- Demyelinated nerve

Cryotherapy

The use of cryotherapy is contraindicated for the following:

- Cold hypersensitivity
- Cold intolerance
- Cryoglobulinemia
- Paroxysmal cold hemoglobinuria
- Raynaud disease or phenomenon
- Over regenerating peripheral nerves
- Over an area with circulatory compromise or peripheral vascular disease

Precautions for cryotherapy include:

- Over the superficial branch of a nerve
- Neuropathy
- Over an open wound
- Hypertension
- Poor sensation or mentation

Hydrotherapy

The use of immersion hydrotherapy is contraindicated for the following:

- Cardiac instability
- Maceration around a wound
- Bleeding
- Infection in the area to be immersed
- Bowel incontinence
- Severe epilepsy
- Patient with suicidal ideation
- Impaired mentation

Precautions for full body immersion in hot or very warm water include:

- Pregnancy
- Multiple sclerosis
- Poor thermal regulation

Mechanical Traction

Contraindications for mechanical traction include:

- Where motion is contraindicated
- Acute injury or inflammation

- Joint hypermobility or instability
- Peripheralization of symptoms with traction
- Uncontrolled hypertension
- Congenital spinal deformity
- Fractures
- Impaired mentation

Precautions for mechanical traction include:

- Structural diseases or conditions affecting the tissues in the area to be treated (e.g., tumor, infection, osteoporosis, RA, prolonged systemic steroid use, local radiation therapy)
- When pressure of the belts may be hazardous (e.g., with pregnancy, hiatal hernia, vascular compromise, osteoporosis)
- Cardiovascular disease
- Displaced annular fragment
- Medial disc protrusion
- Cord compression
- When severe pain fully resolves with traction
- Claustrophobia or other psychological aversion to traction
- Inability to tolerate prone or supine position
- Disorientation

Additional precautions for *cervical* traction:

- TMJ problems
- Dentures

Shortwave Diathermy

The use of thermal shortwave diathermy (SWD) is contraindicated for the following

- Any metal in the treatment area or on/in the body.
- Malignancy
- Eyes
- Testes
- Growing epiphyses
- Recent or potential hemorrhage
- Thrombophlebitis

Contraindications for all forms of SWD:

- Implanted or transcutaneous neural stimulators including cardiac pacemakers
- Pregnancy

- Impaired sensation
- Impaired mentation
- Infected areas

Precautions for all forms of SWD:

- Near electronic or magnetic equipment
- Obesity
- Copper-bearing intrauterine contraceptive devices

Electrical currents

Contraindications for use of electrical currents:

- Demand pacemakers, implantable defibrillator, or unstable arrhythmia
- Placement of electrodes over carotid sinus and heart
- Areas where venous or arterial thrombosis or thrombophlebitis is present
- Pregnancy – over or around the abdomen or low back
- Infected areas

Precautions for electrical current use:

- Cardiac disease
- Impaired mentation
- Impaired sensation
- Malignant tumors
- Areas of skin irritation or open wounds

Ultrasound

Contraindications to the use of ultrasound include:

- Malignant tumor
- Pregnant uterus
- Central nervous tissue
- Joint cement
- Plastic components
- Pacemaker or implantable cardiac rhythm device
- Thrombophlebitis
- Eyes
- Reproductive organs
- Impaired sensation
- Impaired mentation
- Infected areas

Precautions for ultrasound include:

- Acute inflammation
- Epiphyseal plates
- Fractures
- Breast implants

Pediatric Patients

The use of electrical muscle stimulation, SWD, thermotherapy, cryotherapy, ultrasound, laser/light therapy, immersion hydrotherapy, and mechanical traction is contraindicated if the patient cannot provide the proper feedback necessary for safe application.

Unproven

In addition to the contraindications listed above, there are a wide range of services which are considered unproven, pose a significant health and safety risk, are scientifically implausible and/or are not widely supported as evidence based. Such services would be considered not medically necessary and include, but are not limited to:

- Axial/Spinal decompression
- Dry needling
- Laser therapy
- Manual muscle testing to diagnosis non-neuromusculoskeletal conditions
- Microcurrent Electrical Nerve Stimulation (MENS)
- Other unproven procedures (see the *Techniques and Procedures Not Widely Supported as Evidence-Based (CPG 133 – S)* clinical practice guideline for complete list)

7. CLINICAL DOCUMENTATION

Medical record keeping is an essential component of patient evaluation and management. Medical records should be legible and should contain, at a minimum sufficient information to identify the patient, support the diagnosis, justify the treatment, accurately document the results, indicate advice and cautionary warnings provided to the patient and provide sufficient information for another practitioner to assume continuity of the patient's care at any point in the course of treatment. Good medical record keeping improves the likelihood of a positive outcome and reduces the risk of treatment errors. It also provides a resource to review cases for opportunities to improve care, provides evidence for legal records, and offers necessary information for third parties who need to review and understand the rationale and type of services rendered (e.g., medical billers and auditors/reviewers).

Outcome measures are important in determining effectiveness of a patient's care. The use of standardized tests and measures early in an episode of care establishes the baseline status of the patient, providing a means to quantify change in the patient's functioning. Outcome

measures provide information about whether predicted outcomes are being realized. When comparison of follow-up with baseline outcome metrics does not demonstrate minimal clinically important difference (MCID) (minimal amount of change in a score of a valid outcome assessment tool) the treatment plan should be changed or be discontinued. Failure to use Functional Outcome Measures (FOMs) / Outcome Assessment Tools (OATs) may result in insufficient documentation of patient progress and may result in an adverse determination (partial approval or denial) of continued care.

7.1 Evaluation and Re-evaluations

The initial evaluation is usually completed in a single session. The initial evaluation should document the necessity of a course of therapy through objective findings and subjective patient/caregiver self-reporting. Initial evaluations are completed to determine the medical necessity of initiating rehabilitative therapy or skilled instruction in maintenance activities that the patient and/or caregiver can perform at home. The occupational therapist performs an initial examination and evaluation to establish a working diagnosis, prognosis, and plan of care prior to intervention. Determination of referral to another health care practitioner is also an essential part of an initial evaluation. An initial evaluation for a new condition by an Occupational Therapist is defined as the evaluation of a patient:

- For which this is their first encounter with the practitioner or practitioner group;
- Who presents with:
 - A new injury or new condition; or
 - The same or similar complaint after discharge from previous care.
- Choice of code is dependent upon the level of complexity

The evaluation codes reflect three (3) levels of patient presentation:

1. low complexity;
2. moderate complexity; and
3. high complexity.

Four components are used to select the appropriate occupational therapy evaluation CPT® code. These include:

1. Occupational profile and client history (medical and therapy);
2. Assessments of occupational performance;
3. Clinical decision making;
4. Development of plan of care.

Relevant CPT® Codes: 97165, 97166, and 97167 – Occupational Therapy evaluation. The occupational therapist evaluation:

- Is documented, dated, and appropriately authenticated by the occupational therapist who performed it

- Identifies the occupational therapy needs of the patient
- Incorporates appropriate tests and measures to facilitate outcome measurement
- Produces data that are sufficient to allow evaluation, prognosis, and the establishment of a plan of care

The written plan of care should be sufficient to determine the medical necessity of treatment, including:

- The diagnosis along with the date of onset or exacerbation of the disorder/diagnosis
- A reasonable estimate of when the goals will be reached
- Long-term and short-term goals that are specific, quantitative and objective
- Occupational therapy evaluation pertinent findings
- The frequency and duration of treatment
- Rehabilitation or habilitation prognosis
- The specific treatment techniques and/or exercises to be used in treatment
- Signatures of the patient's occupational therapist

Re-evaluations are distinct from therapy assessments. There are several routine reassessments that are not considered re-evaluations. These include ongoing reassessments that are part of each skilled treatment session, progress reports, and discharge summaries. Re-evaluation provides additional objective information not included in documentation of ongoing assessments, treatment or progress notes. Assessments are considered a routine aspect of intervention and are not billed separately from the intervention. Continuous assessment of the patient's progress is a component of the ongoing therapy services and is not payable as a re-evaluation.

Re-evaluation services are considered medically necessary when **ALL** of the following conditions are met:

- Re-evaluation is not a recurring routine assessment of patient status
- The documentation of the re-evaluation includes all of the following elements:
 - An evaluation of progress toward current goals;
 - Making a professional judgment about continued care;
 - Making a professional judgment about revising goals and/or treatment or terminating services.

AND the following indication is documented:

An exacerbation or significant change in patient/client status or condition.

Relevant CPT® Codes: 97168 – Occupational Therapy re-evaluation

In order to reflect that continued OT services are medically necessary, intermittent progress reports must demonstrate that the individual is making functional progress.

7.2 Treatment Sessions

An occupational therapy intervention is the purposeful interaction of the occupational therapy practitioner (OT or OTA) with the patient and, when appropriate, with other individuals involved in patient care, using various occupational therapy procedures and techniques to produce changes in the condition that are consistent with the diagnosis and prognosis. Occupational therapy interventions consist of coordination, communication, and documentation; patient-related and family/caregiver instruction; and procedural interventions. Occupational therapists aim to alleviate impairment and functional limitation by designing, implementing, and modifying therapeutic interventions. An occupational therapy session can vary in duration; however, treatment sessions lasting more than one hour per day are infrequent in outpatient settings (payor medical or reimbursement coverage policy may limit unit or session duration per date of service). Treatment sessions for more than one hour per day may be medically appropriate but must be supported in the documented plan of care and based on a patient's medical condition. An occupational therapy session may include:

- Evaluation or reevaluation
- Therapeutic use of everyday life and other purposeful activities, and other interventions focusing on preparing patients for daily activities performed in life and work
- Basic and advanced functional training in daily living, self-care and home management including activities of daily living (ADL) and instrumental activities of daily living (IADL)
- Management of feeding, eating and swallowing to improve eating and feeding performance
- Cognitive, perceptual, safety and judgment evaluation and training
- Adaptive training in and modification of activities, processes and environments (home, work, school, or community), including ergonomic applications and performance improvement
- Assessment, design, fabrication, application, fitting, and training in assistive technology, adaptive devices, and orthotic devices
- Training in the use of prosthetic devices
- Higher level independent living skill instruction and community/work functional reintegration
- Functionally oriented upper extremity interventions
- Training of the patient, caregivers, and family/parents in home exercise and activity programs
- Skilled reassessment of the individual's problems, plan, and goals as part of the treatment session

Documentation of treatment should include:

- Date of treatment
- Subjective complaints and current status (including functional deficits and ADL restrictions)
- Description/name of each specific treatment intervention provided that match the CPT® codes billed, including:
 - Treatment time for each modality or procedure performed
 - Parameters of any modality or procedure, (e.g., voltage/amperage, pad/electrode placement, area of treatment, types of exercises/activities, and intended goal of each therapy)
- The patient's response to each service and to the entire treatment session
- Any progress toward the goals in objective, measurable terms using consistent and comparable methods
- Any changes to the plan of care
- Recommendations for follow-up visit(s)
- Signature/electronic identifier, name and credentials of the treating clinician

7.3 Discharge/Discontinuation of Intervention

The occupational therapist discharges the patient from occupational therapy services when the anticipated goals or expected outcomes for the patient have been achieved. The occupational therapist discontinues intervention when the patient is unable to continue to progress toward goals or when the occupational therapist determines that the patient will no longer benefit from occupational therapy.

The occupational therapy discharge documentation includes:

- The status of the patient at discharge and the goals and outcomes attained
- Appropriate date and authentication by the occupational therapist who performed the discharge
- When a patient is discharged prior to attainment of goals and outcomes, the status of the patient and the rationale for discontinuation
- Final functional status
- Proposed self-care recommendations, if applicable
- Referrals to other health care practitioners/referring physicians as appropriate
- If the patient self-discharges, documentation of final status and if known, the reason for discontinuation of services

7.4 Duplicated / Insufficient Information

(1) Entries in the medical record should be contemporaneous, individualized, appropriately comprehensive, and made in a chronological, systematic, and organized manner. Duplicated/nearly duplicated medical records (AKA cloned records) are not acceptable. It is not clinically reasonable or physiologically feasible that a patient's condition will be

identical on multiple encounters. (Should the finding be identical for encounters, it would be expected that treatment would end because patient is not making progress toward current goals.)

