



Magellan Healthcare	
Clinical guidelines ACTIVE PROCEDURES IN PHYSICAL MEDICINE	Original Date: November 2015 Page 1 of 18
Physical Medicine – Clinical Decision Making	Last Review Date: June 2017
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Policy Statement

Active care services have sufficient evidence to support superior outcomes when used alone or in combination with manual-based treatments and/or passive care services.

Initial Clinical Reviewers (ICRs) and Physician Clinical Reviewers (PCRs) must be able to apply criteria based on individual needs and based on an assessment of the local delivery system.

Purpose

These guidelines will assist the evidence based physical medicine provider in properly choosing the correct service/s when indicated for proper overall case management.

Scope

This policy will apply to all physical medicine participating network practitioners who provide active procedures, data/claims processing, and peer reviewers. Physical medicine practitioners include chiropractors, physical therapists, occupational therapists, and speech language pathologists.

Definition

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

All services outlined in this section require the provision of skilled services and direct (one on one) provider-patient contact.

Clinical Reasoning

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

Timing of Introduction

Acute care cases- The literature supports the introduction and management of active care procedures as soon as clinically possible once the patient has sufficient range of motion/functional ability. For the care to be considered beneficial and effective, active care services should generally be provided within the first two weeks of intervention. For the

basis of these guidelines, an acute care case is when a patient is seen for treatment within seven days of the onset of the illness, injury, and/or medical intervention.

Subacute care cases- Similar to acute care cases, the literature support the introduction and management of active care procedures as soon as clinically possible once the patient has sufficient range of motion/functional ability. For the care to be considered beneficial and effective, active care services should generally be provided within the first two weeks of intervention. For the basis of these guidelines, a subacute care case is when a patient is seen for treatment between 7 to 21 days after the onset of an illness, injury, and/or medical intervention.

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

Documentation Requirements

Documentation must support the medical necessity for the services requested and why the skills of a licensed professional are needed to render the service. The provider must outline the patient-specific rationale/need for care intervention as it relates to the patient's condition and resultant functional limitations in activities of daily living, and mobility and safety, as identified in a comprehensive evaluation. Based on these findings, a plan of care is developed that includes specific and measurable goals that support the need for the identified interventions.

Documentation must include a timeframe for initiating, progressing and discharging the patient from skilled services. Documentation must also include specific treatment parameters to support the intervention, in addition to applicable precautions. This includes the specific type of any procedure, instruction and/or exercise performed, area of body and muscle groups treated, and time component.

Units billing

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

1 unit-	8 minutes to 22 minutes
2 units-	23 minutes to 37 minutes
3 units-	38 minutes to 52 minutes
4 units-	53 minutes to 67 minutes
5 units-	68 minutes to 82 minutes
6 units-	83 minutes to 98 minutes

NOTE: Individual states may have varying statutory guidelines for reporting timed units that supersede Magellan Healthcare requirements.

CPT Code Definitions, Examples, and Requirements

97110 -Therapeutic Exercise

Definition:

Although not exclusive by definition, therapeutic exercise is any exercise planned and performed to attain a specific goal. Goals would be to increase strength, endurance, range of motion, and flexibility. Therapeutic procedures/exercise could be applied to one or more areas and billed in units as noted above.

Parameters for Use:

- I. The following requirements must be documented in the medical record to support and justify the use of all therapeutic procedures/exercises:
 - a. Evidence to support medical necessity
 - b. Plan of care with specific and measurable goals and timeframe for initiating, progressing, and discharging the patient from skilled medical services to an independent home program.
 - c. Detailed description of active care services including:
 - i. What exercise(s) were provided
 - ii. What area and muscle groups the exercise(s) were provided to
 - iii. Amount and type of resistance, repetitions, sets and time component.
 - d. Evidence to support the need for skilled services by a licensed professional in direct contact with one patient.
- II. Medical research supports the initiation of appropriate therapeutic procedures/exercise as soon as the patient is reasonably able to engage in the planned activity. Therefore, the expectation is for a patient to perform therapeutic exercises and receive a home exercise program within a reasonable timeframe.
- III. Based on the definition and guidelines for services that are medically necessary, the expectation is for the provision of the therapeutic procedures/exercises that are not for the convenience of the patient or health care provider or more costly than an alternative form of treatment.

Guidelines regarding the Use of Fitness Machines (MedX Extension Machine, Isostation B-220 Lumbar Dynamometer, Cybex Back System etc). There is insufficient evidence that they are more efficacious than standard exercise equipment or that their use improves clinical outcomes to a greater extent than standard programs thus documentation must support the following:

- a. It must be clear that the intervention is medically necessary.
- b. Evidence to support number of visits that are often in excess of community standards for treatment of musculoskeletal conditions
- c. Evidence of functional improvement as a result of the increased muscle strength
- d. It must be clear skilled service is being provided (as defined in Guideline III above)
- e. Evidence for why the skills of a therapist are needed beyond progressing weights and repetitions.
- f. Evidence for why the skills of a therapist are needed beyond a few visits to establish a program

- g. Their use should be part of a comprehensive rehab program
- h. Plan of care is driven by impairments, not the intervention itself
- i. It must be clear that increasing muscle strength is the treatment of choice e.g. strength building may be detrimental in an individual with movement restrictions.

