Clinical Practice Guideline: **Chiropractic Services Medical Policy/Guideline**

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Related Policies:
CPG 1: X-ray Guidelines
CPG 3: Quality Patient Management
CPG 12: Medical Necessity Decision Assist Guideline for Rehabilitative Care
CPG 110: Medical Record Maintenance and Documentation Practices
CPG 111: Patient Assessments: Medical Necessity Decision Assist Guideline for Evaluations, Re-evaluations and Consultations
CPG 119: Spinal Manipulative Therapy for Non-Musculoskeletal and Related Disorders
CPG 120: Spinal Manipulative Therapy for Treatment of Children
CPG 121: Passive Physiotherapy (Therapeutic) Modalities
CPG 129: Electrodiagnostic Testing
CPG 133: Techniques and Procedures Not Widely Supported as Evidence-Based
CPG 135: Physical Therapy Medical Policy / Guidelines
CPG 142: Supports and Appliances
CPG 175: Extra-Spinal Joint Manipulation / Mobilization for the Treatment of Upper Extremity Musculoskeletal Conditions
CPG 177: Extra-Spinal Joint Manipulation / Mobilization for the Treatment of Lower Extremity Musculoskeletal Conditions
CPG 275: Mechanical Traction (Provided in a Clinical Setting)
CPG 285: Spinal Manipulative Therapy (SMT) for Musculoskeletal and Related Disorders

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DESCRIPTION

This document addresses Chiropractic skilled services which may be delivered by a Chiropractor/Doctor of Chiropractic 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 (CQEs) on Chiropractic services submitted for review. For information about Medicare (CMS) medical necessity, please see Section 8.4.

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.

Medical necessity review protects the safety of patients. The application of rehabilitative spinal manipulative care to a patient must be appropriate and safe. Cases where it is not safe to administer spinal manipulative care may pose significant health and safety risk to a patient, for example:

- A patient with atlantoaxial instability secondary to chronic rheumatoid arthritis would be put at significant risk of harm, possibly life threatening, if spinal manipulative procedures were administered to the cervical spine.
- A patient that had received a trial of spinal manipulative care but is now showing signs of progressive neurological deficits should not receive ongoing care but should be referred for further studies and possible alternative consultations to determine if more aggressive care is needed (e.g., surgical spinal decompression) to prevent permanent neurological damage.
- A patient reports acute low back pain, loss of sensory perception in the lower extremities and bladder dysfunction. Failure to recognize and diagnose classic signs

of Cauda Equina syndrome would have serious harmful effects including permanent neurological dysfunction as this condition requires immediate surgical intervention.

Care approved through medical necessity review is safe, appropriate, curative in nature, 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.

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 chiropractic 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.

GUIDELINES

1. PROVIDERS OF CHIROPRACTIC SERVICES

Covered, medically necessary chiropractic services must be delivered by a qualified Chiropractor acting within the scope of their license as regulated by the Federal and State governments. Some services may be performed by ancillary providers (e.g., licensed massage therapist, physical therapist) under the direction and supervision of a licensed Chiropractor; however, generally, only those healthcare practitioners who hold an active license, certification, or registration with the applicable state board or agency may provide such services. Benefits for services provided by these ancillary healthcare providers may also be dependent upon the patient's benefit contract language.

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

2. HABILITATIVE SERVICES

Chiropractic Manipulative Therapy (CMT) is not generally considered to be a medically necessary habilitative service. Medically necessary habilitative services refer to therapeutic modalities and procedures necessary 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. Such services are generally performed by physical therapists, occupational therapists, and speech therapists. However, Chiropractors may provide therapeutic modalities and procedures that meet the definition of medically necessary habilitative services when allowed by state scope of practice; however, joint manipulation (chiropractic manipulation/osteopathic manipulation) is not generally considered to be medically necessary as a Habilitative service.

3. REHABILITATIVE CHIROPRACTIC SERVICES

Medically Necessary

Rehabilitative chiropractic services are considered **medically necessary** when **ALL** the following criteria are met:

1. The services are delivered by a qualified practitioner of chiropractic services; and
2. The services require the judgment, knowledge, and skills of a qualified practitioner of chiropractic services due to the complexity and sophistication of the therapy and the medical condition of the individual; and
3. The service is aimed at diagnosis, treatment, and/or prevention of disorders of the musculoskeletal system, and the effects of these disorders on the nervous system and general health; and
4. The service is for conditions that require the unique knowledge, skills, and judgment of a Chiropractor for education and training of the patient that is part of an active skilled plan of treatment; and
5. There is a clinically supported expectation that the service will result in a clinically significant level of functional improvement within a **reasonable and predictable period of time***; and
    - Improvement or restoration of function could not be reasonably expected as the individual gradually resumes normal activities without the provision of skilled therapy services; and
    - The documentation objectively verifies progressive functional improvement over specific time frames and clinically justifies the initiation of continuation of rehabilitative services.

Reasonable and predictable period of time: The specific time frames for 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 generally up to 4 weeks and 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.

Not Medically Necessary

(1) Maintenance care (e.g., elective care, wellness care) is considered **not** medically necessary as a rehabilitative service; and is often a specific benefit exclusion.

(2) Rehabilitative chiropractic services are considered **not** medically necessary if **any** of the following is determined:

1. The service is **not** aimed at diagnosis, treatment, and prevention of disorders of the musculoskeletal system, and the effects of these disorders on the nervous system and general health.
2. The service is for conditions for which therapy would be considered routine educational, training, conditioning, or fitness. This includes treatments or activities that require only routine supervision.
3. 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 (up to 4 weeks).
    - 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.
    - If an individual's expected restoration potential would not produce a meaningful improvement in relation to the extent and duration of the service required to achieve such potential, the service(s) would be considered **not** medically necessary.
    - The documentation fails to objectively verify functional progress over a reasonable period of time (up to 4 weeks).
    - The patient has reached maximum therapeutic benefit.
4. 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.
5. A passive modality has insufficient published evidence to support a clinically meaningful physiologic effect on the target tissue or improve the potential for a positive response to care for the condition being treated.
6. Services do **not** require the skills of a qualified practitioner of chiropractic services. Examples include but not limited to:
    - Practitioner recommended activities and services that can be practiced independently and can be self-administered safely and effectively.

- Home exercise programs that can be performed safely and independently to continue therapy without skilled supervision.
- Activities for the general health and welfare of the individual such as:
  - General exercises (basic aerobic, strength, flexibility, or aquatic programs) to promote overall fitness/conditioning.
  - Services/programs for the primary purpose of enhancing or returning to athletic or recreational sports.
  - Massages and whirlpools for relaxation.
  - General public education/instruction sessions.

7. Re-evaluations or assessments of a patient's status that are not a significant, separately identifiable E/M service above and beyond the usual preservice and post service work components included within the chiropractic manipulative services.
8. Re-evaluations or assessments of a patient's status that are not necessary to continue a course of therapy nor related to a new condition, new or changed health status for which the evaluation will likely result in a change in the treatment plan.
9. The treatments/services are **not** supported by and are **not** performed in accordance with nationally recognized clinical standards or with peer-reviewed literature as documented in appliable ASH CPGs or other literature accepted by ASH Clinical Quality committee.

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

- Back school
- Group therapy (because it is not one-on-one, individualized to the specific patient's needs)
- Vocational rehabilitation programs and any program or evaluation with the primary goal of returning a patient to work
- Work hardening programs
- Nutrition wellness education or similar wellness interventions

4. CHIROPRACTIC MANIPULATION / MOBILIZATION

Chiropractic Manipulative Therapy (CMT) is a specific therapeutic procedure characterized by controlled force, leverage, direction, amplitude, and velocity intended to correct or improve spinal subluxation (altered joint alignment, motion, or physiologic function in an intact motion segment). This is distinguished from the use of the term manipulation by other professions which may include a spectrum of manual therapies such as mobilization, soft tissue manipulation, and muscle-energy techniques. For more information, see the *Spinal Manipulative Therapy for Musculoskeletal and Related Disorders (CPG 285 - S)* clinical practice guideline.

