

**Essential Competencies
for Entry Level Physical
Therapist Practice for
Providing Care for
Persons with Cancer**

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Introduction and Evolution of Oncologic Physical Therapist Practice

Cancer is the second leading cause of death in the United States and is a substantial cause of disability and dysfunction in those diagnosed with or living beyond cancer.^{1,2} Due to the advancing innovations in cancer care, more people are living longer after a diagnosis of cancer which increases the likelihood and duration of impairments.³ As all cancer treatments cause adverse effects that can have a detrimental effect on a person's functioning, wellbeing, and quality of life, it is imperative that these individuals have unfettered access to skilled healthcare professionals who can assist in treating and mitigating these adverse effects.

Although physical therapists (PTs), now trained at the doctoral level in the United States, are seen as the experts in the optimization of the movement system, the entry level training in oncology care and cancer rehabilitation has historically been insufficient. This is especially important as the number of people living with and beyond cancer continues to grow. As the vision of the American Physical Therapy Association (APTA) is to *transform society by optimizing movement to improve the human experience*, physical therapists must be prepared to meet the call of their communities by providing excellent care to persons living with and beyond cancer.

The Evolution of Oncologic PT Practice

Specialist practice for oncologic physical therapy was formally established in 2016 by the APTA House of Delegates. The American Board of Physical Therapy Specialists and the Oncology Specialty Council published the document entitled the *Description of Specialty Practice (DSP)* to establish what specialty practice entails for oncologic physical therapist care. The first oncology specialist certification examination was administered in 2019. Concurrently, the first oncology residency was accredited by the American

Board of Physical Therapy Residency and Fellowship Education in 2018. The *Oncologic Description of Residency Practice* provides specific program requirements and guidelines for accredited and developing residency programs. As the demand for oncologic physical therapy care greatly outweighs the number of specialists and resident graduates, a substantive effort was warranted to prepare all physical therapists to proficiently provide care for persons with cancer.

In 2020, the Board of Directors of the Academy of Oncologic Physical Therapy (APTA Oncology) founded a Task Force to establish entry level guidelines for physical therapist practice when providing care for persons living with and beyond cancer (termed Essential Competencies). These guidelines can be utilized when evaluating entry level physical therapist programs by physical therapy academic educators, clinical faculty, students, and accrediting agencies.

Members of the Task Force

- Shana Harrington PT, PhD, Board Certified Sports Clinical Specialist (Co-Chair)
- Chris Wilson PT, DPT, DScPT, Board Certified Geriatric Clinical Specialist (Co-Chair)
- Maggie Rinehart-Ayres, PT, PhD
- Frannie Westlake, PT, DPT, Board Certified Neurologic Clinical Specialist, Board Certified Oncologic Clinical Specialist
- Lisa VanHoose PT, MSPT, MPH, PhD, FAPTA, FAAPT, Board Certified Oncologic Clinical Specialist

A three-step expert consensus process was completed to establish these Essential Competencies which can be found in the next section of this document. The APTA Oncology Board of Directors and the Task Force members would like to thank and acknowledge all those who participated in the multi-year process to establish these historic guidelines.

Development of the Guidelines

Establishment of these Essential Competencies was conducted through a three-step process utilizing content experts, board certified specialists, academic and clinical educators, students, and a diverse group of practitioners with experience in providing care for individuals living with and beyond cancer (Figure 1).



Figure 1. Three-step process for Establishing Essential Competencies

Phase I: Focus Groups

In the Summer of 2021, three online focus groups were convened to establish Overarching Themes related to oncologic PT care provision as well as establishing the most essential Domains of Care for entry level oncologic PT practice. Twenty-three participants with a wide variety of experience, background, and levels of expertise in oncologic PT care were interviewed about their thoughts, perceptions, and experiences as it related to entry level oncologic PT practice. The focus group transcripts were qualitatively analyzed, and the *Overarching Themes of Entry Level Physical Therapist Services for Persons with Cancer* were identified from participant responses (See Page 5).