Examples

Strengthening of select muscle groups (beginning in gravity-eliminated plane, if needed) progressing to anti-gravity plane utilizing body weight with progressive resistive exercises utilizing thera-tubing, exercise ball, free weights etc. (Closed chain exercises are often preferable to open chain exercises in preventing shearing forces and simulating functional activities); monitored graded exercise following cardiac or pulmonary surgery or heart attack; selective stretching to increase joint ROM.

Note: The Precor Stretching Station is not considered least costly as this service must be performed in the office setting. Once a patient is educated regarding stretching and demonstrates proper form, they should be able to continue stretching in the home setting.

Support for this service

- I. Indications must be documented for loss or restriction of joint motion, reduced strength, and functional capacity or mobility concerns. The clinical records must show objective (quantitative if possible) loss of ROM, strength, flexibility or mobility. The code is generally not reimbursable for increasing a patient's endurance without deficits, promotion of overall fitness, weight loss, return to sports, and/or sports and aerobic conditioning.
- II. Documentation must include evidence of the skilled services required to support the use of therapeutic exercise. It is considered a skilled service that would require proper licensure/credentials of the clinician. Without evidence in the documentation to support the need for skilled services, the records would suggest the patient is "working out" in the clinical setting which is generally not medically necessary and not eligible for reimbursement.
- III. Most programs should only entail up to one to three units at any time to ensure competency and compliance with instructions. The clinical rationale for more than three units would need to be clearly supported by the documentation. As this service should be seen in the acute phase, the patient should not then require more than three units at any time. If more than three units are seen, this might suggest the patient is "working out" in the clinical setting, which is generally not medically necessary as the service can be performed in a less costly arena (home or health club setting).
- IV. Patient non-compliance with active home instructions will not result in further in-office instruction being considered medically necessary. The patient should instead be discharged for non-compliance/acting against medical advice. One to three sessions of in-office exercise should be sufficient, for the non-surgical patient, to ensure competency and compliance with a home exercise program. If in-office

repetitive exercise continues after 3 sessions, the record must clearly document why the patient is not able to participate in a home exercise program. Any active care program may include periodic review of the program as part of case management in regard to monitoring continued therapeutic benefit and progression in specific exercises/instructions. This ongoing case management should outline patient compliance, necessary alterations to any active home care program, progressions in specific active home care program, and anticipated term date for the need for skilled in-office services.

97112 -Neuromuscular reeducation

Definition:

Neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and proprioception (defined as the three modalities of joint position: sense, sense of movement and sense of force.) Injuries can be seen after stroke, closed head injury, spinal cord injury, tumor, congenital disorders such as Cerebral Palsy or secondary to degenerative joint disease, musculoskeletal injury such as ankle sprain, post orthopedic surgery, or prolonged immobilization. Neuromuscular re-education may be considered medically necessary if at least one of the following conditions is present and documented:

- the patient has the loss of deep tendon reflexes and vibration sense accompanied by paresthesia, burning, or diffuse pain of the feet, lower legs, and/or fingers;
- the patient has nerve palsy, such as peroneal nerve injury causing foot drop; or
- the patient has muscular weakness or flaccidity as a result of a cerebral dysfunction, a nerve injury or disease, or has had a spinal cord disease or trauma.

Examples

Treatment involves the stimulation of reflexes, sensation, posture, proprioception and motor activity through rocker/BAPS board, mini-trampolines, targeted exercises to spastic or rigid muscles, balance training, Proprioceptive Neuromuscular Facilitation (PNF), Feldenkreis, Bobath, Neurodevelopmental Treatment (NDT), and desensitization techniques.

Support for this service

Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.

An indication of the lesion of the neuromusculoskeletal system needs to be documented and the exact procedure must be noted. Instructions for home care should be seen within a reasonable timeframe and the service discontinued with proper education and instruction given to the patient.

97113 -Aquatic Therapy

Definition

A therapy program utilizing therapeutic exercise techniques with the properties of water; designed and carried out in a suitably heated hydrotherapy pool by a qualified clinician specifically for an individual to improve function. Examples: TAI Chi, Aquatic PNF, the Bad Ragaz Ring Method, Fluid Moves, the Halliwick Concept, Swim Stroke Training and Modification, Task Type Training Approach and Watsu. Treatment to address improved circulation and decreased venous pooling, increased endurance facilitated through the availability of cardiovascular training with less stress on weight-bearing joints or working

with enhancement of balance and coordination as a result of the buoyancy obtained from an aquatic environment.

