

Fulcrum Health, Inc.

2024 Clinical Policies and Guidelines

PHYSICAL MEDICINE

Effective January 1, 2024 – December 31, 2024

Clinical Policies and Guidelines

Preamble

Fulcrum is committed to the philosophy of supporting safe and effective treatment for patients. The medical necessity criteria that follow are guidelines designed to guide both providers and reviewers to the most appropriate treatment based on a patient's unique circumstances. In all cases, reviewers will apply clinical judgment consistent with the standards of good medical practice when applying the guidelines. Determinations are based on guidelines and clinical information provided at the time of the request.

Medical necessity decisions may change as new evidence-based information is provided or based on unique aspects of the patient's condition. The treating provider has responsibility for treatment decisions regarding the care of the patient.

Fulcrum develops medical necessity criteria for clinical review requests for therapies and procedures. Developers and contributors to medical necessity criteria include representatives from a multidisciplinary team of local chiropractors (DC), licensed acupuncturists (LAc), massage therapists, physical therapists (PT), and other specialty groups. Fulcrum's guidelines are reviewed yearly and modified when necessary, following a literature search of pertinent and established clinical guidelines and accepted diagnostic imaging practices.

Disclaimer: Fulcrum Health Inc.'s (Fulcrum) policies and guidelines do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. These policies are not meant to supplant your normal procedures, evaluation, diagnosis, treatment and/or care plans for your patients. Your professional judgement must be exercised and followed in all respects regarding the treatment and care of your patients. The policies constitute only the reimbursement and coverage guidelines of Fulcrum. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies. Fulcrum reserves the right to review and update the guidelines at its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulation.

Table of Contents - PHYSICAL MEDICINE GUIDELINES

ACUPUNCTURE

Licensed Acupuncture Policy

CHIROPRACTIC

Chiropractic Infant Care Policy

Chiropractic Manipulative Treatment

Chiropractic Therapeutic Treatment Policy

Definition of a Pediatric Patient

Definition and Application of Complicating Factors in the Utilization Management Process

Evaluation and Management

Record Keeping and Documentation Standards: Chiropractic

Plain Film Radiology

MASSAGE THERAPY

Therapeutic Massage

THERAPY

Measurable Progressive Improvement

Outpatient Habilitative Physical and Occupational Therapy

Outpatient Habilitative Speech Therapy

Record Keeping and Documentation Standards: Physical Medicine

GENERAL

Active Care Procedures

Durable Medical Equipment

Experimental and Investigational Services and Devices

Lack of Information

Passive Modality Utilization

Licensed Acupuncture Policy

Fulcrum Clinical Guidelines Licensed Acupuncture Policy	Original Date: September 2020 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: ACU100	Implementation Date: January 2024

Policy Statement

Ongoing care and medical necessity decisions are determined following a course of care, where demonstrable meaningful clinical improvement would be expected in a patient's health status. Maximum Therapeutic Benefit (MTB) is determined when one or more of the following are present:

1. The patient has returned to pre-clinical/pre-onset health status.
2. Meaningful improvement may have occurred; however, documentation does not support that further meaningful gains will be achieved.
3. Meaningful improvement has occurred; however, documentation does not support further supervised 'in-office' treatment.
4. The patient no longer demonstrates meaningful clinical improvement or progress as measured by subjective or objective gains and/or standardized outcome assessment tools (i.e., neck and/or back indexes, PROMIS10).
5. Meaningful improvement has not been achieved, as measured by activities of daily living (ADL) assessment and/or, standardized outcome assessment tools (OAT) if available, and/or documented in clinical records.
6. There is insufficient information (measurable subjective, objective, or functional changes) documented in the patient health care record to reliably validate the response to treatment.

Purpose

The intent of this policy is to show treatment support and medical necessity guidelines for acupuncture practice. This policy describes the evidence used for determination of maximum therapeutic benefit (MTB).

Scope

Licensed Acupuncturists that are participating network practitioners.

Definitions

Acute Pain: Less than 12 weeks duration

Acupressure: the application of pressure to acupuncture points.

Acupuncture practice means a comprehensive system of health care using Oriental medical theory and its unique methods of diagnosis and treatment. Its treatment techniques include the insertion of acupuncture needles through the skin and the use of other biophysical methods of acupuncture point stimulation, including the use of heat, Oriental massage techniques, electrical stimulation, herbal supplemental therapies, dietary guidelines, breathing techniques, and exercise based on Oriental medical principles.

Acupuncture needle: a needle designed exclusively for acupuncture purposes. It has a solid core, with a tapered point, and is 0.12 mm to 0.45 mm in thickness. It is constructed of stainless steel, gold, silver, or other board-approved materials that can be sterilized according to recommendations of the National Centers for Disease Control and Prevention.

Acupuncture points: specific anatomically described locations as defined by the recognized acupuncture reference texts. These texts are listed in the study guide to the examination for the NCCAOM certification exam.

Chronic Pain: Greater than 12 weeks duration.

- nonspecific, in that it has no identifiable systemic cause (i.e., not associated with metastatic, inflammatory, infectious disease etc.
- not associated with surgery
- not associated with pregnancy

Cupping: a therapy in which a jar-shaped instrument is attached to the skin and negative pressure is created by using suction to move Qi and decrease stagnation

Electrical Stimulation on Needle: Use of an electrical device for stimulating acupuncture points to promote moving of Qi.

Maximum Therapeutic Benefit (MTB): May be determined following a sufficient course of care where no further demonstrable meaningful clinical improvement would be expected in a patient's health status from the current method of treatment. Treatment beyond MTB may be considered maintenance care.

Meridians: meridians are invisible energy pathways, or channels, that run through the body. Vital life energy, called *qi* or *chi*, is thought to flow along these meridians, and anything that disrupts and/or stagnates the smooth flow of qi can create dysfunction. There are 12 regular meridians and 20 in total.

Moxibustion (moxa treatment): TCM practice that performed by burning small cones of dried leaves (mugwort) on certain designated points of the body, generally the same points as those used in acupuncture. Adding heat and energy to the body.

NCCAOM: The National Certification Commission for Acupuncture and Oriental Medicine, a not-for-profit corporation organized under section 501(c)(4) of the Internal Revenue Code.

Outcome Assessment Tool (OAT): Standardized self-reported patient questionnaires used to show patient status and progress towards treatment goal. (PROMIS 10, Neck Disability Index, Revised Oswestry Disability Index, Visual Analogue Scale)

Pulse and Tongue: TCM examination to confirm/identify pattern diagnosis.

Recurrent Pain: Pain that is present on less than half the days in a 12-month period occurring in multiple episodes. A recurrence is characterized by pain-related difficulty in performing activities of daily living.

10 Questions: TCM history questions used to make a pattern diagnosis and treatment strategy.

TCM: Traditional Chinese Medicine (Oriental or Eastern approaches to health care conditions)

Treatment Strategy and TCM Diagnoses: Treatment strategy to treat a TCM pattern diagnosis.

Medical Necessity: Diagnostic testing and medical treatment, consistent with the diagnosis of and prescribed course of treatment for a condition, and preventative services. Medically necessary care must meet the following criteria:

1. Be consistent with the medical standards and accepted practice parameters of the community as determined by health care providers in the same or similar general specialty as typically manages the condition, procedure, or treatment at issue; and
2. Be an appropriate service, in terms of type, frequency, level, setting, and duration, to the diagnosis or condition; and
3. Help to restore or maintain health;
4. Prevent deterioration of a condition; or

5. Prevent the reasonably likely onset of a health problem or detect an incipient problem.

Note: The definition of “medically necessary” in the member’s benefit contract may vary. If the definitions are different, the benefit contract will prevail.

Procedure

1. Acupuncture visits/units may be considered medically necessary care when ALL the following criteria are met:
 - a) pain OR condition is refractory to standard medication therapy or the member has contraindications or side effects to medications; AND
 - b) pain OR condition has resulted in impaired activities of daily living; AND/OR
 - c) validated outcomes assessments (OATs) show impairment; AND
 - d) there is reasonable expectation that treatment will result in significant improvement over a clearly defined period of time; AND
 - e) the provider has documented whether an evaluation has been completed by a primary care physician, neurologist, rheumatologist or pain management specialist.
2. Continuation of acupuncture treatment may be considered medically necessary if the member demonstrates meaningful improvement in condition and symptoms determined by:
 - a) For acute or subacute conditions < 12 weeks where initial subjective and objective findings and/or Outcome Assessment Tool (OAT) meet the following criteria:
 - i) 3 pt. change in pain assessment score is $\geq 5/10$ OR
 - ii) 2 pt. change in pain assessment score when score is $\leq 4/10$ AND
 - iii) Overall progress has improved by least 40% (e.g., clinical findings) OR
 - iv) OAT with 20% raw score improvement
 - b) For chronic conditions > 12 weeks where initial subjective and objective findings and/or OATs meet the following criteria:
 - i) 2 pt. change in pain assessment score is $> 5/10$ OR
 - ii) 1 pt. change in pain assessment score when score is $< 4/10$ AND
 - iii) Overall progress has improved by least 25% (e.g., clinical findings) OR
 - iv) OAT with 10% raw score improvement
3. Providers are required to indicate the applicable ICD10 code when billing for services.
4. The following CPT codes are for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement.
 - a) Description of Acupuncture Service - each service counts as one unit. Up to four units equals one visit.
 - i) CPT code 97810 – Acupuncture, 1 or more needles; without electrical stimulation, initial 15 minutes of personal one-to-one contact with patient
 - ii) CPT code 97811 – Acupuncture without electrical stimulation, each additional 15 minutes of personal one-to-one contact with patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)
 - iii) CPT code 97813 – Acupuncture with electrical stimulation, initial 15 minutes of personal one-to-one contact with the patient
 - iv) CPT code 97814 – Acupuncture with electrical stimulation, each additional 15 minutes of personal one-to-one contact with the patient, with re-insertion of needles(s) (List separately in addition to code for primary procedure)

Regulatory, Accreditation and Resources

Medicare NCD & LCD

1. [NCD - Acupuncture for Chronic Lower Back Pain \(cLBP\) \(30.3.3\) \(cms.gov\)](#)

State Resources

1. [Acupuncture Services \(state.mn.us\)](#)
2. [Sec. 62D.107 MN Statutes](#)
3. [Sec. 147B.01 MN Statutes](#) thru [Sec. 147B.09 MN Statutes](#)
4. [Search - Minnesota Legislature \(mn.gov\)](#)
5. [Sec. 256B.0625 MN Statutes \(8f\)](#)
6. [Minnesota Rules 9505.0195 \(Provider Participation\)](#)
7. [Minnesota Rules 9505.0205 \(Provider Records\)](#)

Resources

1. Society of Acupuncture Research (SAR)
2. Acupuncture Expert References Group (AERG)
3. Acupuncture Coding and Reimbursement Guidelines (InnoviHealth)

NCQA

1. UM 2 Element A Clinical Criteria for UM Decisions

Clinical References

1. Errington-Evans N. Acupuncture for anxiety. *CNS neuroscience & therapeutics*. 2012;18(4):277-84.
2. Pilkington K, Kirkwood G, Rampes H, et al. Acupuncture for anxiety and anxiety disorders--a systematic literature review. *Acupunct Med*. 2007;25(1-2):1-10.
3. Pilkington K. Anxiety, depression and acupuncture: A review of the clinical research. *Auton Neurosci*.2010;
4. Acar HV, Cuvas O, Ceyhan A, Dikmen B. Acupuncture on Yintang point decreases preoperative anxiety. *J Altern Complement Med*. 2013;19(5):420-4.
5. Acar HV, Cuvas O, Ceyhan A, Dikmen B. Acupuncture on Yintang point decreases preoperative anxiety. *J Altern Complement Med*. 2013;19(5):420-4.
6. Carvalho F, Weires K, Ebling M, et al. Effects of acupuncture on the symptoms of anxiety and depression caused by premenstrual dysphoric disorder. *Acupunct Med*. 2013;31(4):358-63.USA –
8. Department of Health and Human Services, Agency for Health Care Policy and Research Acute Low Back Problems in Adults; AHCPR Publication No. 95-0642. 1994; <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat6.chapter.25870>
9. New Zealand Acute Low Back Pain Guide. October 2004 edition; http://www.nzgg.org.nz/guidelines/0072/acc1038_col.pdf
10. Adult Low Back Pain 14th ed. Institute For Clinical Systems Improvement. www.icsi.org Revised November 2010
11. Manheimer E, Cheng K, Wieland LS, et al. Acupuncture for treatment of irritable bowel syndrome. *Cochrane Database Syst Rev*. 2012;5:CD005111.
13. Australia - National Health and Medical Research Council, Evidence-based Management of Acute Musculoskeletal Pain: Acute Low Back Pain, Acute Thoracic Pain, Acute Neck Pain, Acute Shoulder Pain, Acute Knee Pain. 2003; <http://www.nhmrc.gov.au/publications/synopses/cp94syn.htm>
14. Vickers AJ, Cronin AM, Maschino AC, Lewith G, Macpherson H, Victor N, et al. Individual patient data meta-analysis of acupuncture for chronic pain: protocol of the Acupuncture Trialists'
15. Becker WJ, Findlay T, Moga C, Scott NA, Harstall C, Taenzer P. Guideline for primary care management of headache in adults. *Can Fam Physician*. 2015;61(8):670-9.
16. Maciocia G. Foundations of Chinese Medicine: A Comprehensive Text for Acupuncturists and Herbalists. 2 ed. Oxford: Churchill Livingstone; 2005.
17. Linde K, Allais G, Brinkhaus B, Fei Y, Mehring M, Shin BC, et al. Acupuncture for the prevention of tension-type headache. *Cochrane Database Syst Rev*. 2016;4:CD007587.86.
18. Linde K, Allais G, Brinkhaus B, Fei Y, Mehring M, Vertosick EA, et al. Acupuncture for the prevention of episodic migraine. *Cochrane Database Syst Rev*. 2016(6):CD001218.
19. Linde K, Allais G, Brinkhaus B, Manheimer E, Vickers A, White AR. Acupuncture for tension type headache. *Cochrane Database Syst Rev*. 2009;Jan 21(1):CD007587.
20. Manchikanti L, et al. Epidemiology of low back pain in adults. *Neuromodulation*. 2014;17 Suppl 2:3-10.Collaboration. *Trials*. 2010;11:90.Guidelines for the Assessment and Management of Chronic Pain 2004. *Wisconsin Medical Journal*; 103(3):15-42
21. Hutchinson AJP, et al. The effectiveness of acupuncture in treating chronic non-specific low back pain: a systematic review of the literature. *J Orthop Surg*. 2012;7:36.
22. Qaseem A, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med*. February 2017.
23. Assessment and Management of Chronic Pain. Rev. Nov. 2009; Bloomington, MN: Institute of Clinical Systems Improvement. http://www.icsi.org/guidelines_and_more/gl_os_prot/
24. Taylor P, et al. Cost-effectiveness of Acupuncture for Chronic Nonspecific Low Back Pain. *Pain Pract*.2014;14(7):599-606.Liebenson C. *Rehabilitation of the Spine: A Practitioner's Manual* 2nd edition 2006. Lippincott Williams & Wilkins: Philadelphia, PA

Policy History

Date	Summary
------	---------

8/7/2020	New Document
8/27/2020	Approved by Clinical Policy Committee
9/1/2020	Approved by Utilization Management Subcommittee
3/11/2021	Approved by Clinical Policy Committee
3/18/2021	Approved by Utilization Management Subcommittee
3/17/2022	Approved by Clinical Policy Committee
4/12/2022	Approved by Utilization Management Subcommittee
3/21/2023	Approved by Clinical Policy Committee
5/02/2023	Approved by Utilization Management Subcommittee
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by Utilization Management Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Chiropractic Infant Care Policy

Fulcrum Clinical Guidelines CHIROPRACTIC INFANT CARE POLICY	Original Date: April 2016 (NIA) January 2024 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: November 2023
Guideline Number: CLINUM117	Implementation Date: January 2024

Policy Statement

While the evaluation, diagnosis, and management of infants falls within the scope of chiropractic practice, participating network providers should not engage in unsafe or unproven services as outlined in this policy. There is insufficient evidence that manual therapy (spinal manipulation, extra-spinal manipulation, and mobilization) results in improved health outcomes, particularly functional outcomes, related to the treatment of both musculoskeletal and non-musculoskeletal infant conditions.

Purpose

This policy will be used to support medically necessary, appropriate, and acceptable treatment of infants defined as ages birth to 24 months.

Scope

Physical medicine participating network practitioners, including rendering chiropractors.

Procedure

1. A therapeutic trial of chiropractic care can be a reasonable approach to management of the infant patient in the absence of conclusive research evidence when clinical experience and patient/parent preferences are aligned.
2. If the infant patient is not showing clinically significant improvement, as evidenced by progress toward measurable goals, after a two-week trial of chiropractic care, no additional chiropractic care is indicated, and referral may be appropriate.¹
3. For infants:
 - a) Manual-based therapy (spinal manipulation, extra-spinal manipulation, and mobilization), active care, and passive therapies have not been shown to improve the health outcomes of spine or extremity-based musculoskeletal conditions in infant populations.
 - b) The use of manual-based therapy (manipulation and mobilization), active care, and passive therapies have not been shown to improve the health outcomes of non-musculoskeletal conditions in infant populations.^{2,3}
 - c) The use of manual-based therapy, active care, and passive therapies have not been proven to be a substitutive treatment for childhood immunizations or the treatment of infectious diseases in infant populations.
4. The following are considered unsafe or unproven services:
 - a) The use of spinal and extra-spinal manipulation for non-musculoskeletal conditions is unproven.³ There is no contemporary chiropractic consensus demonstrating a general agreement among a significant portion of the chiropractic community to support the treatment of non-musculoskeletal conditions, such as the treatment of the common cold, sinus congestion, allergies, sleep disturbances, difficulty nursing, infantile colic, ADHD, asthma, autism, cancer, cerebral palsy, constipation, nocturnal enuresis, and otitis media. The data regarding the use of manual therapy interventions for the treatment of non-musculoskeletal

conditions is sparse, the level of evidence is generally low, and the data are generally inconsistent or conflicting. Wellness care, well-baby checks, and preventive care are not covered. Considerations are derived from peer-reviewed scientific studies published in or accepted for publication by medical or chiropractic journals that meet nationally recognized requirements for scientific manuscripts and that submit most of their published articles for review by experts who are not part of the editorial staff.

- b) The use of maintenance or preventative (defined as prevention of any disease or condition or the promotion and enhancement of health after maximum therapeutic benefit has occurred) spinal and extra-spinal manipulation.
- c) The use of the following service:
 - i) CPT code 97012- Mechanical traction
 - ii) CPT code 97014- Unattended electrical stimulation
 - iii) CPT code 97032 -Attended electrical stimulation
 - iv) HCPCS code G0283 - Electrical stimulation
 - v) CPT code 97035 - Ultrasound
 - vi) CPT code S9090 or any code used to bill low level laser
- 5. The following codes will require peer review of clinical documentation to determine medical necessity:
 - a) CPT code 97110 – Therapeutic exercise
 - b) CPT code 97112 – Neuromuscular reeducation
 - c) CPT code 97530 – Activities of daily living
 - d) CPT code 98942 – 5-region chiropractic manipulative therapy
 - e) CPT code 98943 – Extra-spinal chiropractic manipulative therapy
 - f) CPT code 97124 – Massage therapy
 - g) CPT code 97140 – Manual therapy
 - h) All X-rays
- 6. Fulcrum has the ultimate authority to determine if treatment is medically necessary and appropriate.

Regulatory, Accreditation and Resources

Medicare NCD & LCD

1. [Article - Chiropractic Services – Medical Policy Article \(A57889\) \(cms.gov\)](#) (01/01/2020) (IL, MN, WI, NY, CT, ME, MA, NH, RI, VT)
2. [LCD - Chiropractic Services \(L37387\) \(cms.gov\)](#) (09/29/2021) (AL, GA, TN, SC, VA, WV, NC)
3. [LCD - Chiropractic Services \(L37254\) \(cms.gov\)](#) (01/26/2023) (KY, OH)

Medicare Billing and Coding: Chiropractic Services

1. [Article - Billing and Coding: Chiropractic Services \(A58345\) \(cms.gov\)](#) (10/01/2020) (WY, CO, NM, TX, OK, AR, LA, MS, DE, DC, NJ, PA, MD)
2. [Article - Billing and Coding: Chiropractic Services \(A56273\) \(cms.gov\)](#) (07/07/2022) (IA, KS, MO, NE, IN, MI)
3. [Article - Billing and Coding: Chiropractic Services \(A56616\) \(cms.gov\)](#). (10/10/2019) (AK, GA, TN, SC, VA, WV, NC)
4. [Article - Billing and Coding: Chiropractic Services \(A56455\) \(cms.gov\)](#) (11/16/2023) (KY, OH)
5. [Article - Billing and Coding: Chiropractic Services \(A58412\) \(cms.gov\)](#) (10/01/2020) (FL, VI, PR)
6. [Article - Billing and Coding: Chiropractor Services \(A57914\) \(cms.gov\)](#) (01/01/2020) (AL, OR, WA, AZ, ND, SD, UT, WY, MT)

NCQA

1. UM 2 Element A Clinical Criteria for UM Decisions

Clinical References

Literature Search

As of August 8, 2022, there is no first-level evidence available in the literature in relation to the effectiveness of manual therapy/manipulation for spinal disorders in the young population. In 2015, the American Academy of Family Physicians published guidelines on infantile colic, noting that “[p]hysical therapies for colic include chiropractic and osteopathic manipulation, massage, and acupuncture. A Cochrane review⁴¹ found insufficient evidence to support chiropractic or osteopathic manipulation, because many studies were small, nonblinded, and had a high likelihood of bias. Trials of acupuncture and infant massage have had conflicting results, and further studies are needed to determine their benefits and harms.”⁵ A single-blind, randomized controlled trial (RCT) comparing the effect of chiropractic care to treat colic reported no statistically significant difference between the control group of colicky infants and the experimental group receiving care,⁶ and a second RCT reports that “musculoskeletal indicators were not shown to be predictive of an increased benefit for colicky infants from chiropractic treatment.”⁷

Additionally, the American Academy of Pediatrics, in the 2017 *Pediatric Integrative Medicine* guidelines state, “High-quality evidence supporting effectiveness of spinal manipulation for nonmusculoskeletal concerns is lacking, especially in infants and children, for whom the risks of adverse events may be the highest because of immature stability of the spine... Serious complications are possible with chiropractic treatment of children, but such adverse effects are rare and related to high-velocity, extension, and rotational spinal manipulation.”³ No guidelines, systematic reviews, or randomized controlled trials were discovered in a literature search regarding the treatment of infant musculoskeletal conditions with spinal or extra-spinal manipulation, mobilization, massage therapy, mechanical traction, electrical stimulation, ultrasound therapy, or low-level laser therapy (LLLT).

REFERENCES

- Hawk C, Schneider MJ, Vallone S, Hewitt EG. Best Practices for Chiropractic Care of Children: A Consensus Update. *J Manipulative Physiol Ther.* Mar-Apr 2016;39(3):158-68. doi:10.1016/j.jmpt.2016.02.015
- Hawk C, Khorsan R, Lisi AJ, Ferrance RJ, Evans MW. Chiropractic care for nonmusculoskeletal conditions: a systematic review with implications for whole systems research. *J Altern Complement Med.* Jun 2007;13(5):491-512. doi:10.1089/acm.2007.7088
- McClafferty H, Vohra S, Bailey M, et al. Pediatric Integrative Medicine. *Pediatrics.* 2017;140(3):e20171961. doi:10.1542/peds.2017-1961
- Dobson D, Lucassen PL, Miller JJ, Vlieger AM, Prescott P, Lewith G. Manipulative therapies for infantile colic. *Cochrane Database Syst Rev.* Dec 12 2012;12:Cd004796. doi:10.1002/14651858.CD004796.pub2
- Johnson JD, Cocker K, Chang E. Infantile Colic: Recognition and Treatment. *Am Fam Physician.* Oct 1 2015;92(7):577-82.
- Holm LV, Jarbøl DE, Christensen HW, Søndergaard J, Hestbæk L. The effect of chiropractic care on infantile colic: results from a single-blind randomised controlled trial. *Chiropr Man Therap.* 2021;29(1):15-15. doi:10.1186/s12998-021-00371-8
- Holm LV, Vach W, Jarbøl DE, Christensen HW, Søndergaard J, Hestbæk L. Identifying potential treatment effect modifiers of the effectiveness of chiropractic care to infants with colic through prespecified secondary analyses of a randomised controlled trial. *Chiropr Man Therap.* 2021;29(1):16-16. doi:10.1186/s12998-021-00373-6
- Alcantara J, Alcantara JD, Alcantara J. The chiropractic care of infants with colic: a systematic review of the literature. *Explore (NY).* May-Jun 2011;7(3):168-74. doi:10.1016/j.explore.2011.02.002
- Alcantara J, Alcantara JD, Alcantara J. A systematic review of the literature on the chiropractic care of patients with autism spectrum disorder. *Explore (NY).* Nov-Dec 2011;7(6):384-90. doi:10.1016/j.explore.2011.08.001
- Alcantara J, Alcantara JD, Alcantara J. An integrative review of the literature on the chiropractic care of infants with constipation. *Complement Ther Clin Pract.* Feb 2014;20(1):32-6. doi:10.1016/j.ctcp.2013.10.008
- Alcantara J, Alcantara JD, Alcantara J. The chiropractic care of patients with asthma: a systematic review of the literature to inform clinical practice. *Clinical Chiropractic.* 2012/03/01/ 2012;15(1):23-30. doi.org/10.1016/j.clch.2012.01.003
- Alcantara J, Ohm J, Kunz D. The safety and effectiveness of pediatric chiropractic: a survey of chiropractors and parents in a practice-based research network. *Explore (NY).* Sep-Oct 2009;5(5):290-5. doi:10.1016/j.explore.2009.06.002
- Alcantara J, Alcantara JD, Alcantara J. The Chiropractic Care of Infants with Breastfeeding Difficulties. *Explore (NY).* Nov-Dec 2015;11(6):468-74. doi:10.1016/j.explore.2015.08.005
- Borusiak P, Biedermann H, Bosserhoff S, Opp J. Lack of efficacy of manual therapy in children and adolescents with suspected cervicogenic headache: results of a prospective, randomized, placebo- controlled, and blinded trial. *Headache.* Feb 2010;50(2):224-30. doi:10.1111/j.1526-4610.2009.01550.x
- Bronfort G, Haas M, Evans R, Leininger B, Triano J. Effectiveness of manual therapies: the UK evidence report. *Chiropr Osteopat.* 2010;18:3-3. doi:10.1186/1746-1340-18-3Chase J, Shields N. A systematic review of the efficacy of non-pharmacological, non-surgical and non- behavioural treatments of functional chronic constipation in children. *Australian and New Zealand Continence Journal, The.* 2011;17(2):40-50.
- Clar C, Tsertsvadze A, Court R, Hundt GL, Clarke A, Sutcliffe P. Clinical effectiveness of manual therapy for the management of musculoskeletal and non-musculoskeletal conditions: systematic review and update of UK evidence report. *Chiropr Man Therap.* 2014;22(1):12-12. doi:10.1186/2045-709X-22- 12
- Ernst E. Chiropractic spinal manipulation for infant colic: a systematic review of randomised clinical trials. *Int J Clin Pract.* Sep 2009;63(9):1351-3. doi:10.1111/j.1742-1241.2009.02133.x
- George M, Topaz M. A systematic review of complementary and alternative medicine for asthma self-management. *Nurs Clin North Am.* 2013;48(1):53-149. doi:10.1016/j.cnur.2012.11.002
- Gleberzon BJ, Arts J, Mei A, McManus EL. The use of spinal manipulative therapy for pediatric health conditions: a systematic review of the literature. *J Can Chiropr Assoc.* 2012;56(2):128-141.
- Gotlib A, Rupert R. Assessing the evidence for the use of chiropractic manipulation in paediatric health conditions: A systematic review. *Paediatr Child Health.* 2005;10(3):157-161.
- Hawk C, Schneider M, Ferrance RJ, Hewitt E, Van Loon M, Tanis L. Best practices recommendations for chiropractic care for infants, children, and

adolescents: results of a consensus process. *J Manipulative Physiol Ther.* Oct 2009;32(8):639-47. doi:10.1016/j.jmpt.2009.08.018

23. Hestbaek L, Stochkendahl MJ. The evidence base for chiropractic treatment of musculoskeletal conditions in children and adolescents: The emperor's new suit? *Chiropr Osteopat.* 2010;18:15-15. doi:10.1186/1746-1340-18-15
24. Huang T, Shu X, Huang YS, Cheuk DK. Complementary and miscellaneous interventions for nocturnal enuresis in children. *Cochrane Database Syst Rev.* Dec 7 2011;(12):Cd005230. doi:10.1002/14651858.CD005230.pub2
25. Karpouzis F, Bonello R, Pollard H. Chiropractic care for paediatric and adolescent Attention- Deficit/Hyperactivity Disorder: A systematic review. *Chiropr Osteopat.* 2010;18:13-13. doi:10.1186/1746-1340-18-13
26. Marchand AM. A Literature Review of Pediatric Spinal Manipulation and Chiropractic Manipulative Therapy: Evaluation of Consistent Use of Safety Terminology. *J Manipulative Physiol Ther.* Nov-Dec 2015;38(9):692-698. doi:10.1016/j.jmpt.2012.07.009
27. Marchand AM. A Proposed Model With Possible Implications for Safety and Technique Adaptations for Chiropractic Spinal Manipulative Therapy for Infants and Children. *J Manipulative Physiol Ther.* Nov- Dec 2015;38(9):713-726. doi:10.1016/j.jmpt.2013.05.015
28. Miller JE, Newell D, Bolton JE. Efficacy of chiropractic manual therapy on infant colic: a pragmatic single-blind, randomized controlled trial. *J Manipulative Physiol Ther.* Oct 2012;35(8):600-7. doi:10.1016/j.jmpt.2012.09.010
29. Pepino VC, Ribeiro JD, Ribeiro MA, de Noronha M, Mezzacappa MA, Schivinski CI. Manual therapy for childhood respiratory disease: a systematic review. *J Manipulative Physiol Ther.* Jan 2013;36(1):57-65. doi:10.1016/j.jmpt.2012.12.004
31. Płaszewski M, Bettany-Saltikov J. Non-surgical interventions for adolescents with idiopathic scoliosis: an overview of systematic reviews. *PLoS One.* 2014;9(10):e110254-e110254. doi:10.1371/journal.pone.0110254
32. Poder TG, Lemieux R. How effective are spiritual care and body manipulation therapies in pediatric oncology? A systematic review of the literature. *Glob J Health Sci.* 2013;6(2):112-127. doi:10.5539/gjhs.v6n2p112
33. Pohlman KA, Holton-Brown MS. Otitis media and spinal manipulative therapy: a literature review. *J Chiropr Med.* 2012;11(3):160-169. doi:10.1016/j.jcm.2012.05.00
34. Posadzki P, Ernst E. Is spinal manipulation effective for paediatric conditions? An overview of systematic reviews. *Focus Altern Complement Ther.* 2012;17(1):22-26. doi:https://doi.org/10.1111/j.2042-7166.2011.01136.x
35. Schetzek S, Heinen F, Kruse S, et al. Headache in children: update on complementary treatments. *Neuropediatrics.* Feb 2013;44(1):25-33. doi:10.1055/s-0032-1333435
37. Todd AJ, Carroll MT, Robinson A, Mitchell EKL. Adverse Events Due to Chiropractic and Other Manual Therapies for Infants and Children: A Review of the Literature. *J Manipulative Physiol Ther.* Nov- Dec 2015;38(9):699-712. doi:10.1016/j.jmpt.2014.09.008
38. Vaughn DW, Kenyon LK, Sobeck CM, Smith RE. Spinal manual therapy interventions for pediatric patients: a systematic review. *J Man Manip Ther.* 2012;20(3):153-159. doi:10.1179/2042618612Y.0000000007
39. Vohra S, Johnston BC, Cramer K, Humphreys K. Adverse events associated with pediatric spinal manipulation: a systematic review. *Pediatrics.* Jan 2007;119(1):e275-83. doi:10.1542/peds.2006-1392
40. Wyatt K, Edwards V, Franck L, et al. Cranial osteopathy for children with cerebral palsy: a randomised controlled trial. *Arch Dis Child.* Jun 2011;96(6):505-12. doi:10.1136/adc.2010.199877
41. Hoeve J. Clinical Evidence of Vestibular Dysregulation in Colicky Babies Before and After Chiropractic Treatment vs. Non-colicky Babies. *Front Pediatr.* 2021;9:668457-668457. doi:10.3389/fped.2021.668457
42. Keil B, Bludder C. Letter to the Editor: "The effect of chiropractic care on infantile colic: results from a single-blind randomised controlled trial" and "Identifying potential treatment effect modifiers of the effectiveness of chiropractic care to infants with colic through prespecified secondary analyses of a randomised controlled trial". *Chiropr Man Therap.* 2021;29(1):30-30. doi:10.1186/s12998-021-00386-1
43. Hestbæk L, Holm LV, Jarbøl DE, Christensen HW, Søndergaard J. Response to Letter to the Editor: "The effect of chiropractic care on infantile colic: results from a single-blind randomised controlled trial" and "Identifying potential treatment effect modifiers of the effectiveness of chiropractic care to infants with colic through prespecified secondary analyses of a randomised controlled trial". *Chiropr Man Therap.* 2021;29(1):29-29. doi:10.1186/s12998-021-00385-2
44. Corso M, Cancelliere C, Mior S, Taylor-Vaisey A, Côté P. The safety of spinal manipulative therapy in children under 10 years: a rapid review. *Chiropr Man Therap.* 2020;28(1):12-12. doi:10.1186/s12998-020-0299-y

Policy History

Date	Summary
November 2023	NIA/Fulcrum Policy Reconciliation
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by Utilization Management Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Chiropractic Manipulative Treatment

Fulcrum Clinical Guidelines Chiropractic Manipulative Treatment	Original Date: June 2018 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: CLINUM 101	Implementation Date: January 2024

Policy Statement

Fulcrum Health, Inc. (Fulcrum) has developed this policy to offer objective standardized criteria to support the accuracy of Chiropractic Manipulative Treatment (CMT) selection and utilization.

Purpose

To apply standardized coding criteria to support selection of Chiropractic Manipulation Treatment.

Scope

Physical medicine participating network practitioners, including rendering chiropractors.

Definitions

Chiropractic Manipulation Treatment (CMT) is a form of manual treatment to influence joint and neurophysiological function. This treatment may be accomplished using a variety of techniques.

Procedure

1. For spinal manipulation, the assigned CMT must be patient-centered and selected based upon the subjective complaint presentation and objective exam findings.
 - a) The diagnosis must support a neuromusculoskeletal condition.
 - b) Technique-based protocols, office routine, or provider philosophy are not acceptable methods for determining CMT code selection.
 - c) Wedges or Blocking used to create a ‘traction’ effect using body weight is considered part of the CMT procedure.
 - d) The treatment is performed in the region or adjacent region to the complaint.
 - e) There are no contraindications to manipulation.
2. For extra-spinal, Fulcrum considers an initial trial (up to 4-6 weeks) of extraspinal manipulation/mobilization clinically appropriate for patients presenting with neuromusculoskeletal disorders involving the shoulder, elbow (see exclusions below), wrist/hand (see exclusions below), hip, knee, ankle and foot (see exclusions below), when the following criteria are satisfied:
 - a) A neuromusculoskeletal diagnosis for an extremity complaint has been documented;
 - b) There are no contraindications to manipulation or mobilization;
 - c) The patient expresses a defined preference for manipulation or mobilization;
 - d) Plausible alternative treatment options have not been shown to be more effective; and
 - e) The patient’s healthcare record documents manipulation or mobilization of an extremity joint or joints directly related to the diagnosis.
3. The daily treatment record must document the specific segments included in the CMT.

CPT	CPT Description	Medical record documentation must include:
98940	Chiropractic manipulative treatment (CMT) involving one to two spinal regions	<ol style="list-style-type: none"> 1. A complaint involving at least one spinal region; AND 2. An examination of the corresponding spinal region(s); AND 3. A diagnosis and manipulative treatment of a condition involving at least one spinal region. 4. The specific spinal segments treated need to be listed in the treatment plan on that date of service. 5. Claim must record a diagnosis code in the applicable region(s).
98941	Chiropractic manipulative treatment (CMT) involving three to four spinal regions	<ol style="list-style-type: none"> 1. A complaint involving at least three spinal regions; AND 2. An examination of the corresponding spinal regions; AND 3. A diagnosis and manipulative treatment of conditions involving at <i>least three</i> spinal regions. 4. The specific spinal segments treated need to be listed in the treatment plan on that date of service. 5. Claim must record a diagnosis code in all the applicable regions.
98942	Chiropractic manipulative treatment (CMT) involving five spinal regions	<ol style="list-style-type: none"> 1. A complaint involving five spinal regions; AND 2. An examination of the corresponding spinal regions; AND 3. A diagnosis and manipulative treatment of conditions involving five spinal regions. 4. The specific spinal segments treated need to be listed in the treatment plan on that date of service. 5. Claim must record a diagnosis code in all the applicable regions.
98943	Extraspinal, 1 or more regions	<ol style="list-style-type: none"> 1. A complaint involving one of the regions listed below** AND 2. An examination of the corresponding regions; AND 3. A diagnosis and manipulative treatment of conditions involving the affected region(s). 4. The specific spinal segments treated need to be listed in the treatment plan on that date of service. 5. Claim must record a diagnosis code relative to the applicable region. <p>**Extraspinal regions are head (excludes atlanto-occipital and includes temporomandibular joint*), lower and upper extremities, rib cage (excludes costotransverse and costovertebral joints), and abdomen.</p> <p>*May be excluded as a non-covered service</p>

Regulatory, Accreditation and Resources

Medicare NCD & LCD

1. [Article - Chiropractic Services – Medical Policy Article \(A57889\) \(cms.gov\)](#) (01/01/2020) (IL, MN, WI, NY, CT, ME, MA, NH, RI, VT)
2. [LCD - Chiropractic Services \(L37387\) \(cms.gov\)](#) (09/29/2021) (AL, GA, TN, SC, VA, WV, NC)
3. [LCD - Chiropractic Services \(L37254\) \(cms.gov\)](#) (01/26/2023) (KY, OH)

Medicare Billing and Coding: Chiropractic Services

1. [Article - Billing and Coding: Chiropractic Services \(A58345\) \(cms.gov\)](#) (10/01/2020) (WY, CO, NM, TX, OK, AR, LA, MS, DE, DC, NJ, PA, MD)
2. [Article - Billing and Coding: Chiropractic Services \(A56273\) \(cms.gov\)](#) (07/07/20223) (IA, KS, MO, NE, IN, MI)
3. [Article - Billing and Coding: Chiropractic Services \(A56616\) \(cms.gov\)](#). (10/10/2019) (AK, GA, TN, SC, VA, WV, NC)
4. [Article - Billing and Coding: Chiropractic Services \(A56455\) \(cms.gov\)](#) (11/16/2023) (KY, OH)
5. [Article - Billing and Coding: Chiropractic Services \(A58412\) \(cms.gov\)](#) (10/01/2020) (FL, VI, PR)
6. [Article - Billing and Coding: Chiropractor Services \(A57914\) \(cms.gov\)](#) (01/01/2020) (AL, OR, WA, AZ, ND, SD, UT, WY, MT)

Clinical References

1. Chirocode Deskbook
2. AMA CPT Codebook
3. Triano JJ, Budgell B, Bagnulo A, et al. Review of methods used by chiropractors to determine the site for applying manipulation. *Chiropractic & Manual Therapies* 2013, 21:36
4. Chiropractic Technique Summary: Sacro Occipital Technique (SOT). Charles L. Blum, DC. SOTO-USA. July 13, 2011

Policy History

Date	Summary
02/06/2018	Approved by Clinical Policy Committee
02/06/2019	Approved by UM Subcommittee
03/12/2020	Approved by Clinical Policy Committee
03/21/2020	Approved by UM Subcommittee
3/11/2021	Approved by Clinical Policy Committee
3/18/2021	Approved by UM Subcommittee
3/17/2022	Approved by Clinical Policy Committee
3/29/2022	Approved by UM Subcommittee
3/21/2023	Approved by Clinical Policy Committee
05/02/2023	Approved by UM Subcommittee
November 2023	NIH policy (NIA_CG_604) and Fulcrum policy reconciliation.
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Chiropractic Therapeutic Treatment Policy

Fulcrum Clinical Guidelines Chiropractic Therapeutic Treatment Policy	Original Date: June 2018 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: CLINUM100	Implementation Date: January 2024

Policy Statement

This policy applies to all programs where utilization review determinations about medical necessity are rendered. This policy also describes the current evidence-basis for the determination of maximum therapeutic benefit (MTB) in the management of neuromusculoskeletal disorders. Additionally, this policy acknowledges individual health care provider accountabilities in assessing for MTB and appropriate clinical decision-making once MTB has been reached.

Purpose

This policy was written to provide a consistent determination of medical necessity in the review and management of neuromusculoskeletal disorders.

Ongoing care and medical necessity decisions are determined following a course of care, where demonstrable meaningful clinical improvement would be expected in a patient's health status.

Maximum Therapeutic Benefit (MTB) is determined when one or more of the following are present:

1. The patient has returned to pre-clinical/pre-onset health status.
2. Meaningful improvement may have occurred; however, documentation does not support that further meaningful gains will be achieved.
3. Meaningful improvement has occurred; however, documentation does not support further supervised 'in-office' treatment.
4. The patient no longer demonstrates meaningful clinical improvement or progress as measured by subjective or objective gains and/or standardized outcome assessment tools (i.e., neck and/or back indexes).
5. Meaningful improvement has not been achieved, as measured by activities of daily living (ADL) assessment and/or, standardized outcome assessment tools (OAT) if available, and/or documented in clinical records.
6. There is insufficient information (measurable subjective, objective, or functional changes) documented in the patient health care record to reliably validate the response to treatment.

Definitions

Patient Classification for the appropriate level of care is dependent upon the presenting symptomatology and medical history. Each level of care category is distinct and provides specific parameters for the duration of treatment based on presenting clinical evidence. Level of Care categories are:

1. Acute = symptom onset within 6 weeks of office presentation
2. Subacute = symptom onset within 6 to 12 weeks of office presentation
3. Chronic = symptoms present for 12 weeks or greater prior to office presentation

Uncomplicated patient presentations are nontraumatic, have no neurologic deficits and no indications of potentially serious pathologies.

Complications include individual attributes that may delay recovery and must be considered in the total

management of neuromusculoskeletal conditions. Individual attributes include but are not limited to traumatic onset, neurologic deficits, heredity, gender, age, body build, physical fitness, smoking, social class, symptom duration, prior history, heavy manual work, symptomatic herniated disc, scoliosis, disc degeneration, spondylosis, spondylolisthesis, spina bifida and transitional vertebrae.

Episode of Care: Consultation or treatment preceded and followed by at least 3 months without treatment for the same complaint.

Flare-ups/Exacerbations: Phases of increased pain related to specific incidents superimposed on a recurrent or chronic course. A flare-up or exacerbation is characterized by a return of atypical pain and/or other symptoms and/or pain-related difficulty performing tasks and actions equivalent to the appropriate meaningful clinical change value.

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. 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.

Maximum Therapeutic Benefit (MTB): May be determined following a sufficient course of care where no further demonstrable meaningful clinical improvement would be expected in a patient's health status from the current method of treatment. Treatment beyond MTB may be considered maintenance care.

Medical Necessity (MN Medicaid): (pursuant to Minnesota Rules, Part 9505.0175, subpart 25) a health service that is:

1. consistent with the Enrollee's diagnosis or condition;
2. recognized as the prevailing standard or current practice by the Provider's peer group; and
3. rendered:
 - a) In response to a life-threatening condition or pain;
 - b) To treat an injury, illness or infection;
 - c) To treat a condition that could result in physical or mental disability;
 - d) To care for the mother and unborn child through the maternity period;
 - e) To achieve a level of physical or mental function consistent with prevailing community standards for diagnosis or condition; or
 - f) As a preventive health service.

Medical Necessity: Diagnostic testing and medical treatment, consistent with the diagnosis of and prescribed course of treatment for a condition, and preventative services. Medically necessary care must meet the following criteria:

1. Be consistent with the medical standards and accepted practice parameters of the community as determined by health care providers in the same or similar general specialty as typically manages the condition, procedure, or treatment at issue; and
2. Be an appropriate service, in terms of type, frequency, level, setting, and duration, to the diagnosis or condition; and
3. Help to restore or maintain health;
4. Prevent deterioration of a condition; or
5. Prevent the reasonably likely onset of a health problem or detect an incipient problem.

Note: The definition of "medically necessary" in the member's benefit contract may vary from the above

definition. If the definitions are different, the definition in the member's plan document will prevail.

Meaningful Improvement: The minimum subjective, objective, or outcome assessment tool (OAT) improvement in the patient's status that is perceived as beneficial.

Qualified Health Professional (QHP): The Clinical Peer Reviewer with an unrestricted license in the same specialty area as the treating provider who is responsible for utilization management oversight, including reviewing treatment notes, making clinical decisions on treatment appropriateness and necessity, and focusing on peer-to-peer education.

Recurrent Pain: Pain that is present on less than half the days in a 12-month period occurring in multiple episodes. An episode of recurrence is characterized by a return of atypical pain and/or other symptoms and/or pain-related difficulty performing tasks and actions equivalent to the appropriate meaningful clinical change value for a minimum duration of 24 hours e.g., change in numeric rating scale of ≥ 2 points for chronic LBP.

Outcome Assessment Tools: Standardized self-reported patient questionnaires (i.e. Oswestry, Neck Disability Index).