This includes, but not limited to:

- duplication of information from one treatment session to another (for the same or different patient[s]);
- duplication of information from one evaluation to another (for the same or different patient[s]).

Duplicated medical records do not meet professional standards of medical record keeping and may result in an adverse determination (partial approval or denial) of those services.

(2) The use of a system of record keeping that does not provide sufficient information (e.g., checking boxes, circling items from lists, arrows, travel cards with only dates of visit and listings). These types of medical record keeping may result in an adverse determination (partial approval or denial) of those services.

Effective and appropriate records keeping that meet professional standards of medical record keeping document with adequate detail a proper assessment of the patient's status, the nature and severity of his/her complaint(s) or condition(s), and/or other relevant clinical information (e.g., history, parameters of each therapy performed, objective findings, progress towards treatment goals, response to care, prognosis).

7.5 Centers for Medicare and Medicaid Services (CMS)

For Medicare and Medicaid services, medical records keeping must follow and be in accordance with Medicare and any additional state Medicaid required documentation guidelines.

8. CLINICAL REVIEW PROCESS

Medical necessity evaluations require approaching the clinical data and scientific evidence from a global perspective and synthesizing the various elements into a congruent picture of the patient's condition and need for skilled treatment intervention. Clinical review decisions made by the clinical quality evaluators are based upon the information provided by the treating practitioner in the submitted documentation and other related findings and information. Failure to appropriately document pertinent clinical information may result in adverse determinations (partial approval or denial) of those services. Therefore, thorough documentation of all clinical information that established the diagnosis/diagnoses and supports the intended treatment is essential.

8.1 Definition of Key Terminology used in Clinical Reviews

Elective/Convenience Services

Examples of elective/convenience services include: (a) preventive services; (b) wellness services; (c) services not necessary to return the patient to pre-illness/pre-injury functional status and level of activity; (d) services provided after the patient has reached MTB. (Elective/convenience services may not be covered through specific client or ASH benefits.)

Minimal Clinically Important Difference (MCID)

The MCID is the minimal amount of change in a score of a valid outcome assessment tool that indicates an actual improvement in the patient's function or pain. Actual significance of outcome assessment tool findings requires correlation with the overall clinical presentation, including updated subjective and objective examination/evaluation findings.

Maximum Therapeutic Benefit (MTB)

MTB is the patient's health status when the application of skilled therapeutic services has achieved its full potential (which may or may not be the complete resolution of the patient's condition). At the point of MTB, continuation of the same or similar skilled treatment approach will not significantly improve the patient's impairments and function during this episode of care.

If the patient continues to have significant complaints, impairments, and documented functional limitations, one should consider the following:

- Altering the treatment regimen such as utilizing a different physiological approach to the treatment of the condition, or decreasing the use of passive care (modalities, massage etc.) and increasing the active care (therapeutic exercise) aspects of treatment to attain greater functional gains;
- Reviewing self-management program including home exercise programs; and/or
- Referring the patient for consultation by another health care practitioner for possible co-management or a different therapeutic approach.

Preventive Services

Preventive services are designed to reduce the incidence or prevalence of illness, impairment, and risk factors, and to promote optimal health, wellness, and function. These services are not designed or performed to treat or manage a specific health condition. (Preventive services may or may not be covered under specific clients or through ASH benefits.)

Acute

The stage of an injury, illness, or disease, in which the presence of clinical signs and symptoms is less than six weeks in duration, typically characterized by the presence of one or more signs of inflammation or other adaptive response.

Sub-Acute

The stage of an injury, illness, or disease, in which the presence of clinical signs and symptoms is greater than six weeks, but not greater than twelve weeks in duration.

Chronic

The stage of a pain condition in which the presence of clinical signs and symptoms is greater than twelve weeks in duration.

Red Flag(s)

Signs and symptoms presented through history or examination/assessment that warrant more detailed and immediate medical assessment and/or intervention.

Yellow Flag(s)

Adverse prognostic indicators with a psychosocial predominance associated with chronic pain and disability. Yellow flags signal the potential need for more intensive and complex treatment and/or earlier specialist referral.

Co-Morbid Condition(s)

The presence of a concomitant condition, that may inhibit, lengthen, or alter in some way the expected response or approach to care.

Health Equity (HE)

The attainment of the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health regardless of race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, preferred language, or other factors that affect access to care and health outcomes (Centers for Medicare & Medicaid Services, 2024).

Social Determinants of Health (SDoH)

The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Five domains: 1) Economic stability; 2) Education access and quality; 3) Health care access and quality; 4) Neighborhood and built environment; 5) Social and community context (Office of Disease Prevention and Health Promotion [ODPHP], n.d.).

8.2 Clinical Review for Medical Necessity

The goal of the CQEs during the review and decision-making process is to approve, as appropriate, those clinical services necessary to return the patient to pre-clinical/pre-morbid health status, stabilize, or functionally improve a chronic condition, as supported by the documentation presented. The clinical quality evaluator is to evaluate if the documentation and other clinical information presented by the practitioner has appropriately substantiated the patient's condition and appropriately justifies the treatment plan that is presented.

Approval

ASH clinical quality evaluators have the responsibility to approve appropriate care for all services that are medically necessary. The clinical quality evaluators assess the clinical data supplied by the practitioner in order to determine whether submitted services and/or the initiation or continuation of care has been documented as medically necessary. The practitioner is accountable to document the medical necessity of all services submitted/provided. It is the responsibility of the peer clinical quality evaluator to evaluate the documentation in accordance with their training, understanding of practice parameters, and review criteria adopted by ASH through its clinical committees.

The following items influence clinical service approvals:

- No evidence of contraindication(s) to services submitted for review
- Complaints, exam findings, and diagnoses correlate with each other
- Treatment Plan is supported by the nature and severity of complaints
- Treatment Plan is supported by exam findings
- Treatment Plan is expected to improve symptoms (e.g., pain, function) within a reasonable period of time
- Maximum therapeutic benefit has not been reached
- Treatment Plan requires the skills of the practitioner
- Demonstration of progression toward active home/self-care and discharge

Partial Approval

Occurs when only a portion of the submitted services are determined to be medically necessary services. The partial approval may refer to a decrease in treatment frequency, treatment duration, number of Durable Medical Equipment (DME)/supplies/appliances, number of therapies, or other services from the original amount/length submitted for review. This decision may be due to any number of reasons, such as:

- the practitioner's documentation of the history and exam findings are inconsistent with the clinical conclusion(s)
- the treatment dosage (frequency/duration) submitted for review is not supported by the underlying diagnostic or clinical features

- the need to initiate only a limited episode of care in order to monitor the patient's response to care

Additional services may be submitted and reviewed for evaluation of the patient's response to the initial trial of care. If the practitioner or patient disagrees with the partial approval of services, they contact the clinical quality evaluator listed on their response form to discuss the case, submit additional documentation through the Reopen process, or submit additional documentation to appeal the decision through the Provider Appeals and Member Grievances process.

Non-approval / Denial

Occurs when none of the services submitted for review are determined to be medically necessary services. The most common causes for a non-approval/denial of all services are administrative or contractual in nature (e.g., ineligibility, reached plan benefit limits, non-coverage). Clinically, it is appropriate to deny continued/ongoing care if the patient's condition(s) are not, or are no longer, responding favorably to the services being rendered by the treating practitioner, or the patient has reached maximum therapeutic benefit.

Additional / Continued Care

Approval of additional treatment/services requires submission of additional information, including the patient's response to care and updated clinical findings. In cases where an additional course of care is submitted, the decision to approve additional services will be based upon the following criteria:

- The patient has made clinically significant progress under the initial treatment plan/program based on a reliable and valid outcome tool or updated subjective, functional, and objective examination findings.
- Additional clinically significant progress can be reasonably expected by continued treatment. (The patient has not reached MTB or maximum medical improvement.)
- There is no indication that immediate care/evaluation is required by other health care professionals.

Any exacerbation or flare-up of the condition that contributes to the need for additional treatment/services must be clearly documented.

The clinical information that the clinical quality evaluator expects to see when evaluating the documentation in support of the medical necessity of submitted treatment/services should be commensurate with the nature and severity of the presenting complaint(s) and scope of the practitioner of services and may include but is not limited to:

- History
- Physical examination/evaluation

- Documented treatment plan and goals
- Estimated time of discharge

In general, the initiation of care is warranted if there are no contraindications to prescribed care, there is reasonable evidence to suggest the efficacy of the prescribed intervention, and the intervention is within the scope of services permitted by State or Federal law. The treatment submission for a disorder is typically structured in time-limited increments depending on clinical presentation. Dosage (frequency and duration of service) should be appropriately correlated with clinical findings, potential complications/barriers to recovery and clinical evidence. When the practitioner discovers that a patient is nonresponsive to the applied interventions within a reasonable time frame, re-assessment and treatment modification should be implemented and documented. If the patient's condition(s) worsen, the practitioner should take immediate and appropriate action to discontinue or modify care and/or make an appropriate healthcare referral.

Services that do not require the professional skills of a practitioner to perform or supervise are not medically necessary. If a patient's recovery can proceed safely and effectively through a home exercise program or self-management program, services are not indicated or medically necessary.

8.3 Critical Factors during Clinical Reviews

The complexity and/or severity of historical factors, symptoms, examination findings, and functional deficits play an essential role in helping to quantify the patient's clinical status and assess the effectiveness of planned interventions over time. Clinical quality evaluators consider patient-specific variables as part of the medical necessity verification process. The entire clinical picture must be taken into consideration with each case evaluated based upon unique patient and condition characteristics.

Such variables may include, but not be limited to co-morbid conditions and other barriers to recovery, the stage(s) of the condition(s), mechanism of injury, severity of the symptoms, functional deficits, and exam findings, as well as social and psychological status of the patient and the available support systems for self-care. In addition, the patient's age, symptom severity, and the extent of positive clinical findings may influence duration, intensity, and frequency of services approved as medically necessary. For example:

- Severe symptomatology, exam findings, and/or functional deficits may require more care overall (e.g., longer duration, more services per encounter, and frequency of encounters that the average); these patients require a higher frequency; but may require short-term trials of care initially to assess patient response to care.
- Less severe symptomatology, exam findings and/or functional deficits usually require less care (e.g., shorter duration, fewer services per encounter, and frequency

- 1 of encounters that the average); overall but may allow for less oversight and a
 2 longer initial trial of care.
- 3 • As patients age, they may have a slower response to care, and this may affect the
 4 approval of a trial of care.
 - 5 • Because pediatric patients (under the age of 12) have not reached musculoskeletal
 6 maturity, it may be necessary to modify the types of therapies approved as well as
 7 shorten the initial trial of care.
 - 8 • Complicating and/or co-morbid condition factors vary depending upon individual
 9 patient characteristics, the nature of the condition/complaints, historical and
 10 examination elements, and may require appropriate coordination of care and/or
 11 more timely re-evaluation.

12

13 Health equity is the attainment of the highest level of health for all people, where everyone
 14 has a fair and just opportunity to attain their optimal health. Factors that can impede health
 15 equity include, but are not limited to, race, ethnicity, disability, sexual orientation, gender
 16 identity, socioeconomic status, geography, and preferred language. Social Determinants of
 17 Health (SDoH) are important influences on health equity status. SDoH are the conditions
 18 in the environments where people are born, live, learn, work, play, worship, and age that
 19 affect a wide range of health, functioning, and quality-of-life outcomes and risks. There
 20 are typically five domains of SDoH: 1) Economic stability; 2) Education access and
 21 quality; 3) Health care access and quality; 4) Neighborhood and built environment; 5)
 22 Social and community context. These barriers to health equity may impact health care
 23 access, the patient presentation, clinical evaluations, treatment planning, and patient
 24 outcomes which may in turn influence medical necessity considerations.

25

26 The following are examples of the factors CQEs consider when verifying the medical
 27 necessity of rehabilitative services for musculoskeletal conditions and pain disorders.

