

National Imaging Associates, Inc.*

2024 NIA Clinical Guidelines For Medical Necessity Review

PHYSICAL MEDICINE GUIDELINES

Effective July 1, 2024 – July 1, 2025



**National Imaging Associates, Inc. (NIA) is a subsidiary of Evolent Health, LLC.*

Guidelines for Clinical Review Determination

Preamble

NIA is committed to the philosophy of supporting safe and effective treatment for patients. The medical necessity criteria that follow are guidelines for the provision of diagnostic imaging. These criteria are designed to guide both providers and reviewers to the most appropriate diagnostic tests based on a patient's unique circumstances. In all cases, clinical judgment consistent with the standards of good medical practice will be used when applying the guidelines. Determinations are made based on both the guideline and clinical information provided at the time of the request. It is expected that medical necessity decisions may change as new evidence-based information is provided or based on unique aspects of the patient's condition. The treating clinician has final authority and responsibility for treatment decisions regarding the care of the patient.

Guideline Development Process

These medical necessity criteria were developed by National Imaging Associates, Inc. (NIA) for the purpose of making clinical review determinations for requests for therapies and diagnostic procedures. The developers of the criteria sets included representatives from the disciplines of radiology, internal medicine, nursing, cardiology, and other specialty groups. NIA's guidelines are reviewed yearly and modified when necessary following a literature search of pertinent and established clinical guidelines and accepted diagnostic imaging practices.

All inquiries should be directed to:
Evolent Specialty Services, Inc.
c/o Privacy
1812 N. Moore St, Suite 1705, Arlington, VA 22209
Fax 800-830-1762 / Privacy@Evolent.com

Table of Contents

PHYSICAL MEDICINE GUIDELINES

Therapy

Outpatient Habilitative Physical (PT) and Occupational Therapy (OT)

Outpatient Habilitative Speech Therapy

Record Keeping and Documentation Standards: Physical Medicine

Chiropractic

Chiropractic Infant Care Policy

Plain Film X-rays

Record Keeping and Documentation Standards: Chiropractic Care

General

Active Procedures in Physical Medicine

Durable Medical Equipment

Experimental Unproven Investigational Services

Measurable Progressive Improvement

Passive Treatment



*National Imaging Associates, Inc.	
Clinical guidelines OUTPATIENT HABILITATIVE PHYSICAL AND OCCUPATIONAL THERAPY	Original Date: November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_603	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION 2

STATEMENT 2

 PURPOSE..... 2

 SCOPE 2

REQUIREMENTS 2

 DOCUMENTATION 3

 EVALUATION 4

 TREATMENT GOALS 5

 FREQUENCY AND DURATION 6

 DISCONTINUATION OF TREATMENT 8

REFERENCES..... 11

- Complexity of care that can only be safely and effectively performed by or under the general supervision of a skilled therapist

Documentation [3, 4]

- Have written referral from primary care practitioner or other non-physician practitioner (NPP) if required by state guidelines.
- Physical and occupational therapy initial evaluations and re-evaluations that include:
 - Patient history - such as recent illness, injury, or disability
 - Diagnosis and date of onset and/or exacerbation of the condition
 - Prior and current level of function
 - Identification of any underlying factors that have impacted current functional performance must also be noted
 - Re-evaluations must be performed annually at a minimum to show progress
 - Support ongoing delays or functional deficits and medical necessity for continued services
 - With current objective measures to show significant progress and support ongoing delays (see progress note section below)
 - Re-evaluations should include updated formal testing that is
 - Age-appropriate
 - Norm-referenced
 - Standardized
 - Specific to the type of therapy provided
- Skilled services are not also being provided by other community service agencies and/or school systems
 - Document coordination of services with other agencies
 - Document unavailable services
- Evidence that the services are considered reasonable and effective treatments requiring the skills of a therapist
- Clinical updates at regular intervals or when additional care is requested and include:
 - Current objective measures
 - Progress towards goals
 - Requested frequency and duration of care
 - The patient's current level of function
 - Any conditions that are impacting their ability to benefit from skilled intervention
 - Objective measures of the patient's overall functional progress relative to each treatment goal as well as a comparison to the previous progress report
 - Skilled treatment techniques that are being utilized
 - 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
 - Evidence of discharge planning
- Maintenance programs

- Skilled interventions rendered and objective details of how these interventions are preventing deterioration or making the condition more tolerable
- Evidence 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

Evaluation [5]

- Habilitative Physical or Occupational Therapy
 - Measurable improvement and progress towards functional goals within an anticipated and reasonable timeframe toward a patient's maximum potential
 - Treatment is reasonable and appropriate for an individual with a progressive disorder and 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 or treatment has yielded no measurable functional progress over a reasonable amount of time.
- Establishing a delay or deficit
 - Formal testing/functional assessments [6, 7]
 - Age-appropriate, norm-referenced, standardized, and specific to the therapy provided
 - Test scores and interpretation should establish the presence of a motor or functional delay as defined the specific test.
 - Raw scores are not sufficient to establish the presence of a delay.
 - Score reports should include percentile ranks and/or standard deviations from the mean as applicable for the test used
 - Test information must be linked to difficulty with or inability to otherwise perform everyday tasks
 - Orthopedic diagnoses not related to functional delay should include appropriate tests and measures specific to the deficit and the therapy provided.
 - When standardized testing cannot be completed, the documentation must clearly state the reason formal testing could not be done.
 - At minimum, re-testing must occur yearly, but may occur every 180 days.
 - Providers must assess patient status with the same testing instrument used in the initial evaluation or explain the reason for the change.
 - In the absence of standardized testing or when test scores show skills within normal ranges, the documentation must include either:
 - Detailed clinical observations and objective data to document the degree and severity of the condition
 - A caregiver interview/questionnaire

- Informal assessment supporting Functional Mobility/ADL (Activities of Daily Living) deficits and the medical need for skilled services
- In the case of feeding difficulties, the notes must clearly indicate a functional feeding delay as a result of underlying impairments.
 - Indications of a delay may include:
 - Gagging/choking
 - Oral motor or upper extremity coordination deficits
 - Maladaptive behaviors due to a food intolerance/aversion preventing adequate oral intake that contribute to malnutrition or decreased body mass index
 - If the delay is the result of fine/oral motor or sensory delays or deficits, testing and detailed clinical observations of oral motor skills should be included in the documentation.
 - Parent report of limited food choices is not adequate to support the medical need for feeding therapy.
 - 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 are not medically necessary for picky eaters who:
 - Can eat and swallow normally
 - Meet growth and developmental milestones
 - Eat at least one food from all major food groups (protein, grains, fruits, etc.)
 - Eat more than 20 different foods

Treatment Goals [8, 9]

- Detail type, amount, duration, and frequency of therapy services required to achieve targeted outcomes
- Short and long-term functional goals should:
 - be SMART: specific, measurable, attainable, relevant, and timed [10]
 - Include the date the goal was established and the date the goal is expected to be met.
 - Target the functional deficits identified during the assessment and promote attainment of age-appropriate developmental milestones, functional mobility and/or ADL skills.
- Short and long-term functional goals should NOT:
 - Have underlying factors, (performance skills, client factors, the environment) as the targeted outcome of long-term goals
 - Have underlying factors (strength, range of motion, cognition) as the sole focus of short-term goals
- Interventions must be:

- Evidence-based, requiring the skills of a therapist to perform and/or teach the task
- Chosen to address the targeted goals
- Representative of the best practices outlined by the corresponding national organizations
- Considerate of functional limitations outlined in the most recent evaluation/assessment
- Promote motor learning or relatively permanent differences in motor skill capability that can be transferred and generalized to new learning situations
- Explicitly linked to the targeted goal/outcome they address
- If the patient is not progressing, documentation of a revised treatment plan is necessary, and must include specific barriers to progress

Frequency and Duration [11, 12, 13]

- Must be supported by skilled treatment interventions regardless of level of severity of delay
- Include reasonable or anticipated timeframe to meet the established goals
 - If goals are not met within the expected timeframe, documentation should explain why they were not met and if the plan of care was adjusted accordingly
 - If the plan of care is not adjusted, documentation must demonstrate why the skills of a therapist are still medically necessary to address the goals
- Must be commensurate with:
 - Patient's level of disability
 - Medical and skilled therapy needs
 - Accepted standards of practice
 - Reflecting clinical reasoning and current evidence
- High frequencies (3x/week for a short duration of 2-6 weeks)
 - Considered when documented delays are classified as severe as defined by the specific test utilized and supported by corresponding testing guidelines used in the evaluation
 - Include 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 and details on why a higher frequency is more beneficial than a moderate or low frequency
 - Considered when the treatment plan is rapidly evolving necessitating frequent updates to the home program
 - Necessary in the acute phase
 - Progressive decline in frequency is expected within a reasonable time frame
 - Intense frequencies (on a case-by-case basis, > 3x/week for a short duration ≤4 weeks) which does not meet the above criteria may be considered with **ALL** of the following documentation;

- Letter of medical need from the prescribing provider documenting the patient’s rehabilitation potential for achieving the goals identified
 - Purpose of the high frequency requested (e.g., during an acute phase, close to achieving a milestone)
 - Identification of the functional skill which will be achieved with high frequency therapy
 - Specific measurable goals related to the high frequency requested and the expected date the goal will be achieved
- Moderate frequency (2x/week)
 - Consistent with moderate delays as established in the general guidelines of formal assessments used in the evaluation
 - Therapy provided 2x/week may be considered when documentation shows one or more of the following:
 - Patient is making very good functional progress toward goals.
 - Patient is in a critical period to gain new skills or restore function or is at risk of regression.
 - Licensed therapist needs to adjust the patient’s therapy plan and home program weekly or more often than weekly based on their progress and medical needs.
 - Patient has complex needs requiring ongoing education of the responsible adult.
 - Each treatment session involves skilled and unique interventions that are not repetitive when compared to recent treatment sessions.
- Low frequency ($\leq 1x/week$)
 - One time per week or less is appropriate when:
 - Patient is making progress toward their goals, but the progress has slowed
 - Patient is at risk of deterioration due to their medical condition
 - Licensed therapist is required to adjust the patient’s therapy plan and home program weekly to every other week based on the patient’s progress
 - Every other week is supported appropriate when:
 - Medical condition is stable
 - Patient is making progress
 - Anticipated member will not regress with every other week therapy
 - Less than every other week is appropriate when:
 - The patient cannot yet tolerate more frequent therapy sessions
 - The patient has needs that are addressed on a periodic basic 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

- Maintenance Level/Prevent Deterioration (e.g., every other week, monthly, every 3 months)
 - Is appropriate when:
 - Therapy plan changes very slowly
 - Home program is at a level that may be managed by the patient or the responsible adult/caregiver
 - Therapy plan requires infrequent updates by the skilled therapist
 - Progress has slowed or stopped (documentation supports that ongoing skilled therapy is required to maintain the progress made or prevent deterioration)
 - Patient may be making limited progress toward goals or that goal attainment is extremely slow
 - Factors are identified that inhibit the patient’s ability to achieve established goals.
 - Documentation must show the following:
 - Habilitative plan of care has ended, and a new plan of care established for maintenance
 - 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.
 - Skilled interventions rendered and objective details of how these interventions are preventing deterioration or making the condition more tolerable must be provided
 - Patient and responsible caregiver have a continuing need for education, a periodic adjustment of the home program, or regular modification of equipment to meet the patient’s needs.
 - Specialized judgment, knowledge, and skills of a qualified therapist are required for the safe and effective performance of services.

Discontinuation of Treatment [9, 14]

A discharge plan must be included in the plan of care.

- The discharge plan must indicate the plan to wean services if:
 - Patient has attained their goals
 - No measurable functional improvement has been demonstrated
 - Program can be carried out by caregivers or other non-skilled personnel
- For members no longer showing functional improvement, a weaning process of one to two months should occur.
- Treatment can be discontinued if the patient:
 - Returned to expected level of function
 - Adapted to impairment with assistive equipment or devices
 - Is able to perform ADLs with minimal to no assistance from caregiver

- Achieved maximum functional benefit from therapy
- Will no longer benefit from additional therapy
- Is unable to participate in the treatment plan or plan of care due to:
 - Medical, psychological, or social complications
- Caregiver received instructions on the home treatment program and is able to demonstrate independence with the program.
- Skills of a therapist are not needed to provide or supervise the service.
- Standardized testing shows they no longer have a developmental delay (as defined by the specific test used).
- Plateau in response to therapy or lack of significant progress towards therapy goals
- Is non-compliant
 - Poor attendance of member or responsible caregiver
 - With therapy and home treatment program
- Treatment ceases to be of therapeutic value.
- 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
- Skilled care may be appropriate to resume after discharge if the patient shows signs of regression in function despite a comprehensive home program. Periodic episodes of care may be needed over a lifetime to address specific needs or changes in condition resulting in functional decline

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none">• Required test score cut-offs removed, replaced with requirement that any testing method be interpreted in accordance with its scoring method.• Distinction made between high frequency and intense frequency of treatments
December 2022	<ul style="list-style-type: none">• Modified the standardized testing requirements• Clarified requirements for picky eaters• Added goals should be written in SMART format• Clarified the need for clinical update documentation• Added the section for goals in the Maintenance Level/Prevent Deterioration section• Clarified the formal testing section and added additional references to support the accepted measures of a significant delay• Minor editorial changes

References

- [1] Centers for Medicare and Medicaid Services, "EPSDT - A Guide for States: Coverage in the Medicaid Benefit for Children and Adolescents," Medicaid CHIP Program, 2014.
- [2] Centers for Medicare and Medicaid Services, "Early and Periodic Screening, Diagnostic, and Treatment," June 2022. [Online]. Available: <https://www.medicaid.gov/medicaid/benefits/early-and-periodic-screening-diagnostic-and-treatment/index.html>. [Accessed August 2023].
- [3] American Occupational Therapy Association, "Standards of practice for occupational therapy," *American Journal of Occupational Therapy*, vol. 75, no. (Supplement_3), 2021.
- [4] American Physical Therapy Association, "Documentation: Documentation of a Visit," 31 January 2018a. [Online].
- [5] American Physical Therapy Association, "Documentation: Initial Examination and Evaluation," 31 January 2018b. [Online].
- [6] J. M. Zubler, L. D. Wiggins, M. M. Macias, T. M. Whitaker, J. S. Shaw, Squires, K. Jane, J. A. Pajek, R. B. Wolf, K. S. Slaughter, A. S. Broughton, K. L. Gerndt, B. J. Mlodochn and P. H. Lipkin, "Evidence-informed milestones for developmental surveillance tools," *Pediatrics*, vol. 149, no. 3, 2022.
- [7] R. G. Voigt, "Clinical judgment and child development, revisited," *Pediatrics*, vol. 149, no. 3, 2022.
- [8] American Physical Therapy Association, "APTA Guide to Physical Therapist Practice 4.0," 2023. [Online]. Available: <https://guide.apta.org>.
- [9] American Physical Therapy Association, "Elements of Documentation Within the Patient/Client Management Model," 31 January 2018a. [Online]. Available: <https://www.apta.org/your-practice/documentation/defensible-documentation/elements-within-the-patientclient-management-model>. [Accessed 2023].
- [10] J. Bowman, L. Mogensen, E. Marsland and N. Lannin, "The development, content validity and inter-rater reliability of the SMART-Goal evaluation method: A standardised method for evaluating clinical goals," *Australian Occupational Therapy Journal*, vol. 62, no. 6, 2015.
- [11] Academy of Pediatric Physical Therapy, "Intensity of service in an outpatient setting for children with chronic conditions," 2012. [Online]. Available: <https://pediatricapta.org/includes/fact-sheets/pdfs/12%20Intensity%20of%20Service.pdf>. [Accessed August 2023].
- [12] A. F. Bailes, R. Reder and C. Burch, "Development of guidelines for determining frequency of therapy services in a pediatric medical setting," *Pediatric Physical Therapy*, vol. 20, no. 2, pp. 194-198, 2008.

- [13] H. Hanson, A. T. Harrington and K. Nixon-Cave, "Implementing treatment frequency and duration guidelines in a hospital-based pediatric outpatient setting: Administrative case report," *Journal of Physical Therapy and Rehabilitation*, vol. 95, pp. 678-84, 2015.
- [14] American Physical Therapy Association, "Documentation: Conclusion of the Episode of Care Summary," 31 January 2018. [Online]. Available: <https://www.apta.org/your-practice/documentation/defensible-documentation/elements-within-the-patientclient-management-model/conclusion-of-the-episode-of-care-summary>. [Accessed 2023].
- [15] A. Houtrow and N. Murphy, "Prescribing physical, occupational, and speech therapy services for children with disabilities," *Pediatrics*, vol. 143, no. 4, 2019.
- [16] American Physical Therapy Association, "Physical Therapy Documentation of Patient and Client Management," 2019. [Online]. Available: <https://www.apta.org/your-practice/documentation>. [Accessed August 2023].
- [17] American Physical Therapy Association, "Documentation: Reexamination and Reevaluation," 31 January 2018c. [Online].

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical guidelines OUTPATIENT HABILITATIVE AND REHABILITATIVE SPEECH THERAPY	Original Date: November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_602	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	2
STATEMENT	2
PURPOSE.....	2
SCOPE	2
REQUIREMENTS	2
DOCUMENTATION.....	2
EVALUATION	3
TREATMENT GOALS.....	4
FREQUENCY AND DURATION	4
DISCONTINUATION OF TREATMENT	5
OTHER CONSIDERATIONS	6
BACKGROUND	7
DEFINITIONS	7
REFERENCES.....	9

General Information

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.

Statement

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.

Purpose

This guideline describes the documentation requirements of appropriate Habilitative/Rehabilitative Speech Therapy.

All recommendations in this guideline reflect practices that are evidence-based and/or supported by broadly accepted clinical specialty standards.

Scope

This guideline applies to all physical medicine practitioners, including Speech-Language Pathologists (SLP) and Speech-Language Pathology Assistants (SLP-A).

National Imaging Associates 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]

Requirements

The following criteria must be addressed to justify the medical necessity of the prescribed treatment.

Documentation

Progress notes or updated plans of care that cover the patient's specific progress towards their goals with review by the primary care practitioner or other non-physician practitioner (NPP) will be required every 60-90 days or per state guidelines.

Documentation should include: [3]

- Written referral from primary care practitioner or other non-physician practitioner (NPP) as required by state guidelines.
- Patient's current level of function and any conditions that are impacting his/her ability to benefit from skilled intervention.

- Objective measures of the patient’s overall functional progress relative to each treatment goal as well as a comparison to the previous progress report
- Skilled treatment techniques that are being utilized in therapy as well as the patient’s response to therapy.
- If appropriate, documentation should provide a rationale for lack of progress or response to treatment
- Treatment goals that follow a hierarchy of complexity to achieve the target skills for a functional goal.
- Re-evaluation or 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.
 - 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.
- When skilled services are also being provided by other community service agencies and/or school systems the notes must show;
 - Applicable coordination of services with those agencies
 - When services are not available

Evaluation

- Establishing a delay or deficit
 - Formal testing [4, 3]
 - Age-appropriate, norm-referenced, standardized, and specific to the therapy provided
 - Different tests use different scoring methods and risk categories; any selected test must be interpreted in accordance with its scoring method.
 - Test scores and interpretation should establish the presence of a significant delay
 - 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, 6].
 - In the absence of standardized testing or when test scores show skills within normal ranges, the documentation must include detailed clinical observations and objective data to document the degree and severity of the condition to support the medical need for skilled services; a caregiver interview/questionnaire can also support the request.
 - Any time standardized testing cannot be completed, the documentation must clearly state the reason formal testing could not be done.
- Evaluation for habilitative therapy should include:
 - 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.

- Evidence that ongoing treatment is appropriate; note: ongoing treatment is not appropriate when patient function is steady and treatment no longer yields measurable and significant functional progress.
- Evaluation for rehabilitative therapy should include:
 - The specific impact or exacerbation of injury on the patient’s ability to perform in their everyday environment must be supported by appropriate tests and measures in addition to clinical observations.
- Functional Skills
 - The initial plan of care must document baseline impairments as they relate to functional communication and feeding/swallowing with specific goals developed that are measurable, sustainable and time-specific.

Treatment Goals

- Treatment goals must be:
 - Realistic, measurable, and promote attainment of developmental milestones and functional communication abilities appropriate to the patient’s age and circumstances [7, 4].
 - Include the type, amount, duration, and frequency of therapy services
 - These must be consistent with accepted standards of practice and correspond with the patient’s medical and skilled therapy needs and level of disability.
 - Individualized and measurable in order to identify the functional levels related to appropriate maintenance or maximum therapeutic benefit, targeted to identified functional deficits, and promote the attainment of;
 - 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 and/or the environment should not be the targeted outcome of long-term goals.
- Services must be considered reasonable, effective, and of such a complex nature that they require the technical knowledge and clinical decision-making skill of a therapist or can be safely and effectively conducted by non-skilled personnel without the supervision of qualified professionals.
- For sustained positive benefits from therapeutic interventions, activities can be practiced in the child’s environment and reinforced by the parents or other caregivers.

Frequency and Duration

- All requested frequencies must be supported by skilled treatment interventions regardless of level of severity of delay.
- Intense frequencies (i.e., 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.

- Higher frequencies may be considered when delays are classified as severe (as indicated by corresponding testing guidelines used in the evaluation) [4].
- More intensive frequencies may be necessary in the acute phase, however, progressive decline in frequency is expected within a reasonable time frame [4].
- Moderate frequency (i.e., 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.
- Low frequency (i.e., 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.
- Additional factors may be considered on a case-by-case basis.
- If the patient is not progressing, documentation of a revised treatment plan is necessary.
- Maintenance level of therapy services may be considered when a member requires skilled therapy for ongoing periodic assessments and consultations and 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.
 - 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.
 - 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.
 - 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.

Discontinuation of Treatment

- A specific discharge plan, with the expected treatment frequency and duration is included in the plan of care [7]. The discharge plan must indicate the plan to wean services once the patient has attained their goals [5]. Discharge may also be warranted if:
 - No measurable functional improvement has been demonstrated.
 - Behaviors that interfere with the ability to progress with therapy qualify under the American Speech-Language-Hearing Association (ASHA) discharge criteria guidelines.

- Program can be conducted by caregivers or other non-skilled personnel.
- Maximum therapeutic value of a treatment plan has been achieved.
- No additional functional improvement is apparent or expected to occur.
- Provision of services for a condition cease to be of therapeutic value.
- 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.

* A weaning process of one or two months should be implemented.

Other Considerations

- When a patient's language background differs from the rendering therapist and a clinician with 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 this should be documented along with evidence of a communication disorder and a treatment plan that supports linguistically appropriate services without the use of an interpreter.
- 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 [8].
- Swallowing disorders (dysphagia) and feeding disorders will need documentation of an oral, pharyngeal, and/or esophageal phase disorder, food intolerance or aversion [4, 5, 7].
 - 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, are 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 are not medically necessary.
- 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.
- Treatment for voice disorders will need evidence of an instrumental assessment completed by an ENT or SLP to rule out a medical cause or structural deficit [9].
- Treatment for fluency disorders will need evidence that stuttering is a medical condition and is no longer developmental in nature [10].

- Treatment incorporating nonspeech oral motor exercises (NSOMEs) must be evidence based and paired with functional articulation and/or feeding/swallowing tasks [11]

Background

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. 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.

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.

Functional Skills

They are considered necessary communication and feeding/swallowing activities of daily life.