Procedure

1. Review of valid and reliable outcome assessment tools is required for assessment of initial and ongoing treatment. Assessment tools for the management of neuromusculoskeletal disorders are a core component of clinical management and considered "Best Practice".
2. Patient progress should be identified within the first 2 weeks of a treatment trial. If no progress is reported, the treatment approach should be modified, or a referral should be considered. Examples of clinically meaningful change:
 - a) Recovery patterns for typical acute neuromusculoskeletal conditions generally show clinically meaningful change (e.g., >50% of the overall improvement for spine-related disorders) is obtained within 4 – 6 weeks of the initial visit and should resolve within 90 days.
 - b) Meaningful improvement may be identified through subjective, objective, and OAT measures.
 - i) Subjective:
 - 1) 2 pt. change in subjective pain when pain is >5/10
 - 2) 1 pt. change in subjective pain when pain is <4/10
 - ii) Objective or ADL:
 - 1) Overall relative progress is at least 25% (e.g., ROM or specific ADL disturbance).
 - iii) Functional Outcome Assessment:
 - 1) OAT= 10% score improvement
3. NCDs, LCA and State specific regulations will be utilized for the clinical review process for Medicaid and Medicare recipients.
4. The QHP will assess patient and provider reported clinical information. This reported information may be found in:
 - a) Daily clinical records
 - b) Fulcrum developed authorization forms and/or assessment.
 - c) Standard outcome assessment tools (OATs) (i.e. Revised Oswestry, Neck Disability Index)
 - d) Prior clinical reviewer notes
5. The following tables are used to facilitate and guide review of treatment plans and service recommendations by the QHP.
 - a) Table 1a. Initial Course of Care

- b) Table 1b. Ongoing treatment recommendations/support
- c) Table 1c. Flare-ups/Exacerbations
- d) Table 2. Decision elements for ongoing treatment recommendations/support

Table 1a. Initial Course of Care				
Case Type:	Uncomplicated	Complicated	Moderate	Severe
Acute (4-8 weeks for initial care)	Not to exceed 8 visits	Not to exceed 12 visits	Not to exceed 16 visits	Not to exceed 20 visits

Table 1b. Ongoing Treatment Recommendations/Support					
	1	2	3	4	5
	Uncomplicated Progress Stalled	Uncomplicated - near MTB	Complicated - Moderate	Complicated - Severe	Complicated not improving
Sub-Acute Care (4-8 weeks for ongoing care)	Ongoing care not supported Plateau or MTB	Low visit ongoing care supported	Medium visit ongoing care supported	High visit ongoing care supported	Referral Recommendation
Visit recommendation supported by provider and patient-specific clinical information:	None	Not to exceed 3 visits	* Not to exceed 6 visits	* Not to exceed 9 visits	2 visits for referral
* Complication Attribute Visits	Add (0-2)	Add (0-2)	Add (0-4)	Add (0-6)	N/A

* Provider reported patient attributes for consideration: Anxiety, BMI>40, Cancer, Depression, Diabetes, Inflammatory Arthritis, Multiple Episodes, Osteoporosis, Physical Lifestyle, Post-Surgical, Pregnancy, Prescriptions, Smoker, Sedentary Lifestyle, Occupational, Behavioral Issues, Age, Progress of Treatment, Psychosocial Situation, Home Environment when applicable, and other applicable complications and/or comorbidities

Table 1c. Flare-ups/Exacerbations			
Case Type:	Uncomplicated	Complicated	Complicated Severe
Flare-ups/Exacerbations (should include withdrawal from care of greater than 60 days)	Not to exceed 4 visits	Not to exceed 8 visits	Not to exceed 12 visits

Table 2. Decision elements for ongoing treatment recommendations/support. Need 4 of 7					
Decision Element	1	2	3	4	5
	Uncomplicated Progress Stalled	Uncomplicated - near MTB	Complicated - Moderate	Complicated - Severe	Complicated not improving
i. Silver assessment (previous visit amount, response to care)	Treatment has exceeded previous visit approval or waiver	Treatment has exceeded previous visit approval or waiver	Treatment has exceeded previous visit approval or waiver	Treatment has exceeded previous visit approval or waiver	Treatment has exceeded previous visit approval or waiver
ii. Neurologic Complications	No radiculopathy Reflexes normal	No radiculopathy Reflexes normal	Radiculopathy (Improvement noted) Reflexes (improved)	Radiculopathy (Improvement noted) Reflexes (improved)	Radiculopathy (no improvement) Reflex (no improvement)
iii. Provider and/or Patient reported Complaint-Specific Data	Continued issues with pain without lasting meaningful change (previous 60 days) Frequent exacerbations despite	Low pain levels (less than 4/10). Low pain frequency Significant pain relief	Moderate pain (3-7 /10) Moderate to significant pain relief. Greater than 25% improvement	Moderate to high pain (5-10/10). Greater than 25% improvement	Increasing pain levels or pain levels unchanging

	care. No attempted withdrawal from care				
iv. Individual ADL's difficulties reported in Fulcrum's Assessment and/or OAT (Outcome Assessments)	Individual ADL's improvement not sustained for three months	Minimal disability score per activity question (0-1)	Moderate disability score per activity question (1-2)	Improving ADL scores over 25% improvement, but still trouble performing. Disability per activity (2-4)	No ADL improvement or worsening scores for the same episode
v. Disability level (if applicable) - Total OATs Scores	Exacerbations that show little to no lasting stability OAT score less than 20% on an ongoing basis	Minimal Disability Scores OAT score less than 20%	Minimal to Moderate Disability Scores (20 - 40% disability) *	Moderate to Severe Disability but improving Scores (40-80 %disability) * Greater than 80% may require further inquiry	No change or worsening total scores (Exacerbations that cause scores to be as bad as original with extensive care already given)
vi. Change interval noticeable in OATs (If two assessments available)	No Meaningful improvement from care is documented	Meaningful improvement from care is documented	Slight to moderate improvement, but not to low level need	Significant improvement with care but high ADLs still evident	Care showing no change in member condition
vii. Previous communication	Web note or Response language indicating MTB expected with this treatment extension	Web note or Response language indicating MTB expected with this treatment extension	Web note or Response language indicating MTB expected with this treatment extension	Web note or Response language indicating MTB expected with this treatment extension	Web note or Response language indicating MTB expected with this treatment extension

* Provider reported patient attributes for consideration: Anxiety, BMI>40, Cancer, Depression, Diabetes, Inflammatory Arthritis, Multiple Episodes, Osteoporosis, Physical Lifestyle, Post-Surgical, Pregnancy, Prescriptions, Smoker, Sedentary Lifestyle, Occupational, Behavioral Issues, Age, Progress of Treatment, Psychosocial Situation, Home Environment when applicable, and other applicable complications and/or comorbidities.

6. Health care algorithms are designed to assist clinicians by providing an objective analytical framework for the assessment of the treatment request based on the response to care for spine-related musculoskeletal complaints.

a) Acute Musculoskeletal Algorithm

i) Initial clinical trial, up to sixty days.

ii) Within the initial clinical trial there must be resolution of the condition or greater than 25% improvement. Measured by:

(1) Assessment of the patient indicates significant (25-50%) relief of pain and/or progress towards pre-morbid function. Information must be relevant (recent and timely) for comparisons.

(i) Patient reported assessment of pain e.g. numerical scale.

(ii) Patient reported disability measures e.g., Back and/or Neck Index; Oswestry

(2) Continuation of care is supported (see Sub-Acute Algorithm)

(3) If continuation of care is not supported, see table 1.b. for transition message.

b) Sub-Acute Musculoskeletal Algorithm

i) Progress with care plan support up to an additional 60 days based on documented progress through recent (how old) (list assessments you need to evaluate care). Measured by:

(1) Assessment of the patient indicates significant (25-50%) relief of pain and/or progress towards pre-morbid function. Information must be relevant (recent and timely) for comparisons.

(a) Patient reported assessment of pain e.g. numerical scale.

(b) Patient reported disability measures e.g., Back and/or Neck Index; Oswestry –

(2) Continuation of care is supported refer to table 1.b for recommendation.

- (3) Lack of significant improvement in the outcome assessment data following a maximum of three consecutive evaluations during which the treatment approach has been modified and complicating factors have been considered does not support a continuation of treatment. see table 1.b for transition message.
- c) Flare-up/Exacerbation Algorithm
 - i) Review for the factors which have identified previous treatment success however may have delayed recovery factors and identified recurrence. (i.e. flare-up due to fall).
 - ii) Patient assessment indicates significant relief of pain and progress towards pre-morbid function.
 - (1) Typical measures of treatment response include review of relevant and timely:
 - (a) Patient reported outcome assessment of pain e.g. numerical rating scale.
 - (b) Patient reported disability measures e.g., Back and/or Neck Index.
 - (c) Provider reported physiologic measures e.g., neurological findings.
 - (2) Most cases return to MTB within 2-4 weeks of care – review patient-specific circumstances for continuation.

Regulatory, Accreditation and Resources

Medicare NCD & LCD

1. [Article - Chiropractic Services – Medical Policy Article \(A57889\) \(cms.gov\)](#) (01/01/2020) (IL, MN, WI, NY, CT, ME, MA, NH, RI, VT)
2. [LCD - Chiropractic Services \(L37387\) \(cms.gov\)](#) (09/29/2021) (AL, GA, TN, SC, VA, WV, NC)
3. [LCD - Chiropractic Services \(L37254\) \(cms.gov\)](#) (01/26/2023) (KY, OH)

Medicare Billing and Coding: Chiropractic Services

1. [Article - Billing and Coding: Chiropractic Services \(A58345\) \(cms.gov\)](#) (10/01/2020) (WY, CO, NM, TX, OK, AR, LA, MS, DE, DC, NJ, PA, MD)
2. [Article - Billing and Coding: Chiropractic Services \(A56273\) \(cms.gov\)](#) (07/07/2022) (IA, KS, MO, NE, IN, MI)
3. [Article - Billing and Coding: Chiropractic Services \(A56616\) \(cms.gov\)](#). (10/10/2019) (AK, GA, TN, SC, VA, WV, NC)
4. [Article - Billing and Coding: Chiropractic Services \(A56455\) \(cms.gov\)](#) (11/16/2023) (KY, OH)
5. [Article - Billing and Coding: Chiropractic Services \(A58412\) \(cms.gov\)](#) (10/01/2020) (FL, VI, PR)
6. [Article - Billing and Coding: Chiropractor Services \(A57914\) \(cms.gov\)](#) (01/01/2020) (AL, OR, WA, AZ, ND, SD, UT, WY, MT)

NCQA

- a) UM 2 Element A Clinical Criteria for UM Decisions

Clinical References

1. Clinical Compass formerly [Council on Chiropractic Guidelines & Practice Parameters (CCGPP)]; Algorithms for the Chiropractic Management of Acute and Chronic Spine-Related Pain
<https://clinicalcompass.org/resources/clinical-guidelines/>
2. Local Coverage Articles (LCA): CMS Publication 100-02, *Medicare Benefit Policy Manual*, Chapter 15, Section 240.1.3A
3. Stevans JM, Delitto A, Khoja SS, et al. Risk Factors Associated With Transition From Acute to Chronic Low Back Pain in US Patients Seeking Primary Care. *JAMA Netw Open*. 2021;4(2):e2037371. doi:10.1001/jamanetworkopen.2020.37371
4. Qaseem A, Wilt TJ, Mclean RM, Forcica MA. Noninvasive treatments for acute, subacute, and chronic low Back pain: a clinical practice guideline from the American College of Physicians. *Ann Intern Med*. 2017;166(7):514–30.
5. Waddell G. *The Back Pain Revolution*, Churchill Livingstone, 2004
6. Koopmeiners M, et al. Health Care Guideline: Adult Low Back Pain, rev. Nov. 2010; Institute for Clinical Systems Improvement: www.icsi.org
7. Liebenson C. Improving Activity Tolerance in Pain Patients: A Cognitive-Behavioral Approach to Reactivation. *Top Clin Chiropr*, 2000; 7(4): 6-14
8. Hayden JA, Van Tulder MW, et al. Exercise Therapy for Treatment of Non-Specific Low Back Pain. *Cochrane Review*, 2005: www.cochrane.org
9. Albright J, et al. Philadelphia Panel Evidence-Based Clinical Practice Guidelines on Selected Rehabilitation
10. Van Hemert M, et al. Overview of Implementation of Outcome Assessment Case Management in Clinical Practice. Washington State Chiropractic Association, 2001: www.wsca@chirohealth.org
11. Liebenson C. *Rehabilitation of The Spine*, 2nd ed.; Williams & Wilkins, 2007
12. Vernon H. The Neck Disability Index (NDI): Commentary. www.chiro.org/LINKSOUTCOM/Painter_1.shtml

14. Fairbank J, et al. The Oswestry Low Back Pain Disability Questionnaire. *Physiotherapy*, 1980; 66(18):271-3
15. Yeomans SG. *The Clinical Application of Outcomes Assessment*. Stamford CT: Appleton & Lange 2000
16. Liebenson C. *Rehabilitation of the Spine: A Practitioner's Manual* 2nd ed. Baltimore, MD; Lippincott Williams & Wilkins 2007:146-182
17. *Adult Low Back Pain* 14th ed. Institute For Clinical Systems Improvement. www.icsi.org Revised November 2010
18. Natchemson A, Jonsson E. *Neck and Back Pain: The Scientific Evidence of Causes, Diagnosis and Treatment*, 2000; Philadelphia: Lippincott Williams & Wilkins
19. Deyo R, Bass J. Lifestyle and Low Back Pain: The Influence of Smoking and Obesity. *Spine* 1989; 14: 501-6
20. *Low Back Pain, Adult Acute and Subacute* REVISION DATE: MARCH 2018 / SIXTEENTH EDITION <https://www.icsi.org/wp-content/uploads/2019/08/March-2018-LBP-Interactive2.pdf>

Policy History

Date	Summary
2/6/2018	Approved by the Clinical Policy Committee
2/22/2018	Approved by Quality Committee of the Board
2/06/2019	Approved by Clinical Policy Committee. Annual review.
2/12/2019	Approved by the UM Subcommittee. Incorporated reference to Medicare LCD language.
2/22/2019	Approved by the Quality Committee of the Board
10/8/2019	Approved by Clinical Policy Committee
10/9/2019	Approved by Utilization Management Subcommittee.
10/17/2019	Approved by Quality Committee of the Board
3/12/2020	Approved by Clinical Policy Committee
3/31/2020	Approved by UM Subcommittee
3/11/2021	Approved by Clinical Policy Committee
3/18/2021	Approved by UM Subcommittee
3/17/2022	Approved by Clinical Policy Committee
4/12/2022	Approved by UM Subcommittee
3/21/2023	Approved by Clinical Policy Committee
5/02/2023	Approved by UM Subcommittee
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Definition of a Pediatric Patient

Fulcrum Clinical Guidelines Definition of a Pediatric Patient	Original Date: June 2018
Physical Medicine – Clinical Decision Making	Last Revised Date: 03/31/2023
Guideline Number: CLINUM 112	Implementation Date: January 2024

Policy Statement

A pediatric patient is defined as one who has yet to reach their 18th birthday.

Policy History

Date	Update
02/27/2018	New Document
02/27/2018	Reviewed by Clinical Policy Committee
02/28/2018	Approved by UM Subcommittee
02/6/2019	Approved by Clinical Policy Committee
02/12/2019	Approved by UM Subcommittee
02/21/2019	Approved by Quality Committee of the Board
03/12/2020	Approved by Clinical Policy Committee
03/31/2020	Approved by UM Subcommittee
03/11/2021	Approved by Clinical Policy Committee
03/18/2021	Approved by UM Subcommittee
03/17/2022	Approved by Clinical Policy Committee
03/29/2022	Approved by UM Subcommittee
03/21/2023	Approved by Clinical Policy Committee
05/02/2023	Approved by UM Subcommittee
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Definition and Application of Complicating Factors in the Utilization Management Process

Fulcrum Clinical Guidelines Definition and Application of Complicating Factors in the Utilization Management Process	Original Date: June 2018
Physical Medicine – Clinical Decision Making	Last Revised Date: 12/07/2023
Guideline Number: CLINUM 116	Implementation Date: January 2024

Policy Statement

Complicating factors are those influences, which have been identified as having a significant negative influence on the natural history of a condition. These factors can be categorized as influencing the severity and/or duration and/or recurrence rate of a condition. Utilization management decision-making considers the presence/absence of complicating factors and their impact on functional outcome scores when determining the necessity/appropriateness of treatment interventions.

Purpose

To define the term complicating factors and how they impact Utilization Management decisions.

Procedure

Overall screening and counseling are recommended for tobacco use, obesity, poor diet, and physical inactivity which are key risk factors for chronic disease and are of paramount importance to the health of the public ^[1].

The following information summarizes patient characteristics, which have been evaluated for their potential as complicating factors. These factors can be broadly categorized as individual influences, psychological deterrents, occupational effects, and anatomic or physiologic findings.

1. Individual Influences

- a) **Heredity:** “Genetic factors influence certain spinal disorders, such as spondylolisthesis, scoliosis and ankylosing spondylitis. A few clinical studies suggest that there may sometimes be a familial or genetic predisposition to disc prolapse. However, this is of little relevance to nonspecific back pain.” There is no evidence that genetic or constitutional factors determine who is going to become back disabled.
- b) **Gender:** “Men and women get more or less the same back pain.”
- c) **Age:** “The prevalence of back pain increases from our teens to our late 40s or early 50s but may fall slightly above the age of 60 years. In those who do continue to have back pain, it is likely to be more frequent or more constant with increasing age.”
- d) **Body Build:** There is no strong relationship between height, weight, body build and back pain. “Doctors and therapists frequently comment on unequal leg length, but most studies fail to prove any significant relation to back pain.”
- e) **Physical Fitness:** “There is clinical evidence that people with chronic back pain are less fit, but this could be an effect rather than the cause.” “There are strong theoretic reasons and some clinical evidence to suggest that physically fit patients may make a more rapid recovery from acute back pain and be less likely to develop chronic pain and disability.”
- f) **Smoking:** Occupation, social strata, and education all affect the prevalence of smoking. These factors may have more of an influence upon the occurrence and duration of back pain than smoking. A higher risk of back pain was found in people who smoked three or more packs per day. Overall, the effect of smoking on back pain is weak.

- g) **Social Class:** “Social class reflects occupation, particularly manual vs. nonmanual, and social disadvantage. The prevalence of back pain may be slightly greater in those from a lower social class. There is a clear and marked increase in work loss due to back pain with lower social class.”
- h) **Symptom Duration:** There is no current evidence to support the premise that patients who delay professional care for more than a week after the onset of complaints are more likely to experience a delayed recovery.
- i) **Prior History:** A personal history of prior episodes of back pain is the most significant predictor of future occurrences.

2. Psychosocial Deterrents

There is strong evidence that psychosocial variables are strongly linked to the transition from acute to chronic pain disability. There is strong evidence that psychological distress i.e., anxiety, depressive symptoms, increased bodily awareness, anger, fears and uncertainty can be associated with the onset of back and neck pain, and related disability. The evidence is strong that psychosocial variables generally have more impact than biomedical or biomechanical factors on back pain disability.

“There is strong evidence that attitudes, cognitions, and fear-avoidance beliefs are strongly related to the development of pain and disability.” There is strong evidence that passive coping and pain cognitions such as catastrophizing are strongly related to pain and disability.

3. Occupational Factors

a) **Heavy manual work:** There is conflicting evidence that people performing heavy manual labor report slightly more back pain. They do report more lower back work injuries. The impact of back pain on individuals in heavy manual jobs is significant. They are more likely to be off work and remain off work longer. This may, however, be primarily due to the effect of their back pain rather than the cause. It may also reflect medical advice.

b) **Lifting:** Back injuries are more commonly reported in jobs that involve:

- i) Heavy lifting
- ii) Lifting objects which are bulky or must be held away from the body
- iii) Lifting from the floor
- iv) Frequent lifting

It is difficult to measure the impact of lifting due to the influences such as psychosocial e.g. job dissatisfaction, frequency and rate of lifting and an individual’s strength.

c) **Twisting:** “Several studies and strong biomechanical evidence suggest that the risk of back injury is greater when lifting is combined with bending and particularly twisting.”

d) **Sitting:** Prolonged sitting in one position aggravates existent back pain. There is no convincing evidence that prolonged sitting increases the prevalence of back pain.

e) **Static Load:** There is an increased risk of neck pain for persons heavily exposed to work tasks that maintain a static load such as assembly line jobs and visual display unit work.

4. Anatomic/Physiologic Findings

a) **Symptomatic herniated disc:** Defined as when symptom distribution, neuromotor exam and provocative testing clinically correlate with pathoanatomy evidenced on advanced imaging.

b) **Adult Scoliosis:** The incidence of back pain is similar to the general population. There is reason to believe that the persistence of back pain is greater with the adult scoliotic group. Back pain is more common in patients with lumbar curves and in patients with thoracolumbar and lumbar curves > 45 degrees with apical rotation and coronal imbalance.

c) **Slight disc degeneration, Spondylosis, Spondylolisthesis, Spina Bifida and Transitional vertebrae:** Almost half of all patients with any of these findings do not have back pain, so the finding may be unrelated.

Regulatory, Accreditation and Resources

NCQA

1. UM 2 Element A Clinical Criteria for UM Decisions

Clinical References

1. THE JOURNAL OF ALTERNATIVE AND COMPLEMENTARY MEDICINE JACM Volume 27, Number 10, 2021, pp. 850–867
2. Waddell G. The Back Pain Revolution, Churchill Livingstone, 2004
3. Nachemson A, Jonsson E. Neck and Back Pain: The Scientific Evidence of Causes, Diagnosis and Treatment, 2000; Philadelphia: Lippincott Williams & Wilkins
4. Deyo R, Bass J. Lifestyle and Low Back Pain: The Influence of Smoking and Obesity. Spine 1989; 14: 501-6
5. Scoliosis Focus issue; Spine 1999, 24 (24)
6. Roland M, van Tulder M. Viewpoint: Should Radiologists Change The Way They Report Plain Radiography of The Spine? Lancet, 1998;352:229-30
7. Wiesel SW, et al. Two Researchers Propose New Way to Report Imaging Findings. The BackLetter, 1998;13(8):87

Policy History

Date	Update
2/27/2018	New Document
2/27/2018	Reviewed by Clinical Policy Committee
2/28/2018	Approved by UM Subcommittee
2/6/2019	Approved by Clinical Policy Committee
2/12/2019	Approved by UM Subcommittee
3/12/2020	Approved by Clinical Policy Committee
3/31/2020	Approved by UM Subcommittee
3/11/2021	Approved by Clinical Policy Committee
3/18/2021	Approved by UM Subcommittee
3/17/2022	Approved by Clinical Policy Committee
3/29/2022	Approved by UM Subcommittee
03/21/2023	Approved by Clinical Policy Committee
05/02/2023	Approved by UM Subcommittee
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Evaluation and Management

Fulcrum Clinical Guidelines Evaluation and Management	Original Date: June 2018 (NIA) June 2018 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: 12/07/2023
Guideline Number: CLINUM 107	Implementation Date: January 2024

Policy Statement

The level of Evaluation and Management (E/M) services must be determined by either Medical Decision Making (MDM) elements or time. The E/M services may be considered appropriate and/or medically necessary when the history and examination findings are documented based on the clinical judgment of the provider and benefit coverage criteria are met.

Purpose

This policy has been developed to describe the criteria that Fulcrum Health, Inc. (Fulcrum) uses to conduct utilization review (UR) determinations concerning the appropriateness and/or medical necessity for (E/M) coding.

Definitions

Assessment: Assessment refers to the professional skills used to gather data by observation, patient inquiry, and may include limited objective testing and measurement to make clinical judgments regarding the patient’s condition(s). Assessments performed on each visit help to determine changes in the patient’s status since the last visit/treatment day and whether the planned procedure or service should be modified. Based on these assessment data, the clinician may make judgments about progress toward goals and/or determine that a more complete evaluation or re-evaluation.

Episode of care: The consultation and skilled care provided by a clinician. An episode may include the evaluation and treatment related to multiple conditions.

- A. For a new health problem or condition, which begins with the initial evaluation and ends with the reporting of discharge status; or
- B. For a previously treated health problem or condition, which is preceded by at least 3 months without treatment; or
- C. For a previously treated health problem or condition, which is preceded by a separation from care due to a surgical procedure directly related to the health problem or condition; or
- D. For a chronic/recurrent health problem or condition, which consists of a series of treatment intervals marked by one or more brief separations from care.

New patient: A new patient is one who has not been seen by the health care provider or any similar specialty in that clinic during the prior three (3) years.

Established patient: An established patient is one who has received professional services from the provider or from another physician of the same specialty who belongs to the same group practice, during the past three years.

Patient important outcomes: Reports or measures representing what is most important to patients about a condition and its treatment. Patient important outcomes often relate to symptoms, signs, functional status, perceptions, or other aspects such as convenience and tolerability.

Re-evaluation: The re-evaluation provides additional objective information not included in other documentation (e.g., assessments of progress between visits). Re-evaluation is separately reportable and is periodically indicated during an episode of care when the professional assessment of a clinician indicates a significant improvement, or decline, or change in the patient’s condition or functional status that was not anticipated in the plan of care.

Procedure

1. The level of E/M code may be supported by either **Medical Decision Making (MDM) elements** or **Time** (timed activity directly related to the E/M criteria). See table insert for more detailed descriptions of MDM and Time requirements.
 - a) Medical Decision Making (MDM): Two of the three elements must be documented to support the level of E/M service reported. Medical Decision making includes establishing diagnoses, assessing the status of a condition, and/or selecting a management option, and can be defined by three elements:
 - i) Problem Element: number and complexity of problems addressed.
 - ii) Data Element: amount and or complexity of data to be reviewed and analyzed.
 - iii) Risk Element: risk of complications and/or morbidity or mortality.
 - b) Time with activity directly related to the E/M criteria Includes face-to-face and non-face-to-face services. It is highly recommended to document both start and stop times when selecting this method for determining level of E/M code.
2. Established E/M coverage criteria are:
 - a) An established patient exam may be considered medically necessary and supported if performed 30+ days since last evaluation OR within 30 days if one of the following indications is documented:
 - i) The patient presents with new clinical findings;
 - ii) There is a significant change in the patient’s condition; or
 - iii) The patient has failed to respond to the therapeutic interventions outlined in the current plan of care.
 - b) The documentation of the established patient E/M must include all of the following elements:
 - i) An evaluation of progress toward current goals;
 - ii) Making a professional judgment about continued care; and
 - iii) Making a professional judgment about revising goals and/or treatment or terminating services.
3. Review the following table to determine appropriate E/M code selection criteria.

E/M Code level	MDM Medical Decision Making	Problem Element Number and Complexity of Problems Addressed	Data Element Amount and/or Complexity of Data to be Reviewed and Analyzed.	Risk Element Risk of Complications and/or Morbidity or Mortality	Time Time with activity directly related to the E/M criteria
99202 New 99212 Est	Straight-forward	1 self-limited/minor problem	Minimal or none	Minimal risk of morbidity from additional diagnostic testing or treatment	99202 = 15-29 minutes 99212 = 10-19 minutes
99203 New 99213 Est	Low	2 or more self-limited / minor problem 1 stable chronic problem 1 acute uncomplicated injury	Limited <i>(Must meet the requirements of at least 1 of the 2 categories)</i> Category 1: Any combination of 2 from the following: Review of prior external	Low risk of morbidity from additional diagnostic testing or treatment	99203 = 30-44 minutes 99213 = 20-29 minutes

E/M Code level	MDM Medical Decision Making	Problem Element Number and Complexity of Problems Addressed	Data Element Amount and/or Complexity of Data to be Reviewed and Analyzed.	Risk Element Risk of Complications and/or Morbidity or Mortality	Time Time with activity directly related to the E/M criteria
			<p>note(s) from each unique source*; review of the result(s) of each unique test*; ordering of each unique test* or Category 2: Assessment requiring an independent historian(s) <i>(For the categories of independent interpretation of tests and discussion of management or test interpretation, see moderate or high)</i></p>		
99204 New 99214 Est	Moderate	<p>1 or more chronic illness with exacerbation, progression, or side effects of treatment 2 or more chronic illnesses 1 undiagnosed new problem with uncertain prognosis 1 acute illness with systemic symptoms 1 acute complicated injury</p>	<p>Moderate <i>(Must meet the requirements of at least 1 out of 3 categories)</i> Category 1: Any combination of 3 from the following: Review of prior external note(s) from each unique source*; Review of the result(s) of each unique test*; Ordering of each unique test*; Assessment requiring an independent historian(s) or Category 2: Independent interpretation of a test performed by another physician/other qualified health care professional (not separately reported); or Category 3: Discussion of management or test interpretation with external physician/other qualified health care professional\appropriate source (not separately reported)</p>	<p>Moderate risk of morbidity from additional diagnostic testing or treatment <i>Examples only:</i> Prescription drug management Decisions regarding: minor surgery with identified patient or procedure risk factors elective major surgery without identified patient or procedure risk factors Diagnosis or treatment significantly limited by social determinants of health</p>	99204 = 45-59 minutes 99214 = 30-39 minutes
99205 New 99215 Est	High	<p>1 or more chronic illness with severe exacerbation, progression, or side effects of treatment 1 acute or chronic</p>	<p>Extensive <i>(Must meet the requirements of at least 2 out of 3 categories)</i> Category 1: Any combination of 3 from the following: Review of prior external note(s)</p>	<p>High risk of morbidity from additional diagnostic testing or treatment <i>Examples only:</i> Drug therapy requiring</p>	99205 = 60-74 minutes 99215 = 40-54 minutes

E/M Code level	MDM Medical Decision Making	Problem Element Number and Complexity of Problems Addressed	Data Element Amount and/or Complexity of Data to be Reviewed and Analyzed.	Risk Element Risk of Complications and/or Morbidity or Mortality	Time Time with activity directly related to the E/M criteria
		illness or injury that poses a threat to life or bodily function	from each unique source*; Review of the result(s) of each unique test*; Ordering of each unique test*; Assessment requiring an independent historian(s) or Category 2: Independent interpretation of a test performed by another physician/other qualified health care professional. (not separately reported); or Category 3: Discussion of management or test interpretation with external physician/other qualified health care professional/appropriate source (not separately reported)	intensive monitoring for toxicity Decision regarding: elective major surgery with identified patient or procedure risk factors emergency major surgery hospitalization not to resuscitate or to de-escalate care because of poor prognosis	

*Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1.

Regulatory, Accreditation and Resources

1. <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c15.pdf>

Clinical References

1. American Medical Association (AMA) Current Procedural Terminology (CPT) codes and description. CPT® Evaluation and Management | American Medical Association (ama-assn.org)
2. ChiroCode DeskBook
3. [CPT® Evaluation and Management | American Medical Association \(ama-assn.org\)](#)
4. Patrick DL, Guyatt GH, Acquadro C, on behalf of the Cochrane Patient Reported Outcomes Methods Group. Patient-reported outcomes (Chapter 17) in: Cochrane handbook for systematic reviews of interventions (Higgins JP, Green S, editors). *John Wiley & Sons*; 2011
5. Haldeman S. Guidelines for Quality Assurance and Practice Parameters. Gaithersburg, MD: *Aspen Publishers* 1993; Chapter 9:133-137

Policy History

Date	Update
02/18/2018	New Document
02/06/2018	Reviewed by Clinical Policy Committee
02/07/2018	Approved by UM Subcommittee
02/06/2019	Approved by Clinical Policy Committee
02/12/2019	Approved by UM Subcommittee
02/21/2019	Approved by Quality Committee of the Board
03/12/2020	Approved by Clinical Policy Committee
03/31/2021	Approved by UM Subcommittee
03/11/2021	Approved by Clinical Policy Committee
03/18/2022	Approved by UM Subcommittee
03/29/2022	Approved by UM Subcommittee
03/21/2023	Approved by Clinical Policy Committee
05/02/2023	Approved by UM Subcommittee
12/07/2023	Approved by Clinical Policy Committee

12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Record Keeping and Documentation Standards: Chiropractic

Fulcrum Clinical Guidelines Record Keeping and Documentation Standards-Chiropractic	Original Date: June 2018 (NIA) May 2010 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: 12/07/2023
Guideline Number: CLINUM120	Implementation Date: January 2024

Policy Statement

Fulcrum Health, Inc. network providers must maintain clinical record keeping practices for paper-based records and/or electronic health records (EHR). These records must comply with Fulcrum Health standards regarding confidentiality, availability, organization, and quality medical record documentation.

Purpose

Consistent and complete documentation is an essential component of quality patient care. Network providers must maintain documents as outlined below. Failure to maintain adequate medical records could result in claim denial or recoupment, increased case audits and/or change in network participation status.

Procedure

1. General Guidelines

- a) Documentation should clearly reflect why the skills of a network provider are needed. The service is considered a *skilled service* if the inherent complexity of the service is such that it can be performed safely and/or effectively only by or under the supervision of a network provider. The deciding factors are always whether the services are considered reasonable, effective treatments requiring the skills of a provider.
- b) All records (both digital and handwritten) must be legible, which is defined as the ability of at least two people to read and understand the documents.
- c) Each date of service must adequately identify the patient and include the treating provider's signature and credentials. Each subsequent page in the record must also contain the patient's name or ID number.
- d) All chart entries must be dated with the month, day, and year.
- e) Records must also be in chronological order and if handwritten they must be in permanent ink with original signatures. Electronic entries should be made with appropriate security and confidentiality provisions.
- f) Patient demographics including name, address, home and work telephone numbers, gender, date of birth, occupation, and marital status must be provided.
- g) Any working diagnosis(es) or condition description similar to the appropriate ICD code must be provided. If one is not applicable/allowed, it must be documented and consistent with the associated findings.
- h) The reason for the encounter or referral (i.e., presenting complaint(s)).
- i) Each date of service must include the subjective complaint(s), objective findings, assessment, diagnosis, treatment/ancillary diagnostic studies performed with results, and any recommendations, instructions, or patient education.
- j) Services must be documented in accordance with Current Procedural Terminology (CPT®) coding criteria (e.g., location (body region), time component).
- k) Adverse events associated with treatment should be recorded in the patient chart.
- l) Copies of relevant reports and correspondence with other skilled practitioners; including, but not limited to diagnostic studies, laboratory findings, and consultations.

- m) Copies of reports and correspondence related to treating provider's diagnostic studies, laboratory findings, and consultations, including rationale for the service or consult and findings, conclusions, and recommendations.
 - n) A copy of the discharge summary must be provided if the patient has a current authorization with a different provider and is seeking services with a new provider. Treatment should not duplicate services provided in multiple settings.
 - o) Appropriate consent forms should be included when applicable.
 - p) A key or summary of terms when non-standard abbreviations are used. Another practitioner should be able to read the record and have a clear understanding of the patient's condition and treatment rendered.
 - q) Any corrections to the patient's record must be made legibly in permanent ink (single line through the error), dated, and authenticated by the person making the correction(s). Electronic documentation should include the appropriate mechanism indicating that a change was made without the deletion of the original record.
2. The evaluation must include:
- a) Documentation to support the medical need for a course of treatment through objective findings and subjective patient reporting.
 - b) A list of the conditions and complexities and description of the impact of the conditions and complexities on the prognosis and/or the plan for treatment such that it is clear to the peer reviewer or other healthcare professionals that the planned services are reasonable and appropriate for the patient.
 - c) The patient's general demographics, prior medical, familial, and social history, including, but not limited to accidents, surgeries, medications, illness, living environment, general health status (self, family or caregiver report), medications, co-morbidities and history or identification of any past or current treatment for the same condition.
 - d) All diagnoses related to the patient's condition and contraindications to treatment as well as safety risks must be provided. This may also include impairment, activity limitations, and participation restrictions.
 - e) Baseline evaluation, including current and prior functional status (functional mobility and ADL deficits).
 - f) Systems review consistent with the nature of the complaint(s) and relevant historical information should be included in documentation.
 - g) Objective measures and/or standardized orthopedic and neurological testing demonstrating a decline in functional status must be provided. (Note: Treatment must not be focused on returning to activities beyond normal daily living). Assessment tools used during the evaluation should be valid, reliable, relevant, and supported by appropriate clinical best practices guidelines.
 - h) Outcome assessment measures are preferred. Scores alone may not be used as the sole criteria for determining a patient's medical need for skilled intervention. Test information must be linked to difficulty with or inability to perform everyday tasks.
 - i) In the absence of objective measures, the evaluation must include detailed clinical observations of current skill sets, patient interview/questionnaire, and/or informal assessment supporting functional mobility/ADL deficits and the medical need for skilled services. The documentation must clearly state the reason formal testing could not be completed.
 - j) Functional outcome assessments and/or standardized test results with raw scores, standardized scores, and score interpretations.
 - k) Detailed clinical observations, as well as prognosis and rehab potential.

- l) Contraindications to care, with an explanation of their current management.
3. Treatment plan of care must be individualized, goal-oriented, and aimed at restoring specific functional deficits. Plan of care elements are:
- a) The patient's age, date of birth, and date of evaluation
 - b) Medical history and background
 - c) All diagnoses related to the patient's condition and contraindications to treatment as well as safety risks.
 - d) Date of onset or current exacerbation of the patient's condition
 - e) Description of baseline functional status/limitations based on standardized testing administered or other assessment tools.
 - f) Meaningful clinical observations; the patient's response to the evaluation process; and interpretation of the evaluation results, including prognosis for improvement and recommendations for the amount, frequency, and duration of services.
 - g) The plan of care must include goals detailing type, amount, duration, and frequency of services required to achieve targeted outcomes. The frequency and duration must also be commensurate with the patient's level of disability as well as accepted standards of practice while reflecting clinical reasoning and current evidence.
 - h) Visits requested must not exceed the frequency and duration supported in the plan of care.
 - i) Treatment diagnosis and specific contraindications to treatment
 - j) Baseline/current functional status/limitations as compared to pre-episode functional status.
 - k) Patient-specific functional goals that are measurable, attainable, time-specific, and sustainable. The initial plan of care should not exceed 4 weeks.
 - l) Proposed frequency and duration of treatment within a reasonable and generally predictable time period
 - m) Specific therapeutic interventions to be provided.
 - n) Predicted level of improvement in function (prognosis)
 - o) Specific discharge plan
4. Updated plan of care elements are:
- a) Time frame for current treatment period
 - b) Total visits from start of care.
 - c) Change in objective outcome measures and standardized testing compared to baseline and/or most recent reassessment/updated plan of care.
 - d) Measurable overall progress toward each goal including whether goal has been met or not met. Goals should be updated and modified as appropriate.
 - e) Modification of treatment interventions in order to meet goals.
 - f) Home program and self-management teaching
 - g) Collaboration with other services/professionals
 - h) Measurable short- and long-term functional goals that are achievable within the length of time services are requested.
 - i) Individualized targeted outcomes that are linked to functional limitations outlined in the most recent evaluation.
 - j) Intervention selections must be evidence-based and chosen to address the targeted goals.
 - k) Type of modalities and treatment interventions to be provided.
 - l) Educational plan, including home exercises, ADL modifications.
 - m) Anticipated discharge recommendations, including education of the member in a home program.

- n) Date and signature of treating provider.
 - o) Plan of care should be reviewed at intervals appropriate to the patient and in accordance with state and third-party requirements.
 - p) The plan of care should clearly support why the skills of a network provider are needed as opposed to discharge to self-management or non-skilled personnel without the supervision of a network provider. If telehealth is included, the plan of care should clearly support why the skills of a network provider are needed as opposed to discharge to self-management or non-skilled personnel without the supervision of a network provider.
5. Daily Treatment Notes should include:
- a) Standard type format (i.e., SOAP) and contain the date for return visits or follow-up.
 - b) Skilled treatment interventions that cannot be carried out solely by non-skilled personnel. All services and level of services must be supported by the documentation and include the clinical rationale for the treatment intervention, a time component, and goals, if needed.
 - c) Assessment of patient's response or non-response to intervention and plan for subsequent treatment sessions, assessments, or updates
 - d) Significant, unusual, or unexpected changes in clinical status
 - e) Complete notes. Incomplete notes (for example, unsigned, undated, insufficient detail) may also result in a denial for lack of sufficient information.
6. Re-evaluations should not be routine or recurring. While there is broad consensus on the general indications for formal reevaluation of patients, there is less agreement about proposed reasons for reporting patient re-evaluations, i.e., discharge planning, on a routine/prescheduled basis, and/or in meeting regulatory requirements. An established patient evaluation is indicated if any of the following apply:
- a) The patient presents with a new condition.
 - b) There is a significant or unanticipated change in symptoms or decline in functional status.
 - c) Assessment of response or non-response to treatment at a point in care when meaningful clinical change can reasonably be detected.
 - d) There is a basis for determining the need for change in the treatment plan/goals.
7. The re-evaluation exceeds the parameters of the typical office visit and includes the following:
- a) Updated history
 - b) Subjective symptoms
 - c) Physical examination findings
 - d) Appropriate standardized outcome tool/measurements as compared to the previous evaluation/re-evaluation.
 - e) Evidence to support the need for continued skilled care.
 - f) Identify appropriate services to achieve new or existing treatment goals.
 - g) Revision in Treatment Plan, i.e., updated goals
 - h) Correlation to meaningful change in function
 - i) Evidence of the effectiveness of the interventions provided; progress toward goals.
8. Clinic requirements for record keeping are:
- a) A financial record for each patient that includes:
 - i) Date and type of service provided.
 - ii) Fee for service(s)
 - iii) Payment received and source of payment.
 - iv) Current balance of the account

- v) financial disclosure form for noncovered services
- b) An appointment calendar with the name of each patient and appointment date scheduled.
- c) Clinical records that must be:
 - i) accessible and available to providers at the time care is rendered and at times needed to coordinate service delivery.
 - ii) stored securely and not accessible to individuals who do not have legal authority to access information contained in the records.
 - iii) accessible and free of charge to patients in compliance with any state and/or federal laws.
- d) A process for responding to patient questions about the patient’s medical records.

Regulatory, Accreditation and Resources

1. [Sec. 148.107 MN Statutes](#)
2. https://www.revisor.mn.gov/rules/4685.1110/?keyword_type=all&keyword=4685.1110#rule.4685.1110.13
3. Families and Children DHS Contract – Articles 13 and 14
4. MSHO/MSC+ DHS Contract – Articles 13 and 14
5. SNBC DHS Contract – Articles 13 and 14
6. CMS Managed Care Manual Chapter 5
7. 21st Century Cures Act

Policy History

Date	Update
05/06/2010	New document
08/02/2016	Revised document
09/22/2016	Added Fulcrum brand
09/21/2017	Annual Review
6/27/2018	Transferred from Credentialing to Network Management
06/19/2023	Revised document
10/25/2023	Policy moved from Network Management to Clinical Team
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Plain Film Radiology

Fulcrum Clinical Guidelines Plain Film Radiology	Original Date: June 2018 (NIA) January 2018 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: 12/07/2023
Guideline Number: CLINUM104	Implementation Date: January 2024

Policy Statement

Fulcrum Health, Inc. (Fulcrum) has developed this policy to support the utilization of Plain Film Radiographs for the management of spine related disorders and/or acute musculoskeletal conditions when the application of the service is consistent with a best-practice application and will achieve the best outcome for the patient.

Purpose

To apply supportive criteria for the utilization of Plain Film Radiographs for the management of acute musculoskeletal condition and spine related disorders (SRD). Fulcrum does not support the use of Plain Film Radiographs as a routine office procedure or for investigative purposes. This policy outlines the process for determining the medical necessity of plain film radiology.

Procedure

1. The decision to expose radiographs must be supported by information after a thorough clinical examination consistent with the information derived from a patient's history and presenting complaints and meet the following:
 - a) Radiographic services provided must correlate with the regional diagnosis code(s).
 - b) Plain Film Radiographs are not appropriate if recent films have already been exposed and are obtainable.
 - c) The use of full spine radiographs for any diagnosis other than scoliosis is not considered medically necessary and will not be reimbursed.
 - d) Contraindications to plain film x-rays include:
 - i) Infants (0 - 36 months)
 - ii) Pregnancy or possible pregnancy
 - iii) Obesity, if size precludes good radiographic resolution.
 - iv) Patients having positioning difficulty due to mental status or physical restrictions, which precludes good radiographic resolution.
 - v) Children 3 to 18 years of age, except for investigation of suspected acute fracture, dislocation, infection, scoliosis, developmental defects, or a suspected pathology.
2. Criteria should be applied after a clinical examination and patient consultation. The following radiographic examination criteria indicate that a radiographic evaluation may be medically necessary. Plain film radiography may be supported for the initial evaluation of patients presenting with the following red flags or failure to improve with a trial of conservative treatment:
 - a) Recent significant trauma that may be severe enough to cause fracture, dislocation, or milder trauma at age older than 50 years.
 - b) Age older than 70 years.
 - c) Osteoporosis/risk of demineralization.
 - d) Focal neurologic deficit with progressive or disabling symptoms.
 - e) Unexplained weight loss.
 - f) History of cancer (possibility of metastatic cancer greater).
 - g) Reasonable suspicion of ankylosing spondylitis or other inflammatory arthritis.

- h) Intravenous drug use.
 - i) History of prolonged corticosteroid use (increased risk for infection, osteoporosis).
 - j) Unexplained fever.
 - k) Immunosuppression.
 - l) History of spinal surgery in the area to be treated with new or progressing symptoms or clinical findings.
 - m) History of surgery that might reasonably affect the proposed treatment.
 - n) Patients who are surgical or intervention candidates with persistent or progressive symptoms during or following 6 weeks of conservative management.
 - o) Hard or soft tissue mass noted upon palpation.
 - p) Prolonged unremitting symptoms with progression in severity, or prolonged unremitting symptoms of the severity to awaken the patient at night.
 - q) Deformity with stiffness.
 - r) Significant medical history (e.g., chronic inflammatory arthropathies, positive rheumatoid factor, scoliosis confirmed through appropriate history and examination, etc.) and supporting clinical findings.
3. Multiple view imaging beyond the standard A-P and Lateral view should not be performed as a routine office procedure, to support a treatment style or technique, or utilized for investigative purposes. If four or more x-ray views are required in one region, the documentation must provide clear necessity based upon relevant clinical information that supports the need for the additional oblique or flexion/extension views (including but not limited to CPT codes: 72050, 72052, 72110, 72114, 72074).