28 **8.3.1 General Factors**

29 Multiple patient-specific historical and clinical findings may influence clinical decisions,
 30 such as but not limited to:

- 31 • Red flags
- 32 • Yellow flags (psychosocial factors)
- 33 • Co-morbid conditions (e.g., diabetes, inflammatory conditions, joint instability)
- 34 • Age (older or younger)
- 35 • Non-compliance with treatment and/or self-care recommendations
- 36 • Lack of response to appropriate care
- 37 • Lifestyle factors (e.g., smoking, diet, stress, deconditioning)
- 38 • Work and recreational activities
- 39 • Pre-operative/post-operative care
- 40

- Medication use (type and compliance)

Nature of Complaint(s)

- Acute and severe symptoms
- Functional testing results that display severe disability/dysfunction
- Pain that radiates below the knee or elbow (for spinal conditions)

History

- Trauma resulting in significant injury or functional deficits.
- Pre-existing pathologies/surgery(ies)
- Congenital anomalies (e.g., severe scoliosis)
- Recurring exacerbations
- Prior episodes (e.g., >3 for spinal conditions)
- Multiple new conditions which introduce concerns regarding the cause of these conditions

Examination

- Severe signs/findings
- Results from diagnostic testing that are likely to impact coordination of care and response to care (e.g., fracture, joint instability, neurological deficits)

Assessment of Red Flags

At any time the patient is under care, the practitioner is responsible for seeking and recognizing signs and symptoms that require additional diagnostics, treatment/service, and/or referral. A careful and adequately comprehensive history and evaluation in addition to ongoing monitoring during the course of treatment is necessary to discover potential serious underlying conditions that may need urgent attention. Red flags can present themselves at several points during the patient encounter and can appear in many different forms. If a red flag is identified during a medical necessity review, the clinical quality evaluator should communicate with the practitioner of services as soon as possible by telephone and/or through standardized communication methods. When a red flag is identified, the CQE may inquire whether such red flag was identified and addressed by the practitioner, not approve services and recommend returning the patient back to the referring healthcare practitioner or referring the patient to other appropriate health care practitioner/specialist with the measure of urgency as warranted by the history and clinical findings.

Important red flags and events as well as the points during the clinical encounter at which they are likely to appear include but may not be limited to:

1 Past or Current History

- 2 • Personal or family history of cancer
- 3 • Current or recent urinary tract, respiratory tract, or other infection
- 4 • Anticoagulant therapy or blood clotting disorder
- 5 • Metabolic bone disorder (osteopenia and osteoporosis)
- 6 • Unintended weight loss
- 7 • Significant trauma sufficient to cause fracture or internal injury
- 8 • Unexplained dizziness or hearing loss
- 9 • Trauma with skin penetration
- 10 • Immunosuppression (AIDS/HIV/ARC)
- 11 • Intravenous drug abuse, alcoholism
- 12 • Prolonged corticosteroid use
- 13 • Previous adverse reaction to substances or other treatment modalities
- 14 • Use of substances or treatment which may contraindicate proposed services
- 15 • Uncontrolled health condition (e.g., diabetes, hypertension, asthma)

16
17 Present Complaint

- 18 • Writhing or cramping pain
- 19 • Precipitation by significant trauma
- 20 • Pain that is worse at night or not relieved by any position
- 21 • Suspicion of vascular/cerebrovascular compromise
- 22 • Symptom's indicative of progressive neurological disorder
- 23 • Unexplained dizziness or hearing loss
- 24 • Complaint inconsistent with reported mechanism of injury and/or evaluation findings
- 25 • Signs of psychological distress

26
27
28 Physical Examination/Assessment

- 29 • Inability to reproduce symptoms of musculoskeletal diagnosis or complaints
- 30 • Fever, chills, or sweats without other obvious source
- 31 • New or recent neurologic deficit (e.g., special senses, peripheral sensory, motor, language, and cognitive)
- 32 • Positive vascular screening tests (e.g., carotid stenosis, vertebrobasilar insufficiency, abdominal aortic aneurysm)
- 33 • Abnormal vital signs
- 34 • Uncontrolled hypertension
- 35 • Signs of nutritional deficiency
- 36 • Signs of allergic reaction requiring immediate attention
- 37 • Surface lesions or infections in area to be treated
- 38
- 39

- Widespread or multiple contusions
- Unexplained severe tenderness or pain
- Signs of abuse/neglect
- Signs of psychological distress

Pattern of Symptoms Not Consistent with Benign Disorder

- Chest tightness, difficulty breathing, chest pain
- Headache of morbid proportion
- Rapidly progressive neurological deficit
- Significant, unexplained extremity weakness or clumsiness
- Change in bladder or bowel function
- New or worsening numbness or paresthesia
- Saddle anesthesia
- New or recent bilateral radiculopathy

Lack of Response to Appropriate Care

- History of consultation/care from a series of practitioners or a variety of health care approaches without resolving the patient's complaint
- Unsatisfactory clinical progress, especially when compared to apparently similar cases or natural progression of the condition
- Signs and symptoms that do not fit the normal pattern and are not resolving

Assessment of Yellow Flags

When yellow flags are present, clinicians need to be vigilant for deviations from the normal course of illness and recovery. Examples of yellow flags include depressive symptoms, injuries still in litigation, signs, and symptoms not consistent with pain severity, and behaviors incongruent with underlying anatomical and physiological principles.

If a yellow flag is identified during a medical necessity review, the reviewer should communicate with the practitioner of services as soon as possible by telephone and/or through standardized communication methods. The CQE may inquire if the yellow flag was identified, and, if so, how it was addressed. They may recommend returning the patient back to the referring healthcare practitioner or referring the patient to other health care practitioner/specialist as appropriate.

Assessment of Historical Information

The following factors are assessed in review and determination if the services are medically necessary:

- The mechanism of onset and date of onset are congruent with the stated condition's etiology.

- The patient's past medical history and response to care do not pose contraindication(s) for the services submitted for review.
- The patient's past medical history of pertinent related and unrelated conditions does not pose contraindication(s) for the services submitted for review.
- The patient's complaint(s) have component(s) that are likely to respond favorably to services submitted for review.
- Provocative and palliative factors identified on examination indicate the presence of a musculoskeletal condition as expected per diagnosis(es) or complaints, or as consistent with other type of diagnosis(es).
- The patient's severity of limitations to activities of daily living (ADLs) are appropriate and commensurate for the presence of the condition(s) or disorder(s).
- The quality, radiation, severity, and timing of pain are congruent with the documented condition(s) or disorder(s).
- The patient's past medical history of having the same or similar condition(s) indicates a favorable response to care.
- The absence or presence of co-morbid condition(s) may or may not present absolute or relative contraindications to care.

Assessment of Examination Findings

- The exam procedures, level of complexity, and components are appropriate for the patient's complaint(s) and historical findings.
- Objective palpatory, orthopedic, neurologic, and other physical examination findings are current, clearly defined, qualified, and quantified, including the nature, extent, severity, character, professional interpretation, and significance of the finding(s) in relation to the patient's complaint(s) and differential diagnosis(es).
- Exam findings provide evidence justifying the condition(s) is/are likely to respond favorably to services submitted for review.
- Exam findings provide a reasonable and reliable basis for the stated diagnosis(es).
- Exam findings provide a reasonable and reliable basis for treatment planning; accounting for variables such as age, sex, physical condition, occupational and recreational activities, co-morbid conditions, etc.
- The patient's progress is being appropriately monitored each visit (as noted within daily chart notes and during periodic re-exams) to ensure that acceptable clinical progress is realized.

Assessment of Treatment / Treatment Planning

- Treatment dosage (frequency and duration of service) is appropriately correlated with the nature and severity of the subjective complaints, potential complications/barriers to recovery, and objective clinical evidence.

- Services that do not require the professional skills of a practitioner to perform or supervise are not medically necessary, even if they are performed or supervised by an Occupational Therapist. Therefore, if the continuation of a patient's care can proceed safely and effectively through a home exercise program or self-management program, services are not indicated or medically necessary.
- The use of passive modalities in the treatment of subacute or chronic conditions beyond the acute inflammatory response phase requires documentation of the anticipated benefit and condition-specific rationale in order to be considered medically necessary.
- The treatment plan includes the use of therapeutic procedures to address functional deficits and ADL restrictions.
- The set therapeutic goals are functionally oriented, realistic, measurable, and evidence based.
- The proposed/estimated date of release/discharge from treatment is noted.
- The treatment/therapies are appropriately correlated with the nature and severity of the patient's condition(s) and set treatment goals.
- Functional Outcome Measures (FOM) demonstrate minimal clinically important difference (MCID) from baseline results through periodic reevaluations during the course of care. This is important in order to determine the need for continued care, the appropriate frequency of visits, estimated date of release from care, and if a change in the treatment plan or a referral to an appropriate health care practitioners/specialist is indicated.
- Home care, self-care, and active-care instructions are documented.
- Durable Medical Equipment (DME), supplies, appliances, and supports are provided when medically necessary and appropriately correlated with clinical findings and clinical evidence.

8.3.2 Factors that Influence Adverse Determinations of Clinical Services (Partial Approvals/Denials)

Factors that influence adverse determinations of clinical services may include but are not limited to these specific considerations and other guidelines and factors identified elsewhere in this policy.: Topics/factors covered elsewhere in this guideline are also applicable in this section and may result in an adverse determination on medical necessity review. To avoid redundancy, many of those factors have not been listed below.

Additional Factors Considered in Determination of Medical Necessity History / Complaints / Patient Reported Outcome Measures

- The patient's complaint(s) and/or symptom(s) are not clearly described

- There is poor correlation and/or a significant discrepancy between the complaint(s) and/or symptom(s) as documented by the treating practitioner and as described by the patient
- The patient's complaint(s) and/or symptom(s) have not demonstrated clinically significant improvement
- The nature and severity of the patient's complaint(s) and/or symptom(s) are insufficient to substantiate the medical necessity of any/all submitted services
- The patient has little or no pain as measured on a valid pain scale
- The patient has little or no functional deficits using a valid functional outcome measure or as otherwise documented by the practitioner

Evaluation Findings

- There is poor correlation and/or a significant discrepancy in any of the following:
 - patient's history
 - subjective complaints
 - objective findings
 - diagnosis
 - treatment plan
- The application of various exam findings to treatment decisions are not clearly described or measured (e.g., severity, intensity, professional interpretation of results, significance)
- The patient's objective findings have not demonstrated clinically significant improvement
- The objective findings are essentially normal or are insufficient to support the medical necessity of any/all submitted services
- The submitted objective findings are insufficient due to any of, but not limited to, the following reasons:
 - old or outdated relative to the requested dates of service
 - do not properly describe the patient's current status
 - do not substantiate the medical necessity of the current treatment plan do not support the patient's diagnosis/diagnoses do not correlate with the patient's subjective complaint(s) and/or symptom(s)
- Not all of the patient's presenting complaints were properly examined
- The patient does not have any demonstrable functional deficits or impairments
- The patient has not made reasonable progress toward pre-clinical status or functional outcomes under the initial treatment/services
- Clinically significant therapeutic progress is not evident through a review of the submitted records. This may indicate that the patient has reached maximum therapeutic benefit
- The patient is approaching or has reached maximum therapeutic benefit

- The patient's exam findings have returned to pre-injury status or prior level of function
- There is inaccurate reporting of clinical findings
- The exam performed is for any of the following:
 - wellness
 - pre-employment
 - sports pre-participation
- The exam performed is non-standard and solely technique/protocol based

Diagnosis

- The diagnosis is not supported by one or more of the following:
 - patient's history (e.g., date/mechanism of onset)
 - subjective complaints (e.g., nature and severity, location)
 - objective findings (e.g., not clearly defined and/or quantified, not professionally interpreted, significance not noted)

Submitted Medical Records

- The submitted records are insufficient to reliably verify pertinent clinical information, such as (but not limited to):
 - patient's clinical health status
 - the nature and severity of the patient's complaint(s) and/or symptom(s)
 - date/mechanism of onset
 - objective findings
 - diagnosis/diagnoses
 - response to care
 - functional deficits/limitations
- There are daily notes submitted for the same dates of service with different/altered findings without an explanation
- There is evidence of duplicated or nearly duplicated records for the same patient for different dates of service, or for different patients
- There is poor correlation and/or a significant discrepancy between the information presented in the submitted records with the information presented during a verbal communication between the reviewing clinical quality evaluator and treating practitioner
- The treatment time (in minutes) and/or the number of units used in the performance of a timed service (e.g., modality, procedure) during each encounter/office visit was not documented
- Some or all of the service(s) submitted for review are not documented as having been performed in the daily treatment notes