The CMT service includes an appropriate review of medical records, a brief pre-treatment evaluation of the patient's condition(s), as well as documentation of the patient's response post-treatment. These brief evaluations are essential to determine if:

- The treatment provided significant clinical improvement
- Further care is warranted
- A change in treatment plan is indicated
- A referral is indicated
- The treatment should be discontinued

Failure to appropriately perform and adequately document these brief evaluations may result in an adverse determination (partial approval or denial) of those CMT services.

4.1 Guidelines for Chiropractic Spinal Manipulation

In accordance with the current version of the American Medical Association's (AMA) Current Procedural Terminology (CPT) codebook, the five spinal regions are:

- Cervical region (includes the atlanto-occipital joint)
- Thoracic region (includes the costovertebral and costotransverse joints)
- Lumbar region
- Sacral region
- Pelvic region (includes the sacro-iliac joints)

The CPT® codes for reporting spinal manipulation/mobilization are as follows:

- 98940 CMT; Spinal, 1-2 regions
- 98941 CMT; Spinal, 3-4 regions
- 98942 CMT; Spinal, 5 regions

Medical Necessity Criteria

ASH considers chiropractic spinal manipulation (or grade V mobilization) to be medically necessary when both of the following criteria are met:

- There is adequate documentation that the patient has a symptomatic (acute, subacute, or chronic; with or without radicular components) musculoskeletal or related disorder attributable to a mechanical, structural, or functional disorder of the sacroiliac, lumbosacral; lumbar, thoracic and/or cervical spine or headache disorders including tension-type and migraine headaches; and
- There is an absence of contraindications to manipulation/mobilization or diagnostic red flags suggesting a possible organic disorder in the area of treatment, including but not limited to:
  - Malignancy or infection
  - Metabolic bone disease
  - Fusion or ankylosis

- Acute fracture or ligament rupture
- Joint hypermobility/instability

Documentation Requirements to Substantiate Medical Necessity of Chiropractic Spinal Manipulation/Mobilization

Proper patient specific evaluation and sufficient documentation is essential to establish the clinical necessity and effectiveness of spinal manipulation/mobilization, 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 area or spinal segment treated. Each daily record should include: the date of service, the procedure performed, area of treatment, and the identity of the person(s) providing the manipulation/mobilization services. Failure to properly identify and sufficiently document the practitioner's clinical findings that substantiate the clinical rationale to support spinal manipulation/mobilization on a daily progress note may result in an adverse determination (partial approval or denial).

Documentation should include:

(1) Absence of contraindications to spinal manipulation/mobilization in the area of treatment.

(2) Physical exam findings that correlate with the patient's subjective complaint(s) and support the diagnosis and treatment plan. Such findings may include:

- Pain (e.g., bone, muscle, joint)
- Tenderness/achiness (e.g., muscles, joints)
- Stiffness and/or limited motion
- Tone or texture changes in the adjacent muscles and soft tissues including muscle tightness or weakness
- Asymmetry or misalignment between adjacent spinal segments
- Acute inflammation (e.g., redness, heat, swelling, pain, impaired function, tenderness)
- Headache disorders (including tension-type and migraine headaches)
- Impaired function (e.g., functional deficits, ADL restrictions)
- Muscle disorders (e.g., spasms, cramps, injuries, trigger points)
- Numbness/tingling or other paresthesia, weakness, loss of deep tendon reflexes, or other signs of nerve or nerve root compression or irritation
- Other exam findings related and/or specific to the patient's condition(s) or complaint(s)

(3) A valid musculoskeletal diagnosis for a spinal complaint for which there is sufficient clinical evidence that spinal manipulation/mobilization is both safe and efficacious. Spinal manipulation/mobilization for non-musculoskeletal conditions is not medically necessary.

(4) Documentation that identifies against valid criteria (x-ray findings or physical exam findings) the presence and location of spinal dysfunctions / subluxation. Failure to appropriately document the spinal subluxation(s) may result in an adverse determination (partial approval or denial) of CMT services.

(5) An assessment of clinically significant change(s) in the patient's condition(s) if documenting the need for continued care.

4.2 Guidelines for Chiropractic Extra-Spinal Joint Manipulation/Mobilization

In accordance with the current version of the CPT® codebook, the five extraspinal regions are:

- Head region (including the temporomandibular joint, excluding the atlanto-occipital)
- Upper extremities
- Lower extremities
- Rib cage (excluding the costotransverse and costovertebral joints)
- Abdomen

The CPT® code for reporting extra-spinal manipulation/mobilization is:

- 98943 CMT; Extraspinal, 1 or more regions

Medically Necessary Extra-Spinal Joint Manipulation/Mobilization

In the absence of contraindications, the use of Extra-Spinal Joint Manipulation/Mobilization may be considered medically necessary when subjective complaint(s) and objective findings demonstrate a reasonable expectation of achieving a clinically significant level of improvement in the patient's complaint/condition. Examples of such complaints/conditions include, but not limited to:

- Shoulder complaints, dysfunction, disorders, and/or pain
- Restricted joint play of humeroradial joint
- Restricted joint play of radiocarpal joint
- Restricted joint play of iliofemoral joint
- Restricted joint play of proximal tibiofibular joint
- Ankle inversion sprains

Documentation Requirements to Substantiate Medical Necessity of Chiropractic Extra-Spinal Manipulation / Mobilization

The patient's medical records should document the practitioner's clinical rationale to support extra-spinal manipulation/mobilization (98943). In addition to the documentation criteria in section 4.1, documentation for extra spinal manipulation should include, at a minimum, abnormal joint mechanics or a range of motion abnormality that is appropriately documented and correlated with the subjective findings of an extra-spinal complaint and other pertinent exam findings in order to support extra-spinal manipulation/mobilization.

4.3 Use of Chiropractic Spinal Manipulation / Mobilization on Children

ASH considers Chiropractic spinal manipulation or mobilization for the treatment of children to be medically necessary when the documentation establishes a valid diagnosis and symptom pattern and there is a reasonable assumption of a positive benefit versus risk profile. Additional caution should be considered prior to performing Chiropractic spinal manipulation on infants and children. While there is insufficient literature to conclude that CMT is clinically effective or ineffective in children, a limited, short trial of care may be reasonable when the CMT meets all other medical necessity criteria. Monitoring the patient's tolerance for the services provided and response to care is especially important in this population as tolerance and response is highly variable in the pediatric population.

Chiropractic spinal manipulation is considered **not** medically necessary for non-musculoskeletal and related disorders in children, such as:

- Asthma
- Infantile colic
- Nocturnal enuresis
- Otitis media

5. THERAPEUTIC MODALITIES AND PROCEDURES

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 does not require direct one-on-one patient contact by the Chiropractor; or modalities may involve constant attendance, which indicates that the modality requires direct one-on-one patient contact by the Chiropractor.

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:

- Hot or cold packs
- Mechanical traction
- Unattended electrical stimulation
- Vasopneumatic devices
- Whirlpool
- Paraffin bath
- Diathermy
- Ultraviolet or infrared light

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
- Manual, attended electrical stimulation (e.g., NMES)
- 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 Chiropractor, are timed therapies, and must be reported in units of 15-minute increments. Only the actual time that the Chiropractor 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 Chiropractor to have direct (one-on-one) patient contact include:

- Therapeutic exercises
- Neuromuscular re-education
- 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).

5.1 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 a disease or injury. (Refer to the "Treatment Interventions" section 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 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 or restriction 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 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, exercise program 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 exam 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 length of time per visit for medically necessary active therapeutic procedures typically doesn't exceed two (2) timed units of CPT® Codes such as: 97110, 97112 or 97530. This includes some patients with significant impairments that would not be able to tolerate a longer active care time. Initially some individuals may only be able to tolerate the duration covered in one (1) timed unit. A longer time per visit requires documentation to support this level of supervision and activity
- 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).

5.2 Treatment Interventions

Below are descriptions and medical necessity criteria, as applicable, for different treatment interventions, including specific modalities and therapeutic procedures associated with Chiropractic services. 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).

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) in post-surgical patients or patients with chronic joint dysfunction.

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. Mechanical traction applied to the thoracic spine is unproven.

ASH considers using a table or chair with moving roller(s) against the spine or paraspinal tissue (e.g., Spinalator) a type of passive mobilization modality (often referred to as "intersegmental traction") that may have limited value in reducing spinal stiffness and muscle tension and is only appropriate as preparatory or adjunctive to spinal manipulative procedures. It should not be used as a stand-alone therapy. It should only be used for a short duration (1-2 weeks) to facilitate manipulations and to transition into an active therapy program.