Support for this Service

Documentation must support the need for skilled services by a licensed professional in direct contact with one patient. The patient would need to be immersed in a pool of water for this code to apply.

The provider must also indicate the medical necessity for the buoyancy, hydrostatic pressure, and heat properties that are present in a pool setting versus standard therapeutic exercise or activities. This is often used to transition the patient to a land based program.

97116 -Gait Training

Definition

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

Examples

Gait training can be useful for people with any condition needing to re-learn proper ambulation. Common conditions include: Amputation; Osteoarthritis; Muscular Dystrophy; Cerebral Palsy; Stroke; Parkinson's disease; Multiple Sclerosis; Brain/Spinal Cord injuries; post surgical; sports injury; Low Back Pain.

Support for this Service

Documentation must support the need for skilled services by a licensed professional in direct contact with one patient as opposed to just “walking the patient.”

Deficits in gait parameters including walking speed, cadence, stride length and balance, and Functional Ambulation Category scores must be documented. The provider would need to document if body-weight support (BWS) systems, unweighting devices, or assistive devices are used. The record must denote the assessment of the phases of gait to include stance phase, stride length, balance issues and what the ankle, knee, hip and low back are doing during the phases of gait cycle.

97760 -Orthotics Management and Training

Definition

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

Explanation

This code applies to custom-fabricated orthotics and for adjustments to over-the-counter orthotics. The orthotics management portion of this code refers to time spent assessing the need for the orthotic and the type of orthotic as well as the fitting and the fabrication if the fabrication is done in the presence of the patient. The Training portion of this code includes training in the care and use of the orthotic device.

This code cannot be used if the orthotic is fabricated/formed without the patient being present. Supplies and time for the actual orthotic fabrication is typically reported under L-codes. If an L-code is NOT used to report the orthotic, then the time assessing and fitting/fabricating would be reported under code 97760.

Support for this Service

The need for an orthotic requires documented support. This would include a proper examination (not just a vendor specific evaluation) along with the outline of the causal nexus to justify inclusion for any complaints other than foot based. Foot based complaints need a detailed notation as to the fault/deficit present that requires custom orthotics, versus usage of a heel lift or over-the-counter orthotic. This service should typically not be seen more than once per calendar year for one set of orthotics. Orthotic use is based on plan benefit.

Documentation must also support why the skills of licensed professional are needed for the training in care and use of the orthotic.

97761-Prosthetic Training

Definition

Functional mobility and ADL assessment, training with prosthesis, upper and/or lower extremity. This would include instruction and practice in use of prosthesis

Support for this Service

The patient would need to be the recipient of a recent prosthetic device. Surgical records would need to be supplied in support. 97760 cannot be reported with gait training (97116).

97763-Checkout for Orthotic/Prosthetic use, established patient

Definition

Orthotic(s)/prosthetic(s) management and/or training, upper extremity(ies), lower extremity(ies), and/or trunk, subsequent orthotic(s)/prosthetic(s) encounter, each 15 minutes.

Support for this Service

Documentation must clearly support the skilled need of licensed professional for the adjustments.

97530 -Therapeutic Activities

Definition

This code includes the use of dynamic activities in teaching and training the patient to improve functional performance in a progressive manner.

Examples

Activities that address quantifiable deficits (e.g. loss of ROM, strength or functional capacity) resulting in a deficit in functional mobility. Functional mobility may include bending, reaching, lifting, carrying, pushing, pulling, bed mobility and transfers.

Support for this Service

Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.

In order for therapeutic activities to be covered, the following requirements must be met:

- the patient has a condition for which therapeutic activities can reasonably be expected to restore or improve functioning;
- the patient's condition is such that he/she is unable to perform therapeutic activities except under the direct supervision of a physician, optometrist or physical therapist; and
- there is a clear correlation between the type of exercise performed and the patient's underlying medical condition for which the therapeutic activities were prescribed.

The code is generally not reimbursable for increasing a patient's endurance without deficits, promotion of overall fitness, weight loss, return to sports, and/or sports and aerobic conditioning.

97127-Cognitive Skills Development

Definition

Therapeutic interventions that focus on cognitive function (eg, attention, memory, reasoning, executive function, problem solving, and/or pragmatic functioning) and compensatory strategies to manage the performance of an activity (eg, managing time or schedules, initiating, organizing and sequencing tasks), direct (one-on-one) patient contact.

Examples

Individuals with inherited learning disabilities, individuals who have lost cognitive skills as a result of illness or brain injury

Support for this Service

Cognitive deficits would need to be present and quantifiably documented. Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.

97533 -Sensory Integration

Definition

Treatment techniques designed to enhance sensory processing and adaptive responses to environmental demands.

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

Examples

Sensory integration (SI) therapy has been proposed as a treatment of developmental disorders in patients with established dysfunction of sensory processing, e.g., children with autism, attention deficit hyperactivity disorder (ADHD), fetal alcohol syndrome, and neurotransmitter disease. Sensory integration disorders may also be a result of illness or brain injury.

