Breast Cancer - Pre and Postoperative Management

Surgical procedures include radical, modified or simple mastectomies, lymph node dissection, and breast reconstruction.

Impairments and Functional Limitations:

ADL, IADL, productivity and leisure impairment Impaired ROM and strength of trunk and upper extremity Post-op pain and edema Potential secondary complications - nerve damage, lymphedema

Occupational Therapy Preoperative Intervention:

- Baseline measurements (ROM, strength, sensation, and limb measurements)
- Provide education about post-operative activity limitations, precautions and exercise.
- Instruct in good posture during activities.
- Educate about lymphedema prevention or risk factor reduction.
- Teach strategies to incorporate wellness and health management routines into daily activities.
- Educate about breast cancer and the availability of community resources. Encourage participation in support groups.

Occupational Therapy Postoperative Intervention:

ADL, IADL, productivity and leisure training

- Treat underlying limitations to safety and independence.
- Recommend and/or provide adaptive equipment as needed. Train in lower body ADL equipment following reconstructive surgery involving abdominal muscles.
- Instruct in good posture during activities.
- Instruct in protective use of affected arm for the first 2 weeks. Avoid overuse, avoid sleeping on the same side as the surgery, avoid lifting more than 5 pounds, keep tasks below 90-degrees of shoulder motion. Instruct to elevate arm several times a day to manage post-op edema. *Unless otherwise instructed by surgeon*.

Train in safe and efficient functional mobility (sit to stand, bed mobility skills, transfers, ambulation and wheelchair mobility) during ADL and IADL tasks.

Pain self-management

- Coordinate medication peak with exercise and activity.
- Teach stress management and relaxation techniques.
- Use pillows to help arm and shoulder relax in sitting and lying down.
- Instruct in good posture during activities.

Breast Cancer - Pre and Postoperative Management

Occupational Therapy Postoperative Intervention:

Provide graded UE activities and exercises. *Follow the referring surgeon's specific quidelines for ROM and progression of exercises*.

- AROM exercises starting 2-3 days after surgery. Progress exercises until full ROM restored. Begin strengthening 4-6 weeks after surgery.
- Instruct in deep (diaphragmatic) breathing exercises and lateral expansion.
- Instruct in a walking program.

Provide surgical scar management at 3-4 weeks post surgery (mobilization, massage, desensitization, stretching exercises).

Provide education about lymphedema prevention and risk factor reduction.

Patient and Caregiver Handouts:

Arm Measurement
Deep (Diaphragmatic) Breathing
Edema (Swelling) Control of the Arm(s)
Good Posture
Mastectomy Exercises
Scar Massage
Tips to Prevent Lower Body Lymphedema
Walking Guidelines

Additional Treatment Guides:

Cancer Health Management

Occupational Therapy TOOLKIT Dressing

Dressing includes selecting appropriate clothing for the time of day, weather, and occasion. Obtain clothing from closets and drawers. Dress and undress using open-front garments (shirt/blouse, robe, sweater, jacket, winter coat), pullover garments (sweatshirt, t-shirt, sweater), bra, pants, skirts, suspenders, necktie, scarf, gloves, underwear, socks, pantyhose, nylons, shoes, boots, slippers, support and anti-embolism stockings. Open and close fasteners, (snaps, buttons, hooks, zippers, Velcro). Managing personal devices (hearing aids, eyeglasses, contacts, AFO, hand splint, back brace, slings, and prosthetics).

Impairments and Functional Limitations:

Impaired shoulder strength and/or ROM
Impaired hand strength, ROM, sensation and/or coordination
Impaired LE function
Limited activity tolerance and endurance
Impaired sitting balance
Impaired standing balance
Pain
Visual perceptual impairment
Cognitive impairment

Occupational Therapy Intervention:

Apply different approaches for solving difficulties with dressing.