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.

Electrical Stimulation

Various types and frequencies of electrical stimulation is used to relieve pain, reduce swelling, heal wounds, and improve muscle function. Functional electric stimulation may be considered medically necessary for muscle re-education (to improve muscle contraction) in the earlier phases of rehabilitation.

Iontophoresis

Electric current 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 reduction 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.

Diathermy

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.

Therapeutic Exercises

Therapeutic exercise includes instruction, feedback, and supervision of a person in an exercise program specific to their condition. Therapeutic exercise 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 a disease or injury. Exercise performed by the patient within a clinic facility or other location (e.g., home, gym) without a physician or therapist present and supervising would be considered not medically necessary.

Neuromuscular Reeducation (NMR)

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

Aquatic Therapy

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

Gait Training

This procedure involves teaching patients with neurological or musculoskeletal disorders how to ambulate given their disability or to ambulate with an assistive device. Assessment of muscle function and joint position during ambulation is considered a necessary component of this procedure, including direct visual observation and may include video, various measurements, and progressive training in ambulation and stairs. Gait training may be considered medically necessary for patients whose walking abilities have been impaired by neurological, integumentary, muscular or skeletal abnormalities, surgery, or trauma. This also includes crutch/cane ambulation training and re-education.

Therapeutic Massage

Therapeutic Massage involves the application of fixed or movable pressure, holding and/or causing movement of or to the body, using primarily the hands and may be considered medically necessary when performed to restore muscle function, reduce edema, improve joint motion, or relieve muscle spasm caused by a specific condition or injury.

Soft Tissue Mobilization

Soft tissue mobilization techniques are more specific in nature and include, but are not limited to, myofascial release techniques, friction massage, and trigger point techniques. Specifically, myofascial release is a soft tissue manual technique that involves manipulation of the muscle, fascia, and skin. Skilled manual techniques (active and/or passive) are applied to soft tissue to effect changes in the soft tissues, articular structures, 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.

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. This intervention may be considered medically necessary 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.

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.

Orthotic Management and Training

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

Prosthetic Training

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

Wheelchair Management Training

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

5.3 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
- Confusion or impaired cognition
- Maceration around a wound
- Bleeding
- Infection in the area to be immersed
- Bowel incontinence

- Severe epilepsy
- Patients 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)

5.4 Redundant Therapeutic Effects and Duplicative Rehabilitative or Habilitative Services

(1) Certain therapeutic modalities and procedures are considered redundant in nature, 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:

- More than one heating modality
- Massage therapy and myofascial release
- Orthotics training and prosthetic training
- Whirlpool and Hubbard tank
- CMT and manual therapy techniques applied for same physiological purpose

(2) Duplicative (same or similar) rehabilitative services provided by different healthcare practitioners/specialties for the same condition(s) are considered **not** medically necessary. When patients receive chiropractic services, physical therapy services, occupational therapy services, or other healthcare specialty services for the same condition(s), the healthcare practitioners should provide different treatments that reflect each healthcare discipline's unique perspective on the patient's impairments and functional deficits and not duplicate the same treatment therapeutic goals. Each healthcare specialty practitioner must also have separate and distinct evaluations, treatment plans, and goals.

6. CLINICAL DOCUMENTATION

Medical record keeping 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.

6.1 Evaluation and Re-evaluations

As a best practice, all the following should be clearly described in the submitted records:

- Historical information including a clear description of the current complaint(s)
- Prior and current levels of function
- Tests performed and the results (e.g., evaluation findings)
- Valid diagnosis(es)
- Therapeutic goals and treatment plan (e.g., specific treatments, number of office visits)
- Response to care, progress, and prognosis
- Self – Care advice, including home exercise program

The initial evaluation is usually completed in a single session. An evaluation is mandatory before implementing any chiropractic treatment in order to determine if the patient needs skilled chiropractic care. Initial evaluations (New or Established Patient) include an Evaluation and Management (E/M) history and physical examination service and may be supported by, as necessary, imaging, laboratory studies, and/or other diagnostic tests and measures. An initial evaluation is essential to determine whether any services that may be recommended by the evaluating practitioner are medically necessary, to determine if referral to another clinical setting or another type of evaluation is necessary, to gather baseline data, establish a treatment plan, and develop goals based on the data.

A reevaluation is considered medically necessary following a trial of care to determine whether that care resulted in significant clinical improvement documenting the need to continue a course of therapy, if modification of the approach to care is warranted, if there is need for referral to other healthcare practitioner(s)/specialist(s), or that discontinuance of treatment is warranted.

A reevaluation (an Established Patient E/M service) is considered medically necessary when **all** of the following conditions are met:

- The reevaluation exceeds the recurring routine assessment of patient status included in the work value of the Chiropractic Manipulation CPT® codes work-value; and
- The documentation of the reevaluation includes **all** of the following elements:
  - An evaluation of progress toward current goals; and
  - Making a professional judgment about continued care; and
  - Making a professional judgment about revising goals and/or treatment or terminating services; and
- Any **one** of the following indications is documented:

- The patient presents with an exacerbation, a new condition(s), or new clinical findings.
- There is a significant change in the patient's condition(s).
- The patient has failed to respond to the therapeutic interventions outlined in the current plan of care.

In order to reflect that continued chiropractic services are medically necessary, intermittent progress reports must demonstrate that the patient is making functional progress. Progress reports should be maintained in the medical record and may be required for approval of coverage of services.

A reevaluation is considered **not** medically necessary once it has been determined that the patient has reached maximum therapeutic benefit from the services provided unless there is/are medically necessary reason(s) documented for the reevaluation service.

The CPT® codebook provides the following definitions:

New Patient: Is one who **has not** received any professional services from the physician/qualified health care professional or another physician/qualified health care professional of the exact same special and subspecialty who belongs to the same group practice, within the past three (3) years.

Established Patient: Is one who **has** received professional services from the physician/qualified health care professional or another physician/qualified health care professional of the exact same specialty and subspecialty who belongs to the same group practice, within the past three (3) years.

6.2 Treatment Sessions

Chiropractic treatment can vary from performing CMT alone to using a variety of therapeutic modalities and procedures depending on the patient's condition(s), response to care, and treatment tolerance. All services must be supported in the treatment plan and be based on the patient's medical condition(s)

A chiropractic treatment session may include:

- Chiropractic Manipulation.
- Passive modalities such as electrotherapeutic, mechanical modalities, and manual therapies such as soft tissue mobilization preparatory to other skilled services.
- Active therapeutic procedures such as therapeutic exercise, or functional activities
- Functional training in self-care and home management or modification of environments (e.g., home, work, school, community) including biomechanics and ergonomics.

- Reevaluation, if there is a significant change in the patient's condition, the patient has a new complaint(s), or there is a need to update and modify the treatment plan and goals.

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, including:
    - The type and specific location of CMT including segment(s) adjusted, subluxation listings/dynamic restrictions, direction(s) of corrective thrust(s), and specific technique(s) used;
    - The parameters for each therapy provided (e.g., voltage/amperage, pad/electrode placement, area of treatment, types of exercises/activities, and intended goal of each therapy)
    - Treatment time for each therapy and total treatment time per date of service
- 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

The CMT service includes a brief pre-treatment evaluation of the patient's condition(s), as well as documentation of the patient's response post-treatment. Failure to appropriately perform and document these brief evaluations may result in an adverse determination (partial approval or denial) of those services.

6.3 Discharge/Discontinuation of Intervention

The chiropractor discharges the patient from chiropractic services when the anticipated goals or expected outcomes for the patient have been achieved. The chiropractor discontinues intervention when the patient is unable to continue to progress toward goals or when they determine that the patient will no longer benefit from care.

The discharge documentation includes:

- The status of the patient at discharge and the goals and outcomes attained.
- Appropriate date and authentication by the chiropractor 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.

6.4 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 findings be identical for multiple encounters, it would be expected that treatment would end because the 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. 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 CQEs 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.