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none">• Required test score cut-offs removed, replaced with requirement that any testing method be interpreted in accordance with its scoring method• Distinction made between high frequency and intense frequency of treatments.• Additional guidance on treatment for fluency disorders and nonspeech oral exercises added
December 2022	<ul style="list-style-type: none">• Updated indications – revised criteria for standardized testing• Revised language for maintenance programs• Revised language for patients with a language background different than rendering therapist and for patients exposed to more than one language• Clarified formal testing section and added references to support accepted measures for a significant delay• Updated references

References

- [1] Centers for Medicare and Medicaid Services, "EPSDT - A Guide for States: Coverage in the Medicaid Benefit for Children and Adolescents," Medicaid CHIP Program, 2014.
- [2] Centers for Medicare and Medicaid Services, "Early and Periodic Screening, Diagnostic, and Treatment," June 2022. [Online]. Available: <https://www.medicaid.gov/medicaid/benefits/early-and-periodic-screening-diagnostic-and-treatment/index.html>. [Accessed August 2023].
- [3] P. H. Lipkin and M. M. Macias, "Promoting optimal development: Identifying infants and young children with developmental disorders through developmental surveillance and screening," *Pediatrics*, vol. 145, no. 1, 2020.
- [4] A. Houtrow and N. Murphy, "Prescribing physical, occupational, and speech therapy services for children with disabilities," *Pediatrics*, vol. 143, no. 4, 2019.
- [5] American Speech-Language-Hearing Association, "Admission/Discharge Criteria in Speech-Language Pathology," 2023. [Online]. [Accessed <https://www.asha.org/policy/gI2004-00046/#sec1.3> August 2023].
- [6] R. G. Voigt, "Clinical judgment and child development, revisited," *Pediatrics*, vol. 149, no. 3, 2022.
- [7] American Speech-Language-Hearing Association, "Scope of practice in speech-language pathology," 2016. [Online]. Available: <https://www.asha.org/policy/SP2016-00343/#Domains>. [Accessed August 2023].
- [8] American Speech-Language-Hearing Association, "Bilingual Service Delivery," 2023. [Online]. Available: https://www.asha.org/practice-portal/professional-issues/bilingual-service-delivery/#collapse_1. [Accessed August 2023].
- [9] American Speech-Language-Hearing Association, "Voice Disorders (Practice Portal)," [Online]. Available: www.asha.org/Practice-Portal/Clinical-Topics/Voice-Disorders/. [Accessed 28 November 2023].
- [10] B. Guitar and E. G. Conture, Eds., *The child who stutters: To the pediatrician*, Fourth ed., Memphis: Stuttering Foundation of America, 2006.
- [11] A. Alhaidary, "Treatment of speech sound disorders in children: Nonspeech oral exercises," *International Journal of Pediatrics and Adolescent Medicine*, vol. 8, pp. 1-4, 2021.

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical guidelines RECORD KEEPING AND DOCUMENTATION STANDARDS: PHYSICAL MEDICINE	Original Date: November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_606-01	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	2
STATEMENT	2
PURPOSE	2
SCOPE	2
MEDICAL RECORD CONTENT REQUIREMENTS.....	2
GENERAL GUIDELINES.....	2
EVALUATION/RE-EVALUATION	3
DAILY NOTES.....	4
TREATMENT PLAN OR PLAN OF CARE	4
LACK OF INFORMATION.....	7
CONFIDENTIALITY OF RECORDS.....	7
BACKGROUND	7
REFERENCES.....	10

General Information

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.

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.

Purpose

This guideline will assist the physical therapist, occupational therapist, and/or speech-language pathologist in creating and maintaining complete and appropriate clinical records and documentation.

All recommendations in this guideline reflect practices that are evidence-based and/or supported by broadly accepted clinical specialty standards.

Scope

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.

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.

Medical Record Content Requirements [1, 2, 3]

General Guidelines

- Documentation should clearly reflect why the skills of a practitioner are needed/the care is medically necessary[‡]
- All records (both digital and handwritten) must be legible: the ability of at least two people to read and understand the documents

- Documentation should be complete and include:
 - Practitioner’s signature and credentials
 - Appropriately dated chart entries
 - Patient identifications on each page
- 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
- Services must be documented in accordance with Current Procedural Terminology (CPT®) coding criteria (e.g., location (body region), time component, etc.)
- Adverse events associated with treatment should be recorded in the patient chart

Evaluation/Re-evaluation

Initial evaluations and re-evaluations including plan of care ([see below](#)) must be performed by a state-licensed PT, OT, SLP, MD, DO or DPM and should document:

- Medical need for a course of treatment through objective findings and subjective self or caregiver reporting
- Pertinent history and general demographics including:
 - Past or current treatment for the same condition
 - Baseline evaluation including current and prior functional status (submit for review)
- Copy of discharge summary including a written letter from the member stating when services ended or a specific reference to the date the member choose 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
- 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
- Objective measures and/or discipline-specific standardized testing demonstrating delays that are connected to a decline in functional status must be provided
 - Assessment tools used during the evaluation should be:
 - Valid
 - Reliable
 - Relevant
 - Supported by the appropriate national therapy best practices guidelines
 - 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
- 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
- Medical need for skilled services
- The reason formal testing could not be completed
- Functional outcome assessment and/or standardized test results to include:
 - Raw scores
 - Standardized scores
 - Score interpretation
- Detailed clinical observations and prognosis and rehab potential must be outlined
- Contraindications to care must be listed with an explanation of their current management
- School programs, including frequency and goals to ensure there is no duplication (*for Habilitative OT/PT/SLP*)
- Information regarding child's involvement in home and community programs (*for Habilitative OT/PT/SLP*)

Daily notes

Should include the following:

- Clear evidence of skilled treatment interventions that cannot be conducted solely by non-skilled personnel
- Assessment of patient's response or non-response to intervention and plan for subsequent treatment sessions, assessments, or updates
- Any significant, unusual, or unexpected changes in clinical status

Treatment plan or Plan of Care

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. This includes the use of telehealth rather than on-site treatment.

The plan of care should include the following:

- Meaningful clinical observations
- Patient's response to the evaluation process
- Interpretation of the evaluation results including:
 - Prognosis for improvement
 - Recommendations for therapy services amount, frequency, and duration
- Short and long-term goals that are required to achieve targeted outcomes
 - SMART (specific, measurable, attainable, realistic and time-bound)
 - Detail the type of intervention that must be;
 - Skilled treatment interventions, regardless of level of severity of deficit or delay
 - Evidence-based
 - Chosen to address the targeted goals and/or outcomes

- Representative of the best practices outlined by the corresponding national organizations
 - 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
- Amount, duration, and frequency
 - The frequency and duration must commensurate with;
 - Patient’s level of disability
 - Medical and skilled therapy needs
 - Accepted standards of practice
 - Clinical reasoning and current evidence
 - Frequency and duration of skilled services must also be in accordance with the following: [4, 5, 6]
 - Intense frequencies ($\geq 3x/\text{week}$) require additional documentation and testing to support a medical need (achieve an identified new skill or recover a function with specific, achievable goals within the requested period)
 - Include details on why a higher frequency is more beneficial than a moderate or low frequency
 - Higher frequencies may be considered when delays are classified as severe (indicated by corresponding objective measures and/or testing guidelines used in the evaluation)
 - More intensive frequencies may be necessary in the acute phase (progressive decline in frequency is expected within a reasonable time)
 - Moderate frequency ($2x/\text{week}$) should be consistent with moderate delays (established by objective measures and/or the general guidelines of formal assessments in the evaluation)
 - Frequency may be used for ongoing care when documentation supports it as being clinically effective toward achieving the functional goals in the treatment plan within a reasonable time
 - Low frequency ($1x/\text{week}$ 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

- Visits or units requested must not exceed the frequency and duration supported in the plan of care
 - Linked to functional limitations outlined in the most recent valuation or assessment
 - Additional factors may be considered on a case-by-case basis
- Expected caregiver involvement in the patient’s treatment
- Educational plan, including:
 - Home exercises
 - Activities of Daily Living (ADL) modifications
 - Anticipated discharge recommendations including:
 - Education of the member in a home program
 - Primary caregiver education (when applicable)
- 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)
 - Treatment is provided without a treatment plan, functional goals, or recent, sustained improvement

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 measures
- Updated outcome measure scoring and interpretation of results
- Overall quantified progress towards each goal (including if goal has been met or not met)
- Modification of treatment interventions needed to meet goals
- Goals updated as appropriate
- Summary of a patient’s response (or lack thereof) to intervention
- Statement (brief) of the prognosis or potential for improvement in functional status
- Updates to the frequency or amount of expected care in preparation for discharge

Note: Treatment must not be focused on returning to activities beyond normal daily living, including but not limited to return to sports, recreational activities, and/or work-specific tasks.

Maintenance care

Maintenance level of therapy services may be considered when a member requires skilled therapy for ongoing periodic assessments, consultations, and treatment.

- Goals in the plan of care must reflect that care is focused on maintaining the current level of function and prevent regression rather than progressing or improving function

- 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 documentation must clearly demonstrate that the specialized judgement, 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
- It is expected that evidence is provided regarding the implementation of a comprehensive home program with indications of compliance by the member to the home program for maximum benefit of therapy

Lack of Information

Reviewers can determine that claims or 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, and insufficient detail showing clear evidence supporting recent significant progress with treatment, such as lacking baseline/updated objectives and goals, or specific plan of care) may result in denial for lack of sufficient information.

Confidentiality of Records

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.

BACKGROUND

‡Medical Necessity [1] [2] [7]

Reasonable or necessary services that require the specific training, skills, and knowledge of a physical or occupational therapist and/or speech/language pathologist to diagnose, correct, or significantly improve/optimize as well as prevent deterioration or development of additional physical 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 licensed practitioner.

- Services shall not be considered reasonable and medically necessary:
 - if they can be omitted without adversely affecting the member's condition or their quality of care.
 - merely because a licensed practitioner furnishes it.
 - If a service can be self-administered or safely and effectively conducted by an unskilled person, without the direct supervision of a practitioner, then it cannot be regarded as a skilled service even though a licensed practitioner rendered the service.
 - if the unavailability of a competent person to provide a non-skilled service results in the non-skilled service being rendered by a licensed practitioner

- if they include repetitive activities (exercises, skill drills) which do not require a licensed practitioner's expertise (knowledge, clinical judgment and decision-making abilities) and can be learned and performed by the patient or caregiver
- if they are activities for general fitness and flexibility, sports-specific training enhancement or general tutoring for improvement in educational performance

Medically necessary care must be:

- **Contractual** – all health care services are determined by the practitioner's contract with the payer and individual health plan benefits.
- **Scope of Practice** – all health care services are limited to the scope of practice under all applicable state and national health care boards.
- **Standard of Practice** – all health care services must be within the practitioner's generally accepted standard of practice.
- **Patient Safety** – all health care services must be delivered in the safest possible manner.
- **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.
- **Setting** – all health care services must be delivered in the least intensive setting.
- **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.
- **Clinical Guidelines**– health care services meet all of the Clinical Guidelines of this organization.

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none">• “Maintenance Section” added
August 2022	<ul style="list-style-type: none">• Revised policy statement to include “documentation must contain evidence to support medical necessity and the need for skilled services...”• General Guidelines: Changed “network practitioner” to “practitioner” and “licensed chiropractor or rehabilitation therapist” to “licensed therapist• General Guidelines: described documentation requirements for all patients• “Clinical Documentation” heading replaced “Evaluation” heading• Clarified specific documentation requirements in the Clinical Documentation section• Clarified treatment plan/plan of care requirements• Removed Daily Treatment Note, Progress Note, Re-Evaluation, Utilization Review sections• Removed CPT Code and Complexity Level Charts• Removed reference to chiropractor throughout.• References updated.

References

- [1] American Occupational Therapy Association, "Occupational therapy practice framework: Domain and process (4th ed)," *American Journal of Occupational Therapy*, vol. 74, no. Suppl. 2, 2020.
- [2] American Speech-Language-Hearing Association, "Documentation in health care [Practice Portal]," n.d.. [Online]. Available: <https://www.asha.org/practice-portal/professional-issues/documentation-in-health-care/>. [Accessed August 2023].
- [3] American Physical Therapy Association, "APTA Guide to Physical Therapist Practice 4.0," 2023. [Online]. Available: <https://guide.apta.org>.
- [4] Academy of Pediatric Physical Therapy, "Intensity of service in an outpatient setting for children with chronic conditions," 2012. [Online]. Available: <https://pediatricapta.org/includes/fact-sheets/pdfs/12%20Intensity%20of%20Service.pdf>. [Accessed August 2023].
- [5] A. F. Bailes, R. Reder and C. Burch, "Development of guidelines for determining frequency of therapy services in a pediatric medical setting," *Pediatric Physical Therapy*, vol. 20, no. 2, pp. 194-198, 2008.
- [6] A. Houtrow and N. Murphy, "Prescribing physical, occupational, and speech therapy services for children with disabilities," *Pediatrics*, vol. 143, no. 4, 2019.

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical guidelines CHIROPRACTIC INFANT CARE POLICY	Original Date: April 2016
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_611	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	2
STATEMENT.....	2
PURPOSE	2
SCOPE.....	2
PROCEDURE	2
BACKGROUND	3
LITERATURE SUPPORT	4
<i>Infantile colic</i>	4
<i>Non-musculoskeletal</i>	4
<i>Musculoskeletal</i>	4
POLICY HISTORY.....	5
REFERENCES.....	6

GENERAL INFORMATION

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.

Statement

The evaluation, diagnosis, and management of infants falls within the scope of chiropractic practice.

NOTE: Chiropractic providers should not engage in unsafe or unproven services as outlined in this policy. There is insufficient evidence that manual therapy (spinal manipulation, extraspinal manipulation, and mobilization) results in improved health outcomes, particularly functional outcomes, related to the treatment of both musculoskeletal and non-musculoskeletal infant conditions [1].

Purpose

Support medically necessary, appropriate, and acceptable chiropractic treatment of infants (age: birth to 24 months).

Scope

This guideline applies to all physical medicine participating network practitioners.

Procedure

ALL of the following apply:

- Therapeutic trial of chiropractic care for the infant patient; [2]
 - In the absence of conclusive evidence, clinical experience and patient/parent preferences must align
 - Infant patient shows no clinically significant improvement (progress toward measurable goals) after a two-week trial of chiropractic care, no additional chiropractic care is indicated and referral may be appropriate
- Manual-based therapy (spinal/extraspinal manipulation and mobilization), active care, and passive therapies have not been shown to improve the health outcomes of spine, extremity-based musculoskeletal conditions, or non-musculoskeletal conditions (childhood immunizations, treatment of infectious diseases, etc.) in infant populations [3, 4]
- There is no contemporary chiropractic consensus demonstrating a general agreement to support the treatment of non-musculoskeletal conditions [5, 6] such as:
 - Treatment of the common cold
 - Sinus congestion

- Allergies
- Sleep disturbances
- Difficulty nursing
- Infantile colic
- ADHD
- Asthma
- Autism
- Cancer
- Cerebral palsy
- Constipation
- Nocturnal enuresis
- Otitis media
- Chiropractic infant care for wellness care, well-baby checks, and preventive care are **NOT** covered
- The use of maintenance or preventive[‡] spinal/extraspinal manipulation
- The following services
 - CPT code 97012 – Mechanical traction
 - CPT code 97014 – Unattended electrical stimulation
 - CPT code 97032 – Attended electrical stimulation
 - HCPCS code G0283 – Electrical stimulation
 - CPT code 97035 – Ultrasound
 - CPT code S9090 or any code used to bill low level laser
- These codes will require peer review of clinical documentation to determine medical necessity:
 - CPT code 97110 – Therapeutic exercise
 - CPT code 97112 – Neuromuscular reeducation
 - CPT code 97530 – Activities of daily living
 - CPT code 98942 – 5-region chiropractic manipulative therapy
 - CPT code 98943 – Extraspinal chiropractic manipulative therapy
 - CPT code 97124 – Massage therapy
 - CPT code 97140 – Manual therapy
 - All X-rays

NOTE: This organization has the decisive authority to determine if treatment is medically necessary and appropriate.

BACKGROUND

[‡]Preventive, defined as prevention of any disease or condition or the promotion and enhancement of health after maximum therapeutic benefit has occurred.

Literature Support

As of August 15, 2023, there is no first-level evidence based literature in relation to the effectiveness of manual therapy/manipulation for spinal disorders in the infant (young) population. [5, 7, 8]

Infantile colic

The American Academy of Family Physicians (AAFP) report on infantile colic primary level of treatment is parental reassurance and support because colic is benign [9]. Although the AAFP article addresses physical therapies for colic, which included chiropractic and osteopathic manipulation, massage, and acupuncture, it also addressed the insufficient evidence to support these therapies due to numerous studies with small sample size, nonblinded trials, and high performance bias. [10]

Other randomized controlled trials (RCTs) comparing the effect of chiropractic care to treat infants with colic also reported insufficient evidence to support these manual therapies, reporting similar issues of small sample size, limited blinding, bias, heterogenous variations of infants with excessive crying, and in some trials the outcomes trending in the opposite direction of what was expected. [11, 12, 13, 14]

The reliability of musculoskeletal indicators in crying infants is uncertain and further investigation is needed. [15]

Non-musculoskeletal

The American Academy of Pediatrics clinical report on Pediatric Integrative Medicine corroborates there is a lack of quality evidence to support the effectiveness of spinal manipulation for non-musculoskeletal conditions in infants and children in which the risks of adverse events may be the highest because of immature stability of the spine or high-velocity extension and rotational spinal manipulation. [3]

Musculoskeletal

No high-quality methodological 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).

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none">• Editorial changes - sections moved/updated for better reading flow• Updated references
August 2022	No content changes
December 2021	Added “General Information” statement. No substantive clinical changes have been made.

References

- [1] F. Driehuis, T. J. Joogebloom, M. W. G. Nijhuis-van der Sanden, R. A. de Bie and J. B. Staal, "Spinal manual therapy in infants, children and adolescents: A systematic review and meta-analysis on treatment indication, technique and outcomes," *PLoS One*, vol. 14, no. 6, p. e0218940, 25 June 2019.
- [2] C. Hawk, M. J. Schneider, S. Vallone and E. G. Hewitt, "Best Practices for Chiropractic Care of Children: A Consensus Update," *J Manipulative Physiol Ther*, vol. 39, no. 3, pp. 158-168, 2016.
- [3] H. McClafferty, S. Vohra, M. Bailey, M. Brown, A. Esparham, D. Gerstbacher, B. Goulianu, A.-K. Niemi, E. Sibinga, J. Weydert and A. M. Yeh, "Pediatric Integrative Medicine," *Pediatrics*, vol. 140, no. 3, p. e20171961, 2017.
- [4] C. Hawk, R. Khorsan, A. J. Lisi, R. J. Ferrance and M. W. Evans, "Chiropractic care for nonmusculoskeletal conditions: a systematic review with implications for whole systems research," *J Altern Complement Med*, vol. 13, no. 5, pp. 491-512, 2007.
- [5] C. P. Prevost, B. Gleberzon, B. Carleo, B. Anderson, M. Cark and K. A. Pohlman, "Manual therapy for the pediatric population: a systematic review," *BMC Complement Altern Med*, vol. 19, no. 1, p. 60, 13 March 2019.
- [6] A. Gotlib and R. Rupert, "Assessing the evidence for the use of chiropractic manipulation in paediatric health conditions: A systematic review," *Paediatr Child Health*, vol. 10, no. 3, pp. 157-161, 2005.
- [7] K. G. Brurberg, K. T. Dahm and I. Kirkehei, "Manipulation techniques for infant torticollis. Manipulasjonsteknikker ved nakkeasymmetri hos spedbarn," *Tidsskr Nor Laegeforen*, vol. 138, no. 1, 19 December 2018.
- [8] N. Milne, L. Longeri, A. Patel, J. Pool, K. Olson, A. Basson and A. R. Gross, "Spinal manipulation and mobilisation in the treatment of infants, children, and adolescents: a systematic scoping review," *BMC Pediatr*, vol. 22, no. 1, p. 721, 19 December 2022.
- [9] J. D. Johnson, K. Cocker and E. Chang, "Infantile Colic: Recognition and Treatment," *Am Fam Physician*, vol. 92, no. 7, pp. 577-582, 1 October 2015.
- [10] D. Dobson, P. L. Lucassen, J. J. Miller, A. M. Vlieger, P. Prescott and G. Lewith, "Dobson D, Lucassen PL, Miller JJ, Vlieger AM, Prescott P, Lewith G. Manipulative therapies for infantile colic. Cochrane Database Syst Rev. 2012;12:CD004796. Published 2012 Dec 12. doi:10.1002/14651858.CD004796.pub2," *Dobson D, Lucassen PL, Miller JJ, Vlieger AM, Prescott P, Lewith G. Manipulative therapies for infantile colic. Cochrane Database Syst Rev. 2012;12:CD004796. Published 2012 Dec 12. doi:10.1002/14651858.CD004796.pub2*, vol. 12, no. CD004796, 12 December 2012.
- [11] L. V. Holm, D. E. Jarbol, H. W. Christensen, J. Sondergaard and L. Hestbaek, "The effect of chiropractic care on infantile colic: results from a single-blind randomised controlled trial," *Chiropr Man Therap*, vol. 29, no. 1, 19 April 2021.

- [12] D. Carnes, A. Plunkett, J. Ellwood and C. Miles, "Manual therapy for unsettled, distressed and excessively crying infants: a systematic review and meta-analyses," *BMJ Open*, vol. 8, no. 1, p. e019040, 24 January 2018.
- [13] S. Vohra, B. C. Johnston, K. Cramer and K. Humphreys, "Adverse events associated with pediatric spinal manipulation: a systematic review," *Pediatrics*, vol. 119, no. 1, pp. e275-e283, 2007.
- [14] S. Cabanillas-Barea, S. Jimenez-Del-Barrio, A. Carrasco-Uribarren, A. Ortega-Martinez, S. Perez-Guillen and L. Ceballos-Laita, "Systematic review and meta-analysis showed that complementary and alternative medicines were not effective for infantile colic," *Acta Paediatr*, vol. 112, no. 7, pp. 1378-1388, 2023.
- [15] L. V. Holm, W. Vach, D. E. Jarbol, H. W. Christensen, J. Sondergaard and L. Hestbaek, "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*, vol. 29, no. 1, 19 April 2021.

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical guidelines PLAIN FILM X-RAYS	Original Date: April 2016
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_610	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	2
STATEMENT	2
PURPOSE	2
SCOPE.....	2
CLINICAL REASONING.....	2
DOCUMENTATION AND FACILITY REQUIREMENTS	3
APPLICATIONS	4
X-RAY EXAM OF SPINE	4
X-RAY EXAM OF PELVIS	5
X-RAY EXAM OF EXTREMITIES.....	6
BACKGROUND	6
DEFINITIONS.....	6
ADDITIONAL INFORMATION.....	6
REFERENCES.....	9

General Information

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.

Statement

Purpose

This policy will be used to support the medical necessity of plain film radiographs by chiropractic providers within the first 30 days of care.

All recommendations in this guideline reflect practices that are evidence-based and/or supported by broadly accepted clinical specialty standards.

Scope

This policy will apply to all participating network chiropractic practitioners. This organization has adopted the Diagnostic Imaging Practice Guidelines for Musculoskeletal Complaints in Adults. [1, 2, 3, 4]. These guidelines represent the official position of the Council on Chiropractic Guidelines and Practice Parameters in matters related to the use of diagnostic imaging in the chiropractic profession.

Clinical Reasoning

The use of plain film radiographs (X-rays) is medically necessary when clinical findings dictate their utilization.

X-rays are not indicated [5, 6, 7, 8]:

- To view postural changes or biomechanics
- To identify subluxations
- As a routine component of initial evaluation if specific clinical findings do not dictate their utility
- As ongoing treatment

X-rays are not indicated for the following patients [9, 10]:

- Infants (0 - 36 months)
- Pregnant or possible pregnant people
- Patients for whom obesity, mental status, physical restrictions, or other conditions preclude positioning for good radiographic resolution
- Children 3 to 18 years of age, except for investigation of suspected acute fracture, dislocation, infection, scoliosis[±], developmental defects, or a suspected pathology

X-rays may be appropriate but are usually not sufficient for diagnosis without advanced imaging (MR and/or CT) in the presence of other red flags including:

- Age < 20 years or > 50 years
- Failure to improve with care, no prior films
- Personal history of intravenous drug abuse
- History of malignancy
- Immune suppression
- Night pain (including when unrelated to movement)
- Pain at multiple sites
- Pain at rest
- Fever
- Structural deformity
- Systemic unwellness
- Unexplained weight loss

X-rays are unreliable for assessment of bone mass changes before at least 30% - 50% loss. In healthy peri- and early menopausal women (age 45-64), consider using the Osteoporosis Self-Assessment Tool (OST score). The OST score considers only 2 variables: (1. weight in kg 2. age)/5. The cut-off for a positive test is <2, indicating the female patient should be referred for dual-energy X-ray absorptiometry DXA [3].