Therapy usually involves activities that provide vestibular, proprioceptive, and tactile, visual and auditory stimuli, which are selected to match specific sensory processing deficits of the child. For example, swings are commonly used to incorporate vestibular input, while trapeze bars and large foam pillows or mats may be used to stimulate somatosensory pathways of proprioception and deep touch. Tactile reception may be addressed through a variety of activities and surface textures involving light touch.

Sensory integration differs from 97112 as 97112 focuses on training to restore the ability to perform the particular activities.

Support for this Service

Sensory integration therapy is usually provided by occupational and physical therapists who are certified in sensory integration therapy.

Documentation must support the need for skilled services by a licensed professional in direct contact with one patient.

97535 -Self-care/home management training

Definition

Instructing and training the patient in self-care and home management activities (activities of daily living or ADL). This includes compensatory training, safety procedures and instruction in the use of assistive technology devices/adaptive equipment.

Examples

Activities that address quantifiable deficits resulting in functional limitations in activities of daily living (ADL). ADLs include toileting, continence, bathing, dressing, personal hygiene, housecleaning, eating and meal preparation.

Support for this Service

Documentation must support the need for skilled services by a licensed professional in direct contact with one patient. Documentation should relate the ADL instruction to the patient's expected functional goals and indicate that it is part of an active treatment plan directed at a specific goal.

97537 -Community Work Reintegration – typically not a covered service

Definition

Services are instructing and training the patient in community and/or work re-integration activities. These activities could include shopping, safely accessing transportation sources, money management, avocational activities and/or work environment/modification analysis, work task analysis, and use of assistive technology devices and/or adaptive equipment.

Example

Community reintegration is often performed in conjunction with other therapeutic procedures such as gait training and self-care/home management training. The payment for community reintegration training is often bundled into the payment for those other services. Therefore, these other services are not usually separately reimbursable.

Services provided to issue, modify, adjust, and/or educate the patient on assistive technology devices and/or adaptive equipment typically will not be covered if the adaptive equipment and/or assistive technology device(s) are not covered by the third-party payer.

Generally, services, which are related solely to specific employment opportunities, work skills, or work settings are not reasonable and necessary for the diagnosis and treatment of an illness or injury and are excluded from coverage by Section 1862(a)(1) of the Social Security Act.

Support for this Service

Documentation would need to provide evidence to support the medical necessity and the need for skilled services provided to the patient.

97542 -Wheelchair Management and Training

Definition

Includes assessment, fitting and adjustment of the wheelchair and seating; instructing the patient and/or care-giver on how to propel and safely operate the wheelchair 97001 and 97002 cannot be billed with this code.

Support for this Service

Documentation should include the recent event that prompted the need for a skilled wheelchair assessment; the result of any previous wheelchair assessments; most recent prior functional level; the interventions that were tried by nursing staff, caregivers or the patient to address poor seating or positioning; and any functional deficits or applicable impairments such as range of motion (ROM), strength, sitting balance, skin integrity, sensation and tone.

The documentation must correlate the training provided to the expected functional goals that are attainable by the patient and/or caregiver along with the response of the patient to the instruction or fitting.

The documentation must clearly support that the services rendered required the skills and expertise of a licensed therapist.

97545 -Work Hardening/Conditioning – initial 2 hours, use 97546 for each additional hour and used in conjunction with 97545 – typically not a covered service

Definition

Work hardening includes job simulation tasks and educational activities related to a safe return to work for the patient. Often, work hardening programs incorporate an interdisciplinary approach to restore physical, behavioral, and/or vocational functions. Work conditioning includes exercises directed towards safely returning the patient to work related activities or commence with vocational rehabilitation services. In general, work conditioning programs are designed to address neuromuscular functions such as flexibility, strength, endurance, and/or range of motion as well as cardiopulmonary functions.

Example

An work induced injury and/or impairment was present that resulted in the need for therapeutic exercises/procedures., Once the patient has completed acute medical care including chiropractic or rehabilitation treatment, the patient may require a comprehensive, intensive, and individualized program for safely returning to work activities. Subsequently, the patient may begin a work hardening and/or work conditioning program. Typically, the patient will participate in a program for at least two hours a day, three days a week to as much as eight hours a day, five days a week- The activities performed by the patient in the program may include and exercise regimen, simulation of specific or general work requirements, training and/or modifications of activities of daily living, injury prevention training, cognitive-behavioral pain management training, and/or occupational/educational training aspects.

Support for this Service

The documentation would need to support the patient had an injury and/or impairment within the last 12 months, has received acute rehabilitation services, and is expected to return to his/her previous employment. Furthermore, the documentation should clearly report the patient's limitations for returning to work; the patient's willingness to participate in the program; a highly structured, goal oriented plan of care including reference to return to work and discharge from skilled services; identified systemic neuromusculoskeletal deficits that interfere with work; documentation to support that care is at the point of resolution for the initial or principal injury so that participation in the conditioning process would not be prohibited; and, if applicable, the identification of psychosocial and/or vocation problems and evidence of a referral to the appropriate professional.