Regulatory, Accreditation and Resources

Medicare NCD & LCD

1. [Article - Chiropractic Services – Medical Policy Article \(A57889\) \(cms.gov\)](#) (01/01/2020) (IL, MN, WI, NY, CT, ME, MA, NH, RI, VT)
2. [LCD - Chiropractic Services \(L37387\) \(cms.gov\)](#) (09/29/2021) (AL, GA, TN, SC, VA, WV, NC)
3. [LCD - Chiropractic Services \(L37254\) \(cms.gov\)](#) (01/26/2023) (KY, OH)

Medicare Billing and Coding: Chiropractic Services

1. [Article - Billing and Coding: Chiropractic Services \(A58345\) \(cms.gov\)](#) (10/01/2020) (WY, CO, NM, TX, OK, AR, LA, MS, DE, DC, NJ, PA, MD)
2. [Article - Billing and Coding: Chiropractic Services \(A56273\) \(cms.gov\)](#) (07/07/2022) (IA, KS, MO, NE, IN, MI)
3. [Article - Billing and Coding: Chiropractic Services \(A56616\) \(cms.gov\)](#). (10/10/2019) (AK, GA, TN, SC, VA, WV, NC)
4. [Article - Billing and Coding: Chiropractic Services \(A56455\) \(cms.gov\)](#) (11/16/2023) (KY, OH)
5. [Article - Billing and Coding: Chiropractic Services \(A58412\) \(cms.gov\)](#) (10/01/2020) (FL, VI, PR)
6. [Article - Billing and Coding: Chiropractor Services \(A57914\) \(cms.gov\)](#) (01/01/2020) (AL, OR, WA, AZ, ND, SD, UT, WY, MT)
7. [NCCI for Medicare | CMS](#)

NCQA

1. UM 2 Element A Clinical Criteria for UM Decisions

Clinical References

1. *ChiroCode Deskbook*;
2. *Best-Practice Recommendations for Chiropractic Management of Patients with Neck Pain*
JMPT: Published: December 20, 2019
3. *ICSI Guidelines, 2017*
4. *American College of Radiology Appropriateness Criteria, 2016*
5. *AMA CPT Codebook*
6. *Choosing Wisely*

7. Chou R, Deyo RA, Jarvik JG. Appropriate use of lumbar imaging for evaluation of low back pain. *Radiol Clin N Am* 2012;50:569–585
8. Chou R, Qaseem A, Owens DK, Shekelle P. Diagnostic imaging for low back pain: advice for high-value health care from the American College of Physicians. *Ann Intern Med* 2011;154:181–189.
9. Chou R, Qaseem A, Snow V, et al. 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; 147:478-491.
10. Deyo RA. Can parsimonious practice please patients and practitioners? The case of spine imaging. *Journal of General Internal Medicine* 2015;31:140–141
11. Petersen C, Hsu W. Indications for and use of x-rays. In: Haldeman SC (ed). *Principles and Practice of Chiropractic (3rd edition)* 2005; Chapter 33:661–681
12. Pillastrini P, Gardenghi I, Bonetti F, et al. An updated overview of clinical guidelines for chronic low back pain management in primary care. *Joint Bone Spine* 2011; <http://dx.doi.org/10.1016/j.jbspin.2011.03.019>
13. Rubinstein SM, van Tulder M. A best-evidence review of diagnostic procedures for neck and low-back pain. *Best Practice & Research Clinical Rheumatology* 2008;22:471–482
14. Tan A, Zhou J, Kuo YF, Goodwin JS. Variation among primary care physicians in the use of imaging for older patients with acute low back pain. *Journal of General Internal Medicine* 2015;31:156–163
15. *United States Bone and Joint Decade: The burden of musculoskeletal diseases in the United States (Chapter 2 – low back and neck pain)*. American Academy of Orthopaedic Surgeons 2008; Rosemont, IL: <http://www.boneandjointburden.org/>
16. Waddell G. *The Back Pain Revolution (2nd edition)*. Churchill Livingstone, 2004
17. Williams CM, Henschke N, Maher CG, et al. Red flags to screen for vertebral fracture in patients presenting with low-back pain. *Cochrane Database of Systematic Reviews* 2013, Issue 1. Art. No.: CD008643. DOI: 10.1002/14651858.CD008643.pub2.

Policy History

Date	Update
4/5/2017	New Document
02/06/2018	Reviewed by Clinical Policy Committee
2/7/2018	Approved by UM Subcommittee
2/6/2019	Approved by Clinical Policy Committee
2/12/2019	Approved by UM Subcommittee
3/12/2020	Approved by Clinical Policy Committee
3/31/2020	Approved by UM Subcommittee
3/11/2021	Approved by Clinical Policy Committee
3/18/2021	Approved by UM Subcommittee
3/17/2022	Approved by Clinical Policy Committee
3/29/2022	Approved by UM Subcommittee
03/21/2023	Approved by Clinical Policy Committee
05/02/2023	Approved by UM Subcommittee
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Therapeutic Massage

Fulcrum Health, Inc	
Clinical guidelines THERAPEUTIC MASSAGE	Original Date: January 2020 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: CLINUM118	Implementation Date: January 2024

Policy Statement

Fulcrum Health, Inc. (Fulcrum) has developed this policy to provide guidelines for therapeutic massage therapy to restore muscle function, reduce edema, improve joint motion, or relieve muscle spasm. The application of the guideline is used to support a best-practice approach to achieve an optimal outcome for the patient.

Please contact the health plan to obtain eligibility and health plan benefits. To the extent there is any inconsistency between this policy and the terms of the member's benefit plan or certificate of coverage, the terms of the member's benefit plan document will govern.

Scope

Fulcrum TruTouch credentialed massage therapists as well as out of network providers if permitted by the health plan.

Definitions

Therapeutic Massage - each 15 minutes, one or more areas (97124)

Effleurage, petrissage and tapotement to restore muscle function, reduce edema, improve joint motion, or relieve muscle spasm.

Effleurage: Long gliding strokes that are gentle and relaxing and are used to warm up the body and improve circulation.

Petrissage: deeper, kneading movements that are intense and designed to lengthen tight muscles and break down adhesions or thickened tissues.

Tapotement: rhythmic percussion, most frequently administered with the edge of the hand, a cupped hand or the tips of the fingers.

Myofascial Release: Myofascial Release is a safe and very effective hands-on technique that involves applying gentle sustained pressure into the Myofascial connective tissue restrictions to eliminate pain and restore motion. This essential "time element" has to do with the viscous flow and the piezoelectric phenomenon: a low load (gentle pressure) applied slowly will allow a viscoelastic medium (fascia) to elongate.

- a) to restore free and unimpeded motion of all soft tissues
- b) to release entrapped nerves, vasculature, and lymphatics
- c) to re-establish optimal texture, resilience, and function of soft tissues.

Procedure is a service provided to increase the functional abilities in self-care, mobility, or safety.

Procedure

Therapeutic Massage may be utilized in the initial period of an episode of treatment or exacerbation of a sub-

acute or chronic condition for pain control, reduction of inflammation, or reduction of muscle spasm.

1. Therapeutic massage is clinically appropriate and/or necessary in the conservative management of neuromusculoskeletal conditions such as:
 - a) Back pain,
 - b) Neck and shoulder pain,
 - c) Headache,
 - d) Carpal Tunnel Syndrome,
 - e) Osteoarthritis,
 - f) Fibromyalgia, OR
 - g) Limited payors may include:
 - i) Some conditions associated with Type 2 diabetes mellitus.
 - ii) Neoplasm pain (acute) (chronic).
2. Treatment provided is:
 - a) direct one-on-one contact with the provider for 15-minute units; and
 - i) 8-22 minutes: 1 Unit
 - ii) 23-37 minutes: 2 Units
 - iii) 38-52 minutes: 3 Units
 - iv) 53-67 minutes: 4 Units
 - b) improves the subjective/objective/functional deficits; and
 - c) documentation clearly states:
 - i) clinical rationale for treatment
 - ii) specific location
 - iii) objective clinical findings such as measurements of range of motion, description of muscle spasms and effect on function
 - iv) subjective findings including pain ratings, pain location and effect on function.
 - v) time spent performing massage therapy, and
 - vi) goals of massage therapy that may include restoring muscle function, decreasing specific stiffness, reducing edema, improving joint motion, or relieving muscle spasms.
3. Therapeutic massage is considered NOT to be clinically appropriate and/or necessary when:
 - a) used largely for the comfort and convenience of the patient.
 - b) massage chairs, aqua massage tables and roller beds are not considered massage (LCA56566)
 - c) patient safety is jeopardized by the application of the modality,
 - d) treatment can safely and effectively be administered by the patient or another individual,
 - e) used during a course of treatment, which continues beyond the initial period,
 - f) used as the primary or sole therapy, OR
 - g) used as part of the routine office protocol.

Regulatory, Accreditation and Resources

1. Fulcrum Provider Portal: <https://fulcrumproviderportal.com>
2. UCare Plan Summary Reference for UCare TruTouch
3. Quartz Medicare Advantage-TruTouch Plan Summary Reference
4. Therapeutic Massage Reimbursement Policy

Health Plan Resources:

[UCare® - Coverage Policies](#)

Medicare NCD & LCD

1. [Article - Billing and Coding: Outpatient Physical and Occupational Therapy Services \(A56566\) \(cms.gov\)](#)
2. [NCCI for Medicare | CMS](#)

NCQA

1. UM 2 Element A Clinical Criteria for UM Decisions

Clinical References

1. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline from the American College of Physicians. *Ann Intern Med.* Apr 4 2017;166(7):514-530. doi:10.7326/m16-2367
2. Benefit and Harm for Acute Low Back Pain: Systematic Review and Meta-analysis. *JAMA.* 2017;317(14):1451-1460. doi:10.1001/jama.2017.3086
3. (NASS) NASS. Evidence-Based Clinical Guidelines for Multidisciplinary Spine Care: Diagnosis & Treatment of Low Back Pain. North American Spine Society. Updated 2020. Accessed November 4, 2022. <https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/Guidelines/LowBack Pain.pdf>
4. Furlan AD, Giraldo M, Baskwill A, Irvin E, Imamura M. Massage for low-back pain. *Cochrane Database Syst Rev.* Sep 1 2015;(9):Cd001929. doi:10.1002/14651858.CD001929.pub3
5. Chou R, Deyo R, Friedly J, et al. Nonpharmacologic Therapies for Low Back Pain: A Systematic Review for an American College of Physicians Clinical Practice Guideline. *Ann Intern Med.* Apr 4 2017;166(7):493-505. doi:10.7326/m16-2459
6. Bernal-Utrera C, Gonzalez-Gerez JJ, Anarte-Lazo E, Rodriguez-Blanco C. Manual therapy versus therapeutic exercise in non-specific chronic neck pain: a randomized controlled trial. *Trials.* Jul 28 2020;21(1):682. doi:10.1186/s13063-020-04610-w
7. Miller J, Gross A, D'Sylva J, et al. Manual therapy and exercise for neck pain: a systematic review. *Man Ther.* Aug 2010;15(4):334-54.
8. Ylinen J, Kautiainen H, Wirén K, Häkkinen A. Stretching exercises vs manual therapy in treatment of chronic neck pain: a randomized, controlled cross-over trial. *J Rehabil Med.* Mar 2007;39(2):126-32. doi:10.2340/16501977-0015
9. Hidalgo B, Hall T, Bossert J, Dugeny A, Cagnie B, Pitance L. The efficacy of manual therapy and exercise for treating non-specific neck pain: A systematic review. *J Back Musculoskelet Rehabil.* 2017;30(6):1149-1169. doi:10.3233/BMR-169615
10. Falsiroli Maistrello L, Geri T, Gianola S, Zaninetti M, Testa M. Effectiveness of Trigger Point Manual Treatment on the Frequency, Intensity, and Duration of Attacks in Primary Headaches
11. Chou R, Côté P, Randhawa K, et al. The Global Spine Care Initiative: applying evidence- based guidelines on the non-invasive management of back and neck pain to low- and middle- income communities. *Eur Spine J.* Sep 2018;27(Suppl 6):851-860. doi:10.1007/s00586-017- 5433-8
12. Southerst D, Yu H, Randhawa K, et al. The effectiveness of manual therapy for the management of musculoskeletal disorders of the upper and lower extremities: a systematic review by the Ontario Protocol for Traffic Injury Management (OPTiMa) Collaboration. *Chiropr Man Therap.* 2015;23:30-30. doi:10.1186/s12998-015-0075-6
13. Desjardins-Charbonneau A, Roy JS, Dionne CE, Frémont P, MacDermid JC, Desmeules F. The efficacy of manual therapy for rotator cuff tendinopathy: a systematic review and meta- analysis. *J Orthop Sports Phys Ther.* May 2015;45(5):330-50. doi:10.2519/jospt.2015.5455
14. Steuri R, Sattelmayer M, Elsig S, et al. Effectiveness of conservative interventions including exercise, manual therapy and medical management in adults with shoulder impingement: a systematic review and meta-analysis of RCTs. *Br J Sports Med.* 2017;51(18):1340-1347. doi:10.1136/bjsports-2016-096515
15. Clar C, Tsertsvadze A, Court R, et al. Clinical effectiveness of manual therapy for the management of musculoskeletal and nonmusculoskeletal conditions: systematic review and update of UK evidence report. *Chiropractic & Manual Therapies* 2014; 22:12
16. Joseph MF, Taft K, Moskwa M, Denegar CR. Deep friction massage to treat tendinopathy: a systematic review of a classic treatment in the face of a new paradigm of understanding. *J Sport Rehabil.* Nov 2012;21(4):343-53. doi:10.1123/jsr.21.4.343
17. Beumer L, Wong J, Warden SJ, Kemp JL, Foster P, Crossley KM. Effects of exercise and manual therapy on pain associated with hip osteoarthritis: a systematic review and meta- analysis. *Br J Sports Med.* 2016;50(8):458-463.
18. Sampath KK, Mani R, Miyamori T, Tumilty S. The effects of manual therapy or exercise therapy or both in people with hip osteoarthritis: a systematic review and meta-analysis. *Clin Rehabil.* Dec 2016;30(12):1141-1155. doi:10.1177/0269215515622670
19. Chaves P, Simões D, Paço M, et al. Deep Friction Massage in the Management of Patellar Tendinopathy in Athletes: Short-Term Clinical Outcomes. *J Sport Rehabil.* Sep 1 2020;29(7):860- 865. doi:10.1123/jsr.2019-0046
20. Zhou J, Salvendy G. Human Aspects of IT for the Aged Population. Design for Aging: First International Conference, ITAP 2015, Held as Part of HCI International 2015, Los Angeles, CA, USA, August 2-7, 2015. Proceedings, Part I. vol 9193. Springer; 2015.
21. Fuentes JP, Armijo Olivo S, Magee DJ, Gross DP. Effectiveness of interferential current therapy in the management of musculoskeletal pain: a systematic review and meta-analysis. *Phys Ther.* Sep 2010;90(9):1219-38. doi:10.2522/ptj.20090335

ADDITIONAL RESOURCES

1. Babatunde OO, Jordan JL, Van der Windt DA, Hill JC, Foster NE, Protheroe J. Effective treatment options for musculoskeletal pain in primary care: A systematic overview of current evidence. *PLoS One.* 2017;12(6):e0178621-e0178621. doi:10.1371/journal.pone.0178621
2. Buchbinder R, van Tulder M, Öberg B, et al. Low back pain: a call for action. *Lancet.* Jun 9 2018;391(10137):2384-2388. doi:10.1016/s0140-6736(18)30488-4
3. Cai C, Pua YH, Lim KC. A clinical prediction rule for classifying patients with low back pain who demonstrate short-term improvement with mechanical lumbar traction. *Eur Spine J.* 2009;18(4):554-561. doi:10.1007/s00586-009-0909-9
4. Carey TS, Freburger JK, Holmes GM, et al. A long way to go: practice patterns and evidence in chronic low back pain care. *Spine.* 2009;34(7):718-724. doi:10.1097/BRS.0b013e31819792b0
5. Centers for Medicare & Medicaid Services. Transcutaneous Electrical Nerve Stimulation for Chronic Low Back Pain: CAG-00429N. Centers for Medicare & Medicaid Services (CMS). Updated June 8, 2012. Accessed August 23, 2022. <https://www.cms.gov/medicare-coverage- database/view/ncacal-decision-memo.aspx?proposed=N&NCAId=256>
6. Cherian JJ, Jauregui JJ, Leichter AK, Elmallah RK, Bhav A, Mont MA. The effects of various physical non-operative modalities on the pain in osteoarthritis of the knee. *Bone Joint J.* Jan 2016;98-b(1 Suppl A):89-94. doi:10.1302/0301-620x.98b1.36353
7. Chou R. Patient education: Low back pain in adults (Beyond the Basics). Wolters Kluwer. Updated September 20, 2021. Accessed August 23, 2022.

<https://www.uptodate.com/contents/low-back-pain-in-adults-beyond-the-basics>

8. Clar C, Tsertsvadze A, Court R, Hundt GL, Clarke A, Sutcliffe P. Clinical effectiveness of manual therapy for the management of musculoskeletal and non-musculoskeletal conditions: systematic review and update of UK evidence report. *Chiropr Man Therap.* 2014;22(1):12-12. doi:10.1186/2045-709X-22-12
9. Crawford C, Boyd C, Paat CF, et al. The Impact of Massage Therapy on Function in Pain Populations-A Systematic Review and Meta-Analysis of Randomized Controlled Trials: Part I, Patients Experiencing Pain in the General Population. *Pain Med.* 2016;17(7):1353-1375. doi:10.1093/pm/pnw099
10. Controlled Trials. *ISRN Pain.* 2013;2013:567175-567175. doi:10.1155/2013/567175
11. Farooq MN, Mohseni-Bandpei MA, Gilani SA, Ashfaq M, Mahmood Q. The effects of neck mobilization in patients with chronic neck pain: A randomized controlled trial. *J Bodyw Mov Ther.* Jan 2018;22(1):24-31. doi:10.1016/j.jbmt.2017.03.007
12. Foster NE, Anema JR, Cherkin D, et al. Prevention and treatment of low back pain: evidence, challenges, and promising directions. *Lancet.* Jun 9 2018;391(10137):2368-2383. doi:10.1016/s0140-6736(18)30489-6 without consideration of status on a previously described subgrouping rule: a randomized clinical trial. *J Orthop Sports Phys Ther.* Feb 2014;44(2):45-57. doi:10.2519/jospt.2014.5065
13. Furlan AD, Yazdi F, Tsertsvadze A, et al. A systematic review and meta-analysis of efficacy, cost-effectiveness, and safety of selected complementary and alternative medicine for neck and low-back pain. *Evid Based Complement Alternat Med.* 2012;2012:953139-953139. doi:10.1155/2012/953139
14. Hawk C, Minkalis AL, Khorsan R, et al. Systematic Review of Nondrug, Nonsurgical Treatment of Shoulder Conditions. *J Manipulative Physiol Ther.* Jun 2017;40(5):293-319. doi:10.1016/j.jmpt.2017.04.001
15. Isaac Z, Dec K. Patient education: Neck pain (Beyond the Basics). Wolters Kluwer. Updated September 20, 2022. Accessed September 23, 2022. <https://www.uptodate.com/contents/neck-pain-beyond-the-basics>
16. Kumar S, Beaton K, Hughes T. The effectiveness of massage therapy for the treatment of nonspecific low back pain: a systematic review of systematic reviews. *Int J Gen Med.* 2013;6:733-741. doi:10.2147/IJGM.S50243
17. Littlewood C, May S, Walters S. A review of systematic reviews of the effectiveness of conservative interventions for rotator cuff tendinopathy. *Shoulder & Elbow.* 2013;5(3):151-167.
18. Martimbianco ALC, Torloni MR, Andriolo BN, Porfírio GJ, Riera R. Neuromuscular electrical stimulation (NMES) for patellofemoral pain syndrome. *Cochrane Database Syst Rev.* 2017;12(12):CD011289-CD011289. doi:10.1002/14651858.CD011289.pub2
19. Nelson NL, Churilla JR. Massage Therapy for Pain and Function in Patients With Arthritis: A Systematic Review of Randomized Controlled Trials. *Am J Phys Med Rehabil.* Sep 2017;96(9):665-672. doi:10.1097/phm.0000000000000712
20. Thoomes EJ. Effectiveness of manual therapy for cervical radiculopathy, a review. *Chiropr Man Therap.* 2016;24:45-45. doi:10.1186/s12998-016-0126-7
21. Chiodo A, Alvarez D, Graziano G, et al. Acute Low Back Pain. Regents of the University of Michigan Updated December 2011. Accessed September 23, 2022. <http://www.med.umich.edu/1info/FHP/practiceguides/back/back.pdf>
22. Van den Dolder PA, Ferreira PH, Refshauge KM. Effectiveness of soft tissue massage and exercise for the treatment of non-specific shoulder pain: a systematic review with meta- analysis. *Br J Sports Med.* Aug 2014;48(16):1216-26. doi:10.1136/bjsports-2011-090553

Policy History

Date	Update
November 2023	New Policy
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Measurable Progressive Improvement

Fulcrum Health, Inc	
Clinical guidelines Measurable Progressive Improvement	Original Date: June 2018
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: CLINUM123	Implementation Date: January 2024

Policy Statement

Outcome measures and/or pre-determined treatment goals that are specific, measurable, and/or functional must be used with each patient. These goals and outcome measures must be clearly defined in the patient record to ascertain the amount or degree of change over time. The documentation must also provide evidence of lasting, sustainable progress with treatment.

Purpose

This policy will be used to provide minimal clinical thresholds using specific, measurable, and functional treatment goals and/or outcome measures in the determination of improved, lasting, and sustained outcomes. These thresholds will assist in medical necessity reviews of billed clinical services by network practitioners. It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.

Definitions

Treatment Goals: Determined with the patient and clinician at the initial encounter for each episode of care. Unique for each patient’s clinical presentation based on the evaluation/examination findings, outcome assessment tool results, and personal preferences.

Episode of Care: Consultation or treatment preceded and followed by at least 3 months without treatment for the same complaint.

Specific, Measurable, and Functional Goals: Clearly defined goals of treatment that allow measurement of the amount and/or degree of meaningful change over time. These goals are often determined by the use of functional outcome assessment tools, as defined in Clinical Guideline, Record Keeping and Documentation Standards.

Outcome Measures: Objective, measurable assessments by the clinician to determine patient progress with treatment. The use of standardized tests and measures at the onset of care establishes the baseline status of the patient, providing a means to quantify change in the patient's functioning. Outcome measures, along with other standardized tests and measures used throughout the episode of care, as part of periodic reexamination, provide information about whether predicted outcomes are being realized. Outcomes measurement refers to the systematic collection and analysis of information that is used to evaluate the efficacy of an intervention. Systematic collection means that data are gathered at multiple time points using the same methods or instruments. Analysis refers to the process of condensing and examining the data to identify meaningful trends or changes. The World Health Organization defines an outcome measure as a “change in the health status of an individual, group or population which is attributable to a planned intervention or series of interventions....”⁸²

Lasting, Sustainable Progress: Documentation must provide evidence to support that progress made by the patient has been maintained at a reasonable level over a reasonable period of time.

Minimally Clinically Important Change (MCIC): The smallest change in the outcome assessment score that the patient perceives as beneficial, i.e., clinically meaningful improvement.

Minimal Detectable Change (MDC): The minimal detectable change is the smallest change in score than can be detected beyond random error and is dependent upon sample distribution.

Minimal Clinically Important Difference (MCID): MCID is the smallest change in an outcome that a patient would identify as important.

Maximum Therapeutic Benefit (MTB)

Maximum Therapeutic Benefit (MTB) is determined following a sufficient course of care, where demonstrable improvement would be expected in a patient's health status and one or more of the following are present:

- The patient has returned to pre-clinical/pre-onset health status.
- Meaningful improvement has occurred; however, there is no basis for further meaningful improvement.
- Meaningful improvement has occurred and there is no basis for further in-office treatment.
- The patient no longer demonstrates meaningful clinical improvement, as measured by standardized outcome assessment tools.
- Meaningful improvement, as measured by standardized outcome assessment tools, has not been achieved.
- There is insufficient information documented in the submitted patient record to reliably validate the response to treatment.

It is the responsibility of the treating practitioner to maintain a patient record that includes periodic measures of treatment response by employing valid, reliable, and relevant outcome assessment tools. Further, it is the responsibility of the treating practitioner to include sufficient clinical documentation, so that a peer reviewer can render a reasonable determination on baseline functional status and/or treatment response. Also, meaningful improvement can occur only when there is a potential for MCIC. When progress towards goals is such that outcome measures approximate normative data for asymptomatic populations or are indicative of mild deficits, which can typically be managed through home exercise or other self-care, then a determination of MTB is appropriate. Most individuals can expect to notice measurable improvement in pain and/or disability within 2 to 6 weeks after beginning treatment. If improvement has not occurred with 6 weeks of treatment, it is highly unlikely that continuing treatment will be helpful. When initial improvement did occur, many studies showed no additional lasting improvement beyond 6 to 12 weeks of treatment. Most flare-ups resolve quickly – within a few days to 3 weeks. The timelines for improvement may not be applicable to some types of post-surgical care.⁸³⁻⁹¹

Patient Acceptable Symptom State (PASS): PASS is defined as the point at which the patient considers themselves well, recovered, and satisfied with treatment.

Procedure

1. Acceptable Thresholds of Measurable Improvement
Meaningful clinical change (Minimal Clinically Important Change-MCIC; Minimal Clinically Important

Differences-MCID; Minimal Detectable Change-MDC; Small Meaningful Change - SMC) has been calculated for most common standardized outcome assessment tools. The application of valid and reliable outcome assessment tools in the management of neuromusculoskeletal disorders is generally considered as “best practice.”

2. To make a valid, reliable determination of meaningful progress toward goals (MCIC) and/or Maximum Therapeutic Benefit (MTB), it is essential that the record include a relevant standardized outcome assessment tool. Progress towards goals should be assessed at predetermined time periods and supported by anticipated meaningful clinical change based on treatment plan goals. Typically, recovery patterns for neuromusculoskeletal conditions involving the low back, neck, and headache disorders show that > 50% of the overall improvement with care occurs within 4 - 6 weeks. When patients are categorized via predictive modeling, the percentage of those showing significant improvement within 6 weeks rises considerably. ¹⁻⁴ Studies have consistently shown that short-term treatment response is predictive of long-term outcomes. McGorry showed that exacerbations of LBP resolved within a few days (52%); within a week (16%); within two-three weeks (26%); even severe flare-ups usually resolved within nine days.⁵ After a review of the scientific evidence, Fulcrum has concluded all practitioner records must evaluate and document whether treatment is resulting in progressive and sustained improvement.
3. The practitioner records must demonstrate clear, specific, and measurable improvement in the patient’s pain and function every two weeks or at regular intervals as appropriate for the documented condition, as measured by one or more of the following examples of methods for each anatomic region. If no functional tool is available for the patient’s condition, it is expected the practitioner will develop specific, measurable, and functional goals:
 - 6-Minute Walk test (6MWT) for Older Adults^{6,7}
 - SMC - Older people with limited mobility⁸: 21 m (69 feet)
 - SMC - Older people with stroke⁸: 22 m (72 feet)
 - MDC - Alzheimer’s Disease^{8,9}: 33.5 m (110 feet)
 - Either hip OA or knee OA that later received a total joint replacement¹⁰: 61.24m
 - Activities of Daily Living Scale of the Knee Outcome Survey
 - 10 - 30% reduction in the global score
 - MCID = 7.1%¹¹
 - Activity-Specific Balance Confidence Scale (ABC)
 - SMC – older adults¹² = 7 points
 - MDC - Parkinson’s Disease^{13,14} = 11 – 13%
 - MDC – CVA^{15,16} = 14%
 - MCID – Vestibular Disorders = 18.1%¹⁷
 - Berg Balance Scale
 - MDC = 6.2 - 6.5 points^{18,19}
 - MDC – older adults²⁰ = 10.5 points
 - MDC - Parkinson’s Disease¹⁴ = 5 points
 - MDC – chronic stroke²¹ = 2.7 points
 - MCID – subacute stroke (assisted walking) – 5 points²²
 - MCID – subacute stroke (unassisted walking) – 4 points²²
 - Bournemouth – Back Questionnaire
 - A change of 26 points in acute conditions and 18 points in subacute/chronic conditions.²³ It is recommended that the Bournemouth be used at baseline and for

every 2 - 4 weeks or 6 - 12 visits thereafter within the treatment program to measure progress.

- Bournemouth – Neck Questionnaire
 - A change of 13 points or 36% is considered clinically significant improvement.²⁴ It is recommended that the Bournemouth be used at baseline and for every 2 - 4 weeks or 6 - 12 visits thereafter within the treatment program to measure progress.
- Bruininks-Oseretsky Test of Motor Proficiency, 2nd Edition (BOT-2)²⁵
 - Minimal Detectable Change (MDC):
 - Children aged 3-6 years with intellectual disability
 - MDC=7.4 (BOT-2-SF Standard Scores) Children aged 4-21 years with intellectual disability
 - MDC=4.2 (aged 4-12 years) / 7.4 (aged 13-21 years) (standard scores)
- Disability of Arm, Shoulder, and Hand (DASH, qDASH)²⁶⁻²⁸
 - DASH MCID = 11-15 points
 - QuickDASH MCID = 6.8-15 points
- Dizziness Handicap Inventory
 - MDC = 17.18 points²⁹
- Dynamic Gait Index
 - MDC = 2.9 points¹⁸
- Falls Self Efficacy Scale/Falls Efficacy Scale-International (FES-I)³⁰⁻³²
 - MDC - vestibular disorders³⁰ = 8.2 points
 - MDC - hip fracture³² = 17.7 points
- Foot and Ankle Ability Measures (FAAM)^{33,34}
 - ADL subscale MCID = 8 points
 - Sport subscale MCID = 9 points
- Fear Avoidance Belief Questionnaire (FAB-Q)³⁵
 - MCIC – following arthroscopic subacromial decompression³⁶ = -5.0
 - MDC – low back pain = -5.4
- Functional Gait Assessment
 - MCID = 4 points³⁷
 - MCID – Vestibular Disorders = 4 points¹⁷
- Functional Rating Index
 - A 10% absolute change represents minimal clinically important change³⁸
 - MCID = 8.4%
 - It is recommended that for acute and subacute conditions the FRI be used at baseline and every 1 week or 3 visits thereafter. It is recommended that for chronic conditions the FRI be used at baseline and every 2 weeks or 6 visits thereafter. If the score does not improve by at least 10% (absolute change) in any two successive two-week periods, you should pursue a change in management.
- FOTO or Functional Status (FS) measure^{39,40}:
 - The MCII (Minimally Clinically Important Improvement) and MDC (Minimal Detectable Change) are stated on the assessment report. For significant, minimal improvement, the patient status should increase by the MDC value. FOTO summary report is available upon request.

- Gait Speed for Adults
 - Small meaningful change⁸ = .5m/sec
 - Substantial meaningful change⁸ = .10m/sec
 - Meaningful change for those with stroke undergoing rehab = .175 m/sec⁴¹
 - MDC – heart failure⁴² = 0.05 m/s
 - MCID – heart failure⁴² = 0.05 – 0.12 m/s
 - MDC – joint pain and fractures⁴³ = 0.08 m/s
 - MCID – joint pain and fractures⁴³ = 0.1 m/s
 - MCID – Vestibular Disorders = 0.09 m/s¹⁷
- Global Rating of Change (GROC)⁴⁴⁻⁴⁶ (*See [Note](#) below)
 - MDC 0.45 points on 11-point scale
 - MCIC 2 points on 11-point scale
- Gross Motor Function Measure-66 (GMFM-66)⁴⁷
 - Clinically meaningful improvement = 1.58
- Headache Disability Inventory (HDI)
 - Authors of the index have determined that a decrease of 29 points or more is considered clinically significant.⁴⁸
- Keele STarT Back Screening Tool
 - No MDC or MCID established
 - Low-, Medium- and High-risk categories established for subscales and overall score
- Knee Injury and Osteoarthritis Outcome Score (KOOS)^{49,50}
 - MDCs of KOOS subscales for younger individuals = 14.3 – 19.6 points
 - MDCs of KOOS subscales for older individuals = ≥20 points
 - MCID - post arthroscopic meniscal repair = 12.3 for symptoms, 11.8 for pain, 11.4 for activities of daily living (ADL) and 16.9 for quality of life (QOL)⁵¹
 - MCID - post total knee arthroplasty = 13.5 for pain, 15.2 for function and 8.0 for quality of life (QOL)⁵²
- Knee Outcome Survey
 - MDC = 9 points
 - MCID = 7 points
- Lower Extremity Functional Scale (LEFS) MDC = 9 points
 - MCID = 8 – 9.4 points.^{53,54} It is recommended that the LEFS be used at baseline and for every 2 - 4 weeks or 6 - 12 visits thereafter within the treatment program to measure progress.
- Lysholm Knee Rating System
 - MDC = 10 points
- Neck Disability Index
 - MDC = 10 – 20%.^{55,56} It is recommended that the Neck Disability Index be used at baseline and for every 2 weeks thereafter within the treatment program to measure progress. A score of 0% - 20% represents a minimal disability. Usually no treatment is indicated, apart from advice on posture, physical fitness, and diet. Patients often do not score the Neck Disability items as zero, once they are in treatment. The practitioner should consider the patient's prior level of function when goal writing (for example, if the patient's prior level

of function would place them in the minimal disability category, their goal should not be to obtain a zero score).

- Numeric Pain Rating Scale (NPRS)
 - MCID = 2 points⁵⁷
 - MCID – spinal cord injuries = 1.6 points⁵⁸
- Oswestry Disability Index
 - The Minimal Important Change is 10 points or a 20% improvement.⁵⁹ It is recommended that the Oswestry Disability Index be used at baseline and for every 2 weeks thereafter within the treatment program to measure progress. A score of 0% -20% represents a minimal disability. Usually no treatment is indicated, apart from advice on lifting, sitting posture, physical fitness, and diet. Patients often do not score the Oswestry items as zero once they are in treatment. The practitioner should consider the patient's prior level of function when goal writing (for example, if the patient's prior level of function would place them in the minimal disability category, their goal should not be to obtain a zero score).
- Pain Disability Index
 - A decrease of 8.5 - 9.5 points is considered clinically important in individuals with chronic back pain⁶⁰
- Patient Specific Functional Scale (PSFS)⁶¹⁻⁶⁴
 - MDC (90% CI) for average score = 2 points
 - MDC for older adults = 2.8⁶⁵
 - MDC (90% CI) for single activity score = 3 points.⁶⁴ It is recommended that the PSFS be used at baseline and for every 2 - 4 weeks or 6 - 12 visits thereafter within the treatment program to measure progress.
 - MCID in individuals with knee dysfunction, cervical radiculopathy, or chronic low back pain = 2.0 – 3.0 points^{62,63}
- Peabody Developmental Motor Scales-2nd Edition (PDMS-2)⁶⁶
 - MDC for preschoolers with intellectual disabilities⁶⁷ = 7.76
 - MCID for preschoolers with intellectual disabilities⁶⁷ = 8.39
- Pediatric Balance Scale⁶⁸
 - MDC:
 - CP total 1.59
 - Static 0.79
 - Dynamic 0.96
 - MDIC:
 - CP total 5.83
 - Static 2.92
 - Dynamic 2.92
- Roland-Morris Disability Questionnaire
 - MDC = 7.6 points⁶⁹ or a 30% improvement from baseline.⁵⁹ It is recommended that the RMDQ be used at baseline and for every 2 - 4 weeks or 6 - 12 visits thereafter within the treatment program to measure progress.
- Shoulder Pain and Disability Index
 - The smallest detectable change is 19.7 points, and the minimal important change is 20 points.⁷⁰ It is recommended that the SPADI be used at baseline and for every 2 - 4 weeks or 6 - 12 visits thereafter within the treatment program to measure

progress.

- Simple Shoulder Test (SST)
 - MCID
 - anatomic total shoulder arthroplasty (aTSA) 1.6⁷¹
 - ream-and-run arthroplasty (R&R) 2.6⁷¹
 - reverse total shoulder arthroplasty (rTSA) 3.7⁷¹
- Timed Up and Go (TUG)⁷²
 - Cut-off score of 13.5 sec or longer is predictive of falls; however, the Timed Up and Go test has limited ability to predict falls in community dwelling elderly and should not be used in isolation to identify individuals at high risk of falls in this setting.⁷³
 - MDC – Alzheimer disease⁷² = 4.09 sec
 - MDC – chronic stroke^{72,74} = 2.9 sec
 - MDC – Parkinson’s disease^{14,72,75,76} = 3.5 – 11 sec
 - MDC – Total hip arthroplasty = >1.62 seconds⁷⁷
 - MCID – Post lumbar degenerative disc disease surgery = 2.1 seconds (or TUG z score change of 1.5)⁷⁸
- Tinetti (POMA)
 - MDC= 5 Points⁷⁹
- Visual Analog Scale (VAS) scores
 - Minimum of a 2 point change on a 0-10 pain scale
 - MCID – post-operative hand surgery = 1.6⁸⁰
- Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC)⁸¹
 - After TKA- MCID=10, MIC (minimal important change) = 17
 - MCID for LE OA= changes of 17-22% of baseline scores

The records must compare baseline measures to updated measures and document progress toward measurable goals as defined in Clinical Guideline, Plan of Care.

‡NOTE: Questionable Outcome tool: Global Rating of Change (GRoC)

Further work is needed to determine the true value of the GRoC as an outcome measure and in turn as an anchor measure. Several key points have been identified:

- There is fluctuant temporal stability of the GRoC from week to week.
- There is poor correlation between the GRoC and functional measures.
- The GRoC is only correlated to functional measures up to 3 weeks.

Clinical Resources

1. Chou R, Qaseem A, Snow V, et al. 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.* Oct 2 2007;147(7):478-91. doi:10.7326/0003-4819-147-7-200710020-00006
2. Bier JD, Scholten-Peeters WGM, Staal JB, et al. Clinical Practice Guideline for Physical Therapy Assessment and Treatment in Patients With Nonspecific Neck Pain. *Phys Ther.* Mar 1 2018;98(3):162-171. doi:10.1093/ptj/pzx118
3. Gaunt BW, Shaffer MA, Sauers EL, Michener LA, McCluskey GM, Thigpen C. The American Society of Shoulder and Elbow Therapists' consensus rehabilitation guideline for arthroscopic anterior capsulolabral repair of the shoulder. *J Orthop Sports Phys Ther.* Mar 2010;40(3):155-68. doi:10.2519/jospt.2010.3186
4. Globe G, Farabaugh RJ, Hawk C, et al. Clinical Practice Guideline: Chiropractic Care for Low Back Pain. *J Manipulative Physiol Ther.* Jan 2016;39(1):1-22. doi:10.1016/j.jmpt.2015.10.006
5. McGorry RW, Webster BS, Snook SH, Hsiang SM. The relation between pain intensity, disability, and the episodic nature of chronic and recurrent low back pain. *Spine (Phila Pa 1976).* Apr 1 2000;25(7):834-41. doi:10.1097/00007632-200004010-00012
6. López-Ortiz S, Valenzuela PL, Seisdedos MM, et al. Exercise interventions in Alzheimer's disease: A systematic review and meta-analysis of randomized controlled trials. *Ageing Res Rev.* Sep 30 2021;101479. doi:10.1016/j.arr.2021.101479

7. Longhurst J, Phan J, Chen E, Jackson S, Landers MR. Physical Therapy for Gait, Balance, and Cognition in Individuals with Cognitive Impairment: A Retrospective Analysis. *Rehabil Res Pract*. 2020;2020:8861004-8861004. doi:10.1155/2020/8861004
8. Perera S, Mody SH, Woodman RC, Studenski SA. Meaningful change and responsiveness in common physical performance measures in older adults. *J Am Geriatr Soc*. May 2006;54(5):743-749. doi:10.1111/j.1532-5415.2006.00701.x
9. Ries JD, Echternach JL, Nof L, Gagnon Blodgett M. Test-retest reliability and minimal detectable change scores for the timed "up & go" test, the six-minute walk test, and gait speed in people with Alzheimer disease. *Phys Ther*. Jun 2009;89(6):569-79. doi:10.2522/ptj.20080258
10. Stanley M. 6-Minute Walk Test (6MWT) (applied to patients who have had lower extremity total joint replacement). American Physical Therapy Association (APTA). Updated August 7, 2017. Accessed September 26, 2022. <https://www.apta.org/patient-care/evidence-based-practice-resources/test-measures/6-minute-walk-test-6mwt-applied-to-patients-who-have-had-lower-extremity-total-joint-replacement>
11. Piva SR, Gil AB, Moore CG, Fitzgerald GK. Responsiveness of the activities of daily living scale of the knee outcome survey and numeric pain rating scale in patients with patellofemoral pain. *Journal of rehabilitation medicine*. 2009;41(3):129-135. doi:10.2340/16501977-0295
12. Raad J, Moore J, Hamby J, Rivadelo RL, Straube D. A brief review of the activities-specific balance confidence scale in older adults. *Archives of Physical Medicine and Rehabilitation*. 2013;94(7):1426-1427.
13. Dal Bello-Haas V, Klassen L, Sheppard MS, Metcalfe A. Psychometric Properties of Activity, Self-Efficacy, and Quality-of-Life Measures in Individuals with Parkinson Disease. *Physiother Can*. Winter 2011;63(1):47-57. doi:10.3138/ptc.2009-08
14. Steffen T, Seney M. Test-retest reliability and minimal detectable change on balance and ambulation tests, the 36-item short-form health survey, and the unified Parkinson disease rating scale in people with parkinsonism. *Phys Ther*. Jun 2008;88(6):733-46. doi:10.2522/ptj.20070214
15. Salbach NM, Mayo NE, Hanley JA, Richards CL, Wood-Dauphinee S. Psychometric evaluation of the original and Canadian French version of the activities-specific balance confidence scale among people with stroke. *Arch Phys Med Rehabil*. Dec 2006;87(12):1597-604. doi:10.1016/j.apmr.2006.08.336
16. Activities-Specific Balance Confidence Scale (ABC). Academy of Neurologic Physical Therapy. Updated 2019. Accessed September 26, 2022. https://www.neuropt.org/docs/default-source/cpgs/core-outcome-measures/activities-specific-balance-confidence-scale-proof8-%282%2917db36a5390366a68a96ff00001fc240.pdf?sfvrsn=d7d85043_0
17. Wellons RD, Duhe SE, MacDowell SG, Hodge A, Oxborough S, Levitzky EE. Estimating the minimal clinically important difference for balance and gait outcome measures in individuals with vestibular disorders. *J Vestib Res*. 2022;32(3):223-233. doi:10.3233/ves-201630
18. Romero S, Bishop MD, Velezo CA, Light K. Minimum detectable change of the Berg Balance Scale and Dynamic Gait Index in older persons at risk for falling. *J Geriatr Phys Ther*. Jul-Sep 2011;34(3):131-7. doi:10.1519/JPT.0b013e3182048006
19. Godi M, Franchignoni F, Caligari M, Giordano A, Turcato AM, Nardone A. Comparison of reliability, validity, and responsiveness of the mini-BESTest and Berg Balance Scale in patients with balance disorders. *Phys Ther*. Feb 2013;93(2):158-67. doi:10.2522/ptj.20120171
20. Viveiro LAP, Gomes GCV, Bacha JMR, et al. Reliability, Validity, and Ability to Identify Fall Status of the Berg Balance Scale, Balance Evaluation Systems Test (BESTest), Mini-BESTest, and Brief-BESTest in Older Adults Who Live in Nursing Homes. *J Geriatr Phys Ther*. Oct/Dec 2019;42(4):E45-e54. doi:10.1519/jpt.0000000000000215
21. Alghadir AH, Al-Eisa ES, Anwer S, Sarkar B. Reliability, validity, and responsiveness of three scales for measuring balance in patients with chronic stroke. *BMC Neurol*. Sep 13 2018;18(1):141. doi:10.1186/s12883-018-1146-9
22. Tamura S, Miyata K, Kobayashi S, Takeda R, Iwamoto H. The minimal clinically important difference in Berg Balance Scale scores among patients with early subacute stroke: a multicenter, retrospective, observational study. *Top Stroke Rehabil*. Sep 2022;29(6):423-429. doi:10.1080/10749357.2021.1943800
23. Newell D, Bolton JE. Responsiveness of the Bournemouth questionnaire in determining minimal clinically important change in subgroups of low back pain patients. *Spine (Phila Pa 1976)*. Sep 1 2010;35(19):1801-6. doi:10.1097/BRS.0b013e3181cc006b
24. Bolton JE. Sensitivity and specificity of outcome measures in patients with neck pain: detecting clinically significant improvement. *Spine (Phila Pa 1976)*. Nov 1 2004;29(21):2410-7; discussion 2418. doi:10.1097/01.brs.0000143080.74061.25
25. Dietz L, Mano N, Mazza S, et al. Bruininks-Oseretsky Test of Motor Proficiency, 2nd ed, (BOT-2). American Physical Therapy Association (APTA). Updated December 13, 2019. Accessed September 26, 2022. <https://www.apta.org/patient-care/evidence-based-practice-resources/test-measures/bruininks-oseretsky-test-of-motor-proficiency>
26. Schmitt JS, Di Fabio RP. Reliable change and minimum important difference (MID) proportions facilitated group responsiveness comparisons using individual threshold criteria. *J Clin Epidemiol*. Oct 2004;57(10):1008-18. doi:10.1016/j.jclinepi.2004.02.007
27. Kazmers NH, Qiu Y, Yoo M, Stephens AR, Tyser AR, Zhang Y. The Minimal Clinically Important Difference of the PROMIS and QuickDASH Instruments in a Nonshoulder Hand and Upper Extremity Patient Population. *J Hand Surg Am*. May 2020;45(5):399-407.e6. doi:10.1016/j.jhsa.2019.12.002
28. Kazmers NH, Qiu Y, Yoo M, Stephens AR, Zeidan M, Zhang Y. Establishing the Minimal Clinically Important Difference for the PROMIS Upper Extremity Computer Adaptive Test Version 2.0 in a Nonshoulder Hand and Upper Extremity Population. *J Hand Surg Am*. Mar 31 2021;doi:10.1016/j.jhsa.2021.01.023
29. Yorke A, Ward I, Vora S, Combs S, Keller-Johnson T. Measurement characteristics and clinical utility of the Dizziness Handicap Inventory among individuals with vestibular disorders. *Archives Phys Med Rehab*. 2013;94(11):2313-2314. doi:<https://doi.org/10.1016/j.apmr.2013.07.007>
30. Morgan MT, Friscia LA, Whitney SL, Furman JM, Sparto PJ. Reliability and validity of the Falls Efficacy Scale-International (FES-I) in individuals with dizziness and imbalance. *Otol Neurotol*. 2013;34(6):1104-1108. doi:10.1097/MAO.0b013e318281df5d
31. van Vliet R, Hoang P, Lord S, Gandevia S, Delbaere K. Falls efficacy scale-international: a cross-sectional validation in people with multiple sclerosis. *Arch Phys Med Rehabil*. May 2013;94(5):883-9. doi:10.1016/j.apmr.2012.10.034
32. Visschedijk JH, Terwee CB, Caljouw MA, Spruit-van Eijk M, van Balen R, Achterberg WP. Reliability and validity of the Falls Efficacy Scale-International after hip fracture in patients aged ≥ 65 years. *Disabil Rehabil*. 2015;37(23):2225-32. doi:10.3109/09638288.2014.1002573
33. Martin RL, Irrgang JJ, Burdett RG, Conti SF, Van Swearingen JM. Evidence of validity for the Foot and Ankle Ability Measure (FAAM). *Foot Ankle Int*. Nov 2005;26(11):968-83. doi:10.1177/107110070502601113
34. Hung M, Baumhauer JF, Licari FW, Voss MW, Bounsanga J, Saltzman CL. PROMIS and FAAM Minimal Clinically Important Differences in Foot and Ankle Orthopedics. *Foot & ankle international*. 2019;40(1):65-73. doi:10.1177/1071100718800304
35. Fear-Avoidance Beliefs Questionnaire. AbilityLab. Updated June 26, 2014. Accessed September 26, 2022. <https://www.sralab.org/rehabilitation-measures/fear-avoidance-beliefs-questionnaire>
36. Sørensen L, van Tulder M, Johannsen HV, Ovesen J, Oestergaard LG. Responsiveness and minimal important change of the Oxford Shoulder Score, EQ-