Documentation and Facility Requirements

- The clinical record must contain a written x-ray report within 5 business days from the date of service.
- The clinic must have all the following documented:
 - A Quality Control Program inclusive of both imaging equipment and film processors
 - A Radiation Safety and As Low As Reasonably Achievable (ALARA) Program
 - Emergency policies, procedures, and equipment on site (i.e., automated external defibrillator (AED))
 - Current Basic Life Support (BLS) certification
 - Records of formal preventative maintenance program per original equipment specifications
 - A current (within 3 years) letter of state inspection, calibration report, or physicist's report
 - At a minimum, an automatic processor must be used to develop all analog X-rays

Applications

X-Ray Exam of Spine [3]

- The use of full spine radiographs, except for the clinical investigation and diagnosis of scoliosis, is not supported by clinical research.[‡]

Examples

- Fractures
 - Investigation of suspected acute fracture
 - Follow-up radiographs to monitor a healing fracture
 - Significant history of recent trauma sufficient to cause fracture
 - Significant history of repetitive stress to cause stress fracture
 - Suspected stress (insufficiency) fracture [11]
- Suspected (patient history, pain characteristics and/or physical examination):
 - Malignancy
 - Infection
 - Systemic disease
 - Inflammatory spondyloarthropathy [12]
 - Lumbar degenerative spinal stenosis/spondylolisthesis if individual is greater than 50 years of age and/or has progressive neurological deficit.
 - Bony dislocation
- Evaluation of prior surgical site where manual based treatment may be applied (where no previous films are available for review)
- Persistent (same or worse pain) after first month of treatment
- Absence of expected treatment response or worsening after 4 weeks of conservative treatment
- Significant history of drug or alcohol abuse (e.g., such as IV drugs, chronic alcoholism, or chronic use of steroids)
- Scoliosis
 - Precise quantification of clinically suspected active child or juvenile scoliosis[‡]
 - Adult with painful or progressive scoliosis
- Adult with complicated (i.e., “red flag”) low back pain (LBP), thoracic pain, or neck pain **and** indicators of contraindication to spinal manipulative therapy (SMT) (relative/absolute)
- Trauma
 - Adult with acute neck injury and positive Canadian Cervical Spine Rule (CCSR) for Radiography in Alert and Stable Trauma Patients [13]
 - Acute neck pain with recent unimaged dangerous trauma
 - Adult with thoracolumbar, lumbar, or thoracic spine blunt trauma or acute injuries (falls, motor vehicle accidents [MVAs], motorcycle, pedestrian, cyclists, etc.)
- Neck pain with:

- Acute neck pain with paresthesia in extremities
- Age greater than 65 years
- Non-traumatic neck pain with radicular symptoms

Contraindications

- Pain[‡] [7]
 - Adult with acute uncomplicated pain (< 4 weeks duration) in any of the following:
 - LBP (uncomplicated definition: nontraumatic pain without neurologic deficits or indicators of potentially serious pathologies)
 - Thoracic spine pain
 - Uncomplicated neck pain
 - Adult with uncomplicated subacute pain (4-12 weeks duration) in any of the following:
 - LBP and no previous treatment trial
 - Thoracic spine pain and no previous treatment trial
 - Subacute neck pain with or without arm pain
 - Adult with persistent pain (>12 weeks) in any of the following:
 - LBP and no previous treatment trial
 - Thoracic spine pain and no previous treatment trial
 - Persistent neck pain with or without arm pain
- Sciatica
 - Adult with nontraumatic acute LBP (<4 weeks duration) **AND** sciatica and no red flags
 - Unless individual is age >50 or has progressive neurological deficits
- Suspected (patient history, pain characteristics and/or physical examination):
 - Lumbar disc herniation (LDH)
 - Degenerative spondylolisthesis/lateral stenosis, unless individual is age >50 or has progressive neurological deficits
 - Lumbar degenerative spinal stenosis, unless individual is age >50 or has progressive neurological deficits
- Scoliosis
 - Adult with nonpainful and nonprogressive scoliosis
- Adult with acute neck injury and negative CCSR [13]
- In headache complaints without red flags or significant findings[Ⓜ]

X-Ray Exam of Pelvis

- Note: all guidance is cited from Bussières et al [3] unless otherwise noted.

Examples

- Adult with recent (within 4 weeks) unimaged blunt trauma to pelvis and unable to bear weight

Contraindications

- Coccyx trauma and coccydynia

X-Ray Exam of Extremities

- Note: all guidance is cited from Bussières et al [1, 2] unless otherwise noted.

Examples

- Fractures
 - Significant history of repetitive stress to cause stress fracture
 - Significant history of recent trauma sufficient to cause fracture
 - Previous fracture
- History of:
 - Malignancy
 - Previous surgery
- Evaluation of:
 - Gross deformities
 - Legg-Calve-Perthes disease
 - Chronic hip pain (initial imaging)
 - Pediatric Patient
 - Developmental hip dysplasia
 - Slipped capital femoral epiphysis
- Suspicion of or confirmed inflammatory arthritis
- Bruising, swelling, redness, and/or heat (indicating infection)
- Lymphadenopathy

Background

Definitions

Plain films are spine or extremity radiographs used as a diagnostic tool. They may be indicated to diagnose conditions related to acute injury, degenerative disorders, nontraumatic pain, complicated pain, blunt trauma, or absence of expected treatment response or worsening after 4 weeks.

Spinal Manipulative Therapy is manual manipulation of the joints of the spine to relieve pressure, reduce inflammation, and restore nerve function.

Additional Information

‡Spinal radiographs have a role in evaluation of scoliosis and in postoperative evaluation of instrumentation and fusion. For the evaluation of scoliosis in children, radiographic decision-making and examinations should be performed in accordance with guidance published by the

American College of Radiology (ACR) and the Society for Pediatric Radiology (SPR). Radiographic examination is indicated for pediatric patients at high risk for cervical spine instability – especially those with Down syndrome. [14]

†Current X-ray recommendations/guidelines for spinal and extremity disorders emphasize a focused history and physical examination, reassurance, initial pain management medications if necessary (acetaminophen or nonsteroidal anti-inflammatory drugs), and consideration of nonpharmacologic therapies (e.g., manipulation, exercise, etc.) without routine imaging in individuals with nonspecific neck and/or low back pain. Imaging is considered for those without improvement after 6 weeks and for those with clinical indicators of serious pathologies (red flags). Immediate and/or routine lumbar spine imaging has not been found to improve outcomes for patients with LBP and no serious underlying condition when compared to usual clinical care without immediate imaging. [15, 8]

‡In headache complaints, vital signs (to rule out severe hypertension or fever) and testing of the cranial nerves (to rule out vascular events, space occupying lesions, etc.) should be an integral part of initial examination. Significant positive findings mandate further evaluation. [3]

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none">• Removed quotes from literature.• Added definitions of “plain film radiograph” and “spinal manipulative therapy”
August 2022	<ul style="list-style-type: none">• Rearranged criteria under “Initial Plain Film X-rays Are Not Indicated in the Following Cases”- content was not changed• Added under plain film x-rays of the extremities<ul style="list-style-type: none">○ Evaluation of chronic hip pain – initial imaging○ Suspected stress (insufficiency) fracture

References

- [1] A. E. Bussi eres, C. Peterson and J. A. Taylor, "Diagnostic imaging guidelines for musculoskeletal complaints in adults - an evidence based approach - Part 2: Upper extremity disorders," *Journal of Manipulative Physiological Therapy*, vol. 31, no. 1, pp. 2-32, 2008.
- [2] A. E. Bussi eres, C. Peterson and J. A. Taylor, "Diagnostic imaging practice guidelines for musculoskeletal complaints in adults - an evidence based approach - Part 1: Lower extremity disorders," *Journal of Manipulative Physiological Therapy*, vol. 30, no. 9, pp. 684-717, 2007a.
- [3] A. E. Bussi eres, C. Peterson and J. A. Taylor, "Diagnostic imaging practice guidelines for musculoskeletal complaints in adults - an evidence based approach - Part 3: Spinal Disorders," *Journal of Manipulative Physiological Therapy*, vol. 31, no. 1, pp. 33-88, 2008a.
- [4] A. E. Bussi eres, C. Peterson and J. A. Taylor, "Diagnostic imaging practice guidelines for musculoskeletal complaints in adults - an evidence based approach: Introduction," *Journal of Manipulative Physiological Therapy*, vol. 30, no. 9, pp. 617-83, 2007.
- [5] C. Peterson and W. Hsu, "Indications for and use of X-rays," in *Principles and Practice of Chiropractic*, 3rd ed., S. Haldeman, Ed., McGraw-Hill Education, 2005, pp. 661-681.
- [6] M. Corso, C. Cancelliere, S. Mior, V. Kumar, A. Smith and P. Cote, "The clinical utility of routine spinal radiography by chiropractors: a rapid review of the literature," *Chiropractic Manipulative Therapy*, vol. 28, no. 1, p. 33, 2020.
- [7] C. Hawk, W. Whalen, R. J. Farabaugh, C. J. Daniels, A. L. Minkalis, D. N. Taylor, D. Anderson, K. Anderson, I. S. Crivelli, M. Clark, E. Barlow, D. Paris, R. Sarnat and J. Weeks, "Best practices for chiropractic management of patients with chronic musculoskeletal pain: a clinical practice guideline," *Journal of Alternative and Complementary Medicine*, vol. 26, no. 10, pp. 884-901, 2020.
- [8] S. W. Lee, D. Nguyen, D. Mack, E. Aguila, M. Thomas and K. Doddy, "Conservative management of low back pain," *Healthcare Journal of Medicine*, vol. 2, no. 5, pp. 319-28, 2021.
- [9] The American College of Radiology, *ACR-ASSR-SPR-SSR Practice Parameter For The Performance of Spine Radiography*, 2022.
- [10] The American College of Radiology, *ACR-SPR Practice Parameter For Imaging Pregnant Or Potentially Pregnant Patients With Ionizing Radiation*, 2023.
- [11] J. T. Bencardino, T. J. Stone, C. C. Roberts, M. Appel, S. J. Baccei, R. C. Cassidy, E. Y. Chang, M. G. Fox, B. S. Greenspan, S. Gyftopoulos, M. G. Hochman, J. A. Jacobson, D. N. Mintz, G. W. Mlady, J. S. Newman, Z. S. Rosenberg, N. A. Shah, K. M. Small and B. N. Weissman, "ACR Appropriateness Criteria ((R)) Stress (fatigue/insufficiency) fracture, including sacrum, excluding other vertebrae," *Journal of the American College of Radiology*, vol. 14, no. 5S, pp. S293-S306, 2017.

- [12] G. J. Czuczman, J. C. Mandell, D. E. Wessell, L. Lenchik, S. Ahlawat, J. C. Baker, R. C. Cassidy, J. L. Demertzis, H. W. Garner, A. Klitzke, J. R. Maynard, J. L. Pierce, C. Reitman, R. Thiele, W. J. Yost and F. D. Beaman, "ACR Appropriateness Criteria ((R)) Inflammatory back pain: Known or suspected axial spondyloarthritis: 2021 Update," *Journal of the American College of Radiology*, vol. 18, no. 11S, pp. S340-S360, 2021.
- [13] I. G. Stiell, G. A. Wells, K. L. Vandemheen, C. M. Clement, H. Lesiuk, V. J. De Maio, A. Laupacis, M. Schull, R. D. McKnight, R. Brison, D. Cass, J. Dreyer, M. A. Eisenhauer, G. H. Greenberg, I. MacPhail, L. Morrison, M. Reardon and J. Worthington, "The Canadian C-spine rule for radiography in alert and stable trauma patients," *Journal of the American Medical Association*, vol. 286, no. 15, pp. 1841-8, 2001.
- [14] The American College of Radiology, *ACR-SPR-SSR Practice Parameter For The Performance Of Radiography For Scoliosis In Children*, 2019.
- [15] J. C. Andersen, "Is immediate imaging important in managing low back pain?," *Journal of Athletic Training*, vol. 46, no. 1, pp. 99-102, 2011.

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical guidelines RECORD KEEPING AND DOCUMENTATION STANDARDS: CHIROPRACTIC CARE	Original Date: November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_606-02	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	2
STATEMENT	2
PURPOSE	2
SCOPE.....	2
MEDICAL RECORD CONTENT REQUIREMENTS.....	2
GENERAL GUIDELINES	2
EVALUATION	3
TREATMENT PLAN/PLAN OF CARE (POC)	4
DAILY TREATMENT NOTE.....	6
RE-EVALUATION.....	6
UTILIZATION REVIEW	6
LACK OF INFORMATION	7
CONFIDENTIALITY OF RECORDS	8
BACKGROUND	8
‡MEDICAL NECESSITY.....	8
†MEDICAL HISTORY.....	9
DEFINITIONS.....	9
E&M CODES.....	9
REFERENCES.....	12

General Information

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.

Statement

Recordkeeping is used to document the condition and care of the patient, avoid or defend against a malpractice claim, and support the medical necessity¹ requiring the provision of skilled services.

Purpose

This guideline will assist the chiropractor in creating and maintaining complete and appropriate clinical records and documentation.

All recommendations in this guideline reflect practices that are evidence-based and/or supported by broadly accepted clinical specialty standards.

Scope

This guideline applies to all markets and populations, including teletherapy, contracted with this organization through the corresponding state health plans or market-specific health plan.

Medical Record Content Requirements

General Guidelines [1, 2]

- Documentation should clearly reflect why the skills of a licensed chiropractor are needed/the care is medically necessary[‡]
- All records (both digital and handwritten) must be legible: the ability of at least two people to read and understand the documents.
- Each date of service must adequately identify the patient and include the treating chiropractor's signature and credentials. Each subsequent page must also contain;
 - The patient's name or ID number
 - The subjective complaint(s)
 - Objective findings, assessment
 - Diagnosis, treatment/ancillary diagnostic studies performed
 - Any recommendations, instructions, or patient education
- All chart entries must be dated with the month, day, and year
- Handwritten records
 - Chronological order and in permanent ink with original signatures
- Electronic entries
 - Use appropriate security and confidentiality provisions
- Patient demographics include all of the following;

- Name
- Address
- Telephone numbers (home and work)
- Gender
- Date of birth
- Occupation
- Marital status
- Working diagnosis(es) or condition description similar to the appropriate ICD code
 - If the ICD code is not applicable/allowed, it must be documented and consistent with the associated findings
- Reason for the encounter or referral (i.e., presenting complaint(s))
- Services must be documented in accordance with Current Procedural Terminology (CPT®) coding criteria (e.g., location (body region), time component, etc.)
- Adverse events associated with treatment should be recorded in the patient chart
- Copies of
 - Relevant reports and correspondence with other skilled practitioners
 - Diagnostic studies
 - Laboratory findings
 - Consultations
 - Reports and correspondence related to treating chiropractor's diagnostic studies
 - Laboratory findings
 - Consultations including
 - Rationale for the service
 - Rationale for consult and findings
 - Conclusions
 - Recommendations
- Copy of discharge 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
- Appropriate consent forms should be included when applicable
- A key or summary of terms when non-standard abbreviations are used
- 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

Evaluation [2, 1]

The evaluation documentation must include;

- Support the medical need for a course of treatment through
 - Objective findings
 - Detailed clinical observations
 - Subjective self-reporting

- Patient’s prior medical, familial, and social history[†]
- Baseline evaluation
 - Current and prior functional status (functional mobility and ADL deficits)
- Systems review consistent with the nature of the complaint(s) and relevant historical information
- Objective measures and/or standardized orthopedic and neurological testing demonstrating a decline in functional status
 - Assessment tools used during the evaluation should be valid, reliable, relevant, and supported by appropriate chiropractic best practices guidelines
 - 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
- 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
 - Medical need for skilled services
 - The reason formal testing could not be completed
- Functional outcome assessment and/or standardized test results with;
 - Raw scores
 - Standardized scores
 - Score interpretations
- Prognosis and rehab potential

Treatment Plan/Plan of Care (POC)[1, 3]

Plan of care must be individualized, goal-oriented, and aimed at restoring specific functional deficits.

NOTE: Treatment must not be focused on returning to activities beyond normal daily living.

The plan of care should clearly support why the skills of a licensed chiropractor are needed as opposed to discharge to self-management or non-skilled personnel without the supervision of a licensed chiropractor. If telehealth is included, the plan of care should clearly support why the skills of a licensed chiropractor are needed as opposed to discharge to self-management or non-skilled personnel without the supervision of a licensed chiropractor.

Plan of care elements

- The patient’s age and date of birth
- Date of evaluation
- Medical history and background[†]
- All diagnoses related to the patient’s condition
- Contraindications to treatment

- Safety risks
- Date of onset or current exacerbation of the patient’s condition
- Description of baseline functional status/limitations based on standardized testing administered or other assessment tools
- Patient’s response to the evaluation process interpretation of the evaluation results
- Prognosis for improvement
- Recommendations for the amount, frequency, and duration of services
 - What is required to achieve targeted outcomes
 - Commensurate with the patient’s level of disability
 - Accepted standards of practice
 - Reflect clinical reasoning and current evidence
 - Visits requested must not exceed the frequency and duration supported in the plan of care
 - Initial plan of care for a musculoskeletal condition should not exceed 4 weeks
- Patient-specific functional goals that are measurable, attainable, time-specific and sustainable
- Specific therapeutic interventions
- Predicted level of improvement in function (prognosis)
- Specific discharge plan

Plan of care should be reviewed at intervals appropriate to the patient and in accordance with State and third-party requirements. If a plan of care must be updated or altered, documentation must list all changes/updates, including but not limited to:

- New time frame for current treatment period
- Total visits from start of care
- Change in objective outcome measures and standardized testing compared to baseline and/or most recent re-assessment
- Measurable overall progress toward each goal including whether goal has been met or not met (goals should be updated and modified as appropriate)
- Modification of treatment interventions in order to meet goals
- Collaboration with other services/professionals
- Measurable short- and long-term functional goals that are achievable within the length of time services are requested
- Individualized targeted outcomes that are linked to functional limitations outlined in the most recent evaluation
- Updated intervention and modality selections
 - Evidence-based and chosen to address the targeted goals
- Educational plan to include;
 - Home exercises
 - ADL modifications
 - Self-management teaching

- Changed discharge recommendations (including education of the member in a home program)
- Date and signature of treating chiropractor

Daily Treatment Note[3]

Daily notes should include:

- Standard type format (i.e., SOAP) and contain the date for return visits or follow-up
- 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.
- Assessment of patient's response or non-response to intervention and plan for subsequent treatment sessions, assessments, or updates
- Changes in clinical status (significant, unusual, or unexpected)

Re-evaluation

Re-evaluations should not be routine or recurring; an established patient evaluation is indicated if any of the following apply:

- Patient presents with a new condition
- Significant or unanticipated change in symptoms or decline in functional status
- Assessment of response or non-response to treatment at a point in care when meaningful clinical change can reasonably be detected
- Basis for determining the need for change in the treatment plan/goals

The re-evaluation exceeds the parameters of the typical office visit and includes the following:

- Updated history[†]
- Subjective symptoms
- Physical examination findings
- Appropriate standardized outcome tool/measurements as compared to the previous evaluation/reevaluation
- Evidence to support the need for continued skilled care
- Identify appropriate services to achieve new or existing treatment goals
- Revision in Treatment Plan (i.e., updated goals)
- Correlation to meaningful change in function
- Evidence of the effectiveness of the interventions provided (progress toward goals)

Utilization Review

Clinical Guidelines have been developed to support medically necessary treatment as part of the peer review process.

Clinical documentation is evaluated when making utilization review determinations. The elements evaluated by a clinical reviewer include, but are not limited to:

- Whether treatment involves an initial trial of care or ongoing care
- Proposed services/procedures for initial trial or ongoing treatment
- Reported condition was acute, sub-acute, or chronic at the onset of care
- Exacerbation or significant flare-up (if applicable)
- Condition is trauma-related, insidious onset, or repetitive/overuse injuries as a result of activities of daily living
- Date of onset and mechanism of onset is specified
- History of the condition
- Interim history for recurrent episodes
- Pain (level, intensity, and frequency)
- Measurable and functional treatment goals are;
 - Appropriate
 - Time-specific
 - Monitored
- Outcome Assessment Tools
 - Utilized at pre-determined intervals
 - Treatment does not continue after further meaningful change would be minimal or difficult to measure
- Treatment demonstrates functional improvement that is sustained over time and meets
 - Minimum detectable change (MDC)
 - And / Or**
 - Minimum clinically important change (MCIC) requirements
- All services billed meet CPT® coding requirements and supported by;
 - Subjective complaints
 - Objective findings
 - Diagnoses
 - Treatment performed
 - Meet the requirements according to this organization’s Clinical Guidelines
- Demonstrated need for skilled services as opposed to home management or unskilled services
- Patients with mild complaints and minimal functional limitations are released to a home exercise program
- Treatment has exceeded 2-3 months for the same or similar condition
- Treatment is provided to patient on an “as needed” basis, without a treatment plan, functional goals, or sustained improvement

Lack of Information

Reviewers determine that claims/requests have insufficient documentation when the medical documentation submitted is inadequate to support a request for services as medically necessary, such as an initial evaluation, recent progress note and/or the most recent daily treatment notes. Incomplete notes (for example, unsigned, undated, insufficient detail) may also result in a denial for lack of sufficient information.

Confidentiality of Records

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.

Background

‡Medical Necessity

Reasonable or necessary services that require the specific training, skills, and knowledge of a chiropractor in order to diagnose, correct, or significantly improve/optimize as well as prevent deterioration or development of additional physical 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 licensed chiropractor.

- Services shall not be considered reasonable and medically necessary if;
 - Omitted without adversely affecting the member's condition or their quality of care
 - Because it is furnished by a licensed chiropractor
 - If a service can be self-administered or safely and effectively carried out by an unskilled person, without the direct supervision of a chiropractor, then it cannot be regarded as a skilled service even though a licensed chiropractor actually rendered the service.
 - The unavailability of a competent person to provide a non-skilled service results in the non-skilled service being rendered by a chiropractor
 - They include repetitive activities (exercises, skill drills) which do not require a licensed chiropractor's expertise (knowledge, clinical judgment and decision-making abilities) and can be learned and performed by the patient or caregiver
 - They are activities for general fitness and flexibility, sports-specific training enhancement or general tutoring for improvement in educational performance

Medically necessary care must be

- **Contractual** – all health care services are determined by the practitioner's contract with the payer and individual health plan benefits.
- **Scope of Practice** – all health care services are limited to the scope of practice under all applicable state and national health care boards.
- **Standard of Practice** – all health care services must be within the practitioner's generally accepted standard of practice.
- **Patient Safety** – all health care services must be delivered in the safest possible manner
- **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
- **Setting** – all health care services must be delivered in the least intensive setting
- **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
- **Clinical Guidelines**– health care services meet all of the Clinical Guidelines of this organization.

†Medical History

The Medical History includes all of the following:

- The History of Present Illness (HPI) includes the location, quality, severity, duration, timing, context, modifying factors that are associated with the signs and symptoms
- A Review of Systems (ROS) – 13 systems (musculoskeletal/neurological, etc.) and constitutional symptoms; should also address communication/language ability, affect, cognition, orientation, consciousness
- Past Medical, Family and Social History (PFSH) that includes the patient’s diet, medications, allergies, hospitalizations, surgeries, illness or injury, the family health status, deaths, problem-related diseases, and
- The patient’s social status that includes marital status, living conditions, education/occupation, alcohol/drug use, sexual history

Definitions

Physical Examination (PE): Examination of the body areas that includes the head, neck, chest, abdomen, back, and extremities, and the organ systems (11), constitutional, eyes, ENT, CV, GI, GU, musculoskeletal, skin, neurological, psychiatric, lymphatic, immunological, and hematological.

New Patient: The patient has not been seen at any time by any practitioner within the same group practice, for any purpose, within the last 3 years.

E&M Codes

Starting on January 1st, 2021, providers may select the level of office and outpatient Evaluation and Management (E/M) services based on either Time or Medical Decision Making.

Selecting an E&M Code Based on Medical Decision Making[4]

A new medical decision-making table was created in 2021 to provide guidelines for E/M code level selection. Documentation should support the E/M service chosen. In order to select a level of an E/M service, two of the three elements of medical decision making must be met or exceeded.