ADDITIONAL INFORMATION RELATED TO ACTIVE PROCEDURES:

A Qualified Health Care Provider is an individual who by education, training, and licensure/regulation performs a professional service within his/her scope of practice and reports a professional service. These providers are distinct from 'clinical staff' e.g., physical therapy aide, speech language assistant. A clinical staff member is a person who works under the supervision of a qualified health care provider and who is allowed by law or regulation to perform or assist in the performance of a specified professional service. Examples of qualified health care providers for the purpose of this policy include chiropractors, physical therapists, occupational therapists, physician assistants, speech therapists, physical therapy assistants, and occupational therapy assistants.

Skilled care services are not required to effect improvement or restoration of function, when a patient suffers a transient and easily reversible loss or reduction of function, which could reasonably be expected to improve spontaneously as the patient gradually resumes normal activities. Skilled care services furnished in such situations are not considered reasonable and necessary for the treatment of the individual's illness or injury.

While an individual's particular medical condition is a valid factor in making decisions about health care, the diagnosis or prognosis cannot be the sole basis in deciding that skilled care services are reasonable and necessary. The key judgment is whether the skills of a qualified health care provider are needed to treat the illness or injury, or whether the services can be carried out by unskilled personnel.

Regardless of the expectation of improvement, reasonable and necessary skilled care services must be provided by a qualified health care provider and require a high level of complexity and sophistication or the condition of the patient is such that the services can be safely and effectively performed only by a qualified health care provider. Services that do not require the performance or supervision of a qualified health care provider are not skilled and are not considered reasonable or necessary services, even if they are performed or supervised by a qualified professional. Therefore, if a service can be self-administered or safely and effectively furnished by an unskilled person or caregiver, without the direct or general supervision of a qualified health care provider, the service cannot be regarded as skilled even if a qualified professional actually furnishes the service. Further, the unavailability of a competent person to provide a non-skilled service, despite the importance of the service to the patient, does not make it a skilled service when a qualified

health care provider furnishes the service. A clinician may not merely supervise, but must apply the skills of a professional by actively participating in the treatment of the patient. In addition, a provider's skills may be documented, for example, by the clinician's descriptions of their skilled treatment, the changes made to the treatment due to a clinician's assessment of the patient's needs on a particular treatment day or changes due to progress the clinician judged sufficient to modify the treatment toward the next more complex or difficult task.

Services related to activities for the general good and welfare of patients, e.g., general exercises to promote overall fitness and flexibility and activities to provide diversion or general motivation, do not constitute skilled care services. Services provided by practitioners/staff who are not qualified health care providers are not skilled intervention services. Unskilled services are palliative procedures that are repetitive or reinforce previously learned skills, or services performed to maintain function.

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

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

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

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

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

REFERENCES

- Aboodarda SJ et al. 2011. Electromyographic activity and applied load during high intensity elastic resistance and nautilus machine exercises. *J Human Kinetics*. 30(1). Available online at <http://johk.pl/files/01-aboodarda.pdf>
- American Occupational Therapy Association (AOTA). Standards of practice for occupational therapy. 2005; revised 2010. Accessed September 1, 2016: <https://www.aota.org/-/media/Corporate/Files/Practice/OTAs/ScopeandStandards/Standards%20of%20Practice%20for%20Occupational%20Therapy%20FINAL.pdf>
- American Physical Therapy Association (APTA). Criteria for Standards of Practice for Physical Therapy. BOD S03-06-16-38. 2006; updated: 01/27/12. Accessed September 1, 2016:https://www.apta.org/uploadedFiles/APTAorg/About_Us/Policies/BOD/Practice/CriteriaforStandardsofPractice.pdf
- Andersen LL, Kjaer M, Søgaard K, Hansen L, Kryger AI, Sjøgaard G. Effect of two contrasting types of physical exercise on chronic neck muscle pain. *Arthritis Rheum*. 2008 Jan 15;59(1):84-91.
- Beer A, Treleaven J, Jull G. Can a functional postural exercise improve performance in the craniocervical flexion test?--a preliminary study. *Man Ther*. 2012 Jun;17(3):219-24. Epub 2012 Feb 4.
- Bell J, Burnett. Exercise for the primary, secondary and tertiary prevention of low back pain in the workplace: a systematic review. *J Occ Rehab* 2009; 19(1):8-24.
- Centers for Medicare and Medicaid Services. Medicare benefit policy manual chapter 15: Covered medical and other health. Revised December 22, 2015. Accessed September 1, 2016. <http://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c15.pdf>
- Chatzitheodorou D, Kabitsis C, Malliou P, Mougios V. A pilot study of the effects of high-intensity aerobic exercise versus passive interventions on pain, disability, psychological strain, and serum cortisol concentrations in people with chronic low back pain. *Phys Ther*. 2007 Mar;87(3):304-12. Epub 2007 Feb 6.
- Consensus Statement on Clinical Judgment in Health Care Settings AOTA, APTA, ASHA. Accessed September 1, 2016. <http://www.aota.org/-/media/Corporate/Files/Practice/Ethics/APTA-AOTA-ASHA-Concensus-Statement-10-14-14.pdf>
- Cup EH, Pieterse AJ, Broek-Pastoor T, et al. Exercise therapy and other types of physical therapy for patients with neuromuscular diseases: A systematic review. *ArchPhys Med Rehab* 2007;88(11):1452-64.
- Dahm KT, Brurberg KG, Jamtvedt G, Hagen KB. Advice to rest in bed versus advice to stay active for acute low-back pain and sciatica. *Cochrane Database Syst Rev*. 2010 Jun 16;6:CD007612.