- Remediate underlying limitations to safety and independence. Physical impairments (muscle weakness, impaired hand function, limited ROM, paralysis, incoordination, impaired balance, fatigue, dyspnea, abnormal tone, tremor), sensory impairment (impaired sensation, low vision, hard of hearing, vestibular, pain), behavioral, cognition, perception.
- Train in compensatory techniques (safety techniques, one-handed techniques, pacing, energy conservation, joint protection, body mechanics, breathing techniques, low vision techniques, cognitive/perceptual compensation, step-by-step instructions, task segmentation, task sequencing, backward chaining, verbal and physical cueing, hand-over-hand guiding).
- Train in the use of adaptive equipment and assistive devices (buttonhook, Velcro closures on shoes, elastic shoelaces, long handled shoehorn, dressing stick, reacher, sock aid, zipper pull, loops on pants, loops on socks, labeling system for identifying clothes, and specialized clothing).
- Provide environmental modifications and adaptations (avoid storing items on the floor, lower closet poles, organize clothes within easy reach, and label drawers using picture or words).

Dressing

Occupational Therapy Intervention:

Apply different approaches for solving difficulties with dressing (continued)..

- Instruct in activity modification.
 - o Change the task (place the weaker extremity into the garment first, dress in a supine position).
 - Eliminate part or all of the task (choose garments that are easy to put on and remove such as: elastic waist pants, loose fitting tops, pullover tops, suspenders instead of a belt, Velcro shoes, slip on shoes, front hook bra, sports bra, camisole).
 - o Have someone else do part or the entire task.

Train in safe and efficient functional mobility (sit to stand, bed mobility skills, transfers, standing, ambulation, and wheelchair mobility) during dressing tasks.

Provide caregiver/family education and training.

Patient and Caregiver Handouts:

Adaptive Equipment for Dressing

Dressing Tips

Tips to Conserve Energy with Self Care Tasks

Dressing Techniques - Lower Body

Put On and Take Off an Ankle-Foot Brace - Method 1 - Left Leg

Put On and Take Off an Ankle-Foot Brace - Method 1 - Right Leg

Put On and Take Off an Ankle-Foot Brace - Method 2 - Left Leg

Put On and Take Off an Ankle-Foot Brace - Method 2 - Right Leg

Put On and Take Off Pants - Method 1

Put On and Take Off Pants - Method 2

Put On and Take Off Pants, Socks, and Shoes Lying Down

Put On and Take Off Pants, Socks, and Shoes Using a Stool

Put On and Take Off Pants Using a Dressing Stick or Reacher Put On and Take Off Socks and Shoes Using Dressing Tools

Put On and Take Off Support Stockings

Dressing Techniques - One Handed

Put On a T-shirt with One Hand - Left Side Weakness

Put On a T-shirt with One Hand - Right Side Weakness

Put On an Open Front Shirt with One Hand - Left Side Weakness

Put On an Open Front Shirt with One Hand - Right Side Weakness

Put On and Take Off a Bra with One Hand - Left Side Weakness Put On and Take Off a Bra with One Hand - Right Side Weakness

Put On Pants with One Hand - Left Side Weakness

Put On Pants with One Hand - Right Side Weakness

Put On Socks and Shoes with One Hand - Left Side Weakness

Occupational Therapy TOOLKIT Dressing

Patient and Caregiver Handouts:

Dressing Techniques - One Handed

Put On Socks and Shoes with One Hand - Right Side Weakness

Take Off a T-shirt with One Hand - Left Side Weakness

Take Off a T-shirt with One Hand - Right Side Weakness

Take Off an Open Front Shirt One Hand - Left Side Weakness

Take Off an Open Front Shirt One Hand - Right Side Weakness

Take Off Pants with One Hand - Left Side Weakness

Take Off Pants with One Hand - Right Side Weakness

Tie Shoes with One Hand - Left Side Weakness

Tie Shoes with One Hand - Right Side Weakness

Dressing Techniques - Upper Body

Put On and Take Off a T-shirt - Arm-Head-Arm

Put On and Take Off a T-shirt - Head-Arm-Arm

Put On and Take Off a T-shirt Using a Dressing Stick

Put On and Take Off an Open Front Shirt - One Shoulder Drape

Put On and Take Off an Open Front Shirt - Two Shoulder Drape

Put On and Take Off an Open Front Shirt Using a Dressing Stick

Using a Buttonhook

Occupational Therapy TOOLKIT Frailty and Debility

Impairments and Functional Limitations:

ADL, IADL, productivity and leisure impairment Functional mobility impairment Slow walking speed Muscle weakness Limited activity tolerance and endurance Impaired balance Impaired vision and hearing Chronic pain Advanced age, 80+

Co-occurring conditions - functional decline, falls, fear of falling, delirium, dementia, dizziness, depression, incontinence, sleep disorders, malnutrition, dehydration, pressure ulcers, sarcopenia, hypothermia, and hyperthermia

Assessments:

6 Minute Walk Test (Enright et al., 1998) Berg Balance Scale (Berg 1989) Geriatric Depression Scale (Parmelee & Katz 1990) Mini Mental State Exam MMSE (Folstein 1975) Nutrition Screening Initiative (White et al., 1992) Physical Performance Test (Lusardi et al., 2004) Timed 10-Meter Walk Test (Bohannon et al., 1996)

Occupational Therapy Intervention:

ADL, IADL, productivity and leisure training

- Treat underlying limitations to safety and independence physical (strength, hand function, ROM, coordination, balance, endurance, abnormal tone), sensory (tactile, vision, hearing, vestibular, pain), behavioral, cognition and/or perceptual.
- Address nutritional health oral health, ability to feed self, ability to shop, access kitchen, prepare nutritious meals and get adequate hydration. Encourage to eat with others.
- Address ability to drive safely. Provide referral to driving rehab specialist and/or explore alternative transportation options.

Train in safe and efficient functional mobility (sit to stand, bed mobility skills, transfers, standing, ambulation and wheelchair mobility) during ADL and IADL tasks.

 Train in the safe and correct use of assistive devices and adaptive equipment (walkers, canes, sliding boards, bed transfer handles, leg lifters, wheelchairs) as appropriate.

Occupational Therapy TOOLKIT Frailty and Debility

Occupational Therapy Intervention:

Provide an individualized exercise program that includes progressive endurance, strengthening and flexibility activities.

Recommend the use of an activity tracker.

Instruct patient and caregiver in a written home exercise program.

Provide functional balance activities to increase balance confidence with ADL tasks.

Provide pain management.

Provide a fall prevention program that includes balance, coordination and agility training and education about fall risk and prevention strategies.

Complete a comprehensive, performance-based home assessment. Recommend and/or provide modifications, adaptive equipment and/or assistive technology.

Educate about the negative effects of prolonged sitting and bed rest. Educate regarding hypothermia and hyperthermia prevention.

Patient and Caregiver Handouts:

Balance Exercise Guidelines
Balance Exercises - Sitting
Balance Exercises - Standing
Hip and Knee Exercises - Seated
Putty Exercises
Stretch Band Exercises - Arms
Upper Body Exercises - Hand Weights
Walking Guidelines

Additional Treatment Guides:

Activities of Daily Living
Balance
Chronic/Persistent Pain Syndrome
Fall Risk Assessment and Prevention
Functional Mobility
Home Safety and Modification
Pressure Ulcers
Rest and Sleep
Therapeutic Exercise
Urinary Incontinence

Osteoarthritis - Conservative Management

Impairments and Functional Limitations:

ADL, IADL, productivity and leisure impairment
Functional mobility impairment
Limited UE and LE ROM
Impaired hand function
Muscle weakness
Limited activity tolerance and endurance
Joint pain, stiffness and inflammation that increase with activity
Postural changes
Impaired balance
Co-occurring conditions - joint replacements, joint contractures, fall risk