The medical decision-making elements associated with codes 99202-99215 will consist of three components:

- 1) Problem: The number and complexity of problems addressed
- 2) Data: Amount and/or complexity of data to be reviewed and analyzed
- 3) Risk: Risk of complications and or morbidity or mortality of patient management

Selecting an E&M Code Based on Time

According to the AMA 2022 CPT® codebook [5], physician or other qualified healthcare professional time includes the following activities:

- Preparing to see the patient (e.g., review of tests)
- Obtaining and/or reviewing separately obtained history
- Performing a medically appropriate examination and/or evaluation
- Counseling and educating the patient/family/caregiver
- Ordering medications, tests, or procedures
- Referring and communicating with other health care professionals (when not separately reported)
- Documenting clinical information in the electronic or other health record
- Independently interpreting results (not separately reported) and communicating results to the patient/family/caregiver
- Care coordination (not separately reported)

Code	Time range	Code	Time range
99202	15-29 minutes	99212	10-19 minutes
99203	30-44 minutes	99213	20-29 minutes
99204	45-59 minutes	99214	30-39 minutes
99205	60-74 minutes	99215	40-54 minutes

When using time to select an E&M code, a medically appropriate history and examination must still be documented. [6]

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none"><li data-bbox="542 279 850 310">• No content changes
August 2022	<ul style="list-style-type: none"><li data-bbox="542 321 850 352">• No content changes<li data-bbox="542 363 850 386">• References Updated

References

- [1] National Committee for Quality Assurance, "Guidelines for medical records documentation," 2018. [Online]. Available: https://www.ncqa.org/wp-content/uploads/2018/07/20180110_Guidelines_Medical_Record_Documentation.pdf. [Accessed August 2023].
- [2] S. Haldeman, D. Chapman-Smith and D. Petersen, Guidelines for Chiropractic Quality Assurance and Practice Parameters, Aspen Publishers, Inc, 1993.
- [3] R. Mootz, "Maximizing the effectiveness of clinical documentation," *Topics in Clinical Chiropractic*, vol. 1, no. 1, pp. 60-5, 1994.
- [4] E/M University, "Medical Decision Making," 2022. [Online]. Available: <https://www.emuniversity.com/MedicalDecision-Making.html>. [Accessed 2023].
- [5] American Medical Association, "CPT (r)," [Online]. Available: <https://www.ama-assn.org/practice-management/cpt>. [Accessed August 2023].
- [6] E/M University, "Physical Exam," 2022. [Online]. Available: <https://emuniversity.com/PhysicalExam.html>. [Accessed August 2023].

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical Guidelines ACTIVE PROCEDURES IN PHYSICAL MEDICINE	Original Date: November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_608	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	2
STATEMENT	2
PURPOSE	2
SCOPE.....	2
CLINICAL REASONING.....	2
MANAGEMENT OF CARE.....	2
DOCUMENTATION REQUIREMENTS.....	2
MEDICAL NECESSITY	2
THERAPY SERVICES.....	3
BILLING UNITS	4
CPT CODES.....	4
97110 - THERAPEUTIC EXERCISE	4
97112 - NEUROMUSCULAR RE-EDUCATION	6
97113 - AQUATIC THERAPY	6
97116 - GAIT TRAINING	7
97760 - ORTHOTICS MANAGEMENT AND TRAINING	8
97761 - PROSTHETIC TRAINING	8
97763 - CHECKOUT FOR ORTHOTIC/PROSTHETIC USE - ESTABLISHED PATIENT	9
97530 - THERAPEUTIC ACTIVITIES	9
97129 - COGNITIVE SKILLS DEVELOPMENT	10
97533 - SENSORY INTEGRATION	10
97535 - SELF-CARE/HOME MANAGEMENT TRAINING	11
97542 - WHEELCHAIR MANAGEMENT AND TRAINING	11
97537 - COMMUNITY WORK REINTEGRATION	12
97545 - WORK HARDENING/CONDITIONING	13
BACKGROUND	14
HEALTH CARE PROVIDERS	14
SERVICES	15
POLICY HISTORY.....	17
REFERENCES.....	18

General Information

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.

Statement

Evidence shows active care services support outcomes when used alone or in combination with manual-based treatments, and/or passive care services [1, 2].

Purpose

This guideline will assist the physical medicine provider to accurately choose the appropriate service(s) when indicated for case management.

All recommendations in this guideline reflect practices that are evidence-based and/or supported by broadly accepted clinical specialty standards.

Scope

This guideline applies to all physical medicine participating network practitioners[±] who provide active procedures, data/claims processing, and peer reviews.

Clinical Reasoning

Interventions chosen to treat the patient's symptoms/conditions should be based on the most effective and efficient means of achieving the patient's functional goals [3].

Management of Care

Introduction and management of active care procedures should begin as soon as clinically possible and when the patient exhibits sufficient range of motion/functional ability. Beneficial and effective active care services should generally be provided within the first two weeks of intervention [4].

Documentation Requirements

Medical Necessity

Written documentation should indicate services meet the requirements for medical necessity and should include the following [5]:

- Services are skilled
- Skilled services are required **AND** provided by skilled clinicians[±] (or qualified professionals when appropriate with approval of a physician/NPP)

- Skilled clinicians must have the expertise, knowledge, clinical judgment, and decision-making abilities that otherwise caretakers and patients do not have independently
- Skilled clinicians must apply their skills and actively participate in the treatment of the patient during each progress report period and document skilled treatment provided or modification to skilled treatment
- Services are safe and effective

Therapy Services

- Evaluation and Plan of Care (by skilled clinician) must include: [5]
 - Initial and re-evaluations
 - Necessity for course of therapy through objective findings and subjective patient self-reporting
 - Patient-specific need for care and intervention (activities of daily living [ADL], mobility, and safety)
 - Timeline for initiating, progressing, and discharging patient from skilled services
 - Specific treatment parameters to support the intervention (appropriate service type, frequency, intensity, and duration for individual need of the patient)
 - Measurable goals that support the identified intervention with identified precautions
- Progress Reports or daily treatment notes should include [5] :
 - Justification for the medical necessity of treatment or treatment change
 - Functional improvement as a result of improved objective and/or outcome assessment measures
 - Clear evidence of recent and significant progress with treatment which could be indicated by progress towards functional goals
 - Clear evidence to support the continued need of a skilled medical provider
 - If there is a lack of progress, justification for continued treatment
 - Any barriers to establishing an independent home program
- Documentation includes:
 - Specific skilled services that are being provided
 - Medical necessity of the interventions performed
 - Supportive evidence for the number of visits (including excess to the standards for treatment of musculoskeletal conditions)
 - Functional improvement (as a result of skilled interventions)
 - Specify evidence that skilled services of a physical medicine provider/practitioner[±] are needed (beyond establishment of the program)
 - Specify evidence that interventions are part of a comprehensive rehab program with the goal of improving the functional status
 - Plan of care guided by functional impairments (not the intervention itself)

Billing Units

This organization follows Medicare rules for reporting timed units [6]. Billing units are based on 15 minutes per unit for time-based codes. The units listed below are the Medicare minimum time requirement for a service to be justifiably billed.

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

NOTE: States may have varying statutory guidelines for reporting timed units that supersede Medicare rules.

CPT Codes

97110 - Therapeutic Exercise

Defined

- Therapeutic exercise is any exercise planned and performed to attain a specific goal (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

Parameters

The following must be documented in the medical record to support/justify the use of all therapeutic procedures and exercises:

- Detailed active care services including:
 - Which exercise(s) were provided
 - What body area (including muscle groups) the exercise(s) target
 - Service/exercise
 - Amount and type of resistance
 - Number of repetitions and sets
 - Time component
- Evidence to support the need for the patient's skilled services completed by a licensed professional[‡]

The initiation of appropriate therapeutic procedures/exercise begins as soon as the patient is reasonably able to engage in the planned activity. The expectation is for the patient to learn and

perform therapeutic exercises with a detailed home exercise program within a reasonable timeframe. [7, 8]

The use of high tech fitness equipment (e.g., MedX equipment, cervical/lumbar extension machines, Isostation B-220 Lumbar Dynamometer, Cybex Back System) lacks evidence of improved outcomes compared to the use of standard exercise equipment. [9]

Services Support

The following are indications of the skilled services required to support the use of therapeutic exercise (supportive evidence documented). Without documented evidence the records would suggest the patient is ‘working out’ in the clinical setting (considered not medically necessary and not eligible for reimbursement).

- Loss or restriction of joint motion, reduced strength, and functional capacity or mobility concerns
 - The clinical records need to objectively validate (quantitative if possible) the loss of ROM, strength, flexibility, or functional mobility
 - The therapeutic exercise 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 (sports/recreation and/or sports/aerobic conditioning)
- Services are required and provided by skilled clinicians[±] (or qualified professionals when appropriate with approval of a physician/NPP)
- Patient competency and compliance with instructions require
 - One to three billing units at a time
 - > 3 billing units needs supported clinical documentation
- In-office patient exercise
 - 1-3 sessions for the non-surgical patient
 - Ensure competency and compliance with a home exercise program
 - > 3 sessions
 - Document reason(s) the patient is unable to participate in a home exercise program
 - Active care program may include periodic review as part of case management in regard to monitoring continued therapeutic benefit and progression
 - Case management should outline
 - Patient compliance
 - Alterations and progression to active home care program
 - Anticipated termination date for skilled in-office services

Noncompliance

- Patient non-compliance with active home instructions

- In-office instruction will no longer be medically necessary
- Patient will be discharged for non-compliance, acting against medical advice

97112 - Neuromuscular re-education [10, 11]

Defined

- Neuromuscular re-education is a series of therapeutic techniques of movement, balance, coordination, kinesthetic sense, posture, and proprioception to restore normal function of nerves and muscles
 - Neuromuscular deficits requiring re-education may be associated with stroke, closed head injury, spinal cord injury, tumor, congenital disorders (cerebral palsy or secondary to degenerative joint disease), musculoskeletal injury (ankle sprain, post orthopedic surgery, or prolonged immobilization) [12]
- Neuromuscular re-education may be considered medically necessary if at least **ONE** of the following conditions is present (documented)
 - The loss of deep tendon reflexes and vibration sense accompanied by
 - Paresthesia, burning, or diffuse pain of the feet, lower legs, and/or fingers
 - Nerve palsy (e.g., peroneal nerve injury causing foot drop)
 - Muscular weakness or flaccidity from
 - Cerebral dysfunction
 - Nerve injury or disease
 - Spinal cord disease
 - Trauma
 - Muscle compensations requiring targeted exercise to produce stable, coordinated movements during functional tasks [13]
 - Peripheral or central vestibular dysfunction causing dizziness, vertigo, imbalance, or disequilibrium that supports the use of Vestibular Balance and Rehabilitation Therapy (VBRT) [14, 15]

Services Support

The following are indications of the skilled services required to support the use of neuromuscular re-education (supportive evidence documented):

- Document the need for individual, in direct contact skilled therapy services by a licensed professional[±]
- Document the injury to the neuromuscular skeletal system and the therapeutic procedure(s)
- Provide and document home care instructions and education

97113 - Aquatic Therapy [16]

Defined

- Aquatic therapy is the skilled practice by a qualified clinician directed towards an individual and involves the use of therapeutic exercise techniques with the properties of water to improve function
- Treatment to improve circulation, decrease venous pooling, increase endurance with less stress on weight-bearing joints, and enhancement of balance and coordination as a result of the buoyancy obtained from an aquatic environment
- Aquatic therapies include:
 - Clinical Ai Chi [17]
 - Aquatic PNF [18]
 - Bad Ragaz Ring Method (BRRM) [19]
 - Halliwick-Therapy [20]
 - Task Type Training Approach and Watsu [21]
 - Aquatic Cardiovascular Training (ACT) [22]

Services Support

The following are indications of the skilled services required to support the use of aquatic therapy (supportive evidence documented):

- Document the need for individual, direct-contact skilled therapy services by a licensed professional[±]
- Provided in a pool of water deemed safe and appropriate for patient therapy
- Provide the patient's medical necessity for aquatic therapy (e.g., buoyancy, hydrostatic pressure, and heat) to transition to standard land-based therapy and the anticipated reasonable timeframe to make that transition

97116 - Gait Training

Defined

- Training the patient to ambulate on varied surfaces and stair climbing with or without an assistive device; this includes training in rhythm, speed, sequencing, and safety

Services Support

The following are indications of the skilled services required to support the use of gait training (supportive evidence documented):

- Consider the contextual factors that affect the patient's ability to participate in meaningful ADLs [23]
- Gait training and ambulation interventions should directly address functional mobility
- Document the need for individual skilled therapy services by a licensed professional
- Document deficits in gait parameters including:
 - Walking speed
 - Cadence
 - Stride length and balance
 - Functional ambulation category scores

- Document if body-weight support (BWS) systems, unweighting devices, or assistive devices are used
- Documentation should include the assessment of the phases of gait to include:
 - Stance phase
 - Stride length
 - Balance issues
 - Ankle, knee, hip, and low back impact during the phases of gait cycle

97760 - Orthotics Management and Training

Defined

- Assessment and fitting when not reported as a separate L HCPCS code (L-code)
- Fitting and training
- Upper or Lower extremity (extremities) and/or trunk, each 15 minutes

Additional Information

- Applies to custom-fabricated or adjustments to over-the-counter orthotics
- Orthotics management refers to time spent assessing the need, type, fitting and fabrication of the orthotic (if fabrication is done in the presence of the patient)
- Code **cannot** be used if the orthotic is fabricated or formed without the patient being present
- Training in the care and use of the orthotic device
- Supplies and time for 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)

Services Support

The following are indications of the skilled services required to support the use of orthotic management and training (supportive evidence documented):

- Document the need for individual skilled therapy services by a licensed professional[±]
- Orthotics require documented support
 - Proper examination (not vendor specific evaluation)
 - Outline the causal nexus to justify inclusion (all complaints other than foot-based)
 - Foot-based complaints need further notation as to the fault/deficit present requiring custom orthotics versus heel lift or over-the-counter orthotics.
 - Patient should typically not be seen more than once per calendar year for one set of orthotics
 - Orthotic use is based on plan benefit

97761 - Prosthetic Training

Defined

- Assessment of the functional mobility and ADLs (Activities of Daily Living) while training and practicing with the prosthesis
- Training with the prosthesis (upper and/or lower extremity)
 - Instruction and practice in use of prosthesis

Services Support

The following are indications of the skilled services required to support the use of prosthetic training (supportive evidence documented)

- New prosthetic device or adjustments to current prosthetic device to improve function

97763 - Checkout for Orthotic/Prosthetic Use - Established Patient

Defined

- Training and management of subsequent encounters for orthotic(s) or prosthetic(s) for the upper/lower extremity(ies) and/or trunk

Services Support

- Document the need for individual skilled therapy services by a licensed professional[‡]

97530 - Therapeutic Activities

Defined

- Dynamic activities in teaching/training the patient to improve functional performance in a progressive manner

Services Support

The following are indications of the skilled services required to support the use of therapeutic activities (supportive evidence documented):

- Document the need for individual skilled therapy services by a licensed professional[‡]
- Coverage for therapeutic activities, **ALL** of the following requirements must be met:
 - The patient has a condition for which therapeutic activities can reasonably be expected to restore or improve function
 - The patient is unable to perform therapeutic activities (due to condition) except under the direct supervision of a skilled and licensed therapy services professional
 - Correlation between the patient's underlying medical condition and the type of exercise performed for which the therapeutic activities were prescribed
- The therapeutic exercise 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 (sports/recreation **and/or** sports/aerobic conditioning)

97129 - Cognitive Skills Development

Defined

- Therapeutic interventions focusing on cognitive function for:
 - Attention
 - Memory
 - Reasoning
 - Executive function
 - Problem solving
 - Pragmatic functioning
- Compensatory strategies to manage performance related to functional ADLs
 - Managing time or schedules
 - Initiating, organizing, and sequencing tasks

Services Support

The following are indications of the skilled services required to support the use of cognitive skills development (supportive evidence documented):

- Document the need for individual skilled therapy services by a licensed professional[±]
- Document cognitive deficits (quantifiable)

97533 - Sensory Integration

Defined

- Treatment techniques to enhance sensory processing and adaptive responses to environmental demands
- Improve how the brain processes sensory information, organizes and responds appropriately for complex learning behavior

Additional Information

- Sensory integration (SI) therapy - treatment of developmental, environmental, or acquired brain disorders in patients with established dysfunction of sensory processing which may be associated with:
 - Neurodevelopmental Disorders such as Autism Spectrum disorder, Attention deficit hyperactivity disorder (ADHD), Intellectual Disability, Conduct Disorders, and Language Communication Disorders that may be caused from:
 - Fetal alcohol syndrome
 - Genetics
 - Neurotransmitter imbalance

- Illness
 - Brain injury
- Therapy activities may provide one or more of the following stimuli with the intent to help organize the sensory system and promote adaptive responses to environmental demands:
 - Vestibular – which could include the use of
 - Proprioceptive – which could include the use of
 - Tactile – which could include the use of
 - Visual
 - Auditory

NOTE: Sensory Integration differs from neuromuscular re-education (97112). Neuromuscular re-education focuses on training to restore the ability to perform particular activities versus training to enhance sensory processing and adaptive responses.

Services Support

The following are indications of the skilled services required to support the use of sensory integration treatment (supportive evidence documented):

- Document the need for individual skilled therapy services by a licensed professional[±]
- Document sensory processing deficits impacting functional skills
- Sensory integration therapy provided by occupational and physical therapists

97535 - Self-care/Home Management Training

Defined

- Instructing and training the patient in self-care and home management activities (ADL/IADLs)
 - Compensatory training
 - Safety procedures
 - Instruction in the use of assistive technology devices and adaptive equipment

Services Support

The following are indications of the skilled services required to support the use of self-care/home management training (supportive evidence documented):

- Document the need for individual skilled therapy services by a licensed professional[±]
- Document the related ADL instruction to the patient’s expected functional goals and indicate it is part of an active treatment plan directed at a specific goal

97542 - Wheelchair Management and Training

Defined

- Assessment, fitting, and adjustment of the wheelchair and seating

- Instructing the patient and/or caregiver on how to propel and safely operate the wheelchair

NOTE: 97001 and 97002 cannot be billed with this code

Services Support

The following are indications of the skilled services required to support the use of wheelchair management and training (supportive evidence documented):

- Document the need for individual skilled therapy services by a licensed professional[±]
- Document the current event that prompted a skilled wheelchair assessment
- Document results of prior wheelchair assessments
- Document functional level (current and previous)
- Document interventions attempted by nursing staff, caregivers, and/or the patient to address poor seating or positioning
- Documentation correlates the training provided to expected functional goals by the patient and/or caregiver
- Document the response of the patient to the instruction or fitting

97537 - Community Work Reintegration

NOTE: 97537 Community work reintegration is typically not a covered service

Defined

- Instructing and training the patient in community and/or work re-integration activities:
 - Shopping
 - Safely accessing transportation sources
 - Money management
 - Avocational activities or work environment modification analysis [24, 25]
 - Work task analysis
 - Assistive technology devices and/or adaptive equipment use

Additional Information

- Community reintegration is performed in conjunction with other therapeutic procedures such as:
 - Gait training
 - Self-care or home management training
- Billing is often bundled into the payment for other services; other services are not usually reimbursed separately
- The following services on assistive technology devices and/or adaptive equipment provided to the patient by a third-party payer are not covered if the devices/equipment are not covered by the third-party payer:
 - Issue

- Modify
- Adjust
- Educate
- Services related to the listed items are not considered reasonable and necessary for the diagnosis and treatment of an illness or injury and are excluded from coverage according to Section 1862(a)(1)(A) of the Social Security Act [26]:
 - Employment opportunities
 - Work skills
 - Work

Services Support

The following are indications of the skilled services required to support the use of community work reintegration (supportive evidence documented):

- Document the need for individual skilled therapy services by a licensed professional[±]

97545 - Work Hardening/Conditioning

NOTE: 97545 Work hardening/conditioning is **typically not a covered service**

NOTE: 97545 is for initial 2 hours, use 97546 for each additional hour with 97545

Defined

- Job simulation tasks, exercises, and educational activities related to a safe return to work
- Interdisciplinary approach to restore physical, behavioral, and/or vocational functions
- Work conditioning programs are designed to address neuromuscular functions, such as;
 - Flexibility
 - Strength
 - Endurance
 - Range of motion
 - Cardiopulmonary functions

Additional Information

- Work-induced injury and/or impairment that resulted in the need for therapeutic exercises/procedures
- Completed acute medical care (chiropractic or rehabilitation treatment) by the patient may require a comprehensive and individualized program for safely returning to work
- Patient may begin a work hardening and/or work conditioning program
 - Patient will participate in a program for at least two hours a day, three days a week up to eight hours a day, five days a week
 - Activities in the program may include:
 - 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
- Occupational/educational training

Services Support

The following are indications of the skilled services required to support the use of work hardening/conditioning (supportive evidence documented):

- Documentation the patient had an injury and/or impairment within the last 12 months
- Documentation the patient has received acute rehabilitation services and is expected to return to his/her previous employment
- Document the patient’s limitations regarding:
 - Returning to work
 - Willingness to participate in the program
- Document plan of care (structured and goal-oriented), including discharge from skilled services and a reference to return to work
- Identify systemic neuromusculoskeletal deficits that interfere with work
- Document care is at the point of resolution for the initial or principal injury so that participation in the conditioning process is not prohibited
- Identify psychosocial and/or vocation problems and evidence of a referral to the appropriate professional

BACKGROUND

Health Care Providers

‡A qualified licensed health care provider (chiropractors, physical therapists, occupational therapists, physician assistants, speech therapists, physical therapist assistants, and occupational therapy assistants) by education, training, and licensure/regulation performs a professional service within his/her scope of practice and reports to health professional boards.

A clinical staff member works under the supervision of a qualified health care provider and is allowed by law or regulation to perform or assist in the performance of a specified professional service (e.g., physical therapy aide or speech language assistant).

A clinician may not merely supervise but must apply the skills of a professional by actively participating in the treatment of the patient. The skills of the clinician should be clearly documented (e.g., the clinician’s descriptions of their skilled treatment, changes made to the treatment due to a clinician’s assessment of the patient’s needs on the treatment day, changes due to progress the clinician judged sufficient to modify the treatment toward the next more complex or difficult task) [5].

Services

Overview

The patient's medical condition is a factor in decisions about health care services, diagnosis or prognosis is not the lone basis in deciding that skilled care services are reasonable and necessary. The key judgment is if the skills of a qualified licensed health care provider are needed to treat the illness or injury or if the services can be carried out by unskilled personnel.

Skilled care services are not required to effect improvement or restoration of function when a patient suffers a transient (reversible loss) or reduction of function which could reasonably be expected to improve naturally as the patient gradually resumes normal activities. Skilled care services provided in these situations are **NOT** considered reasonable and necessary for the treatment of the individual's illness or injury.

Health care services are considered 'active' when the patient takes part in the completion of the service and 'passive' when the patient receives services without any physical input or effort.

Skilled

The services outlined in this guideline require the provision of skilled therapy services by a qualified licensed health care professional[±] and direct (one-on-one) provider-patient contact.

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

Unskilled

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 licensed health care professional.

Services (activities) for the general good and welfare of patients (e.g., general exercises to promote overall fitness or flexibility, activities to provide distraction or general motivation) do not constitute skilled services.

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

Reasonable and Necessary

Skilled care services (reasonable and necessary) must be provided by a qualified health care provider, require a high level of complexity, or the services can only be safely and effectively performed by a qualified health care provider due to the condition of the patient.

Rehabilitative therapy services are designed to address recovery or improvement in function or restoration to a previous level of health and well-being. Improvement is evidenced by successive objective measurements resulting in improved functional outcomes (e.g., impairments and pain). If an individual's expected rehabilitation potential is insignificant in relation to the extent and duration of the therapy services required to achieve such potential, then rehabilitative therapy services is **NOT** reasonable and necessary.

Objective Evidence

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

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

In isolation, objective measures (e.g., range of motion or manual muscle strength testing) are generally not considered to be functional assessment measurements of a patient.