de Jager JP, Ahern MJ. Improved evidence-based management of acute musculoskeletal pain: guidelines from the National Health and Medical Research Council are now available. *Med J Aust.* 2004 Nov 15;181(10):527-8.

Debuse D, Birch O, Gibson AS, Caplan N. Our results indicate that an unstable BOS on its own is not enough to increase LM and TrA activity, and that a combination of weight-bearing, an unstable BOS (feet), an upright posture with a relatively stable lumbo-pelvic area, and functional lower limb movement is most effective at increasing LM and TrA activity. This way of exercising appears to recruit LM more effectively than the widely used "swelling" of LM, and to cause automatic TrA and LM recruitment.

Engers A, Jellema P, Wensing M, van der Windt D, Grol R, van Tulder M. Individual patient education for low back pain. *Cochrane Database Syst Rev.* 2008 Jan 23;(1):CD004057.

Essential Health Benefits Recommendations (BOD position). Revised June 14, 2013. Accessed May 31, 2017. <http://www.apta.org>

Gottschall JS, Mills J, Hastings B, Integration Core Exercises Elicit Greater Muscle Activation Than Isolation Exercises. *J Strength Cond Res.* 2012 May 10. [Epub ahead of print]

Grant HJ, Arthur A, Pichora DR. Evaluation of interventions for rotator cuff pathology: a systematic review. *J Hand Ther.* 2004 Apr-Jun;17(2):274-99.

Hayden JA, van Tulder MW, Tomlinson G. Systematic review: strategies for using exercise therapy to improve outcomes in chronic low back pain. *Ann Intern Med.* 2005 May 3;142(9):776-85.

Hayden JA, van Tulder MWA, Malrnivaara AV, Koes BW. Meta-analysis: Exercise therapy for nonspecific low back pain. 2005;142:765-775.

Henchoz y, Kai-Lik So A. Exercise and nonspecific low back pain: a literature review. *Joint, Bone, Spine* 2008; 75(5):533-539.

Hoving JL, Gross AR, Gasner D, Kay T, Kennedy C, Hondras MA, et al. A critical appraisal of review articles on the effectiveness of conservative treatment of neck pain. *Spine* 2001;26(2):196-205.

J Back Musculoskelet Rehabil. 2012;25(3):149-55. doi: 10.3233/BMR-2012-0321.

Javadian Y, Behtash H, Akbari M, Taghipour-Darzi M, Zekavat H. The effects of stabilizing exercises on pain and disability of patients with lumbar segmental instability.

Jensen I, Harms-Ringdahl K. Strategies for prevention and management of musculoskeletal conditions. Neck pain. *Best Pract Res Clin Rheumatol.* 2007;21:93-108.