1 Treatment / Treatment Planning

- 2 • The submitted records show that the nature and severity of the patient's
- 3 complaint(s) and/or symptom(s) require a limited, short trial of care in order to
- 4 monitor the patient's response to care and determine the efficacy of the current
- 5 treatment plan. This may include, but not limited to, any of the following:
- 6 ○ significant trauma affecting function
- 7 ○ acute/sub-acute stage of condition
- 8 ○ moderate-to-severe or severe subjective and objective findings
- 9 ○ possible neurological involvement
- 10 ○ presence of co-morbidities that may significantly affect the treatment plan
- 11 and/or the patient's response to care
- 12 • There is poor correlation of the treatment plan with the nature and severity of the
- 13 patient's complaint(s) and/or symptom(s), such as (but not limited to):
- 14 ○ use of acute care protocols for chronic condition(s)
- 15 ○ prolonged reliance on passive care
- 16 ○ active care and reduction of passive care are not included in the treatment
- 17 plan
- 18 ○ inappropriate use of passive modalities in the plan of care
- 19 ○ use of passive modalities as stand-alone treatments (which is rarely
- 20 therapeutic) or as the sole treatment approach to the patient's condition(s)
- 21 • There is evidence from the submitted records that the patient's treatment can
- 22 proceed safely and effectively through a home exercise program or self-
- 23 management program
- 24 • The patient's function has improved, complaints and symptoms have decreased,
- 25 and patient requires less treatment (e.g., lesser units of services per office visit,
- 26 lesser frequency, and/or shorter total duration to discharge)
- 27 • The patient's symptoms and/or exam findings are mild and the patient's treatment
- 28 plan requires a lesser frequency (e.g., units of services, office visits per week)
- 29 and/or total duration
- 30 • Therapeutic goals have not been documented; goals should be measurable and
- 31 written in terms of function and include specific parameters
- 32 • Therapeutic goals have not been reassessed in a timely manner to determine if the
- 33 patient is making expected progress
- 34 • Failure to make progress or respond to care as documented within subjective
- 35 complaints, objective findings and/or functional outcome measures
- 36 • The patient's condition(s) is/are not amenable to the proposed treatment plan
- 37 • Additional significant improvement cannot be reasonably expected by continued
- 38 treatment, therefore treatment must be changed or discontinued
- 39 • The patient has had ongoing care without any documented lasting therapeutic
- 40 benefits

- 1 • The condition requires an appropriate referral and/or coordination with other
- 2 appropriate health care services
- 3 • The patient is not complying with the treatment plan that includes lifestyle changes
- 4 to help reduce frequency and intensity of symptoms
- 5 • The patient is not adhering to treatment plan that includes medically necessary
- 6 frequency and intensity of services without documented extenuating circumstances
- 7 • The use of multiple passive modalities with the same or similar physiological
- 8 effects to the identical region is considered redundant and not reasonable or
- 9 medically necessary
- 10 • Home care, self-care, and/or active-care instructions are not implemented or
- 11 documented in the submitted records
- 12 • Uncomplicated diagnoses do not require services beyond the initial treatment plan
- 13 before discharging the patient to active home/self-care (e.g., mild knee pain that
- 14 can be managed with a home exercise program)
- 15 • As symptoms and clinical findings improve the frequency of services (e.g., visits
- 16 per week/month) did not decrease. The submitted services do not or no longer
- 17 require the professional skills of the treating practitioner.
- 18 • The treatment plan is for any of the following:
- 19 ○ preventive care
- 20 ○ elective/convenience/wellness care
- 21 ○ back school
- 22 ○ vocational rehabilitation or return to work programs
- 23 ○ work hardening programs
- 24 ○ routine education, training, conditioning, return to sport, or fitness
- 25 ○ non-covered condition
- 26 • There is duplication of services with other healthcare practitioners/specialties.
- 27 • The treatment plan is not supported due to, but not limited to, any of the following
- 28 reasons:
- 29 ○ technique-/protocol-based instead of individualized and evidence based
- 30 ○ generic and not individualized for the patient's specific needs
- 31 ○ does not correlate with the set therapeutic goals
- 32 ○ not supported in the clinical literature (e.g., proprietary, unproven)
- 33 ○ not considered evidence-based and/or professionally accepted
- 34 • The treatment plan includes services that are considered not evidence-based, not
- 35 widely accepted, unproven and/or not reasonable or medically necessary,
- 36 inappropriate or unrelated to the patient's complaint(s) and/or diagnosis/diagnoses
- 37 (e.g., Low level laser therapy, axial/spinal decompression, select forms of EMS
- 38 such as microcurrent. See the *Techniques and Procedures Not Widely Supported as*
- 39 *Evidence-Based (CPG 133 – S)* clinical practice guideline for complete list)

1 **Health and Safety**

- 2 • There are signs, symptoms and/or other pertinent information presented through the
- 3 patient's history, exam findings, and/or response to care that require urgent
- 4 attention, further testing, and/or referral to and/or coordination with other
- 5 healthcare practitioners/specialists
- 6 • There is evidence of the presence of Yellow and/or Red Flags (See section on Red
- 7 and Yellow Flags above)
- 8 • There are historical, subjective, and/or objective findings which present as
- 9 contraindications for the plan of care

10 **8.3.3 Referral / Coordination of Services**

11 When a potential health and safety issue is identified, the clinical quality evaluator must
 12 communicate with the practitioner of services as soon as possible by telephone and/or
 13 through standardized communication methods to recommend returning the patient back to
 14 the referring health care practitioner or referring the patient to other appropriate health care
 15 practitioner/specialist with the measure of urgency as warranted by the history and clinical
 16 findings. Such referral does not preclude coordinated cotreatment if / when applicable and
 17 documented as such.

18 Clinical factors that may require referral or coordination of services include, but not limited
 19 to:

- 20 • Symptoms worsening following treatment
- 21 • Deteriorating condition (e.g., orthopedic or neurologic findings, function)
- 22 • Reoccurring exacerbations despite continued treatment
- 23 • No progress despite treatment
- 24 • Unexplained diagnostic findings (e.g., suspicion of fracture)
- 25 • Identification of red flags
- 26 • Identification of co-morbid conditions that don't appear to have been addressed
- 27 previously that represent absolute contraindications to services
- 28 • Constitutional signs and symptoms indicative of systemic condition (e.g.,
- 29 unintended weight loss of greater than 4.5 kg/10 lbs. over 6-month period)
- 30 • Inability to provoke symptoms with standard exam
- 31 • Treatment needed outside of scope of practice

32 The Clinical Policy is reviewed and approved by the ASH Clinical Quality committees that
 33 are comprised of contracted network practitioners including practitioners of the same
 34 clinical discipline as the practitioners for whom compliance with the practices articulated
 35 in this document is required. Guidelines are updated at least annually, or as new
 36 information is identified that result in material changes to one or more of these policies.

9. EVIDENCE REVIEW

9.1 Occupational Therapy for Conditions Considered Unproven

There are several Cochrane systematic reviews and other reviews that have been published regarding occupational therapy for various conditions (Steultjens, et al., 2004; Steultjens et al., 2005; Legg et al., 2006; Dixon et al., 2007; Hoffman et al., 2011; Hoare et al., 2021; Quinn et al., 2021; Legg et al., 2021; García-Pérez et al., 2021; Fields and Smallfield, 2022; Cunningham et al., 2022; Wood et al., 2022). The reviews in general found that there is improvement seen with occupational therapy however, evidence with respect to specific interventions is limited. Passive modalities, such as ultrasound, electric stimulation, traction, laser, and hot and cold packs, are often used in combination with manual therapies and exercise despite insufficient and/or inconclusive evidence for many conditions. Often methodological flaws and heterogeneity of studies result in an inability to draw confirmatory conclusions.

9.2 Specific Occupational Therapy Treatments Considered Unproven

Constraint-Induced Movement Therapy (CIMT)

Constraint-induced movement therapy (CIMT) is a multi-faceted intervention that has been proposed for neurological conditions that involve hemiparesis. CIMT is also referred to as constraint-induced therapy or forced use therapy and is primarily provided by physical therapists and occupational therapists. Several variations exist based on method and length of restraint, and type and duration of therapy (e.g., environment and practitioner). The therapy involves constraining the unaffected arm or hand with a sling, glove or mitt. CIMT typically involves intensive individualized therapy with up to six–eight hours of therapy provided per day. However, other forms of modified CIMT have been developed with less therapy provided, but longer periods of restraint (Wolf, 2006). Veterans Affairs/Dept of Defense (VA/DoD) published guidelines that have also been endorsed by American Heart Association/American Stroke Association (AHA/ASA)—Clinical Practice Guideline for the Management of Adult Stroke Rehabilitation Care (Bates, et al., 2005). The guidelines note that, “Use of constraint-induced therapy should be considered for a select group of patients—that is, patients with 20 degrees of wrist extension and 10 degrees of finger extension, who have no sensory and cognitive deficits.” Indicating a recommendation that the intervention may be considered). The Royal College of Physicians/Intercollegiate Stroke Working Party (United Kingdom) and the Ottawa Panel (2006) agree with these recommendations.

CIMT has demonstrated inconsistent effectiveness for treatment of patients post-stroke (Sirtori et al., 2009; Corbetta et al., 2010; McIntyre et al., 2012; Pulman et al., 2013; Abdullahi et al., 2020; Abdullahi et al., 2021; Alaca and Ocal, 2022; Gulrandhe et al., 2023; Gao et al., 2024). Future randomized controlled trials need to have accurate characteristics in terms of methodological quality, larger samples, longer follow up, reliable and relevant measure and report of adverse events. Some evidence demonstrates that modified CIMT

could reduce the level of disability, improve the ability to use the paretic upper extremity, and enhance spontaneity during movement time, but evidence is still limited about the effectiveness of modified CIMT in kinematic analysis (Shi et al., 2011; Pollack et al., 2014). Research suggests that modified CIMT and intensive CIMT produce similar results (Peurala et al., 2012).

CIMT has also been used for the treatment of children with cerebral palsy (CP). Research is not conclusive with regards to the effectiveness of CIMT for this population; however there appears to be modest evidence to support its use in a modified format (Hoare et al., 2007; Sakzewski et al., 2009, 2014; Eliasson et al., 2014; Chen et al., 2014; Chiu and Ada, 2016; Hoare et al., 2019; Martínez-Costa Montero et al., 2020; Novak et al., 2020; Ramey et al., 2021; Walker et al., 2022; Dionisio and Terrill, 2022; Jackman et al., 2022; Baker et al., 2022; Gulrandhe et al., 2023; Regalado et al., 2023; Palomo-Carrión et al., 2023; Faccioli et al., 2023; Abdul-Rahman et al., 2024; Merino-Andrés et al., 2024). Further research using adequately powered RCTs [randomized controlled trials], rigorous methodology and valid, reliable outcome measures is essential to provide higher level support of the effectiveness of CIMT for children with hemiplegic cerebral palsy.

Intensive Model of Therapy (IMOT) Programs

Refer to *Intensive Model of Therapy (CPG 286 – S)* clinical practice guideline for more information.

Dry Hydrotherapy

Dry hydrotherapy, also referred to as aqua massage, water massage, or hydromassage, is a treatment that incorporates water with the intent of providing therapeutic massage. The treatment is generally provided in chiropractor or therapy offices. There are several dry hydrotherapy devices available that provide this treatment, including the following:

- Aqua Massage® (AMI Inc., Mystic, CT)
- AquaMED® (JTL Enterprises, Inc., Clearwater, FL)
- H2Omassage System™ (H2Omassage Systems, Winnipeg, MB, Canada)
- Hydrotherapy Tables (Sidmar Manufacturing, Inc., Princeton, MN)

Proponents of dry hydrotherapy maintain that it can be used in lieu of certain conventional physical medicine therapeutic modalities and procedures, such as heat packs, wet hydrotherapy, massage, and soft tissue manipulation. The assertions that have been made by manufacturers of this device at their websites have not yet been proven. No published studies or information regarding dry hydrotherapy devices or dry hydrotherapy treatment were identified in the peer-reviewed scientific literature. In the absence of peer-reviewed literature demonstrating the effectiveness of dry hydrotherapy and in the absence of comparison to currently accepted treatment modalities, no definitive conclusions can be drawn regarding the clinical benefits of this treatment.

