Oncology Basics:
Creative Adaptations to Promote Activity for Patients with Cancer

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Objectives
Understand:
- Practice framework and relevance of adaptations.
- Unique OT needs of patients in the acute oncology and palliative care settings.
- Barriers patients with cancer experience requiring creative interventions.
- Areas of oncology that frequently require adaptations.
- Examples of custom adaptations OT’s can fabricate for patients with cancer during all phases of treatment.
Practice Framework

- The Person-Environment-Occupation Model
  - Address all 3 factors to create a solution
  - Allows for implementation of care at different levels and in any context

Practice Framework

- The Occupational Therapy Intervention Process Model
  - Implementing adaptive occupations for
    - Compensation
    - Remediation

Occupational Therapy in Oncology

The role of Occupational therapy in oncology is "to facilitate and enable an individual patient to achieve maximum functional performance, both physically and psychologically, in everyday living skills regardless of his or her life expectancy"
Occupational Therapy Approach in Oncology Care 3,4

- Intervention methods to:
  - Remediate
  - Compensate
  - Adapt

Impact of Cancer Treatment on Performance

- Cancer or the treatments involved in one’s care may lead to changes in physical, cognitive, and emotional well-being 3.

- Research has shown:
  - Adequate post-operative adaptations will maximize long-term function
  - Rehabilitation can improve patient’s feelings of stability and activity levels 5.

- Problem-solving interventions might be needed to resolve obstacles to the proper management of cancer pain 6.

Orthotic Fabrication 7,8,9

- Orthopedic reconstructive surgeries for tumor removal

- Plastics reconstruction for tumor removal and tissue transfers

- Plastics reconstructive surgeries with free flaps
Role of Fabricating Orthotics for Reconstructive Surgeries

- Occupational Therapy is consulted for immobilization of the graft site
- Plastic surgery and Orthopedic surgery work together with OT to determine appropriate positioning
- Once integrity of the graft is proven, maintaining joint and muscle integrity becomes the priority

Goals of OT for Patients Requiring Custom Orthotics

- Immobilization of the joint
- Protection of the flap/circulatory system
- BADL
- Education
- Optimal positioning

Forearm Supination Orthosis with Adapted Positioning
Adapting Multi-Podus Boots

Scrotal Edema $^{10,11}$

- A variety of disorders may cause scrotal inflammation
- Male patients become significantly uncomfortable, limiting functional activity

Goals of OT for Patients Experiencing Scrotal Edema

- Creation of custom supports
- Education
- BADL
- Functional mobility
General Custom Scrotal Support

- Custom scrotal supports assist with decreasing edema and increasing patient comfort with functional activities.

Unique Case: External Hemipelvectomy

- Amputation of lower extremity at hip level
- Multiple limitations
- OT goals:
  - Scrotal edema management
  - Increasing OOB, mobility, and BADL
Role of OT in Adapting Durable Medical Equipment $^{13,14}$

- Modifications for post-surgical patients:
  - Provide optimal positioning and pressure relief
  - Increase comfort to promote healing and activity
- Common modifications:
  - Commodes, cushions, and wheelchairs
- Patient and family education is essential for carryover

Orthopedic Surgeries Requiring Seating Adaptations

- Hemipelvectomy
- Sacrectomy
  - Partial or complete removal of the sacrum
  - Attachments at lumbar vertebra and ilium
- OT goals:
  - ADL modification
  - Balance
  - Cushioning needs
Other Unique Adaptations

- Helping patients to live their days to the fullest while maintaining a sense of control and dignity are the primary contributions of occupational therapy in the management of cancer-related treatments.

- Uniqueness of the individual and their obstacle preventing activity or independence is priority.

- Always consider psychosocial needs.

Barrier: Preventing Complications While Improving Mobility in Patients with Head and Neck Cancer

- Patients that undergo surgical interventions for tumor excision.

- Plastic surgery team requirements for the patient to remain in specific positions to promote healing.

Solution: Head and Neck Support
Barrier: Pediatric Patients with Ongoing Chemotherapy Treatments

- Some patients will require MediPort placements for ease with multiple future treatments.

Solution: Protective Chest Plates

Barrier: Incontinence & Self Catheterization

- Numerous diagnoses may cause incontinence
- May increase family burden and decrease patient independence
- Altered self image
Solution: Self Catheterization Mirror

Barrier: Altered Body Image After Surgical Procedures

- Some surgeries may result in a change in the structure and visual appearance of the body.
- Psychological affects on body image can influence self esteem, functional activity, independence, and work/social involvement.

Solution: Cosmetic Adaptation
Barrier: Protecting Surgical Sites

- Surgeries may require multiple operations over an extended period of time
- Healing of the first surgery is essential before the next surgery can take place
- OT's consulted to assist in assuring protection of the surgical site while awaiting the next operation

Solution: Protective Orthotic

Documentation and Billing

- Custom Orthoses

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- Adaptations without L-codes
  - Orthotic fit and train (i.e. pediatric chest plate)
  - Self care/SADL (i.e. scrotal support)
  - Evaluation
Conclusion

- Cancer treatments can significantly affect an individual’s performance in daily activities or restrict the ways in which they are able to move.
- Creative custom designs or adaptations to existing resources are required in acute care to improve patient’s participation in occupations.
- OTs in oncology are challenged to create unique splints and positioning devices to maintain specific precautions set by the surgeons postoperatively.
- OT practitioners provide holistic comprehensive interventions and adaptations that focus on a patient’s goals and ability to successfully participate in their lifestyle choices and improve quality of life during and well beyond their Cancer experience.

References