Clinical Practice Guideline: **Passive Physiotherapy (Therapeutic) Modalities**

Date of Implementation: **July 16, 2009**

Product: **Specialty**

Related Policies:
CPG 30: Laser Therapy (LT)
CPG 135: Physical Therapy Medical Policy/Guideline
CPG 155: Occupational Therapy Medical Policy/Guideline
CPG 272: Electric Stimulation for Pain, Swelling and Function
CPG 273: Superficial Heat and Cold
CPG 274: Deep Heating Modalities (Therapeutic Ultrasound and Diathermy)
CPG 275: Mechanical Traction

GUIDELINES

The American Medical Association (AMA) Current Procedural Terminology (CPT) manual defines a modality as "any physical agent applied to produce therapeutic changes to biologic tissue; includes but is not limited to thermal, acoustic, light, mechanical, or electric energy." This includes but is not limited to, such therapies as electrical stimulation, diathermy, therapeutic ultrasound, superficial heat and cold, and hydrotherapy. A distinguishing feature of these therapeutic modalities is that they are passive in nature, requiring little or no participation on the part of the patient. They should be used as an adjunct to other skilled therapeutic procedures (e.g., chiropractic manipulation, manual therapy [CPT 97140], acupuncture, therapeutic exercise) in clinical practice and only for a brief period in the initial stages of treatment.

American Specialty Health – Specialty (ASH) clinical committees have determined that the use of passive therapeutic modalities, when appropriate, is professionally recognized and have a favorable benefit:risk profile. However, much of the literature regarding passive therapeutic modality use does not provide sufficient information to establish them as clinically effective or ineffective for the management of most musculoskeletal and related conditions. There is general knowledge that passive therapeutic modalities have specific physiologic effects at the cellular and nervous system level.

There is some evidence to support the use of specific passive physiotherapy modalities in the treatment of specific conditions; this evidence may infer effectiveness for treatment of similar conditions. See the *Electric Stimulation for Pain, Swelling and Function (CPG 272 - S), Deep Heating Modalities (CPG 274 - S); Superficial Heat and Cold (CPG 273 - S); Mechanical Traction (CPG 275 - S);* and *Laser Therapy (LT) (CPG 30 - S)* clinical practice guidelines for further information and literature review.

ASH peer review clinical committees recommend the following guidelines for the use of passive therapeutic modalities:

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

DESCRIPTION/BACKGROUND

Current literature assessing the clinical effectiveness of passive therapeutic modalities as isolated treatment for acute, sub-acute, or chronic musculoskeletal and related conditions is often of poor methodological quality and is insufficiently homogenous to allow for pooling of results. There is a general lack of agreement in the literature regarding the effectiveness of passive therapeutic modalities for musculoskeletal pain. Ongoing limitations of the current body of evidence include variability in devices, dosage, and treatment parameters. A wide variety of musculoskeletal conditions have been studied, and studies often demonstrate poor study design or methodological flaws. There appears to be a trend toward improved study design with more double blind, randomized controlled trials using standardized outcome measures. Most of the systematic reviews in the literature

conclude with a call for larger, multi-center randomized controlled trials. Therefore, clearly effective treatments are not supported at this time for the treatment of acute, sub-acute, or chronic symptoms by any isolated passive modality.

Another limitation of the current body of published evidence is the focus of the investigation. Most studies are attempting to determine if the modality, by itself or in combination with other therapeutic interventions, changes the short or long-term outcome of the condition. This is an important question to study. However, many of the passive modalities are utilized by healthcare practitioners as a means of transient management of pain and other signs of acute inflammation in order to facilitate other interventions of demonstrated effectiveness such as manipulation, mobilization, exercise, and a return to normal activity. It is possible to find that a modality does not change the eventual outcome but affords a window of opportunity for a practitioner or patient to perform activities that would otherwise be limited by pain, spasm, or fear-avoidance behavior.

Although there are precautions and contraindications associated with any modality and some harms were reported, the literature precludes reliable and valid estimates of the risks of major and minor harm associated with these modalities and the treatments included in the research studies reviewed are relatively benign. The majority of studies do not report side effects or injuries. Further, because the literature implies both the risks and benefits among treatment options are similar, it is reasonable that patient/practitioner preference should be an important guide in choice of treatment.

When determining the appropriate course of treatment for an individual patient, the practitioner must consider contraindications, the physiological effects of the modality, the likelihood of the modality to enhance recovery or facilitate treatment with manual therapies, and timely transition from passive to active treatment.

Overall, scientific literature addressing physical modalities for neck, back, and extremity pain conditions suffers from many of the same limitations observed in the literature of other non-invasive interventions. Much of the literature is still of relatively low methodological quality, and the substantial heterogeneity among studies makes pooling of results extremely difficult. Firm conclusions regarding the effectiveness or ineffectiveness of many of the physical modalities for neck, back, and extremity pain conditions remain difficult. The emergence of more methodologically sound randomized clinical trials could change what is now known.

Most literature on low back, neck and extremity pain conditions has recommended that patients be encouraged to remain as active as possible and avoid immobilization or complete rest/inactivity (Guzman et al., 2008; Chou et al., 2016; Qaseem et al., 2017; McDonagh et al., 2020; Chou et al., 2020; Skelly et al., 2020; Tick et al., 2018; Knezevic

et al., 2021; Lin et al., 2021; Mertens et al., 2022; French et al., 2022; Conley et al., 2023). A distinguishing feature of these modalities is that they are passive in nature.

PRACTITIONER SCOPE AND TRAINING

Practitioners should practice only in the areas in which they are competent based on their education, training, and experience. Levels of education, experience, and proficiency may vary among individual practitioners. It is ethically and legally incumbent on a practitioner to determine where they have the knowledge and skills necessary to perform such services and whether the services are within their scope of practice.

It is best practice for the practitioner to appropriately render services to a member only if they are trained, equally skilled, and adequately competent to deliver a service compared to others trained to perform the same procedure. If the service would be most competently delivered by another health care practitioner who has more skill and training, it would be best practice to refer the member to the more expert practitioner.

Best practice can be defined as a clinical, scientific, or professional technique, method, or process that is typically evidence-based and consensus driven and is recognized by a majority of professionals in a particular field as more effective at delivering a particular outcome than any other practice (Joint Commission International Accreditation Standards for Hospitals, 2020).

Depending on the practitioner's scope of practice, training, and experience, a member's condition and/or symptoms during examination or the course of treatment may indicate the need for referral to another practitioner or even emergency care. In such cases it is prudent for the practitioner to refer the member for appropriate co-management (e.g., to their primary care physician) or if immediate emergency care is warranted, to contact 911 as appropriate. See policy *Managing Medical Emergencies (CPG 159 – S)* for information.

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