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none"> • The following sections had the listed ‘examples’ removed: <ul style="list-style-type: none"> ○ 97110 – Therapeutic Exercise: 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). ○ 97112 – Neuromuscular re-education: 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 ○ 97116 – Gait training: 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. ○ 97530 – Therapeutic activities: 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 • Editorial changes – sections moved for better reading flow • References updated
September 2022	<ul style="list-style-type: none"> • References added • Billing Units: Added “≥” to billing unit descriptions • Therapeutic exercise: Changed “therapist” to “physical medicine provider/practitioner” • Revised CPT code for Cognitive Skills Development • Added information to identify difference between sensory integration and neuromuscular re-education • Minor editorial changes

References

- [1] S. P. Cohen, "Epidemiology, diagnosis, and treatment of neck pain," *Mayo Clin Proc*, vol. 90, no. 2, pp. 284-299, 2015.
- [2] A. Searle, M. Spink, A. Ho and V. Chuter, "Exercise interventions for the treatment of chronic low back pain: a systematic review and meta-analysis of randomised controlled trials," *Clin Rehabil*, vol. 29, no. 12, pp. 1155-1167, 2015.
- [3] A. Paungmali, L. H. Joseph, P. Silitertpisan, U. Pirunsan and S. Uthaikhup, "Lumbopelvic Core Stabilization Exercise and Pain Modulation Among Individuals with Chronic Nonspecific Low Back Pain," *Pain Pract*, vol. 17, no. 8, pp. 1008-1014, 2017.
- [4] N. E. Foster, J. R. Anema, D. Cherkin, R. Chou, S. P. Cohen, D. P. Gross, P. H. Ferreira, J. M. Fritz, B. W. Koes, W. Peul, J. A. Turner, C. G. Maher and Lancet Low Back Pain Series Working Group, "Prevention and treatment of low back pain: evidence, challenges, and promising directions," *Lancet*, vol. 391, no. 10137, pp. 2368-2383, 2018.
- [5] Centers for Medicaid & Medicare Services, "Regulations & Guidance Manuals (Internet-Only Manuals) - Medicare Benefit Policy Manual - Chapter 15 Covered Medical and Other Health Services - 220.3 - Documentation Requirements for Therapy Services," 16 March 2023. [Online]. Available: <https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/bp102c15.pdf>. [Accessed 2 August 2023].
- [6] Centers for Medicare & Medicaid Services, "Billing and Coding: Outpatient Physical and Occupational Therapy Services," 2 June 2022. [Online]. Available: <https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=57067&ver=23&Date=&DocID=A57067&bc=ggAAAAGAEAAA&>. [Accessed 6 August 2023].
- [7] H. MohammedSadiq and M. Rasoot, "Effectiveness of home-based conventional exercise and cryotherapy on daily living activities in patients with knee osteoarthritis: A randomized controlled clinical trial," *Medicine (Baltimore)*, vol. 102, no. 18, 5 May 2023.
- [8] S. Haufe, K. Wiechmann, L. Stein, M. Kuck, A. Smith, S. Meineke, Y. Zirkelbach, S. Rodriguez Duarte, M. Drupp and U. Tegtbur, "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*, 29 June 2017.
- [9] D. R. Louie, W. B. Mortenson, M. Durocher, A. Schneeberg, R. Teasell, J. Yao and J. J. Eng, "Efficacy of an exoskeleton-based physical therapy program for non-ambulatory patients during subacute stroke rehabilitation: a randomized controlled trial," *J Neuroeng Rehabil*, vol. 18, no. 1, p. 149, 10 October 2021.
- [10] M. Leone, J. Alsofrom, M. Kane, S. Laryea, D. Abdelatif and M. A. Mohamed, "Length of Neuromuscular Re-education Therapy and Growth Parameters in Premature Infants," *Am J Perinatol*, vol. 39, no. 4, pp. 429-435, 2022.
- [11] H. Kabat and M. Knott, "Principles of Neuromuscular Reeducation," *Physical Therapy*, vol. 28, no. 3, pp. 107-111, May 1948.

- [12] M. Roberts, H. Lietz, A. Portelli and M. H. Huang, "Implementing technology enhanced real-time action observation therapy in," *PHYSIOTHERAPY THEORY AND PRACTICE*, 2021.
- [13] D. L. Judd, J. D. Winters, J. E. Stevens-Lapsley and C. L. Christiansen, "Effects of neuromuscular reeducation on hip mechanics and functional performance in patients after total hip arthroplasty: A case serie," *Clin Biomech (Bristol, Avon)*, vol. 32, pp. 49-55, 2016.
- [14] B. Kundakci, A. Sultana, A. J. Taylor and M. A. Alshehri, "The effectiveness of exercise-based vestibular rehabilitation in adult patients with chronic dizziness: A systematic review.," *F1000Res.*, vol. 7, p. 276, 5 March 2018.
- [15] C. García-Muñoz, M.-D. Cortés-Vega, A. M. Heredia-Rizo, R. Martín-Valero, M.-I. García-Bernal and M. J. Casuso-Holgado, "Effectiveness of Vestibular Training for Balance and Dizziness Rehabilitation in People with Multiple Sclerosis: A Systematic Review and Meta-Analysis," *J Clin Med*, vol. 9, no. 2, p. 590, 21 February 2020.
- [16] J. Veldema and P. Jansen, "Aquatic therapy in stroke rehabilitation: systematic review and meta-analysis," *Acta Neurol Scand*, vol. 143, no. 3, pp. 221-241, 2021.
- [17] P.-H. Ku, S.-F. Chen, Y.-R. Yang, T.-C. Lai and R.-Y. Wang, "The effects of Ai Chi for balance in individuals with chronic stroke: a randomized controlled trial," *Sci Rep*, vol. 10, no. 1, p. 1201, 27 January 2020.
- [18] E.-K. Kim, D.-K. Lee and Y.-M. Kim, "Effects of aquatic PNF lower extremity patterns on balance and ADL of stroke patients.," *J Phys Ther Sci*, vol. 27, no. 1, pp. 213-215, 2015.
- [19] J. Veldema and P. Jansen, "Aquatic therapy in stroke rehabilitation: systematic review and meta-analysis," *Acta Neurol Scand*, vol. 143, pp. 221-241, 2021.
- [20] S. J. Ballington and R. Naidoo, "The carry-over effect of an aquatic-based intervention in children with cerebral palsy," *Afr J Disabil*, vol. 7, no. 0, p. 361, 29 October 2018.
- [21] A. M. Schitter, J. Fleckenstein, P. Frei, J. Taeymans, N. Kurpiers and L. Radlinger , "Applications, indications, and effects of passive hydrotherapy WATSU (WaterShiatsu)-A systematic review and meta-analysis," *PLoS One*, vol. 15, no. 3, p. e0229705, 13 March 2020.
- [22] B. Jug, D. Vasic, M. Novakovic, V. Avbelj, L. Rupert and J. Ksela, "The Effect of Aquatic Exercise Training on Heart Rate Variability in Patients with Coronary Artery Disease," *J Cardiovasc Dev Dis*, vol. 9, no. 8, p. 251, August 6 2022.
- [23] American Occupational Therapy Association, "Occupational therapy practice framework: Domain and process (4th ed.)," *American Journal of Occupational Therapy*, vol. 74, no. Suppl. 2, p. 7412410010, 2020.
- [24] A. Hutchison, K. D'Cruz, P. Ross and S. Anderson, "Exploring the barriers and facilitators to community reintegration for adults following traumatic upper limb amputation: a mixed methods systematic review," *Disabil Rehabil.*, pp. 1-14, 12 April 2023.
- [25] K. A. Brongers, T. Hoekstra , L. Wilming, R. E. Stewart, P. D. Roelofs and S. Brouwer, "Comprehensive approach to reintegration of disability benefit recipients with multiple problems (CARm) into the labour market: results of a randomized controlled trial," *Disabil Rehabil*, vol. 45, no. 9, pp. 1498-1507, 2023.

[26] Social Security Administration, "Social Security: Compilation Of The Social Security Laws: Exclusions from Coverage and Medicare as Secondary Payer," 2023. [Online]. Available: https://www.ssa.gov/OP_Home/ssact/title18/1862.htm. [Accessed 14 August 2023].

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical guidelines DURABLE MEDICAL EQUIPMENT	Original Date: April 2016
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_609	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION 2

STATEMENT 2

 SCOPE 2

 MEDICAL NECESSITY 2

BACKGROUND: 3

 OVERVIEW 3

POLICY HISTORY 4

REFERENCES 5

GENERAL INFORMATION

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.

Statement

The medical necessity or support for prior authorization of Durable Medical Equipment (DME).

Scope

Applies to DME requests for adult and pediatric members in any setting and to all physical medicine practitioners (chiropractors, physical therapists, occupational therapists, and speech language pathologists).

Medical Necessity

DME and services are medically necessary when **ALL** of the following criteria are met:

- Equipment is expected to provide improvement in specific measurable functional deficits related to a documented illness or injury
- The DME is provided by a health care professional
- Equipment has significant medical uses
- Alternative options have been ruled out
- Clinical records clearly establish the medical need

Clinical documentation **must** include the following elements:

- Diagnosis justifying the equipment or supply being requested
- Treatment plan (anticipated start and end date) for training and/or use
- Measurable functional deficit(s)
- Expected outcomes and benefit (related to measurable functional deficit)
- Healthcare providers training/education, supervision, and monitoring use of the DME (identification of provider type and signature in the record)
- Trial of conservative services that failed to improve a measurable functional deficit (unless contraindicated)
- In-office trial use that provided improvement in a measurable functional deficit (when appropriate)
- Home or vehicle assessment to ensure equipment can be utilized in the home or vehicle (when appropriate)

- Prior equipment used for a similar purpose (include reasons that equipment no longer meets current needs)
- If an insurance plan does not cover the specific DME
 - Any visit solely associated with instruction on the DME would not be covered

BACKGROUND:

Overview

- DME provides therapeutic benefits for patients with certain conditions or illnesses in which the equipment is reusable and durable for repeated use outside the medical setting (e.g., home, school, work);
 - Back, knee, and ankle supports/braces
 - Cervical collars
 - Foot orthotics
 - Electrical stimulation units and supplies
 - Traction devices
 - Hospital beds
 - Equipment to aid with ADLs such as bathing, toileting, and dressing
 - Splints/slings
 - Equipment to aid with seating, positioning, and transfers
 - Wheelchairs and assistive devices for gait
- The use of DME needs to have evidence of efficacy in peer-reviewed medical literature; the use of these devices is not considered medically necessary in the absence of accepted standards of medicine within medical literature. [1] [2] [3]

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none">• Editorial changes-sections adjusted/moved for better reading flow• References updated
August 2022	<ul style="list-style-type: none">• References updated• Minor editorial changes

References

- [1] R. A. Sprouse, A. M. Mclaughlin and G. D. Harris, "Braces and Splints for Common," *Am Fam Physician*, vol. 98, no. 10, pp. 570-576, 2018.
- [2] S. Henderson, H. Skelton and P. Rosenbaum, "Assistive devices for children with functional impairments: impact on child and caregiver function," *Dev Med Child Neurol*, vol. 50, no. 2, pp. 89-98, 2008.
- [3] M. L. Gabriner, B. A. Braun, M. N. Houston and M. C. hoch, "The effectiveness of foot orthotics in improving postural control in individuals with chronic ankle instability: a critically appraised topic," *J Sport Rehabil*, vol. 24, no. 1, pp. 68-71, 2015.

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical guidelines EXPERIMENTAL, UNPROVEN, OR INVESTIGATIONAL SERVICES	Original Date: November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_601	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	2
STATEMENT	2
PURPOSE	2
COVERAGE	2
SERVICES.....	2
DEFINED	2
CRITERIA.....	2
EXPERIMENTAL AND INVESTIGATIONAL SERVICES.....	3
SERVICES EXCEPTIONS (POSSIBLY COVERED UNDER ANOTHER SERVICE).....	4
ELECTION OF SERVICES BY MEMBER	5
FUTURE CONSIDERATIONS.....	5
BACKGROUND	6
HEALTH CARE PROVIDERS	6
POLICY HISTORY.....	7
REFERENCES.....	8

GENERAL INFORMATION

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.

Statement

This policy lists the procedures considered experimental, or investigational provided by any physical medicine practitioner[‡].

NOTE: Services listed in the policy are not eligible for reimbursement.

Purpose

To provide a listing of procedures or services considered experimental, investigational, or unproven provided by any physical medicine practitioner[‡].

Coverage

If there is inconsistency between this medical policy and the terms of an enrollee's benefit plan, the terms of the enrollee's benefit plan supersede this policy.

NOTE: Coverage is subject to the terms of an enrollee's benefit plan

Services

Defined

Experimental and investigational services (treatment, service, procedure, supply, device, or drug) are not recognized as standard clinical care for the condition (disease, illness, or injury) when scientific evidence to support its use is insufficient.

A service, procedure, or supply includes but is not limited to;

- Diagnostic service
- Treatment
- Facility
- Equipment or device

NOTE: This organization will determine whether a service, procedure, or supply is considered experimental and investigational, based upon reliable scientific methodology published in credible peer-reviewed journals or expert opinion from national and international professional medical organizations in the absence of definitive data.

Criteria

A service is considered experimental/investigation if **ANY** of the following criteria is met:

- A service, treatment, procedure, supply, device, or drug requiring appropriate government regulatory bodies approval does **NOT** have final approval (e.g., the Food and Drug Administration)
 - Restricted market approval for use in the treatment of a specified condition (not substituted for final approval)
 - Interim step in the regulatory process (not substituted for final approval)
- Insufficient or inconclusive evidence of the service, procedure, or supply
 - To evaluate the therapeutic value
 - On the beneficial effect on health outcomes
 - Is not as beneficial as an established alternative
 - When used in a non-investigational setting the service, procedure, or supply has a beneficial effect on health outcomes as any established alternatives

Experimental and Investigational Services

Experimental and investigational services listing (**non-exclusive list**):

- Advanced BioStructural Correction™ (ABC™)
- Alphabiotics
- Applied Kinesiology (including subfields)
- Applied Spinal Biomechanical Engineering
- Bio-Energetic Synchronization Technique (B.E.S.T)
- Blood Flow Resistance Training
- Chiropractic Biophysics (CBP, Clinical Biomechanics of Posture, CBP Mirror Image Technique)
- Chiropractic services directed at controlling progression and/or reducing scoliosis, including but not limited to the SpineCor brace and CLEAR scoliosis treatment
- Coccygeal Meningeal Stress Fixation
- Cold Laser Therapy
- Computerized muscle testing or analysis
- Cupping
- Craniosacral Therapy (CST, including the Upledger Technique)
- Directional Non-force Technique
- Dry Needling
- Hako-Med electrotherapy (horizontal electrotherapy)
- High-density surface electromyography (HD-sEMG), surface scanning EMG, paraspinal surface EMG, or macro EMG Hippotherapy (e.g., evaluating low back pain, thoracolumbar segmental abnormalities, soft tissue injury, intervertebral disc disease, nerve root irritation, or scoliosis)
- Impulse adjusting instrument
- Intersegmental traction and Autotraction
- Kinesio taping (Elastic Therapeutic Taping)

- Live Cell Analysis or hair analysis
- Manipulation under Anesthesia (MUA)
- Moire Contourographic Analysis
- Nambudripad's Allergy Elimination Technique (NAET)/ other Allergy Testing
- National Upper Cervical Chiropractic Association (NUCCA technique)/Grostic technique
- Network Chiropractic, Neuro Emotional Technique (NET)
- Neural Organizational Technique, Contact Reflex Analysis (CRA), Whole System Scan
- Neurocalometer, Nervo-Scope, Nerve Conduction Velocity, Surface EMG, Paraspinal Electromyography, Spinoscopy or other nerve conduction testing for non-specific neck and back pain
- Neurophysiologic Pain Profile (NPP), spine matrix scan (lumbar matrix scan)
- Nimmo Receptor-Tonus method
- Pettibon, including, but not limited to wobble chair/board treatment and posture pump
- Preventive Care, Corrective Care (chiropractic services)
- Pro-Adjuster
- Sacro Occipital Technique, Neurocranial Restructuring (NCR), Cranial Manipulation
- Sound Assisted Soft Tissue mobilization
- Spinal Diagnostic Ultrasound
- Repeat imaging to determine the progress of conservative treatment
- Thermography
- Treatment for brachioradial pruritis
- Vascular Studies, including, but not limited to, Doppler ultrasound analysis and [plethysmography](#)
- VAX-D, 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), 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

Services Exceptions (possibly covered under another service)

- Whole body vibration as a treatment for low back pain (LBP) evidence remains equivocal
- Low level laser therapy could be an effective method for relieving pain in non-specific chronic low back pain [2]

NOTE: No significant treatment effect was identified for disability scores or spinal range of motion outcomes. Laser therapy combined with exercise provides better short-term relief of low back pain than either therapy alone [3]. No short-term benefit of laser therapy when compared with exercise alone [3].

- Is the potential benefit superior to the potential harm
- Health Outcomes
 - Superior or comparable to the established alternatives
- Patient Management
 - Does the service improve clinical decision making
- Clinical Performance
 - Is the reliability and predictive value of the service equal or superior to the current gold standard for the service
- Cost-effectiveness
 - Is the service equal to or lower cost than established treatments that produce similar outcomes

NOTE: If the service appears to be safe and cost-effective, this organization 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.

BACKGROUND

Health Care Providers

‡A qualified licensed health care providers (chiropractors, physical therapists, occupational therapists, speech language pathologist, physician assistants, speech language pathologist assistants, physical therapist assistants, and occupational therapy assistants) by education, training, and licensure/regulation performs a professional service within his/her scope of practice and reports to health professional boards.

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none">• Removed; Services Exceptions – Ultrasound: as ultrasound is not applicable to therapy services• Editorial changes-sections adjusted/moved for better reading flow• Updated References
August 2022	<ul style="list-style-type: none">• Removed “Maintenance Care” from the list of E & I services• References updated
December 2021	<ul style="list-style-type: none">• Added “General Information” statement• Reordered (in alphabetical order) the list of experimental and investigational services• Added Blood Flow Resistance Training to list of E&I services

References

- [1] American Institute of Ultrasound in Medicine, "AIUM," 2 November 2019. [Online]. Available: <https://www.aium.org/resources/official-statements/view/nonoperative-spinal-paraspinal-ultrasound-in-adults>. [Accessed 23 August 2023].
- [2] Z. Huagn, J. Ma, J. Chen, B. Shen, F. Pei and V. Byers Kraus, "The effectiveness of low-level laser therapy for nonspecific chronic low back pain: a systematic review and meta-analysis," *Arthritis Res Ther*, vol. 17, no. 360, 15 December 2015.
- [3] North American Spine Society (NASS), "Evidence-Based Clinical Guidelines for Multidisciplinary Spine Care: Diagnosis & Treatment of Low Back Pain," 2020. [Online]. Available: <https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/Guidelines/LowBackPain.pdf>. [Accessed 23 August 2023].
- [4] W. S. Jones, S. Vemulapalli, K. S. Parikh, R. R. Coeytaux, M. J. Crowley, G. Raitz, A. L. Johnston, V. Hasselblad, A. J. McBroom, K. R. Lallinger and G. D. Sanders-Schmidler, Treatment Strategies for Patients with Lower Extremity Chronic Venous Disease (LECVD). Agency for Healthcare Research and Quality (US); 2017, Rockville, MD: Agency for Healthcare Reserach and Quality (US), 2017.
- [5] N. R. A. Dezotti, M. B. Dalio, M. S. Ribeiro, C. E. Piccinato and E. E. Joviliano, "The clinical importance of air plethysmography in the assessment of chronic venous disease," *J Vasc Bras*, vol. 15, no. 4, pp. 287-292, 2016.
- [6] N. Nirala, R. Periyasamy and A. Kumar, "Noninvasive Diagnostic Methods for Better Screening of Peripheral Arterial Disease," *Ann Vasc Surg*, vol. 52, pp. 263-272, 2018.
- [7] B. J. Delgado and T. Bajaj, Physiology, Lung Capacity, Treasure Island, FL: StatPearls Publishing, 2023.

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical guidelines MEASURABLE PROGRESSIVE IMPROVEMENT	Original Date: November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_605	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	3
STATEMENT	3
PURPOSE	3
MEASURABLE IMPROVEMENT	3
DEFINED	3
SCOPE.....	3
[‡] MEASURABLE IMPROVEMENT ACCEPTABLE THRESHOLDS	4
5 Times Sit to Stand Test (5XSTS)	4
6-Minute Walk Test (6MWT) for Older Adults	4
10 Meter Walk Test (10MWT)	5
Activities of Daily Living Scale of the Knee Outcome Survey.....	6
Activity-Specific Balance Confidence Scale (ABC).....	6
Berg Balance Scale (BBS).....	6
Bournemouth – Back Questionnaire	7
Bournemouth – Neck Questionnaire	7
Bruininks-Oseretsky Test of Motor Proficiency, 2nd Edition (BOT™-2).....	7
Disability of Arm, Shoulder, and Hand (DASH).....	8
Disability of Arm, Shoulder, and Hand (QuickDASH).....	8
Dizziness Handicap Inventory (DHI).....	9
Dynamic Gait Index (DGI)	9
Falls Self Efficacy Scale/Falls Efficacy Scale-International (FES-I).....	9
Foot and Ankle Ability Measures (FAAM).....	10
Fear Avoidance Belief Questionnaire (FABQ).....	10
Functional Gait Assessment (FGA)	10
Functional Rating Index (FRI).....	11
Functional Status (FS) measure or FOTO	11
Gait Speed for Adults.....	11
Global Rating of Change (GRoC)	12
Goal Attainment Scale (GAS)	12
Gross Motor Function Measure-66 (GMFM-66).....	12
Headache Disability Inventory (HDI)	13

<i>Keele STarT Back Screening Tool</i>	13
<i>Knee Injury and Osteoarthritis Outcome Score (KOOS)</i>	13
<i>Knee Outcome Survey (KOS)</i>	16
<i>Lower Extremity Functional Scale (LEFS)</i>	16
<i>Lysholm Knee Rating System</i>	18
<i>Neck Disability Index (NDI)</i>	18
<i>Numeric Pain Rating Scale (NPRS)</i>	19
<i>Oswestry Disability Index (ODI)</i>	19
<i>Pain Disability Index</i>	20
<i>Patient Specific Functional Scale (PSFS)</i>	20
<i>Peabody Developmental Motor Scales-2nd Edition (PDMS-2)</i>	21
<i>Pediatric Balance Scale</i>	21
<i>Pediatric Evaluation of Disability Inventory (PEDI)</i>	21
<i>Roland-Morris Disability Questionnaire (RMDQ)</i>	22
<i>Roll Evaluation of Activities of Life (REAL)</i>	22
<i>Shoulder Pain and Disability Index (SPADI)</i>	23
<i>Simple Shoulder Test (SST)</i>	23
<i>Timed Up and Go (TUG)</i>	24
<i>Tinetti Performance Oriented Mobility Assessment (POMA)</i>	25
<i>Upper Extremity Functional Index/Scale (UEFI/UEFS)</i>	25
<i>Visual Analog Scale (VAS) scores</i>	25
<i>Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC)</i>	26
BACKGROUND	27
DEFINITIONS	28
POLICY HISTORY	30
REFERENCES	31



GENERAL INFORMATION

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.

Statement

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

Purpose

This guideline provides 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.

All recommendations in this guideline reflect practices that are evidence-based and/or supported by broadly accepted clinical specialty standards.

Measurable Improvement

Defined

Meaningful clinical changes are calculated outcome measures using a standardized assessment tool. Using standardized assessment tools in the management of neuromusculoskeletal disorders follows Physical Medicines professional standards. These include;

- Minimal Clinically Important Change (MCIC)
- Minimal Clinically Important Differences (MCID)
- Minimal Detectable Change (MDC)
- Minimal Important Change (MIC)
- Smallest Detectable Change (SDC)
- Standard Error of Measurement (SEM)
- Small Meaningful Change (SMC)
- Smallest Real Change (SRC)

Scope

In determining meaningful progress toward goals (MCIC and Maximum Therapeutic Benefit (MTB)) the record must include documented relevant standardized outcome assessments. The calculated outcome measures can be used to set goals and determine treatment effectiveness.

