COHESIVE HEALTHCARE MANAGEMENT & CONSULTING

Mangum Regional Medical Center

TITLE		POLICY
Electrical Stimulation Treatments		**806**
MANUAL	EFFECTIVE DATE	REVIEW DATE
Rehabilitation		
DEPARTMENT	REFERENCE	
Rehabilitation Services		

SCOPE: All professional rehabilitation staff members that will be utilizing electrical stimulation treatments for patient care at Mangum Regional Medical Center.

PURPOSE: To ensure that all electrical stimulation treatments are administered safely and effectively within established guidelines.

DEFINITION: Electrical stimulation is a therapy treatment modality used to improve muscle function, decrease pain, or promote healing.

POLICY: Physician's order is received.

- Order may be specific for electrical stimulation, TENS, or variations of terms, or state for therapist to evaluate and treat as indicated.

Indications:

- Muscle spasm
- Muscle weakness
- Denervated muscle
- Peripheral nerve injury
- Bell's palsy
- Muscle re-education

Contraindications:

- Over the carotid sinuses
- Venous or arterial thrombosis or thrombophlebitis
- Near indwelling phrenic nerve or urinary bladder stimulators
- Healing fractures unless used for bone stimulation
- Active bleeding or infection
- Superficial metal implants
- Pregnancy
- Pharyngeal or laryngeal muscles
- Patients with demand-type pacemaker or myocardial disease
- Suspected epilepsy or seizure disorder

Precautions:

- Cardiac disease
- Impaired mental status
- Impaired sensation, skin irritation, or open wounds
- Malignant tumors
- Patients with hypotension or hypertension
- In areas of excessive adipose tissue or edema
- Bleeding disorders

PROCEDURE:

1. Before initiating treatment, the patient is evaluated to determine appropriateness of treatment by the therapist.
2. When administrating electrical stimulation, all manufacturer's procedures/recommendations will be followed.
3. The specific parameters for the electrical stimulation will be determined by the therapist to produce the desired results.
4. Types of electrical stimulation:
   a. direct (galvanic): A low voltage, uninterrupted, unidirectional current.
   b. Alternating: a series of low voltage 60-cps sine waves.
   c. Faradic: a series of medium voltage, rapid asymmetrical, alternating surges with a frequency of about 100-cps.
   d. Tetanizing: a series of low voltage unidirectional square waves with a frequency of 50cps to 200-cps
5. Effects:
   a. Ionic change
   b. Alter membrane permeability
   c. Restore or maintain muscle tone
   d. Retard atrophy
   e. Increase local blood flow
   f. Relax muscle spasms
6. Protocols may be based on manufacturer information or accepted guidelines from APTA/AOTA accredited schools or from the literature.
7. All parameters are documented in the patient's chart.
8. Electrical stimulation unipolar techniques:
   a. Check unit for loose connections or frayed wiring;
   b. Know how to operate the unit
   c. Check patient's skin for cuts, abrasions and new skin scar tissue.
   d. Make sure skin is clear and metal is removed from area to be treated.
   e. Explain treatment procedure to patient
   f. Describe sensation patient will be feeling and what will be occurring and why it is being used
   g. Place moistened/dispersive electrode, if applicable, usually on the same side of the body as is being treated.

h. Place moistened/active electrode over motor points or muscle belly of involved muscles.
i. Start with intensity setting at 0 and increase intensity as tolerated until good muscle contraction is achieved.
j. Stimulate involved muscles 10 to 20 times.
k. At termination of treatment remove electrodes, dry patient and check for skin for any unusual marks, and place reusable single patient electrodes (if utilized) in package with patient's name and date in designated area.

9. Bipolar techniques:
   a. Check unit for loose connections or frayed wiring
   b. Know how to operate unit.
   c. Check skin for cuts, abrasions, new skin and recent scar tissue.
   d. Make sure skin is clean and all metal is removed from area to be treated.
   e. Explain treatment procedure to patient.
   f. Describe sensation patient will be feeling and what will be occurring and why it is being used.
   g. Determine/set appropriate mode of treatment, current and parameter as per therapist instructions.
   h. Place gel or moistened gauze covered electrodes, or reusable single patient electrode over involved muscle or muscle group.
   i. Secure electrodes with tape or strap if needed.
   j. Start with intensity setting at 0 and increase intensity as tolerated until good muscle contraction is achieved.
   k. Set timer.
   l. At termination of treatment, remove electrodes, dry patient and check patient skin and place reusable single patient electrodes in package with patient's name and date in designated area.

REVISIONS/UPDATES

Date	**Brief Description of Revision/Change**