1 Non-Contact ‘Mist’ Ultrasound

2 Olyaie et al. (2013) conducted a RCT to compare the effectiveness of standard treatment
 3 and standard treatment plus either high-frequency ultrasound (HFU) or noncontact low-
 4 frequency ultrasound (NCLFU) on wound outcomes. Outcomes of both methods of
 5 ultrasound therapy were better than standard care alone, and some differences between the
 6 two ultrasound therapy groups were observed, but they were not statistically significant.
 7 Beheshti et al. (2014) compared high-frequency and MIST ultrasound therapy for the
 8 healing of venous leg ulcers. All groups received standard wound care. In the ultrasound
 9 groups, HFU and MIST ultrasound therapy was administered to wounds 3 times per week
 10 until the wound healed. Time of complete wound healing was recorded. Wound size, pain,
 11 and edema were assessed at baseline and after 2 and 4 months. The authors stated that this
 12 study showed the significant effectiveness of ultrasound therapy in wound healing.
 13 Differences between the two ultrasound therapy groups were not statistically significant.
 14 White et al. (2015) compared non-contact low-frequency ultrasound therapy to the UK
 15 standard of care for venous leg ulcers. Both groups reported a reduction in pain score. The
 16 authors suggest that outcome measures favored the non-contact low frequency ultrasound
 17 therapy over standard of care, but the differences were not statistically significant. A larger
 18 sample size with longer follow-up would be prudent to confirm results.

19
 20 In a single-site, evaluator-blinded RCT, Gibbons et al. (2015) completed a prospective,
 21 randomized, controlled, multicenter trial comparing percent wound size reduction,
 22 proportions healed, pain, and quality-of-life (QOL) outcomes in patients randomized to
 23 standard care (SC) alone or SC and 40 kHz noncontact, low-frequency ultrasound (NLFU)
 24 treatments 3 times per week for 4 weeks. All participants received protocol-defined SC
 25 compression (30-40 mm Hg), dressings to promote a moist wound environment, and sharp
 26 debridement at the bedside for a minimum of 1 time per week. After 4 weeks of treatment,
 27 average wound size reduction was $61.6\% \pm 28.9$ in the NLFU+SC compared to $45\% \pm 32.5$
 28 in the SC group ($P = 0.02$). Reductions in median (65.7% versus 44.4%, $P = 0.02$) and
 29 absolute wound area (9.0 cm² versus 4.1 cm², $P = 0.003$) as well as pain scores (from 3.0
 30 to 0.6 versus 3.0 to 2.4, $P = 0.01$) were also significant. NLFU therapy with guideline-
 31 defined standard care should be considered for healing venous leg ulcers not responding to
 32 SC alone. Rastogi et al. (2019) compared the efficacy of noncontact, low-frequency
 33 airborne ultrasound (Glybetac) therapy with sham therapy added to standard treatment in
 34 patients with neuropathic, clinically infected, or noninfected DFU (wound size >2 cm²),
 35 Wagner grades 2 and 3. Patients received ultrasound or sham therapy for 28 days dosed
 36 daily for first 6 days followed by twice a week for next 3 weeks along with standard of
 37 care. The primary outcome was percentage of patients with at least >50% decrease in
 38 wound area at 4 week of intervention. Fifty-eight patients completed the study protocol. A
 39 >50% reduction in wound area was observed in 97.1% and 73.1% subjects in ultrasound
 40 and sham groups, respectively. Wound contraction was faster in the first 2 weeks with
 41 ultrasound therapy, 5.3 cm², compared with 3.0 cm² with sham treatment. Authors

concluded that the airborne low-frequency ultrasound therapy improves and hastens the healing of chronic neuropathic DFU when combined with standard wound care.

Kotronis and Vas (2021) evaluated the current evidence behind the NCLFU. Several studies, especially those evaluating NCLFU technology, have demonstrated the potential of ultrasound debridement to effectively remove devitalized tissue, control bioburden, alleviate pain, and expedite healing. However, most of the studies are underpowered, involve heterogeneous ulcer types, and demonstrate significant methodological limitations making comparison between studies difficult. Future clinical trials on ultrasound debridement technology must address the design issues prevalent in current studies, and report on clinically relevant endpoints before adoption into best-practice algorithms can be recommended.

Non-invasive Interactive Neurostimulation (e.g., InterX®)

Refer to *Non-invasive Interactive Neurostimulation (InterX®)* (CPG 277 – S) clinical practice guideline for more information.

Microcurrent Electrical Nerve Stimulation (MENS)

Refer to *Electric Stimulation for Pain, Swelling and Function in the Clinic Setting* (CPG 272 – S) clinical practice guideline for more information.

H-WAVE ®

Refer to *H-WAVE® Electrical Stimulation* (CPG 269 – S) clinical practice guideline for more information.

Equestrian Therapy (e.g., Hippotherapy)

Equestrian therapy, also known as hippotherapy, is proposed to offer a person with a disability a means of physical activity that aids in improving balance, posture, coordination, the development of a positive attitude and a sense of accomplishment. It is proposed for treatment of several conditions including autism spectrum disorders and cerebral palsy. There is insufficient published evidence regarding the effects of this therapy on individuals with impaired physical function resulting from illness, injury, congenital defect or surgery (Bronson et al., 2010; Lee et al., 2014; O'Haire et al., 2014; De Miguel et al., 2018; De Guindos-Sanchez et al., 2020; Marquez et al., 2020; White et al., 2020; Santos de Assis et al., 2022; Pantera et al., 2022; Pérez-Gómez et al., 2022; Heussen and Häusler, 2022; Prieto et al., 2022; Peia et al., 2023; Plotas et al., 2024). It is noted that most studies are limited by methodological weaknesses.

MEDEK Therapy

Refer to *MEDEK Therapy* (CPG 276 – S) clinical practice guideline for more information.

The Interactive Metronome Program

Interactive Metronome® (IM) is purported to be an assessment and training tool that measures and improves Neurotiming, or the synchronization of neural impulses within key brain networks for cognitive, communicative, sensory and motor performance. It is designed to improve processing speed, focus, and coordination. Patients wear headphones and match a beat using a hand or foot sensor along with visual and auditory feedback. The IM program has been promoted as a treatment for children with attention-deficit hyperactivity disorder (ADHD) and for other special needs children to increase concentration, focus, and coordination. It has also been promoted to improve athletic performance, to assess and improve academic performance of normal children, and to improve children's performance in the arts (e.g., dance, music, theater, creative arts). Additionally, it has been implemented as part of a therapy program for patients with balance disorders, cerebrovascular accident, limb amputation, multiple sclerosis, Parkinson's disease, and traumatic brain injury. However, based on peer-reviewed literature, evidence is insufficient to support effectiveness of the IM program. Well-designed clinical studies are needed to determine the effectiveness of the IM program and whether a clinically significant improvement is achieved.

Taping/Elastic Therapeutic Tape (e.g., Kinesio™ Tape, Spidertech™ Tape)

Refer to *Strapping and Taping* (CPG 143 – S) clinical practice guideline for more information.

Dry Needling

Refer to *Dry Needling* (CPG 178 – S) clinical practice guideline for more information.

Laser Therapy (LT)

Refer to *Laser Therapy (LT)* (CPG 30 – S) clinical practice guideline for more information.

10. CODING/BILLING INFORMATION

Note: 1) This list of codes may not be all-inclusive.

2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Covered When Medically Necessary

CPT® Code	CPT® Code Description
97010	Application of a modality to 1 or more areas; hot or cold packs
97012	Application of a modality to 1 or more areas; traction, mechanical
97014	Application of a modality to 1 or more areas; electrical stimulation (unattended)

CPT® Code	CPT® Code Description
97016	Application of a modality to 1 or more areas; vasopneumatic devices
97018	Application of a modality to 1 or more areas; paraffin bath
97022	Application of a modality to 1 or more areas; whirlpool
97024	Application of a modality to 1 or more areas; diathermy (e.g., microwave)
97026	Application of a modality to 1 or more areas; infrared
97028	Application of a modality to 1 or more areas; ultraviolet
97032	Application of a modality to 1 or more areas; electrical stimulation (manual), each 15 minutes
97033	Application of a modality to 1 or more areas; iontophoresis, each 15 minutes
97034	Application of a modality to 1 or more areas; contrast baths, each 15 minutes
97035	Application of a modality to 1 or more areas; ultrasound, each 15 minutes
97036	Application of a modality to 1 or more areas; Hubbard tank, each 15 minutes
97110	Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion and flexibility
97112	Therapeutic procedure, 1 or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities
97113	Therapeutic procedure, 1 or more areas, each 15 minutes; aquatic therapy with therapeutic exercises
97116	Therapeutic procedure, 1 or more areas, each 15 minutes; gait training (includes stair climbing)
97124	Therapeutic procedure, 1 or more areas, each 15 minutes; massage, including effleurage, petrissage and/or tapotement (stroking, compression, percussion)
97140	Manual therapy techniques (e.g., mobilization/manipulation, manual lymphatic drainage, manual traction), 1 or more regions, each 15 minutes

CPT® Code	CPT® Code Description
97165	Occupational therapy evaluation, low complexity, requiring these components: An occupational profile and medical and therapy history, which includes a brief history including review of medical and/or therapy records relating to the presenting problem; An assessment(s) that identifies 1-3 performance deficits (i.e., relating to physical, cognitive, or psychosocial skills) that result in activity limitations and/or participation restrictions; and Clinical decision making of low complexity, which includes an analysis of the occupational profile, analysis of data from problem-focused assessment(s), and consideration of a limited number of treatment options. Patient presents with no comorbidities that affect occupational performance. Modification of tasks or assistance (e.g., physical or verbal) with assessment(s) is not necessary to enable completion of evaluation component. Typically, 30 minutes are spent face-to-face with the patient and/or family.
97166	Occupational therapy evaluation, moderate complexity, requiring these components: An occupational profile and medical and therapy history, which includes an expanded review of medical and/or therapy records and additional review of physical, cognitive, or psychosocial history related to current functional performance; An assessment(s) that identifies 3-5 performance deficits (i.e., relating to physical, cognitive, or psychosocial skills) that result in activity limitations and/or participation restrictions; and Clinical decision making of moderate analytic complexity, which includes an analysis of the occupational profile, analysis of data from detailed assessment(s), and consideration of several treatment options. Patient may present with comorbidities that affect occupational performance. Minimal to moderate modification of tasks or assistance (e.g., physical or verbal) with assessment(s) is necessary to enable patient to complete evaluation component. Typically, 45 mins are spent face-to-face with the patient and/or family.