7.1 Definition of Key Terminology used in Clinical Reviews

Chiropractic Maintenance Therapy Services

Chiropractic maintenance therapy services is defined as a treatment plan that seeks to prevent disease, promote health, correct subluxations unrelated to a diagnosed illness or injury, and prolong and enhance the quality of life and is not directed toward a specific condition that is expected to improve or resolve in a reasonable period of time (corrective care). Medicare also includes chiropractic supportive care as maintenance care and considers all forms of chiropractic maintenance care as not covered. (Chiropractic maintenance therapy services are not generally covered under commercial benefits.)

Chiropractic Supportive Care Services

Chiropractic supportive care is treatment for patients who have reached maximum therapeutic benefit, but who fail to sustain this benefit and progressively deteriorate when there are periodic withdrawals of treatment. Chiropractic supportive care follows appropriate application of passive and active care including rehabilitation and lifestyle modifications. Chiropractic supportive care cannot be scheduled and should be rendered on an "as needed" basis (PRN) for up to 4 months in duration. Detailed and adequate documentation of each aspect and phase of intervention and patient's response to care is necessary to document the medical necessity of chiropractic supportive care. Chiropractic supportive care may be covered under some commercial benefits.

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 6 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 6 weeks, but not greater than 12 weeks in duration.

Chronic

The stage of an injury, illness, or disease, in which the presence of clinical signs and symptoms is greater than 12 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.).

7.2 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 CQE 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 CQEs have the responsibility to approve appropriate care for all services that are medically necessary. The CQEs 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 CQE 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 may contact the CQE 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 an 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 treatment/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.

Ancillary diagnostic procedures should be selected based on clinical history and examination findings that suggest the necessity to rule out underlying pathology or to confirm a diagnosis that cannot be verified through less invasive methods.

- Information is expected to directly impact the treatment/services and course of care
- The benefit of the procedure outweighs the risk to the patient's health (short and long term)
- The procedure is sensitive and specific for the condition being evaluated (e.g., an appropriate procedure is utilized to evaluate for pathology)

The clinical information that the CQE 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), the scope of the services being requested, the scope of practice of the practitioner performing the 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.

7.3 Critical Factors during Clinical Reviews

The complexity and/or severity of historical factors, symptoms, examination findings, and functional deficits play an essential role to help quantify the patient's clinical status and assess the effectiveness of planned interventions over time. CQEs 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 than the average); these patients may require a higher frequency of care; but may require short-term trials of care initially to assess the patient response to care.
- Less severe symptomatology, exam findings and/or functional deficits usually require less care overall (e.g., shorter duration, fewer services per encounter, and frequency of encounters than the average); but may allow for less oversight and a longer initial trial of care.
- As patients age they may have a slower response to care and this may affect the approval of a trial of care.
- Because pediatric patients (under the age of 12) have not reached musculoskeletal maturity, it may be necessary to modify the types of therapies approved as well as shorten the initial trial of care.
- Complicating and/or co-morbid condition factors vary depending upon individual patient characteristics, the nature of the condition/complaints, historical and examination elements, and may require appropriate coordination of care and/or more timely re-evaluation.

Health equity is the attainment of the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health. Factors that can impede health equity include, but are not limited to, race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, and preferred language. Social Determinants of Health (SDoH) are important influences on health equity status. SDoH are 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. There are typically five domains of SDoH: 1) Economic stability; 2) Education access and quality; 3) Health care access and quality; 4) Neighborhood and built environment; 5) Social and community context. These barriers to health equity may impact health care access, the patient presentation, clinical evaluations, treatment planning, and patient outcomes which may in turn influence medical necessity considerations.

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

7.3.1 General Factors

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

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

Due to the rarity of actual red flag diagnoses in clinical practice, it is emphasized that the practitioner does not need to perform expensive or invasive diagnostic procedures (e.g., x-ray, advanced imaging, laboratory studies) in the absence of suspicious clinical characteristics. 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:

Past or Current History

- Personal or family history of cancer
- Current or recent urinary tract, respiratory tract, or other infection
- Anticoagulant therapy or blood clotting disorder
- Metabolic bone disorder (osteopenia and osteoporosis)
- Unintended weight loss
- Significant trauma sufficient to cause fracture or internal injury
- Unexplained dizziness or hearing loss
- Trauma with skin penetration
- Immunosuppression (AIDS/HIV/ARC)

- Intravenous drug abuse, alcoholism
- Prolonged corticosteroid use
- Previous adverse reaction to substances or other treatment modalities
- Use of substances or treatment which may contraindicate proposed services
- Uncontrolled health condition (e.g., diabetes, hypertension, asthma)

Present Complaint

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

Physical Examination/Assessment

- Inability to reproduce symptoms of musculoskeletal diagnosis or complaints
-
- Fever, chills, or sweats without other obvious source
- New or recent neurologic deficit (e.g., special senses, peripheral sensory, motor, language, and cognitive)
- Positive vascular screening tests (e.g., carotid stenosis, vertebrobasilar insufficiency, abdominal aortic aneurysm)
- Abnormal vital signs.
- Uncontrolled hypertension
- Signs of nutritional deficiency
- Signs of allergic reaction requiring immediate attention
- Surface lesions or infections in area to be treated
- 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 anatomic and physiologic 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 intensity 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 a Chiropractor. 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.

Assessment of Diagnostic Imaging / Special Studies

- Laboratory tests are performed only when medically necessary to improve diagnostic accuracy and treatment planning. Abnormal values are professionally interpreted as they relate to the patient's complaint(s) or to unrelated co-morbid conditions that may or may not impact the patient's prognosis and proposed treatment.
- X-ray procedures are performed only when medically necessary to improve diagnostic accuracy and treatment planning. (Indicators from history and physical examination indicating the need for x-ray procedures are described in the *X-Ray Guidelines (CPG 1 - S)* clinical practice guideline).
- Advanced imaging studies, when medically necessary and/or available, are evaluated for structural integrity and to rule out osseous, related soft tissue pathology, or other pathology.
- Imaging or special studies' findings are appropriate given the nature and severity of the patient's condition(s) and the findings obtained are likely to influence the basis for the proposed treatment.
- EMG and NCV studies, when medically necessary and/or available, are evaluated for objective evidence of neural deficit. For more information, see the *Electrodiagnostic Testing (CPG 129 - S)* clinical practice guideline.
- According to the CPT® codebook "Needle electromyographic procedures include the interpretation of electrical waveforms measured by equipment that produces

both visible and audible components of electrical signals recorded from the muscle(s) studied by the needle electrode." For nerve conduction testing, "motor nerve conduction study recordings must be made from electrodes placed directly over the motor point of the specific muscle to be tested. Sensory nerve conduction study recordings must be made from electrodes placed directly over the specific nerve to be tested" (AMA, current year). Waveforms must be reviewed on site in real-time. Reports must be prepared on site by the examiner and consist of the work product of the interpretation of numerous test results. EMG and NCV testing are only covered if provided by a qualified health care professional or physician. State licensure rules and regulations apply. For more information, see the *Electrodiagnostic Testing (CPG 129 – S)* clinical practice guideline

7.3.2 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 diagnostic or 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.
- The procedure(s) used to validate subluxation(s) are considered not-evidence based, not widely accepted, and/or not medically necessary (e.g., functional leg length assessment, surface electromyographic study).

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 CQE 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.

