

Rehabilitation for Upper Extremity Transplant Recipients

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Therapist's Role in the Pre-Transplantation Process

1. Establishing baselines (Strength, Performance Skills, and Patterns)
2. Expectations of recovery and return to function (extensive rehab process, importance of shared decision-making and goal setting)
3. Strength and conditioning program to maximize outcomes
4. Assess therapy compliance, emotional and cognitive readiness, coping style

OUTCOME MEASUREMENT TOOLS

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**Hand Transplantation Comprehensive
Outcome: The International Registry Score
System
Disabilities of the Arm, Shoulder and Hand
(DASH)
Michigan Hand Questionnaire
Patient-Reported Outcomes Measurement
Information System (PROMIS)
36 Item Short Form Survey (SF 36)
Patient Specific Functional Scale (PSFS)
Lawton ADL/ IADL Questionnaire
Short Musculoskeletal Functional
Assessment**

**Brief System Inventory
Short Musculoskeletal Functional
Assessment
Brief System Inventory
Satisfaction with Life Skills
Affect Balance Scale
Pediatric Evaluation of Disability Inventory
Computer Adaptive Test (PEDI-CAT)
Pediatric Outcome Data Collection
Instrument (PODCI)**

FUNCTIONAL ASSESSMENT TOOLS

- Carroll Test
- Action Research Arm Test (ARAT)
- Box and Blocks
- Nine Hole Peg Test
- Sollerman Hand Function Test
- Southampton Hand Assessment Procedure



Post-Transplant Therapy Goals

1. Create a set-up that promotes optimal function
until re-innervation occurs positioning, use of orthosis,
maintaining range, control pain and edema, re-innervation facilitating strength and function, preventing
contractures
2. Integrate task-specific goals and functional use
of hand focus on muscle balance coordination, cortical remapping through motor and
sensory re-education, and maximize functional use of hand

Therapy Considerations

- Early Protective Motion, Early Sensorimotor Training
- Adaptations until volitional motor control is gained
- Frequent monitoring of motor control and strength gains to upgrade the program as indicated
- Caregiver role is integral in assisting with the follow-through of the program
- Psychosocial considerations (changes in role, resiliency, PTSD, depression, isolation)

Rehabilitation Tenets

- Honor each person's unique and personal goals and aspirations.

Dignity indicates the importance of valuing, promoting, and preserving the inherent worth and uniqueness of each person. This value includes respecting the person's social and cultural heritage and life experiences. Exhibiting attitudes and actions of dignity requires occupational therapy personnel to act in ways consistent with cultural sensitivity, humility, and agility (Core Values, AOTA 2020).

Shared decision-making

Goal Attainment Scaling (Turner-Stokes, 2009); Canadian Occupational Performance Measure (COPM) (Law et al., 1990)

Rehabilitation Tenets

- Address each person's unique contexts
Employ narrative reasoning with diagnostic and procedural reasoning
- Promote an interdisciplinary effort to manage and maintain health by facilitating active engagement in meaningful occupations to improve quality of life.
- Addressing health literacy requires a dynamic understanding of where our clients are in their journey toward health, well-being, and regaining life roles, as well as their current challenges and burdens, some of which they might not have any control over.

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