CPT® Code	CPT® Code Description
97167	Occupational therapy evaluation, high complexity, requiring these components: An occupational profile and medical and therapy history, which includes review of medical and/or therapy records and extensive additional review of physical, cognitive, or psychosocial history related to current functional performance; An assessment(s) that identify 5 or more performance deficits (i.e., relating to physical, cognitive, or psychosocial skills) that result in activity limitations and/or participation restrictions; and a clinical decision-making is of high analytic complexity, which includes an analysis of the patient profile, analysis of data from comprehensive assessment(s), and consideration of multiple treatment options. Patient presents with comorbidities that affect occupational performance. Significant modification of tasks or assistance (e.g., physical or verbal) with assessment(s) is necessary to enable patient to complete evaluation component. Typically, 60 minutes are spent face-to-face with the patient and/or family.
97168	Re-evaluation of occupational therapy established plan of care, requiring these components: An assessment of changes in patient functional or medical status with revised plan of care; An update to the initial occupational profile to reflect changes in condition or environment that affect future interventions and/or goals; and a revised plan of care. A formal reevaluation is performed when there is a documented change in functional status or a significant change to the plan of care is required. Typically, 30 mins are spent face-to-face with the patient and/or family
97530	Therapeutic activities, direct (one-on-one) patient contact (use of dynamic activities to improve functional performance), each 15 minutes
97535	Self-care/home management training (e.g., activities of daily living (ADL) and compensatory training, meal preparation, safety procedures, and instructions in use of assistive technology devices/adaptive equipment) direct one-on-one contact, each 15 minutes
97542	Wheelchair management (e.g., assessment, fitting, training), each 15 minutes
97760	Orthotic(s) management and training (including assessment and fitting when not otherwise reported), upper extremity(s), lower extremity(s) and/or trunk, initial orthotic(s) encounter, each 15 minutes
97761	Prosthetic training, upper and/or lower extremity(s), initial prosthetic(s) encounter, each 15 minutes
97763	Orthotic(s)/prosthetic(s) management and/or training, upper extremity(ies), lower extremity(ies), and/or trunk, subsequent orthotic(s)/prosthetic(s) encounter, each 15 minutes

HCPSC Code	HCPSC Code Description
G0237	Therapeutic procedures to increase strength or endurance of respiratory muscles, face-to-face, one-on-one, each 15 minutes (includes monitoring)
G0238	Therapeutic procedures to improve respiratory function, other than described by G0237, one-on-one, face-to-face, per 15 minutes (includes monitoring)
G0239	Therapeutic procedures to improve respiratory function or increase strength or endurance of respiratory muscles, two or more individuals (includes monitoring)
S9129	Occupational therapy, in the home, per diem

1

2

Training in Nature/Not Medically Necessary/Not Covered

CPT® Code	CPT® Code Description
97169	Athletic training evaluation, low complexity, requiring these components: A history and physical activity profile with no comorbidities that affect physical activity; An examination of affected body area and other symptomatic or related systems addressing 1-2 elements from any of the following: body structures, physical activity, and/or participation deficiencies; and Clinical decision making of low complexity using standardized patient assessment instrument and/or measurable assessment of functional outcome. Typically, 15 minutes are spent face-to-face with the patient and/or family
97170	Athletic training evaluation, moderate complexity, requiring these components: A medical history and physical activity profile with 1-2 comorbidities that affect physical activity. An examination of affected body area and other symptomatic or related systems addressing a total of 3 or more elements from any of the following: body structures, physical activity, and/or participation deficiencies; and Clinical decision making of moderate complexity using standardized patient assessment instrument and/or measurable assessment of functional outcome. Typically, 30 minutes are spent face-to-face with the patient and/or family.

CPT® Code	CPT® Code Description
97171	Athletic training evaluation, high complexity, requiring these components: A medical history and physical activity profile, with 3 or more comorbidities that affect physical activity; A comprehensive examination of body systems using standardized tests and measures addressing a total of 4 or more elements from any of the following: body structures, physical activity, and/or participation deficiencies; Clinical presentation with unstable and unpredictable characteristics; and Clinical decision making of high complexity using standardized patient assessment instrument and/or measurable assessment of functional outcome. Typically, 45 minutes are spent face-to-face with the patient and/or family.
97172	Re-evaluation of athletic training established plan of care requiring these components: An assessment of patient's current functional status when there is a documented change, and A revised plan of care using a standardized patient assessment instrument and/or measurable assessment of functional outcome with an update in management options, goals, and interventions. Typically, 20 minutes are spent face-to-face with the patient and/or family.
97537	Community/work reintegration training (e.g., shopping, transportation, money management, avocational activities and/or work environment/modification analysis, work task analysis, use of assistive technology device/adaptive equipment), direct one-on-one contact, each 15 minutes
97545	Work hardening/conditioning; initial 2 hours
97546	Work hardening/conditioning; each additional hour (List separately in addition to code for primary procedure)

1

HCPCS Code	HCPCS Code Description
S8990	Physical or manipulative therapy performed for maintenance rather than restoration
S9117	Back school, per visit

2

Unproven and not covered when used to report constraint-induced movement therapy or dry hydrotherapy/aqua massage/hydromassage, equestrian therapy (e.g., hippotherapy), elastic therapeutic tape/taping, low-level laser:

HCPCS Code	HCPCS Code Description
S8940	Equestrian/hippotherapy, per session
S8948	Application of a modality (requiring constant practitioner attendance) to one or more areas, low-level laser; each 15 minutes

Considered Unproven:

CPT® Code	CPT® Code Description
20560	Needle insertion(s) without injection(s); 1 or 2 muscle(s)
20561	Needle insertion(s) without injection(s); 3 or more muscles
97610	Low frequency, non-contact, non-thermal ultrasound, including topical application(s), when performed, wound assessment, and instruction(s) for ongoing care, per day

11. References

- Abdullahi A, Van Crielinge T, Umar NA, Zakari UU, Truijen S, Saeys W. Effect of constraint-induced movement therapy on persons-reported outcomes of health status after stroke: a systematic review and meta-analysis. *Int J Rehabil Res*. 2020 Nov 23.
- Abdullahi A, Truijen S, Umar NA, et al. Effects of lower limb constraint induced movement therapy in people with stroke: A systematic review and meta-analysis. *Front Neurol*. 2021b;12:638904
- Abdul-Rahman RS, Radwan NL, El-Nassag BA, Amin WM, Ali MS. Modified-constraint movement induced therapy versus neuro-developmental therapy on reaching capacity in children with hemiplegic cerebral palsy. *Physiother Res Int*. 2024;29(1):e2069. doi:10.1002/pri.2069
- Agency for Healthcare Research and Quality. Multidisciplinary Postacute Rehabilitation for Moderate to Severe Traumatic Brain Injury in Adults. Effective Health Care Program. Comparative Effectiveness Review, 2012;72. Retrieved on August 17, 2025 from https://www.ncbi.nlm.nih.gov/books/NBK98993/pdf/Bookshelf_NBK98993.pdf

- 1 Alaca N, Öcal NM. Proprioceptive based training or modified constraint-induced
2 movement therapy on upper extremity motor functions in chronic stroke patients: A
3 randomized controlled study. *NeuroRehabilitation*. 2022;51(2):271-282.
4 doi:10.3233/NRE-220009
- 5
- 6 American Medical Association. (current year). Current Procedural Terminology (CPT)
7 Current year (rev. ed.). Chicago: AMA.
- 8
- 9 American Medical Association (current year). HCPCS Level II. American Medical
10 Association
- 11
- 12 American Occupational Therapy Association. Retrieved on August 17, 2025 from
13 <http://www.aota.org>
- 14
- 15 American Occupational Therapy Association. Official Documents. Retrieved on August
16 17, 2025 from <http://www.aota.org/en/Practice/Manage/Official.aspx>
- 17
- 18 American Occupational Therapy Association. Occupational Therapy Scope of Practice.
19 *Am J Occup Ther*. 2021;75(Supplement_3):7513410020.
20 doi:10.5014/ajot.2021.75S3005
- 21
- 22 American Occupational Therapy Association; Standards of Practice for Occupational
23 Therapy. *Am J Occup Ther* November/December 2021, Vol. 75(Supplement_3),
24 7513410030. doi: <https://doi.org/10.5014/ajot.2021.75S3004>
- 25
- 26 Aqua Massage [product description]. AMI Inc. Retrieved on August 17, 2025 from
27 http://amiaqua.com/PR_overview.htm
- 28
- 29 AquaMED Dry Hydrotherapy. JTL Enterprises, Inc. Retrieved on August 17, 2025 from
30 <http://www.hydromassage.com/>
- 31
- 32 Baker A, Niles N, Kysh L, Sargent B. Effect of Motor Intervention for Infants and Toddlers
33 With Cerebral Palsy: A Systematic Review and Meta-analysis. *Pediatr Phys Ther*.
34 2022;34(3):297-307. doi:10.1097/PEP.0000000000000914
- 35
- 36 Bates B, Choi JY, Duncan PW, et al. Veterans Affairs/Department of Defense Clinical
37 Practice Guideline for the Management of Adult Stroke Rehabilitation Care: executive
38 summary. *Stroke*. 2005;36(9):2049-2056.
39 doi:10.1161/01.STR.0000180432.73724.AD

- 1 Bronson C, Brewerton K, Ong J, Palanca C, Sullivan SJ. Does hippotherapy improve
2 balance in persons with multiple sclerosis: a systematic review. Eur J Phys Rehabil
3 Med. 2010 Sep;46(3):347-53.
4
- 5 Cameron M. Physical Agents in Rehabilitation: An Evidence-Based Approach to Practice.
6 6th Edition. Elsevier; 2022.
7
- 8 Centers for Medicare & Medicaid Services (CMS). (2024). CMS framework for health
9 equity 2022-2032. Retrieved August 17, 2025 from
10 <https://www.cms.gov/files/document/cms-framework-health-equity>
11
- 12 Centers for Medicare & Medicaid Services (CMS). Pub. 100-02, Chapter 15, Sections 220
13 and 230 Therapy Services. Coverage of Outpatient Rehabilitation Therapy Services
14 (Physical Therapy, Occupational Therapy, and Speech-Language Pathology Services)
15 Under Medical Insurance (Rev. 12684; Issued: 06-13-24). Retrieved on August 17,
16 2025 from <http://www.cms.hhs.gov/manuals/Downloads/bp102c15.pdf>
17
- 18 Centers for Medicare & Medicaid Services (CMS). Local Coverage Article: Medical
19 Necessity of Therapy Services (A52775). Retrieved on August 17, 2025 from
20 [https://www.cms.gov/medicare-coverage-](https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=52775&ver=17&keyword=medical+necessity+of+therapy+services&keywordType=starts&areaId=all&docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
21 [database/view/article.aspx?articleid=52775&ver=17&keyword=medical+necessity+o](https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=52775&ver=17&keyword=medical+necessity+of+therapy+services&keywordType=starts&areaId=all&docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
22 [f+therapy+services&keywordType=starts&areaId=all&docType=NCA%2CCAL%2C](https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=52775&ver=17&keyword=medical+necessity+of+therapy+services&keywordType=starts&areaId=all&docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
23 [NCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP&contra](https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=52775&ver=17&keyword=medical+necessity+of+therapy+services&keywordType=starts&areaId=all&docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
24 [ctOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc](https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=52775&ver=17&keyword=medical+necessity+of+therapy+services&keywordType=starts&areaId=all&docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
25 [&KeyWordSearchType=Exact](https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=52775&ver=17&keyword=medical+necessity+of+therapy+services&keywordType=starts&areaId=all&docType=NCA%2CCAL%2CNCD%2CMEDCAC%2CTA%2CMCD%2C6%2C3%2C5%2C1%2CF%2CP&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
26
- 27 Centers for Medicare & Medicaid. Local Coverage Determination (LCD): Outpatient
28 Physical and Occupational Therapy Services (L33631). Retrieved on August 17, 2025
29 from [https://www.cms.gov/medicare-coverage-database/details/lcd-](https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=33631&ver=51&keyword=outpatient%20physical%20and%20occupational%20therapy&keywordType=starts&areaId=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
30 [details.aspx?lcdid=33631&ver=51&keyword=outpatient%20physical%20and%20occ](https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=33631&ver=51&keyword=outpatient%20physical%20and%20occupational%20therapy&keywordType=starts&areaId=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
31 [upational%20therapy&keywordType=starts&areaId=all&docType=NCA,CAL,NCD,](https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=33631&ver=51&keyword=outpatient%20physical%20and%20occupational%20therapy&keywordType=starts&areaId=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
32 [MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=AAAA](https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=33631&ver=51&keyword=outpatient%20physical%20and%20occupational%20therapy&keywordType=starts&areaId=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
33 [AAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact](https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=33631&ver=51&keyword=outpatient%20physical%20and%20occupational%20therapy&keywordType=starts&areaId=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=AAAAAAQAAAAA&KeyWordLookUp=Doc&KeyWordSearchType=Exact)
34
- 35 Chen YP, Pope S, Tyler D, Warren GL. Effectiveness of constraint-induced movement
36 therapy on upper-extremity function in children with cerebral palsy: A systematic
37 review and meta-analysis of randomized controlled trials. Clin Rehabil.
38 2014;28(10):939-953.