- J Manipulative Physiol Ther. 2014 Jul-Aug;37(6):343-62. Larsson ME, Kreuter M, Nordholm L. Is patient responsibility for managing musculoskeletal disorders related to self-reported better outcome of physiotherapy treatment? *Physiother Theory Pract.* 2010 Jul;26(5):308-17.
- Jordan JL, Holden MA, Mason EE, Foster NE. Interventions to improve adherence to exercise for chronic musculoskeletal pain in adults. *Cochrane Database of Systematic Reviews.* CD005956, 2010
- Kröner-Herwig B. Chronic pain syndromes and their treatment by psychological interventions. *Curr Opin Psychiatry.* 2009 Mar;22(2):200-4.
- Leeuw M, Goossens ME, Linton SJ, Crombez G, Boersma K, Vlaeyen JW. The fear-avoidance model of musculoskeletal pain: current state of scientific evidence. *J Behav Med.* 2007 Feb;30(1):77-94. Epub 2006 Dec 20.
- Lin, McAuley, Macedo, Barnett, Smeets, Verbunt, *Jnl Pain*, Volume 152, Issue 3 , Pages 607-613, March 2011,
- Macedo L, Maher C, Latimer J, McAuley J. Motor control exercise for persistent, nonspecific low back pain: a systematic review. *Physical Therapy* 2009; 89(10:9-25)
- Machado LA, Azevedo DC, Capanema MB, Neto TN, Cerceau DM. Client-centered therapy vs exercise therapy for chronic low back pain: a pilot randomized controlled trial in Brazil. *Pain Med.* 2007 Apr;8(3):251-8.
- Machado LAC, de Souza MVS, Ferreira PH, Ferreira ML. The McKenzie method for low back pain. A systematic review of the literature with a meta-analysis approach. *Spine* 2006; 31:E254-E262.
- May S, Donelson R. Evidence-informed management of chronic low back pain with the McKenzie method. *Spine J* 2008;8:134-141.
- Mayer JM, Mooney V, Dagenais S. Evidence-informed management of chronic low back pain with lumbar extensor strength exercises. *Spine J* 2008;8:96-113.
- McGill S. Stability: From Biomechanical Concept to Chiropractic Practice. *J Can Chiropr Assn* 1999;43(2):75-88
- Nikander R, Malkia E, Parkkari J, Heinonen A, Starck H, Ylinen J. Dose-response relationship of specific training to reduce chronic neck pain and disability. *Med Sci Sports Exerc.* 2006 Dec;38(12):2068-74.
- Miller J, Gross A, D'Sylva J, et al. Manual therapy and exercise for neck pain. A systematic review. *Man Ther* 2010;15:334-354.
- Nikander R, Malkia E, Parkkari J, Heinonen A, Starck H, Ylinen J. Dose-response relationship of specific training to reduce chronic neck pain and disability. *Med Sci Sports Exerc.* 2006 Dec;38(12):2068-74.

Pisters MF, Veenhof C, van Meeteren NL, et al. Long-term effectiveness of exercise therapy in patients with osteoarthritis of the hip or knee: A systematic review. *Arthritis & Rheumatism* 2007;57(7):1245-1253.

Physical inactivity is associated with chronic musculoskeletal complaints 11 years later: Results from the Nord-Trondelag Health Study, Holth HS, et al. *BMC Musculoskeletal Disorders*. 2008, *Arthritis Rheum*. 2009 Jan 29;61(2):192-200)

Physiother Theory Pract 2012 Jul 12. [Epub ahead of print] Low impact weight-bearing exercise in an upright posture increases the activation of two key local muscles of the lumbo-pelvic region.

Pryde JA: Inflammation and Tissue Repair. In Cameron MH, ed: *Physical agents in rehabilitation*, St. Louis, 2009, Saunders Elsevier
Relationship between physical activity and disability in low back pain: A systematic review and meta-analysis,

Samantha N. Boudreau, Maureen K. Dwyer, Carl G. Mattacola, Christian Lattermann, Tim L. Uhl, and Jennifer Medina McKeon “Hip-Muscle Activation During the Lunge, Single-Leg Squat, and Step-Up-and-Over Exercises” *Journal of Sport Rehabilitation*, 2009, 18, 91-103

Segmental stabilization exercises and low back pain. What is the evidence? A systematic review of randomized controlled trials. *Clin Rehabil*. 2006;20:553-67.

Sherman KJ, Cherkin DC, Wellman RD, Cook AJ, Hawkes RJ, Delaney K, Deyo RA. A Randomized Trial Comparing Yoga, Stretching, and a Self-care Book for Chronic Low Back Pain. *Arch Intern Med*. 2011 Oct 24.

Slade SC, Keating JL. Unloaded movement facilitation exercise compared to no exercise or alternative therapy on outcomes for people with nonspecific chronic low back pain: A systematic review. *J Manipulative Physiol Ther* 2007;30(4):301-311.

Standaert CJ, Weinstein SM, Rumpeltes J. Evidence-informed management of chronic low back pain with lumbar stabilization exercises. *Spine J* 2008;8:114-120.

Sundstrup E, Jakobsen MD, Andersen CH, Jay K, Andersen LL. Swiss ball abdominal crunch with added elastic resistance is an effective alternative to training machines. *Int J Sports Phys Ther*. 2012 Aug;7(4):372-80.

Tsertsvadze A, Clar C, Court R, Clarke A, Mistry H, Sutcliffe P. Cost-effectiveness of manual therapy for the management of musculoskeletal conditions: a systematic review and narrative synthesis of evidence from randomized controlled trials.

van Tulder M, Malmivaara A, Esmail R, et al. Exercise therapy for low back pain: A systematic review within the framework of the Cochrane collaboration back review group. *Spine* 2000; 25:2784-96.

Verhagen AP, Bierma-Zeinstra SM, Feleus A, Karels C, Dahaghin S, Burdorf L, de Vet HC, Koes BW, Ergonomic and physiotherapeutic interventions for treating upper extremity work related disorders in adults, *Cochrane Database Syst Rev.* 2004;(1):CD003471

Verhagen AP, Karels C, Bierma-Zeinstra SM. Exercise proves effective in a systematic review of work-related complaints of the arm, neck or shoulder. *J Clin Epidem* 2007;60(2):110-117.