- 5D, and the Fear-Avoidance Belief Questionnaire Physical Activity subscale in patients undergoing arthroscopic subacromial decompression. *JSES Int.* 2021;5(5):869-874. doi:10.1016/j.jseint.2021.05.008
37. Beninato M, Fernandes A, Plummer LS. Minimal clinically important difference of the functional gait assessment in older adults. *Phys Ther.* Nov 2014;94(11):1594-603. doi:10.2522/ptj.20130596
38. Feise RJ, Menke JM. Functional Rating Index: literature review. *Med Sci Monit.* Feb 2010;16(2):Ra25-36.
39. Gozalo PL, Resnik LJ, Silver B. Benchmarking Outpatient Rehabilitation Clinics Using Functional Status Outcomes. *Health services research.* 2016;51(2):768-789. doi:10.1111/1475- 6773.12344
40. Burgess R, Lewis M, Hill JC. Musculoskeletal case-mix adjustment in a UK primary/community care cohort: Testing musculoskeletal models to make recommendations in this setting. *Musculoskelet Sci Pract.* Sep 1 2021;56:102455. doi:10.1016/j.msksp.2021.102455
41. Fulk GD, Ludwig M, Dunning K, Golden S, Boyne P, West T. Estimating clinically important change in gait speed in people with stroke undergoing outpatient rehabilitation. *J Neurol Phys Ther.* Jun 2011;35(2):82-9. doi:10.1097/NPT.0b013e318218e2f2
42. Pulignano G, Del Sindaco D, Di Lenarda A, et al. Incremental Value of Gait Speed in Predicting Prognosis of Older Adults With Heart Failure: Insights From the IMAGE-HF Study. *JACC Heart Fail.* Apr 2016;4(4):289-98. doi:10.1016/j.jchf.2015.12.017
43. Palombaro KM, Craik RL, Mangione KK, Tomlinson JD. Determining meaningful changes in gait speed after hip fracture. *Phys Ther.* Jun 2006;86(6):809-16.
44. Bobos P, Ziebart C, Furtado R, Lu Z, MacDermid JC. Psychometric properties of the global rating of change scales in patients with low back pain, upper and lower extremity disorders. A systematic review with meta-analysis. *J Orthop.* 2020;21:40-48. doi:10.1016/j.jor.2020.01.047
45. Cook C, Petersen S, Donaldson M, Wilhelm M, Learman K. Does early change predict long- term (6 months) improvements in subjects who receive manual therapy for low back pain? *Physiother Theory Pract.* Sep 2017;33(9):716-724. doi:10.1080/09593985.2017.1345025
46. Garrison C, Cook C. Clinimetrics corner: the Global Rating of Change Score (GROC) poorly correlates with functional measures and is not temporally stable. *J Man Manip Ther.* 2012;20(4):178-181. doi:10.1179/1066981712Z.00000000022
47. Wang HY, Yang YH. Evaluating the responsiveness of 2 versions of the gross motor function measure for children with cerebral palsy. *Arch Phys Med Rehabil.* Jan 2006;87(1):51-6. doi:10.1016/j.apmr.2005.08.117
48. Jacobson GP, Ramadan NM, Aggarwal SK, Newman CW. The Henry Ford Hospital Headache Disability Inventory (HDI). *Neurology.* May 1994;44(5):837-42. doi:10.1212/wnl.44.5.837
49. Boffa A, Andriolo L, Franceschini M, et al. Minimal Clinically Important Difference and Patient Acceptable Symptom State in Patients With Knee Osteoarthritis Treated With PRP Injection. *Orthopaedic journal of sports medicine.* 2021;9(10):23259671211026242- 23259671211026242. doi:10.1177/23259671211026242
50. Collins NJ, Prinsen CA, Christensen R, Bartels EM, Terwee CB, Roos EM. Knee Injury and Osteoarthritis Outcome Score (KOOS): systematic review and meta-analysis of measurement properties. *Osteoarthritis Cartilage.* Aug 2016;24(8):1317-29. doi:10.1016/j.joca.2016.03.010
51. Maheshwer B, Wong SE, Polce EM, et al. Establishing the Minimal Clinically Important Difference and Patient-Acceptable Symptomatic State After Arthroscopic Meniscal Repair and Associated Variables for Achievement. *Arthroscopy.* Dec 2021;37(12):3479-3486. doi:10.1016/j.arthro.2021.04.058
52. Eckhard L, Munir S, Wood D, et al. Minimal important change and minimum clinically important difference values of the KOOS-12 after total knee arthroplasty. *Knee.* Mar 2021;29:541-546. doi:10.1016/j.knee.2021.03.005
53. Binkley JM, Stratford PW, Lott SA, Riddle DL. The Lower Extremity Functional Scale (LEFS): scale development, measurement properties, and clinical application. North American Orthopaedic Rehabilitation Research Network. *Phys Ther.* Apr 1999;79(4):371-83.
54. Shultz S, Olszewski A, Ramsey O, Schmitz M, Wyatt V, Cook C. A systematic review of outcome tools used to measure lower leg conditions. *Int J Sports Phys Ther.* Dec 2013;8(6):838- 48.
55. Young BA, Walker MJ, Strunce JB, Boyles RE, Whitman JM, Childs JD. Responsiveness of the Neck Disability Index in patients with mechanical neck disorders. *Spine J.* Oct 2009;9(10):802-8. doi:10.1016/j.spinee.2009.06.002
56. MacDermid JC, Walton DM, Avery S, et al. Measurement properties of the neck disability index: a systematic review. *J Orthop Sports Phys Ther.* May 2009;39(5):400-17. doi:10.2519/jospt.2009.2930
57. Childs JD, Piva SR, Fritz JM. Responsiveness of the numeric pain rating scale in patients with low back pain. *Spine (Phila Pa 1976).* Jun 1 2005;30(11):1331-4. doi:10.1097/01.brs.0000164099.92112.29
58. Sobreira M, Almeida MP, Gomes A, Lucas M, Oliveira A, Marques A. Minimal Clinically Important Differences for Measures of Pain, Lung Function, Fatigue, and Functionality in Spinal Cord Injury. *Phys Ther.* Feb 4 2021;101(2)doi:10.1093/ptj/pzaa210
59. Smeets R, Kóke A, Lin CW, Ferreira M, Demoulin C. Measures of function in low back pain/disorders: Low Back Pain Rating Scale (LBPRS), Oswestry Disability Index (ODI), Progressive Isoinertial Lifting Evaluation (PILE), Quebec Back Pain Disability Scale (QBPDS), and Roland- Morris Disability Questionnaire (RDQ). *Arthritis Care Res (Hoboken).* Nov 2011;63 Suppl 11:S158-73. doi:10.1002/acr.20542
60. Soer R, Reneman MF, Vroomen PC, Stegeman P, Coppes MH. Responsiveness and minimal clinically important change of the Pain Disability Index in patients with chronic back pain. *Spine (Phila Pa 1976).* Apr 15 2012;37(8):711-5. doi:10.1097/BRS.0b013e31822c8a7a
61. Heldmann P, Hummel S, Bauknecht L, Bauer JM, Werner C. Construct Validity, Test-Retest Reliability, Sensitivity to Change, and Feasibility of the Patient-Specific Functional Scale in Acutely Hospitalized Older Patients With and Without Cognitive Impairment. *J Geriatr Phys Ther.* Mar 12 2021;doi:10.1519/jpt.000000000000303
62. Chatman AB, Hyams SP, Neel JM, et al. The Patient-Specific Functional Scale: measurement properties in patients with knee dysfunction. *Phys Ther.* Aug 1997;77(8):820-9. doi:10.1093/ptj/77.8.820
63. Cleland JA, Fritz JM, Whitman JM, Palmer JA. The reliability and construct validity of the Neck Disability Index and patient specific functional scale in patients with cervical radiculopathy. *Spine (Phila Pa 1976).* Mar 1 2006;31(5):598-602. doi:10.1097/01.brs.0000201241.90914.22
64. Stratford P, Gill C, Westaway M, Binkley J. Assessing Disability and Change on Individual Patients: A Report of a Patient Specific Measure. *Physiotherapy Canada.* 1995;10/01 1995;47(4):258-263. doi:10.3138/ptc.47.4.258
65. Mathis RA, Taylor JD, Odom BH, Lairamore C. Reliability and Validity of the Patient-Specific Functional Scale in Community-Dwelling Older Adults. *J Geriatr Phys Ther.* Jul/Sep 2019;42(3):E67-e72. doi:10.1519/jpt.000000000000188
66. Westcott McCoy S. Peabody Developmental Motor Scales, Second Edition (PDMS-2). American Physical Therapy Association (APTA). Updated December 31, 1999. Accessed September 26, 2022. <https://www.apta.org/patient-care/evidence-based-practice-resources/test-measures/peabody-developmental-motor-scales-second-edition-pdms-2>
67. Wuang YP, Su CY, Huang MH. Psychometric comparisons of three measures for assessing motor functions in preschoolers with intellectual disabilities. *J*

- Intellect Disabil Res.* Jun 2012;56(6):567-78. doi:10.1111/j.1365-2788.2011.01491.x
68. Pediatric Balance Scale. AbilityLab. Updated September 4, 2015. Accessed September 26, 2022. <https://www.sralab.org/rehabilitation-measures/pediatric-balance-scale>
 69. Froud R, Eldridge S, Underwood M. Minimally Important Change on the Roland Morris Disability Questionnaire. *Br Editorial Soc Bone Joint Surg.* 2010;92(SUPP 1):233-233.
 70. Thoomes-de Graaf M, Scholten-Peeters W, Duijn E, et al. The Responsiveness and Interpretability of the Shoulder Pain and Disability Index. *J Orthop Sports Phys Ther.* Apr 2017;47(4):278-286. doi:10.2519/jospt.2017.7079
 71. McLaughlin RJ, Whitson AJ, Panebianco A, Warme WJ, Matsen FA, 3rd, Hsu JE. The minimal clinically important differences of the Simple Shoulder Test are different for different arthroplasty types. *J Shoulder Elbow Surg.* Aug 2022;31(8):1640-1646. doi:10.1016/j.jse.2022.02.010
 72. Timed Up and Go. AbilityLab. Updated November 6, 2013. Accessed September 26, 2022. <https://www.sralab.org/rehabilitation-measures/timed-and-go>
 73. Barry E, Galvin R, Keogh C, Horgan F, Fahey T. Is the Timed Up and Go test a useful predictor of risk of falls in community dwelling older adults: a systematic review and meta-analysis. *BMC Geriatr.* 2014;14:14-14. doi:10.1186/1471-2318-14-14
 74. Flansbjerg UB, Holmbäck AM, Downham D, Patten C, Lexell J. Reliability of gait performance tests in men and women with hemiparesis after stroke. *J Rehabil Med.* Mar 2005;37(2):75-82. doi:10.1080/16501970410017215
 75. Dal Bello-Haas V, Klassen L, Sheppard MS, Metcalfe A. Psychometric Properties of Activity, Self-Efficacy, and Quality-of-Life Measures in Individuals with Parkinson Disease. *Physiother Can.* Winter 2011;63(1):47-57. doi:10.3138/ptc.2009-08
 76. Huang SL, Hsieh CL, Wu RM, Tai CH, Lin CH, Lu WS. Minimal detectable change of the timed "up & go" test and the dynamic gait index in people with Parkinson disease. *Phys Ther.* Jan 2011;91(1):114-21. doi:10.2522/ptj.20090126
 77. Yuksel E, Unver B, Kalkan S, Karatosun V. Reliability and minimal detectable change of the 2-minute walk test and Timed Up and Go test in patients with total hip arthroplasty. *Hip Int.* Jan 2021;31(1):43-49. doi:10.1177/1120700019888614
 78. Maldaner N, Sosnova M, Ziga M, et al. External Validation of the Minimum Clinically Important Difference in the Timed-up-and-go Test After Surgery for Lumbar Degenerative Disc Disease. *Spine (Phila Pa 1976).* Feb 15 2022;47(4):337-342. doi:10.1097/brs.0000000000004128
 79. Faber MJ, Bosscher RJ, van Wieringen PC. Clinimetric properties of the performance-oriented mobility assessment. *Phys Ther.* Jul 2006;86(7):944-54.
 80. Randall DJ, Zhang Y, Li H, Hubbard JC, Kazmers NH. Establishing the Minimal Clinically Important Difference and Substantial Clinical Benefit for the Pain Visual Analog Scale in a Postoperative Hand Surgery Population. *J Hand Surg Am.* Jul 2022;47(7):645-653. doi:10.1016/j.jhsa.2022.03.009
 81. Clement ND, Bardgett M, Weir D, Holland J, Gerrand C, Deehan DJ. What is the Minimum Clinically Important Difference for the WOMAC Index After TKA? *Clin Orthop Relat Res.* Oct 2018;476(10):2005-2014. doi:10.1097/corr.0000000000000444
 82. World Health Organization. Health Promotion Glossary. World Health Organization (WHO); 2021. Accessed September 26, 2022. <https://www.who.int/publications/i/item/9789240038349>
 83. Axén I, Jones JJ, Rosenbaum A, et al. The Nordic Back Pain Subpopulation Program: validation and improvement of a predictive model for treatment outcome in patients with low back pain receiving chiropractic treatment. *J Manipulative Physiol Ther.* Jul-Aug 2005;28(6):381-5. doi:10.1016/j.jmpt.2005.06.008
 84. Axén I, Rosenbaum A, Robech R, Larsen K, Leboeuf-Yde C. The Nordic back pain subpopulation program: can patient reactions to the first chiropractic treatment predict early favorable treatment outcome in nonpersistent low back pain? *J Manipulative Physiol Ther.* Mar-Apr 2005;28(3):153-8. doi:10.1016/j.jmpt.2005.02.007
 85. Kohlbeck FJ, Haldeman S, Hurwitz EL, Dagenais S. Supplemental care with medication-assisted manipulation versus spinal manipulation therapy alone for patients with chronic low back pain. *J Manipulative Physiol Ther.* May 2005;28(4):245-52. doi:10.1016/j.jmpt.2005.03.003
 86. Hurwitz EL, Morgenstern H, Kominski GF, Yu F, Chiang LM. A randomized trial of chiropractic and medical care for patients with low back pain: eighteen-month follow-up outcomes from the UCLA low back pain study. *Spine (Phila Pa 1976).* Mar 15 2006;31(6):611-21; discussion 622. doi:10.1097/01.brs.0000202559.41193.b2
 87. Newell D, Field J. Who will get better? Predicting clinical outcomes in a chiropractic practice. *Clinical Chiropractic.* 2007;10(4):179-186.
 88. Bove G, Nilsson N. Spinal manipulation in the treatment of episodic tension-type headache: a randomized controlled trial. *Jama.* Nov 11 1998;280(18):1576-9. doi:10.1001/jama.280.18.1576
 89. Moraska A, Chandler C. Changes in Clinical Parameters in Patients with Tension-type Headache Following Massage Therapy: A Pilot Study. *J Man Manip Ther.* 2008;16(2):106-112. doi:10.1179/106698108790818468
 90. Borman P, Keskin D, Ekici B, Bodur H. The efficacy of intermittent cervical traction in patients with chronic neck pain. *Clin Rheumatol.* Oct 2008;27(10):1249-53. doi:10.1007/s10067-008-0895-z
 91. Thiel HW, Bolton JE. Predictors for immediate and global responses to chiropractic manipulation of the cervical spine. *J Manipulative Physiol Ther.* Mar 2008;31(3):172-83. doi:10.1016/j.jmpt.2008.02.007

ADDITIONAL RESOURCES

1. Angst F, Aeschlimann A, Michel BA, Stucki G. Minimal clinically important rehabilitation effects in patients with osteoarthritis of the lower extremities. *J Rheumatol.* 2002;29(1):131-138.
2. Angst F, Goldhahn J, Drerup S, Aeschlimann A, Schwyzer HK, Simmen BR. Responsiveness of six outcome assessment instruments in total shoulder arthroplasty. *Arthritis Rheum.* Mar 15 2008;50(3):391-8. doi:10.1002/art.23318
3. Axén I, Rosenbaum A, Röbech R, Wren T, Leboeuf-Yde C. Can patient reactions to the first chiropractic treatment predict early favorable treatment outcome in persistent low back pain? *J Manipulative Physiol Ther.* Sep 2002;25(7):450-4. doi:10.1067/mmt.2002.126473
4. Clement ND, Bardgett M, Weir D, Holland J, Gerrand C, Deehan DJ. Erratum to: What is the Minimum Clinically Important Difference for the WOMAC Index After TKA? *Clin Orthop Relat Res.* 2020;478(4):922-922. doi:10.1097/CORR.0000000000001156
5. Clement ND, Bardgett M, Weir D, Holland J, Gerrand C, Deehan DJ. What is the Minimum Clinically Important Difference for the WOMAC Index After TKA? *Clin Orthop Relat Res.* 2018;476(10):2005-2014. doi:10.1097/CORR.0000000000000444
6. Beaton D, Richards RR. Assessing the reliability and responsiveness of 5 shoulder questionnaires. *J Shoulder Elbow Surg.* Nov-Dec 1998;7(6):565-72. doi:10.1016/s1058-2746(98)90002-7
7. Beninato M, Fernandes A, Plummer LS. Minimal clinically important difference of the functional gait assessment in older adults. *Phys Ther.* Nov 2014;94(11):1594-603. doi:10.2522/ptj.20130596

8. Bombardier C, Hayden J, Beaton DE. Minimal clinically important difference. Low back pain: outcome measures. *J Rheumatol*. Feb 2001;28(2):431-8.
9. Brennan GP, Fritz JM, Hunter SJ, Thackeray A, Delitto A, Erhard RE. Identifying subgroups of patients with acute/subacute "nonspecific" low back pain: results of a randomized clinical trial. *Spine (Phila Pa 1976)*. Mar 15 2006;31(6):623-31. doi:10.1097/01.brs.0000202807.72292.a8
10. Bronfort G, Evans R, Nelson B, Aker PD, Goldsmith CH, Vernon H. A randomized clinical trial of exercise and spinal manipulation for patients with chronic neck pain. *Spine (Phila Pa 1976)*. Apr 1 2001;26(7):788-97; discussion 798-9. doi:10.1097/00007632-200104010-00020
11. Cai C, Pua YH, Lim KC. A clinical prediction rule for classifying patients with low back pain who demonstrate short-term improvement with mechanical lumbar traction. *Eur Spine J*. 2009;18(4):554-561. doi:10.1007/s00586-009-0909-9
12. Childs JD, Fritz JM, Flynn TW, et al. A clinical prediction rule to identify patients with low back pain most likely to benefit from spinal manipulation: a validation study. *Ann Intern Med*. Dec 21 2004;141(12):920-8. doi:10.7326/0003-4819-141-12-200412210-00008
13. Cleland JA, Childs JD, Fritz JM, Whitman JM, Eberhart SL. Development of a clinical prediction rule for guiding treatment of a subgroup of patients with neck pain: use of thoracic spine manipulation, exercise, and patient education. *Phys Ther*. Jan 2007;87(1):9-23. doi:10.2522/ptj.20060155
14. Cloke DJ, Lynn SE, Watson H, Steen IN, Purdy S, Williams JR. A comparison of functional, patient-based scores in subacromial impingement. *J Shoulder Elbow Surg*. Jul-Aug 2005;14(4):380-4. doi:10.1016/j.jse.2004.08.008
15. Copay AG, Cher DJ. Is the Oswestry Disability Index a valid measure of response to sacroiliac joint treatment? *Qual Life Res*. 2016;25(2):283-292. doi:10.1007/s11136-015-1095-3
16. Crowell MS, Wofford NH. Lumbopelvic manipulation in patients with patellofemoral pain syndrome. *J Man Manip Ther*. 2012;20(3):113-120. doi:10.1179/2042618612Y.0000000002
17. Currier LL, Froehlich PJ, Carow SD, et al. Development of a clinical prediction rule to identify patients with knee pain and clinical evidence of knee osteoarthritis who demonstrate a favorable short-term response to hip mobilization. *Phys Ther*. Sep 2007;87(9):1106-19. doi:10.2522/ptj.20060066
18. Davidson M, Keating JL. A comparison of five low back disability questionnaires: reliability and responsiveness. *Phys Ther*. Jan 2002;82(1):8-24. doi:10.1093/ptj/82.1.8
19. Donoghue D, Stokes EK. How much change is true change? The minimum detectable change of the Berg Balance Scale in elderly people. *J Rehabil Med*. Apr 2009;41(5):343-6. doi:10.2340/16501977-0337
20. Evans R, Bronfort G, Bittell S, Anderson AV. A pilot study for a randomized clinical trial assessing chiropractic care, medical care, and self-care education for acute and subacute neck pain patients. *J Manipulative Physiol Ther*. Sep 2003;26(7):403-11. doi:10.1016/s0161-4754(03)00093-9
21. Evans R, Bronfort G, Nelson B, Goldsmith CH. Two-year follow-up of a randomized clinical trial of spinal manipulation and two types of exercise for patients with chronic neck pain. *Spine (Phila Pa 1976)*. Nov 1 2002;27(21):2383-9. doi:10.1097/00007632-200211010-00013
22. Fabre JM, Ellis R, Kosma M, Wood RH. Falls risk factors and a compendium of falls risk screening instruments. *J Geriatr Phys Ther*. Oct-Dec 2010;33(4):184-97.
23. Fairbank JC, Pynsent PB. The Oswestry Disability Index. *Spine (Phila Pa 1976)*. Nov 15 2000;25(22):2940-52; discussion 2952. doi:10.1097/00007632-200011150-00017
24. Farrar JT, Berlin JA, Strom BL. Clinically important changes in acute pain outcome measures: a validation study. *J Pain Symptom Manage*. May 2003;25(5):406-11. doi:10.1016/s0885-3924(03)00162-3
25. Farrar JT, Portenoy RK, Berlin JA, Kinman JL, Strom BL. Defining the clinically important difference in pain outcome measures. *Pain*. Dec 1 2000;88(3):287-294. doi:10.1016/s0304-3959(00)00339-0
26. Flynn T, Fritz J, Whitman J, et al. A clinical prediction rule for classifying patients with low back pain who demonstrate short-term improvement with spinal manipulation. *Spine (Phila Pa 1976)*. Dec 15 2002;27(24):2835-43. doi:10.1097/00007632-200212150-00021
27. Fritz JM, Childs JD, Flynn TW. Pragmatic application of a clinical prediction rule in primary care to identify patients with low back pain with a good prognosis following a brief spinal manipulation intervention. *BMC Fam Pract*. 2005;6(1):29-29. doi:10.1186/1471-2296-6-29
28. Fritz JM, Hebert J, Koppenhaver S, Parent E. Beyond minimally important change: defining a successful outcome of physical therapy for patients with low back pain. *Spine (Phila Pa 1976)*. Dec 1 2009;34(25):2803-9. doi:10.1097/BRS.0b013e3181ae2bd4
29. Garrison C, Cook C. Clinimetrics corner: the Global Rating of Change Score (GRoC) poorly correlates with functional measures and is not temporally stable. *J Man Manip Ther*. 2012;20(4):178-181. doi:10.1179/1066981712Z.00000000022
30. Grotle M, Brox JJ, Vøllestad NK. Concurrent comparison of responsiveness in pain and functional status measurements used for patients with low back pain. *Spine (Phila Pa 1976)*. Nov 1 2004;29(21):E492-501. doi:10.1097/01.brs.0000143664.02702.0b
31. Haas M, Group E, Aickin M, et al. Dose response for chiropractic care of chronic cervicogenic headache and associated neck pain: a randomized pilot study. *J Manipulative Physiol Ther*. Nov-Dec 2004;27(9):547-53. doi:10.1016/j.jmpt.2004.10.007
32. Haefeli M, Elfering A. Pain assessment. *Eur Spine J*. 2006;15 Suppl 1(Suppl 1):S17-S24. doi:10.1007/s00586-005-1044-x
33. Heald SL, Riddle DL, Lamb RL. The shoulder pain and disability index: the construct validity and responsiveness of a region-specific disability measure. *Phys Ther*. Oct 1997;77(10):1079-89. doi:10.1093/ptj/77.10.1079
34. Hicks GE, Fritz JM, Delitto A, McGill SM. Preliminary development of a clinical prediction rule for determining which patients with low back pain will respond to a stabilization exercise program. *Arch Phys Med Rehabil*. Sep 2005;86(9):1753-62. doi:10.1016/j.apmr.2005.03.033
35. Hinton PM, McLeod R, Broker B, Maclellan CE. Outcome measures and their everyday use in chiropractic practice. *J Can Chiropr Assoc*. 2010;54(2):118-131.
36. Hurst H, Bolton J. Assessing the clinical significance of change scores recorded on subjective outcome measures. *J Manipulative Physiol Ther*. Jan 2004;27(1):26-35. doi:10.1016/j.jmpt.2003.11.003
37. Hurwitz EL, Morgenstern H, Harber P, Kominski GF, Yu F, Adams AH. A randomized trial of chiropractic manipulation and mobilization for patients with neck pain: clinical outcomes from the UCLA neck-pain study. *Am J Public Health*. 2002;92(10):1634-1641. doi:10.2105/ajph.92.10.1634
38. Irrgang JJ, Snyder-Mackler L, Wainner RS, Fu FH, Harner CD. Development of a patient-reported measure of function of the knee. *J Bone Joint Surg Am*. Aug 1998;80(8):1132-45. doi:10.2106/00004623-199808000-00006
39. Iverson CA, Sutlive TG, Crowell MS, et al. Lumbopelvic manipulation for the treatment of patients with patellofemoral pain syndrome: development of a clinical prediction rule. *J Orthop Sports Phys Ther*. Jun 2008;38(6):297-309; discussion 309-12. doi:10.2519/jospt.2008.2669
40. Jacobson GP, Newman CW. The development of the Dizziness Handicap Inventory. *Arch Otolaryngol Head Neck Surg*. Apr 1990;116(4):424-7. doi:10.1001/archotol.1990.01870040046011
41. Jordan K, Dunn KM, Lewis M, Croft P. A minimal clinically important difference was derived for the Roland-Morris Disability Questionnaire for low back pain. *J Clin Epidemiol*. Jan 2006;59(1):45-52. doi:10.1016/j.jclinepi.2005.03.018

42. Kvien TK, Heiberg T, Hagen KB. Minimal clinically important improvement/difference (MCII/MCID) and patient acceptable symptom state (PASS): what do these concepts mean? *Ann Rheum Dis.* 2007;66 Suppl 3(Suppl 3):iii40-iii41. doi:10.1136/ard.2007.079798
43. Lauridsen HH, Hartvigsen J, Manniche C, Korsholm L, Grunnet-Nilsson N. Responsiveness and minimal clinically important difference for pain and disability instruments in low back pain patients. *BMC Musculoskelet Disord.* 2006;7:82-82. doi:10.1186/1471-2474-7-82
44. Leshner JD, Sutlive TG, Miller GA, Chine NJ, Garber MB, Wainner RS. Development of a clinical prediction rule for classifying patients with patellofemoral pain syndrome who respond to patellar taping. *J Orthop Sports Phys Ther.* Nov 2006;36(11):854-66. doi:10.2519/jospt.2006.2208
45. Liebenson C. *Rehabilitation of the Spine: A Practitioner's Manual.* 2nd ed. Lippincott Williams & Wilkins; 2007.
46. Müller U, Duetz M, Röder C, Greenough C. Condition-specific outcome measures for low back pain. Part I: Validation. *Eur Spine J.* 2004;13(4):301-313. doi:https://doi.org/10.1007/s00586-003-0665-1
47. Ostelo RW, Deyo RA, Stratford P, et al. Interpreting change scores for pain and functional status in low back pain: towards international consensus regarding minimal important change. *Spine (Phila Pa 1976).* Jan 1 2008;33(1):90-4. doi:10.1097/BRS.0b013e31815e3a10
48. Pool JJ, Ostelo RW, Hoving JL, Bouter LM, de Vet HC. Minimal clinically important change of the Neck Disability Index and the Numerical Rating Scale for patients with neck pain. *Spine (Phila Pa 1976).* Dec 15 2007;32(26):3047-51. doi:10.1097/BRS.0b013e31815cf75b
49. Roland M, Fairbank J. The Roland-Morris Disability Questionnaire and the Oswestry Disability Questionnaire. *Spine (Phila Pa 1976).* Dec 15 2000;25(24):3115-24. doi:10.1097/00007632-200012150-00006
50. Schmitt J, Abbott JH. Global ratings of change do not accurately reflect functional change over time in clinical practice. *J Orthop Sports Phys Ther.* Feb 2015;45(2):106-11, d1-3. doi:10.2519/jospt.2015.5247
51. Schmitt JS, Di Fabio RP. Reliable change and minimum important difference (MID) proportions facilitated group responsiveness comparisons using individual threshold criteria. *J Clin Epidemiol.* Oct 2004;57(10):1008-18. doi:10.1016/j.jclinepi.2004.02.007
52. Schofferman J, Wasserman S. Successful treatment of low back pain and neck pain after a motor vehicle accident despite litigation. *Spine (Phila Pa 1976).* May 1 1994;19(9):1007-10. doi:10.1097/00007632-199405000-00001
53. Shumway-Cook A, Woollacot M. *Motor Control-Theory and Practical Applications.* Williams and Wilkins; 1995.
54. Soer R, Reneman MF, Vroomen PC, Stegeman P, Coppes MH. Responsiveness and minimal clinically important change of the Pain Disability Index in patients with chronic back pain. *Spine (Phila Pa 1976).* Apr 15 2012;37(8):711-5. doi:10.1097/BRS.0b013e31822c8a7a
55. Stratford PW, Binkley J, Solomon P, Finch E, Gill C, Moreland J. Defining the minimum level of detectable change for the Roland-Morris questionnaire. *Phys Ther.* Apr 1996;76(4):359-65; discussion 366-8. doi:10.1093/ptj/76.4.359
56. Stratford P, Gill C, Westaway M, Binkley J. Assessing Disability and Change on Individual Patients: A Report of a Patient Specific Measure. *Physiotherapy Canada.* 1995/10/01 1995;47(4):258-263. doi:10.3138/ptc.47.4.258
57. Tseng YL, Wang WT, Chen WY, Hou TJ, Chen TC, Lieu FK. Predictors for the immediate responders to cervical manipulation in patients with neck pain. *Man Ther.* Nov 2006;11(4):306-15. doi:10.1016/j.math.2005.08.009
58. Tuchin PJ, Pollard H, Bonello R. A randomized controlled trial of chiropractic spinal manipulative therapy for migraine. *J Manipulative Physiol Ther.* Feb 2000;23(2):91-5.
59. Tveitå EK, Ekeberg OM, Juel NG, Bautz-Holter E. Responsiveness of the shoulder pain and disability index in patients with adhesive capsulitis. *BMC Musculoskelet Disord.* 2008;9:161-161. doi:10.1186/1471-2474-9-161
60. Vianin M. Psychometric properties and clinical usefulness of the Oswestry Disability Index. *J Chiropr Med.* 2008;7(4):161-163. doi:10.1016/j.jcm.2008.07.001
61. Berg K, Wood-Dauphine S, Williams J, Gayton D. Measuring balance in the elderly: preliminary development of an instrument. *Physiotherapy Canada.* 1989;41(6):304-311.

Policy History

Date	Update
November 2023	New Policy
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Outpatient Habilitative Physical and Occupational Therapy

Fulcrum Clinical Guidelines Outpatient Habilitative Physical and Occupational Therapy	Original Date: November 2015 (NIA)
Physical Medicine – Clinical Decision Making	Last Revised Date: November 2023
Guideline Number: CLINUM119	Implementation Date: January 2024

Policy Statement

Habilitative physical and occupational therapy services may or may not be covered by all clients of this organization. If the service is covered, it may or may not require prior authorization. These guidelines apply to all markets and populations, including teletherapy, contracted with this organization through the corresponding state health plans unless a market-specific health plan has been developed. Services may be covered when provided for the end result of achieving age-appropriate growth/development; correcting or improving a physical condition; or helping a patient acquire, maintain, or regain functional skills for successful participation in everyday activities. These services must be provided by a skilled and licensed therapy practitioner and in a manner that is in accordance with accepted standards of practice for discipline-specific therapies. It must also be clinically appropriate in amount, duration, and scope to achieve their purpose and considered effective treatment for the current injury, illness or condition.

Habilitative physical and occupational therapy should meet the definitions and be provided in a clinic, office, home, or in an outpatient setting and be ordered by either a primary care practitioner or specialist unless otherwise directed by state law or statute.

Fulcrum will review all requests resulting in adverse determinations for Medicaid members for coverage under federal Early and Periodic Screening, Diagnostic and Treatment (EPSDT) guidelines.^{1,2}

Definitions:

Habilitative Physical or Occupational Therapy

Treatment provided by a state-regulated physical or occupational therapist designed to help a person learn, obtain, maintain, prevent deterioration of or improve age-appropriate skills and functioning for daily living.^{4,14} These skills may have never been present, lost, or impaired due to a congenital, genetic, or early acquired condition. There must be measurable improvement and progress towards functional goals within an anticipated timeframe toward a patient's maximum potential. Treatment may also be appropriate in an individual with a progressive disorder when it has the potential to prevent the loss of a functional skill or enhance the adaptation to such functional loss. Ongoing treatment is not appropriate when a steady state of sensorimotor functioning has yielded no measurable functional progress.

Rehabilitative Physical or Occupational Therapy: Treatment provided by a state-regulated physical or occupational therapist designed to help a person recover from an acute injury or exacerbation of a chronic condition that has resulted in a decline in functional performance. The specific impact of injury or exacerbation on the patient's ability to perform in their everyday environment must be supported by appropriate tests and measures and clinical observations. Services must be provided within a reasonable time frame (frequency/duration) to restore lost function or to teach compensatory techniques if full recovery of function is not possible.

Maintenance Program: A program established by a licensed therapist that consists of activities and/or mechanisms that will assist the patient in optimizing or maintaining the progress he or she has made during

therapy or to prevent or slow further deteriorations due to a disease or illness.

Medical Necessity: Reasonable or necessary services that require the specific training, skills, and knowledge of a physical or occupational therapist in order to diagnose, correct, or significantly improve/optimize as well as prevent deterioration or development of additional physical and mental health conditions. These services require a complexity of care that can only be safely and effectively performed by or under the general supervision of a skilled therapist. Services shall not be considered reasonable and medically necessary if they can be omitted without adversely affecting the member's condition or the quality of medical care. A service is also not considered a skilled therapy service merely because it is furnished by a therapist or by a therapy assistant under the direct or general supervision, as applicable, of a therapist. If a service can be self-administered or safely and effectively carried out by an unskilled person, without the direct supervision of a therapist, as applicable, then the service cannot be regarded as a skilled therapy service even though a therapist actually rendered the service. Similarly, the unavailability of a competent person to provide a non-skilled service, notwithstanding the importance of the service to the patient, does not make it a skilled service when a therapist renders the service.

Activities of Daily Living (ADLs): Essential activities oriented toward taking care of one's own body (also referred to as basic and/or personal activities of daily living). Such activities are fundamental to living in a social world as well as enabling basic survival and well-being. Specific examples include bathing/showering, toileting, dressing, swallowing/eating, feeding, functional mobility, personal device care, personal hygiene/grooming, and the functional mobility necessary to perform these activities. The initial evaluation and corresponding plan of care should document baseline impairments as they relate to ADL performance deficits with targeted functional outcomes/goals that are measurable, sustainable, and time specific. Subsequent plans should clearly document functional progress toward attainment of these goals in perspective to the patient's potential ability as well as skilled interventions used to target functional outcomes.^{3,5,22}

Functional Mobility Skills: They are considered necessary activities of daily life such as ambulation, transfers, and fine motor skills. The initial plan of care documents baseline impairments as they relate to functional skills with specific goals developed that are specific, measurable, attainable, relevant, and time-based (SMART format). Subsequent plans of care document progress toward attainment of these goals in perspective to the patients' potential ability.

Sensory Integration Disorder: Sensory integration involves perceiving, modulating, organizing, and interpreting internal sensations from within the body as well as external sensations from the surrounding environment to optimize occupational performance and participation. Deficits in sensory integration can pose challenges in performing activities of daily living, in addition to development, learning, playing, working, socializing, and exhibiting appropriate behavior. Differences in interpretation of stimuli can impact motor skills and coordination, further limiting engagement and participation. Sensory processing difficulties can occur across the lifespan. Sensory integrative therapy and evidence-based interventions provide neuroscience-based, cognitive, and/or behavioral approaches that support successful adaptive responses.²³

Procedure:

Physical and/or occupational therapy evaluation and treatment services are considered medically necessary when the following criteria are met:

1. Have written referral from primary care practitioner or other non-physician practitioner (NPP) if required by state guidelines.
2. Physical and occupational therapy initial evaluations and re-evaluations that include patient history such as

recent illness, injury, or disability along with diagnosis and date of onset and/or exacerbation of the condition. Prior and current level of function as well as identification of any underlying factors that have impacted current functional performance must also be noted.³⁻⁵

3. Formal testing must be age-appropriate, norm-referenced, standardized, and specific to the therapy provided. Test scores should meet the following criteria to establish presence of a motor or functional delay. Notes should document the following to establish the presence of delays or deficits:
 - a) The following methods are generally accepted measures that may be considered to support a significant delay:
 - i) Standardized scores at or below the 10th percentile in at least one subtest area for the patient's age.⁶
 - ii) Standardized scores greater than or equal to 1.5 standard deviations below the mean in at least one subtest area for the patient's age.^{1,2,6-10}
 - iii) Functional delays may be established by 25% or greater deficit in age equivalency as indicated by established general guidelines of functional assessments or specific criterion-referenced tests or profiles.^{1,2,6-8,11}
 - b) While standardized testing is preferred, scores alone may not be used as the sole criteria for determining a patient's medical need for skilled intervention. Test information must be linked to difficulty with or inability to perform everyday tasks.
4. In the absence of standardized testing or when test scores show skills within normal ranges despite functional deficits, the documentation must include detailed clinical observations and objective data to document the degree and severity of the condition, in order to support the medical need for skilled services. A caregiver interview/questionnaire can also support the request.
5. Any time standardized testing cannot be completed, the documentation must clearly state the reason formal testing could not be done.
 - a) If the member's medical or cognitive status does not allow for formal testing, the documentation must clearly state the reason formal testing could not be completed.
 - b) In the absence of standardized testing or when test scores show skills within normal ranges though functional deficits are present, the report must include detailed clinical observations of current skill sets, parent interview/questionnaire and/or informal assessment supporting functional mobility/ADL deficits and the medical need for skilled services. The documentation must clearly state the reason formal testing could not be completed.
 - c) Orthopedic diagnoses not related to functional delay including torticollis and gait deviations such as in-toeing or toe walking should include appropriate tests and measures specific to the deficit and the therapy provided.
 - d) In the case of feeding difficulties, the notes must clearly indicate a functional feeding delay because of underlying impairments.
 - i) This may include gagging/choking, oral motor or upper extremity coordination deficits, or maladaptive behaviors due to food intolerance/aversion preventing adequate oral intake that contribute to malnutrition or decreased body mass index.
 - ii) Fine motor and/or sensory testing, as well as detailed clinical observations of oral motor skills, should also be included in the documentation if functional feeding delays are a result of these component parts of the overall task.
 - iii) Parent report of limited food choices is not adequate to support the medical need for feeding therapy.
 - iv) There must also be evidence of ongoing progress and a consistent home regimen to facilitate carry-over of target feeding skills; strategies; and education of patient, family, and caregivers.
 - v) Therapies for picky eaters who can eat and swallow normally meeting growth and

developmental milestones, eat at least one food from all major food groups (protein, grains, fruits, etc.) and more than 20 different foods is not medically necessary.

6. Re-evaluations must be performed annually at a minimum to show progress, support ongoing delays or functional deficits and medical necessity for continued services. Re-evaluations should include updated formal testing that is age-appropriate, norm-referenced, standardized, and specific to the type of therapy provided (see Record Keeping and Documentation Standards, Fulcrum's *RECORD KEEPING AND DOCUMENTATION STANDARDS: PHYSICAL MEDICINE*) for additional information regarding re-evaluation requirements). More frequent objective measures may be needed to show progress and support ongoing delays (see progress note section below).
7. Retesting with norm-referenced standardized test tools for re-evaluations must occur yearly and may occur every 180 days. Tests must be age appropriate for the child being tested and providers must use the same testing instrument as used in the initial evaluation. If reuse of the initial testing instrument is not appropriate, i.e., due to a change in member status or restricted age range of the testing tool, the provider should explain the reason for the change.
8. When skilled services are also being provided by other community service agencies and/or school systems, the notes must show how the requested services are working in coordination with these agencies and not duplicating services. The extent or lack of these additional services must be indicated in the documentation.
9. Measurable short and long-term functional goals should be SMART: specific, measurable, attainable, relevant, and timed. Individualized targeted outcomes that are linked to functional limitations outlined in the most recent evaluation/assessment.¹² These goals should include the date in which the goal was established, as well as the date in which the goal is expected to be met. Goals of intervention should target the functional deficits identified by the skilled therapist during the assessment and promote attainment of age-appropriate developmental milestones, functional mobility and/or ADL skills appropriate to the patient's age and circumstances.¹³
 - a) Although identified as component parts of participation, underlying factors, performance skills, client factors or the environment should not be the targeted outcome of long-term goals.
 - b) In like manner, underlying factors such as strength, range of motion, or cognition should not be the sole focus of short-term goals.¹⁴ When documenting interventions, an explicit connection must be made to what participation outcome the intervention will target.
10. Intervention selections must be evidence-based, chosen to address the targeted goals, and representative of the best practices outlined by the corresponding national organizations.^{3,5}
 - a) The ultimate focus of interventions¹⁵ must be to promote motor learning or relatively permanent differences in motor skill capability that can be transferred and generalized to new learning situations.
11. The plan of care must include goals detailing type, amount, duration, and frequency of therapy services required to achieve targeted outcomes. The frequency and duration must also be commensurate with the patient's level of disability, medical and skilled therapy needs as well as accepted standards of practice while reflecting clinical reasoning and current evidence.¹⁶
12. Frequency and duration of skilled services must also be in accordance with the following:
 - a) Intense frequencies (3x/week or more, for a short duration of 2-6 weeks¹⁷) will require additional documentation and testing supporting a medical need to achieve an identified new skill or recover function with specific, achievable goals within the requested intensive period.¹⁶ Details on why a higher frequency is more beneficial than a moderate or low frequency must be included. Higher frequencies may be considered when delays are classified as severe as indicated by corresponding testing guidelines used in the evaluation. More intensive frequencies may be necessary in the acute phase; however, progressive decline in frequency is expected within a reasonable time frame.