Assessments:

Manual Ability Measure (MAM) (Chen & Bode 2010)

Occupational Therapy Intervention:

ADL, IADL, productivity and leisure training

- Train in the use of adaptive equipment to improve grasp (built-ups), improve ease of performance (electric can opener), compensate for range of motion loss (dress stick), compensate for weak/absent muscle (universal cuff, jar opener), prevent stress on joints (lever door handle), prevent prolonged grasp (book holder, Dycem), prevent accidents (bath seat, nonskid rugs).
- Instruct in pacing, energy conservation, joint protection, good posture and body mechanics.
- Instruct in balancing self-care, productivity, play and rest.

Train in safe and efficient functional mobility (sit to stand, bed mobility skills, transfers, standing, ambulation and wheelchair mobility) during ADL and IADL tasks.

Provide an individualized exercise program that includes low-impact, low-intensity endurance, strengthening, and flexibility activities. Goal is to maintain strength and joint mobility. Use yoga blocks, wrap foam around weights, use weight lifting gloves to improve grip.

- Acute flare-ups instruct in performing gentle passive or active ROM exercises 3-4 times daily followed by icing for 15 minutes.
- Non-acute joints instruct in the use of superficial heat, gentle isometric strengthening in pain free range.

Provide splints to rest inflamed joints, maintain correct joint alignment, improve functional control and support weak or painful joints.

Osteoarthritis - Conservative Management

Occupational Therapy Intervention:

Instruct in pain self-management strategies.

- Coordinate medication peak with exercise and activity.
- Apply superficial heat and cold.
- Practice deep (diaphragmatic) breathing and other relaxation techniques.
- Use self-massage techniques (foam rollers, tennis ball, rolling massage stick).
- Use positioning devices (seat cushions, back supports, pillows, splints).
- Instruct in using a pain journal.
- Utilize the problem solving process to identify ways to manage pain.

Provide pain management.

- Transcutaneous electrical nerve stimulation (TENS)
- Manual therapy techniques (massage, myofascial and soft tissue mobilization)
- Elastic therapeutic tape

Complete a comprehensive, performance-based home assessment. Recommend and/or provide modifications, adaptive equipment and/or assistive technology.

Provide education about fall risk and prevention strategies.

Teach strategies to incorporate wellness and health management routines into daily activities.

Educate patient and caregivers about arthritis and the availability of community resources. Encourage participation in support groups. Encourage participation in community, evidence-based exercise programs: (Active Living Every Day, Arthritis Foundation Aquatic Program, Arthritis Foundation Exercise Program, Enhance Fitness, Fit and Strong, Walk with Ease).

Patient and Caregiver Handouts:

Deep (Diaphragmatic) Breathing
Exercise Tips for Arthritis
Joint Protection for Arthritis
Pain Journal
Splint/Brace Instructions
Superficial Cold & Heat
Tips to Conserve Energy
Upper Body Active Range of Motion

Additional Treatment Guides:

Health Management

Impairments and Functional Limitations:

ADL, IADL, productivity and leisure impairment

Impaired functional mobility

Hemiparesis or hemiplegia of the upper and lower extremities

Spasticity

Impaired postural control and balance

Impaired coordination

Limited activity tolerance and endurance

Impaired sensation

Central post-stroke pain

Language disorders (aphasia, dysarthria, dyspraxia)

Dysphasia

Visual and perceptual impairment

Cognitive impairment

Behavioral disorders (depression, lability, low frustration tolerance, impulsivity)

Bladder and bowel dysfunction

Potential secondary complications - biomechanical shoulder pain (biceps tendonitis, rotator cuff pathology, adhesive capsulitis, complex regional pain syndrome), edema (upper and lower extremity), pressure ulcers, joint contractures, depression, DVT's, aspiration pneumonia, seizures, fall risk

Assessments and Rating Scales:

Arnadottir OT-ADL Neurobehavioral Evaluation (A-ONE) (Arnadottir 1990)

Assessment of Motor and Process Skills (AMPS) (Fisher et al., 1993)

Chedoke-McMaster Stroke Assessment Scale (Gowland et al., 1993)

Canadian Occupational Performance Measure (Law et al., 2014)

Modified Ashworth Scale (Bohannon & Smith 1987)

Stroke Impact Scale (Duncan et al., 1999)

Occupational Therapy Intervention:

ADL, IADL, productivity and leisure training

- Safely incorporate affected extremity with all activities.
- Use compensatory techniques (task modification, one-handed techniques, handover-hand guiding, task segmentation, end chaining).
- Recommend and/or provide adaptive equipment: Rocker knife, inner lip plates, holders for books or playing cards, stabilizing devices for activities that traditionally require two-handed performance (e.g., cutting vegetables, cleaning dentures), and keyboards adapted for one-handed computer use.
- Instruct in pacing and energy conservation strategies.

Train in safe and efficient functional mobility (sit to stand, bed mobility skills, transfers, standing, ambulation and wheelchair mobility) during ADL and IADL tasks.

Occupational Therapy Intervention:

Provide functional posture and balance activities.

- Focus on stability, weight shifting, body awareness, trunk rotation & elongation.
- Have patient turn toward affected side when reaching.
- Set up room so the patient must physically move to their affected side.
- Provide reach-grasp-hold-release activities, in standing and sitting, with and without support.

Provide activities and exercises to uninvolved side to prevent loss of ROM and strength.

Restore function of the upper extremity. Use a variety of remedial approaches according to the needs of the patient.

- Provide early mobilization and positioning.
- Incorporate task-oriented/task specific training.
- Provide opportunities to use and move the arm throughout the day (use of ball bearing feeder, mobile arm support, overhead suspension sling, functional splinting such as wrist cock-up and dynamic finger extension splints).
- Provide modified constraint-induced movement therapy (mCIT) or constraint-induced movement therapy (CIMT).
- Instruct an arm and hand strengthening exercise program.
- Provide functional electrical stimulation (FES) for wrist extensors during functional tasks and/or shoulder subluxation.
- Instruct in a functional dynamic orthoses (SaeboFlex, SaeboReach).
- Use cognitive strategies (mirror therapy, mental imagery/practice, action observation).
- Provide sensory re-education intervention.
 - Avoid increasing spasticity.
 - Encourage use of extremity in functional tasks.
 - o Provide weight-bearing activities.
 - o Provide sensory stimulation activities.
 - Teach compensatory techniques and safety measures for sensory deficits. Test bath/dish water temperature using the intact extremity or a thermometer. Lower the water heater temperature to 120°F (48°C). Avoid cuts and burns in kitchen. Avoid using heating pads on impaired extremities. Wear gloves to prevent frostbite. Avoid going barefoot. Wear sunscreen to prevent sunburn. Use intact hand to handle sharp kitchen utensils. Use vision to compensate to sensory loss. Perform skin checks.

Occupational Therapy Intervention:

Restore function of the upper extremity. Use a variety of remedial approaches according to the needs of the patient (continued).

- Prevent or manage hand edema.
 - o Teach active self-range of motion exercises in elevation.
 - Position hand in elevation
 - o Use retrograde massage.
 - Use gentle grade 1-2 mobilizations for the hand and fingers.
 - o Provide a compression garment.
- Manage spasticity.
 - o Prevent contractures.
 - o Provide PROM, SROM and stretching exercises.
 - o Instruct in positioning in bed, chair and during mobility.
 - Select use of splinting to protect hand/wrist: resting hand splint for flaccid to mild tone, spasticity splint for moderate to high tone.
 - Post-Botox injections, provide strengthening/FES to antagonists, stretching and splinting
- Prevent or manage shoulder pain.
 - o Avoid overaggressive therapy and overhead pulleys.
 - o Mobilize and strengthen the scapula.
 - Position arm with cubital fossa facing up, 45° shoulder abduction and comfortable shoulder external rotation.
 - o Provide firm support devices such as lap trays and arm troughs.
 - Range of motion exercises should not move the shoulder beyond 90degrees of flexion and abduction unless there is upward rotation of the scapula and external rotation of the humeral head.
 - o Manage acquired orthopedic conditions (biceps tendonitis, impingement syndrome, adhesive capsulitis, rotator cuff pathologies, CRPS-1).
 - o Use functional electrical stimulation (FES) for shoulder subluxation.