- 1 Chiu HC, Ada L. Constraint-induced movement therapy improves upper limb activity and
2 participation in hemiplegic cerebral palsy: A systematic review. *J Physiother.*
3 2016;62(3):130-137.
4
- 5 Christiansen AS, Lange C. Intermittent versus continuous physiotherapy in children with
6 cerebral palsy. *Dev Med Child Neurol.* 2008 Apr;50(4):290-3.
7
- 8 Chou R, Deyo R, Friedly J, Skelly A, Hashimoto R, Weimer M, Fu R, Dana T, Kraegel P,
9 Griffin J, Grusing S, Brodt E. Noninvasive Treatments for Low Back Pain.
10 Comparative Effectiveness Review No. 169. (Prepared by the Pacific Northwest
11 Evidence-based Practice Center under Contract No. 290-2012-00014-I.) AHRQ
12 Publication No. 16-EHC004-EF. Rockville, MD: Agency for Healthcare Research and
13 Quality; February 2016.
14
- 15 Corbetta D, Sirtori V, Moja L, Gatti R. Constraint-induced movement therapy in stroke
16 patients: systematic review and meta-analysis. *Eur J Phys Rehabil Med.* 2010
17 Dec;46(4):537-44.
18
- 19 Csapo R, Alegre LM. Effects of Kinesio(®) taping on skeletal muscle strength-A meta-
20 analysis of current evidence. *J Sci Med Sport.* 2014 Jun 27.
21
- 22 Cunningham R, Uyeshiro Simon A, Preissner K. Occupational Therapy Practice
23 Guidelines for Adults With Multiple Sclerosis. *Am J Occup Ther.*
24 2022;76(5):7605397010. doi:10.5014/ajot.2022.050088
25
- 26 De Guindos-Sanchez L, Lucena-Anton D, Moral-Munoz JA, et al. The effectiveness of
27 hippotherapy to recover gross motor function in children with cerebral palsy: A
28 systematic review and meta-analysis. *Children (Basel).* 2020;7(9):106
29
- 30 De Miguel A, De Miguel MD, Lucena-Anton D, Rubio MD. Effects of hypotherapy on the
31 motor function of persons with Down's syndrome: A systematic review. *Rev Neurol.*
32 2018;67(7):233-241.
33
- 34 Dionisio MC, Terrill AL. Constraint-Induced Movement Therapy for Infants With or at
35 Risk for Cerebral Palsy: A Scoping Review. *Am J Occup Ther.*
36 2022;76(2):7602205120. doi:10.5014/ajot.2022.047894
37
- 38 Dixon L, Duncan D, Johnson P, Kirkby L, O'Connell H, Taylor H, Deane KH.
39 Occupational therapy for patients with Parkinson's disease. *Cochrane Database Syst*
40 *Rev.* 2007 Jul 18;(3):CD002813.

- 1 Dry Hydromassage. Princeton, MN: Sidmar Manufacturing, Inc.; 2001-2005. Accessed
2 August 17, 2025. Available at URL address: <http://www.sidmar.com/>
3
- 4 Eliasson AC, Krumlinde-Sundholm L, Gordon AM, et al; European network for Health
5 Technology Assessment (EUnetHTA). Guidelines for future research in constraint-
6 induced movement therapy for children with unilateral cerebral palsy: An expert
7 consensus. *Dev Med Child Neurol*. 2014
8
- 9 Faccioli S, Pagliano E, Ferrari A, Maghini C, Siani MF, Sgherri G, Cappetta G, Borelli G,
10 Farella GM, Foscan M, Viganò M, Sghedoni S, Perazza S, Sassi S. Evidence-based
11 management and motor rehabilitation of cerebral palsy children and adolescents: a
12 systematic review. *Front Neurol*. 2023 May 25;14:1171224
13
- 14 Fields B, Smallfield S. Occupational Therapy Practice Guidelines for Adults With Chronic
15 Conditions. *Am J Occup Ther*. 2022;76(2):7602397010. doi:10.5014/ajot.2022/762001
16
- 17 Forwell S. Occupational therapy practice guidelines for adults with neurodegenerative
18 diseases. Bethesda (MD): American Occupational Therapy Association (AOTA);
19 2014.
20
- 21 Frontera WR Silver JK Rizzo TD. Essentials of Physical Medicine and Rehabilitation :
22 Musculoskeletal Disorders Pain and Rehabilitation. 4th ed. Philadelphia: Elsevier;
23 2019.
24
- 25 Frontera W, Silver J, Rizzo TD editors. Essentials of physical medicine and rehabilitation.
26 3rd ed. Philadelphia, PA: Saunders, an imprint of Elsevier Inc.; 2014.
27
- 28 Gao C, Li X, Li F, Li J, Zhang J. Non-pharmacological interventions on quality of life in
29 stroke survivors: A systematic review and meta-analysis. *Worldviews Evid Based*
30 *Nurs*. 2024;21(2):158-182. doi:10.1111/wvn.12714
31
- 32 García-Pérez P, Rodríguez-Martínez MDC, Lara JP, Cruz-Cosme C. Early Occupational
33 Therapy Intervention in the Hospital Discharge after Stroke. *Int J Environ Res Public*
34 *Health*. 2021;18(24):12877. Published 2021 Dec 7. doi:10.3390/ijerph182412877
35
- 36 Gibbons GW, Orgill DP, Serena TE, et al. A prospective, randomized, controlled trial
37 comparing the effects of noncontact, low-frequency ultrasound to standard care in
38 healing venous leg ulcers. *Ostomy Wound Manage*. 2015;61(1):16-29.
39
- 40 Golisz K. Occupational therapy practice guidelines for adults with traumatic brain injury.
41 Bethesda (MD): American Occupational Therapy Association (AOTA); 2016.

- 1 Grampurohit N, Pradhan S, Kartin D. Efficacy of adhesive taping as an adjunct to physical
2 rehabilitation to influence outcomes post-stroke: a systematic review. *Top Stroke*
3 *Rehabil.* 2015 Feb; 22(1):72-82.
- 4
- 5 Guindos-Sanchez L, Lucena-Anton D, Moral-Munoz JA, Salazar A, Carmona-Barrientos
6 I. The Effectiveness of Hippotherapy to Recover Gross Motor Function in Children
7 with Cerebral Palsy: A Systematic Review and Meta-Analysis. *Children (Basel)*. 2020
8 Aug 19;7(9):106.
- 9
- 10 Gulrandhe P, Acharya S, Patel M, Shukla S, Kumar S. Pertinence of Constraint-Induced
11 Movement Therapy in Neurological Rehabilitation: A Scoping Review. *Cureus*. 2023
12 Sep 13;15(9):e45192. doi: 10.7759/cureus.45192. PMID: 37842361; PMCID:
13 PMC10576160.
- 14
- 15 H2Omassage System. Winnipeg, MB, Canada. Retrieved on August 17, 2025 from
16 <http://www.h2omassage.com/>
- 17
- 18 Heussen N, Häusler M. Equine-Assisted Therapies for Children With Cerebral Palsy: A
19 Meta-analysis. *Pediatrics*. 2022;150(1):e2021055229. doi:10.1542/peds.2021-
20 055229
- 21
- 22 Hoare BJ, Wasiak J, Imms C, Carey L. Constraint-induced movement therapy in the
23 treatment of the upper limb in children with hemiplegic cerebral palsy. *Cochrane*
24 *Database Syst Rev*. 2007 Apr 18;(2):CD004149.
- 25
- 26 Hoare BJ, Wallen MA, Thorley MN, Jackman ML, Carey LM, Imms C. Constraint-
27 induced movement therapy in children with unilateral cerebral palsy. *Cochrane*
28 *Database of Systematic Reviews* 2019, Issue 4. Art. No.: CD004149. DOI:
29 10.1002/14651858.CD004149.pub3.
- 30
- 31 Hoffmann T, Bennett S, Koh C, McKenna K. The Cochrane review of occupational therapy
32 for cognitive impairment in stroke patients. *Eur J Phys Rehabil Med*. 2011;47(3):513-
33 519
- 34
- 35 Jackman M, Sakzewski L, Morgan C, et al. Interventions to improve physical function for
36 children and young people with cerebral palsy: international clinical practice
37 guideline. *Dev Med Child Neurol*. 2022;64(5):536-549. doi:10.1111/dmcn.15055
- 38
- 39 Jimmo v. Sebelius, No. 5:11-CV-17-CR (D. Vt. filed Jan. 18, 2011).

- 1 Koomar, J., Burpee, J. D., DeJean, V., Frick, S., Kavar, M. J., & Fischer, D. M. (2001).
2 Theoretical and clinical perspectives on the interactive metronome®: A view from
3 occupational therapy practice. *American Journal of Occupational Therapy*, 55(2),
4 163–166. <https://doi.org/10.5014/ajot.55.2.163>
5
- 6 Kotronis G, Vas PRJ. Ultrasound Devices to Treat Chronic Wounds: The Current Level of
7 Evidence. *Int J Low Extrem Wounds*. 2020 Dec;19(4):341-349. doi:
8 10.1177/1534734620946660.
9
- 10 Kundakci B, Kaur J, Goh SL, et al. Efficacy of nonpharmacological interventions for
11 individual features of fibromyalgia: a systematic review and meta-analysis of
12 randomised controlled trials. *Pain*. 2022;163(8):1432-1445.
13 doi:10.1097/j.pain.0000000000002500
14
- 15 Lee CW, Kim SG, Yong MS. Effects of hippotherapy on recovery of gait and balance
16 ability in patients with stroke. *J Phys Ther Sci*. 2014 Feb;26(2):309-11.
17
- 18 Legg L, Drummond A, Leonardi-Bee J, Gladman JR, Corr S, Donkervoort M, et al.
19 Occupational therapy for patients with problems in personal activities of daily living
20 after stroke: systematic review of randomized trials. *BMJ*. 2007 Nov 3;335(7626):922.
21
- 22 Legg LA, Drummond AE, Langhorne P. Occupational therapy for patients with problems
23 in activities of daily living after stroke. *Cochrane Database Syst Rev*. 2006 Oct
24 18;(4):CD003585.
25
- 26 Legg LA, Lewis SR, Schofield-Robinson OJ, Drummond A, Langhorne P. Occupational
27 therapy for adults with problems in activities of daily living after stroke. *Cochrane*
28 *Database of Systematic Reviews* 2017, Issue 7. Art. No.: CD003585. DOI:
29 10.1002/14651858.CD003585.pub3.
30
- 31 Lindsay P, Bayley M, Hellings C, Hill M, Woodbury E, Phillips S. Stroke rehabilitation
32 and community reintegration. Outpatient and community-based rehabilitation. In:
33 Canadian best practice recommendations for stroke care. *CMAJ* 2008 Dec 2;179(12
34 Suppl):E58-61
35
- 36 Marquez J, Weerasekara I, Chambers L. Hippotherapy in adults with acquired brain injury:
37 A systematic review. *Physiother Theory Pract*. 2020 Jul;36(7):779-790.
38
- 39 Martínez-Costa Montero MC, Cabeza AS. Effectiveness of constraint-induced movement
40 therapy in upper extremity rehabilitation in patients with cerebral palsy: A systematic
41 review. *Rehabilitacion (Madr)*. 2020 Nov 30 [Online ahead of print].

