INTRODUCTION

In 2001, the Hand Therapy Certification Commission (“HTCC”) conducted a practice analysis of nearly 1100 Certified Hand Therapists in the United States and Canada. Based on the responses to the survey, the Commission reviewed and revised the original Definition and Scope of Practice of Hand Therapy that was originally published in 1987. The new document was adopted by the HTCC Board of Directors in May 2002.

DEFINITION OF HAND THERAPY

Hand therapy is the art and science of rehabilitation of the upper quarter of the human body. Hand therapy is a merging of occupational therapy and physical therapy theory and practice that combines comprehensive knowledge of the upper quarter, body function, and activity. Using specialized skills in assessment and treatment, hand therapists promote the goals of prevention of dysfunction, restoration of function and/or reversal of the progression of pathology in order to enhance participation in life situations for individuals with upper quarter disease or injury.

WHO ARE HAND THERAPISTS?

Hand therapists are certified or licensed occupational therapists or physical therapists, who through advanced continuing education, clinical experience and independent study have become proficient in the treatment of pathological upper-quarter conditions resulting from trauma, disease, or congenital or acquired deformity. A Certified Hand Therapist (CHT) is an occupational therapist or physical therapist who has met the standards established by the Hand Therapy Certification Commission, Inc.

SCOPE OF PRACTICE AND DOMAINS OF HAND THERAPY

The Scope of Practice of Hand Therapy may include one or more of the domains described below. Domains describe major areas of responsibility in hand therapy. The first three domains include assessment and treatment of hand patients. In compliance with state and federal law, treatment is based on the results of assessment and may be provided on a one-to-one basis, in a group, or by consultation. The fourth domain describes services to specific population groups. The final two domains describe activities associated with professional practice. The domains and their associated tasks are listed below:

Evaluate upper quarter & relevant patient characteristics
Obtain and review medical, psychosocial, and vocational history; Interview patient; Plan for and select assessment tools; Assess and document skeletal, muscular, nervous, vascular, skin and connective tissue status, functional and/or ergonomic status and psychosocial factors; Reassess and document patient status at appropriate intervals.

Develop treatment and discharge plans
Integrate theoretical knowledge bases and patient goals into treatment; Establish short-term and long-term goals of treatment; Establish frequency of treatment in collaboration with patient and referring physician; Determine rehabilitation potential; Select appropriate treatment techniques; Identify appropriate resources to which patients can be referred; Consult with and refer to other health care professionals; Document the treatment plan; Assess readiness and determine discharge needs including return to work; Formulate and document discharge plan.

**Implement treatment plans**

Implement and modify treatment/interventions to address edema/vascularity, pain, scar, range of motion/flexibility, wounds, strength, dexterity, sensation, function, endurance and posture/movement.

**Provide population-based services**

Determine needs of the target population (e.g., industrial, athletic, and performing artistic groups); Make intervention recommendations (e.g., education programs, prevention strategies, ergonomic modifications and screening) based on available resources; Assist in implementation of interventions; Monitor effectiveness of interventions; Serve as a resource person/consultant.

**Organize and manage services**

Comply with regulations that ensure environmental safety; Advocate for patients; Ensure compliance with organizational policies and procedures; Participate in case management; Assess patient satisfaction.

**Promote professional practice**

Maintain ethical and legal standards; Participate in evidence-based (i.e., scientifically-based, outcome-based) practice; Interpret and apply clinical research and outcome studies.

**SCIENTIFIC KNOWLEDGE BASIS OF HAND THERAPY**

The foundation of hand therapy is comprehensive understanding of:
- Surface anatomy
- Anatomy and physiology of the skin/connective, muscular, skeletal, nervous, and vascular/lymphatic systems
- Physical properties (e.g., heat, water, light, electricity, and sound)
- Wound healing
- Behavioral science, and psychological reactions to impairment
- Research design and statistics
- Kinesiology and biomechanics
- Posture and pathomechanics
- Etiology and pathology of medical conditions
- Surgical and medical treatment of conditions
- Standardized and non-standardized assessment tools
- Treatment rationale, indications and contraindications
- Treatment methods, techniques, and tools
- Expected functional outcomes of treatment
• Expected physiological and psychological effects of treatment procedures
• Regulatory and legal guidelines
• Resource management
• Professional codes of ethics
• Safe and appropriate use and maintenance of equipment and assistive devices
• Safety techniques and procedures (e.g., infection control, emergency procedures, practitioner safety, environment)

HAND AND UPPER QUARTER PATIENTS

Theoretical knowledge and technical skills are applied, using good clinical judgment, in assessment and treatment of individuals with diagnoses related to the upper quarter (hand, wrist, elbow, shoulder girdle, cervical area or multiple joints). These may include but are not limited to:

• Amputations
• Central nervous system disorders as they relate to the upper quarter
• Congenital differences/anomalies
• Cumulative trauma disorders/repetitive stress injuries
• Dupuytren’s contracture
• Flexor/extensor tendon injuries
• Fractures/dislocations/joint instabilities
• Infections
• Inflammatory and degenerative arthritis
• Multiple system trauma
• Nail bed injuries
• Pain-related syndromes
• Peripheral nerve compression and disease
• Peripheral nerve injuries
• Post-mastectomy/post-radiation lymphedema
• Psychogenic disorders involving the upper quarter
• Soft tissue injuries
• Thermal injuries
• Tumors and cysts
• Vascular disorders

Such patients may be referred to a hand therapist following a variety of medical or surgical interventions including:

• Amputation revision
• Arthroplasty
• Arthrodesis
• Fasciectomy/fasciotomy
• Fracture fixation/bone graft
• Ganglionectomy
• Injections
• Joint reconstruction
• Joint releases
• Joint synovectomy
• Ligament repair
• Nail bed repair
• Nerve blocks/sympathectomies
• Nerve decompressions
• Nerve grafts/nerve repairs
• Neurolysis
• Replantation/re-vascularization
• Scar revisions
• Skin grafts/flaps
• Soft tissue releases
• Tendon grafts/tendon repairs
• Tendon transfer
• Tenolysis
• Tenosynovectomy
• Tissue transfers
• Use of pharmaceutical agents

**TREATMENT TECHNIQUES AND TOOLS**

A variety of techniques and tools may be used in therapeutic intervention with hand and upper quarter patients, including but not limited to:

• Activity
• Adaptive/assistive devices
• Training in activities of daily living (ADLs)
• Behavior management
• Compressive therapy
• Desensitization
• Electrical modalities
• Ergonomic modification
• Exercise
• Manual therapy
• Patient and family education
• Prosthetics
• Sensory re-education
• Splinting
• Standardized and non-standardized assessment tools
• Strengthening
• Thermal modalities
• Work hardening/retraining
• Wound care/dressings/topical agents

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