Instruct patient and caregivers in care of the affected extremity.

- Prevent and control of edema.
- Teach passive ROM exercises.
- Teach self-ROM exercises.
- Protect and support the affected arm during bed mobility, transfers and ambulation using slings, a pocket, or hand hold and during wheelchair use by using a hemi tray or arm trough.
- Teach proper positioning in bed, chair and wheelchair.
- Instruct in care and use of positioning splints.

Teach compensatory strategies for perceptual deficits.

Occupational Therapy Intervention:

Provide cognitive retraining and train in the use of compensatory strategies.

Provide education about fall risk and prevention strategies.

Community reintegration:

- Complete a comprehensive, performance-based home assessment. Recommend and/or provide modifications, adaptive equipment and/or assistive technology.
- Encourage leisure and social participation.
- Address ability to drive safely. Provide referral to driving rehab specialist and/or explore alternative transportation options.
- Recommend vocational rehabilitation strategies to assist with return to work if appropriate.

Teach strategies to incorporate wellness and health management routines into daily activities.

Educate patient and caregivers about stroke, availability of community resources. Encourage participation in support groups.

Patient and Caregiver Education Handouts:

Edema (Swelling) Control of the Arm(s)

Edema (Swelling) Control of the Leg(s)

In and Out of Bed - Toward Your Weaker Left Side

In and Out of Bed - Toward Your Weaker Right Side

Position in Bed - Left Side Weakness

Position in Bed - Right Side Weakness

Position Your Arm - Left Side Weakness

Position Your Arm - Right Side Weakness

Protect the Arm - Left Side Weakness

Protect the Arm - Right Side Weakness

Splint/Brace Instructions

Stress Management

Tips to Conserve Energy

Using a Front Wheel Walker (2 wheels)

Using a Wheelchair

Patient and Caregiver Exercise Handouts:

Balance Exercise Guidelines

Balance Exercises - Sitting

Balance Exercises - Standing

Fine Motor Activities

Patient and Caregiver Exercise Handouts:

Gross Motor Tasks

Level 1 Activities - Help Your Weaker Arm Move

Level 2 Activities - Use Your Weaker Arm to Passively Hold

Level 3 Activities - Use Your Weaker Arm to Actively Move and Hold

Level 4 Activities - Use Your Weaker Arm with Gross Motor

Level 5 Activities - Use Your Weaker Arm with Fine Motor

Passive Range of Motion - One Side Weakness

Posture Exercises

Putty Exercises

Scapular Mobility and Strength Exercises

Self Range of Motion

Stretch Band Exercises - Arms

Upper Body Active Range of Motion

Upper Body Exercises - Hand Weights

Upper Body Exercises - Using a Ball

Upper Body Strength Activities

Use Your Arm to Actively Move and Hold

Use Your Arm to Passively Hold

Use Your Arm with Assisted Guiding

Use Your Arm with Gross Motor Activities

Use Your Arm with Self-Guiding

Weight Bearing Exercises

Additional Treatment Guides:

Activities of Daily Living

Apraxia

Balance

Chronic/Persistent Pain Syndrome

Cognition

Depression

Fall Risk Assessment and Prevention

Functional Mobility

Handwriting

Health Management

Home Safety and Modification

Therapeutic Exercise

Visual Perception