Wasielowski NJ, Kotsko KM. Does eccentric exercise reduce pain and improve strength in physically active adults with symptomatic lower extremity tendinosis? A systematic review. *J Athletic Training* 2007;42(3):409-421.

Guidelines

1. Airaksinen O, Brox JI, Cerderlund CG, Hildebrandt J, Klaber-Moffett J, Kovacs F, et al. European guidelines for the management of chronic non-specific low back pain. European commission, research directorate general, 2004. (Amended June 2005) www.backpaineurope.org (accessed September 29, 2010)
2. Australian acute musculoskeletal pain guidelines group. Evidence-based management of acute musculoskeletal pain. 2004. http://www.nhmrc.gov.au/files_nhmrc/file/publications/synopses/cp95.pdf (accessed September 29, 2010)
3. National Institute for Health and Clinical Excellence. Low back pain: Early management of persistent non-specific low back pain. 2009 (Clinical guideline 88). www.nice.org.uk/CG88. (accessed September 29, 2010)
4. Medicare Benefit Policy Manual, Chapter 15 www.cms.gov/manuals
5. APTA Defensible Documentation Module for patient/Client Management
6. US Dept of Health and Human Services, Centers for Medicare and Medicaid Services. Medicare Outpatient Therapy Billing. August, 2010
7. American Physical Therapy Association. Reimbursement, Coding and Compliance for Physical Therapists. 2006 www.APTA.org
8. Mellin, G., et al: Outcome of a multimodal treatment including intensive physical training of patients with chronic low back pain. *Spine* (18) 825-9, 1993
Sachs, B. L., et al: Objective assessment for exercise treatment on the B-200 Isostation as part of work tolerance rehabilitation: A random prospective blind evaluation with comparison control population. *Spine* (19) 49-52, 1994
9. Teasell, R. W., Harth, M.: Functional restoration: Returning patients with chronic low back pain to work - ... *Spine* (21) 844-7, 1996
10. Timm, K. E.: A randomized control study of active and passive treatments for chronic low back pain following L5 laminectomy. *J Orthop Sports Phys Ther* (20) 276-86, 1994
11. Graves, James, et al: Pelvic Stabilization During Resistance Training: Its Effect of the Development of Lumbar Extension Strength. *Arch Phys Med Rehabil*, Feb 1994.
12. Graves, James, et al: effect of Training Frequency and Specificity on Isometric Lumbar Extension Strength. *Spine* (15), 1990
13. 2013 Coding and Payment Guide For the Physical Therapist, Optum and the APTA

Randomized Clinical Trials

Bronfort G, Evan R, Nelson B, Aker PD, Goldsmith CH, Vernon H. A randomized clinical

trial of exercise and spinal manipulation for patients with chronic neck pain. *Spine* 2001;26(7):788-99.

Erhard RE, Delitto A, Cibulka MT. Relative effectiveness of an extension program and a combined program of manipulation and flexion and extension exercises in patients with acute low back syndrome. *Phys Ther* 1994;74:1093-100.

Geisser ME, Wiggert EA, Haig AJ, Colwell MO. A randomized, controlled trial of manual therapy and specific adjuvant exercise for chronic low back pain. *Clin J Pain* 05;21:463-470.

Jull G, Trott P, Potter H, Zito G, Niere K, Shirley D, et al. A randomized controlled trial of exercise and manipulative therapy for cervicogenic headache. *Spine* 2002;27(17):1835-43.

Kuukkanen T, Malkia E, Kautiainen H, Pohjolainen. Effectiveness of a home exercise programme in low back pain: a randomized five-year follow-up study. *Physiotherapy Research International* 2007; 12(4):213-224.

Niemisto L, Lahtinen-Suopanki T, Rissnen P, Lingren K, Sarna S, Hurri H. A randomized trial of combined manipulation, stabilizing exercises, and physical consultation compared to physician consultation alone for chronic low back pain. *Spine* 2003;28:2185-2191.

Rasmussen-Barr E, Arvidsson A, Nilsson-Wikmar L. Graded exercise for recurrent low-back pain: a randomized controlled trial with 6-, 12-, and 36-month follow-ups. *Spine* 2009; 34(3):221-228.

Sertpoyraz F, Eyigor S, Karapolat H, et al. Comparison of isokinetic exercise versus standard exercise training in patients with chronic low back pain: a randomized controlled study.

Slade S, Keating J. Effects of preferred-exercise prescription compared to usual exercise prescription on outcomes for people with non-specific low back pain: a randomized controlled trial. *BMC Musculoskeletal Disorders* 2009; 10:14.

UK BEAM trial team. United Kingdom back pain exercise and manipulation (UK BEAM) randomized trial: effectiveness of physical treatments for back pain in primary care. *BMJ* 2004; 329:1377-81

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