- i) On a case-by-case basis, a high frequency requested for a short-term period (4 weeks or less) which does not meet the above criteria may be considered with all of the following documentation:
 - (1) Letter of medical need from the prescribing provider documenting the member's rehabilitation potential for achieving the goals identified.
 - (2) Therapy summary documenting all of the following:
 - (a) Purpose of the high frequency requested (e.g., close to achieving a milestone)
 - (b) Identification of the functional skill which will be achieved with high frequency therapy, and
 - (c) Specific measurable goals related to the high frequency requested and the expected date the goal will be achieved.
 - b) Moderate frequency (2x/week) should be consistent with moderate delays as established in the general guidelines of formal assessments used in the evaluation. Therapy provided two times a week may be considered when documentation shows one or more of the following:
 - i) The member is making very good functional progress toward goals.
 - ii) The member is in a critical period to gain new skills or restore function or is at risk of regression.
 - iii) The licensed therapist needs to adjust the member's therapy plan and home program weekly or more often than weekly based on the member's progress and medical needs.
 - iv) The member has complex needs requiring ongoing education of the responsible adult.
 - c) Low frequency (at or less than 1x/week). Therapy provided one time per week or less may be considered when the documentation shows one or more of the following¹⁶:
 - i) The member is making progress toward their goals, but the progress has slowed, or documentation shows the member is at risk of deterioration due to the member's medical condition.
 - ii) The licensed therapist is required to adjust the member's therapy plan and home program weekly to every other week based on the member's progress.
 - iii) Every other week therapy is supported for members whose medical condition is stable, they are making progress, and it is anticipated the member will not regress with every other week therapy.
 - iv) Frequencies less than every other week may be appropriate for those children who cannot yet tolerate more frequent therapy sessions. They may also have needs that are addressed on a periodic basis as part of comprehensive management in a specialty clinic. Occasional consultation may be appropriate to ensure gains continue, to address emerging concerns, or to help order equipment and train in its use.
 - d) All requested frequencies must be supported by skilled treatment interventions regardless of level of severity of delay.¹⁸
13. Documentation should clearly reflect why the skills of a therapist are medically necessary. There must be evidence as to whether the services are considered reasonable, effective treatments requiring the skills of a therapist or whether they can be safely and effectively carried out by non-skilled personnel without the supervision of qualified professionals.
14. Clinical updates that include current objective measures, progress towards goals, and requested frequency and duration of care are expected at regular intervals or when additional care is requested. Documentation should include:
- a) The patient's current level of function, any conditions that are impacting his/her ability to benefit from skilled intervention.
 - b) Objective measures of the patient's overall functional progress relative to each treatment goal as well as a comparison to the previous progress report.¹⁹ Outcomes should assist in functional skill acquisition that is sustained over time.

- c) Skilled treatment techniques that are being utilized in therapy as well as the patient's response to therapy and why there may be a lack thereof.
- d) An explanation of any significant changes in the plan of care and clinical rationale for why the ongoing skills of a PT/OT are medically necessary.
- e) In the case of maintenance programs, clear documentation of the skilled interventions rendered and objective details of how these interventions are preventing deterioration or making the condition more tolerable must be provided. The notes must also clearly demonstrate that the specialized judgment, knowledge, and skills of a qualified therapist (as opposed to a non-skilled individual) are required for the safe and effective performance of services in a maintenance program.

15. Maintenance Level/Prevent Deterioration

- a) This frequency level (e.g., every other week, monthly, every 3 months) is used when the therapy plan changes very slowly, the home program is at a level that may be managed by the member or the responsible adult/caregiver, or the therapy plan requires infrequent updates by the skilled therapist. Documentation must show that the habilitative plan of care has ended, and a new plan of care established for maintenance.
- b) Goals in the plan of care must be updated to reflect that care is focused on maintaining the current level of functioning and preventing regression, rather than progressing or improving function.
- c) A maintenance level of therapy services may be considered when a member requires skilled therapy for ongoing periodic assessments and consultations and the member meets one of the following criteria:
 - i) Progress has slowed or stopped, but documentation supports that ongoing skilled therapy is required to maintain the progress made or prevent deterioration.
 - ii) The submitted documentation shows that the member may be making limited progress toward goals or that goal attainment is extremely slow.
 - iii) Factors are identified that inhibit the member's ability to achieve established goals (e.g., the member cannot participate in therapy sessions due to behavior issues or issues with anxiety).
 - iv) Documentation shows the member and the responsible adult have a continuing need for education, a periodic adjustment of the home program, or regular modification of equipment to meet the member's needs. Clear documentation of the skilled interventions rendered and objective details of how these interventions are preventing deterioration or making the condition more tolerable must be provided. The notes must also clearly demonstrate that the specialized judgment, knowledge, and skills of a qualified therapist (as opposed to a non-skilled individual) are required for the safe and effective performance of services in a maintenance program.

16. If the patient is not progressing, then documentation of a revised treatment plan is necessary.

Discontinuation of therapy may be considered in one or more of the following situations:

- a) The patient no longer demonstrates functional impairment or has achieved goals set forth in the treatment plan or plan of care.
- b) The patient has returned to baseline function.
- c) The patient can continue therapy with a home treatment program and deficits no longer require a skilled therapy intervention and, for members who are 20 years of age and younger only, maintain status.
- d) The patient has adapted to impairment with assistive equipment or devices.
- e) The patient is able to perform ADLs with minimal to no assistance from caregiver.
- f) The patient has achieved maximum functional benefit from therapy in progress or will no longer

- benefit from additional therapy.
- g) The patient is unable to participate in the treatment plan or plan of care due to medical, psychological, or social complications; and responsible adult has had instruction on the home treatment program and the skills of a therapist are not needed to provide or supervise the service.
 - h) Testing shows the member no longer has a developmental delay.
 - i) Plateau in response to therapy/lack of progress towards therapy goals.
 - j) Non-compliance due to poor attendance by the patient or responsible adult, non-compliance with therapy and home treatment program.
 - k) The patient has achieved the maximum therapeutic value of a treatment plan, no additional functional improvement is apparent or expected to occur, and the provision of services for a condition cease to be of therapeutic value.
17. It is expected that a discharge plan, with the expected treatment frequency and duration, must be included in the plan of care. The discharge plan must indicate the plan to wean services once the patient has attained their goals, if no measurable functional improvement has been demonstrated, or if the program can be carried out by caregivers or other non-skilled personnel.
18. Development of an age-appropriate home regimen to facilitate carry-over of targeted skills and strategies as well as patient, family, and caregiver education in home exercises and self-monitoring should be evident in the documentation. Indication of compliance of the home regimen should be documented to show maximum benefit of care.
19. For patients no longer showing functional improvement, a weaning process of one to two months should occur. If the patient shows signs of regression in function, the need for skilled physical or occupational therapy can be re-evaluated at that time. Periodic episodes of care may be needed over a lifetime to address specific needs or changes in condition resulting in functional decline.^{20,21}

Regulatory, Accreditation and Resources

Fulcrum Provider Portal: <https://fulcrumproviderportal.com>

Medicare NCD & LCD

1. [Article - Billing and Coding: Outpatient Physical and Occupational Therapy Services \(A56566\) \(cms.gov\)](#)
2. [Article - Billing and Coding: Outpatient Physical and Occupational Therapy Services \(A57067\) \(cms.gov\)](#)
2. [NCCI for Medicare | CMS](#)
3. [Article - Billing and Coding: Home Health Occupational Therapy \(A53057\) \(cms.gov\)](#)
4. [Article - Billing and Coding: Home Health Physical Therapy \(A53058\) \(cms.gov\)](#)
5. [Article - Billing and Coding: Outpatient Occupational Therapy \(A53064\) \(cms.gov\)](#)
6. [Article - Billing and Coding: Outpatient Physical Therapy \(A53065\) \(cms.gov\)](#)
7. [Article - Billing and Coding: Physical Therapy - Home Health \(A57311\) \(cms.gov\)](#)
8. [LCD - Physical Therapy - Home Health \(L33942\) \(cms.gov\)](#)

NCQA

1. UM 2 Element A Clinical Criteria for UM Decisions

Clinical Resources

1. Early and Periodic Screening, Diagnostic and Treatment (EPSDT) – A Guide for States. Coverage in the Medicaid Benefit for Children and Adolescents (2014). Centers for Medicare and Medicaid Services. December 2, 2022. https://www.medicaid.gov/sites/default/files/2019-12/epsdt_coverage_guide.pdf
2. Early and Periodic Screening, Diagnostic, and Treatment. Centers for Medicare and Medicaid Services. Updated June 29, 2022. Accessed December 2, 2022. <https://www.medicaid.gov/medicaid/benefits/early-and-periodic-screening-diagnostic-and-treatment/index.html>
3. Occupational Therapy Practice Framework: Domain and Process (3rd Edition). *The American Journal of Occupational Therapy*. 2014;68(Supplement_1):S1-S48. doi:10.5014/ajot.2014.682006

4. American Physical Therapy Association. Physical Therapy Documentation of Patient and Client Management. American Physical Therapy Association (APTA). Updated April 30, 2019. Accessed August 4, 2022. <https://www.apta.org/your-practice/documentation>
5. Association AOT. Standards of practice for occupational therapy. *The American Journal of Occupational Therapy*. 2021;75(Supplement_3)
6. Maine Department of Education. Severity Rating Scales/Guidelines for Speech/Language Communication Services - Language Severity Rating Scale. Updated August 1, 2020. Accessed December 2, 2022. <https://www.maine.gov/doe/sites/maine.gov.doe/files/2022-09/PROCEDURAL%20MANUAL%20Update%208-1-2020.pdf>
7. Maryland State Department of Education (MSDE), Division of Special Education/Early Intervention Services. Guidelines for the Use of the Developmental Delay (DD) Eligibility Category. Children Ages Birth through Seven Years. Updated March 2012. Accessed December 2, 2022.
8. Georgetown University Center for Child and Human Development. Contemporary Practices in Early Intervention: Developmental Delay and IDEA Primer (2011). Accessed December 2, 2022. https://www.teachingei.org/disabilities/primers/Developmental_Delay.pdf
9. Bélanger SA, Caron J. Evaluation of the child with global developmental delay and intellectual disability. *Paediatrics & child health*. 2018;23(6):403-410.
10. Mithyantha R, Kneen R, McCann E, Gladstone M. Current evidence-based recommendations on investigating children with global developmental delay. *Arch Dis Child*. Nov 2017;102(11):1071-1076. doi:10.1136/archdischild-2016-311271
11. Voigt RG. Clinical Judgment and Child Development, Revisited. *Pediatrics*. Mar 1 2022;149(3)doi:10.1542/peds.2021-054835
12. Bowman J, Mogensen L, Marsland E, Lannin N. The development, content validity and inter-rater reliability of the SMART-Goal Evaluation Method: A standardised method for evaluating clinical goals. *Aust Occup Ther J*. Dec 2015;62(6):420-7. doi:10.1111/1440-1630.12218
13. Houtrow A, Murphy N. Prescribing Physical, Occupational, and Speech Therapy Services for Children With Disabilities. *Pediatrics*. Apr 2019;143(4)doi:10.1542/peds.2019-0285
14. Amini D, Furniss J. The Occupational Therapy Practice Framework: A Foundation for Documentation. American Occupational Therapy Association (AOTA). Updated October 2018. Accessed August 4, 2022. <https://www.aota.org/~media/Corporate/Files/Publications/CE-Articles/CE-Article-October-2018.pdf>
15. Levac D, Wishart L, Missiuna C, Wright V. The application of motor learning strategies within functionally based interventions for children with neuromotor conditions. *Pediatr Phys Ther*. Winter 2009;21(4):345-55. doi:10.1097/PEP.0b013e3181beb09d
16. Bailes AF, Reder R, Burch C. Development of guidelines for determining frequency of therapy services in a pediatric medical setting. *Pediatr Phys Ther*. Summer 2008;20(2):194-8. doi:10.1097/PEP.0b013e3181728a7b
17. Hanson H, Harrington AT, Nixon-Cave K. Implementing treatment frequency and duration guidelines in a hospital-based pediatric outpatient setting: administrative case report. *Phys Ther*. Apr 2015;95(4):678-84. doi:10.2522/ptj.20130360
18. American Physical Therapy Association. Intensity of Service in an Outpatient Setting for Children With Chronic Conditions. American Physical Therapy Association (APTA). Updated 2012. Accessed August 2, 2022. <https://pediatricapta.org/includes/factsheets/pdfs/12%20Intensity%20of%20Service.pdf>
19. Lucas BR, Elliott EJ, Coggan S, et al. Interventions to improve gross motor performance in children with neurodevelopmental disorders: a meta-analysis. *BMC Pediatr*. Nov 29 2016;16(1):193. doi:10.1186/s12887-016-0731-6
20. Alotaibi M, Long T, Kennedy E, Bavishi S. The efficacy of GMFM-88 and GMFM-66 to detect changes in gross motor function in children with cerebral palsy (CP): a literature review. *Disabil Rehabil*. 2014;36(8):617-27. doi:10.3109/09638288.2013.805820
21. Trahan J, Malouin F. Intermittent intensive physiotherapy in children with cerebral palsy: a pilot study. *Dev Med Child Neurol*. Apr 2002;44(4):233-9. doi:10.1017/s0012162201002006
22. Guidelines for Documentation of Occupational Therapy. *Am J Occup Ther*. Nov/Dec 2018;72(Supplement_2):7212410010p1-7212410010p7. doi:10.5014/ajot.2018.72S203
23. Kinnealey M, Riuli V, Smith S. Case study of an adult with sensory modulation disorder. *Sens Integr Spec Interest Sec Q*. 2015;38:1-4.

ADDITIONAL RESOURCES

1. American Occupational Therapy Association. Habilitative Services are Essential Health Benefits: An Opportunity for Occupational Therapy Practitioners and Consumers. American Occupational Therapy Association (AOTA). Updated June 6, 2014. Accessed August 2, 2022. <https://www.aota.org/~media/Corporate/Files/Advocacy/Health-Care-Reform/Essential-Benefits/Habilitative%20Services%20Fact%20Sheet.pdf>
2. American Physical Therapy Association. APTA Guide to Physical Therapist Practice. American Physical Therapy Association (APTA). Accessed August 2, 2022. <https://guide.apta.org/>
3. American Speech-Language-Hearing Association. Guidelines for Speech-Language Pathologists Providing Swallowing and Feeding Services in Schools. American Speech-Language-Hearing Association (ASHA). Updated 2007. Accessed August 2, 2022. <https://www.psha.org/pdfs/asha-feeding-qa.pdf>
4. Ayres AJ. Sensory integration and learning disorders. Western Psychological Services; 1972.
5. Rehabilitation Therapies Episodes of Care in Childhood and Adolescence. Gillette Children's Specialty Healthcare (GCSH). Updated March 2016. Accessed August 2, 2022 https://www.gillettechildrens.org/assets/uploads/care-and-conditions/Episodes_of_Care_English.pdf
6. Ong C, Phuah KY, Salazar E, How CH. Managing the 'picky eater' dilemma. *Singapore Med J*. 2014;55(4):184-190. doi:10.11622/smedj.2014049
7. Uher R, Rutter M. Classification of feeding and eating disorders: review of evidence and proposals for ICD-11. *World Psychiatry*. 2012;11(2):80-92. doi:10.1016/j.wpsyc.2012.05.005
8. The Management and Rehabilitation of Post-Acute Mild Traumatic Brain Injury Work Group. VA/DoD clinical practice guideline for the management and rehabilitation of post-acute mild traumatic brain injury, Version 3.0. Department of Veterans Affairs/Department of Defense. Updated June 2021. Accessed August 2, 2022. <https://www.healthquality.va.gov/guidelines/Rehab/mtbi/VADoDmtBICPGFinal508.pdf>

Policy History

Date	Update
November 2023	New Policy
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Outpatient Habilitative Speech Therapy

Fulcrum Clinical Guidelines Outpatient Habilitative Speech Therapy	Original Date: November 2015 (NIA)
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: CLINUM121	Implementation Date: January 2024

Policy Statement

Habilitative speech therapy services may or may not be covered by all clients of this organization. If the service is covered, it may or may not require prior authorization. These guidelines apply to all markets and populations, including teletherapy, contracted with this organization through the corresponding state health plans unless a market-specific health plan has been developed. These services must be provided by a skilled and licensed therapy practitioner and in a manner that is in accordance with accepted standards of practice for discipline-specific therapies. It must also be clinically appropriate in amount, duration, and scope to achieve their purpose and considered effective treatment for the current injury, illness, or condition.

Habilitative/Rehabilitative speech therapy should meet the definitions below, be provided in a clinic, an office, at home, or in an outpatient setting and be ordered by either a primary care practitioner or specialist.

Scope

Physical medicine practitioners, including speech language pathologists and speech therapist assistants.

Definitions

Habilitative Speech Therapy: Treatment provided by a state-regulated speech therapist to help a person attain, maintain, or prevent deterioration of a skill or function never learned or acquired. There must be measurable improvement and progress towards functional goals within an anticipated timeframe toward a patient’s maximum potential. Treatment may also be appropriate in a child with a progressive disorder when it has the potential to prevent the loss of a functional skill or enhance the adaptation to such functional loss. The condition must be such that there is a reasonable expectation that the services will bring about a significant improvement within a reasonable time frame, regardless of whether the individual has a coexisting disorder. Ongoing treatment is not appropriate when functioning is steady, and treatment no longer yields measurable functional progress.

Rehabilitative Speech Therapy: Treatment provided by a state-regulated speech therapist designed to help a person recover from an acute injury or exacerbation of a chronic condition that has resulted in a decline in functional performance. The specific impact of injury or exacerbation on the patient’s ability to perform in their everyday environment must be supported by appropriate tests and measures in addition to clinical observations. Services must be provided within a reasonable time frame (frequency/duration) to restore lost function or to teach compensatory techniques if full recovery of function is not possible.

Functional Skills are considered necessary communication activities of daily life. The initial plan of care documents baseline impairments as they relate to functional communication with specific goals developed that are measurable, sustainable and time specific. Subsequent plans of care document progress toward attainment of these goals in perspective to the patients’ potential ability. Discontinuation of therapy will be expected when the maximum therapeutic value of a treatment plan has been achieved, no additional functional improvement is apparent or expected to occur, and the provision of services for a condition cease to be of therapeutic value.

Fulcrum will review all requests resulting in adverse determinations for Medicaid members for coverage under federal Early and Periodic Screening, Diagnostic and Treatment (EPSDT) guidelines.^{1,2}

Procedure

1. Must have written referral from primary care practitioner or other non-physician practitioner (NPP) as permitted by state guidelines.
2. When skilled services are also being provided by other community service agencies and/or school systems, the notes must show how the requested services are working in coordination with these agencies and not duplicating services. The extent or lack of these additional services must be indicated in the documentation.
3. Formal testing must be age-appropriate, norm-referenced, standardized, and specific to the therapy provided. Test scores should meet the following criteria to establish presence of a functional delay. Notes should document the following to establish the presence of delays or deficits:
 - a) The following methods are generally accepted measures that may be considered to support a significant delay:
 - i) Standardized scores at or below the 10th percentile in at least one subtest area for the patient's age.³
 - ii) Standardized scores greater than or equal to 1.5 standard deviations below the mean in at least one subtest area for the patient's age.¹⁻⁸
 - iii) Functional delays may be established by 25% or greater deficit in age equivalency as indicated by established general guidelines of functional assessments or specific criterion-referenced tests or profiles.¹⁻⁶
4. While standardized testing is preferred, scores alone may not be used as the sole criteria for determining a patient's medical need for skilled intervention. Test information must be linked to difficulty with or inability to perform everyday tasks.
5. In the absence of standardized testing or when test scores show skills within normal ranges despite functional deficits, the documentation must include detailed clinical observations and objective data to document the degree and severity of the condition, in order to support the medical need for skilled services. A caregiver interview/questionnaire can also support the request.
6. Any time standardized testing cannot be completed, the documentation must clearly state the reason formal testing could not be done.
7. Treatment goals must be realistic, measurable, and promote attainment of developmental milestones and functional communication abilities appropriate to the patient's age and circumstances. They should include the type, amount, duration, and frequency of therapy services.⁹ The amount, frequency, and duration of the services must be consistent with accepted standards of practice. Treatment goals must be individualized and measurable in order to identify the functional levels related to appropriate maintenance or maximum therapeutic benefit. Goals of intervention should target the functional deficits identified by the skilled therapist during the assessment and promote attainment of:
 - a) Age-appropriate developmental milestones, functional skills appropriate to the patient's age and circumstances. Although identified as component parts of participation, underlying factors, performance skills, client factors or the environment should not be the targeted outcome of long-term goals. For sustained positive benefits from therapeutic interventions, activities can be practiced in the child's environment and reinforced by the parents or other caregivers. Practice in one's natural environment is essential for success.¹⁰
 - b) The plan of care must include goals detailing type, amount, duration, and frequency of therapy services required to achieve targeted outcomes. The frequency and duration must also be commensurate with the patient's level of disability, medical and skilled therapy needs, as well as accepted standards of practice while reflecting clinical reasoning and current evidence.⁹
8. Frequency and duration of skilled services must also be in accordance with the following:
 - a) Intense frequencies (3x/week or more) will require additional documentation and testing supporting a medical need to achieve an identified new skill or recover function with specific, achievable goals within

the requested intensive period⁹ Details on why a higher frequency is more beneficial than a moderate or low frequency must be included. Higher frequencies may be considered when delays are classified as severe as indicated by corresponding testing guidelines used in the evaluation. More intensive frequencies may be necessary in the acute phase, however, progressive decline in frequency is expected within a reasonable time frame.

- b) Moderate frequency (2x/week) should be consistent with moderate delays as established in the general guidelines of formal assessments used in the evaluation. This frequency may be used for ongoing care when documentation supports this frequency as being clinically effective toward achieving the functional goals in the treatment plan within a reasonable time frame.
 - c) Low frequency (1x/week or less) may be considered when testing guidelines indicate mild delays or when a higher frequency has not been clinically effective, and a similar outcome is likely with less treatment per week.
 - d) All requested frequencies must be supported by skilled treatment interventions regardless of level of severity of delay.
 - e) Additional factors may be considered on a case-by-case basis.
9. There must be evidence as to whether the services are considered reasonable, effective, and of such a complex nature that they require the technical knowledge and clinical decision-making skill of a therapist or whether they can be safely and effectively carried out by non-skilled personnel without the supervision of qualified professionals.
- a) Treatment that requires technical knowledge and clinical decision-making expertise to meet the skilled service needs of the individual. This includes analyzing medical/behavioral data and selecting appropriate evaluation tools/protocols to determine communication/swallowing diagnosis and prognosis.
 - b) Progress notes/updated plans of care that cover the patient's specific progress towards their goals with review by the primary care practitioner or other NPP will be required every 60-90 days or per state guidelines. Documentation should include:
 - i) The patient's current level of function, any conditions that are impacting his/her ability to benefit from skilled intervention.
 - ii) Objective measures of the patient's overall functional progress relative to each treatment goal as well as a comparison to the previous progress report.
 - iii) Skilled treatment techniques that are being utilized in therapy as well as the patient's response to therapy and why there may be a lack thereof. Treatment goals that follow a hierarchy of complexity to achieve the target skills for a functional goal.
 - iv) Re-evaluation/annual testing (for habilitative therapy) using formal standardized assessment tools and formal assessment of progress must be performed to support progress, ongoing delays and medical necessity for continued services.
 - v) An explanation of any significant changes in the plan of care and clinical rationale for why the ongoing skills of a SLP are medically necessary.
 - c) If the patient is not progressing, then documentation of a revised treatment plan is necessary. Discontinuation of therapy will be expected when the maximum therapeutic value of a treatment plan has been achieved, no additional functional improvement is apparent or expected to occur, and the provision of services for a condition cease to be of therapeutic value.
 - d) It is expected that a specific discharge plan, with the expected treatment frequency and duration, must be included in the plan of care. The discharge plan must indicate the plan to wean services once the patient has attained their goals, if no measurable functional improvement has been demonstrated, or if the program can be carried out by caregivers or other non-skilled personnel.
 - e) It is expected that there be evidence of the development of age-appropriate home regimen to facilitate carry-over of target skills and strategies and education of patient, family, and caregiver in home practice exercises, self-monitoring as well as indication of compliance for maximum benefit of therapy.

- f) For patients no longer showing functional improvement, a weaning process of one to two months should occur. Behaviors that interfere with the ability to progress with therapy qualify under the ASHA discharge criteria guidelines.¹¹ If the patient shows signs of regression in function, the need for skilled speech therapy can be re-evaluated at that time. Periodic episodes of care may be needed over a lifetime to address specific needs or changes in condition resulting in functional decline.
 - g) A maintenance level of therapy services may be considered when a member requires skilled therapy for ongoing periodic assessments and consultations and the member meets one of the following criteria:
 - i) Documentation shows the member and the responsible adult have a continuing need for education, or a periodic adjustment of the home program is needed to meet the member's needs.
 - ii) Goals in the plan of care must be updated to reflect that care is focused on maintaining the current level of functioning and preventing regression, rather than progressing or improving function.
 - iii) Clear documentation of the skilled interventions rendered and objective details of how these interventions are preventing deterioration or making the condition more tolerable must be provided. The notes must also clearly demonstrate that the specialized judgment, knowledge, and skills of a qualified therapist (as opposed to a non-skilled individual) are required for the safe and effective performance of services in a maintenance program.
 - h) For patients whose language background differs from the rendering therapist and in situations in which a clinician who has native or near-native proficiency in the target language is not available, use of an interpreter is appropriate and should be documented accordingly. If an interpreter is not present, rationale for this should be documented as well as documentation that provides evidence of a communication disorder, and a treatment plan that supports linguistically appropriate services without the use of an interpreter. Further, if a patient is substantially exposed to more than one language, the assessment must evaluate both languages and contain appropriate tests and measures to clearly denote the presence that a communication disorder is present as opposed to normal linguistic variations related to second language learning.^{12,13}
 - i) Swallowing disorders (dysphagia) and feeding disorders will need documentation of an oral, pharyngeal, and/or esophageal phase disorder, food intolerance or aversion. There must be evidence of ongoing progress and a consistent home regimen to facilitate carry-over of target feeding skills, strategies and education of patient, family, and caregiver. Therapies for picky eaters who can eat and swallow normally meeting growth and developmental milestones, eat at least one food from all major food groups (protein, grains, fruits, etc.) and more than 20 different foods is not medically necessary.
 - j) Documentation should include any applicable coordination of services with other community service agencies and/or school systems. If services are not available, then this should be indicated in the documentation.
10. Treatment that includes goals for reading/literacy must also have a primary diagnosis of a speech or language disorder. Documentation must support that the deficits in reading/literacy are affecting functional activities of daily living and are not the primary focus of treatment. They must show how the services for reading/literacy are of such a complex nature that they require the skills of a speech language pathologist.

Regulatory, Accreditation and Resources

Fulcrum Provider Portal: <https://fulcrumproviderportal.com>

Medicare NCD & LCD

[Article - Billing and Coding: Outpatient Physical and Occupational Therapy Services \(A56566\) \(cms.gov\)](#)

[NCCI for Medicare | CMS](#)

[Article - Billing and Coding: Home Health Speech-Language Pathology \(A53052\) \(cms.gov\)](#)

[Article - Billing and Coding: Speech Language Pathology \(SLP\) Services: Communication Disorders \(A54111\) \(cms.gov\)](#)

NCQA UM 2 Element A Clinical Criteria for UM Decisions

Clinical Resources

1. Early and Periodic Screening, Diagnostic and Treatment (EPSDT) – A Guide for States. Coverage in the Medicaid Benefit for Children and Adolescents (2014). Centers for Medicare and Medicaid Services. December 2, 2022. https://www.medicaid.gov/sites/default/files/2019-12/epsdt_coverage_guide.pdf
2. Early and Periodic Screening, Diagnostic, and Treatment. Centers for Medicare and Medicaid Services. Updated June 29, 2022. Accessed December 2, 2022. <https://www.medicaid.gov/medicaid/benefits/early-and-periodic-screening-diagnostic-and-treatment/index.html>
3. Maine Department of Education. Severity Rating Scales/Guidelines for Speech/Language Communication Services - Language Severity Rating Scale. Updated August 1, 2020. Accessed December 2, 2022. <https://www.maine.gov/doe/sites/maine.gov/doe/files/2022-09/PROCEDURAL%20MANUAL%20Update%208-1-2020.pdf>
4. Georgetown University Center for Child and Human Development. Contemporary Practices in Early Intervention: Developmental Delay and IDEA Primer (2011). Accessed December 2, 2022. https://www.teachingei.org/disabilities/primers/Developmental_Delay.pdf
5. Maryland State Department of Education (MSDE), Division of Special Education/Early Intervention Services. Guidelines for the Use of the Developmental Delay (DD) Eligibility Category. Children Ages Birth through Seven Years. Updated March 2012. Accessed December 2, 2022.
6. Voigt RG. Clinical Judgment and Child Development, Revisited. *Pediatrics*. Mar 1 2022;149(3)doi:10.1542/peds.2021-054835
7. Mithyantha R, Kneen R, McCann E, Gladstone M. Current evidence-based recommendations on investigating children with global developmental delay. *Arch Dis Child*. Nov 2017;102(11):1071-1076. doi:10.1136/archdischild-2016-311271
8. The Speech Pathology Group (SPG). Professional Development Speech Resources – Bell Curve. Updated 2022. Accessed December 2, 2022. SPG-Bell-Curve-EnglishSpanish.pdf (spgtherapy.com)
9. Bailes AF, Reder R, Burch C. Development of guidelines for determining frequency of therapy services in a pediatric medical setting. *Pediatr Phys Ther*. Summer 2008;20(2):194-8. doi:10.1097/PEP.0b013e3181728a7b
10. Houtrow A, Murphy N. Prescribing Physical, Occupational, and Speech Therapy Services for Children With Disabilities. *Pediatrics*. Apr 2019;143(4)doi:10.1542/peds.2019-0285
11. American Speech-Language-Hearing Association. Admission/discharge criteria in speech- language pathology [Guidelines]. American Speech-Language-Hearing Association (ASHA). Updated 2004. Accessed August 2, 2022. <https://www.asha.org/policy/gl2004-00046/>
12. American Speech-Language-Hearing Association. Bilingual Service Delivery. American Speech-Language-Hearing Association (ASHA). Accessed August 2, 2022. <https://www.asha.org/practice-portal/professional-issues/bilingual-service-delivery/>
13. Kester ES. *Difference or disorder? : understanding speech and language patterns in culturally and linguistically diverse students*. Bilingualistics Speech and Language Services; 2014:122.

ADDITIONAL RESOURCES

1. Biddle A, Watson L, Hooper C, Lohr K, Sutton S. 52 Criteria for Determining Disability in Speech-Language Disorders: Summary. Agency for Healthcare Research and Quality (AHRQ). Updated January 2002. Accessed August 3, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK11866/>
2. American Speech-Language-Hearing Association. Guidelines for Speech-Language Pathologists Providing Swallowing and Feeding Services in Schools. American Speech-Language-Hearing Association (ASHA). Updated 2007. Accessed August 2, 2022. <https://www.psha.org/pdfs/asha-feeding-qa.pdf>
3. Kummer A. Speech pathology for the child with disability. 21st ed. McGraw-Hill; 2003:545.
4. Law J, Garrett Z, Nye C. Speech and language therapy interventions for children with primary speech and language delay or disorder. The Cochrane database of systematic reviews. 2003;2003(3):CD004110-CD004110. doi:10.1002/14651858.CD004110
5. Leung AK, Kao CP. Evaluation and management of the child with speech delay. *Am Fam Physician*. Jun 1999;59(11):3121-8, 3135.
6. Ong C, Phuah KY, Salazar E, How CH. Managing the 'picky eater' dilemma. *Singapore Med J*. 2014;55(4):184-190. doi:10.11622/smedj.2014049
7. Uher R, Rutter M. Classification of feeding and eating disorders: review of evidence and proposals for ICD-11. *World Psychiatry*. 2012;11(2):80-92. doi:10.1016/j.wpsyc.2012.05.005
8. Wood E, Bhalloo I, McCaig B, Feraru C, Molnar M. Towards development of guidelines for virtual administration of paediatric standardized language and literacy assessments: Considerations for clinicians and researchers. *SAGE Open Med*. 2021;9:20503121211050510. doi:10.1177/20503121211050510
9. McLeod S, Crowe K. Children's Consonant Acquisition in 27 Languages: A Cross-Linguistic Review. *Am J Speech Lang Pathol*. 2018 Nov 21;27(4):1546-1571. doi: 10.1044/2018_AJSLP-17- 0100. PMID: 30177993.

Policy History

Date	Update
November 2023	New Policy
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Record Keeping and Documentation Standards: Physical Medicine

Fulcrum Clinical Guidelines Record Keeping and Documentation Standards: Physical Medicine	Original Date: (NIA) November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: CLINUM122	Implementation Date: January 2024

Policy Statement

Recordkeeping is used to document the condition and care of the patient, avoid or defend against a malpractice claim, and support the concurrent and/or retrospective medical necessity requiring the provision of skilled services. The provider is responsible for documenting the evidence to clearly support the foregoing indices and submitting the documentation for review in a timely manner.

These guidelines apply to all markets and populations, including teletherapy, contracted with this organization through the corresponding state health plans unless a market-specific health plan has been developed. To be covered, documentation must contain evidence to support medical necessity and the need for skilled services as appropriated by the following descriptions and definitions.

Definitions

Medical Necessity: Reasonable or necessary services that require the specific training, skills, and knowledge of a physical or occupational therapist and/or speech/language pathologist in order to diagnose, correct, or significantly improve/optimize as well as prevent deterioration or development of additional physical and mental health conditions. These services require a complexity of care that can only be safely and effectively performed by or under the general supervision of a skilled licensed professional.

- a) Services shall not be considered reasonable and medically necessary if they can be omitted without adversely affecting the member’s condition or the quality of medical care.
- b) A service is also not considered a skilled service merely because it is furnished by a skilled licensed professional or by an assistant under the direct or general supervision, as applicable, of that professional. If a service can be self-administered or safely and effectively carried out by an unskilled person, without the direct supervision of a trained professional, as applicable, then the service cannot be regarded as a skilled service even though a licensed professional rendered the service.
- c) Similarly, the unavailability of a competent person to provide a non-skilled service, notwithstanding the importance of the service to the patient, does not make it a skilled service when a skilled licensed professional renders the service.
- d) Services that include repetitive activities (exercises, skill drills) which do not require a licensed/registered professional’s expertise (knowledge, clinical judgment, and decision- making abilities) and can be learned and performed by the patient or caregiver are not deemed medically necessary.
- e) Activities for general fitness and flexibility, sports-specific training enhancement or general tutoring for improvement in educational performance are not considered medically necessary.

All network practitioners will maintain clinical documentation that clearly supports the medical necessity of all health care services. In addition, all network practitioners are required to provide additional clinical documentation and/or explanation regarding medical necessity of services at the request of this organization.

Medically necessary care includes the following elements:

- a) **Contractual** – all covered medically necessary health care services are determined by the practitioner’s contract with the payer and individual health plan benefits.
- b) **Scope of Practice** – medically necessary health care services are limited to the scope of practice under all applicable state and national health care boards.
- c) **Standard of Practice** – all health care services must be within the practitioner’s generally accepted standard of practice and based on credible, peer-reviewed, published medical literature recognized by the practitioner’s relevant medical community.
- d) **Patient Safety** – all health care services must be delivered in the safest possible manner.
- e) **Medical Service** – all health care services must be medical, not social, or convenient, for the purpose of evaluating, diagnosing, and treating an illness, injury, or disease and its related symptoms and functional deficit. These services must be appropriate and effective regarding type, frequency, level, duration, extent, and location of the enrollee’s diagnosis or condition.
- f) **Setting** – all health care services must be delivered in the least intensive setting.
- g) **Cost** – the practitioner must deliver all health care services in the most cost-effective manner as determined by this organization, the health plan, and/or employer. No service should be more costly than an alternative diagnostic method or treatment that is at least as likely to provide the same diagnostic or treatment outcome.
- h) **Clinical Guidelines**– health care services are considered medically necessary if they meet all of the Clinical Guidelines of this organization.

Procedure:

1. General Guidelines:

- a) Documentation should clearly reflect why the skills of a practitioner are needed. The service is considered a *skilled service* if the inherent complexity of the service is such that it can be performed safely and/or effectively only by or under the supervision of a licensed therapist. The deciding factors are always whether the services are considered reasonable, effective treatments requiring the skills of a therapist or whether they can be safely and effectively carried out by non-skilled personnel without the supervision of qualified professionals.
- b) All records (both digital and handwritten) must be legible, which is defined as the ability of at least two people to read and understand the documents.
- c) Documentation should be complete and include the practitioner’s signature and credentials, appropriately dated chart entries, and include patient identifications on each page. Any corrections to the patient’s record must be made legibly in permanent ink (single line through the error), dated, and authenticated by the person making the correction(s). Electronic documentation should include the appropriate mechanism indicating that a change was made without the deletion of the original record.
- d) Services must be documented in accordance with Current Procedural Terminology (CPT®) coding criteria (e.g., location (body region), time component, etc.).
- e) Adverse events associated with treatment should be recorded in the patient chart.

2. Clinical Documentation

- a) Initial evaluations and re-evaluations including plan of care should document the medical need for a course of treatment through objective findings and subjective self or caregiver reporting. The evaluation must be performed by a licensed PT, OT, ST, MD, DO, or DPM in the state. Pertinent history and general demographics, including past or current treatment for the same condition and a baseline evaluation including current and prior functional status should be submitted for review. Copy of discharge summary, written letter from the member stating when services ended and/or

specific reference to the date the member choosing to end care with a prior provider must be provided if patient has a current authorization with a different provider and is seeking services with a new provider. Treatment should not duplicate services provided in multiple settings or disciplines.

- b) Documentation of the evaluations should list and describe the impact of the conditions and complexities on the prognosis and/or the plan for treatment such that it is clear to the peer reviewer that the planned services are reasonable and appropriate for the individual.
 - c) Objective measures and/or discipline-specific standardized testing demonstrating delays that are connected to a decline in functional status must be provided. (Note: Treatment must not be focused on returning to activities beyond normal daily living, including but not limited to return to sports or work specific tasks). For patients with developmental delay, see Outpatient Habilitative Physical and Occupational Therapy and/or Habilitative/Rehabilitative Speech Therapy Guidelines. Assessment tools used during the evaluation should be valid, reliable, relevant, and supported by the appropriate national therapy best practices guidelines.
 - d) While outcome assessment measures are preferred, scores alone may not be used as the sole criteria for determining a patient's medical need for skilled intervention. Test information must be linked to difficulty with or inability to perform everyday tasks.¹
 - e) In the absence of objective measures, the report must include detailed clinical observations of current skill sets, patient or caregiver interview/questionnaire and/or informal assessment supporting functional mobility/ADL deficits and the medical need for skilled services. The documentation must clearly state the reason formal testing could not be completed.
 - f) Functional outcome assessment and/or standardized test results with raw scores, standardized scores, and score interpretation must be included.
 - g) Detailed clinical observations, as well as prognosis and rehab potential, must be outlined.
 - h) Contraindications to care must be listed with an explanation of their current management.
 - i) School programs, including frequency and goals to ensure there is no duplication (for Habilitative OT/PT/ST).
 - j) Information regarding child's involvement in home and community programs (for Habilitative OT/PT/ST).
 - k) Daily notes should include clear evidence of skilled treatment interventions that cannot be carried out solely by non-skilled personnel, assessment of patient's response or non- response to intervention and plan for subsequent treatment sessions, assessments, or updates, and any significant, unusual, or unexpected changes in clinical status.
3. Treatment plan or Plan of Care should include the following:
- a) Meaningful clinical observations; the patient's response to the evaluation process; and interpretation of the evaluation results, including prognosis for improvement and recommendations for therapy amount, frequency, and duration of services.
 - b) The plan of care must include measurable short- and long-term functional SMART (specific, measurable, attainable, realistic and time-bound^{3,4}) goals detailing type, amount, duration, and frequency of therapy services required to achieve targeted outcomes, linked to functional limitations outlined in the most recent evaluation/assessment. The frequency and duration must also be commensurate with the patient's level of disability, medical and skilled therapy needs as well as accepted standards of practice while reflecting clinical reasoning and current evidence.²
 - c) Visits or units requested must not exceed the frequency and duration supported in the plan of care.
 - d) Frequency and duration of skilled services must also be in accordance with the following:
 - i) Intense frequencies (3x/week or more) will require additional documentation and testing supporting a medical need to achieve an identified new skill or recover function with specific, achievable goals within the requested intensive period.² Details on why a higher frequency is

more beneficial than a moderate or low frequency must be included. Higher frequencies may be considered when delays are classified as severe as indicated by corresponding objective measures and/or testing guidelines used in the evaluation. More intensive frequencies may be necessary in the acute phase; however, progressive decline in frequency is expected within a reasonable time frame.

- ii) Moderate frequency (2x/week) should be consistent with moderate delays as established by objective measures and/or the general guidelines of formal assessments used in the evaluation. This frequency may be used for ongoing care when documentation supports this frequency as being clinically effective toward achieving the functional goals in the treatment plan within a reasonable time frame.
 - iii) Low frequency (1x/week or every other week) may be considered when objective measures and/or testing guidelines indicate mild delays or when a higher frequency has not been clinically effective, and a similar outcome is likely with less treatment per week.
 - iv) Additional factors may be considered on a case-by-case basis.
 - v) Requested frequency/duration must be supported by skilled treatment interventions regardless of level of severity of deficit or delay.
- e) Intervention selections must be evidence-based, chosen to address the targeted goals and representative of the best practices outlined by the corresponding national organizations.^{5,6} Treatment plan should include the type of modalities and treatment interventions to be provided, any expected caregiver involvement in the patient's treatment, educational plan, including home exercises, ADL modifications, and anticipated discharge recommendations, including education of the member in a home program and, when applicable, primary caregiver education.
- f) Plan of care should be reviewed at intervals appropriate to the patient and in accordance with state and third-party requirements. This review should include total visits from the start of care, changes in objective outcome measures, overall progress towards each goal (including where goal has been met or not met), and any modification of treatment interventions in order to meet goals. Goals should be updated and modified as appropriate. The plan of care update should outline a summary of a patient's response (or lack thereof) to intervention and a brief statement of the prognosis or potential for improvement in functional status, and any update to the frequency or amount of expected care, in preparation for discharge.
- g) The plan of care should clearly support why the skills of a professional are needed as opposed to discharge to self-management or non-skilled personnel without the supervision of qualified professionals. If telehealth is included, the plan of care should clearly support why the skills of a professional are needed as opposed to discharge to self-management or non-skilled personnel without the supervision of qualified professionals.
- h) Anticipated discharge planning should be included in plans of care. Formal discharge from care should be considered when records demonstrate services are unskilled or could be completed as part of a home management program, functional limitations do not support the rate of care requested (stated above) or treatment is provided without a treatment plan, functional goals, or recent, sustained improvement.
4. Reviewers determine that claims/requests have insufficient documentation when the medical documentation submitted is inadequate to support a request for services as medically necessary or requiring skilled services for the requested amount of care. Incomplete notes (e.g., unsigned; undated; insufficient detail, such as lacking updated objectives, updated goals, or specific plan of care) may also result in a denial for lack of sufficient information.
5. All contracted practitioners will treat patient identifiable health information according to HIPAA standards to ensure the confidentiality of the record and provide the minimum necessary information when requested to perform a review of services.

Regulatory, Accreditation and Resources

Fulcrum Provider Portal: <https://fulcrumproviderportal.com>

Medicare NCD & LCD

[NCCI for Medicare | CMS](#)

Clinical Resources

1. Herzinger CV, Campbell JM. Comparing functional assessment methodologies: a quantitative synthesis. *J Autism Dev Disord.* Sep 2007;37(8):1430-45. doi:10.1007/s10803-006-0219-6
2. Bailes AF, Reder R, Burch C. Development of guidelines for determining frequency of therapy services in a pediatric medical setting. *Pediatr Phys Ther.* Summer 2008;20(2):194-8. doi:10.1097/PEP.0b013e3181728a7b
3. Bovend'Eerd TJ, Botell RE, Wade DT. Writing SMART rehabilitation goals and achieving goal attainment scaling: a practical guide. *Clin Rehabil.* Apr 2009;23(4):352-61. doi:10.1177/0269215508101741
4. Bowman J, Mogensen L, Marsland E, Lannin N. The development, content validity and inter-rater reliability of the SMART-Goal Evaluation Method: A standardised method for evaluating clinical goals. *Aust Occup Ther J.* Dec 2015;62(6):420-7. doi:10.1111/1440-1630.12218
5. Amini D, Furniss J. The Occupational Therapy Practice Framework: A Foundation for Documentation. American Occupational Therapy Association (AOTA). Updated October 2018. Accessed August 4, 2022. <https://www.aota.org/~media/Corporate/Files/Publications/CE-Articles/CE-Article-October-2018.pdf>
6. American Physical Therapy Association. Physical Therapy Documentation of Patient and Client Management. American Physical Therapy Association (APTA). Updated April 30, 2019. Accessed August 4, 2022. <https://www.apta.org/your-practice/documentation>

ADDITIONAL RESOURCES

1. American Speech-Language-Hearing Association. The Practice Portal. American Speech-Language-Hearing Association (ASHA). Updated 2022. Accessed August 4, 2022. <https://www.asha.org/practice-portal/>
 2. Centers for Medicare and Medicaid Services. Medicare Benefit Policy Manual Chapter 15 –Covered Medical and Other Health
 3. Services. Centers for Medicare and Medicaid Services (CMS). Updated May 20, 2022. Accessed August 4, 2022. <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c15.pdf>
 4. Centers for Medicare and Medicaid Services. Complying With Medical Record Documentation Requirements. Centers for Medicare and Medicaid Services (CMS). Updated January 2021. Accessed August 4, 2022. <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/CERTMedRecDoc-FactSheet-ICN909160Text-Only.pdf>
 5. National Committee for Quality Assurance. Guidelines for medical record documentation. National Committee for Quality Assurance (NCQA). Accessed August 4, 2022. https://www.ncqa.org/wp-content/uploads/2018/07/20180110_Guidelines_Medical_Record_Documentation.pdf
- Paul D, Hasselkus A. Clinical Record Keeping in Speech-Language Pathology for Health Care and Third-Party Payers Minnesota Department of Human Services (MN DHS). Updated 2004. Accessed August 4, 2022. http://www.dhs.state.mn.us/main/groups/manuals/documents/pub/dhs16_158228.pdf

Policy History

Date	Update
November 2023	New Policy
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Active Care Procedures

Fulcrum Clinical Guidelines Active Care Procedures	Original Date: June 2018 (NIA) January 2018 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: CLINUM 103	Implementation Date: January 2024

Policy Statement

Active care services have sufficient evidence to support superior outcomes when used alone or in combination with manual-based treatments and/or passive care services.^{1,2} This policy will apply to all physical medicine participating network practitioners who provide active procedures, data/claims processing, and peer reviewers. Physical medicine practitioners include chiropractors, physical therapists, occupational therapists, and speech language pathologists.