One critical finding from this study was that a systems-based approach to education of PT students was essential as there were too many cancer diagnoses and treatments to comprehensively teach in an already full PT curriculum. In addition, six of the most essential domains of care were identified,

in which the Essential Competencies would be established (Figure 2).

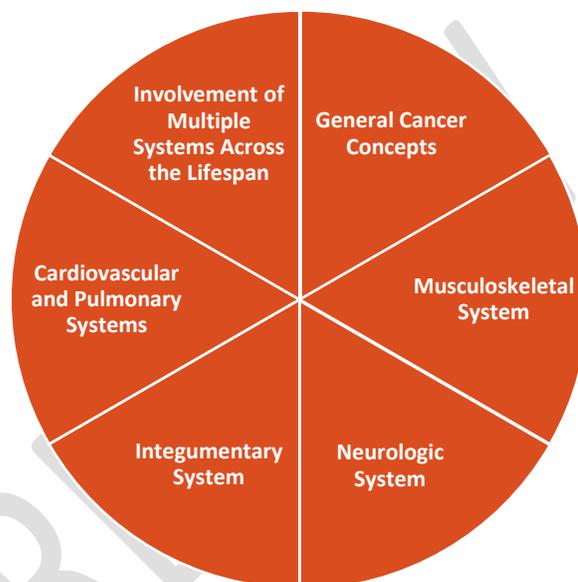


Figure 2. Essential Domains of Care

Phase II: Small Group Discussions

At the 2022 APTA Combined Sections Meeting in San Antonio, TX, attendees were invited to provide input on the most important aspects of oncologic PT care for each of the established Domains of Care. Small groups of approximately 6-8 participants provided suggestions for each Domain as to what Essential Competencies were most important for new graduate PTs to be able to demonstrate and perform.

After the small groups generated their draft competencies, they were voted upon to provide a ranking and prioritization and submitted to the Task Force leaders. From this meeting, the first draft of the Essential Competencies were developed. Additional sources of information for drafting these Essential Competencies included current Commission on Accreditation for Physical Therapy Education (CAPTE) guidelines and the Oncologic DSP.

Phase III: Delphi Study

Twenty-five participants (PTs = 25, student PT = 1) were recruited to provide feedback on the draft guidelines through a three-round Delphi study to refine and vet each of the Essential Competencies. This process began in June 2022 and was completed in December 2022. Surveys were based on the prior work of Magnusson et al.⁵ As with the prior phases, a diverse pool of professionals with a wide variety of clinical experience and demographic representation were included. All 26 participants completed each of the three Delphi rounds.

After providing context about the Overarching Themes that were previously established, each participant was asked to rank the draft Essential Competencies on a 5-point Likert scale for relevance and clarity.⁵ If 80% of participants felt that a Competency was sufficiently relevant and clear, it was accepted. If it did not achieve 80% on these items, it was reviewed and revisions were made, if indicated. If a Competency did not meet the 80% threshold for relevance or clarity by the end of Round 3, it was not accepted and not included in this document. See Page 6 for the final Essential Competencies.

Academy Endorsement and Next Steps

This document and the Essential Competencies were reviewed and endorsed by the Academy of Oncologic Physical Therapy's Board of Directors in January 2023. A future priority toward this initiative is the development of similar guidelines for physical therapist assistant entry level education.

Orientation to this Document

This document consists of two main areas:

1. Overarching Themes of Entry Level Physical Therapist Services for Persons with Cancer
2. Essential Competencies for Entry Level Physical Therapist Practice for Providing Care to Persons with Cancer.

The Overarching Themes section consists of general messages and educational approaches that academic and clinical educators should be utilizing when educating students on providing care to persons living with and beyond cancer. These are broad clinical philosophies that should be conveyed through multiple means throughout the duration of a PT student's educational journey. These concepts should be interwoven in relevant coursework and clinical education experiences to help the student understand and integrate the unique needs of this patient population.