Treatment / Treatment Planning

- The submitted records show that the nature and severity of the patient's complaint(s) and/or symptom(s) require a limited, short trial of care in order to monitor the patient's response to care and determine the efficacy of the current treatment plan. This may include, but not limited to, any of the following:
  - Significant trauma affecting function
  - Acute/sub-acute stage of condition
  - Moderate-to-severe or severe subjective and objective findings
  - Possible neurological involvement
  - Presence of co-morbidities that may significantly affect the treatment plan and/or the patient's response to care
- There is poor correlation of the treatment plan with the nature and severity of the patient's complaint(s) and/or symptom(s), such as (but not limited to):
  - Use of acute care protocols for chronic condition(s)

  - Prolonged reliance on passive care
  - Active care and reduction of passive care are not included in the treatment plan
  - Inappropriate use of passive modalities in the plan of care
  - Use of passive modalities as stand-alone treatments (which is rarely therapeutic) or as the sole treatment approach to the patient's condition(s)
- There is evidence from the submitted records that the patient's treatment can proceed safely and effectively through a home exercise program or self-management program.
- The patient's function has improved, complaints and symptoms have decreased, and patient requires less treatment (e.g., lesser units of services per office visit, lesser frequency, and/or shorter total duration to discharge).
- The patient's symptoms and/or exam findings are mild and the patient's treatment plan requires a lesser frequency (e.g., units of services, office visits per week) and/or total duration.
- Therapeutic goals have not been documented. Goals should be measurable and written in terms of function and include specific parameters.
- Therapeutic goals have not been reassessed in a timely manner to determine if the patient is making expected progress.
- Failure to make progress or respond to care as documented within subjective complaints, objective findings and/or functional outcome measures.
- The patient's condition(s) is/are not amenable to the proposed treatment plan.
- Additional significant improvement cannot be reasonably expected by continued treatment, therefore treatment must be changed or discontinued.
- The patient has had ongoing care without any documented lasting therapeutic benefits.
- The condition requires an appropriate referral and/or coordination with other appropriate health care services.
- The patient is not complying with the treatment plan that includes lifestyle changes to help reduce frequency and intensity of symptoms
- The patient is not adhering to treatment plan that includes medically necessary frequency and intensity of services without documented extenuating circumstances.
- The use of multiple passive modalities with the same or similar physiologic effects to the identical region is considered redundant and not reasonable or medically necessary.
- Home care, self-care, and active-care instructions are not implemented or documented in the submitted records.
- Uncomplicated diagnoses do not require services beyond the initial treatment plan before discharging the patient to active home/self-care (e.g., mild knee pain that can be managed with a home exercise program).

- As symptoms and clinical findings improve the frequency of services (e.g., visits per week/month) did not decrease.
- The submitted services do not or no longer require the professional skills of the treating practitioner.
- The treatment plan is for any of the following:
    - Chiropractic maintenance therapy
    - Preventive care
    - Elective/convenience/wellness care
    - Back school
    - Group therapy (not one-on-one; 2 + patients)
    - Vocational rehabilitation or return to work programs
    - Work hardening programs
    - Routine educational, training, conditioning, return to sport, or fitness.
    - Non-covered condition
- There is duplication of services with other healthcare practitioners/specialties.
- The treatment plan is not supported due to, but not limited to, any of the following reasons:
    - Technique-/protocol-based instead of individualized and evidence based
    - Generic and not individualized for the patient's specific needs
    - Does not correlate with the set therapeutic goals
    - Not supported in the clinical literature (e.g., proprietary, unproven)
    - Not considered evidence-based and/or professionally accepted
- The treatment plan includes services that are considered not evidence-based, not widely accepted, unproven and/or not medically necessary, or inappropriate or unrelated to the patient's complaint(s) and/or diagnosis/diagnoses. (e.g., Low level laser therapy, axial/spinal decompression, select forms of EMS such as microcurrent, H-wave. Also see the *Techniques and Procedures Not Widely Supported as Evidence-Based (CPG 133 – S*) clinical practice guideline for complete list).

Health and Safety

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

7.3.3 Referral / Coordination of Services

When a potential health and safety issue is identified, the CQE must communicate with the practitioner of services as soon as possible by telephone and/or through standardized communication methods to recommend returning the patient back to the referring health care 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. Such referral does not preclude coordinated cotreatment if / when applicable and medically necessary.

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

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

8. CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS)

ASH manages CMS Required and Supplemental benefits for Medicare Advantage Plans. Required (Traditional) Medicare benefits are covered based on CMS guidelines and regulations, CMS approved ICD defined conditions and CPT® defined services. ASH practitioners are required to follow CMS clinical requirements for the appropriate delivery and documentation of services rendered to Medicare beneficiaries who are served by ASH Medicare Advantage health plan clients.

8.1 Covered Conditions

Required Medicare Benefits

The patient must have a significant health problem in the form of a neuromusculoskeletal condition necessitating treatment, and the manipulative services rendered must have a direct therapeutic relationship to the patient's condition and provide reasonable expectation of recovery or improvement of function. The patient must have a subluxation of the spine as demonstrated by x-ray or physical exam.

To demonstrate a subluxation by physical examination, evaluation of the musculoskeletal/nervous system should include:

- Pain/tenderness evaluated in terms of location, quality, and intensity
- Asymmetry/misalignment identified on a sectional or segmental level
- Range of motion abnormality (changes in active, passive, and accessory joint movements)
- Tissue, tone changes in the characteristics of contiguous, or associated soft tissues, including skin, fascia, muscle, and ligament

Two of the four criteria identified above are required, one of which must be asymmetry/misalignment or range of motion abnormality.

An x-ray may be used to document subluxation. The x-ray must have been taken at a time reasonably to proximate to the initiation of a course of treatment. Unless more specific x-ray evidence is warranted, an x-ray is considered reasonably proximate if it was taken no more than 12 months prior to or 3 months following the initiation of a course of chiropractic treatment. In certain cases of chronic subluxation (e.g., scoliosis), an older x-ray may be accepted provided the beneficiary's health record indicates the condition has existed longer than 12 months and there is a reasonable basis for concluding that the condition is permanent. A previous CT scan and/or MRI is acceptable evidence if a subluxation of the spine is demonstrated.

The five spinal regions are:

- Neck (Occiput, C1 – C7)
- Back (T1 – T12)
- Low Back (L1 – L5)
- Pelvis (Ilium, SI)
- Sacrum (Sacrum, Coccyx)

The patient's symptoms must bear a direct relationship to the level of subluxation. The symptoms should refer to the spine, muscle, bone, rib, and joint and be reported as pain, inflammation, or signs such as swelling, spasticity, etc. The subluxation must be causal, (i.e., the symptoms must be related to the level of subluxation that has been cited). A statement on a claim that there is "pain" is insufficient. The location of pain must be described and whether the particular vertebra listed is capable of producing pain in the area determined.

The precise level of subluxation must be specified to substantiate a claim for manipulation of the spine. There are two ways in which the level of subluxation may be specified:

- The exact bones may be listed (e.g., C5, C6)

- The area may suffice if it implies only certain bones are involved (e.g., Occipito-atlantal [occiput and C1], lumbo-sacral [L5 and sacrum], sacro-iliac [sacrum and ilium])

Supplemental Medicare Benefits

ASH Medicare Advantage health plan clients may include additional covered musculoskeletal conditions beyond those included in the Required Medicare Benefit as described in a client specific benefit design.

8.2 Covered and Non-Covered Services

Required Medicare Benefits

Required Medicare benefits only cover manual manipulation of the spine by use of the hands. Additionally, manual devices may be used in performing manipulation of the spine, however, no additional payment is available for the use of a device. No other diagnostic or therapeutic service furnished by a chiropractor or under the chiropractor's order is covered.

The manipulative services rendered must have a direct therapeutic relationship to the patient's condition and provide reasonable expectation of recovery or improvement of function. The result of chiropractic manipulation is expected to be an improvement in, or arrest of progression, of the patient's condition. Once the clinical status has remained stable for a given condition, without expectation of additional objective clinical improvements, further manipulative treatment is considered maintenance therapy and is not covered.