Purpose

These guidelines will assist the evidence-based physical medicine provider to properly choose the correct service(s) when indicated for proper overall case management.

Definitions

The following services are considered “active” meaning the patients themselves take part in the completion of the service. This is opposed to “passive”, where the patient passively receives health care services without any physical input or effort.

All services outlined in this section require the provision of skilled services and direct (one-on- one) provider-patient contact. While an individual’s medical condition is a valid factor in making decisions about health care, the diagnosis or prognosis cannot be the sole basis in deciding that skilled care services are reasonable and necessary. The key judgment is whether the skills of a qualified health care provider are needed to treat the illness or injury or whether the services can be carried out by unskilled personnel.

Regardless of the expectation of improvement, reasonable and necessary skilled care services must be provided by a qualified health care provider and require a high level of complexity and sophistication or the condition of the patient is such that the services can be safely and effectively performed only by a qualified health care provider. Services that do not require the performance or supervision of a qualified health care provider are not skilled and are not considered reasonable or necessary services, even if they are performed or supervised by a qualified professional. Therefore, if a service can be self-administered or safely and effectively furnished by an unskilled person or caregiver, without the direct or general supervision of a qualified health care provider, the service cannot be regarded as skilled even if a qualified professional actually furnishes the service. Further, the unavailability of a competent person to provide a non-skilled service, despite the importance of the service to the patient, does not make it a skilled service when a qualified health care provider furnishes the service. A clinician may not merely supervise but must apply the skills of a professional by actively participating in the treatment of the patient. In addition, a provider’s skills may be documented, for example, by the clinician’s descriptions of their skilled treatment, the changes made to the treatment due to a clinician’s assessment of the patient’s needs on a particular treatment day or changes due to progress the clinician judged sufficient to modify the treatment toward the next more complex or difficult task.

Services related to activities for the general good and welfare of patients (e.g., general exercises to promote overall fitness and flexibility and activities to provide diversion or general motivation) do not constitute skilled care services. Services provided by practitioners/staff who are not qualified health care providers are not skilled

intervention services. Unskilled services are palliative procedures that are repetitive or reinforce previously learned skills or services performed to maintain function.

Objective Evidence: Consists of serial standardized assessment tools/instruments, outcome measurements, and/or measurable assessments of functional outcome used to quantify patient progress and support justification for continued treatment. Examples of objective evidence include:

- a) Functional assessment from standardized and validated outcomes instruments; or
- b) Functional assessment scores from tests and measurements that are validated in the professional literature, which are appropriate for the condition/function being measured.

Physical measures (e.g., range of motion or manual muscle strength testing) are generally not considered to be 'objective evidence' of functional assessment.

Rehabilitative (Restorative) Services: Services designed to address recovery or improvement in function and, when possible, restoration to a previous level of health and well-being. Improvement is evidenced by successive objective measurements whenever possible (e.g., impairments, pain, functional status, etc.). If an individual's expected rehabilitation potential is insignificant in relation to the extent and duration of therapy services required to achieve such potential, rehabilitative therapy is not reasonable and necessary. Rehabilitative care must require the skills and level of sophistication of a qualified health care provider. Services that can be safely and effectively furnished by non-skilled personnel or caregivers are not rehabilitative care services.

Skilled rehabilitative care services must be part of a documented treatment plan provided to improve or restore lost or impaired physical function resulting from illness, injury, neurologic disorder, congenital defect, or surgery. These skilled care services are intended to enhance rehabilitation and recovery by clarifying a patient's impairments and functional limitations as well as by identifying interventions, treatment goals, and precautions.

Reasonable and Necessary: The services shall be of such a level of complexity and sophistication or the condition of the patient shall be such that the services required can only be performed safely and effectively by a qualified health care provider. Services that do not require the performance of a qualified health care provider are not skilled and are not considered reasonable or necessary.

Procedure

1. Clinical Reasoning:

The current valid literature indicates the necessity of incorporating active care measures into treatment programs. Interventions chosen to treat the patient's symptoms or conditions should be selected based on the most effective and efficient means of achieving the patient's functional goals.³

2. Timing of Introduction

- a) **Acute care cases-** The literature supports the introduction and management of active care procedures as soon as clinically possible once the patient has sufficient range of motion/functional ability. For the care to be considered beneficial and effective, active care services should generally be provided within the first two weeks of intervention. For the purpose of these guidelines, an acute care case is when a patient is seen for treatment within seven days of the onset of the illness, injury, and/or medical intervention.⁴
- b) **Subacute care cases-** Similar to acute care cases, the literature supports the introduction and management of active care procedures as soon as clinically possible once the patient has sufficient range of motion/functional ability. For the care to be considered beneficial and effective, active care services should generally be provided within the first two weeks of intervention. For the purpose of these guidelines, a subacute care case is when a patient is seen for treatment between

7 and 21 days after the onset of an illness, injury, and/or medical intervention.

- c) **Chronic care cases-** The literature supports the introduction and management of active care procedures at the onset of intervention, either the first or second visit. For the purpose of these guidelines, a chronic care case is when a patient is seen for treatment beyond 21 days after the onset of an illness, injury, and/or medical intervention. Chronic conditions that have intermittent episodes will also be considered chronic in nature for the purpose of these guidelines.⁴

3. Documentation Requirements

- a) Documentation must support the medical necessity for the services requested and why the skills of a licensed professional are needed to render the service. The provider must outline the patient-specific rationale/need for care and intervention as it relates to the patient’s condition and resultant functional limitations in activities of daily living, as well as mobility and safety, as identified in a comprehensive evaluation. Based on these findings, a plan of care is developed that includes specific and measurable goals that support the need for the identified interventions.⁵
- b) Documentation must include a timeframe for initiating, progressing, and discharging the patient from skilled services. Documentation must also include specific treatment parameters to support the intervention, in addition to applicable precautions. This includes the specific type of procedure, instruction and/or exercise performed, area of body and muscle groups treated, and time component.⁵

4. Billing Units

- a) Fulcrum follows Medicare rules for reporting timed units.⁶ Billing units are based on 15 minutes per unit for time-based codes and the Medicare minimum time requirement for a service to be justifiably billed.

1 unit	≥ 8 minutes to 22 minutes
2 units	≥ 23 minutes to 37 minutes
3 units	≥ 38 minutes to 52 minutes
4 units	≥ 53 minutes to 67 minutes
5 units	≥ 68 minutes to 82 minutes
6 units	≥ 83 minutes to 97 minutes
7 units	≥ 98 minutes to 112 minutes
8 units	≥ 113 minutes to 127 minutes

- b) Individual states may have varying statutory guidelines for reporting timed units that supersede this organization’s requirements.

CPT Code Definitions, Examples and Requirements

1. 97110 - Therapeutic Exercise

- i) Definition: Although not exclusive by definition, therapeutic exercise is any exercise planned and performed to attain a specific goal. Goals would be to increase strength, endurance, range of motion, and flexibility. Therapeutic procedures/exercise could be applied to one or more areas and billed in units as noted above.
- ii) Parameters for Use: The following requirements must be documented in the medical record to support and justify the use of all therapeutic procedures/exercises:
 - i) Evidence to support medical necessity
 - ii) Plan of care with specific and measurable goals and timeframe for initiating, progressing, and discharging the patient from skilled medical services to an independent home program
 - iii) Detailed description of active care services including:
 - (1) What exercise(s) were provided
 - (2) What area and muscle groups the exercise(s) were provided to
 - (3) Amount and type of resistance, number of repetitions and sets, and time component

- iv) Evidence to support the need for skilled services completed by a licensed professional in direct contact with one patient
- iii) Medical research supports the initiation of appropriate therapeutic procedures/exercise as soon as the patient is reasonably able to engage in the planned activity. Therefore, the expectation is for a patient to perform therapeutic exercises and receive a home exercise program within a reasonable timeframe.⁷⁻¹⁸ Based on the definition and guidelines for services that are medically necessary, the expectation is for the provision of the therapeutic procedures/exercises that are not for the convenience of the patient or health care provider or more costly than an alternative form of treatment
- iv) Guidelines regarding the use of fitness machines (MedX equipment, cervical/lumbar extension machines, Isostation B-220 Lumbar Dynamometer, Cybex Back System, etc.) show insufficient evidence that they are more efficacious than standard exercise equipment or that their use improves clinical outcomes to a greater extent than standard programs.
- v) Documentation must:
 - i) Clearly state why the intervention is medically necessary. Provide evidence to support number of visits that are often in excess of community standards for treatment of musculoskeletal conditions
 - ii) Provide evidence of functional improvement as a result of the increased muscle strength
 - iii) Clearly state the skilled service being provided
 - iv) Provide evidence for why the skills of a physical medicine provider/practitioner are needed beyond progressing weights and repetitions
 - v) Provide evidence for why the skills of a physical medicine provider/practitioner are needed beyond a few visits to establish a program
 - vi) Show that the therapeutic exercise is part of a comprehensive rehab program
 - vii) Include a plan of care driven by impairments, not the intervention itself
 - viii) Clearly demonstrate that increasing muscle strength is the treatment of choice (e.g., strength building may be detrimental in an individual with movement restrictions).
- vi) Examples
Strengthening of select muscle groups (beginning in gravity-eliminated plane, if needed) progressing to anti-gravity plane utilizing body weight with progressive resistive exercises utilizing thera-tubing, exercise ball, free weights, etc.; closed chain exercises are often preferable to open chain exercises in preventing shearing forces and simulating functional activities); monitored graded exercise following cardiac or pulmonary surgery or heart attack; selective stretching to increase joint range of motion (ROM).
- vii) Support for this service
 - i) Indications must be documented for loss or restriction of joint motion, reduced strength, and functional capacity or mobility concerns. The clinical records must show objective (quantitative if possible) loss of ROM, strength, flexibility, or mobility. The code is generally not reimbursable for increasing a patient's endurance without deficits, promotion of overall fitness, weight loss, return to work, return to sports, for sport(s) and/or recreation, and/or sports and aerobic conditioning.
 - ii) Documentation must include evidence of the skilled services required to support the use of therapeutic exercise. It is considered a skilled service that would require proper licensure/credentials of the clinician. Without evidence in the documentation to support the need for skilled services, the records would suggest the patient is "working out" in the clinical setting, which is generally not medically necessary and not eligible for reimbursement.

- iii) Most programs should entail one to three units at any time to ensure competency and compliance with instructions. The clinical rationale for more than three units would need to be clearly supported by documentation. If more than three units are being utilized per session, this might indicate the patient is “working out” in the clinical setting which is generally not considered medically necessary.
- iv) Patient non-compliance with active home instructions will not result in further in-office instruction being considered medically necessary. The patient should instead be discharged for non-compliance/acting against medical advice.
- v) One to three sessions of in-office exercise should be sufficient, for the non-surgical patient, to ensure competency and compliance with a home exercise program. If in-office repetitive exercise continues after 3 sessions, the record must clearly document why the patient is not able to participate in a home exercise program. Any active care program may include periodic review of the program as part of case management in regard to monitoring continued therapeutic benefit and progression in specific exercises/instructions. This ongoing case management should outline patient compliance, necessary alterations to any active home care program, progression in specific active home care program, and anticipated term date for the need for skilled in-office services.

2. **97112 - Neuromuscular re-education¹⁹**

- a) Definition: Neuromuscular re-education of movement, balance, coordination, kinesthetic sense, posture, and proprioception (defined as the three modalities of joint position: sense, sense of movement and sense of force). Injuries can be seen after stroke, closed head injury, spinal cord injury, tumor, congenital disorders such as cerebral palsy or secondary to degenerative joint disease, musculoskeletal injury such as ankle sprain, post orthopedic surgery, or prolonged immobilization. Neuromuscular re-education may be considered medically necessary if at least one of the following conditions is present and documented:
 - i) The patient has the loss of deep tendon reflexes and vibration sense accompanied by paresthesia, burning, or diffuse pain of the feet, lower legs, and/or fingers.
 - ii) The patient has nerve palsy, such as peroneal nerve injury causing foot drop.
 - iii) The patient has muscular weakness or flaccidity, as a result of a cerebral dysfunction, a nerve injury or disease, or has had a spinal cord disease or trauma.
 - iv) The patient has muscle compensations requiring targeted exercise to produce stable, coordinated movements during functional tasks.²⁰
 - v) The patient has peripheral or central vestibular dysfunction causing dizziness, vertigo, imbalance, or disequilibrium that supports the use of Vestibular Balance and Rehabilitation Therapy (VBRT).^{21,22}
- b) Examples
 Treatment involves the stimulation of reflexes, sensation, posture, proprioception and motor activity through rocker/BAPS board, mini-trampolines, targeted exercises to spastic or rigid muscles, balance training, proprioceptive neuromuscular facilitation (PNF), Feldenkrais, Bobath, neurodevelopmental treatment (NDT), and desensitization techniques.
- c) Support for this service
 - i) Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.
 - ii) An indication of the lesion of the neuromusculoskeletal system needs to be documented and the exact procedure must be noted. Instructions for home care should be seen within a reasonable timeframe and the service discontinued with proper education and instruction given to the patient.

3. **97113 - Aquatic Therapy²³**

- a) Definition: A therapy program utilizing therapeutic exercise techniques with the properties of water, designed and carried out in a suitably heated hydrotherapy pool by a qualified clinician specifically for

an individual to improve function. Examples: Ai Chi, Aquatic PNF,²⁴ the Bad Ragaz Ring Method,^{25,26} Fluid Moves, the Halliwick Concept,^{27,28} Swim Stroke Training and Modification, Task Type Training Approach and Watsu.²⁹ Treatment to address improved circulation and decreased venous pooling, increased endurance facilitated through the availability of cardiovascular training with less stress on weight-bearing joints or working with enhancement of balance and coordination as a result of the buoyancy obtained from an aquatic environment.

b) Support for this Service

- i) Documentation must support the need for skilled services by a licensed professional in direct contact with one patient. The patient would need to be immersed in a pool of water for this code to apply.
- ii) The provider must also indicate the medical necessity for the buoyancy, hydrostatic pressure, and heat properties that are present in a pool setting versus standard land-based therapeutic exercise or activities. This is often used to transition the patient to a land-based program.

4. **97116 - Gait Training**

a) Definition: Training the patient in specific activities that will facilitate ambulation on varied surfaces and stair climbing with or without an assistive device. This includes training in rhythm, speed, sequencing, and safety instructions.

b) Examples

Gait training can be useful for people with any condition needing to re-learn proper ambulation to allow for functional performance and mobility. Common conditions include amputation, osteoarthritis, muscular dystrophy, cerebral palsy, stroke, Parkinson's disease, multiple sclerosis, brain/spinal cord injuries, post-surgical, sports injury, and low back pain.

c) Support for this Service

- i) The provider should consider the contextual factors that affect a person's ability to participate meaningful ADLs. Gait training and ambulation interventions should directly address functional mobility.³⁰
- ii) Documentation must support the need for skilled services by a licensed professional in direct contact with one patient as opposed to just addressing endurance deficits alone, or continue to treat until the patient can move to a lesser supportive assistive device.
- iii) Deficits in gait parameters including walking speed, cadence, stride length and balance, and functional ambulation category scores must be documented. The provider would need to document if body-weight support (BWS) systems, unweighting devices, or assistive devices are used. The record must denote the assessment of the phases of gait to include stance phase, stride length, balance issues and what the ankle, knee, hip, and low back are doing during the phases of gait cycle.

5. **97760 - Orthotics Management and Training**

a) Definition: Orthotic(s) management and training, including assessment and fitting when not otherwise reported as a separate L HCPCS code (L-code), fitting and training, upper extremity or extremities, lower extremity or extremities, and/or trunk, each 15 minutes.

b) Explanation:

- i) This code applies to custom-fabricated orthotics and for adjustments to over-the-counter orthotics. The orthotics management portion of this code refers to time spent assessing the need for the orthotic and the type of orthotic as well as the fitting and the fabrication if the fabrication is done in the presence of the patient. The training portion of this code includes training in the care and use of the orthotic device.
- ii) This code cannot be used if the orthotic is fabricated/formed without the patient being present. Supplies and time for the actual orthotic fabrication is typically reported under L-codes. If an L-code is NOT used to report the orthotic, then the time assessing and fitting/fabricating would be reported under code 97760.

c) Support for this service

- i) The need for an orthotic requires documented support. This would include a proper examination (not just a vendor specific evaluation) along with the outline of the causal nexus to justify inclusion for any complaints other than foot-based. Foot-based complaints need a detailed notation as to the fault/deficit present that requires custom orthotics versus usage of a heel lift or over-the-counter orthotic. This service should typically not be seen more than once per calendar year for one set of orthotics. Orthotic use is based on plan benefit.
 - ii) Documentation must also support why the skills of a licensed professional are needed for the training in care and use of the orthotic.
6. **97761 - Prosthetic Training**
- a) Definition: Functional mobility and activities of daily living (ADL) assessment, training with prosthesis, upper and/or lower extremity. This would include instruction and practice in use of prosthesis.
 - b) Support for this service: The patient would need to be the recipient of a prosthetic device or require adjustments to current prosthetic device to improve function.
7. **97763 - Checkout for Orthotic/Prosthetic Use, Established**
- a) Definition: Orthotic(s)/prosthetic(s) management and/or training, upper extremity or extremities, lower extremity or extremities, and/or trunk, subsequent orthotic(s)/prosthetic(s) encounter
 - b) Support for this service: Documentation must clearly support the skilled need of a licensed professional for the adjustments.
8. **97530 - Therapeutic Activities**
- a) Definition: This code includes the use of dynamic activities in teaching and training the patient to improve functional performance in a progressive manner.
 - b) Examples: Activities that address quantifiable deficits (e.g., loss of ROM, strength, or functional capacity) resulting in a deficit in functional mobility. Functional mobility may include bending, reaching, lifting, carrying, pushing, pulling, bed mobility and transfers.
 - c) Support for this service:
 - i) Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.
 - ii) In order for therapeutic activities to be covered, all the following requirements must be met:
 - (1) The patient has a condition for which therapeutic activities can reasonably be expected to restore or improve function.
 - (2) The patient's condition is such that he/she is unable to perform therapeutic activities except under the direct supervision of a physician, occupational therapist, or physical therapist.
 - (3) There is a clear correlation between the type of exercise performed and the patient's underlying medical condition for which the therapeutic activities were prescribed.
 - d) The code is generally not reimbursable for increasing a patient's endurance without deficits, promotion of overall fitness, weight loss, return to sports, and/or sports and aerobic conditioning.
9. **97129 Cognitive Skills Development**
- a) Definition: Therapeutic interventions that focus on cognitive function (e.g., attention, memory, reasoning, executive function, problem solving, and/or pragmatic functioning) and compensatory strategies to manage the performance of an activity (e.g., managing time or schedules, initiating, organizing, and sequencing tasks), direct (one-on-one) patient contact.
 - b) Examples: Individuals with inherited learning disabilities, individuals who have lost cognitive skills as a result of illness or brain injury
 - c) Support for this Service: Cognitive deficits would need to be present and quantifiably documented. Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.
10. **97533 - Sensory Integration**
- a) Definition: Treatment techniques designed to enhance sensory processing and adaptive responses to

environmental demands. The goal of sensory integration therapy is to improve the way the brain processes and adapts to sensory information as a foundation for later, more complex learning behavior.

b) Examples:

- i) Sensory integration (SI) therapy has been proposed as a treatment of developmental disorders in patients with established dysfunction of sensory processing (e.g., children with autism, attention deficit hyperactivity disorder (ADHD), fetal alcohol syndrome, and neurotransmitter disease). Sensory integration disorders may also be a result of illness or brain injury.
- ii) Therapy usually involves activities that provide vestibular, proprioceptive, tactile, visual, and auditory stimuli, which are selected to match specific sensory processing deficits of the child. For example, swings are commonly used to incorporate vestibular input, while trapeze bars and large foam pillows or mats may be used to stimulate somatosensory pathways of proprioception and deep touch. Tactile reception may be addressed through a variety of activities and surface textures involving light touch.
- iii) This differs from neuromuscular re-education (97112) as neuromuscular re-education focuses on training to restore the ability to perform particular activities versus training to enhance sensory processing and adaptive responses.

c) Support for this Service

- i) Sensory integration therapy is usually provided by occupational and physical therapists who are certified in sensory integration therapy.
- ii) Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.

11. 97535 -Self-care/Home Management Training

- a) Definition: Instructing and training the patient in self-care and home management activities (ADL). This includes compensatory training, safety procedures, and instruction in the use of assistive technology devices/adaptive equipment.
- b) Examples: Activities that address quantifiable deficits resulting in functional limitations in ADLs, such as toileting, continence, bathing, dressing, personal hygiene, housecleaning, eating and meal preparation.
- c) Support for this service
 - i) Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.
 - ii) Documentation should relate the ADL instruction to the patient's expected functional goals and indicate that it is part of an active treatment plan directed at a specific goal.

12. 97542 -Wheelchair Management and Training

- a) Definition: Includes assessment, fitting, and adjustment of the wheelchair and seating; instructing the patient and/or caregiver on how to propel and safely operate the wheelchair (97001 and 97002 cannot be billed with this code).
- b) Support for this service:
 - i) Documentation should include the recent event that prompted the need for a skilled wheelchair assessment; the result of any previous wheelchair assessments; most recent prior functional level; the interventions that were tried by nursing staff, caregivers, or the patient to address poor seating or positioning; and any functional deficits or applicable impairments, such as ROM, strength, sitting balance, skin integrity, sensation, and tone.
 - ii) The documentation must correlate the training provided to the expected functional goals that are attainable by the patient and/or caregiver, along with the response of the patient to the instruction or fitting.
 - iii) The documentation must clearly support that the services rendered required the skills and expertise of a licensed therapist.

13. 97537 -Community Work Reintegration – typically not a covered service

- a) Definition: Services are instructing and training the patient in community and/or work re-integration activities. These activities could include shopping, safely accessing transportation sources, money management, avocational activities and/or work environment/modification analysis,³¹ work task analysis, and use of assistive technology devices and/or adaptive equipment.
 - b) Examples
 - i) Community reintegration is often performed in conjunction with other therapeutic procedures such as gait training and self-care/home management training. The payment for community reintegration training is often bundled into the payment for those other services. Therefore, those other services are not usually separately reimbursable.
 - ii) Services provided to issue, modify, adjust, and/or educate the patient on assistive technology devices and/or adaptive equipment typically will not be covered if the adaptive equipment and/or assistive technology device(s) are not covered by the third-party payer.
 - iii) Generally, services which are related solely to specific employment opportunities, work skills, or work settings are not reasonable and necessary for the diagnosis and treatment of an illness or injury and are excluded from coverage by Section 1862(a)(1) of the Social Security Act.
 - c) Support for this Service: Documentation would need to provide evidence to support the medical necessity and the need for skilled services provided to the patient.
14. **97545 -Work Hardening/Conditioning – typically not a covered service**– initial 2 hours, use 97546 for each additional hour and use in conjunction with 97545
- a) Definition: Work hardening includes job simulation tasks and educational activities related to a safe return to work for the patient. Often, work hardening programs incorporate an interdisciplinary approach to restore physical, behavioral, and/or vocational functions. Work conditioning includes exercises directed towards safely returning the patient to work-related activities or to commence with vocational rehabilitation services. In general, work conditioning programs are designed to address neuromuscular functions, such as flexibility, strength, endurance, and/or range of motion, as well as cardiopulmonary functions.
 - b) Example: A work-induced injury and/or impairment was present that resulted in the need for therapeutic exercises/procedures. Once the patient has completed acute medical care, including chiropractic or rehabilitation treatment, the patient may require a comprehensive, intensive, and individualized program for safely returning to work activities. Subsequently, the patient may begin a work hardening and/or work conditioning program. Typically, the patient will participate in a program for at least two hours a day, three days a week to as much as eight hours a day, five days a week. The activities performed by the patient in the program may include an exercise regimen, simulation of specific or general work requirements, training and/or modifications of activities of daily living, injury prevention training, cognitive-behavioral pain management training, and/or occupational/educational training aspects.
 - c) Support for this Service: The documentation would need to support that the patient had an injury and/or impairment within the last 12 months, has received acute rehabilitation services, and is expected to return to his/her previous employment. Furthermore, the documentation should clearly report the patient's limitations for returning to work; the patient's willingness to participate in the program; a highly structured, goal-oriented plan of care, including reference to return to work and discharge from skilled services; identified systemic neuromusculoskeletal deficits that interfere with work; documentation to support that care is at the point of resolution for the initial or principal injury so that participation in the conditioning process would not be prohibited; and, if applicable, the identification of psychosocial and/or vocation problems and evidence of a referral to the appropriate professional.

Regulatory, Accreditation and Resources

Fulcrum Provider Portal: <https://fulcrumproviderportal.com>

Medicare NCD & LCD

1. [Article - Billing and Coding: Outpatient Physical and Occupational Therapy Services \(A56566\) \(cms.gov\)](#)
2. [Article - Billing and Coding: Outpatient Physical and Occupational Therapy Services \(A57067\) \(cms.gov\)](#)
2. [NCCI for Medicare | CMS](#)
3. [Article - Billing and Coding: Home Health Occupational Therapy \(A53057\) \(cms.gov\)](#)
4. [Article - Billing and Coding: Home Health Physical Therapy \(A53058\) \(cms.gov\)](#)
5. [Article - Billing and Coding: Outpatient Occupational Therapy \(A53064\) \(cms.gov\)](#)
6. [Article - Billing and Coding: Outpatient Physical Therapy \(A53065\) \(cms.gov\)](#)
7. [Article - Billing and Coding: Physical Therapy - Home Health \(A57311\) \(cms.gov\)](#)
8. [LCD - Physical Therapy - Home Health \(L33942\) \(cms.gov\)](#)

NCQA UM 2 Element A Clinical Criteria for UM Decisions

Clinical Resources

1. Cohen SP. Epidemiology, diagnosis, and treatment of neck pain. *Mayo Clin Proc.* Feb 2015;90(2):284-99. doi:10.1016/j.mayocp.2014.09.008
2. Searle A, Spink M, Ho A, Chuter V. Exercise interventions for the treatment of chronic low back pain: a systematic review and meta-analysis of randomised controlled trials. *Clin Rehabil.* Dec 2015;29(12):1155-67. doi:10.1177/0269215515570379
3. Paungmali A, Joseph LH, Sittlerpisan P, Pirunsan U, Uthaikhup S. Lumbopelvic Core Stabilization Exercise and Pain Modulation Among Individuals with Chronic Nonspecific Low Back Pain. *Pain Pract.* Nov 2017;17(8):1008-1014. doi:10.1111/papr.12552
4. Foster NE, Anema JR, Cherkin D, et al. Prevention and treatment of low back pain: evidence, challenges, and promising directions. *Lancet.* Jun 9 2018;391(10137):2368-2383. doi:10.1016/s0140-6736(18)30489-6
5. Centers for Medicare and Medicaid Services. Medicare Benefit Policy Manual Chapter 15 –Covered Medical and Other Health Services. Centers for Medicare and Medicaid Services (CMS). Updated May 20, 2022. Accessed August 11, 2022. <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c15.pdf>
6. Centers for Medicare & Medicaid Services. Billing and Coding: Outpatient Physical and Occupational Therapy Services (A57067). Centers for Medicare & Medicaid Services (CMS). Updated June 2, 2022. Accessed August 11, 2022. <https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=57067&ver=23&Date=&DocID=A57067&bc=ggAAAaAEA AA&=>
7. Akhtar MW, Karimi H, Gilani SA. Effectiveness of core stabilization exercises and routine exercise therapy in management of pain in chronic non-specific low back pain: A randomized controlled clinical trial. *Pakistan journal of medical sciences.* Jul-Aug 2017;33(4):1002-1006. doi:10.12669/pjms.334.12664
8. Ammar T. A randomized comparison of supervised clinical exercise versus a home exercise program in patients with chronic low back pain. *Phys Ther Rehabil.* 2017;4(1):7.
9. Bronfort G, Maiers MJ, Evans RL, et al. Supervised exercise, spinal manipulation, and home exercise for chronic low back pain: a randomized clinical trial. *Spine J.* Jul 2011;11(7):585-98. doi:10.1016/j.spinee.2011.01.036
10. Gordon R, Bloxham S. A Systematic Review of the Effects of Exercise and Physical Activity on Non-Specific Chronic Low Back Pain. *Healthcare (Basel, Switzerland).* 2016;4(2):22. doi:10.3390/healthcare4020022
11. Gross A, Kay TM, Paquin JP, et al. Exercises for mechanical neck disorders. *Cochrane Database Syst Rev.* Jan 28 2015;1:Cd004250. doi:10.1002/14651858.CD004250.pub5
12. Haufe S, Wiechmann K, Stein L, et al. Low-dose, non-supervised, health insurance initiated exercise for the treatment and prevention of chronic low back pain in employees. Results from a randomized controlled trial. *PLoS one.* 2017;12(6):e0178585-e0178585. doi:10.1371/journal.pone.0178585
13. Hidalgo B, Hall T, Bossert J, Dugeny A, Cagnie B, Pitance L. The efficacy of manual therapy and exercise for treating non-specific neck pain: A systematic review. *J Back Musculoskelet Rehabil.* 2017;30(6):1149-1169. doi:10.3233/BMR-169615
14. Lee J-S, Kang S-J. The effects of strength exercise and walking on lumbar function, pain level, and body composition in chronic back pain patients. *J Exerc Rehabil.* 2016;12(5):463-470. doi:10.12965/jer.1632650.325
15. Lin CC, McAuley JH, Macedo L, Barnett DC, Smeets RJ, Verbunt JA. Relationship between physical activity and disability in low back pain: a systematic review and meta-analysis. *Pain.* Mar 2011;152(3):607-613. doi:10.1016/j.pain.2010.11.034
16. Macedo LG, Saragiotto BT, Yamato TP, et al. Motor control exercise for acute non-specific low back pain. *Cochrane Database Syst Rev.* Feb 10 2016;2:Cd012085. doi:10.1002/14651858.Cd012085
17. Miller J, Gross A, D'Sylva J, et al. Manual therapy and exercise for neck pain: a systematic review. *Man Ther.* Aug 2010;15(4):334-54.
18. Saragiotto BT, Maher CG, Yamato TP, et al. Motor control exercise for chronic non-specific low-back pain. *Cochrane Database Syst Rev.* Jan 8 2016;(1):Cd012004. doi:10.1002/14651858.Cd012004
19. Leone M, Alsofrom J, Kane M, Laryea S, Abdelatif D, Mohamed MA. Length of Neuromuscular Re-education Therapy and Growth Parameters in Premature Infants. *Am J Perinatol.* Sep 11 2020;doi:10.1055/s-0040-1716492
20. Judd DL, Winters JD, Stevens-Lapsley JE, Christiansen CL. Effects of neuromuscular reeducation on hip mechanics and functional performance in patients after total hip arthroplasty: A case series. *Clin Biomech (Bristol, Avon).* 2016;32:49-55. doi:10.1016/j.clinbiomech.2015.12.008
21. Kundakci B, Sultana A, Taylor AJ, Alshehri MA. The effectiveness of exercise-based vestibular rehabilitation in adult patients with chronic dizziness: A systematic review. *F1000Res.* 2018;7:276. doi:10.12688/f1000research.14089.1
22. García-Muñoz C, Cortés-Vega MD, Heredia-Rizo AM, Martín-Valero R, García-Bernal MI, Casuso-Holgado MJ. Effectiveness of Vestibular Training for Balance and Dizziness Rehabilitation in People with Multiple Sclerosis: A Systematic Review and Meta-Analysis. *J Clin Med.* Feb 21 2020;9(2)doi:10.3390/jcm9020590
23. Veldema J, Jansen P. Aquatic therapy in stroke rehabilitation: systematic review and meta- analysis. *Acta Neurol Scand.* Mar 2021;143(3):221-241. doi:10.1111/ane.13371
24. Kim EK, Lee DK, Kim YM. Effects of aquatic PNF lower extremity patterns on balance and ADL of stroke patients. *J Phys Ther Sci.* Jan 2015;27(1):213-5.

- doi:10.1589/jpts.27.213
25. Cha HG, Shin YJ, Kim MK. Effects of the Bad Ragaz Ring Method on muscle activation of the lower limbs and balance ability in chronic stroke: A randomised controlled trial. *Hong Kong Physiother J*. Dec 2017;37:39-45. doi:10.1016/j.hkjp.2017.02.001
 26. So BCL, Ng JK, Au KCK. A 4-week community aquatic physiotherapy program with Ai Chi or Bad Ragaz Ring Method improves disability and trunk muscle endurance in adults with chronic low back pain: A pilot study. *J Back Musculoskelet Rehabil*. 2019;32(5):755-767. doi:10.3233/bmr-171059
 27. Terrens AF, Soh SE, Morgan P. The safety and feasibility of a Halliwick style of aquatic physiotherapy for falls and balance dysfunction in people with Parkinson's Disease: A single blind pilot trial. *PLoS One*. 2020;15(7):e0236391. doi:10.1371/journal.pone.0236391
 28. Ballington SJ, Naidoo R. The carry-over effect of an aquatic-based intervention in children with cerebral palsy. *Afr J Disabil*. 2018;7(0):361. doi:10.4102/ajod.v7i0.361
 29. Schitter AM, Fleckenstein J, Frei P, Taeymans J, Kurpiers N, Radlinger L. Applications, indications, and effects of passive hydrotherapy WATSU (WaterShiatsu)-A systematic review and meta-analysis. *PLoS One*. 2020;15(3):e0229705. doi:10.1371/journal.pone.0229705
 30. American Occupational Therapy Association (AOTA). Ten things patients and providers should question: Don't provide ambulation or gait training interventions that do not directly link to functional mobility. *Choosing Wisely, ABIM Foundation Initiative*. Updated July 28, 2021. Accessed August 11, 2022. <https://www.choosingwisely.org/clinician-lists/aota10-dont-provide-ambulation-or-gait-training-interventions-that-do-not-directly-link-to-functional-mobility/>
 31. Van Eerd D, Munhall C, Irvin E, et al. Effectiveness of workplace interventions in the prevention of upper extremity musculoskeletal disorders and symptoms: an update of the evidence. *Occupational and environmental medicine*. 2016;73(1):62-70. doi:10.1136/oemed-2015-102992
 32. Aboodarda SJ, Shariff MAH, Muhamed AMC, Ibrahim F, Yusof A. Electromyographic activity and applied load during high intensity elastic resistance and nautilus machine exercises. *J Hum Kinet*. 2011;30:5-12. doi:10.2478/v10078-011-0067-0
 33. American Academy of Orthopaedic Surgeons. Management of osteoarthritis of the knee (non-arthroplasty) evidence-based clinical practice guideline. American Academy of Orthopaedic Surgeons; 2021.
 34. APTA. Standards of Practice for Physical Therapy. American Physical Therapy Association (APTA). Updated August 12, 2020. Accessed August 11, 2022. <https://www.apta.org/apta-and-you/leadership-and-governance/policies/standards-of-practice-pt>
 35. APTA. APTA Statement in Support of Essential Health Benefits. American Physical Therapy Association (APTA). Updated August 30, 2018. Accessed August 11, 2022. <https://www.apta.org/apta-and-you/leadership-and-governance/policies/apta-statement-in-support-of-essential-health-benefits>
 36. Arcanjo FL, Martins JVP, Moté P, et al. Proprioceptive neuromuscular facilitation training reduces pain and disability in individuals with chronic low back pain: A systematic review and meta-analysis. *Complement Ther Clin Pract*. Feb 2022;46:101505. doi:10.1016/j.ctcp.2021.101505
 37. Australian Acute Musculoskeletal Pain Guidelines Group, Brooks P. Evidence-based management of acute musculoskeletal pain: a guide for clinicians. Australian Academic Press; 2004.
 38. Beer A, Treleaven J, Jull G. Can a functional postural exercise improve performance in the crano-cervical flexion test?--a preliminary study. *Man Ther*. Jun 2012;17(3):219-24. doi:10.1016/j.math.2011.12.005
 39. Bernstein IA, Malik Q, Carville S, Ward S. Low back pain and sciatica: summary of NICE guidance. *Bmj*. Jan 6 2017;356:i6748. doi:10.1136/bmj.i6748
 40. Bussi eres AE, Stewart G, Al-Zoubi F, et al. The Treatment of Neck Pain-Associated Disorders and Whiplash-Associated Disorders: A Clinical Practice Guideline. *J Manipulative Physiol Ther*. Oct 2016;39(8):523-564.e27. doi:10.1016/j.jmpt.2016.08.007
 41. Cameron M. Physical Agents in Rehabilitation: An Evidence-Based Approach to Practice. 5th ed. Saunders Elsevier; 2018:464.
 42. American Occupational Therapy Association (AOTA), American Physical Therapy Association (APTA), American Speech-Language-Hearing Association (ASHA). Consensus Statement on Clinical Judgment in Health Care Settings. American Occupational Therapy Association (AOTA). Updated October 14, 2014. Accessed August 11, 2022. <https://www.aota.org/-/media/Corporate/Files/Practice/Ethics/APTA-AOTA-ASHA-Concensus-Statement.pdf>
 43. /media/Corporate/Files/Practice/Ethics/APTA-AOTA-ASHA-Concensus-Statement.pdf
 44. Calafiore D, Negri F, Tottoli N, Ferraro F, Ozyemisci-Taskiran O, de Sire A. Efficacy of robotic exoskeleton for gait rehabilitation in patients with subacute stroke : a systematic review. *Eur J Phys Rehabil Med*. Feb 2022;58(1):1-8. doi:10.23736/s1973-9087.21.06846-5
 45. Carmignano SM, Fundaro C, Bonaiuti D, et al. Robot-assisted gait training in patients with Parkinson's disease: Implications for clinical practice. A systematic review. *NeuroRehabilitation*. May 9 2022;doi:10.3233/nre-220026
 46. Dahm KT, Brurberg KG, Jamtvedt G, Hagen KB. Advice to rest in bed versus advice to stay active for acute low-back pain and sciatica. *Cochrane Database Syst Rev*. Jun 16 2010;(6):Cd007612. doi:10.1002/14651858.CD007612.pub2
 47. Debusse D, Birch O, St Clair Gibson A, Caplan N. Low impact weight-bearing exercise in an upright posture increases the activation of two key local muscles of the lumbo-pelvic region. *Physiother Theory Pract*. Jan 2013;29(1):51-60. doi:10.3109/09593985.2012.698718
 48. Giurati S, Servadio A, Temperoni G, Curcio A, Valente D, Galeoto G. The effect of aquatic physical therapy in patients with stroke: A systematic review and meta-analysis. *Top Stroke Rehabil*. Jan 2021;28(1):19-32. doi:10.1080/10749357.2020.1755816
 49. Gomes-Neto M, Lopes JM, Concei ao CS, et al. Stabilization exercise compared to general exercises or manual therapy for the management of low back pain: A systematic review and meta-analysis. *Phys Ther Sport*. Jan 2017;23:136-142. doi:10.1016/j.ptsp.2016.08.004
 50. Gottschall JS, Mills J, Hastings B. Integration core exercises elicit greater muscle activation than isolation exercises. *J Strength Cond Res*. Mar 2013;27(3):590-6. doi:10.1519/JSC.0b013e31825c2cc7
 51. Javadian Y, Behtash H, Akbari M, Taghipour-Darzi M, Zekavat H. The effects of stabilizing exercises on pain and disability of patients with lumbar segmental instability. *J Back Musculoskelet Rehabil*. 2012;25(3):149-55. doi:10.3233/bmr-2012-0321
 52. Jordan JL, Holden MA, Mason EE, Foster NE. Interventions to improve adherence to exercise for chronic musculoskeletal pain in adults. *The Cochrane database of systematic reviews*. 2010;2010(1):CD005956-CD005956. doi:10.1002/14651858.CD005956.pub2
 53. Karahan AY, Sahin N, Baskent A. Comparison of effectiveness of different exercise programs in treatment of failed back surgery syndrome: A randomized controlled trial. *J Back Musculoskelet Rehabil*. Jun 17 2016;doi:10.3233/bmr-160722
 54. Koes BW, van Tulder M, Lin C-WC, Macedo LG, McAuley J, Maher C. An updated overview of clinical guidelines for the management of non-specific low back pain in primary care. *Eur Spine J*. 2010;19(12):2075-2094. doi:10.1007/s00586-010-1502-y
 55. Larsson ME, Kreuter M, Nordholm L. Is patient responsibility for managing musculoskeletal disorders related to self-reported better outcome of physiotherapy treatment? *Physiother Theory Pract*. Jul 2010;26(5):308-17. doi:10.3109/09593980903082136
 56. Leininger B, McDonough C, Evans R, Tosteson T, Tosteson ANA, Bronfort G. Cost-effectiveness of spinal manipulative therapy, supervised exercise, and home exercise for older adults with chronic neck pain. *The spine journal : official journal of the North American Spine Society*. 2016;16(11):1292-1304. doi:10.1016/j.spinee.2016.06.014

57. Lorusso M, Tramontano M, Casciello M, et al. Efficacy of Overground Robotic Gait Training on Balance in Stroke Survivors: A Systematic Review and Meta-Analysis. *Brain Sci.* May 31 2022;12(6)doi:10.3390/brainsci12060713
58. Magalhães MO, Muzi LH, Comachio J, et al. The short-term effects of graded activity versus physiotherapy in patients with chronic low back pain: A randomized controlled trial. *Man Ther.* Aug 2015;20(4):603-9. doi:10.1016/j.math.2015.02.004
59. Matarán-Peñarrocha GA, Lara Palomo IC, Antequera Soler E, et al. Comparison of efficacy of a supervised versus non-supervised physical therapy exercise program on the pain, functionality and quality of life of patients with non-specific chronic low-back pain: a randomized controlled trial. *Clin Rehabil.* Jul 2020;34(7):948-959. doi:10.1177/0269215520927076
60. Nazzal ME, Saadah MA, Saadah LM, et al. Management options of chronic low back pain. A randomized blinded clinical trial. *Neurosciences (Riyadh).* Apr 2013;18(2):152-9.
61. Picelli A, Capecci M, Filippetti M, et al. Effects of robot-assisted gait training on postural instability in Parkinson's disease: a systematic review. *Eur J Phys Rehabil Med.* Jun 2021;57(3):472-477. doi:10.23736/s1973-9087.21.06939-2
62. Peng M-S, Wang R, Wang Y-Z, et al. Efficacy of therapeutic aquatic exercise vs physical therapy modalities for patients with chronic low back pain: a randomized clinical trial. *JAMA network open.* 2022;5(1):e2142069-e2142069.
63. Sachs BL, Ahmad SS, LaCroix M, et al. Objective assessment for exercise treatment on the
64. B-200 isostation as part of work tolerance rehabilitation. A random prospective blind evaluation with comparison control population. *Spine (Phila Pa 1976).* Jan 1 1994;19(1):49-52. doi:10.1097/00007632-199401000-00009
65. Sarker KK, Sethi J, Mohanty U. Comparative clinical effects of spinal manipulation, core stability exercise, and supervised exercise on pain intensity, segmental instability, and health-related quality of life among patients with chronic nonspecific low back pain: A randomized control trial. *J Nat Sci Biol Med.* 2020;11(1):27.
66. Sertpoyraz F, Eyigor S, Karapolat H, Capaci K, Kirazli Y. Comparison of isokinetic exercise versus standard exercise training in patients with chronic low back pain: a randomized controlled study. *Clin Rehabil.* Mar 2009;23(3):238-47. doi:10.1177/0269215508099862
67. Shen P, Li L, Song Q, et al. Proprioceptive Neuromuscular Facilitation Improves Symptoms Among Older Adults With Knee Osteoarthritis During Stair Ascending: A Randomized Controlled Trial. *Am J Phys Med Rehabil.* Aug 1 2022;101(8):753-760. doi:10.1097/phm.0000000000001906
68. Sherman KJ, Cherkin DC, Wellman RD, et al. A randomized trial comparing yoga, stretching, and a self-care book for chronic low back pain. *Arch Intern Med.* 2011;171(22):2019-2026. doi:10.1001/archinternmed.2011.524
69. Skillgate E, Pico-Espinosa OJ, Côté P, et al. Effectiveness of deep tissue massage therapy, and supervised strengthening and stretching exercises for subacute or persistent disabling neck pain. The Stockholm Neck (STONE) randomized controlled trial. *Musculoskelet Sci Pract.* Feb 2020;45:102070. doi:10.1016/j.msksp.2019.102070
70. Sundstrup E, Jakobsen MD, Andersen CH, Jay K, Andersen LL. Swiss ball abdominal crunch with added elastic resistance is an effective alternative to training machines. *International journal of sports physical therapy.* 2012;7(4):372-380.
71. Tsertsvadze A, Clar C, Court R, Clarke A, Mistry H, Sutcliffe P. Cost-effectiveness of manual therapy for the management of musculoskeletal conditions: a systematic review and narrative synthesis of evidence from randomized controlled trials. *J Manipulative Physiol Ther.* Jul-Aug 2014;37(6):343-62. doi:10.1016/j.jmpt.2014.05.001

Policy History

Date	Update
03/08/2017	New Document
02/06/2018	Reviewed by Clinical Policy Committee
2/7/2018	Approved by UM Subcommittee
2/6/2019	Approved by Clinical Policy Committee
2/12/2019	Approved by UM Subcommittee
3/12/2020	Approved by Clinical Policy Committee
3/31/2020	Approved by UM Subcommittee
3/11/2021	Approved by Clinical Policy Committee
3/18/2021	Approved by UM Subcommittee
3/17/2022	Approved by Clinical Policy Committee
3/29/2022	Approved by UM Subcommittee
03/21/2023	Approved by Clinical Policy Committee
05/02/2023	Approved by UM Subcommittee
November 2023	Merged NIA and Fulcrum Active Care Procedures into a single policy. Other policies retired.
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Durable Medical Equipment

Fulcrum Clinical Guidelines Durable Medical Equipment	Original Date: June 2018 (NIA) January 2018 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: 12/07/2023
Guideline Number: CLINUM 110	Implementation Date: January 2024

Policy Statement

This policy will be used to define Durable Medical Equipment (DME), explain the medical necessity of the DME or support for prior authorization of DME.

