

Cheville AL, Mustian K, Winters-Stone K, Zucker DS, Gamble GL, Alfano CM. Cancer rehabilitation: An overview of current need, delivery models, and levels of care. *Physical Medicine and Rehabilitation Clinics*. 2017;28(1):1-17.

OVERVIEW

Cancer rehabilitation is becoming an increasingly relevant adjunct to cancer survivorship care as incidence of disease increases in concert with advancing treatment options contributing to increased life expectancies. Various treatment options also contribute to the growing concern of disabling side effects and reduced quality of life and the confounding increased financial burden of survivorship care. The vast majority of cancer care tends to center in tertiary care centers. This article aims to identify barriers and facilitators to effective implementation of comprehensive oncology rehabilitation programs as well as models for care delivery.

Barriers to effective implementation of comprehensive oncology rehabilitation:

1. Limited specialized clinical workforce.
2. Insurance coverage limitations and high co-payments for services
3. Complexity of care required to manage many domains of care
4. Scope ambiguity amongst multidisciplinary team
5. Lack of consensus relative to rehab protocols

Facilitators

1. Mandates from high-profile, cancer-related organizations
 - a. National Cancer Institute (NCI)
 - b. American College of Surgeons Commission on Cancer (ACOS, COC)
 - c. Commission on Accreditation of Rehabilitation Facilities (CARF)
 - d. APTA – developed oncology certification

Models for Delivery of Cancer Rehabilitation Services

1. Prospective surveillance Model (PSM)
 - a. Rehab begins at diagnosis with comprehensive pre-operative assessment, baseline functional levels established, follow up/surveillance throughout continuum
 - b. Evidence suggest this model is efficacious to reduce lymphedema incidence and improves shoulder ROM/function in breast cancer survivors
2. Triggered Rehabilitation Referral by Procedures, Diagnoses, or Threshold Scores
 - a. Rehab referrals are triggered by criteria identified as high-needs based
3. Established Rehabilitation Care Delivery Pathways
 - a. Continuation of services across the continuum, notably in acute setting to connect outpatient services, “pathy way” driven, ie. CVA Pathy way
4. The International Classification of Functioning, Disability and Health (ICF)
 - a. Taxonomy of conditions and impairments, framework for gauging cancer rehabilitation
5. Center-based Programs
 - a. Limited, though based historically out of cardiac and pulmonary rehab concepts
 - b. Evidence shows this type of program has the capacity to enhance QoL

6. Exercise for Rehabilitation and Fitness
 - a. Growing body of evidence to support benefits exercise protocols during and after cancer treatment
 - i. Mitigation of physical and psychological toxicities
 1. Sarcopenia, weakness, weight gain
 - ii. Diverse modalities studied
 1. Walking, weight lifting, yoga, tai chi
 - b. Evidence supports improved QoL, sleep quality, function, mood and fatigue
 - c. Programs tailored to individualized needs of cancer survivors preferred

Commentary

It is essential that all members of the multidisciplinary care team emphasize the importance of exercise in prevention and treatment of cancer related side effects early and often throughout the survivorship continuum. Many barriers to comprehensive care exist, though can be challenged with appropriate an appropriate care model. Different levels of cancer rehabilitation exist relative to the varied complexity of cancer care and ranges from home exercise with little supervision to complex care managed by many members of a multidisciplinary team. This article also promotes the physiatrist as a key member of the multidisciplinary team, uniquely trained and positioned to mobilize appropriate resources and involve appropriate treatment adjuncts across the survivorship continuum.