Progress towards goals should be assessed at predetermined time periods and supported by anticipated meaningful clinical change based on the treatment plan goals, e.g.;

- 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]

This organization requires all practitioner records must evaluate and document whether treatment is resulting in progressive and sustained improvement including; 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
- Measured by one or more of the below methods for each anatomic region (listed below in ‡Measurable Improvement Acceptable Thresholds) [2]
- If no functional tool is available for the patient's condition it is expected the practitioner will develop specific, measurable, and functional goals

‡Measurable Improvement Acceptable Thresholds

5 Times Sit to Stand Test (5XSTS) [3]

- Older Adults: 5 repetitions of this test exceeding the following can be considered to have worse than average performance
 - 11.4 sec (60 to 69 years)
 - 12.6 sec. (70 to 79 years)
 - 14.8 sec. (80 to 89 years)
- MCID
 - Vestibular Disorders = 2.3 seconds
- MDC
 - Vestibular Disorders = 3.6 to 4.2 seconds

6-Minute Walk Test (6MWT) for Older Adults [4, 2, 5]

- MDC
 - Alzheimer's Disease: 33.5 m (110 feet)
 - Hip OA or knee OA that later received a total joint replacement: 61.34m
 - HD – chronic progressive (premanifest) = 39.22 m
(manifest) = 86.57 m
(early-state) = 56.6 m
(middle-state) = 126.14 m
(late-stage) = 70.65 m
 - MS – chronic progressive: 88 m
 - MS – chronic progressive = 20%

- Older Adults: 58.21 m
- PD: 82 m
- Stroke – chronic: 34 – 37 m or 13% change
- Stroke – Subacute: 61m
- MIC
 - MS – chronic progressive (mild to severe): 21.56 m (patient anchor)
 - MS – chronic progressive (mild to severe): 9.06 m (clinician anchor)
 - MS – chronic progressive (deterioration): -53.35 m (patient anchor)
 - MS – chronic progressive (deterioration): -55.06 m (clinician anchor)
- SEM
 - MS – chronic progressive: 32 m
 - Stroke – subacute: 22 m
 - Stroke – chronic: 12 – 18 m
- SMC
 - Older adults with limited mobility: 20 m (66 feet)
 - Older adults with stroke: 22 m (72 feet)
 - Stroke – subacute: 21 m (anchor stairs)
 - Stroke – subacute: 54 m (anchor-walk block)
- SRC_{individual}
 - MS – chronic progressive (mild to severe): 67.22 m (patient anchor)
 - MS – chronic progressive (mild to severe): 68.32 m (clinician anchor)

NOTE: OA – Osteoarthritis; MS – Multiple Sclerosis; HD – Huntington’s Disease; PD – Parkinson’s Disease

10 Meter Walk Test (10MWT) [6]

- Normative Values (m/s) - Healthy Adults
 - Men/Women (20s) = 1.358/1.341
 - Men/Women (30s) = 1.433/1.337
 - Men/Women (40s) = 1.434/1.390
 - Men/Women (50s) = 1.433/1.313
 - Men/Women (60s) = 1.339/1.241
 - Men/Women (70s) = 1.262/1.132
 - Men/Women (80/90s) = 0.968/0.943
- MDC [7]
 - HD (pre-manifest HD, comfortable) = 0.23 m/s
 - HD (manifest HD, comfortable) = 0.34 m/s
 - HD (early-stage HD, comfortable) = 0.20 m/s
 - HD (middle-stage HD, comfortable) = 0.46 m/s
 - HD (late-stage, comfortable) = 0.29 m/s

- MS = 0.26 m/s
- PD (comfortable) = 0.18 m/s
- PD (fast) = 0.25 m/s
- SCI (incomplete < 12 months) = 0.13 m/s
- Stroke (acute) = 0.11 m/s
- Stroke (chronic > 6 months, comfortable) = 0.18 m/s
- Stroke (chronic > 6 months, fast) = 0.13 m/s
- MCID [7]
 - Stroke (subacute) = 0.16 m/s

Activities of Daily Living Scale of the Knee Outcome Survey [8, 9]

- 10 - 30% reduction in the global score (knee)
- MCID
 - = 7.1%
- MDC
 - = 2.23

Activity-Specific Balance Confidence Scale (ABC) [10, 2, 11, 12]

- MCID
 - Vestibular Disorders = 18.1%
- MDC
 - PD = 11 – 13%
 - PD – Chronic progressive = 13
 - CVA = 14%
- SEM
 - PD – Chronic progressive = 11%
 - PD = 4.01
 - Stroke – acute and chronic = 5.05 – 6.81
 - Older adults = 1.2
- SMC
 - Older adults = 7 points

NOTE: CVA – Cerebral Vascular Accident; PD – Parkinson’s Disease

Berg Balance Scale (BBS) [2, 13, 14, 15, 16]

- MIC
 - MS: deterioration (clinician anchor) = -0.60
 - MS: deterioration (patient anchor) = -1.41
- MCID
 - Subacute stroke (assisted walking): 5 points
 - Subacute stroke (unassisted walking): 4 points
- MDC

- = 6.2 – 6.5 points
- Alzheimer's Disease and Progressive Dementia = 1.92
- HD – chronic progressive premanifest = 1
- HD – chronic progressive manifest = 5
- HD – chronic progressive early-stage = 4
- HD – chronic progressive middle-stage = 5
- HD – chronic progressive late-stage = 5
- Older adults = 8 – 10.5 points
- PD = 5 points
- Stroke (acute) = 6 (90%)
- Stroke (acute) = 7 (95%)
- Stroke (chronic) = 2.7 points
- Stroke (chronic/stable) = 4.66 – 6.7
- SEM
 - Alzheimer's Disease and Progressive Dementia = 0.97
 - Stroke (acute) = 2.49
 - Stroke (chronic/stable) = 1.49 – 2.4
 - TBI = 1.65

NOTE: HD – Huntington’s Disease, MS – Multiple Sclerosis, PD – Parkinson’s Disease, TBI – Traumatic Brain Injury

Bournemouth – Back Questionnaire [17]

- Acute: change of 26 points
- Subacute/chronic: change of 18 points

NOTE: 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 [18]

- A change of 13 points or 36% is considered clinically significant improvement

NOTE: 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) [19, 20]

- MCID
 - Children aged 3-6 years with intellectual disability
 - = 6.5 (BOT™-2-SF Standard Scores)
 - Children aged 4-21 years with intellectual disability
 - = 6.5 (aged 4-12 years) (BOT™-2-SF standard scores)
 - = 7.4 (aged 13-21 years) (BOT™-2-SF standard scores)
- MDC
 - Children aged 3-6 years with intellectual disability



- = 7.4 (BOT™-2-SF Standard Scores)
 - Children aged 4-21 years with intellectual disability
 - = 4.2 (aged 4-12 years) (standard scores)
 - = 7.4 (aged 13-21 years) (standard scores)
 - Children aged 7-10 with fetal alcohol syndrome
 - = 6.1 (BOT™-2-SF Raw scores)
- SEM
 - Children aged 3-6 years with intellectual disability
 - = 1.6 (BOT™-2-SF standard scores)
 - Children aged 7 – 9 years with fetal alcohol disorders
 - = 2.2 (BOT™-2-SF raw score) / 2.1 (BOT™-2-SF standard score)

Disability of Arm, Shoulder, and Hand (DASH) [21, 22, 23]

- MCID
 - DASH = 11-15 points
 - Elbow Arthroplasty (much worse or much better) = 19 points
 - Elbow Arthroplasty (somewhat better or somewhat worse) = 10 points
 - Elbow Arthroplasty (no change) = -3 points
 - Musculoskeletal Upper Extremity (Adults) = 10.2
- MDC
 - Humeral Joint Pain and Fractures = 16.1 (DASH)
 - Musculoskeletal Upper Extremity (Adults) = 10.7 – 12.2 (90% CI)
 - Musculoskeletal Upper Extremity (Adults) = 12.75 (95%CI)
 - Shoulder = 10.7% (90%CI)
 - Shoulder = 12.75% (95%CI)
- SEM
 - Humeral Joint Pain and Fractures = 5.82 (DASH)
 - Musculoskeletal Upper Extremity (Adults)= 4.6 – 5.22
 - Osteoarthritis = 2.27 (DASH 0-3*)
 - Osteoarthritis = 3.26 (DASH 0-6*)
 - = 4.49 (DASH 0-12* Osteoarthritis)

NOTE: *Paired differences of the DASH score; DASH 0 is mean score preoperative, DASH 3 is mean score at 3 months, DASH 6 is mean score at 6 months, and DASH 12 is mean score at 12 months.

Disability of Arm, Shoulder, and Hand (QuickDASH) [24]

- MCID
 - Upper Extremity (whole) = 8 points
- MDC
 - = 11 – 17.2 points (90%CI)
 - = 20.4 points (95%CI)
- SEM

- = 6.43 (very much improved)
- = 3.26 (much improved)
- = 3.37 (minimally improved)
- = 10.22 (no change)

Dizziness Handicap Inventory (DHI) [25, 26]

- MCID
 - BPPV = decrease from 18.05 at the first day to 9.54 at 30 days
 - Vestibular Disorders = change of 18 points (95% CI, pretreatment and posttreatment scores difference)
- MDC
 - MS = 22.50
 - Vestibular Disorders = 17.18 points
- SEM
 - Vestibular Disorders = 6.2

NOTE: BPPV – Benign Paroxysmal Positional Vertigo; MS – Multiple Sclerosis

Dynamic Gait Index (DGI) [27, 28, 29, 30, 31]

- MDC
 - MS = 4.19 – 5.54
 - Stroke = 4 points
 - Stroke (change) = 16.6%
 - Stroke (chronic) = 2.6 points
 - PD = 13.3%
 - PD and Older Adults = 2.9 points
 - Vestibular Disorders = 3.2 points
- SEM
 - Older Adults = 1.04 points
 - MS (inter-rater reliability) = 1.51 points
 - MS (intra-rater reliability) = 2.00 points
 - Stroke (chronic) = 0.71
 - Stroke (inter-rater reliability) = 0.94
 - Stroke (test-retest condition) = 0.97
 - Vestibular Disorders = 2.8 points

NOTE: MS – Multiple Sclerosis; PD – Parkinson’s Disease

Falls Self Efficacy Scale/Falls Efficacy Scale-International (FES-I) [32, 33]

- MDC
 - MS = 0.52 points
 - Older Adult (Hip fracture) = 17.7 points
 - Vestibular Disorders = 8.2 points
- SEM

- Older Adult (Hip Fracture) = 6.4 points
- MS = 0.19 points
- Vestibular Disorders = 3.0 points

NOTE: MS – Multiple Sclerosis

Foot and Ankle Ability Measures (FAAM) [34, 35]

- MCID
 - ADL (subscale) = 8% points
 - Sport (subscale) = 9% points
- MDC
 - ADL (subscale 95% CI) = 5.7
 - Sports (subscale 95% CI) = 12.3
- SEM
 - ADL (subscale) = 2.1
 - Sports (subscale) = 4.5

NOTE: ADL – Activities of Daily Living

Fear Avoidance Belief Questionnaire (FABQ) [36, 37, 38]

- MCIC
 - Arthroscopic subacromial decompression (following) = -5.0
- MCID
 - Lower Back Pain = 13 points
 - Physical Activity (Pelvic Girdle pain) = 25%
- MDC
 - Low back pain = -5.4
 - Physical Activity (Pelvic Girdle pain) = 6.1
 - Physical Activity (Subscale) = 12 points
 - Physical Activity (Worker UE injury) = 8 points (change scores equivalent to 30-33% of scale)
 - Work (Subscale) = 9 points
- SEM
 - Physical Activity (Pelvic Girdle pain) = 2.20

Functional Gait Assessment (FGA) [2, 11, 39, 40]

- MCID
 - Older Adults = 4 points (from interim to end of care)
 - Vestibular Disorders = 4 points
 - Vestibular Disorders = 18.1%
- MDC
 - PD = 4 points
 - Stroke (acute and chronic) = 4.2

- Stroke (acute and chronic) = 14.1%
- Vestibular Disorders (acute) = 6 points (95% CI)
- SEM
 - Stroke = 1.52

NOTE: PD – Parkinson’s Disease

Functional Rating Index (FRI) [41]

- MCIC
 - Spinal musculoskeletal system = 10% absolute change
- MCID
 - Spinal musculoskeletal system = 8.4%
- MDC
 - Spinal musculoskeletal system = 15%

NOTES:

- Acute and subacute conditions: recommended the FRI be used at baseline and every 1 week or 3 visits thereafter
- Chronic conditions: recommended 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

Functional Status (FS) measure or FOTO [42, 43]

- The MCII (Minimally Clinically Important Improvement) and MDC are stated on the assessment report
 - For significant, minimal improvement, the patient status should increase by the MDC value

NOTE: FOTO summary report is available upon request

Gait Speed for Adults [44, 45, 46]

- MCID
 - Joint pain and fractures = 0.1 m/sec
 - Older Adults = 0.05 – 0.12 m/sec
 - Older Adults with Heart failure = 0.05 – 0.12 m/sec
 - Pulmonary Diseases (COPD) = 0.11 m/sec (anchored against ISW)
 - Pulmonary Diseases (COPD) = 0.08 m/sec (anchored against self-reported improvement)
 - Stroke = 0.1 m/sec
 - Vestibular Disorders = 0.09 m/sec
- MDC
 - Heart failure = 0.05 m/sec
 - Joint pain and fractures = 0.08 m/sec



- Older Adults = 0.05 m/sec
- Pulmonary Diseases (COPD) = 0.11 m/sec (95% CI)
- Meaningful change for those with stroke undergoing rehab = .175 m/sec
- SEM
 - Pulmonary Diseases (COPD) = 1.14% (Interobserver)
 - Pulmonary Diseases (COPD) = 1.5% (Test-retest reliability)
- SMC = .5m/sec
- Substantial meaningful change = .10m/sec

NOTE: COPD – Chronic Obstructive Pulmonary Disease

Global Rating of Change (GRoC) [47, 48]

([‡]See Note below)

- MCIC
 - 2 points on 11-point scale
- MDC
 - 0.45 points on 11-point scale
- MIC
 - Low Back Pain = 2.5 points on 11-point scale

[‡]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

Goal Attainment Scale (GAS) [49]

- MDC
 - Cerebral Palsy (Pediatric) = 2.040 (Low Response Group)
 - Cerebral Palsy (Pediatric) = 1.275 (High Response Group)
- SEM
 - Cerebral Palsy (Pediatric) = 0.736 (Low Response Group)
 - Cerebral Palsy (Pediatric) = 0.460 (High Response Group)

Gross Motor Function Measure-66 (GMFM-66) [50, 51, 52]

- Clinically meaningful improvement
 - = 1.58
- MCID
 - Cerebral Palsy
 - GMFCS Level I: 1.7 -2.7
 - GMFCS Level II: 1.0-1.5

- GMFCS Level III: 0.7 – 1.2
- GMFCS Level Overall: 0.8 – 1.3

NOTE: Gross Motor Function Classification System (GMFCS)

Headache Disability Inventory (HDI) [53]

- Decrease of 29 points (95% CI) or more is considered clinically significant

Keele STarT Back Screening Tool [54, 55]

- High-risk categories: > 4 (psychosocial subscale scores)
- Medium-risk categories: > 3 (overall tool score) and < 4 (psychosocial subscale scores)
- Low-risk categories: < 3 (overall tool score)

NOTE: No MDC or MCID established

Knee Injury and Osteoarthritis Outcome Score (KOOS) [56, 57, 58, 59, 60]

- MDC
 - Athletes (mean age 25.6 ± 3.4 years)
 - Pain = 6.1
 - Symptoms = 8.5
 - ADL = 8.0
 - Sports/Rec = 5.8
 - QoL = 7.2
 - Joint Pain and Fractures = 8 – 10 point change may represent minimal perceptible clinical improvement
 - Knee Ligament Injury
 - ACL (KOOS subscales)
 - Symptoms = 8.5
 - Pain = 6.1
 - ADL = 8.0
 - Sports/recreation = 5.8
 - QoL = 7.2
 - Articular Cartilage Lesion (KOOS subscales)
 - Symptoms = 11.8
 - Pain = 11.2
 - ADL = 11.1
 - Sports/recreation = 12.1
 - QoL = 8.7
 - Focal Cartilage Repair (KOOS subscales)
 - Symptoms = 5
 - Pain = 6
 - ADL = 7
 - Sports/recreation = 12

- QoL = 7
 - OA and No Indication for Joint Replacement (KOOS subscales)
 - Symptoms = 15.5
 - Pain = 13.4
 - ADL = 15.4
 - Sports/recreation = 19.6
 - QoL = 21.1
 - Meniscal Injury (with and without surgery) (KOOS subscales)
 - Symptoms = 19.4
 - Pain = 25.7
 - ADL = 20.2
 - Sports/recreation = 35.0
 - QoL = 26.2
- Older individuals (KOOS subscales) = ≥ 20 points
- Osteoarthritis and Joint Replacement = 8 – 10 point change may represent minimal perceptible clinical improvement
- Younger individuals (KOOS subscales) = 14.3 – 19.6 points
- MCID
 - Knee
 - Arthroplasty (total knee, post)
 - Function = 15.
 - Pain = 13.5 2
 - QOL = 8.0
 - Autologous Chondrocyte Implantation (ACI) (KOOS subscale)
 - Symptoms = could not be calculated
 - Pain = 11 – 18.8
 - ADL = 2 – 17.3
 - Sports/recreation = 5 – 18.6
 - QoL = 8 – 19.6
 - Meniscal repair (Post arthroscopic)
 - Symptoms = 12.3
 - Pain = 11.8
 - ADL = 11.4
 - Sports/recreation = 16.7
 - QoL = 16.9
 - Osteochondral Allograft Transplantation (OCA) (KOOS subscales)
 - Symptoms = could not be calculated
 - Pain = 7
 - ADL = could not be calculated
 - Sports/recreation = 25
 - QoL = could not be calculated

- Sports/recreation = 10.8
 - QoL = 7.4
- Meniscal Injury (with/without Meniscal Surgery) (KOOS subscales)
 - Symptoms = 7.0
 - Pain = 9.3
 - ADL = 7.3
 - Sports/recreation = 12.6
 - QoL = 9.5
- Knee OA (KOOS subscales)
 - Mild OA with ACL Reconstruction
 - Symptoms = 9.0
 - Pain = 7.2
 - ADL = 5.2
 - Sports/recreation = 9.0
 - QoL = 7.4
 - Moderate OA with High Tibial Osteotomy (HTO) and Valgus Correction (KOOS subscales)
 - Symptoms = 8.0
 - Pain = 9.0
 - ADL = 5.8
 - Sports/recreation = 11.6
 - QoL = 7.4
 - OA with TKA Revision (KOOS subscales)
 - Symptoms = 7.2
 - Pain = 10.1
 - ADL = 11.7
 - Sports/recreation = 24.6
 - QoL = 10.8

NOTE: ACL – Anterior Cruciate Ligament; ADL – Activities of Daily Living; OA – Osteoarthritis; QoL – Quality of Life

Knee Outcome Survey (KOS) [61]

- MCID
 - ADL = 7.1 percentage points change
- MDC [62]
 - = 11.4

NOTE: ADL – Activities of Daily Living

Lower Extremity Functional Scale (LEFS) [63, 64, 65, 66]

- MCID
 - Ankle sprains = 4 points

- Joint Pain and Fractures
 - ACL reconstruction = 9 points
 - Arthroplasty
 - Total knee = 9 points
 - Total hip = 9 points
 - Hip Impairment = 6 points or 11.3%
 - Lower Extremity Injury = 9 points
- Knee
 - OA = 6.3 points (0-2 months)
 - OA = 7.5 points (0-6 months)
 - OA = 12.5 points (0-12 months)
- Lower extremity musculoskeletal dysfunction = 9 points
- MDC
 - Ankle sprains = 4 points
 - Joint Pain and Fractures
 - ACL reconstruction = 8.7 points
 - Arthroplasty
 - Total knee = 9 points
 - Total hip = 9 points
 - Hip Impairment = 7 points or 11.3%
 - Lower Extremity Injury = 9 points
 - Knee
 - Anterior knee pain = 8 points
 - OA = 19.2 points (at 2 months)
 - OA = 17.6 points (at 6 months)
 - OA = 22.6 points (at 12 months)
 - Total knee arthroplasty = 9 points
 - Lower extremity musculoskeletal dysfunction = 9 points
 - OA
 - Hip = 9.9 – 10 points
 - Lower extremity = 9 points
- SEM
 - Ankle sprains = 4 points
 - Chronic Pain (Orthopaedic Rehab) = 4 points
 - Joint Pain and Fractures
 - ACL reconstruction = 3.7 points
 - Arthroplasty
 - Total knee = 3.7 points
 - Total hip = 3.7 points
 - Lower Extremity Injury = 3.9 points
 - Orthopaedic Rehab = 4 points
 - Knee

- Anterior knee pain = 0.10 points
- OA = 3.4 points
- OA = 6.9 points (at 2 months)
- OA = 6.4 points (at 6 months)
- OA = 8.2 points (at 12 months)
- Total knee arthroplasty = 3.7 points
- OA
 - Hip = 3.6 – 5.3 points
 - Orthopaedic Rehab = 4 points

NOTE: 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

NOTE: ACL – Anterior Cruciate Ligament; OA – Osteoarthritis

Lysholm Knee Rating System [67]

- MDC
 - Knee Injuries (ACL, meniscal, chondral, patellar dislocation) = 8.9 – 10.1
- SEM
 - Knee Injuries (ACL, meniscal, chondral, patellar dislocation) = 3.2 – 3.6

NOTE: ACL – Anterior Cruciate Ligament

Neck Disability Index (NDI) [68, 69, 70]

- MCID
 - Cervical radiculopathy = 7.0 – 8.5 points
 - Cervical spine fusion = 7.5 points
 - Mechanical neck disorders = 5 – 7.5 points
 - Mechanical neck disorders = 19%
 - Mechanical neck pain = 7.5 points
 - Neck Pain (non-specific) = 3.5 points
- MDC
 - = 10 – 20%
 - Cervical radiculopathy = 10.2 – 13.4 points
 - Mechanical neck disorders = 10.2 points
 - Mechanical neck disorders = 19.6%
 - Mechanical pain = 10.2 points
 - Neck pain = 5 points (90% CI)
 - Neck Pain (non-specific) = 8.4 – 10.5
- SEM
 - Cervical Radiculopathy = 4.4 – 5.7
 - Mechanical Neck Disorder = 4.3 – 8.4
 - Neck Pain (non-specific) = 3.0

NOTE: 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.

NOTE: A score of 0% - 20% represents a minimal disability; usually, no treatment is indicated except for 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 (e.g., 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) [71, 72]

- MCID
 - Emergency Room (acute pain) = 1.3 points
 - Low Back Pain (1 week of physical therapy) = 1.5 points
 - Low Back Pain (4 weeks of physical therapy) = 2.2 points
 - Musculoskeletal Pain (Chronic) = 1 point or 15% change
 - Pain (other; low back pain, OE, diabetic neuropathy, post-herpetic neuralgia, fibromyalgia) = 1.7 points or reduction of 27.9%
 - Post-operative
 - Abdominal surgery = 56%
 - Orthopedic surgery = 28.6%
 - Other types of surgery = 15.4%
 - Shoulder Pain = 2.17 points (surgical and nonsurgical subjects after 3-4 week of rehabilitation)
 - Spinal cord injuries (Chronic) = 1.6 – 1.80 points or 36%
- MDC
 - Low Back Pain = 2.0 points (95% CI)
- SEM
 - Low Back Pain = 1.02

Oswestry Disability Index (ODI) [73, 74, 75]

- MCIC
 - Lower back = 10 points or a 20% improvement
- MCID
 - Low back pain (anchor based, ROC) = 7.5% - 16.7%
 - Lumbar Spine Surgery (anchor based (HTI)) = 9.5 – 15.4 points
 - Lumbar Spine Surgery (anchor based (ROC)) = 11.8 – 17.9 points
 - SI Joint Fusion Surgery (anchor based (HTI)) = 19.5% average change
 - SI Joint Fusion Surgery (ROC) = 12.2% - 15.0%
 - Spinal Deformity Surgery = 15.0%
- MDC
 - Back pain = 5.9 – 6.4 points (90% CI)
 - Low back pain (subacute and chronic) = 11.1 – 15.35 (95% CI)

- Lumbar fusion = 11.7% - 15.5 % (90-95% CI)
- SEM
 - Back pain (mean duration 6 years) = 4.2 – 4.6 points
 - Low/upper back pain (< 1 year) = 2.6% - 2.8%
 - Spinal stenosis = 6.1%

NOTE: 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.

NOTE: 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 (e.g., 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 [76]

- MCIC
 - Low Back Pain (chronic) = decrease of 8.5 - 9.5 points

Patient Specific Functional Scale (PSFS) [77, 78, 79]

- MCID
 - Humeral fracture (proximal) = 2 or more points
 - Knee arthroplasty (total) = 3.83 – 5.13
 - Osteoarthritis (hand) = 2.2 point change
 - Spinal Stenosis = 1.34 points
 - Upper Extremity Musculoskeletal = 1.2 points
- MDC
 - Chronic pain = 2 points
 - Knee dysfunction = 1.5
 - Low Back pain = 1.4 points
 - Lower Limb Amputees = 11.2 (90% CI)
 - Neck Dysfunction and Whiplash = 2 points
 - Older adults = 2.8
 - Osteoarthritis (hand) = 1.30 (90% CI) 1.56 (95% CI)
 - Single activity score = 3 points (90% CI)
 - Spinal Stenosis = 2.4 points
- SEM
 - Chronic pain = 0.41
 - Knee dysfunction = 0.62 – 1.0
 - Knee arthroplasty (total, 3 months post-surgery) = 1.38 – 1.85
 - Lower Limb Amputees = 4.8
 - Neck dysfunction or pain = 0.43

- Older Adults = 1.0
- Osteoarthritis (hand) = 0.56
- Spinal Stenosis = 1.03

NOTE: 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

Peabody Developmental Motor Scales-2nd Edition (PDMS-2) [80, 81, 82]

- MCID
 - Intellectual disabilities (includes preschoolers) = 8.39
- MDC
 - Intellectual disabilities (includes preschoolers) = 7.76
- SEM
 - Cerebral Palsy
 - Fine Motor Quotient = 2.5
 - Gross Motor Quotient = 1.1
 - Total Motor Quotient = 1.6
 - Developmental Quotients
 - Fine Motor Quotient = 2.5
 - Gross Motor Quotient = 1.1
 - Total Motor Quotient = 1.6
 - Intellectual Disability = 1.80

Pediatric Balance Scale [83]

- MDC:
 - Cerebral Palsy
 - Dynamic = 0.96 points
 - Static = 0.79 points
 - Total = 1.59 points
- MDIC
 - Cerebral Palsy
 - Dynamic 2.92
 - Static 2.92
 - Total 5.83

Pediatric Evaluation of Disability Inventory (PEDI) [84]

- MCID
 - Caregiver Assistance
 - = 11.6 (Lickert Scale with range 8.7-14.9)
 - Functional Skills
 - = 10.9 (Lickert Scale with range 8.7-14.9)
 - Visual Analog Scale (VAS)
 - = 11.5 (mean)



- = 11.2 (Caregiver Assistance with range 6.0-15.6)
- = 11.6 (Functional Skills with range 6.0-15.6)
- Traumatic Brain Injury, Spinal Cord Injury, Lower Extremity Trauma, Non-traumatic Brain Injury, Developmental Disorders
 - = 11.6 points (mean; all 6 scales)
 - = 11.3 (mean; for Likert Scale categories)

Roland-Morris Disability Questionnaire (RMDQ) [85, 86]

- MCID
 - Low Back Pain
 - Acute, subacute, or chronic = 3.5 points
 - Detect change = 3 points or 30% of baseline score
 - Score > 7 then = 3 points
 - Score < 7 then = 30% change in score
 - Treatment of 3-6 weeks = 5 point change
- MDC
 - = 7.6 points or a 30% improvement from baseline
- SEM
 - Low Back Pain = 1.79
 - Lumbar Disc Surgery (post) = 2.0 scale points (95% CI)

NOTE: 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.