Purpose

The purpose of this policy applies medical necessity criteria to DME requests for adult and pediatric members in any setting and is applicable to all physical medicine practitioners, including chiropractors, physical therapists, occupational therapists, and speech language pathologists.

Definitions

1. DME is any equipment that provides therapeutic benefits to an individual for certain conditions and/or illnesses defined below.
2. DME consist of items which:
 - a) Are used to treat a defined illness or injury.
 - b) Are useful to a person with an illness or injury.
 - c) Are reusable and durable enough for repeated use.
 - d) Are appropriate for use outside of a medical setting such as home, at school, or work.
3. DME includes but is not limited to:
 - a) Back, knee, and ankle supports/braces
 - b) Cervical collars
 - c) Foot orthotics
 - d) Electrical stimulation units and supplies
 - e) Traction devices
 - f) Hospital beds
 - g) Equipment to aid with bathing, toileting, and dressing
 - h) Splints/slings
 - i) Equipment to aid with seating and positioning
 - j) Wheelchairs and assistive devices for gait
4. The use of any DME must have evidence of efficacy in the peer-reviewed guideline, systematic review, and/or randomized controlled trial medical literature. The use of these devices is not considered medically necessary in the absence of scientific evidence in peer-reviewed medical literature.¹⁻³

Procedure

1. Durable Medical Equipment and services are medically necessary when ALL of the following criteria are met:
 - a) The equipment is expected to provide improvement in specific measurable functional deficits related to a documented illness or injury.
 - b) The DME is provided by a health care professional.
 - c) The equipment has significant medical uses.
 - d) Lesser or alternative options have been ruled out.
 - e) The clinical records clearly establish the medical need for the DME.

2. Clinical documentation must include the following elements:
 - a) A diagnosis that justifies the equipment or supply being requested.
 - b) A treatment plan (anticipated start and end date) for the training and/or use of the DME
 - c) Measurable functional deficit(s)
 - d) Expected outcomes and benefit related to a measurable functional deficit.
 - e) Explanation of the healthcare providers training/education, supervision, and monitoring of the use of the DME, as evidenced by the identification of provider type and signature in the record.
 - f) Evidence of a trial of conservative services that failed to improve a measurable functional deficit unless contraindicated.
 - g) When appropriate, evidence of an in-office trial use that provided improvement in a measurable functional deficit.
 - h) When appropriate, evidence of home or vehicle assessment to ensure equipment could be utilized in the home or vehicle.
 - i) Evidence of prior equipment for a similar purpose, and reasons that equipment no longer meets current needs.
 - j) If an insurance plan does not cover the specific DME, then any visit associated with instruction on the DME would not be covered.
 - k) For Medicare: validate coverage and requirements by searching [MCD Search Results \(cms.gov\)](#).
A limited set of Articles, Local and National Coverage are included below.

Regulatory, Accreditation and Resources

Fulcrum Provider Portal: <https://fulcrumproviderportal.com>

Medicare NCD & LCD

1. [NCD - Durable Medical Equipment Reference List \(280.1\) \(cms.gov\)](#)
2. [NCCI for Medicare | CMS](#)
3. [Article - Billing and Coding: Outpatient Physical and Occupational Therapy Services \(A56566\) \(cms.gov\)](#)
4. [Article - Billing and Coding: Outpatient Physical and Occupational Therapy Services \(A57067\) \(cms.gov\)](#)
5. [NCCI for Medicare | CMS](#)
6. [Article - Billing and Coding: Home Health Occupational Therapy \(A53057\) \(cms.gov\)](#)
7. [Article - Billing and Coding: Home Health Physical Therapy \(A53058\) \(cms.gov\)](#)
8. [Article - Billing and Coding: Outpatient Occupational Therapy \(A53064\) \(cms.gov\)](#)
9. [Article - Billing and Coding: Outpatient Physical Therapy \(A53065\) \(cms.gov\)](#)
10. [Article - Billing and Coding: Physical Therapy - Home Health \(A57311\) \(cms.gov\)](#)
11. [LCD - Physical Therapy - Home Health \(L33942\) \(cms.gov\)](#)
12. [Article - Ankle-Foot/Knee-Ankle-Foot Orthoses - Policy Article \(A52457\) \(cms.gov\)](#)
13. [LCD - Ankle-Foot/Knee-Ankle-Foot Orthosis \(L33686\) \(cms.gov\)](#)
14. [LCD - Wheelchair Options/Accessories \(L33792\) \(cms.gov\)](#)
15. [Article - Wheelchair Options/Accessories - Policy Article \(A52504\) \(cms.gov\)](#)
16. [LCD - Wheelchair Seating \(L33312\) \(cms.gov\)](#)
17. [NCD - Assessing Patient's Suitability for Electrical Nerve Stimulation Therapy \(160.7.1\) \(cms.gov\)](#)
18. [LCD - Canes and Crutches \(L33733\) \(cms.gov\)](#)
19. [Article - Canes and Crutches - Policy Article \(A52459\) \(cms.gov\)](#)
20. [LCD - Cervical Traction Devices \(L33823\) \(cms.gov\)](#)
21. [Article - Cervical Traction Devices - Policy Article \(A52476\) \(cms.gov\)](#)

NCQA UM Element A Clinical Criteria for UM Decisions

Clinical Resources

1. Sprouse RA, McLaughlin AM, Harris GD. Braces and Splints for Common Musculoskeletal Conditions. *Am Fam Physician*. Nov 15 2018;98(10):570-576.
2. Henderson S, Skelton H, Rosenbaum P. Assistive devices for children with functional impairments: impact on child and caregiver function. *Dev Med Child*

Experimental and Investigational Services and Devices

Fulcrum Clinical Guidelines Experimental and Investigational Services and Devices	Original Date: June 2018 (NIA) January 2018 (Fulcrum)
Physical Medicine – Clinical Decision Making	Last Revised Date: 12/07/2023
Guideline Number: CLINUM 109	Implementation Date: January 2024

Policy Statement

This policy will be used to provide a listing of procedures considered experimental, investigational by any physical medicine practitioner. Services listed in the policy are not eligible for reimbursement. Coverage is subject to the terms of an enrollee’s benefit plan. To the extent there is any inconsistency between this medical policy and the terms of an enrollee’s benefit plan, the terms of the enrollee’s benefit plan documents will always control. Investigational services are not covered under enrollee’s health plan.

Procedure

1. A service is considered experimental/investigation if **any** of the following criteria is met:
 - The services, procedures, or supplies requiring Federal or other Governmental body approval, such as drugs and devices, do not have unrestricted market approval from the Food and Drug Administration (FDA) or final approval from any other governmental regulatory body for use in treatment of a specified condition. Any approval that is granted as an interim step in the regulatory process is not a substitute for final or unrestricted market approval.
 - There is insufficient or inconclusive medical and scientific evidence to evaluate the therapeutic value of the service, procedure, or supply.
 - There is inconclusive medical and scientific evidence in peer-reviewed medical literature that the service, procedure, or supply has a beneficial effect on health outcomes.
 - The service, procedure, or supply under consideration is not as beneficial as any established alternatives.
 - There is insufficient information or inconclusive scientific evidence that, when used in a non-investigational setting, the service, procedure, or supply has a beneficial effect on health outcomes or is as beneficial as any established alternatives.
2. Experimental and investigational services include the use of a service, procedure, or supply that is not recognized as standard clinical care for the condition, disease, illness, or injury being treated. A service, procedure, or supply includes, but is not limited to the diagnostic service, treatment, facility, equipment, or device. This organization will determine whether a service, procedure, or supply is considered experimental and investigational.
3. The following is a partial listing of experimental and investigational services:
 - Advanced BioStructural Correction (ABC)
 - Alhabiotics
 - Applied Kinesiology or any of its derivations ¹
 - Applied Spinal Biomechanical Engineering
 - BioEnergetic Synchronization Technique (B.E.S.T) ²
 - Blood Flow Resistance Training ³⁻⁶
 - Chiropractic Biophysics (CBP, ⁷ Clinical Biomechanics of Posture, CBP Mirror Image Technique ⁸)
 - Chiropractic services directed at controlling progression and/or reducing scoliosis, including but not

limited to the SpineCor brace⁹ and CLEAR scoliosis treatment

- Coccygeal Meningeal Stress Fixation
- Cold Laser Therapy
- Computerized muscle testing or analysis
- Cupping¹⁰⁻¹³
- Craniosacral Therapy (CST)¹⁴, including the Upledger Technique
- Directional Non-force Technique¹⁵
- Dry Needling¹⁶
- Hako-Med electrotherapy (horizontal electrotherapy).¹⁷
- Hippotherapy¹⁸⁻²⁴
- Automated Impulse adjusting instrument
- Intersegmental traction and Autotraction^{25,26}
- Kinesio taping²⁷⁻³⁴ (Elastic Therapeutic Taping)
- Live Cell Analysis or hair analysis^{35,36}
- Manipulation under Anesthesia (MUA)^{37,38}
- Moire Contourographic Analysis³⁹
- Nambudripad's Allergy Elimination Technique (NAET)/ other Allergy Testing⁴⁰
- National Upper Cervical Chiropractic Association (NUCCA technique)⁴¹ / Grostic technique
- Network Chiropractic, NeuroEmotional Technique (NET)^{42,43}
- Neural Organizational Technique, Contact Reflex Analysis (CRA),⁴⁴ Whole System Scan
- Neurocalometer, Nervoscope, Nerve Conduction Velocity, Surface EMG,⁴⁵ Paraspinal Electromyography,⁴⁶ Spinoscopy or other nerve conduction or temperature differential testing for non-specific neck and back pain^{47,48}
- Nimmo Receptor-Tonus method⁴⁹
- Pettibon, including, but not limited to wobble chair/board treatment and posture pump⁵⁰⁻⁵⁵
- Preventive Care, Corrective Care
- Pro-Adjuster
- Sacro Occipital Technique, Neurocranial Restructuring (NCR),⁵⁶ Cranial Manipulation
- Sound Assisted Soft Tissue mobilization⁵⁷
- Spinal Diagnostic Ultrasound⁵⁸
- Repeat imaging to determine the progress of conservative treatment
- Thermography⁵⁹
- Treatment for brachioradial pruritis
- Vascular Studies, including, but not limited to, Doppler ultrasound analysis and plethysmography
- VAX-D,60 Lordex, LTX3000, DRX-9000, DRS (Decompression Reduction Stabilization System), or other back traction devices charged at a higher rate than mechanical traction (97012)
- Whole Body Vibration (WBV),⁶¹⁻⁶³ Vibration Plate, Vibration Therapy
- Any lab work for which the office is not CLIA Certified or falls outside of the scope of practice, including, but not limited to: drug testing, therapeutic drug assays, and organ or disease oriented panels

4. Guidelines

- i) If such services are to be provided, the practitioner will inform the member, in writing, that such services will be the member's responsibility. None of these services are to be performed in lieu of an appropriate examination or without consideration of an appropriate referral.
- ii) There is limited scientific evidence that the use of experimental, investigational, and unproven services

provides an improved or more accurate diagnosis, nor do they result in an improved clinical outcome.

- iii) Scientific literature will continue to be reviewed and any significant changes in published literature will be taken into consideration for modification of this policy.
5. Exclusions/Limitations: Refer to enrollee's Certificate of Coverage or Summary Plan Description. Coverage is subject to the terms of an enrollee's benefit plan. To the extent there is any inconsistency between this medical policy and the terms of an enrollee's benefit plan, the terms of the enrollee's benefit plan documents will always control. Investigational services are not covered under enrollee's health plan.
6. Removal of a service from the Experimental and Investigations Policy
 - a) At least annually, a review of the current literature will be evaluated to determine if there is additional research in support of any of the services listed under this policy. This evaluation will include the following criteria:
 - i) Safety – Is the potential benefit superior to the potential harm?
 - ii) Health Outcomes – Is there evidence the service will provide, at minimum, equal outcomes and at best, superior outcomes to currently available services?
 - iii) Patient Management – Will the service improve clinical decision making?
 - iv) Clinical Performance – Is the reliability as well as predictive value of the service equal or superior to the current “gold standard” for such services?
 - v) Cost-effectiveness – Is the service equal to or lower cost than currently utilized services for similar diagnosis and treatment?
7. If the service appears to be safe and cost-effective, Fulcrum will present these results to our health plan partners for consideration of coverage and/or payment. Final authority for such coverage determinations rests with the health plan.
8. All criteria will be based on peer-reviewed scientific literature and internationally and nationally accepted and published guidelines. Peer-reviewed scientific studies must be published in or accepted for publication by medical journals meeting national requirements for scientific publication (<http://www.icmje.org/>). The medical literature must meet the National Institutes of Health Library of Medicine standards for indexing (<https://www.nlm.nih.gov/>). Medical journals that publish most of their scientific manuscripts by the editorial staff of a journal will not be considered for review. If the majority of funding for research is published by the device manufacturer or organization sponsoring a technique, the results will not be considered for review.
9. Findings:
 - a) Professional societies have published position statements concluding that diagnostic spinal ultrasound is investigational for non-operative spinal and paraspinal conditions in adults. The 2019 policy statement of the American Institute of Ultrasound in Medicine indicates: “There is insufficient evidence in the peer-reviewed medical literature establishing the value of non- operative spinal/paraspinal ultrasound in adults for diagnostic evaluations of conditions involving the intervertebral disks, facet joints and capsules, and central nerves... [A]t this time, the use of ultrasound in diagnostic evaluations, screening, or monitoring of therapy for these conditions has no proven clinical utility and should be considered investigational. Ultrasound may, however, be used as a guidance modality for certain spinal injections.”⁶⁴
 - b) There is insufficient peer-reviewed published scientific evidence that computerized muscle testing leads to better patient outcomes. There is insufficient evidence to support any specific therapeutic effect of craniosacral therapy. While there is emerging evidence for the effectiveness of whole-body vibration in treating some medical conditions, the evidence for whole body vibration as a treatment for low back pain (LBP) remains equivocal.
 - c) A 2015 systematic review⁶⁵ found that that low level laser therapy is an effective method for relieving pain in non-specific chronic low back pain patients. However, no significant treatment effect was identified for disability scores or spinal range of motion outcomes. Guidelines from the North American

Spine Society (2020)⁶⁶ report there is fair evidence to suggest that laser therapy combined with exercise provides better short-term relief of low back pain than either therapy alone. In addition, they report no short-term benefit of laser therapy when compared with exercise alone. Current studies supported by larger sample sizes with longer follow-up was recommended. In a 2009 study, Yeldan and colleagues report no statistically significant differences between the placebo LLLT and LLLT groups on shoulder function in subacromial impingement syndrome.⁶⁷ Ay and colleagues found “no differences between laser and placebo laser treatments on pain severity and functional capacity in patients with acute and chronic low back pain caused by LDH [lumbar disc herniation].”⁶⁸ Furthermore, both a 2016 Cochrane review⁶⁹ and 2017 meta-analysis⁷⁰ report limited effectiveness of low-level laser therapy in carpal tunnel syndrome management. A 2013 study examined the effectiveness of LLLT in reducing acute and chronic neck pain. The authors concluded, “This systematic review provided inconclusive evidence because of significant between-study heterogeneity and potential risk of bias. The benefit seen in the use of LLLT, although statistically significant, does not constitute the threshold of minimally important clinical difference.”⁷¹ The best available current evidence does not support the effectiveness of low level laser therapy as a therapy for patients with knee osteoarthritis.⁶⁵

- d) Similarly, there is insufficient evidence to support the clinical value of the Pettibon System. Posture Pump is deemed experimental and investigational because the effectiveness of this device has not been proven by adequate scientific studies, published in peer-reviewed scientific journals. There is insufficient evidence to support the clinical value of the Therapeutic (Wobble) Chair/Board.
- e) The appropriateness and effectiveness of chiropractic manipulation as a preventive or maintenance therapy has not been established by clinical research and is not covered.
- f) Thermography has not been shown to provide sufficient, reliable characterizing information about neurologic dysfunction or deficit to accept it as a proven evaluative procedure for the clinical diagnosis or characterization of: neck or back pain; musculoskeletal pain; entrapment neuropathy; headache; or transient cerebral ischemia and stroke. High-density surface electromyography (HD-sEMG), surface scanning EMG, paraspinal surface EMG, or macro EMG are considered experimental and investigational as a diagnostic test for evaluating low back pain or other thoracolumbar segmental abnormalities, such as soft tissue injury, intervertebral disc disease, nerve root irritation and scoliosis, and for all other indications because the reliability and validity of these tests have not been established. Surface EMG devices are also experimental and investigational for diagnosis and/or monitoring of nocturnal bruxism and all other indications because the reliability and validity of these tests have not been demonstrated. The Neurophysiologic Pain Profile (NPP) and the spine matrix scan (lumbar matrix scan) are considered experimental and investigational because the reliability and validity of these tests has not been established.
- g) There is insufficient evidence to conclude that nerve conduction studies are beneficial for health outcomes in patients with non-specific neck or back pain. Non-invasive automatic or portable nerve conduction monitoring systems that test only distal motor latencies and conduction velocities are unproven and not medically necessary for the purpose of electrodiagnostic testing.
- h) Plethysmography is used to diagnose deep vein thrombosis^{72,73} and arterial occlusive disease.⁷⁴ Plethysmography is used as the sole diagnostic modality for these conditions or as an initial evaluation to determine the need for venography or arteriography. Body Plethysmography evaluates total lung capacity and residual volume.⁷⁵ Since treatment of cardiovascular and lung conditions falls outside of the scope of chiropractic, patients should be referred for testing if these conditions are suspected.

Regulatory, Accreditation and Resources

Fulcrum Provider Portal: <https://fulcrumproviderportal.com>

Medicare NCD & LCD

State Statutes

42 U.S.C. section 300gg-8

26 U.S.C. section 9815 (a)(1).

29 U.S.C. section 1185d (a)(1)

MN Statute 62M.072

MN Statute 62Q.525

MN Statute 62Q.526

Minnesota Rule 4685.0100 Subp.6A

Minnesota Rule 4685.0700 Subp.4F

WI Statute 632.855

IA Code 514C.26

Certificates of Coverage/Plan Documents/Summary Plan Descriptions

Clinical Resources

1. Kelso JM. Unproven Diagnostic Tests for Adverse Reactions to Foods. *J Allergy Clin Immunol Pract.* Mar-Apr 2018;6(2):362-365. doi:10.1016/j.jaip.2017.08.021
2. Hawk C, Rupert RL, Colonvega M, Boyd J, Hall S. Comparison of bioenergetic synchronization technique and customary chiropractic care for older adults with chronic musculoskeletal pain. *J Manipulative Physiol Ther.* Sep 2006;29(7):540-9. doi:10.1016/j.jmpt.2006.06.026
3. Centner C, Wiegel P, Gollhofer A, König D. Effects of Blood Flow Restriction Training on Muscular Strength and Hypertrophy in Older Individuals: A Systematic Review and Meta- Analysis. *Sports Med.* Jan 2019;49(1):95-108. doi:10.1007/s40279-018-0994-1
4. Cuyul-Vásquez I, Leiva-Sepúlveda A, Catalán-Medalla O, Araya-Quintanilla F, Gutiérrez- Espinoza H. The addition of blood flow restriction to resistance exercise in individuals with knee pain: a systematic review and meta-analysis. *Braz J Phys Ther.* Nov-Dec 2020;24(6):465-478. doi:10.1016/j.bjpt.2020.03.001
5. Grantham B, Korakakis V, O'Sullivan K. Does blood flow restriction training enhance clinical outcomes in knee osteoarthritis: A systematic review and meta-analysis. *Phys Ther Sport.* May 2021;49:37-49. doi:10.1016/j.ptsp.2021.01.014
6. Wortman RJ, Brown SM, Savage-Elliott I, Finley ZJ, Mulcahey MK. Blood Flow Restriction Training for Athletes: A Systematic Review. *Am J Sports Med.* Jun 2021;49(7):1938-1944. doi:10.1177/0363546520964454
7. Oakley PA, Harrison DD, Harrison DE, Haas JW. Evidence-based protocol for structural rehabilitation of the spine and posture: review of clinical biomechanics of posture (CBP) publications. *J Can Chiropr Assoc.* 2005;49(4):270-296.
8. Harrison DE, Cailliet R, Betz JW, et al. A non-randomized clinical control trial of Harrison mirror image methods for correcting trunk list (lateral translations of the thoracic cage) in patients with chronic low back pain. *Eur Spine J.* 2005;14(2):155-162. doi:10.1007/s00586-004-0796-z
9. Rožek K, Potaczek T, Zarzycka M, Lipik E, Jasiewicz B. Effectiveness of Treatment of Idiopathic Scoliosis by SpineCor Dynamic Bracing with Special Physiotherapy Programme in SpineCor System. *Ortop Traumatol Rehabil.* Oct 28 2016;18(5):425-434. doi:10.5604/15093492.1224616
10. Niu JF, Zhao XF, Hu HT, Wang JJ, Liu YL, Lu DH. Should acupuncture, biofeedback, massage, Qi gong, relaxation therapy, device-guided breathing, yoga and tai chi be used to reduce blood pressure?: Recommendations based on high-quality systematic reviews. *Complement Ther Med.* Feb 2019;42:322-331. doi:10.1016/j.ctim.2018.10.017
11. Almeida Silva HJ, Barbosa GM, Scattone Silva R, et al. Dry cupping therapy is not superior to sham cupping to improve clinical outcomes in people with non-specific chronic low back pain: a randomised trial. *J Physiother.* Apr 2021;67(2):132-139. doi:10.1016/j.jphys.2021.02.013
12. Seo J, Chu H, Kim CH, Sung KK, Lee S. Cupping Therapy for Migraine: A PRISMA-Compliant Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Evid Based Complement Alternat Med.* 2021;2021:7582581. doi:10.1155/2021/7582581
13. Kim S, Lee SH, Kim MR, et al. Is cupping therapy effective in patients with neck pain? A systematic review and meta-analysis. *BMJ Open.* Nov 5 2018;8(11):e021070. doi:10.1136/bmjopen-2017-021070
14. Brough N, Lindenmeyer A, Thistlethwaite J, Lewith G, Stewart-Brown S. Perspectives on the effects and mechanisms of craniosacral therapy: A qualitative study of users' views. *European Journal of Integrative Medicine.* 2015;7(2):172-183.
15. Khauv KB, John C. Health-related quality of life improvements in adult patients with chronic low back pain under low-force chiropractic care: A practice-based study. *Chiropractic Journal of Australia.* 2011;41(4):118-122.
16. Liu L, Huang QM, Liu QG, et al. Evidence for Dry Needling in the Management of Myofascial Trigger Points Associated With Low Back Pain: A Systematic Review and Meta-Analysis. *Arch Phys Med Rehabil.* Jan 2018;99(1):144-152.e2. doi:10.1016/j.apmr.2017.06.008
17. Di Sante L, Paoloni M, Dimaggio M, et al. Ultrasound-guided aspiration and corticosteroid injection compared to horizontal therapy for treatment of knee osteoarthritis complicated with Baker's cyst: a randomized, controlled trial. *Eur J Phys Rehabil Med.* Dec 2012;48(4):561-7.
18. Hilgers M, Nielsen H. The Efficacy of Hippotherapy for Physical Rehabilitation: A Systematic Review. *Occupational Therapy Capstones.* 2018;387
19. Santos de Assis G, Schlichting T, Rodrigues Mateus B, Gomes Lemos A, Dos Santos AN. Physical therapy with hippotherapy compared to physical therapy alone in children with cerebral palsy: systematic review and meta-analysis. *Dev Med Child Neurol.* Aug 28 2021;doi:10.1111/dmcn.15042
20. Lightsey P, Lee Y, Krenek N, Hur P. Physical therapy treatments incorporating equine movement: a pilot study exploring interactions between children with cerebral palsy and the horse. *J Neuroeng Rehabil.* 2021;18(1):132-132. doi:10.1186/s12984-021-00929-w
21. Peters BC, Wood W, Hepburn S, Moody EJ. Preliminary Efficacy of Occupational Therapy in an Equine Environment for Youth with Autism Spectrum Disorder. *J Autism Dev Disord.* Sep 23 2021;doi:10.1007/s10803-021-05278-0
22. Prieto AV, Ayupe KMA, Abreu ACA, Filho P. Development and Validation of an Instrument to Assess Horseback Mobility in Hippotherapy. *Percept Mot Skills.* Oct 2021;128(5):2117-2131. doi:10.1177/00315125211036578
23. Suárez-Iglesias D, Bidaurrezaga-Letona I, Sanchez-Lastra MA, Gil SM, Ayán C. Effectiveness of equine-assisted therapies for improving health

- outcomes in people with multiple sclerosis: A systematic review and meta-analysis. *Mult Scler Relat Disord*. Jul 23 2021;55:103161. doi:10.1016/j.msard.2021.103161
24. Menor-Rodríguez MJ, Sevilla Martín M, Sánchez-García JC, Montiel-Troya M, Cortés-Martín J, Rodríguez-Blanque R. Role and Effects of Hippotherapy in the Treatment of Children with Cerebral Palsy: A Systematic Review of the Literature. *Journal of clinical medicine*. 2021;10(12):2589. doi:10.3390/jcm10122589
 25. Tesio L, Franchignoni FP. Autotrraction treatment for low-back pain syndromes. *Critical Reviews™ in Physical and Rehabilitation Medicine*. 1995;7(1):1-9.
 26. Tesio L, Merlo A. Autotrraction versus passive traction: an open controlled study in lumbar disc herniation. *Arch Phys Med Rehabil*. Aug 1993;74(8):871-6. doi:10.1016/0003-9993(93)90015-3
 27. Mao H-Y, Hu M-T, Yen Y-Y, Lan S-J, Lee S-D. Kinesio Taping Relieves Pain and Improves Isokinetic Not Isometric Muscle Strength in Patients with Knee Osteoarthritis_A Systemic Review and Meta-Analysis. *Int J Environ Res Public Health*. 2021;18(19):10440. doi:10.3390/ijerph181910440
 28. Topdemir E, Birinci T, Taşkıran H, Mutlu EK. The effectiveness of Kinesio taping on playing-related pain, function and muscle strength in violin players: A randomized controlled clinical trial. *Phys Ther Sport*. Aug 29 2021;52:121-131. doi:10.1016/j.ptsp.2021.08.010
 29. Jung K-S, Jung J-H, In T-S, Cho H-Y. Influences of Kinesio Taping with Therapeutic Exercise in Patients with Low Back Pain. *Healthcare (Basel, Switzerland)*. 2021;9(8):927. doi:10.3390/healthcare9080927
 30. Yam ML, Yang Z, Zee BC, Chong KC. Effects of Kinesio tape on lower limb muscle strength, hop test, and vertical jump performances: a meta-analysis. *BMC Musculoskelet Disord*. May 14 2019;20(1):212. doi:10.1186/s12891-019-2564-6
 31. Tsikopoulos K, Sidiropoulos K, Kitridis D, Cain Atc SM, Metaxiotis D, Ali A. Do External Supports Improve Dynamic Balance in Patients with Chronic Ankle Instability? A Network Meta- analysis. *Clin Orthop Relat Res*. Feb 2020;478(2):359-377. doi:10.1097/corr.0000000000000946
 32. de Oliveira FCL, Pairot de Fontenay B, Bouyer LJ, Desmeules F, Roy JS. Kinesiotaping for the Rehabilitation of Rotator Cuff-Related Shoulder Pain: A Randomized Clinical Trial. *Sports Health*. Mar 2021;13(2):161-172. doi:10.1177/1941738120944254
 33. Gianola S, Iannicelli V, Fascio E, et al. Kinesio taping for rotator cuff disease. *Cochrane Database Syst Rev*. Aug 8 2021;8(8):Cd012720. doi:10.1002/14651858.CD012720.pub2
 34. Nunes GS, Feldkircher JM, Tessarin BM, Bender PU, da Luz CM, de Noronha M. Kinesio taping does not improve ankle functional or performance in people with or without ankle injuries: Systematic review and meta-analysis. *Clin Rehabil*. Feb 2021;35(2):182-199. doi:10.1177/0269215520963846
 35. Kintz P, Russell E, Baber M, Pichini S. Clinical applications of hair analysis. *Hair Analysis in Clinical and Forensic Toxicology*. Elsevier; 2015:141-159.
 36. Nketia TA, Sailem H, Rohde G, Machiraju R, Rittscher J. Analysis of live cell images: Methods, tools and opportunities. *Methods*. Feb 15 2017;115:65-79. doi:10.1016/j.ymeth.2017.02.007
 37. DiGiorgi D, Cerf JL, Bowerman DS. Outcomes indicators and a risk classification system for spinal manipulation under anesthesia: a narrative review and proposal. *Chiropr Man Therap*. 2018;26:9-9. doi:10.1186/s12998-018-0177-z
 38. Kraal T, The B, Boer R, et al. Manipulation under anesthesia versus physiotherapy treatment in stage two of a frozen shoulder: a study protocol for a randomized controlled trial. *BMC musculoskeletal disorders*. 2017;18(1):412-412. doi:10.1186/s12891-017-1763-2
 39. Labecka MK, Plandowska M. Moiré topography as a screening and diagnostic tool-A systematic review. *PLoS One*. 2021;16(12):e0260858. doi:10.1371/journal.pone.0260858
 40. Nambudripad DS. *Say Good-Bye to Illness*. 3rd ed. Delta Publishing Co.; 2002.
 41. Woodfield HC, 3rd, York C, Rochester RP, et al. Craniocervical chiropractic procedures - a précis of upper cervical chiropractic. *J Can Chiropr Assoc*. 2015;59(2):173-192.
 42. Peterson CD, Haas M, Gregory WT. A pilot randomized controlled trial comparing the efficacy of exercise, spinal manipulation, and neuro emotional technique for the treatment of pregnancy-related low back pain. *Chiropr Man Therap*. 2012;20(1):18-18. doi:10.1186/2045-709X-20-18
 43. Bablis P, Pollard H, Rosner AL. Stress reduction via neuro-emotional technique to achieve the simultaneous resolution of chronic low back pain with multiple inflammatory and biobehavioural indicators: A randomized, double-blinded, placebo-controlled trial. *J Integr Med*. Mar 2022;20(2):135-144. doi:10.1016/j.joim.2021.12.001
 44. Jensen AM. Estimating the prevalence of use of kinesiology-style manual muscle testing: A survey of educators. *Advances in Integrative Medicine*. 2015;2(2):96-102.
 45. Audag N, Goubau C, Toussaint M, Reyhler G. Screening and evaluation tools of dysphagia in children with neuromuscular diseases: a systematic review. *Dev Med Child Neurol*. Jun 2017;59(6):591-596. doi:10.1111/dmcn.13354
 46. Meyer JJ. The validity of thoracolumbar paraspinial scanning EMG as a diagnostic test: an examination of the current literature. *J Manipulative Physiol Ther*. Oct 1994;17(8):539-51.
 47. Albeck MJ, Taher G, Lauritzen M, Trojaborg W. Diagnostic value of electrophysiological tests in patients with sciatica. *Acta Neurol Scand*. Apr 2000;101(4):249-54. doi:10.1034/j.1600-0404.2000.101004249.x
 48. Levinson DR. Questionable billing for Medicare electrodiagnostic tests. Department of Health and Human Services. Updated April 2014. Accessed September 8, 2022. <https://oig.hhs.gov/oei/reports/oei-04-12-00420.pdf>
 49. Koo TK, Cohen JH, Zheng Y. Immediate effect of nimmo receptor tonus technique on muscle elasticity, pain perception, and disability in subjects with chronic low back pain. *J Manipulative Physiol Ther*. Jan 2012;35(1):45-53. doi:10.1016/j.jmpt.2011.09.013
 50. Morningstar M. Integrative treatment using chiropractic and conventional techniques for adolescent idiopathic scoliosis: outcomes in four patients. *J Vert Sublux Rep*. 2007;9:1-7.
 51. Morningstar M. Cervical curve restoration and forward head posture reduction for the treatment of mechanical thoracic pain using the Pettibon corrective and rehabilitative procedures. *J Chiropr Med*. Summer 2002;1(3):113-115. doi:10.1016/S0899-3467(07)60013-5
 52. Morningstar MW. Improvement of lower extremity electrodiagnostic findings following a trial of spinal manipulation and motion-based therapy. *Chiropr Osteopat*. 2006;14:20-20. doi:10.1186/1746-1340-14-20
 53. Morningstar MW, Joy T. Scoliosis treatment using spinal manipulation and the Pettibon Weighting System: a summary of 3 atypical presentations. *Chiropr Osteopat*. 2006;14:1-1. doi:10.1186/1746-1340-14-1
 54. Morningstar MW, Strauchman MN. Adolescent idiopathic scoliosis treatment using the Pettibon corrective procedures: a case report. *J Chiropr Med*. 2007;6(2):83-84. doi:10.1016/j.jcme.2007.04.006
 55. Morningstar MW, Strauchman MN, Gilmour G. Adolescent idiopathic scoliosis treatment using pettibon corrective procedures: a case report. *J Chiropr Med*. Summer 2004;3(3):96-103. doi:10.1016/S0899-3467(07)60093-7

56. Davis GE, Murphy MP, Yueh B, Weymuller EA, Jr. A complication from neurocranial restructuring: nasal septum fracture. *Arch Otolaryngol Head Neck Surg.* Apr 2003;129(4):472-4. doi:10.1001/archotol.129.4.472
57. Nazari G, Bobos P, MacDermid JC, Birmingham T. The Effectiveness of Instrument-Assisted Soft Tissue Mobilization in Athletes, Participants Without Extremity or Spinal Conditions, and Individuals with Upper Extremity, Lower Extremity, and Spinal Conditions: A Systematic Review. *Arch Phys Med Rehabil.* Sep 2019;100(9):1726-1751. doi:10.1016/j.apmr.2019.01.017
58. Heidari P, Farahbakhsh F, Rostami M, Noormohammadpour P, Kordi R. The role of ultrasound in diagnosis of the causes of low back pain: a review of the literature. *Asian J Sports Med.* 2015;6(1):e23803-e23803. doi:10.5812/asjasm.23803
59. Neves EB, Vilaça-Alves J, Rosa C, Reis VM. Thermography in Neurologic Practice. *Open Neurol J.* 2015;9:24-27. doi:10.2174/1874205X01509010024
60. Oh H-J, Jeon C-B, Jeong M-G, Choi S-J. The effects of spinal decompression therapy on pain and disability in patients with chronic low back pain. *J Kor Phys Ther.* 2017;29(6):299-302.
61. Watanabe H, Takahara M, Katakami N, Kanamoto T, Nakata K, Shimomura I. Acute effects of whole body vibration exercise on post-load glucose metabolism in healthy men: a pilot randomized crossover trial. *Endocrine.* 2021;1-8. doi:10.1007/s12020-021-02893-w
62. Domagalska-Szopa M, Szopa A, Siwec A, Kwiecień-Czerwieńiec I, Schreiber L, Dąbek J. Effects of Whole-Body Vibration Training on Lower Limb Blood Flow in Children with Myelomeningocele-A Randomized Trial. *Journal of clinical medicine.* 2021;10(18):4273. doi:10.3390/jcm10184273
63. Min S-K, Lee K, Lim S-T. The effect of whole body vibration on the sprint ability of Korean national bobsled and skeleton athletes. *PLoS one.* 2021;16(10):e0258353-e0258353. doi:10.1371/journal.pone.0258353
64. American Institute of Ultrasound in Medicine. Nonoperative Spinal/Paraspinal Ultrasound in Adults. American Institute of Ultrasound in Medicine (AIUM). Updated November 2, 2019. Accessed September 8, 2022. <https://www.aium.org/officialStatements/18>
65. Huang Z, Ma J, Chen J, Shen B, Pei F, Kraus VB. The effectiveness of low-level laser therapy for nonspecific chronic low back pain: a systematic review and meta-analysis. *Arthritis Res Ther.* 2015;17:360-360. doi:10.1186/s13075-015-0882-0
66. North American Spine Society (NASS). Evidence-Based Clinical Guidelines for Multidisciplinary Spine Care: Diagnosis and Treatment of Low Back Pain. North American Spine Society. Updated 2020. Accessed November 4, 2022. <https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/Guidelines/LowBackPain.pdf>
67. Yeldan I, Cetin E, Ozdincler AR. The effectiveness of low-level laser therapy on shoulder function in subacromial impingement syndrome. *Disabil Rehabil.* 2009;31(11):935-40. doi:10.1080/09638280802377985
68. Ay S, Doğan SK, Evcik D. Is low-level laser therapy effective in acute or chronic low back pain? *Clin Rheumatol.* Aug 2010;29(8):905-10. doi:10.1007/s10067-010-1460-0
69. Peters S, Page MJ, Coppieters MW, Ross M, Johnston V. Rehabilitation following carpal tunnel release. *Cochrane Database Syst Rev.* Feb 17 2016;2:CD004158. doi:10.1002/14651858.CD004158.pub3
70. Bekhet AH, Ragab B, Abushouk AI, Elgebal A, Ali OI. Efficacy of low-level laser therapy in carpal tunnel syndrome management: a systematic review and meta-analysis. *Lasers Med Sci.* Aug 2017;32(6):1439-1448. doi:10.1007/s10103-017-2234-6
71. Kadhim-Saleh A, Maganti H, Ghert M, Singh S, Farrokhkar F. Is low-level laser therapy in relieving neck pain effective? Systematic review and meta-analysis. *Rheumatol Int.* Oct 2013;33(10):2493-501. doi:10.1007/s00296-013-2742-z
72. Jones WS, Vemulapalli S, Parikh KS, et al. AHRQ Technology Assessments. *Treatment Strategies for Patients with Lower Extremity Chronic Venous Disease (LECVI).* Agency for Healthcare Research and Quality (US); 2017.
73. Dezotti NRA, Dalio MB, Ribeiro MS, Piccinato CE, Joviliano EE. The clinical importance of air plethysmography in the assessment of chronic venous disease. *J Vasc Bras.* Oct-Dec 2016;15(4):287-292. doi:10.1590/1677-5449.002116
74. Nirala N, Periyasamy R, Kumar A. Noninvasive Diagnostic Methods for Better Screening of Peripheral Arterial Disease. *Ann Vasc Surg.* Oct 2018;52:263-272. doi:10.1016/j.avsg.2018.03.018
75. Delgado BJ, Bajaj T. Physiology, Lung Capacity. *StatPearls.* StatPearls Publishing Copyright © 2021, StatPearls Publishing LLC.; 2021.

ADDITIONAL RESOURCES

1. Albuquerque NF, Lopes BS. Musculoskeletal applications of infrared thermography on back and neck syndromes: a systematic review. *Eur J Phys Rehabil Med.* 2021 Jun;57(3):386-396. doi: 10.23736/S1973-9087.20.06287-5. Epub 2020 Oct 28. PMID: 33111511
2. Bynum R, Garcia O, Herbst E, et al. Effects of Dry Needling on Spasticity and Range of Motion: A Systematic Review. *Am J Occup Ther.* Jan-Feb 2021;75(1):7501205030p1- 7501205030p13. doi:10.5014/ajot.2021.041798
3. Cotchett MP, Munteanu SE, Landorf KB. Effectiveness of trigger point dry needling for plantar heel pain: a randomized controlled trial. *Phys Ther.* Aug 2014;94(8):1083-94. doi:10.2522/ptj.20130255
4. Ernst E. Craniosacral therapy: a systematic review of the clinical evidence. *Focus on Alternative and Complementary Therapies.* 2012;17(4):197-201. doi:https://doi.org/10.1111/j.2042-7166.2012.01174.x
5. Gammon SR, Mehlman CT, Chan W, Heifetz J, Durrett G, Wall EJ. A comparison of thoracolumbosacral orthoses and SpineCor treatment of adolescent idiopathic scoliosis patients using the Scoliosis Research Society standardized criteria. *J Pediatr Orthop.* Sep 2010;30(6):531-8. doi:10.1097/BPO.0b013e3181e4f761
6. Gutman G, Benoit M, Joncas J, et al. The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace. *Spine J.* May 2016;16(5):626-31. doi:10.1016/j.spinee.2016.01.020
7. Haldeman S, Chapman-Smith D, Petersen DM. Guidelines for chiropractic quality assurance and practice parameters: proceedings of the Mercy Center Consensus Conference. Jones & Bartlett Learning; 2004.
8. Hazell TJ, Olver TD, Hamilton CD, Lemon PW. Addition of synchronous whole-body vibration to body mass resistive exercise causes little or no effects on muscle damage and inflammation. *J Strength Cond Res.* Jan 2014;28(1):53-60. doi:10.1519/JSC.0b013e318296484f
9. Morningstar MW, Pettibon BR, Schlappi H, Schlappi M, Ireland TV. Reflex control of the spine and posture: a review of the literature from a chiropractic perspective. *Chiropr Osteopat.* 2005;13:16-16. doi:10.1186/1746-1340-13-16
10. Jäkel A, von Hauenschild P. A systematic review to evaluate the clinical benefits of craniosacral therapy. *Complement Ther Med.* Dec 2012;20(6):456-65. doi:10.1016/j.ctim. 2012.07.009
11. Kietrys DM, Palombaro KM, Azzaretto E, et al. Effectiveness of dry needling for upper- quarter myofascial pain: a systematic review and meta-analysis. *J Orthop Sports Phys Ther.* Sep 2013;43(9):620-34. doi:10.2519/jospt.2013.4668
12. Lam FM, Lau RW, Chung RC, Pang MY. The effect of whole body vibration on balance, mobility and falls in older adults: a systematic review and

- meta-analysis. *Maturitas*. Jul 2012;72(3):206-13. doi:10.1016/j.maturitas.2012.04.009
13. Lindberg J, Carlsson J. The effects of whole-body vibration training on gait and walking ability - a systematic review comparing two quality indexes. *Physiother Theory Pract*. Oct 2012;28(7):485-98. doi:10.3109/09593985.2011.641670
 14. Llurda-Almuzara L, Labata-Lezaun N, Meca-Rivera T, et al. Is Dry Needling Effective for the Management of Plantar Heel Pain or Plantar Fasciitis? An Updated Systematic Review and Meta-Analysis. *Pain Med*. Jul 25 2021;22(7):1630-1641. doi:10.1093/pm/pnab114
 15. Mohseni Bandpei MA, Rahmani N, Majdoleslam B, Abdollahi I, Ali SS, Ahmad A. Reliability of surface electromyography in the assessment of paraspinal muscle fatigue: an updated systematic review. *J Manipulative Physiol Ther*. Sep 2014;37(7):510-21. doi:10.1016/j.jmpt.2014.05.006
 16. Mousavi-Khatir SR, Fernández-de-Las-Peñas C, Saadat P, Javanshir K, Zohrevand A. The Effect of Adding Dry Needling to Physical Therapy in the Treatment of Cervicogenic Headache: A Randomized Controlled Trial. *Pain Med*. Mar 2 2022;23(3):579-589. doi:10.1093/pm/pnab312
 17. Negrini S, Minozzi S, Bettany-Saltikov J, et al. Braces for idiopathic scoliosis in adolescents. *Spine (Phila Pa 1976)*. Jun 1 2010;35(13):1285-93. doi:10.1097/BRS.0b013e3181dc48f4
 18. Nofsinger C, Konin JG. Diagnostic ultrasound in sports medicine: current concepts and advances. *Sports Med Arthrosc Rev*. Mar 2009;17(1):25-30. doi:10.1097/JSA.0b013e3181982add
 19. Parreira Pdo C, Costa Lda C, Hespagnol LC, Jr., Lopes AD, Costa LO. Current evidence does not support the use of Kinesio Taping in clinical practice: a systematic review. *J Physiother*. Mar 2014;60(1):31-9. doi:10.1016/j.jphys.2013.12.008
 20. Perraton L, Machotka Z, Kumar S. Whole-body vibration to treat low back pain: fact or fad? *Physiother Can*. Winter 2011;63(1):88-93. doi:10.3138/ptc.2009.44
 22. Pettibon BR. Educating the insurance companies. *Today's Chiropr*. 1989;18:74-75.
 23. Pettibon BR. An introduction to spinal biomechanics. *Today's Chiropr*. 1993;22:22-26.
 24. Pourahmadi M, Dommerholt J, Fernández-de-Las-Peñas C, et al. Dry Needling for the Treatment of Tension-Type, Cervicogenic, or Migraine Headaches: A Systematic Review and Meta-Analysis. *Phys Ther*. May 4 2021;101(5)doi:10.1093/ptj/pzab068
 25. Rodríguez-Huguet M, Vinolo-Gil MJ, Góngora-Rodríguez J. Dry Needling in Physical Therapy Treatment of Chronic Neck Pain: Systematic Review. *J Clin Med*. Apr 23 2022;11(9)doi:10.3390/jcm11092370
 26. Sánchez-Infante J, Navarro-Santana MJ, Bravo-Sánchez A, Jiménez-Díaz F, Abián-Vicén J. Is Dry Needling Applied by Physical Therapists Effective for Pain in Musculoskeletal Conditions? A Systematic Review and Meta-Analysis. *Phys Ther*. Mar 3 2021;101(3)doi:10.1093/ptj/pzab070
 27. Silkwood-Sherer DJ, Killian CB, Long TM, Martin KS. Hippotherapy--an intervention to rehabilitate balance deficits in children with movement disorders: a clinical trial. *Phys Ther*. May 2012;92(5):707-17. doi:10.2522/ptj.20110081
 28. Sitjà Rabert M, Rigau Comas D, Fort Vanmeerhaeghe A, et al. Whole-body vibration training for patients with neurodegenerative disease. *Cochrane Database Syst Rev*. Feb 15 2012;(2):Cd009097. doi:10.1002/14651858.CD009097.pub2
 29. Tough EA, White AR. Effectiveness of acupuncture/dry needling for myofascial trigger point pain. *Phys Ther Rev*. 2011/04/01 2011;16(2):147-154. doi:10.1179/1743288X11Y.0000000007
 30. Wegner I, Widyahening IS, van Tulder MW, et al. Traction for low-back pain with or without sciatica. *Cochrane Database Syst Rev*. 2013;2013(8):CD003010-CD003010. doi:10.1002/14651858.CD003010.pub5
 31. Williams S, Whatman C, Hume PA, Sheerin K. Kinesio taping in treatment and prevention of sports injuries: a meta-analysis of the evidence for its effectiveness. *Sports Med*. Feb 1 2012;42(2):153-64. doi:10.2165/11594960-000000000-00000
 32. Gattie E, Cleland JA, Snodgrass S. The Effectiveness of Trigger Point Dry Needling for Musculoskeletal Conditions by Physical Therapists: A Systematic Review and Meta-analysis. *J Orthop Sports Phys Ther*. Mar 2017;47(3):133-149. doi:10.2519/jospt.2017.7096
 33. Babatunde OO, Jordan JL, Van der Windt DA, Hill JC, Foster NE, Protheroe J. Effective treatment options for musculoskeletal pain in primary care: A systematic overview of current evidence. *PLoS One*. 2017;12(6):e0178621. doi:10.1371/journal.pone.0178621
 34. Babilis P, Pollard H, Rosner AL. Stress reduction via neuro-emotional technique to achieve the simultaneous resolution of chronic low back pain with multiple inflammatory and biobehavioural indicators: A randomized, double-blinded, placebo-controlled trial. *J Integr Med*. Mar 2022;20(2):135-144. doi:10.1016/j.joim.2021.12.001
 35. Koc BB, Truyens A, Heymans M, Jansen EJP, Schotanus MGM. Effect of Low-Load Blood Flow Restriction Training After Anterior Cruciate Ligament Reconstruction: A Systematic Review. *Int J Sports Phys Ther*. 2022;17(3):334-346. doi:10.26603/001c.33151
 36. Labata-Lezaun N, Llurda-Almuzara L, González-Rueda V, et al. Effectiveness of Blood Flow Restriction Training on Muscle Strength and Physical Performance in Older Adults: A Systematic Review and Meta-analysis. *Arch Phys Med Rehabil*. Sep 2022;103(9):1848-1857. doi:10.1016/j.apmr.2021.12.015
 37. Li S, Shaharudin S, Abdul Kadir MR. Effects of Blood Flow Restriction Training on Muscle Strength and Pain in Patients With Knee Injuries: A Meta-Analysis. *Am J Phys Med Rehabil*. Apr 1 2021;100(4):337-344. doi:10.1097/phm.0000000000001567
 38. Nitzsche N, Stäuber A, Tiede S, Schulz H. The effectiveness of blood-flow restricted resistance training in the musculoskeletal rehabilitation of patients with lower limb disorders: A systematic review and meta-analysis. *Clin Rehabil*. Sep 2021;35(9):1221-1234. doi:10.1177/02692155211003480
 39. Rodrigo-Mallorca D, Loaiza-Betancur AF, Monteagudo P, Blasco-Lafarga C, Chulvi-Medrano I. Resistance Training with Blood Flow Restriction Compared to Traditional Resistance Training on Strength and Muscle Mass in Non-Active Older Adults: A Systematic Review and Meta-Analysis. *Int J Environ Res Public Health*. Oct 30 2021;18(21)doi:10.3390/ijerph182111441
 40. Wang HN, Chen Y, Cheng L, Cai YH, Li W, Ni GX. Efficacy and Safety of Blood Flow Restriction Training in Patients With Knee Osteoarthritis: A Systematic Review and Meta-Analysis. *Arthritis Care Res (Hoboken)*. Jan 2022;74(1):89-98. doi:10.1002/acr.24787
 41. Wengle L, Migliorini F, Leroux T, Chahal J, Theodoropoulos J, Betsch M. The Effects of Blood Flow Restriction in Patients Undergoing Knee Surgery: A Systematic Review and Meta-analysis. *Am J Sports Med*. Aug 2022;50(10):2824-2833. doi:10.1177/03635465211027296
 42. Zhang T, Wang X, Wang J. Effect of blood flow restriction combined with low-intensity training on the lower limbs muscle strength and function in older adults: A meta-analysis. *Exp Gerontol*. Jul 2022;164:111827. doi:10.1016/j.exger.2022.111827
 43. Zhao M, Chen S, You Y, Wang Y, Zhang Y. Effects of a Therapeutic Horseback Riding Program on Social Interaction and Communication in Children with Autism. *Int J Environ Res Public Health*. 2021 Mar 6;18(5):2656. doi: 10.3390/ijerph18052656. PMID: 33800787; PMCID: PMC7967314

Policy History

Date	Update
02/27/2018	New Document
02/27/2018	Approved by Clinical Policy Committee
2/28/2018	Approved by UM Subcommittee
3/11/2021	Approved by Clinical Policy Committee
3/18/2021	Approved by UM Subcommittee
3/17/2022	Approved by Clinical Policy Committee
3/29/2022	Approved by UM Subcommittee
03/21/2023	Approved by Clinical Policy Committee
05/02/2023	Approved by UM Subcommittee
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Lack of Information

Fulcrum Health, Inc	
Clinical guidelines Lack of Clinical Information	Original Date: November 2018
Physical Medicine – Clinical Decision Making	Last Revised Date: May 2023
Guideline Number: UM031	Implementation Date: May 2023

Policy Statement

Review decisions will be made on the clinical information obtained by Fulcrum at the time of the review determination. Fulcrum will request additional clinical information from the requesting provider when it is necessary to render a medical decision. Providers and members shall be notified in a timely manner that a request for authorization of services includes insufficient information to complete a medical necessity review and additional information should be submitted. The policy outlines procedural time frames, what occurs, when necessary, information is not provided within the specified time frames, and processes by which an adverse determination occurs due to lack of information

Procedure

Requests for authorization of services must include clinical information sufficient to demonstrate medical necessity. If requests for services are not accompanied by sufficient information to verify that clinical criteria have been met, a request for additional information will be issued to the attending health care professional/provider, and the case will be pended for a specified period of time.