Next are the Essential Competencies. These are specific behaviors and skills that a PT student should be able to demonstrate upon completion of their entry level program. They are appropriate to be tested for and evaluated based upon measurable learning objectives. The Essential Competencies are categorized by the six aforementioned Domains of Care. For more information on sample learning objectives, example activities, and assessment measures, the reader is recommended to consult the APTA Oncology website www.oncologypt.org.

References

1. Centers for Disease Control and Prevention. Leading Causes of Death. CDC website. <https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm>. Updated September 6, 2022. Accessed December 4, 2022.
2. Silver JK, Baima J, Mayer RS. Impairment-driven cancer rehabilitation: an essential component of quality care and survivorship. *CA Cancer J Clin*. 2013;63(5):295-317. doi:10.3322/caac.21186
3. Stout NL, Silver JK, Raj VS, et al. Toward a National Initiative in Cancer Rehabilitation: Recommendations From a Subject Matter Expert Group. *Arch Phys Med Rehabil*. 2016;97(11):2006-2015. doi:10.1016/j.apmr.2016.05.002
4. Boright L, Compagner E, Harrington S. Entry-Level to Advanced Practitioner Preparation in Oncology Rehabilitation: A Review. *Rehabil Oncol*. 2022 Jan 1;40(1):E1-3.
5. Magnusson DM, Rethorn ZD, Bradford EH, et al. Population Health, Prevention, Health Promotion, and Wellness Competencies in Physical Therapist Professional Education: Results of a Modified Delphi Study. *Phys Ther*. 2020;100(9):1645-1658. doi:10.1093/ptj/pzaa056

Overarching Themes of Entry Level Physical Therapist Practice for Persons with Cancer

1. Introduction to cancer & its treatments including basic staging and grading.
2. Awareness of and basic assessment for associated adverse effects (including long term & late effects and medication-related [integrated into Pharmacology course]) (e.g., chemotherapy-induced polyneuropathy, lymphedema, cancer-related fatigue, pain).
3. Taking a thorough history of cancer history and treatments (including adverse effects) for every person with current or history of cancer (e.g., chief complaint of low back pain with a history of breast cancer seven years ago still needs a thorough cancer history assessment).
4. Knowledge of students' personal and professional scope of practice as a framework for evaluation 'Can I treat, or should I refer?'
5. Adaptations of clinical care for palliative and end of life care - emphasizing the physical therapist's role utilizing a chronic disease management approach to cancer care.
6. Awareness of Dietz' model of cancer rehabilitation¹ (Preventative, restorative, supportive, palliative) and its application across the continuum of care and among different settings (e.g., primary prevention, inpatient vs outpatient).
7. Integrating the *Prospective Surveillance Model*² and prehabilitation into routine clinical practice.
8. Consistent screening for oncologic emergencies (structural/mechanical, metabolic, hematologic).³
9. Exercise as a critical component of the cancer care plan (e.g., American College of Sports Medicine exercise prescription⁴) including when exercise requires skilled monitoring of a person with cancer (e.g., cardiotoxicity, balance disturbance).
10. Understanding the importance of and increasing personal confidence with PT intervention in cancer care – 'It's safe and necessary to touch your patients.'
11. Goals and duration of treatment may be different for a person living with or beyond cancer and should be clearly reflected within clinical documentation, including rationale based on tissue healing times, expected adverse events based on cancer type, location(s), and treatments.