Roll Evaluation of Activities of Life (REAL) [87]

- MDC
 - Children without Disabilities (Ages 2-18)
 - MDC
 - ADL = 15.91
 - IADL = 11.08
- SEM
 - Children without Disabilities (Ages 2-18)
 - ADL
 - Average = 5.74
 - Preschool = 1.41
 - Elementary = 3.00
 - Preadolescent = 2.45
 - Teenage = 4.00
 - IADL
 - Average = 4.00
 - Preschool = 1.73

- Elementary = 2.00
- Preadolescent = 1.41
- Teenage = 2.65
- Mean Standard Scores
 - Children with Disabilities
 - Attention Deficit Disorders: 85.08
 - Autism Spectrum Disorder: 54.53
 - Cerebral Palsy: -6.17
 - Children with Disabilities: 67.14
 - Developmental Delay: 60.34
 - Down Syndrome: 55.17
 - Learning Disabled: 76.32
 - Sensory Integration Disorders: 88.86
 - Speech Delay: 99.53

Shoulder Pain and Disability Index (SPADI) [88, 89, 90]

- MCID
 - Musculoskeletal Upper Extremity Problems = 13.2
 - Pain Upper Extremity = 8 – 10 points
 - Rotator Cuff Disease = 15.4
- MDC
 - Adhesive Capsulitis = 18
 - Arthroplasty (shoulder) = 18
 - Musculoskeletal Upper Extremity Problems = 18.1
 - Pain and Disability (shoulder) = 21.5
- MIC
 - Shoulder pain = 20 points (43% of baseline)
- SEM
 - Arthroplasty (shoulder) = 2
 - Non-specific population = 4.75 – 11.65
- SDC
 - Shoulder pain = 19.7 points

NOTE: 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) [91, 92]

- MCID
 - Arthroplasty (anatomic total shoulder) (aTSA) = 1.6
 - Arthroplasty (Ream-and-run) (R&R) = 2.6
 - Arthroplasty (Reverse total shoulder) (rTSA) = 3.7
 - Arthroplasty (shoulder) = 2.4 – 3.0

- Rotator cuff disease = 8.5 – 9.7
- MDC
 - Musculoskeletal (shoulder) = 32.3 (95% CI)
- SEM
 - Musculoskeletal (shoulder) = 4.75 -11.65

Timed Up and Go (TUG) [93, 94, 95, 96, 97]

- Cut-off score indicating risk of falls
 - Adults = > 13.5 sec
 - Lower extremity amputees = > 19 sec
 - Older adults (fall clinic) = > 15 sec
 - Older adults (frail) = > 32.6 sec
 - Osteoarthritis (hip) = > 10 sec
 - PD = > 7.95 – 11.5 sec
 - Stroke (older adults) = > 14 sec
 - Vestibular disorders = > 11.1 sec
- MCID
 - Lumbar degenerative disc disease (post-surgery) = 2.1 sec (or TUG z score change of 1.5)
- MDC
 - Alzheimer disease = 4.09 sec
 - Arthroplasty (Total hip) = 1.62 sec (95% CI)
 - PD = 3.5 – 11 sec
 - Spinal cord injury = 10.8 sec (30% difference)
 - Stroke (chronic) = 2.9 sec
- SEM
 - Arthroplasty (Total hip) = 0.59 sec
 - Alzheimer's disease
 - All = 2.48 sec
 - Mild to Moderate = 1.52 sec
 - Moderately severe to Severe = 3.03 sec
 - Cerebral Palsy [98]
 - Evening trial = 0.4 sec
 - Morning trial = 0.6 sec
 - Spastic diplegia mean TUG score = 10.1 sec
 - Spastic hemiplegia mean TUG score = 8.4 sec
 - Spastic quadriplegia mean TUG score = 28 sec
 - Trials administer 5 minutes apart = 0.19 sec
 - Trials administered 1 week apart = 0.32 sec
 - PD = 1.75 sec
 - Spinal cord injury = 3.9 sec
 - Stroke (chronic) = 1.14 sec

NOTE: 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

NOTE: PD – Parkinson’s Disease

Tinetti Performance Oriented Mobility Assessment (POMA) [99]

- Cut-Off Scores
 - Older adults = 19
 - Older adults (frail) = 11
 - PD = < 20
 - Stroke (chronic) = < 20
- MDC
 - Older adults
 - Individual assessment = 4.0 – 4.2 points
 - Group assessment = 0.7 – 0.8 points
 - Stroke = 6 points

NOTE: PD – Parkinson’s Disease

Upper Extremity Functional Index/Scale (UEFI/UEFS) [100]

- MCID
 - UEFI-20 = 8 (95% CI)
 - UEFI-15 = 6.7 (95% CI)
- MDC₉₀
 - UEFI-20 = 9.4 (95% CI)
 - UEFI-15 = 8.8 (95% CI)
 - UEFS = 9.8 (95% CI)

NOTE: UEFI-20 is a 20-item Upper Extremity Functional Index (0-80, higher scores indicate better function). UEFI-15 is a 15-item Upper Extremity Functional Index (0-100, higher scores indicate better function). UEFS is an Upper Extremity Functional Scale (8-80, lower scores indicate better function).

Visual Analog Scale (VAS) scores [101, 102]

- MCID
 - Hand surgery (post-operative) = 1.6 – 1.9
- MDC
 - Vestibular Disorders (Head Movement) = 4.57
- Minimum of a 2-point change on a 0-10 pain scale
- SEM
 - Vestibular Disorders (Head Movement) = 1.65

Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) [103, 104, 105]

- MCID
 - Arthroplasty (total knee, post)
 - Function = 9
 - Pain = 11
 - Stiffness = 8
 - Total score = 10
 - Osteoarthritis
 - Hip or knee = 12% change from baseline
 - Hip (total replacement)
 - Pain = 29.26
 - Stiffness = 25.91
 - Knee
 - 2 months = 4 – 8.8
 - 6 months = 6.6 – 6.8
 - 12 months = 1.6 – 12.0
 - Knee (total replacement)
 - 6 months = 11.5
 - 12 months = 11.5
 - Lower extremity = 17 - 22% change from baseline
- MDC
 - Knee (total replacement)
 - 6 months = 10.9 (95% CI)
 - 12 months = 15.3 (95% CI)
 - Hip (total replacement)
 - Function = 11.93
 - Pain = 21.38
 - Stiffness = 27.98
 - Osteoarthritis
 - Hip = 9.1 points (95% CI)
 - Hip and Knee pain = 3.94 (90% CI)
 - Knee
 - 2 months = 14.1 (95% CI)
 - 6 months = 15.0 (95% CI)
 - 12 months = 18.5 (95% CI)
- MIC
 - Arthroplasty (total knee, post)
 - Function = 16
 - Pain = 21
 - Stiffness = 13
 - Total score = 17

- SEM
 - Hip (total replacement)
 - Pain subscale (6 months post) = 7.71
 - Physical function (6 months post) = 4.30
 - Stiffness subscale (6 months post) = 10.10
 - Knee (total replacement)
 - 6 months = 3.9
 - 12 months = 5.5
 - Pain subscale (6 months post) = 8.08
 - Physical function (6 months post) = 4.73
 - Stiffness subscale (6 months post) = 10.50
 - Osteoarthritis
 - Hip = 3.3
 - Knee
 - 2 months = 5.1
 - 6 months = 5.4
 - 12 months = 6.7
 - Osteoarthritis (Older individuals with hip or knee)
 - Pain = 0.58
 - Physical function = 1.65
 - Stiffness = 0.62

BACKGROUND

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

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 and include sufficient clinical documentation, so that a peer reviewer can render a reasonable determination on baseline functional status and/or treatment response.

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, 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.

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 maximum therapeutic benefit (MTB) is appropriate.

Definitions

Episode of Care

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

Lasting, Sustainable Progress

Progress made by the patient has been maintained at a reasonable level over a reasonable period of time.

Maximum Therapeutic Benefit (MTB)

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

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 Clinically Important Difference (MCID)

MCID is the smallest change in an outcome that a patient would identify as important.

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 Important Change (MIC)

A threshold for a minimal within-person change over time, above which patients perceive themselves as importantly changed

Outcome Measures

- Objective, measurable assessments by the clinician to determine patient progress with treatment.
- 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.
- Used with other standardized tests and measures throughout the episode of care as part of periodic reexamination to provide information about whether predicted outcomes are being realized.
- Refers to the systematic collection (data gathered at multiple time points using same methods) and analysis of information that is used to evaluate the efficacy of an intervention.

Patient Acceptable Symptom State (PASS)

PASS is defined as the point at which the patient considers themselves well, recovered, and satisfied with treatment.

Smallest Detectable Change (SDC)

A value for the minimum change that needs to be observed to know that the observed change is real and not potentially a product of measurement error.

Smallest Real Change (SRC)

Meaningful improvement can occur only when there is a potential for MCIC. The timelines for improvement may not be applicable to some types of post-surgical care.

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.

Standard Error of Measurement (SEM)

Estimates the standard error in a set of repeated scores.

Treatment Goals

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

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none"> • Measurable improvement thresholds added • Editorial changes • References updated
October 2022	<ul style="list-style-type: none"> • ABC - added MCID for vestibular disorders • BBS – Added MCID for subacute stroke • Functional Gait Assessment – added MCID for vestibular disorders • Gait Speed for Adults – Added MCID for vestibular disorders • Removed “older” from “Gait Speed for Older Adults” • KOOS Score – Added MCID scores • NPRS – added MCID for spinal cord injuries • Pain Disability Index – added “in individuals with chronic back pain” • PSFS – Added MDC for older adults • Added Simple Shoulder Test (SST) and MCID scores • TUG Added MDC for THA, and MCID for post DDD surgery • VAS added MCID score for hand surgery • PDI added “in individuals with chronic back pain”

References

- [1] J. Bier, W. G. Scholten-Peeters, J. B. Staal, J. Pool, M. W. van Tulder, E. Beekman, J. Knoop, G. Meerhoff and A. Verhagen, "Clinical Practice Guideline for Physical Therapy Assessment and Treatment in Patients With Nonspecific Neck Pain," *Phys Ther*, vol. 98, no. 3, pp. 162-171, 2018.
- [2] J. L. Moore, K. . Potter, K. Blankshain, S. L. Kaplan, L. C. O'Dwyer and J. E. Sullivan, "A Core Set of Outcome Measures for Adults With Neurologic Conditions Undergoing Rehabilitation: A CLINICAL PRACTICE GUIDELINE," *J Neurol Phys Ther*, vol. 42, no. 3, pp. 174-220, 2018.
- [3] Shirley Ryan Ability Lab, "Five Times Sit to Stand Test," 20 June 2013. [Online]. Available: <https://www.sralab.org/rehabilitation-measures/five-times-sit-stand-test>. [Accessed 30 November 2023].
- [4] M. Stanley, "6-Minute Walk Test (6MWT) (applied to patients who have had lower extremity total joint replacement)," 7 August 2017. [Online]. Available: <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>. [Accessed 25 August 2023].
- [5] J. Raad, R. Tappan, L. Petersen, S. White, C. Tefertiller, J. Kahn, SCI EDGE Taskforce, K. Hays, TBI EDGE Taskforce, K. Pelczarski, M. Potts, B. Brown, J. Hoder and PD EDGE Taskforce, "6 Minute Walk Test," 26 April 2013. [Online]. Available: <https://www.sralab.org/rehabilitation-measures/6-minute-walk-test#older-adults-and-geriatric-care>. [Accessed 28 August 2023].
- [6] Academy of Neurologic Physical Therapy, "10 Meter Walk Test (10MWT)," 2019. [Online]. Available: [https://www.neuropt.org/docs/default-source/cpgs/core-outcome-measures/10mwt-pocket-guide-proof8-\(2\)28db36a5390366a68a96ff00001fc240.pdf?sfvrsn=e4d85043_0&sfvrsn=e4d85043_0](https://www.neuropt.org/docs/default-source/cpgs/core-outcome-measures/10mwt-pocket-guide-proof8-(2)28db36a5390366a68a96ff00001fc240.pdf?sfvrsn=e4d85043_0&sfvrsn=e4d85043_0). [Accessed 30 November 2023].
- [7] T. Steffen and M. Seney, "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*, pp. 733-46, June 2008.
- [8] S. R. Piva, A. B. Gil, C. G. Moore and G. K. Fitzgerald, "Responsiveness of the activities of daily living scale of the knee outcome survey and numeric pain rating scale in patients with patellofemoral pain," *J Rehabil Med*, vol. 41, no. 3, pp. 129-135, 2009.
- [9] M. Szczepanik, J. Jablonski, A. Bejer, K. Bazarnik-Mucha, J. Majewska, S. Snela and D. Szymczyk, "Validation of the Polish Version of Knee Outcome Survey Activities of the Daily Living Scale in a Group of Patients after Arthroscopic Anterior Cruciate Ligament Reconstruction," *J Clin Med*, vol. 12, no. 13, p. 4317, 27 June 2023.

- [10] J. Raad, J. Moore, J. Hamby, R. L. Rivadelo and D. Straube, "A Brief Review of the Activities-Specific Balance Confidence Scale in Older Adults," *Archives of Physical Medicine and Rehabilitation*, vol. 94, no. 7, pp. 1426-1427, July 2013.
- [11] R. D. Wellons, S. E. Duhe, S. G. MacDowell, A. Hodge, S. Oxborough and E. E. Levitzky, "Estimating the minimal clinically important difference for balance and gait outcome measures in individuals with vestibular disorders," *J Vestib Res*, vol. 32, no. 3, pp. 223-233, 2022.
- [12] Shirley Ryan Ability Lab, "Activities-Specific Balance Confidence Scale," 22 March 2013. [Online]. [Accessed 30 August 2023].
- [13] Shirley Ryan Ability Lab, "Berg Balance Scale," 30 June 2020. [Online]. [Accessed 30 August 2023].
- [14] M. Botros, L. Dilorio, M. Romeo, G. Scherer, P. Trombley and C. Voltmer, "Berg Balance Scale (BBS) for Spinal Cord Injury (SCI)," 17 June 2022. [Online]. [Accessed 30 August 2023].
- [15] L. A. P. Viveiro, G. C. V. Gomes, J. M. R. Bacha, N. C. Junior, M. E. Kallas, M. Reis, W. J. Filho and J. E. Pompeu, "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*, vol. 42, no. 4, pp. E45-E54, 2019.
- [16] S. Tamura, K. Miyata, S. Kobayashi, R. Takeda and H. Iwamoto, "The minimal clinically important difference in Berg Balance Scale scores among patients with early subacute stroke: a multicenter, retrospective, observational study," *Top Stroke Rehabil*, vol. 29, no. 6, pp. 423-429, 2022.
- [17] D. Newell and J. E. Bolton, "Responsiveness of the Bournemouth questionnaire in determining minimal clinically important change in subgroups of low back pain patients," *Spine (Phila Pa 1976)*, vol. 35, no. 19, pp. 1801-1806, 2010.
- [18] O. Yilmaz, U. Gafuroglu and S. Yuksel, "Translation, reliability, and validity of the Turkish version of the Neck Bournemouth Questionnaire," *Turk J Phys Med Rehabil*, vol. 65, no. 1, pp. 59-66, 24 December 2018.
- [19] L. Dietz, N. Mano, S. Mazza, J. Mettus, Z. Myers, L. Savidge, M. Warminsky and M. A. Holbein-Jenny, "Bruininks-Oseretsky Test of Motor Proficiency, 2nd ed, (BOT-2)," 13 December 2019. [Online]. Available: <https://www.apta.org/patient-care/evidence-based-practice-resources/test-measures/bruininks-oseretsky-test-of-motor-proficiency>. [Accessed 25 August 2023].
- [20] Shirley Ryan Ability Lab, "Bruininks-Oseretsky Test of Motor Proficiency, Second Edition," 21 April 2017. [Online]. [Accessed 31 August 2023].
- [21] P. Mintken, "Disabilities of the Arm, Shoulder, and Hand Questionnaire (DASH) for Osteoarthritis (OA)," 15 June 2013. [Online]. [Accessed 31 August 2023].

- [22] American Physical Therapy Association, "Disabilities of the Arm, Shoulder, and Hand Questionnaire (DASH) for Shoulder Conditions," 15 June 2013. [Online]. [Accessed 31 August 2023].
- [23] Shirley Ryan Ability Lab, "Disabilities of the Arm, Shoulder, and Hand Questionnaire," 17 October 2021. [Online]. [Accessed 31 August 2023].
- [24] P. Mintken, "QuickDASH," 25 May 2017. [Online]. [Accessed 31 August 2023].
- [25] J. Sullivan, "Dizziness Handicap Inventory (DHI) for Vestibular Disorders," 22 June 2013. [Online]. [Accessed 31 August 2023].
- [26] Shirley Ryan Ability Lab, "Dizziness Handicap Inventory," 29 July 2013. [Online]. [Accessed 31 August 2023].
- [27] D. Scalzitti, "Dynamic Gait Index (DGI) for Vestibular Disorders," 14 May 2013. [Online]. [Accessed 31 August 2023].
- [28] J. Sullivan, "Dynamic Gait Index (DGI) for Stroke," 20 June 2013. [Online]. [Accessed 31 August 2023].
- [29] American Physical Therapy Association, "Dynamic Gait Index for Parkinson Disease," 2 June 2014. [Online]. [Accessed 31 August 2023].
- [30] D. Matlick, "Dynamic Gait Index (DGI)," August 2021. [Online]. [Accessed 31 August 2023].
- [31] Shirley Ryan Ability Lab, "Dynamic Gait Index," 18 February 2020. [Online]. [Accessed 31 August 2023].
- [32] Shirley Ryan Ability Lab, "Falls Efficacy Scale – International," 11 August 2017. [Online]. [Accessed 31 August 2023].
- [33] J. H. Visschedijk, C. B. Terwee, M. A. Caljouw, M. Spruit-van Eijk, R. van Balen and W. P. Achterberg, "Reliability and validity of the Falls Efficacy Scale-International after hip fracture in patients aged ≥ 65 years," *Disabil Rehabil*, vol. 37, no. 23, pp. 2225-2232, 2015.
- [34] Shirley Ryan Ability Lab, "Foot and Ankle Ability Measures," 15 December 2015. [Online]. [Accessed 31 August 2023].
- [35] R. L. Martin, J. J. Irrgang, R. G. Burdett, S. F. Conti and J. M. Van Swearingen, "Evidence of validity for the Foot and Ankle Ability Measure (FAAM)," *Foot Ankle Int.*, vol. 26, no. 11, pp. 968-983, 2005.
- [36] P. Mintken, "Fear Avoidance Beliefs Questionnaire (FABQ)," 2 October 2014. [Online]. [Accessed 31 August 2023].
- [37] Shirley Ryan Ability Lab, "Fear-Avoidance Beliefs Questionnaire," 26 June 2014. [Online]. [Accessed 23 August 2023].
- [38] L. Sorensen, M. van Tulder, H. V. Johannsen, J. Ovesen and L. G. Oestergaard, "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*, vol. 5, no. 5, pp. 869-874, 9 July 2021.
- [39] Shirley Ryan Ability Lab, "Functional Gait Assessment," 09 November 2016 . [Online]. [Accessed 31 August 2023].
- [40] M. Beninato, A. Fernandes and L. S. Plummer, "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," *Phys Ther*, vol. 94, no. 11, pp. 1594-1603, 2014.
- [41] R. Feise and M. J. Menke, "Functional Rating Index: literature review," *Functional Rating Index: literature review*, vol. 16, no. 2, pp. RA25-RA36, 2010.
- [42] P. L. Gozalo, L. J. Resnik and B. Silver, "Benchmarking Outpatient Rehabilitation Clinics Using Functional Status Outcomes," *Health Serv Res*, vol. 51, no. 2, pp. 768-789, 2016.
- [43] R. Burgess, M. Lewis and J. C. Hill, "Musculoskeletal case-mix adjustment in a UK primary/community care cohort: Testing musculoskeletal models to make recommendations in this setting," *Musculoskelet Sci Pract*, vol. 56, p. 102455, 2021.
- [44] Shirley Ryan Ability Lab, "Gait Speed," 13 October 2016. [Online]. [Accessed 31 August 2023].
- [45] G. Pulignano, D. Del Sindaco, A. Di Lenarda, G. Alunni, M. Senni, L. Tarantini, G. Cioffi, M. D. Tinti, G. Barbati, G. Minardi, M. Uguccioni and IMAGE-HF Study Investigators, "Incremental Value of Gait Speed in Predicting Prognosis of Older Adults With Heart Failure: Insights From the IMAGE-HF Study," *JACC Heart Fail*, vol. 4, no. 4, pp. 289-298, 2016.
- [46] K. M. Palombaro, R. L. Craik, K. K. Mangione and J. D. Tomlinson, "Determining meaningful changes in gait speed after hip fracture," *Phys Ther*, vol. 86, no. 6, pp. 809-816, 2006.
- [47] P. Bobos, C. Ziebart, R. Furtado, Z. Lu and J. C. MacDermid, "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," *J Orthop*, vol. 21, pp. 40-48, 10 Feb 2020.
- [48] C. Garrison and C. Cook, "Clinimetrics corner: the Global Rating of Change Score (GRoC) poorly correlates with functional measures and is not temporally stable," *J Man Manip Ther*, vol. 20, no. 4, pp. 178-181, 2012.
- [49] Shirley Ryan Ability Lab, "Goal Attainment Scale," 1 July 2020. [Online]. Available: <https://www.sralab.org/rehabilitation-measures/goal-attainment-scale#pediatric-disorders>. [Accessed 30 November 2023].
- [50] Shirley Ryan Ability Lab, "Gross Motor Function Measure- 66," 30 April 2017. [Online]. [Accessed 31 August 2023].