Non-Covered

Maintenance Care

Maintenance care includes services that seek to prevent disease, promote health, and prolong and enhance the quality of life, or maintain or prevent deterioration of a chronic condition. Medicare includes chiropractic supportive care as maintenance care and considers all forms of chiropractic maintenance care as not covered. Medicare defines chiropractic maintenance care as: *when further clinical improvement cannot reasonably be expected from continuous ongoing care, and the chiropractic treatment becomes supportive rather than corrective in nature, the treatment is then considered maintenance therapy.*

8.3 Documentation

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

The patient's history should include the following:

- Symptoms causing patient to seek treatment

- Family history, if relevant
- Past health history (general health, prior illness, injuries or hospitalization, medications, surgical history)
- Mechanism of trauma
- Quality and character of symptoms/problem
- Onset, duration, intensity, frequency, location, and radiation of symptoms
- Aggravating or relieving factors
- Prior interventions, treatments, medications, secondary complaints

The treatment plan should include the following:

- Recommended level of care (duration and frequency of visits)
- Specific treatment goals
- Objective measures to evaluate treatment effectiveness

8.4 Medical Necessity

CMS provides guidance for medical necessity determination based on the Medicare Benefit Policy Manual, Chapter 15, and limited Local Coverage Determinations (LCD). There is no National Coverage Determination (NCD) for chiropractic. Local Coverage Articles (LCA) may include language regarding medical necessity. When Medicare policy guidance for medical necessity is sufficient and clear to guide medical necessity decisions, the applicable Medicare guidance should be used in medical necessity review determinations. If the Medicare guidance for medical necessity review determinations is not clear or is insufficient in providing adequate guidance for a medical necessity determination for chiropractic services, the next policy in line used in making medical necessity review decisions would be the ASH *Chiropractic Services Medical Policy Guideline (CPG 278 – S)* clinical practice guideline. If applicable this policy will provide guidance for medical necessity review determinations of the Medicare covered service of chiropractic manipulative therapy for subluxation of the spine. 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. The clinical benefit of insuring services are medically necessary highly outweighs the risk from clinical harms, including the possibility of limitations from delayed or decreased access to services. These additional criteria are implemented by clinical quality evaluators to determine medical necessity consistently to ensure all appropriate care is provided to MA beneficiaries.

The clinical evidence to support the delivery of services for covered conditions is supported by the guidelines and primary research references noted below. In summary, the evidence supports the use of chiropractic manipulative therapy for the treatment of spinal subluxation when the patient is correctly diagnosed with those conditions, there are not

contraindications for the treatment, and the course of care produces a favorable outcome following an appropriate frequency of treatment encounters.

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

9. EVIDENCE REVIEW

There are several guidelines, systematic reviews, meta-analyses, and randomized controlled trials (RCTs) published that examine chiropractic manipulative therapy for various spinal conditions and other procedures (e.g., physical rehabilitation, exercise, education, manual therapies (e.g., mobilization, soft tissue mobilization) and note effectiveness (Qaseem et al., 2020; Bricca et al., 2020; Raghava Neelapala et al., 2020; Taylor et al., 2007; Chou et al., 2016; Qaseem et al., 2017; Byström et al., 2013; Macedo et al., 2016; Saragiotto et al., 2016; Steffens et al., 2016; van Middelkoop et al., 2011; Hurwitz et al., 2009; Delitto et al., 2012; Blanpied et al., 2017; BiDonde et al., 2019; Yousefi-Nooraie et al., 2008; Chou et al., 2020; Skelly et al., 2018; Skelly et al., 2020; Wheden et al., 2022; Jenks et al., 2022). 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 methodologic flaws and heterogeneity of studies result in an inability to draw confirmatory conclusions.

Therapeutic Massage: Few clinical trials have been undertaken to assess the effect of this modality alone in the treatment of specific medical conditions. Rehabilitation programs frequently combine massage therapy with one or more other treatment interventions. While there is scant literature regarding the efficacy of this treatment when used as the sole modality, massage therapy has been a part of physical therapy or chiropractic treatment plans for the management of musculoskeletal pain. As an example, for mechanical low back pain, the greatest effects of massage therapy are seen in short term relief of pain. The effects on function were less clear. These therapeutic effects tend to diminish in the longer term (Chou et al., 2016). Massage therapy was also noted as an effective treatment of acute post-operative pain (Chou et al., 2020) and chronic low back pain in the intermediate term (Skelly et al., 2018). Slight functional improvements were noted in the intermediate term for fibromyalgia using myofascial release massage (Skelly et al., 2018; Kundakci et al., 2022).

9.1 Conditions Considered Unproven

Scoliosis

Scoliosis, lateral curvature of the spine, is a structural alteration that occurs in a variety of conditions. Progression of the curvature during periods of rapid growth can result in significant deformity, which may be accompanied by cardiopulmonary compromise (Schreiber et al., 2019; Scherl, 2016). Options for treatment of scoliosis include observation, bracing, and surgery. Evidence is insufficient to demonstrate effectiveness of physical therapy (scoliosis-specific exercises, (including the Schroth Method), chiropractic treatment, electrical stimulation, or biofeedback to correct, improve or prevent further curvature (Seleviciene et al., 2022; Santos et al., 2022; Fan et al., 2020; Schreiber et al., 2019; Scherl, 2016; National Institutes of Health [NIH]/National Institute of Arthritis and Musculoskeletal and Skin Disease [NIAMS], 2019; American Academy of Orthopedic Surgeons [AAOS], 2019; Mehlman, 2020; Romano, et al., 2012). Evidence is insufficient to demonstrate effectiveness of this treatment method to correct, improve or prevent further curvature

Scoliosis in itself is generally not predictive of pain or dysfunction. The clinical presentation of scoliosis can vary greatly, ranging from minimal or no symptoms, to severe pain and disability. The presence of scoliosis can result in chronic pain, radicular symptoms and even restriction of lung capacity. However, most patients with scoliosis do not have symptoms. Practitioners should focus on treating the symptoms of the patient with scoliosis as they would any other patient with back pain.

9.2 Specific Treatments Considered Unproven

Dry Hydrotherapy

Dry hydrotherapy, also referred to as aquamassage, 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 physical 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.

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)

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

H-WAVE ®

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

Spinal Manipulation for the Treatment of Non-Musculoskeletal Conditions and Related Disorders

Refer to *Spinal Manipulative Therapy for Non-Musculoskeletal Conditions and Related Disorders (CPG 119 – S) clinical practice guideline* for more information.

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.

Vertebral Axial Decompression Therapy and Devices

Refer to Axial/Spinal Decompression Therapy (CPG 83 – S) clinical practice guideline for more information.

References

Airaksinen O, Brox JI, Cedraschi C, Hildebrandt J, Klaber-Moffett J, Kovacs F, Mannion AF, Reis S, Staal JB, Ursin H, Zanoli G; COST B13 Working Group on Guidelines for Chronic Low Back Pain. Chapter 4. European guidelines for the management of chronic nonspecific low back pain. Eur Spine J. 2006 Mar;15 Suppl 2:S192-300.

American Academy of Orthopedic Surgeons. Scoliosis. Last reviewed: April 2021. Retrieved on July 23, 2024 from http://orthoinfo.aaos.org/topic.cfm?topic=A00353

American Academy of Orthopedic Surgeons. Nonsurgical Treatment Options for Scoliosis. Last Reviewed: Sept 2019. Retrieved on July 23, 2024 from http://www.orthoinfo.org/topic.cfm?topic=A00636

American Medical Association. Current Procedural Terminology. Chicago, IL: AMA Press; Current year.

Aqua Massage [product description]. AMI Inc. Retrieved on July 23, 2024 from http://amiaqua.com/PR_overview.htm

AquaMED Dry Hydrotherapy. JTL Enterprises, Inc. Retrieved on July 23, 2024 from http://www.hydromassage.com/

Bidonde J, Busch AJ, Schachter CL, Webber SC, Musselman KE, Overend TJ, Góes SM, Dal Bello-Haas V, Boden C. Mixed exercise training for adults with fibromyalgia. Cochrane Database Syst Rev. 2019 May 24;5(5):CD013340.

Blanpied PR, Gross AR, Elliott JM, Devaney LL, Clewley D, Walton DM, Sparks C, Robertson EK. Neck Pain: Revision 2017. J Orthop Sports Phys Ther. 2017 Jul;47(7):A1-A83.

Bricca A, Harris LK, Jäger M, Smith SM, Juhl CB, Skou ST. Benefits and harms of exercise therapy in people with multimorbidity: A systematic review and meta-analysis of randomised controlled trials. Ageing Res Rev. 2020 Nov;63:101166. doi: 10.1016/j.arr.2020.101166. Epub 2020 Sep 5.

Braddock EJ, Greenlee J, Hammer RE, Johnson SF, Martello MJ, O'Connell MR, Rinzler R, Snider M, Swanson MR, Tain L, Walsh G, Walsh G. Manual medicine guidelines for musculoskeletal injuries. Sonora (CA): Academy for Chiropractic Education; 2013; updated March 2022, Dec 1. 70 p. Retrieved on July 23, 2024 from https://www.guidelinecentral.com/summaries/manual-medicine-guidelines-for-musculoskeletal-injuries/#section-405

Bronfort, G., Haas, M., Evans, R. I., & Bouter, L. M. (2004). Efficacy of spinal manipulation and mobilization for low back pain and neck pain: A systematic review and best evidence synthesis. The Spine Journal, 4(3), 335-336.