References

1. Dietz J. *Rehabilitation Oncology*. New York, NY: John Wiley & Sons; 1981.
2. Stout NL, Binkley JM, Schmitz KH, et al. A prospective surveillance model for rehabilitation for women with breast cancer. *Cancer*. 2012;118(8 Suppl):2191-2200. doi:10.1002/cncr.27476
3. Maltzer S, Cristian A, Silver JK, Morris GS, Stout NL. A focused review of safety considerations in cancer rehabilitation. *PM&R*. 2017 Sep 1;9(9):S415-28.
4. Schmitz KH, Campbell AM, Stuiver MM, et al. Exercise is medicine in oncology: Engaging clinicians to help patients move through cancer. *CA Cancer J Clin*. 2019;69(6):468-484. doi:10.3322/caac.21579



Essential Competencies for Entry Level Physical Therapist Practice for Providing Care to Persons with Cancer

Domain 1: General Cancer Concepts

1.1: Understanding cancer basics including:

1. What is cancer (how cancer starts as a disease)
2. Solid vs liquid cancers
3. Overview of the top 3 common cancers for males & females
4. Basics of staging & grading

1.2: Performing medical screening for red flags (differential diagnosis) and common patterns of metastatic spread based on cancer diagnosis

1.3: Recognition of altered tissue healing times and abnormal lab values related to cancer and treatments, including the ability to adapt rehabilitation interventions based on these. (e.g., tissue healing during breast radiation, abnormal platelets related to exercise prescription)

1.4: Being able to provide sensitive and person-centered communication especially when having difficult conversations. (e.g., empathy, family- and caregiver-centered, confidence to refer and re-refer)

Domain 2: Musculoskeletal System

2.1: Effects on Bone

- Key examples including:
 - From cancer diagnosis, treatments and/or medications
 - Osteoporosis
 - Metastatic bone disease

2.2: Effects on Joint

- Key examples including:
 - Considerations for range of motion and stretching/lengthening
 - Effects of aromatase inhibitors
 - Manual therapy can be beneficial

2.3: Effects on Muscle

- Key examples including:
 - Sarcopenia
 - Cachexia
 - Adapting muscle strength assessments and interventions (encourage objective measures such as handheld dynamometry)

Domain 3: Neurologic System

3.1: Identifying chemotherapy induced peripheral neuropathy/polyneuropathy (including cranial/non-peripheral nerves) and establishing treatment strategies

3.2: Awareness and recognition of neuro-oncologic emergencies:

- Key examples including:
 - Cauda equina syndrome
 - Spinal cord compression
 - Balance and cognition changes
 - Seizure awareness and management

3.3: Balance and falls recognition

- Education
- Assistive device use
- Falls prevention

3.4: Appropriate use of evidence-based balance-related outcomes in cancer. (e.g., Mini-BESTest, Fullerton Advanced Balance Scale, Gait Speed)

3.5: Recognizing the possible effect of cancer and treatment on cognition and the impact on function and participation

Domain 4: Integumentary System

4.1: Understanding the effect that cancer treatment has on the integumentary system

- Key examples including:
 - Radiation-induced induced fibrosis
 - Scar management
 - Tissue & wound healing times are affected

4.2: Screening for abnormal swelling (i.e., cellulitis, lymphedema) with referral to an appropriately trained healthcare professional for diagnosis or management

Domain 5: Cardiovascular and Pulmonary Systems

5.1: Consistently assessing vital signs at rest and activity during active cancer and into survivorship

5.2: Understanding the impact of cancer treatment on the cardiopulmonary system

- Key examples including:
 - Cardiac chemotoxicity (e.g., left ventricular dysfunction)
 - Radiation-induced cardiotoxicity and pulmonary toxicity
 - Increased risk for cardiovascular and pulmonary disease

5.3: Current knowledge and application of cancer exercise guidelines (e.g., American College of Sports Medicine)

5.4: Performing baseline exercise testing using valid and reliability measures (e.g., maximal vs submaximal testing, six-minute walk test, and dosing exercise intensity appropriately based on findings)

5.5: Determining when medical clearance is needed due to effect of treatment and cancer on the cardiopulmonary system.

Domain 6: Involvement of Multiple Systems across the Lifespan

6.1: Identifying potential long-term and late effects of cancer across the lifespan and screen for these issues in people living with and beyond cancer.

6.2: Being able to adapt examination and intervention when cancer is a comorbidity. (e.g., individual with a history of cancer seeking rehab for another diagnosis or condition)



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