- 1 McIntyre A, Viana R, Janzen S, Mehta S, Pereira S, Teasell R. Systematic review and
2 meta-analysis of constraint-induced movement therapy in the hemiparetic upper
3 extremity more than six months post stroke. *Top Stroke Rehabil.* 2012 Nov-
4 Dec;19(6):499-513.
- 5
- 6 Merino-Andrés J, López-Muñoz P, Carrión RP, Martín-Casas P, Ruiz-Becerro I, Hidalgo-
7 Robles Á. Is more always better? Effectiveness of constraint-induced movement
8 therapy in children with high-risk or unilateral cerebral palsy (0-6 years): Systematic
9 review and meta-analysis. *Child Care Health Dev.* 2024;50(3):e13262.
10 doi:10.1111/cch.13262
- 11
- 12 Morris ME, Perry A, Bilney B, Curran A, Dodd K, Wittwer JE, Dalton GW. Outcomes of
13 physical therapy, speech pathology, and occupational therapy for people with motor
14 neuron disease: a systematic review. *Neurorehabil Neural Repair.* 2006 Sep;20(3):424-
15 34.
- 16
- 17 Nair HKR. Microcurrent as an adjunct therapy to accelerate chronic wound healing and
18 reduce patient pain. *J Wound Care.* 2018 May 2;27(5):296-306.
- 19
- 20 Novak I, Morgan C, Fahey M, Finch-Edmondson M, Galea C, Hines A, Langdon K,
21 Namara MM, Paton MC, Popat H, Shore B, Khamis A, Stanton E, Finemore OP, Tricks
22 A, Te Velde A, Dark L, Morton N, Badawi N. State of the Evidence Traffic Lights
23 2019: Systematic Review of Interventions for Preventing and Treating Children with
24 Cerebral Palsy. *Curr Neurol Neurosci Rep.* 2020 Feb 21;20(2):3.
- 25
- 26 Office of Disease Prevention and Health Promotion. (n.d.). Social Determinants of Health.
27 Healthy People 2020. U.S. Department of Health and Human Services. Retrieved
28 August 17, 2025 from [https://health.gov/healthypeople/priority-areas/social-](https://health.gov/healthypeople/priority-areas/social-determinants-health#:~:text=Social%20determinants%20of%20health%20)
29 [determinants-health#:~:text=Social%20determinants%20of%20health%20](https://health.gov/healthypeople/priority-areas/social-determinants-health#:~:text=Social%20determinants%20of%20health%20).
- 30
- 31 O'Haire ME. Animal-assisted intervention for autism spectrum disorder: a systematic
32 literature review. *J Autism Dev Disord.* 2013 Jul;43(7):1606-22.
- 33
- 34 Olyaie M, Rad FS, Elahifar MA, Garkaz A, Mahsa G. High-frequency and noncontact low-
35 frequency ultrasound therapy for venous leg ulcer treatment: a randomized, controlled
36 study. *Ostomy Wound Manage.* 2013 Aug;59(8):14-20.
- 37
- 38 Ottawa Panel. Ottawa panel evidence-based clinical practice guidelines for therapeutic
39 exercises and manual therapy in the management of osteoarthritis. *Phys Ther* 2005
40 Sep;85(9):907-71.

- 1 Ottawa Panel. Ottawa Panel evidence-based clinical practice guidelines for therapeutic
2 exercises in the management of rheumatoid arthritis in adults. *Phys Ther.* 2004
3 Oct;84(10):934-72.
4
- 5 Ottawa Panel, Khadilkar A, Phillips K, Jean N, Lamothe C, Milne S, Sarnecka J. Ottawa
6 panel evidence-based clinical practice guidelines for post-stroke rehabilitation. *Top*
7 *Stroke Rehabil.* 2006 Spring;13(2):1-269.
8
- 9 Palomo-Carrión R, Ferri-Morales A, Ando-LaFuente S, et al. Constraint-induced
10 movement therapy versus bimanual intensive therapy in children with hemiplegia
11 showing low/very low bimanual functional performance: A randomized clinical trial.
12 *PM R.* 2023;15(12):1536-1546. doi:10.1002/pmrj.12990
13
- 14 Pantera E, Froment P, Vernay D. Does Hippotherapy Improve the Functions in Children
15 with Cerebral Palsy? Systematic Review Based on the International Classification of
16 Functioning. *J Integr Complement Med.* 2022;28(9):705-720.
17 doi:10.1089/jicm.2021.0417
18
- 19 Peia F, Veiga NC, Gomes AP, et al. Effects of Hippotherapy on Postural Control in
20 Children With Cerebral Palsy: A Systematic Review. *Pediatr Phys Ther.*
21 2023;35(2):202-210. doi:10.1097/PEP.0000000000000999
22
- 23 Peurala SH, Kantanen MP, Sjögren T, Paltamaa J, Karhula M, Heinonen A. Effectiveness
24 of constraint-induced movement therapy on activity and participation after stroke: a
25 systematic review and meta-analysis of randomized controlled trials. *Clin Rehabil.*
26 2012 Mar;26(3):209-23.
27
- 28 Plotas P, Papadopoulos A, Apostolelli EM, et al. Effects of hippotherapy on motor function
29 of children with cerebral palsy: a systematic review study. *Ital J Pediatr.*
30 2024;50(1):188. Published 2024 Sep 19. doi:10.1186/s13052-024-01715-9.
31
- 32 PM&R Now. Therapeutic Modalities. Author(s): Benjamin J. Seidel, DO, Lawrence
33 Chang, DO, MPH, Aaron Greenberg, DO. Originally published: April 4, 2016. Last
34 updated: Sept 19, 2024. Retrieved on August 17, 2025 from
35 [https://now.aapmr.org/therapeutic-modalities/#relevance-to-clinical-practice/-](https://now.aapmr.org/therapeutic-modalities/#relevance-to-clinical-practice/-specific-techniques)
36 [specific-techniques](https://now.aapmr.org/therapeutic-modalities/#relevance-to-clinical-practice/-specific-techniques)
37
- 38 Pollock A, Baer G, Campbell P, Choo PL, Forster A, Morris J, et al. Physical rehabilitation
39 approaches for the recovery of function and mobility following stroke. *Cochrane*
40 *Database Syst Rev.* 2014 Apr 22;4:CD001920.

- 1 Prieto A, Martins Almeida Ayupe K, Nemetala Gomes L, Saúde AC, Gutierrez Filho P.
2 Effects of equine-assisted therapy on the functionality of individuals with disabilities:
3 systematic review and meta-analysis. *Physiother Theory Pract.* 2022;38(9):1091-1106.
4 doi:10.1080/09593985.2020.1836694
- 5
- 6 Pulman J, Buckley E, Clark-Carter D. A meta-analysis evaluating the effectiveness of two
7 different upper limb hemiparesis interventions on improving health-related quality of
8 life following stroke. *Top Stroke Rehabil.* 2013 Mar-Apr;20(2):189-96.
- 9
- 10 Quinn É, Hynes SM. Occupational therapy interventions for multiple sclerosis: A scoping
11 review. *Scand J Occup Ther.* 2021;28(5):399-414.
- 12
- 13 Ramey SL, DeLuca SC, Stevenson RD, et al. Constraint-Induced Movement Therapy for
14 Cerebral Palsy: A Randomized Trial. *Pediatrics.* 2021;148(5):e2020033878.
15 doi:10.1542/peds.2020-033878
- 16
- 17 Regalado A, Decker B, Flaherty BM, Zimmer L, Brown I. Effectiveness of Constraint-
18 Induced Movement Therapy for Children With Hemiparesis Associated With Cerebral
19 Palsy: A Systematic Review. *Am J Occup Ther.* 2023;77(3):7703205160.
20 doi:10.5014/ajot.2023.050152
- 21
- 22 Revised by the Commission on Practice, 2020;., Casto SC, Davis C, et al. Standards of
23 Practice for Occupational Therapy. *Am J Occup Ther.*
24 2022;75(Supplement_3):7513410030. doi:10.5014/ajot.2021.75S3004
- 25
- 26 Sabari J, Lieberman D. Occupational therapy practice guidelines for adults with stroke.
27 Bethesda (MD): American Occupational Therapy Association (AOTA); 2015.
- 28
- 29 Sakzewski L, Ziviani J, Boyd R. Systematic review and meta-analysis of therapeutic
30 management of upper-limb dysfunction in children with congenital
31 hemiplegia. *Pediatrics.* 2009;123(6):e1111-e1122. doi:10.1542/peds.2008-3335
- 32 Sakzewski L, Ziviani J, Boyd RN. Efficacy of upper limb therapies for unilateral cerebral
33 palsy: a meta-analysis. *Pediatrics.* 2014 Jan;133(1):e175-204
- 34
- 35 Sall, J., Eapen, B. C., Tran, J. E., Bowles, A. O., Bursaw, A., & Rodgers, M. E. (2019).
36 The Management of Stroke Rehabilitation: A Synopsis of the 2019 U.S. Department
37 of Veterans Affairs and U.S. Department of Defense Clinical Practice Guideline.
38 *Annals of internal medicine*, 171(12), 916–924. <https://doi.org/10.7326/M19-1695>
- 39
- 40 Santos de Assis G, Schlichting T, Rodrigues Mateus B, Gomes Lemos A, Dos Santos AN.
41 Physical therapy with hippotherapy compared to physical therapy alone in children

with cerebral palsy: systematic review and meta-analysis. *Dev Med Child Neurol.* 2022;64(2):156-161. doi:10.1111/dmcn.15042

Scottish Intercollegiate Guidelines Network (SIGN). Management of patients with stroke: rehabilitation, prevention and management of complications, and discharge planning. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network (SIGN); 2010 Jun (Updated 15 October 2014).

Shi YX, Tian JH, Yang KH, Zhao Y. Modified constraint-induced movement therapy versus traditional rehabilitation in patients with upper-extremity dysfunction after stroke: a systematic review and meta-analysis. *Arch Phys Med Rehabil.* 2011 Jun;92(6):972-82.

Shu Y, Bi MM, Zhou TT, Liu L, Zhang C. Effect of Dual-Task Training on Gait and Balance in Stroke Patients: An Updated Meta-analysis. *Am J Phys Med Rehabil.* 2022;101(12):1148-1155. doi:10.1097/PHM.0000000000002016

Silberstein N. Dry hydrotherapy: don't add water. *Rehab Manag.* 2006 Jun;19(5):22-3.

Sirtori V, Corbetta D, Moja L, Gatti R. Constraint-induced movement therapy for upper extremities in stroke patients. *Cochrane Database Syst Rev.* 2009 Oct 7;(4):CD004433.

Steultjens EM, Dekker J, Bouter LM, Cardol M, Van de Nes JC, Van den Ende CH. Occupational therapy for multiple sclerosis. *Cochrane Database Syst Rev.* 2003;(3):CD003608.

Steultjens EM, Dekker J, Bouter LM, Leemrijse CJ, van den Ende CH. Evidence of the efficacy of occupational therapy in different conditions: an overview of systematic reviews. *Clin Rehabil.* 2005 May;19(3):247-54.

Steultjens EM, Dekker J, Bouter LM, van de Nes JC, van de Ende CH. Occupational therapy for stroke patients. A systematic review. *Stroke.* 2003 Mar;34(3):676-87.

Steultjens EM, Dekker J, Bouter LM, van Schaardenburg D, van Kuyk MA, van den Ende CH. Occupational therapy for rheumatoid arthritis. *Cochrane Database Syst Rev.* 2004;(1):CD003114.

Sung IY, Ryu JS, Pyun SB, Yoo SD, Song WH, Park MJ. Efficacy of forced-use therapy in hemiplegic cerebral palsy. *Arch Phys Med Rehabil.* 2005 Nov;86(11):2195-8.

- 1 Trombly CA, Ma HI. A synthesis of the effects of occupational therapy for persons with
2 stroke, Part I: Restoration of roles, tasks, and activities. *Am J Occup Ther*. 2002 May-
3 Jun;56(3):250-9.
- 4
- 5 Walker MF, Leonardi-Bee J, Bath P, Langhorne P, Dewey M, Corr S, et al. Individual
6 patient data meta-analysis of randomized controlled trials of community occupational
7 therapy for stroke patients. *Stroke*. 2004 Sep;35(9):2226-32.
- 8
- 9 Walker C, Shierk A, Roberts H. Constraint Induced Movement Therapy in Infants and
10 Toddlers with Hemiplegic Cerebral Palsy: A Scoping Review. *Occup Ther Health*
11 *Care*. 2022;36(1):29-45. doi:10.1080/07380577.2021.1953206
- 12
- 13 White E, Zippel J, Kumar S. The effect of equine-assisted therapies on behavioural,
14 psychological and physical symptoms for children with attention deficit/hyperactivity
15 disorder: A systematic review. *Complement Ther Clin Pract*. 2020 May;39:101101.
- 16
- 17 White J, Ivins N, Wilkes A, Carolan-Rees G, Harding KG. Non-contact low-frequency
18 ultrasound therapy compared with UK standard of care for venous leg ulcers: a single-
19 centre, assessor-blinded, randomised controlled trial. *Int Wound J*. 2015 Jan 25.
- 20
- 21 Wolf SL, Winstein CJ, Miller JP, Taub E, Uswatte G, Morris D, et al; EXCITE
22 Investigators. Effect of constraint-induced movement therapy on upper extremity
23 function 3 to 9 months after stroke: the EXCITE randomized clinical trial. *JAMA*. 2006
24 Nov 1;296(17):2095-104.
- 25
- 26 Wood J, Henderson W, Foster ER. Occupational Therapy Practice Guidelines for People
27 With Parkinson's Disease. *Am J Occup Ther*. 2022;76(3):7603397010.
28 doi:10.5014/ajot.2022.763001