Bronfort, G., Haas, M., Evans, R. I., Kawchuk, G., & Dagenais, S. (2008). Evidence-informed management of chronic low back pain with spinal manipulation and mobilization. The Spine Journal, 8(1), 213-225.

Bryans R, Decina P, Descarreaux M, Duranleau M, Marcoux H, Potter B, Ruegg RP, Shaw L, Watkin R, White E. Evidence-based guidelines for the chiropractic treatment of adults with neck pain. J Manipulative Physiol Ther. 2014 Jan;37(1):42-63.

Bryans R, Descarreaux M, Duranleau M, Marcoux H, Potter B, Ruegg R, Shaw L, Watkin R, White E. Evidence-based guidelines for the chiropractic treatment of adults with headache. J Manipulative Physiol Ther. 2011 Jun;34(5):274-89.

Byström MG, Rasmussen-Barr E, Grooten WJ. Motor control exercises reduces pain and disability in chronic and recurrent low back pain: a meta-analysis. Spine (Phila Pa 1976). 2013 Mar 15;38(6):E350-8.

Cameron M. Physical Agents in Rehabilitation: An Evidence-Based Approach to Practice. 6th Edition. Elsevier; 2022.

Centers for Medicare & Medicaid Services (CMS). (2024). CMS framework for health equity 2022-2032. Retrieved July 9, 2024 from https://www.cms.gov/pillar/health-equity#:~:text=To%20CMS%2C%20health%20equity%20means,preferred%20language%2C%20or%20other%20factors.

Centers for Medicare and Medicaid Services. Local Coverage Determination (LCD): Chiropractic Services (L37254). Retrieved on July 23, 2024 from https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=37254

Centers for Medicare and Medicaid Services (CMS). Chapter 15: Covered Medical and Other Health Services. Medicare Benefit Policy Manual. 2024. Pub 100-02 (Rev. 12684; Issued: 06-13-24). Retrieved on July 23, 2024 from https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c15.pdf

Cervical and thoracic spine disorders. In: Hegmann KT, editor(s). Occupational medicine practice guidelines. Evaluation and management of common health problems and

functional recovery in workers. 3rd ed. Elk Grove Village (IL): American College of Occupational and Environmental Medicine (ACOEM); 2011. p. 1-332.

Cherkin, D. C., Sherman, K. J., Deyo, R. A., & Shekell, P. G. (2003). A review of the evidence for the effectiveness, safety, and cost of acupuncture, massage therapy, and spinal manipulation for back pain. Annals of Internal Medicine, 138(11), 898-906.

Chou R, Deyo R, Friedly J, Skelly A, Hashimoto R, Weimer M, Fu R, Dana T, Kraegel P, Griffin J, Grusing S, Brodt E. Noninvasive Treatments for Low Back Pain. Comparative Effectiveness Review No. 169. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 290-2012-00014-I.) AHRQ Publication No. 16-EHC004-EF. Rockville, MD: Agency for Healthcare Research and Quality; February 2016.

Chou R and Hoyt Huffman LH. Nonpharmacologic therapies for acute and chronic low back pain: A review of the evidence for an American Pain Society/American College of Physicians Clinical Practice Guideline. Annals of Internal Medicine. 2007;147(7):492-504.

Chou R, Qaseem A, Snow V, Casey D, Cross JT Jr, Shekelle P, Owens DK; Clinical Efficacy Assessment Subcommittee of the American College of Physicians; American College of Physicians; American Pain Society Low Back Pain Guidelines Panel. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. Ann Intern Med. 2007 Oct 2;147(7):478-91.

Chou R, Wagner J, Ahmed AY, et al. Treatments for Acute Pain: A Systematic Review. Rockville (MD): Agency for Healthcare Research and Quality (US); December 2020.

Delitto A, George SZ, Van Dillen LR, Whitman JM, Sowa G, Shekelle P, et al.; Orthopaedic Section of the American Physical Therapy Association. Low back pain. J Orthop Sports Phys Ther. 2012 Apr;42(4):A1-57. Epub 2012 Mar 30.Page Break

Dry Hydromassage. Princeton, MN: Sidmar Manufacturing, Inc.; 2001-2005. Retrieved on July 23, 2024 from http://www.sidmar.com/

Ebadi S, Henschke N, Nakhostin Ansari N, Fallah E, van Tulder MW. Therapeutic ultrasound for chronic low-back pain. Cochrane Database Syst Rev. 2014 Mar 14;3:CD009169.

Fan Y, Ren Q, To MKT, Cheung JPY. Effectiveness of scoliosis-specific exercises for alleviating adolescent idiopathic scoliosis: a systematic review. BMC Musculoskelet Disord. 2020 Jul 27;21(1):495.

Furlan AD, Giraldo M, Baskwill A, Irvin E, Imamura M. Massage for low-back pain. Cochrane Database Syst Rev. 2015 Sep 1;(9):CD001929.

Goertz M, Thorson D, Bonsell J, Bonte B, Campbell R, Haake B, Johnson K, Kramer C, Mueller B, Peterson S, Setterlund L, Timming R. Adult acute and subacute low back pain. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2018 16 ed. Retrieved on July 23, 2024 from https://www.icsi.org/guideline/low-back-pain/

H2O Massage System. Winnipeg, MB, Canada. Retrieved on July 23, 2024 from http://www.h2omassage.com/

Haldeman S, Chapman-Smith D, Peterson DM. Guidelines for chiropractic quality assurance and practice parameters: proceedings of the Mercy Center Consensus Conference. Gaithersburg, MD: Aspen Publishing, 2005.

Harris GR, Susman JL. Managing musculoskeletal complaints with rehabilitation therapy: summary of the Philadelphia Panel evidence-based clinical practice guidelines on musculoskeletal rehabilitation interventions. J Fam Pract. 2002 Dec;51(12):1042-6.

Hurwitz EL, Carragee EJ, van der Velde G, Carroll LJ, Nordin M, Guzman J, et al. Treatment of neck pain: noninvasive interventions: results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. J Manipulative Physiol Ther. 2009 Feb;32(2 Suppl):S141-75.

Jenks A, de Zoete A, van Tulder M, Rubinstein SM; International IPD-SMT group. Spinal manipulative therapy in older adults with chronic low back pain: an individual participant data meta-analysis. Eur Spine J. 2022;31(7):1821-1845. doi:10.1007/s00586-022-07210-1

Kong LJ, Zhan HS, Cheng YW, Yuan WA, Chen B, Fang M. Massage therapy for neck and shoulder pain: a systematic review and meta-analysis. Evid Based Complement Alternat Med. 2013;2013:613279.

Kundakci B, Kaur J, Goh SL, et al. Efficacy of nonpharmacological interventions for individual features of fibromyalgia: a systematic review and meta-analysis of randomised controlled trials. Pain. 2022;163(8):1432-1445. doi:10.1097/j.pain.0000000000002500

Lawrence DJ, Meeker W, Branson R, Bronfort G, Cates JR, Haas M, Haneline M, Micozzi M, Updyke W, Mootz R, Triano JJ, Hawk C. Chiropractic management of low back pain and low back-related leg complaints: a literature synthesis. J Manipulative Physiol Ther. 2008 Nov-Dec;31(9):659-74.

Macedo LG, Saragiotto BT, Yamato TP, Costa LO, Menezes Costa LC, Ostelo RW, Maher CG. Motor control exercise for acute non-specific low back pain. Cochrane Database Syst Rev. 2016 Feb 10;2:CD012085.

Mehlman CT. Idiopathic Scoliosis. Jun 30, 2004. Updated Jan 3, 2023. emedicine. Retrieved on July 23, 2024 from http://www.emedicine.com/orthoped/TOPIC504.HTM

National Center for Complementary and Alternative Medicine (NCCAM). National Institutes of Health. Massage Therapy for Health Purposes: What You Need To Know. September 2006; updated April 2019. Retrieved on July 23, 2024 from https://nccih.nih.gov/health/massage/massageintroduction.htm

National Institutes of Health. National Institute of Arthritis and Musculoskeletal and Skin Disease. Questions and answers about scoliosis in children and adolescents. NIH Publication No. 13–4862. Dec 2019. Retrieved on July 23, 2024 from http://www.niams.nih.gov/Health_Info/Scoliosis/default.asp

North American Spine Society (NASS). Clinical guidelines for diagnosis and treatment of lumbar disc herniation with radiculopathy. Burr Ridge (IL): North American Spine Society (NASS); 2012. 100 p.