- [51] B. A. MacWilliams, S. Prasad, A. L. Shuckra and M. H. Schwartz, "Causal factors affecting gross motor function in children diagnosed with cerebral palsy," *PLoS One*, vol. 17, no. 7, p. e0270121, 18 July 2022.
- [52] H.-Y. Wang and Y. H. Yang, "Evaluating the responsiveness of 2 versions of the gross motor function measure for children with cerebral palsy," *Arch Phys Med Rehabil*, vol. 87, no. 1, pp. 51-56, 2006.
- [53] G. P. Jacobson, N. M. Ramadan, S. K. Aggarwal and C. W. Newman, "The Henry Ford Hospital Headache Disability Inventory (HDI)," *Neurology*, vol. 44, no. 5, pp. 837-842, 1994.
- [54] P. Mintken, "Subgroups for Targeted Treatment (STarT) Back Tool," 31 August 2017. [Online]. [Accessed 31 August 2023].
- [55] Shirley Ryan Ability Lab, "STarT Back Screening Tool," 12 April 2016. [Online]. [Accessed 31 August 2023].
- [56] Shirley Ryan Ability Lab, "Knee Injury and Osteoarthritis Outcome Score," 2 April 2012. [Online]. [Accessed 31 August 2023].
- [57] F. Quinones, M. Rousseva, J. Makkappallil, K. L. Miller and K. A. Luedtke-Hoffmann, "Knee Injury and Osteoarthritis Outcome Score (KOOS)," 7 October 2020. [Online]. [Accessed 31 August 2023].
- [58] A. Boffa, L. Andriolo, M. Franceschini, A. Di Martino, E. Asunis, A. Grassi, S. Zaffagnini and G. Filardo, "Minimal Clinically Important Difference and Patient Acceptable Symptom State in Patients With Knee Osteoarthritis Treated With PRP Injection," *Minimal Clinically Important Difference and Patient Acceptable Symptom State in Patients With Knee Osteoarthritis Treated With PRP Injection*, vol. 9, no. 10, 5 October 2021.
- [59] N. J. Collins, C. A. C. Prinsen, R. Christensen, E. M. Bartels, C. B. Terwee and E. M. Roos, "Knee Injury and Osteoarthritis Outcome Score (KOOS): systematic review and meta-analysis of measurement properties," *Osteoarthritis Cartilage*, vol. 24, no. 8, pp. 1317-1329, 2016.
- [60] B. Maheshwer, S. E. Wong, E. M. Polce, K. Paul, B. Forsythe, C. Bush-Joseph, B. R. Bach, A. B. Yanke, B. J. Cole, N. N. Verma and J. Chahla, "Establishing the Minimal Clinically Important Difference and Patient-Acceptable Symptomatic State After Arthroscopic Meniscal Repair and Associated Variables for Achievement," *Arthroscopy*, vol. 37, no. 12, pp. 3479-3486, 2021.
- [61] S. R. Piva, A. B. Gil, C. G. Moore and G. K. Fitzgerald, "Responsiveness of the activities of daily living scale of the knee outcome survey and numeric pain rating scale in patients with patellofemoral pain," *J Rehabil Med*, vol. 41, no. 3, pp. 129-135, 2009.
- [62] N. Collins, D. Misra, D. Felson, K. Crossley and E. Roos, "Measures of knee function," *Arthritis Care Res (Hoboken)*, vol. 63, no. Suppl 11, pp. S208-28, Nov 2011.
- [63] P. Mintken and D. Scalzitti, "Lower Extremity Functional Scale (LEFS) for Ankle Disorders," 24 September 2013. [Online]. [Accessed 31 August 2023].

- [64] D. Scalzitti, "Lower Extremity Functional Scale (LEFS) for Hip Disorders," 25 September 2013. [Online]. [Accessed 31 August 2023].
- [65] P. Mintken and D. Scalzitti, "Lower Extremity Functional Scale (LEFS) for Knee Disorders," 25 September 2013. [Online]. [Accessed 31 August 2023].
- [66] Shirley Ryan Ability Lab, "Lower Extremity Functional Scale," 27 November 2013. [Online]. [Accessed 31 August 2023].
- [67] N. J. Collins, D. Misra, D. T. Felson, K. M. Crossley and . E. M. Roos, "Measures of knee function: International Knee Documentation Committee (IKDC) Subjective Knee Evaluation Form, Knee Injury and Osteoarthritis Outcome Score (KOOS), Knee Injury and Osteoarthritis Outcome Score Physical Function Short Form (KOOS-PS), Knee Ou," *Arthritis Care Res (Hoboken)*, vol. 63, no. Suppl 11, pp. S208-S228, 2011.
- [68] P. Mintken, "Neck Disability Index (NDI)," 12 June 2013. [Online]. [Accessed 31 August 2023].
- [69] Shirley Ryan Ability Lab, "Neck Disability Index," 10 September 2015. [Online]. [Accessed 31 August 2023].
- [70] J. C. MacDermid, D. M. Walton, S. Avery, A. Blanchard, E. Etruw, C. McAlpine and C. H. Goldsmith, "Measurement properties of the neck disability index: a systematic review," *J Orthop Sports Phys Ther*, vol. 39, no. 5, pp. 400-417, 2009.
- [71] Shirley Ryan Ability Lab, "Numeric Pain Rating Scale," 17 January 2013. [Online]. [Accessed 31 August 2023].
- [72] M. Sobreira, M. Almeida, A. Gomes, M. Lucas, A. Oliveira and A. Marquez, "Minimal Clinically Important Differences for Measures of Pain, Lung Function, Fatigue, and Functionality in Spinal Cord Injury," *Phys Ther*, vol. 101, no. 2, p. pzaa210, 2021.
- [73] Shirley Ryan Ability Lab, "Oswestry Disability Index," 27 November 2013. [Online]. [Accessed 31 August 2023].
- [74] R. Dinger, K. Krupski, E. Jordan, J. Timko, C. Hernandez, G. Hughes, M. A. Holbein and M. A. Holbein-Jenny, "Oswestry Low Back Pain Disability Index, Oswestry Low Back Pain Disability Questionnaire (ODI, ODQ)," 16 May 2019. [Online]. [Accessed 31 August 2023].
- [75] R. Smeets, A. Koke, C.-W. Lin, M. Ferreira and C. Demoulin, "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," *Arthritis Care Res (Hoboken)*, vol. 63, no. Suppl 11, pp. S158-S173, 2011.
- [76] R. Soer, M. Reneman, P. C. Vroomen, P. Stegeman and M. H. Coppes, "Responsiveness and minimal clinically important change of the Pain Disability Index in patients with chronic back pain," *Spine (Phila Pa 1976)*, vol. 37, no. 8, pp. 711-715, 2012.
- [77] Shirley Ryan Ability Lab, "Patient Specific Functional Scale," 04 April 2013. [Online]. [Accessed 31 August 2023].

- [78] American Physical Therapy Association, "Patient Specific Functional Scale (PSFS)," 2 October 2014. [Online]. [Accessed 31 August 2023].
- [79] P. Heldmann, S. Hummel, L. Bauknecht, J. M. Bauer and C. Werner, "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*, vol. 45, no. 3, pp. 134-144, 2022.
- [80] S. Westcott, "Peabody Developmental Motor Scales, Second Edition (PDMS-2)," 27 January 2017. [Online]. [Accessed 31 August 2023].
- [81] Shirley Ryan Ability Lab, "Peabody Developmental Motor Scales-Second Edition," 24 April 2016. [Online]. [Accessed 31 August 2023].
- [82] Y. P. Wuang, C. Y. Su and M. H. Huang, "Psychometric comparisons of three measures for assessing motor functions in preschoolers with intellectual disabilities," *J Intellect Disabil Res*, vol. 56, no. 6, pp. 567-578, 2012.
- [83] Shirley Ryan Ability Lab, "Pediatric Balance Scale," 04 September 2015. [Online]. [Accessed 31 August 2023].
- [84] Shirley Ryan Ability Lab, "Pediatric Evaluation of Disability Inventory," 22 March 2017. [Online]. Available: <https://www.sralab.org/rehabilitation-measures/pediatric-evaluation-disability-inventory>. [Accessed 30 November 2023].
- [85] Shirley Ryan Ability Lab, "Roland-Morris Disability Questionnaire," 10 September 2015. [Online]. [Accessed 31 August 2023].
- [86] R. Froud, S. Eldridge and M. Underwood, "MINIMALLY IMPORTANT CHANGE ON THE ROLAND MORRIS DISABILITY QUESTIONNAIRE," *Orthopaedic Proceedings*, Vols. 92-B, no. Supp_1, pp. 233-233, 01 March 2010.
- [87] Shirley Ryan Ability Lab, "Roll Evaluation of Activities of Life," 14 April 2018. [Online]. Available: <https://www.sralab.org/rehabilitation-measures/roll-evaluation-activities-life>. [Accessed 30 November 2023].
- [88] Shirley Ryan Ability Lab, "Shoulder Pain And Disability Index," 09 September 2015. [Online]. [Accessed 31 August 2023].
- [89] A. Reicherter, "Shoulder Pain and Disability Index (SPADI)," 30 August 2017. [Online]. [Accessed 31 August 2023].
- [90] M. Thoomes-de Graaf, W. Scholten-Peeters, E. Duijn, Y. Karel, H. C. de Vet, B. Koes and A. Verhagen, "The Responsiveness and Interpretability of the Shoulder Pain and Disability Index," *J Orthop Sports Phys Ther*, vol. 47, no. 4, pp. 278-286, 2017.
- [91] Shirley Ryan Ability Lab, "Simple Shoulder Test," 30 April 2017. [Online]. [Accessed 31 August 2023].
- [92] R. J. McLaughlin, A. J. Whitson, A. . Panebianco, W. J. Warme, F. A. Matsen 3rd and J. E. Hsu, "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:10.101, " *J Shoulder Elbow Surg*, vol. 31, no. 8, pp. 1640-1646, 2022.
- [93] G. Fulk, "Timed Up and Go Test (TUG, TUGT) (applied to patients with spinal cord injury)," 24 May 2017. [Online]. [Accessed 31 August 2023].
- [94] American Physical Therapy Association, "Timed Up and Go (TUG) for Parkinson Disease (PD)," 21 January 2013. [Online]. [Accessed 31 August 2023].
- [95] Shirley Ryan Ability Lab, "Timed Up and Go," 06 November 2013. [Online]. [Accessed 31 August 2023].
- [96] E. . Yuksel, B. unver, S. Kalkan and V. Karatosun, "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*, vol. 31, no. 1, pp. 43-49, 2021.
- [97] N. Maldaner, M. Sosnova, M. Ziga, A. M. Zeitzberger, O. Bozinov, O. P. Gautschi, A. Weyerbrock, L. Regli and M. N. Stienen, "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)*, vol. 47, no. 4, pp. 337-342, 2022.
- [98] G. Fulk, "Timed Up and Go (TUG) for Cerebral Palsy," 29 October 2014. [Online]. [Accessed 31 August 2023].
- [99] Shirley Ryan Ability Lab, "Tinetti Performance Oriented Mobility Assessment," 13 January 2014. [Online]. [Accessed 31 August 2023].
- [100] B. Chesworth, C. Hamilton, D. Walton, M. Denoit, T. Blake, H. Bredy, C. Burns and et al., "Reliability and validity of two versions of the upper extremity functional index," *Physiother Can*, vol. 66, no. 3, pp. 243-53, 2014.
- [101] Shirley Ryan Ability Lab, "Visual Analog Scale," 15 April 2013. [Online]. [Accessed 31 August 2023].
- [102] D. J. Randall, Y. Zhang, H. . Li, J. C. hubbard and N. H. Kazmers, "Establishing the Minimal Clinically Important Difference and Substantial Clinical Benefit for the Pain Visual Analog Scale in a Postoperative Hand Surgery Population," *Establishing the Minimal Clinically Important Difference and Substantial Clinical Benefit for the Pain Visual Analog Scale in a Postoperative Hand Surgery Population*, vol. 47, no. 7, pp. 645-653, 2022.
- [103] B. Reynolds and P. Mintken, "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.000000000000444," 28 June 2017. [Online]. [Accessed 31 August 2023].
- [104] Shirely Ryan Ability Lab, "Western Ontario and McMaster Universities Osteoarthritis Index," 26 July 2016. [Online]. [Accessed 31 August 2023].
- [105] N. D. Clement, M. Bardgett, D. Weir, J. Holland, C. Gerrand and D. J. Deehan, "What is the Minimum Clinically Important Difference for the WOMAC Index After TKA?"

[published correction appears in Clin Orthop Relat Res," *Clin Orthop Relat Res*, vol. 476, no. 10, pp. 2005-2014, 2018.



Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*





*National Imaging Associates, Inc.	
Clinical Guidelines PASSIVE TREATMENT	Original Date: November 2015
Physical Medicine – Clinical Decision Making	Last Revised Date: December 2023
Guideline Number: NIA_CG_604	Implementation Date: July 2024

Table of Contents

GENERAL INFORMATION	2
STATEMENT	2
PURPOSE.....	2
SCOPE	2
DOCUMENTATION REQUIREMENTS.....	2
APPROPRIATE USE	2
CLINICALLY APPROPRIATE USE OF PASSIVE TREATMENT [†]	2
CLINICALLY INAPPROPRIATE USE OF PASSIVE TREATMENT	3
EXCLUSIONS.....	3
PROCEDURES AND MODALITIES	3
THERMOTHERAPY/CRYOTHERAPY.....	3
THE SUPERFICIAL OR DEEP APPLICATION OF HEAT OR COLD.	3
LIGHT THERAPY.....	3
ELECTRICAL STIMULATION THERAPY	4
ADMINISTRATION OF AN ELECTRICAL CURRENT TO A SPECIFIC, LOCALIZED BODY SITE.	4
MECHANICAL	4
THERAPEUTIC MASSAGE AND MANUAL THERAPY.....	4
BACKGROUND	5
DEFINITIONS	5
REFERENCES.....	7

General Information

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.

Statement

Purpose

This organization does not recognize the use of multiple passive treatments for the care of musculoskeletal pain as 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.

All recommendations in this guideline reflect practices that are evidence-based and/or supported by broadly accepted clinical specialty standards.

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 dictated by the health plan.

Documentation Requirements

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.

Appropriate Use

Clinically Appropriate Use of Passive Treatment[‡]

- 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
- When there are no contraindications to the intervention
- Self-administration is implausible or places the patient at risk of harm
- Used primarily during the initial period of an episode of treatment
- Used to support an active care approach (i.e., therapeutic exercise)
- Used for a particular condition for which there is an evidence-basis of significant benefit

Clinically Inappropriate Use of Passive Treatment

- When patient safety is jeopardized by the application of the modality
- When the treatment can safely and effectively be administered by the patient or another individual
- Used during a course of treatment, which continues beyond the initial period
- Used as the primary or sole therapy
- Greater than one passive treatment is used involving the same body region(s)
- Used largely for the comfort and convenience of the patient
- Used as part of the routine office protocol

Exclusions

- The use of chiropractic manipulation (CPT codes: 98940 - 98943) is not considered a duplication of service or physiological effect when used in conjunction with passive treatment, except for the following:
 - 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.

Procedures and Modalities

Thermotherapy/Cryotherapy

The superficial or deep application of heat or cold.

- Superficial
 - Hot/cold packs (97010)
 - Paraffin bath (97018)
 - Whirlpool (97022)
- Deep
 - Diathermy (97024)
 - Microwave (97020)
 - Ultrasound (US) (97035)

NOTE: Thermal therapy has been found to be most successful in the short-term relief of musculoskeletal pain but is also often used in conjunction with other therapies to improve outcomes [1, 2, 3].

NOTE: US therapy is used as both thermal therapy and mechanical therapy [4, 5, 6].

Light therapy

Light concentrated in a narrow beam to excite cells in local tissues.

- Ultraviolet (97028)
- Infrared (97026)
- Laser therapy

- Low level
- High level

NOTE: Ultraviolet therapy is primarily used to treat skin disorders and promote wound healing.

NOTE: Both low (including infrared) and high level laser therapy have been shown effective in reducing pain and as adjuncts to other physical therapy modalities [7, 8, 9, 10, 11].

Electrical stimulation therapy

Administration of an electrical current to a specific, localized body site.

- Volt
 - High
 - Low
- Interferential current (IFC)
- Transcutaneous electrical nerve stimulation (TENS) (97014 and 97032)

NOTE: IFC and TENS have consistently been found to reduce pain during and shortly after application, helping facilitate other therapies and/or improving outcomes [12, 13, 14, 15]

Mechanical

Mechanically assisted and often sustained pull of the spine or limb

- Traction

NOTE: Lumbar traction has been shown to be effective in relieving low back pain and lumbar radiculopathy [16, 17, 18].

NOTE: Cervical traction may offer some short-term pain relief for neck pain and cervical radiculopathy [19, 20].

Therapeutic massage and manual therapy

Includes but not limited to (97124 and 97140):

- Active Release Technique
- Trigger point therapy
- Myofascial release
- Mobilization/manipulation
- Manual lymphatic drainage
- Manual traction

NOTE: A range of manual therapies have been found to be effective in treating tension-type headaches [21, 22].

NOTE: Manual therapies can decrease pain, increase range of motion, and improve functionality in a range of musculoskeletal conditions, including osteoarthritis [23, 24, 25].

BACKGROUND

Definitions

Modality: 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: 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: treatment that is applied by the provider or in a clinical setting and does not involve active participation by the patient.

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

‡The preponderance of evidence appears to support either a lack of efficacy or insufficient data to make a judgment on benefit for the modalities evaluated. When a positive outcome was described, the reported treatment effects were modest. Similarly, the duration of treatment effectiveness was typically reported as short (2 weeks to 2 months). Most international guidelines recommend these interventions should only be reservedly used based upon individual circumstances and not as a principal component of a treatment regime. 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.

POLICY HISTORY

Date	Summary
December 2023	<ul style="list-style-type: none">• Clinical guidance was reorganized to emphasize indications rather than contraindications
August 2022	<ul style="list-style-type: none">• No changes to indications• Additional information added to the Background section for Low Back Pain and Passive Interventions, TMJ and Passive Interventions, Shoulder Pain and Passive Interventions, and Electrical Stimulation and Laser Therapy• Updated references

References

- [1] H. M. Riaz and S. A. Cheema, "Paraffin wax bath therapy vs therapeutic ultrasound in management of post burn contractures of small joints of hands," *International Journal of Burn Trauma*, vol. 11, no. 3, pp. 245-250, 2021.
- [2] F. Karaarslan, H. Yilmaz, H. E. Akkurt, F. M. Kayay and E. S. Yilmaz, "Comparison of the efficacy of mud-pack and hot-pack treatments in chronic non-specific neck pain: A single-blind, randomized-controlled study," *Turkish Journal of Physical Medicine and Rehabilitation*, vol. 68, no. 3, pp. 381-390, 2022.
- [3] L. Brosseau, K. A. Yonge, V. Welch, S. Marchand, M. Judd, G. A. Wells and P. Tugwell, "Thermotherapy for treatment of osteoarthritis," *Chochrane Database of Systematic Reviews*, no. 4, 2003.
- [4] P. Shanks, M. Curran, P. Fletcher and R. Thompson, "The effectiveness of therapeutic ultrasound for musculoskeletal conditions of the lower limb: A literature review," *Foot*, vol. 20, no. 4, p. Epub, 2010.
- [5] T. Watson, "Ultrasound in contemporary physiotherapy practice," *Ultrasonics*, vol. 48, pp. 321-329, 2008.
- [6] D. A. van der Windt, G. J. van der Heijden, S. G. van den Berg, G. Ter Riet, A. F. de Winter and L. M. Bouter, "Ultrasound therapy for musculoskeletal disorders: A systematic review," *Pain*, vol. 81, pp. 257-271, 1999.
- [7] R. Arroyo-Fernandez, J. Aceituno-Gomez, D. Serrano-Munoz and J. Avendano-Coy, "High-intensity laser therapy for musculoskeletal disorders: A systematic review and meta-analysis of randomized clinical trials," *Journal of Clinical Medicine*, vol. 13, no. 12, 2023.
- [8] M. F. De Oliveira, D. S. Johnson, T. Demchak, S. S. Tomazoni and E. C. Leal-Junior, "Low-intensity LASER and LED (photobiomodulation therapy) for pain control of the most common musculoskeletal disorders," *European Journal of Physical and Rehabilitation Medicine*, vol. 58, no. 2, pp. 282-9, 2022.
- [9] I. F. Naterstad, J. Joensen, J. M. Bjordal, Lopes-Martins, R. A. B. Lopes-Martins and M. B. Stausholm, "Efficacy of low-level laser therapy in patients with lower extremity tendinopathy or plantar fasciitis: systematic review and meta-analysis of randomized controlled trials," *British Medical Journal Open*, vol. 12, no. 9, 2022.
- [10] H. J. Song, H.-J. Seo, Y. Lee and S. K. Kim, "Effectiveness of high-intensity laser therapy in the treatment of musculoskeletal disorders: A systematic review and meta-analysis of randomized controlled trials," *Medicine*, vol. 97, no. 51, 2018.
- [11] J. Y. Yoon, J. H. Park, K. J. Lee, H. S. Kim, S.-M. Rhee and J. H. Oh, "The effect of postoperatively applied far-infrared radiation on pain and tendon-to-bone healing after arthroscopic rotator cuff repair: a clinical prospective randomized comparative study," *The Korean Journal of Pain*, vol. 33, no. 4, pp. 344-351, 2020.

- [12] J. P. Fuentes, S. A. Olivo, D. J. Magee and D. P. Gross, "Effectiveness of interferential current therapy in the management of musculoskeletal pain: A systematic review and meta-analysis," *Physical Therapy*, vol. 90, pp. 1219-38, 2010.
- [13] E. P. Rampazo and R. E. Liebano, "Analgesic effects of interferential current therapy: A narrative review," *Medicina*, vol. 58, no. 141, 2022.
- [14] C. G. T. Vance, D. L. Dailey, R. L. Chimenti, B. J. Van Gorp, L. J. Crofford and K. A. Sluka, "Using TENS for pain control: Update on the state of the evidence," *Medicina*, vol. 58, 2022.
- [15] M. I. Johnson, C. A. Paley, G. Jones, M. R. Mulvey and P. G. Wittkopf, "Efficacy and safety of transcutaneous electrical nerve stimulation (TENS) for acute and chronic pain in adults: A systematic review and meta-analysis of 381 studies (the meta-TENS study)," *British Medical Journal Open*, vol. 12, 2022.
- [16] R. R. Khan, S. Riaz, S. Rashid and M. Sulman, "Effectiveness of mechanical traction in supine versus prone lying position for lumbosacral radiculopathy," *Pakistan Journal of Medicine*, vol. 37, no. 5, pp. 1451-1455, 2021.
- [17] C. Vanti, K. Saccardo, A. Panizzolo, L. Turone, A. A. Guccione and P. Pillastrini, "The effects of the addition of mechanical traction to physical therapy on low back pain? A systematic review with meta-analysis," *Acta Orthopaedica et Traumatologica Turcica*, vol. 57, no. 1, 2023.
- [18] W. Wang, F. Long, X. Wu, S. Li and J. Lin, "Clinical efficacy of mechanical traction as physical therapy for lumbar disc herniation: A meta-analysis," *Computational and Mathematical Methods in Medicine*, 2022.
- [19] A. Romeo, C. Vanti, V. Boldrini, M. Ruggeri, A. A. Guccione, P. Pillastrini and L. Bertozzi, "Cervical radiculopathy: Effectiveness of adding traction to physical therapy - a systematic review and meta-analysis of randomized controlled trials," *Physical Therapy*, vol. 98, pp. 231-42, 2018.
- [20] J.-D. Yang, K.-W. Tam, T.-W. Huang, S.-W. Huang, T.-H. Liou and H.-C. Cheng, "Intermittent cervical traction for treating neck pain: A meta-analysis of randomized controlled trials," *Spin*, vol. 42, no. 13, pp. 959-965, 2017.
- [21] C. Cumplido-Trasmonte, P. Fernandez-Gonzalez, I. M. Alguacil-Diego and F. Molina-Rueda, "Manual therapy in adults with tension-type headache: A systematic review," *Neurologia*, vol. 36, pp. 537-47, 2021.
- [22] N. Moreno-Morales, M. A. Armenta-Pendon, M. d. C. Rodriguez-Martinez, R. Pino-Lozano, A. Repiso-Guardeno and J. A. Armenta-Peinado, "Physical therapy in tension-type headache: A systematic review of randomized controlled trials," *International Journal of Environmental Research and Public Health*, vol. 20, 2023.
- [23] S. Jimenez-del-Barrio, A. Cadellans-Arroniz, L. Ceballos-Laita, E. Estebanez-de-Miguel, C. Lopez-de-Celis, E. Bueno-Gracia and A. Perez-Bellmunt, "The effectiveness of manual therapy on pain, physical function, and nerve conduction studies in carpal tunnel

syndrome patients: A systematic review and meta analysis," *Internation Orthopaedics*, vol. 46, pp. 301-12, 2022.

- [24] A. C. Skelly, R. Chou, J. R. Dettori, J. A. Turner, J. L. Friedly, S. D. Rundell, R. Fu, E. D. Brodt, N. Wasson, S. Kantner and A. J. R. Ferguson, "Noninvasive nonpharmacological treatment for chronic pain: A systematic review update (internet)," AHRQ Comparative Effectiveness Reviews, Rockville (MD), 2020.
- [25] A. Tsokanos, E. Livieratou, E. Billis, M. Tsekoura, P. Tatsios, E. Tsepis and K. Fousekis, "The efficacy of manual therapy in patients with knee osteoarthritis: A systematic review," *Medicina*, vol. 57, 2021.
- [26] S.-R. Tsai and M. R. Hamblin, "Biological effects and medical applications of infrared radiation," *Journal of Photochemistry and Photobiology B*, vol. 170, pp. 197-207, 2017.

Reviewed/Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies 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 with regard to the treatment and care of your patients. These policies apply to all Evolent subsidiaries including, but not limited to, National Imaging Associates (“NIA”). The policies constitute only the reimbursement and coverage guidelines of NIA. 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. NIA 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 regulations.*