1. When more information is required to complete the medical necessity review, Fulcrum tries to contact the provider at least three (3) times by multiple methods and dates. Methods are:
 - a) Attempt 1: provider portal web note or fax on day 1,
 - b) Attempt 2: RFI letter mailed on day 2
 - c) Attempt 3: phone call on day prior to due date.
 - d) The due date is stated in the communication.
2. When requesting information, staff will:
 - a) Identify self by name, title, and organization
 - b) Identify member by name, date of birth and insurance identification number
 - c) Describe the information that is needed for completion of the review
 - d) Provide the date that the information is needed
 - e) Provide a call back number if questions arise
 - f) Provide instructions for provider portal entry or a fax number for submission of the information
3. Staff will document in the QConnect (UM System):
 - a) Information needed for clinical review
 - b) Provide the date that the information is needed
 - c) Provide a call back number if questions arise
 - d) Provide instructions for submission of information.
4. For non-urgent preservice requests:
 - a) For MN Fully Insured & Self -Insured Commercial Plans, Fulcrum gives written and/or electronic notification of the non-urgent preservice decision to members and providers within five (5) business days of the request. (MN Statute 62M.05 Subd3a).
 - b) For non-MN Commercial & Exchange, Fulcrum gives written and/or electronic notification of the non-urgent preservice decision to members and providers within 15 calendar days of the request. (NCQA UM 5 A4).

- c) For Medicare and MN Medicaid, Fulcrum gives written and/or electronic notification of the non-urgent preservice decision to the member and provider within 14 calendar days of the request (NCQA UM5 A5).
- 5. For urgent authorizations (not applicable to physical medicine providers)
 - a) For MN Fully Insured & Self-Insured commercial Plans, urgent authorization must be made within 48 hours and must include at least one business day after the initial request. (MN Statute 62M.05, Subd. 3b).
 - b) For Medicare, non-MN commercial Fully Insured and Self-Insured, and MN Medicaid, urgent authorization decisions must be made within 72 hours of the request and include written and/or electronic notification to member and provider.
 - c) Post Service reviews are completed within 30 Calendar days. (NCQA UM 5 A6) with written and/or electronic notification to the provider and member. Member notification is not required if the member is not at financial risk.
- 6. Review determination (NCQA UM6 A):
 - d) Upon receipt of additional information, the reviewer completes the medical necessity review and authorizes the request if criteria are met.
 - e) When requested information is not received, a determination is made by the clinical peer reviewer based on the available information. If denied, the UM Coordinator sends the adverse determination letter to the member and provider, with denial reason as lack of information. The letter must indicate the specific information needed in the adverse determination notice.
 - f) RFI validation is defined as follows (occurring after the RFI receipt date but on or before decision date):
 - a. Assessments entered in whole or in part
 - b. verbal or web note from provider stating that they do not have the information requested
 - c. Medical records attached to the episode
 - d. Incorrect clinical information that was not available on the initial submission

Regulatory, Accreditation and Resources

NCQA UM 5 and UM 6

MN Statute § 62M.04 Subd.4

MN Statute § 62M.05, Subd.4

Medicare CMS Part C & D Enrollee Organization/coverage Determinations and Appeals Guidance

Policy History

Date	Update
10/09/2018	Approved by UM Subcommittee
10/09/2019	Approved by UM Subcommittee
10/20/2020	Approved by UM Subcommittee
10/29/2020	Approved by UM Subcommittee
10/12/2021	Approved by UM Subcommittee
10/25/2022	Approved by UM Subcommittee
05/02/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee

Passive Modality Utilization

Fulcrum Health, Inc	
Clinical guidelines Passive Modality Utilization	Original Date: June 2018
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: CLINUM102	Implementation Date: January 2024

Policy Statement

Fulcrum does not support the use of multiple passive treatments for the care of musculoskeletal pain within the scope of network practitioners. Most passive treatments have similar physiological effects related to pain control and reduction of inflammation. The use of treatments with duplicative physiological effects is unnecessary and inappropriate. Multiple passive treatments have not been shown to improve or accelerate patient health outcomes.

Scope

Physical medicine participating network practitioners, including rendering chiropractors, physical therapists, occupational therapists, speech therapists, and therapist assistants as applicable. This policy also applies to out of network practitioners as determined and delegated by the health plan.

Definitions

Modality is defined as any group of agents that may include thermal, acoustic, radiant, mechanical, or electrical energy to produce physiologic changes in tissues for therapeutic purposes. Modalities affect tissue at the cellular level.

Multiple modalities are defined as the use of and/or billing of two or more physical medicine modalities each visit or during the same session to the same region.

Passive Treatment is applied by the provider or in a clinical setting and does not involve active participation by the patient.

Procedure is a service provided to increase the functional abilities in self-care, mobility, or safety.

Procedure

1. The following is a list of procedures and modalities considered to be passive treatment:
 - a) Chiropractic Manipulative Therapy (98940, 98941, 98942, 98943)
 - b) Acupuncture with and without electrical stimulation (97810, 97811, 97813, 97814)
 - c) Thermal and light therapy - Hot/cold (97010), diathermy (97024), microwave (97020), infrared (97026), ultraviolet (97028), ultrasound (US) (97035), paraffin bath (97018) and whirlpool (97022).
 - d) Electrical therapy - High volt, low volt, interferential current, transcutaneous electrical nerve stimulation (TENS) (97014 and 97032).
 - e) Mechanical - mechanically assisted and often a sustained pull of the spine or limb, such as traction (97012).
 - f) Therapeutic massage and manual therapy (97124 and 97140)—Manual therapy includes Active Release Technique, trigger point therapy, myofascial release, mobilization/manipulation, manual lymphatic drainage, and manual traction.

2. Appropriate use of passive treatment:
 - a) Passive treatment modalities may be utilized in the initial period of an episode of treatment or exacerbation of a sub-acute or chronic condition for pain control, reduction of inflammation, or reduction of muscle spasm. As a condition progresses, passive care should be replaced by active treatment modalities, such as therapeutic exercise. Insufficient evidence exists to support the continued use of passive treatment as a means for improved clinical outcomes.
 - b) The following must be met before recommending need acupuncture as a reimbursable passive procedure:
 - i) The chiropractor utilizing needle acupuncture must meet specific state requirement for practicing acupuncture and be credentialed by Fulcrum.
 - ii) The procedure must not be clinical redundant (provide the same physiological effect such as reducing spasm or inflammation) with other modalities/therapies applied to the same area other than manipulation.
 - c) Passive treatment is clinically appropriate and/or necessary in the conservative management of neuromusculoskeletal conditions when:
 - i) There are no contraindications to the intervention.
 - ii) Self-administration is implausible or places the patient at risk of harm.
 - iii) Used primarily during the initial period of an episode of treatment.
 - iv) Used to support an active care approach (i.e., therapeutic exercise)
 - v) Used for a particular condition for which there is an evidence-basis of significant benefit.
 - d) Passive treatment is NOT clinically appropriate and/or necessary when:
 - i) Patient safety is jeopardized by the application of the modality.
 - ii) The treatment can safely and effectively be administered by the patient or another individual.
 - iii) Used during a course of treatment, which continues beyond the initial period.
 - iv) Used as the primary or sole therapy.
 - v) Greater than one passive treatment is used involving the same body region(s).
 - vi) Used largely for the comfort and convenience of the patient.
 - vii) Used as part of the routine office protocol.
3. Exclusions
 - a) The use of chiropractic manipulation (98940-98943) is not considered a duplication of service or physiological effect when used in conjunction with passive treatment, except when the National Correct Coding Initiative (NCCI) edits require that the manual therapy techniques be performed in a separate anatomic site than the chiropractic adjustments in order to be reimbursed separately.
 - b) The limited number of studies and the quality of research evidence (designs, methodologies, sample sizes, variation of interventions, and outcomes measured) do not permit confident judgments about the effectiveness and safety of manual therapy interventions for the treatment of non-musculoskeletal disorders. As a result, evidence of effectiveness is lacking, and/or inconclusive. The treatment of non-musculoskeletal disorders using manual therapy interventions is unproven.
4. Documentation requirements:
 - a) The treatment plan or plan of care must include the clinical rationale for each service, a description of the service, the area of the body the service will be provided, goals for each service, and a time component, if indicated.
 - b) Applicable contraindications for passive modalities (e.g. ultrasound therapy) should be considered.

Regulatory, Accreditation and Resources

Medicare NCD & LCD

- i. [Article - Chiropractic Services – Medical Policy Article \(A57889\) \(cms.gov\)](#) (01/01/2020) (IL, MN, WI, NY, CT, ME, MA, NH, RI, VT)

- ii. [LCD - Chiropractic Services \(L37387\) \(cms.gov\)](#) (09/29/2021) (AL, GA, TN, SC, VA, WV, NC)
- iii. [LCD - Chiropractic Services \(L37254\) \(cms.gov\)](#) (01/26/2023) (KY, OH)

Medicare Billing and Coding: Chiropractic Services

- 1. [Article - Billing and Coding: Chiropractic Services \(A58345\) \(cms.gov\)](#) (10/01/2020) (WY, CO, NM, TX, OK, AR, LA, MS, DE, DC, NJ, PA, MD)
- 2) [Article - Billing and Coding: Chiropractic Services \(A56273\) \(cms.gov\)](#) (07/07/20223) (IA, KS, MO, NE, IN, MI)
- 3) [Article - Billing and Coding: Chiropractic Services \(A56616\) \(cms.gov\)](#). (10/10/2019) (AK, GA, TN, SC, VA, WV, NC)
- 4) [Article - Billing and Coding: Chiropractic Services \(A56455\) \(cms.gov\)](#) (11/16/2023) (KY, OH)
- 5) [Article - Billing and Coding: Chiropractic Services \(A58412\) \(cms.gov\)](#) (10/01/2020) (FL, VI, PR)
- 6) [Article - Billing and Coding: Chiropractor Services \(A57914\) \(cms.gov\)](#) (01/01/2020) (AL, OR, WA, AZ, ND, SD, UT, WY, MT)
- 7) [NCCI for Medicare | CMS](#)

Clinical References

1. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med.* Apr 4 2017;166(7):514-530. doi:10.7326/m16-2367
2. Ghasabmahaleh SH, Rezasoltani Z, Dadarkhah A, Hamidipannah S, Mofrad RK, Najafi S. Spinal Manipulation for Subacute and Chronic Lumbar Radiculopathy: A Randomized Controlled Trial. *Am J Med.* Jan 2021;134(1):135-141. doi:10.1016/j.amjmed.2020.08.005
3. Paige NM, Miake-Lye IM, Booth MS, et al. Association of Spinal Manipulative Therapy With Clinical Benefit and Harm for Acute Low Back Pain: Systematic Review and Meta-analysis. *JAMA.* 2017;317(14):1451-1460. doi:10.1001/jama.2017.3086
4. (NASS) NASS. Evidence-Based Clinical Guidelines for Multidisciplinary Spine Care: Diagnosis & Treatment of Low Back Pain. North American Spine Society. Updated 2020. Accessed November 4, 2022. <https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/Guidelines/LowBack Pain.pdf>
5. Karimi MT, Rabczuk T. Scoliosis conservative treatment: A review of literature. *J Craniovertebr Junction Spine.* Jan-Mar 2018;9(1):3-8. doi:10.4103/jcvjs.JCVJS_39_17
6. Chiodo A, Bhat S, Harrison R, Shumer G, Wasserman R. Ambulatory Adult Low Back Pain Guideline. Michigan Medicine University of Michigan. Updated December 2020. Accessed August 23, 2022. <https://michmed-public.policystat.com/policy/8093107/latest/>
7. Khadilkar A, Odebiyi DO, Brosseau L, Wells GA. Transcutaneous electrical nerve stimulation (TENS) versus placebo for chronic low-back pain. *The Cochrane database of systematic reviews.* 2008;2008(4):CD003008-CD003008. doi:10.1002/14651858.CD003008.pub3
8. Greene MW, Clemente-Fuentes RJW. Is transcutaneous electrical nerve stimulation (TENS) more effective than placebo for management of chronic low back pain? *Evidence-Based Practice.* 2016;19(8):10-11.
9. Rajfur J, Pasternok M, Rajfur K, et al. Efficacy of Selected Electrical Therapies on Chronic Low Back Pain: A Comparative Clinical Pilot Study. *Med Sci Monit.* 2017;23:85-100. doi:10.12659/msm.899461
10. Savigny P, Watson P, Underwood M. Early management of persistent non-specific low back pain: summary of NICE guidance. *Bmj.* Jun 4 2009;338:b1805. doi:10.1136/bmj.b1805
11. Savigny P, Kuntze S, Watson P, et al. Low back pain: early management of persistent non-specific low back pain. London: National Collaborating Centre for Primary Care and Royal College of General Practitioners. 2009;14(1):9-13.
12. Wegner I, Widyahening IS, van Tulder MW, et al. Traction for low-back pain with or without sciatica. *The Cochrane database of systematic reviews.* 2013;2013(8):CD003010-CD003010. doi:10.1002/14651858.CD003010.pub5
13. Alrwaily M, Almutiri M, Schneider M. Assessment of variability in traction interventions for patients with low back pain: a systematic review. *Chiropr Man Therap.* 2018;26:35-35. doi:10.1186/s12998-018-0205-z
14. Chou R, Deyo R, Friedly J, et al. AHRQ Comparative Effectiveness Reviews. Noninvasive Treatments for Low Back Pain. Agency for Healthcare Research and Quality (US); 2016.
15. Analan PD, Leblebici B, Adam M. Effects of therapeutic ultrasound and exercise on pain, function, and isokinetic shoulder rotator strength of patients with rotator cuff disease. *Journal of physical therapy science.* 2015;27(10):3113-3117. doi:10.1589/jpts.27.3113
16. Ebadi S, Henschke N, Forogh B, et al. Therapeutic ultrasound for chronic low back pain. *The Cochrane database of systematic reviews.* 2020;7(7):CD009169-CD009169. doi:10.1002/14651858.CD009169.pub3
17. Furlan AD, Giraldo M, Baskwill A, Irvin E, Imamura M. Massage for low-back pain. *Cochrane Database Syst Rev.* Sep 1 2015;(9):Cd001929. doi:10.1002/14651858.CD001929.pub3
18. Chou R, Deyo R, Friedly J, et al. Nonpharmacologic Therapies for Low Back Pain: A Systematic Review for an American College of Physicians Clinical Practice Guideline. *Ann Intern Med.* Apr 4 2017;166(7):493-505. doi:10.7326/m16-2459
19. van Middelkoop M, Rubinstein SM, Kuijpers T, et al. A systematic review on the effectiveness of physical and rehabilitation interventions for chronic non-specific low back pain. *Eur Spine J.* 2011;20(1):19-39. doi:10.1007/s00586-010-1518-3
20. Yang JD, Tam KW, Huang TW, Huang SW, Liou TH, Chen HC. Intermittent Cervical Traction for Treating Neck Pain: A Meta-analysis of

- Randomized Controlled Trials. *Spine (Phila Pa 1976)*. Jul 1 2017;42(13):959-965. doi:10.1097/brs.0000000000001948
21. Romeo A, Vanti C, Boldrini V, et al. Cervical radiculopathy: effectiveness of adding traction to physical therapy-a systematic review and meta-analysis of randomized controlled trials. *Phys Ther*. 2018;98:231-242. *Phys Ther*. Aug 1 2018;98(8):727. doi:10.1093/ptj/pzy064
 22. Romeo A, Vanti C, Boldrini V, et al. Cervical Radiculopathy: Effectiveness of Adding Traction to Physical Therapy-A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Phys Ther*. Apr 1 2018;98(4):231-242. doi:10.1093/physth/pzy001
 23. Bernal-Utrera C, Gonzalez-Gerez JJ, Anarte-Lazo E, Rodriguez-Blanco C. Manual therapy versus therapeutic exercise in non-specific chronic neck pain: a randomized controlled trial. *Trials*. Jul 28 2020;21(1):682. doi:10.1186/s13063-020-04610-w
 24. Miller J, Gross A, D'Sylva J, et al. Manual therapy and exercise for neck pain: a systematic review. *Man Ther*. Aug 2010;15(4):334-54.
 25. Coulter ID, Crawford C, Vernon H, et al. Manipulation and Mobilization for Treating Chronic Nonspecific Neck Pain: A Systematic Review and Meta-Analysis for an Appropriateness Panel. *Pain physician*. 2019;22(2):E55-E70.
 26. Díaz-Pulido B, Pérez-Martín Y, Pecos-Martín D, et al. Efficacy of Manual Therapy and Transcutaneous Electrical Nerve Stimulation in Cervical Mobility and Endurance in Subacute and Chronic Neck Pain: A Randomized Clinical Trial. *Journal of clinical medicine*. 2021;10(15):3245. doi:10.3390/jcm10153245
 27. Ylinen J, Kautiainen H, Wirén K, Häkkinen A. Stretching exercises vs manual therapy in treatment of chronic neck pain: a randomized, controlled cross-over trial. *J Rehabil Med*. Mar 2007;39(2):126-32. doi:10.2340/16501977-0015
 28. Hidalgo B, Hall T, Bossert J, Dugeny A, Cagnie B, Pitance L. The efficacy of manual therapy and exercise for treating non-specific neck pain: A systematic review. *J Back Musculoskelet Rehabil*. 2017;30(6):1149-1169. doi:10.3233/BMR-169615
 29. Falsiroli Maistrello L, Geri T, Gianola S, Zaninetti M, Testa M. Effectiveness of Trigger Point Manual Treatment on the Frequency, Intensity, and Duration of Attacks in Primary Headaches
 30. Haas M, Bronfort G, Evans R, et al. Dose-response and efficacy of spinal manipulation for care of cervicogenic headache: a dual-center randomized controlled trial. *The spine journal : official journal of the North American Spine Society*. 2018;18(10):1741-1754. doi:10.1016/j.spinee.2018.02.019
 31. Tsakitzidis G, Remmen R, Dankaerts W, Van Royen P. Non-specific neck pain and evidence- based practice. *European scientific journal*. 2013;9(3):1-19. doi:https://doi.org/10.19044/esj.2013.v9n3p%25p
 32. Daher A, Carel RS, Tzipi K, Esther H, Dar G. The effectiveness of an aerobic exercise training on patients with neck pain during a short- and long-term follow-up: a prospective double-blind randomized controlled trial. *Clin Rehabil*. May 2020;34(5):617-629. doi:10.1177/0269215520912000
 33. Yesil H, Hepgulser S, Dundar U, Taravati S, Isleten B. Does the Use of Electrotherapies Increase the Effectiveness of Neck Stabilization Exercises for Improving Pain, Disability, Mood, and Quality of Life in Chronic Neck Pain?: A Randomized, Controlled, Single-Blind Study. *Spine (Phila Pa 1976)*. Oct 15 2018;43(20):E1174-e1183. doi:10.1097/brs.0000000000002663
 34. Albornoz-Cabello M, Pérez-Mármol JM, Barrios Quinta CJ, Matarán-Peñarocha GA, Castro- Sánchez AM, de la Cruz Olivares B. Effect of adding interferential current stimulation to exercise on outcomes in primary care patients with chronic neck pain: a randomized controlled trial. *Clin Rehabil*. Sep 2019;33(9):1458-1467. doi:10.1177/0269215519844554
 35. Celenay ST, Kaya DO, Akbayrak T. Cervical and scapulothoracic stabilization exercises with and without connective tissue massage for chronic mechanical neck pain: A prospective, randomised controlled trial. *Man Ther*. Feb 2016;21:144-50. doi:10.1016/j.math.2015.07.003
 36. Chou R, Côté P, Randhawa K, et al. The Global Spine Care Initiative: applying evidence- based guidelines on the non-invasive management of back and neck pain to low- and middle- income communities. *Eur Spine J*. Sep 2018;27(Suppl 6):851-860. doi:10.1007/s00586-017- 5433-8
 37. Argueta-Figueroa L, Flores-Mejía LA, Ávila-Curiel BX, Flores-Ferreira BI, Torres-Rosas R. Nonpharmacological Interventions for Pain in Patients with Temporomandibular Joint Disorders: A Systematic Review. *Eur J Dent*. Jul 2022;16(3):500-513. doi:10.1055/s-0041-1740220
 38. Southerst D, Yu H, Randhawa K, et al. The effectiveness of manual therapy for the management of musculoskeletal disorders of the upper and lower extremities: a systematic review by the Ontario Protocol for Traffic Injury Management (OPTIMa) Collaboration. *Chiropr Man Therap*. 2015;23:30-30. doi:10.1186/s12998-015-0075-6
 39. Desjardins-Charbonneau A, Roy JS, Dionne CE, Frémont P, MacDermid JC, Desmeules F. The efficacy of manual therapy for rotator cuff tendinopathy: a systematic review and meta- analysis. *J Orthop Sports Phys Ther*. May 2015;45(5):330-50. doi:10.2519/jospt.2015.5455
 40. Steuri R, Sattelmayer M, Elsig S, et al. Effectiveness of conservative interventions including exercise, manual therapy and medical management in adults with shoulder impingement: a systematic review and meta-analysis of RCTs. *Br J Sports Med*. 2017;51(18):1340-1347. doi:10.1136/bjsports-2016-096515
 41. Petterson S, Plancher K, Klyve D, Draper D, Ortiz R. Low-Intensity Continuous Ultrasound for the Symptomatic Treatment of Upper Shoulder and Neck Pain: A Randomized, Double-Blind Placebo-Controlled Clinical Trial. *J Pain Res*. 2020;13:1277-1287. doi:10.2147/jpr.S247463
 42. Erratum: Low-Intensity Continuous Ultrasound for the Symptomatic Treatment of Upper Shoulder and Neck Pain: A Randomized, Double-Blind Placebo-Controlled Clinical Trial [Corrigendum]. *J Pain Res*. 2020;13:1899-1900. doi:10.2147/jpr.S272270
 43. Page MJ, Green S, Mroocki MA, et al. Electrotherapy modalities for rotator cuff disease.
 44. *Cochrane Database Syst Rev*. Jun 10 2016;(6):Cd012225. doi:10.1002/14651858.Cd012225
 45. Joseph MF, Taft K, Moskwa M, Denegar CR. Deep friction massage to treat tendinopathy: a systematic review of a classic treatment in the face of a new paradigm of understanding. *J Sport Rehabil*. Nov 2012;21(4):343-53. doi:10.1123/jsr.21.4.343
 46. Beumer L, Wong J, Warden SJ, Kemp JL, Foster P, Crossley KM. Effects of exercise and manual therapy on pain associated with hip

- osteoarthritis: a systematic review and meta- analysis. *Br J Sports Med.* 2016;50(8):458-463.
47. Sampath KK, Mani R, Miyamori T, Tumilty S. The effects of manual therapy or exercise therapy or both in people with hip osteoarthritis: a systematic review and meta-analysis. *Clin Rehabil.* Dec 2016;30(12):1141-1155. doi:10.1177/0269215515622670
 48. Kemp JL, Mosler AB, Hart H, et al. Improving function in people with hip-related pain: a systematic review and meta-analysis of physiotherapist-led interventions for hip-related pain. *British journal of sports medicine.* 2020;54(23):1382-1394. doi:10.1136/bjsports-2019-101690
 49. Chaves P, Simões D, Paço M, et al. Deep Friction Massage in the Management of Patellar Tendinopathy in Athletes: Short-Term Clinical Outcomes. *J Sport Rehabil.* Sep 1 2020;29(7):860- 865. doi:10.1123/jsr.2019-0046
 50. Xia P, Wang X, Lin Q, Cheng K, Li X. Effectiveness of ultrasound therapy for myofascial pain syndrome: a systematic review and meta-analysis. *Journal of pain research.* 2017;10:545-555. doi:10.2147/JPR.S131482
 51. Wu Y, Zhu S, Lv Z, et al. Effects of therapeutic ultrasound for knee osteoarthritis: a systematic review and meta-analysis. *Clin Rehabil.* Dec 2019;33(12):1863-1875. doi:10.1177/0269215519866494
 52. Rutjes AW, Nuesch E, Sterchi R, et al. Transcutaneous electrostimulation for osteoarthritis of the knee. *The Cochrane database of systematic reviews.* 2009;2009(4):CD002823-CD002823. doi:10.1002/14651858.CD002823.pub2
 53. Vance CGT, Rakeel BA, Blodgett NP, et al. Effects of transcutaneous electrical nerve stimulation on pain, pain sensitivity, and function in people with knee osteoarthritis: a randomized controlled trial. *Phys Ther.* 2012;92(7):898-910. doi:10.2522/ptj.20110183
 54. Maeda T, Yoshida H, Sasaki T, Oda A. Does transcutaneous electrical nerve stimulation (TENS) simultaneously combined with local heat and cold applications enhance pain relief compared with TENS alone in patients with knee osteoarthritis? *Journal of physical therapy science.* 2017;29(10):1860-1864. doi:10.1589/jpts.29.1860
 55. Tumilty S, Munn J, Abbott JH, McDonough S, Hurley DA, Baxter GD. Laser therapy in the treatment of achilles tendinopathy: a pilot study. *Photomed Laser Surg.* Feb 2008;26(1):25-30. doi:10.1089/pho.2007.2126
 56. Neeter C, Thomeé R, Silbernagel KG, Thomeé P, Karlsson J. Iontophoresis with or without dexamethazone in the treatment of acute Achilles tendon pain. *Scand J Med Sci Sports.* Dec 2003;13(6):376-82. doi:10.1046/j.1600-0838.2003.00305.x
 57. Zhou J, Salvendy G. Human Aspects of IT for the Aged Population. Design for Aging: First International Conference, ITAP 2015, Held as Part of HCI International 2015, Los Angeles, CA, USA, August 2-7, 2015. Proceedings, Part I. vol 9193. Springer; 2015.
 58. Fuentes JP, Armijo Olivo S, Magee DJ, Gross DP. Effectiveness of interferential current therapy in the management of musculoskeletal pain: a systematic review and meta-analysis. *Phys Ther.* Sep 2010;90(9):1219-38. doi:10.2522/ptj.20090335
 59. Song HJ, Seo H-J, Lee Y, Kim SK. Effectiveness of high-intensity laser therapy in the treatment of musculoskeletal disorders: A systematic review and meta-analysis of randomized controlled trials. *Medicine.* 2018;97(51):e13126-e13126. doi:10.1097/MD.00000000000013126
 60. Armijo-Olivo S, Pitance L, Singh V, Neto F, Thie N, Michelotti A. Effectiveness of Manual Therapy and Therapeutic Exercise for Temporomandibular Disorders: Systematic Review and Meta-Analysis. *Physical therapy.* 2016;96(1):9-25. doi:10.2522/ptj.20140548
 61. Babatunde OO, Jordan JL, Van der Windt DA, Hill JC, Foster NE, Protheroe J. Effective treatment options for musculoskeletal pain in primary care: A systematic overview of current evidence. *PLoS One.* 2017;12(6):e0178621-e0178621. doi:10.1371/journal.pone.0178621
 62. Baez S, Hoch JM, Uhl TL. The effectiveness of cervical traction and exercise in decreasing neck and arm pain for patients with cervical radiculopathy: a critically appraised topic. *Int J Athl Ther Train.* 2017;22(5):4.
 63. Bagheripour B, Kamyab M, Azadinia F, Amiri A, Akbari M. The efficacy of a home-mechanical traction unit for patients with mild to moderate cervical osteoarthritis: A pilot study. *Med J Islam Repub Iran.* 2016;30:386-386.
 64. Bryans R, Decina P, Descarreaux M, et al. Evidence-based guidelines for the chiropractic treatment of adults with neck pain. *J Manipulative Physiol Ther.* Jan 2014;37(1):42-63. doi:10.1016/j.jmpt.2013.08.010
 65. Buchbinder R, van Tulder M, Öberg B, et al. Low back pain: a call for action. *Lancet.* Jun 9 2018;391(10137):2384-2388. doi:10.1016/s0140-6736(18)30488-4
 66. Bukhari SRI, Shakil-Ur-Rehman S, Ahmad S, Naeem A. Comparison between effectiveness of Mechanical and Manual Traction combined with mobilization and exercise therapy in Patients with Cervical Radiculopathy. *Pak J Med Sci.* Jan-Feb 2016;32(1):31-34. doi:10.12669/pjms.321.8923
 67. Cai C, Pua YH, Lim KC. A clinical prediction rule for classifying patients with low back pain who demonstrate short-term improvement with mechanical lumbar traction. *Eur Spine J.* 2009;18(4):554-561. doi:10.1007/s00586-009-0909-
 68. Cakir S, Hegguler S, Ozturk C, Korkmaz M, Isleten B, Atamaz FC. Efficacy of therapeutic ultrasound for the management of knee osteoarthritis: a randomized, controlled, and double-blind study. *Am J Phys Med Rehabil.* May 2014;93(5):405-12. doi:10.1097/phm.0000000000000033
 69. Carey TS, Freburger JK, Holmes GM, et al. A long way to go: practice patterns and evidence in chronic low back pain care. *Spine.* 2009;34(7):718-724. doi:10.1097/BRS.0b013e31819792b0
 70. Centers for Medicare & Medicaid Services. Transcutaneous Electrical Nerve Stimulation for Chronic Low Back Pain: CAG-00429N. Centers for Medicare & Medicaid Services (CMS). Updated June 8, 2012. Accessed August 23, 2022. <https://www.cms.gov/medicare-coverage-database/view/ncaal-decision-memo.aspx?proposed=N&NCAId=256>
 71. Cherian JJ, Jauregui JJ, Leichter AK, Elmallah RK, Bhava A, Mont MA. The effects of various physical non-operative modalities on the pain in osteoarthritis of the knee. *Bone Joint J.* Jan 2016;98-b(1 Suppl A):89-94. doi:10.1302/0301-620x.98b1.36353
 72. Chou R. Patient education: Low back pain in adults (Beyond the Basics). Wolters Kluwer. Updated September 20, 2021. Accessed August 23, 2022. <https://www.uptodate.com/contents/low-back-pain-in-adults-beyond-the-basics>
 73. Clar C, Tsertsvadze A, Court R, Hundt GL, Clarke A, Sutcliffe P. Clinical effectiveness of manual therapy for the management of musculoskeletal and non-musculoskeletal conditions: systematic review and update of UK evidence report. *Chiropr Man Therap.*

- 2014;22(1):12-12. doi:10.1186/2045-709X-22-12
74. Coulter ID, Crawford C, Hurwitz EL, et al. Manipulation and mobilization for treating chronic low back pain: a systematic review and meta-analysis. *Spine J.* 2018;18(5):866-879. doi:10.1016/j.spinee.2018.01.013
 75. Crawford C, Boyd C, Paat CF, et al. The Impact of Massage Therapy on Function in Pain Populations-A Systematic Review and Meta-Analysis of Randomized Controlled Trials: Part I, Patients Experiencing Pain in the General Population. *Pain Med.* 2016;17(7):1353-1375. doi:10.1093/pm/pnw099
 76. Damgaard P, Bartels EM, Ris I, Christensen R, Juul-Kristensen B. Evidence of Physiotherapy Interventions for Patients with Chronic Neck Pain: A Systematic Review of Randomised Controlled Trials. *ISRN Pain.* 2013;2013:567175-567175. doi:10.1155/2013/567175
 77. Desmeules F, Boudreault J, Roy JS, Dionne C, Frémont P, MacDermid JC. The efficacy of therapeutic ultrasound for rotator cuff tendinopathy: A systematic review and meta-analysis. *Phys Ther Sport.* Aug 2015;16(3):276-84. doi:10.1016/j.ptsp.2014.09.004
 78. Dorji K, Graham N, Macedo L, et al. The effect of ultrasound or phonophoresis as an adjuvant treatment for non-specific neck pain: systematic review of randomised controlled trials. *Disabil Rehabil.* Jun 2022;44(13):2968-2974. doi:10.1080/09638288.2020.1851785
 79. Ebadi S, Henschke N, Nakhostin Ansari N, Fallah E, van Tulder MW. Therapeutic ultrasound for chronic low-back pain. *Cochrane Database Syst Rev.* Mar 14 2014;(3):Cd009169. doi:10.1002/14651858.CD009169.pub2
 80. Farooq MN, Mohseni-Bandpei MA, Gilani SA, Ashfaq M, Mahmood Q. The effects of neck mobilization in patients with chronic neck pain: A randomized controlled trial. *J Bodyw Mov Ther.* Jan 2018;22(1):24-31. doi:10.1016/j.jbmt.2017.03.007
 81. Foster NE, Anema JR, Cherkin D, et al. Prevention and treatment of low back pain: evidence, challenges, and promising directions. *Lancet.* Jun 9 2018;391(10137):2368-2383. doi:10.1016/s0140-6736(18)30489-6
 82. Fritz JM, Thackeray A, Brennan GP, Childs JD. Exercise only, exercise with mechanical traction, or exercise with over-door traction for patients with cervical radiculopathy, with or without consideration of status on a previously described subgrouping rule: a randomized clinical trial. *J Orthop Sports Phys Ther.* Feb 2014;44(2):45-57. doi:10.2519/jospt.2014.5065
 83. Furlan AD, Yazdi F, Tsertsvadze A, et al. A systematic review and meta-analysis of efficacy, cost-effectiveness, and safety of selected complementary and alternative medicine for neck and low-back pain. *Evid Based Complement Alternat Med.* 2012;2012:953139-953139. doi:10.1155/2012/953139
 84. Glazov G, Yelland M, Emery J. Low-level laser therapy for chronic non-specific low back pain: a meta-analysis of randomised controlled trials. *Acupunct Med.* 2016;34(5):328-341. doi:10.1136/acupmed-2015-011036
 85. Hawk C, Minkalis AL, Khorsan R, et al. Systematic Review of Nondrug, Nonsurgical Treatment of Shoulder Conditions. *J Manipulative Physiol Ther.* Jun 2017;40(5):293-319. doi:10.1016/j.jmpt.2017.04.001
 86. Isaac Z, Dec K. Patient education: Neck pain (Beyond the Basics). Wolters Kluwer. Updated September 20, 2022. Accessed September 23, 2022. <https://www.uptodate.com/contents/neck-pain-beyond-the-basics>
 87. Johnson MI, Paley CA, Howe TE, Sluka KA. Transcutaneous electrical nerve stimulation for acute pain. *Cochrane Database Syst Rev.* 2015;2015(6):CD006142-CD006142. doi:10.1002/14651858.CD006142.pub3
 88. Kroeling P, Gross A, Graham N, et al. Electrotherapy for neck pain. *Cochrane Database Syst Rev.* Aug 26 2013;(8):Cd004251. doi:10.1002/14651858.CD004251.pub5
 89. Walsh DM, Howe TE, Johnson MI, Sluka KA. Transcutaneous electrical nerve stimulation for acute pain. *Cochrane Database Syst Rev.* Apr 15 2009;(2):Cd006142. doi:10.1002/14651858.CD006142.pub2
 90. Kumar S, Beaton K, Hughes T. The effectiveness of massage therapy for the treatment of nonspecific low back pain: a systematic review of systematic reviews. *Int J Gen Med.* 2013;6:733-741. doi:10.2147/IJGM.S50243
 91. Littlewood C, May S, Walters S. A review of systematic reviews of the effectiveness of conservative interventions for rotator cuff tendinopathy. *Shoulder & Elbow.* 2013;5(3):151-167.
 92. Martimbianco ALC, Torloni MR, Andriolo BN, Porfirio GJ, Riera R. Neuromuscular electrical stimulation (NMES) for patellofemoral pain syndrome. *Cochrane Database Syst Rev.* 2017;12(12):CD011289-CD011289. doi:10.1002/14651858.CD011289.pub2
 93. Negrini S, Minozzi S, Bettany-Saltikov J, et al. Braces for idiopathic scoliosis in adolescents. *Cochrane Database Syst Rev.* Jan 20 2010;(1):Cd006850. doi:10.1002/14651858.CD006850.pub2
 94. Nelson NL, Churilla JR. Massage Therapy for Pain and Function in Patients With Arthritis: A Systematic Review of Randomized Controlled Trials. *Am J Phys Med Rehabil.* Sep 2017;96(9):665-672. doi:10.1097/phm.0000000000000712
 95. Oliveira S, Andrade R, Valente C, et al. Mechanical-based therapies may reduce pain and disability in some patients with knee osteoarthritis: A systematic review with meta-analysis. *Knee.* Aug 2022;37:28-46. doi:10.1016/j.knee.2022.05.005
 96. Page MJ, Green S, Kramer S, Johnston RV, McBain B, Buchbinder R. Electrotherapy modalities for adhesive capsulitis (frozen shoulder). *Cochrane Database Syst Rev.* Oct 1 2014;(10):Cd011324. doi:10.1002/14651858.Cd011324
 97. Palmer E, Redavid L. Therapeutic Ultrasound: Clinical Review. *Clin Info Sys (EBSCO).* January 8, 2016 2016:1-14. doi: https://www.ebscohost.com/assets-sample-content/Therapeutic_Ultrasound_-_CR.pdf
 98. Qing W, Shi X, Zhang Q, Peng L, He C, Wei Q. Effect of Therapeutic Ultrasound for Neck Pain: A Systematic Review and Meta-Analysis. *Arch Phys Med Rehabil.* Nov 2021;102(11):2219-2230. doi:10.1016/j.apmr.2021.02.009
 99. Rankin IA, Sargeant H, Rehman H, Gurusamy KS. Low-level laser therapy for carpal tunnel syndrome. *Cochrane Database of Systematic Reviews.* 2017;(8)doi:10.1002/14651858.CD012765
 100. Salazar AP, Stein C, Marchese RR, Plentz RD, Pagnussat AS. Electric Stimulation for Pain Relief in Patients with Fibromyalgia: A Systematic Review and Meta-analysis of Randomized Controlled Trials. *Pain Physician.* Feb 2017;20(2):15-25.
 101. Sandoval MC, Ramirez C, Camargo DM, Salvini TF. Effect of high-voltage pulsed current plus conventional treatment on acute ankle sprain. *Rev Bras Fisioter.* May-Jun 2010;14(3):193-9. doi:10.1590/s1413-35552010000300012
 102. Seco J, Kovacs FM, Urrutia G. The efficacy, safety, effectiveness, and cost-effectiveness of ultrasound and shock wave therapies for

low back pain: a systematic review. Spine J. Oct 2011;11(10):966-77. doi:10.1016/j.spinee.2011.02.002

103. Sung JH, Lee JM, Kim JH. The Effectiveness of Ultrasound Deep Heat Therapy for Adhesive Capsulitis: A Systematic Review and Meta-Analysis. Int J Environ Res Public Health. Feb 7 2022;19(3)doi:10.3390/ijerph19031859

104. Snyder AR, Perotti AL, Lam KC, Bay RC. The influence of high-voltage electrical stimulation on edema formation after acute injury: a systematic review. J Sport Rehabil. Nov 2010;19(4):436-51. doi:10.1123/jsr.19.4.436

105. Thackeray A, Fritz JM, Childs JD, Brennan GP. The Effectiveness of Mechanical Traction Among Subgroups of Patients With Low Back Pain and Leg Pain: A Randomized Trial. J Orthop Sports Phys Ther. Mar 2016;46(3):144-54. doi:10.2519/jospt.2016.6238

106. Thoomes EJ. Effectiveness of manual therapy for cervical radiculopathy, a review. Chiropr Man Therap. 2016;24:45-45. doi:10.1186/s12998-016-0126-7

107. Chiodo A, Alvarez D, Graziano G, et al. Acute Low Back Pain. Regents of the University of Michigan Updated December 2011. Accessed September 23, 2022. <http://www.med.umich.edu/1info/FHP/practiceguides/back/back.pdf>

108. van den Bekerom MP, van der Windt DA, Ter Riet G, van der Heijden GJ, Bouter LM. Therapeutic ultrasound for acute ankle sprains. Eur J Phys Rehabil Med. Jun 2012;48(2):325-34.

109. van den Dolder PA, Ferreira PH, Refshauge KM. Effectiveness of soft tissue massage and exercise for the treatment of non-specific shoulder pain: a systematic review with meta-analysis. Br J Sports Med. Aug 2014;48(16):1216-26. doi:10.1136/bjsports-2011-090553

110. Zeng C, Li H, Yang T, et al. Electrical stimulation for pain relief in knee osteoarthritis: systematic review and network meta-analysis. Osteoarthritis Cartilage. Feb 2015;23(2):189-202. doi:10.1016/j.joca.2014.11.014

Policy History

Date	Update
November 2023	New Policy
12/07/2023	Approved by Clinical Policy Committee
12/19/2023	Approved by UM Subcommittee
03/07/2024	Approved by Clinical Policy Committee
03/15/2024	Approved by Utilization Management Subcommittee