North American Spine Society (NASS). Diagnosis and treatment of degenerative lumbar spinal stenosis. Burr Ridge (IL): North American Spine Society (NASS); 2011. 104 p.

North American Spine Society (NASS). Diagnosis and treatment of degenerative lumbar spondylolisthesis. Burr Ridge (IL): North American Spine Society (NASS); 2014. 119 p.

Office of Disease Prevention and Health Promotion. (n.d.). Social Determinants of Health. Healthy People 2020. U.S. Department of Health and Human Services. Retrieved July 9, 2024 from https://health.gov/healthypeople/priority-areas/social-determinants-health#:~:text=Social%20determinants%20of%20health%20.

Patel KC, Gross A, Graham N, Goldsmith CH, Ezzo J, Morien A, Peloso PM. Massage for mechanical neck disorders. Cochrane Database Syst Rev. 2012 Sep12;9:CD004871.

Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for knee pain. Phys Ther. 2001 Oct;81(10):1675-700.

Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for low back pain. Phys Ther. 2001 Oct;81(10):1641-74.

Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for neck pain. Phys Ther. 2001 Oct;81(10):1701-17.

Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for shoulder pain. Phys Ther. 2001 Oct;81(10):1719-30. Review. PubMed PMID: 11589645.

PM&R Now. Therapeutic Modalities. Author(s): Benjamin J. Seidel, DO, Lawrence Chang, DO, MPH, Aaron Greenberg, DO. Originally published: April 4, 2016. Last updated: March 11, 2021. Retrieved on July 23, 2024 from https://now.aapmr.org/therapeutic-modalities/#relevance-to-clinical-practice/-specific-techniques

Poitras S, Brosseau L. Evidence-informed management of chronic low back pain with transcutaneous electrical nerve stimulation, interferential current, electrical muscle stimulation, ultrasound, and thermotherapy. Spine J. 2008 Jan-Feb;8(1):226-33.

Qaseem A, Wilt TJ, McLean RM, Forciea MA; Clinical Guidelines Committee of the American College of Physicians. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. Ann Intern Med. 2017 Apr 4;166(7):514-530.

Qaseem A, McLean RM, O'Gurek D, Batur P, Lin K, Kansagara DL. Nonpharmacologic and Pharmacologic Management of Acute Pain From Non-Low Back, Musculoskeletal Injuries in Adults: A Clinical Guideline From the American College of Physicians and American Academy of Family Physicians. Ann Intern Med. 2020 Nov 3;173(9):739-748.

Romano M, Minozzi S, Bettany-Saltikov J, Zaina F, Chockalingam N, Kotwicki T, et al. Exercises for adolescent idiopathic scoliosis. Cochrane Database Syst Rev. 2012 Aug 15;(8):CD007837.

Santos TS, Oliveira KKB, Martins LV, Vidal APC. Effects of manual therapy on body posture: Systematic review and meta-analysis. Gait Posture. 2022;96:280-294. doi:10.1016/j.gaitpost.2022.06.010

Saragiotto BT, Maher CG, Yamato TP, Costa LO, Menezes Costa LC, Ostelo RW, Macedo LG. Motor control exercise for chronic non-specific low-back pain. Cochrane Database Syst Rev. 2016 Jan 8;(1):CD012004.

Scherl SA. Adolescent idiopathic scoliosis: Management and prognosis. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA.

Schreiber S, Parent EC, Hill DL, Hedden DM, Moreau MJ, Southon SC. Patients with adolescent idiopathic scoliosis perceive positive improvements regardless of change in the Cobb angle - Results from a randomized controlled trial comparing a 6-month Schroth intervention added to standard care and standard care alone. SOSORT 2018 Award winner. BMC Musculoskelet Disord. 2019 Jul 8;20(1):319.

Seleviciene V, Cesnaviciute A, Strukcinskiene B, Marcinowicz L, Strazdiene N, Genowska A. Physiotherapeutic Scoliosis-Specific Exercise Methodologies Used for Conservative Treatment of Adolescent Idiopathic Scoliosis, and Their Effectiveness: An Extended Literature Review of Current Research and Practice. Int J Environ Res Public Health. 2022;19(15):9240. Published 2022 Jul 28. doi:10.3390/ijerph19159240

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

Skelly AC, Chou R, Dettori JR, et al. Noninvasive Nonpharmacological Treatment for Chronic Pain: A Systematic Review. Rockville (MD): Agency for Healthcare Research and Quality (US); June 2018.

Skelly AC, Chou R, Dettori JR, Turner JA, Friedly JL, Rundell SD, Fu R, Brodt ED, Wasson N, Kantner S, Ferguson AJR. Noninvasive Nonpharmacological Treatment for Chronic Pain: A Systematic Review Update [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2020 Apr. Report No.: 20-EHC009. PMID: 32338846.

Steffens D, Maher CG, Pereira LS, et al. Prevention of Low Back Pain: A Systematic Review and Meta-analysis. JAMA Intern Med. 2016;176(2):199-208. doi:10.1001/jamainternmed.2015.7431

Taylor NF, Dodd KJ, Shields N, Bruder A. Therapeutic exercise in physiotherapy practice is beneficial: a summary of systematic reviews 2002-2005. Aust J Physiother. 2007;53(1):7-16.

Trager, RJ, Bejarano, G, Perfecto, RPT, Blackwood, ER, Goertz, CM. Chiropractic and Spinal Manipulation: A Review of Research Trends, Evidence Gaps, and Guideline Recommendations. J. Clin. Med. 2024, 13, 5668

van Middelkoop M, Rubinstein SM, Verhagen AP, Ostelo RW, Koes BW, van TulderMW. Exercise therapy for chronic nonspecific low-back pain. Best Pract Res Clin Rheumatol. 2010 Apr;24(2):193-204.

van Tulder M, Becker A, Bekkering T, Breen A, del Real MT, Hutchinson A, Koes B, Laerum E, Malmivaara A; COST B13 Working Group on Guidelines for the Management of Acute Low Back Pain in Primary Care. Chapter 3. European guidelines for the management of acute nonspecific low back pain in primary care. Eur Spine J. 2006 Mar;15 Suppl 2:S169-91.

Walsh NE, Brooks P, Hazes JM, et al. Standards of care for acute and chronic musculoskeletal pain: The bone and joint decade (2000-2010). Arch Phys Med Rehabil. 2008;89:1830-1845.

Washington State Department of Labor and Industries. Conservative care options for work-related mechanical shoulder conditions. Olympia (WA): Washington State Department of Labor and Industries; 2014 Apr 17. 31 p. Retrieved on July 23, 2024 from https://www.guidelinecentral.com/summaries/conservative-care-options-for-work-related-mechanical-shoulder-conditions/#section-420

Wegner I, Widyahening IS, van Tulder MW, Blomberg SE, de Vet HC, Brønfort G, Bouter LM, van der Heijden GJ. Traction for low-back pain with or without sciatica. Cochrane Database Syst Rev. 2013 Aug 19;8:CD003010.

Weiss HR. The method of Katharina Schroth - history, principles and current development. Scoliosis. 2011 Aug 30;6:17.

Whedon JM, Kizhakkeveettil A, Toler AW, et al. Initial Choice of Spinal Manipulation Reduces Escalation of Care for Chronic Low Back Pain Among Older Medicare Beneficiaries. Spine (Phila Pa 1976). 2022;47(4):E142-E148. doi:10.1097/BRS.0000000000004118

Yousefi-Nooraie R, Schonstein E, Heidari K, Rashidian A, Pennick V, Akbari-Kamrani M, Irani S, Shakiba B, Mortaz Hejri S, Jonaidi AR, Mortaz-Hedjri S. Low level laser therapy for nonspecific low-back pain. Cochrane Database of Systematic Reviews 2008, Issue 2. Art. No.: CD005107.