



Shifting Paradigms in Cancer Rehabilitation

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Cancer Rehabilitation

Disclosures


None



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Objectives


- Understand the role of the rehabilitation service in the comprehensive care of the cancer survivors.
- Describe the common disorders (neuromuscular, musculoskeletal, functional and other) likely to benefit from a comprehensive cancer rehabilitation program.
- Identify the key components necessary for a successful, effective, and respected comprehensive cancer rehabilitation program.






Cancer Rehabilitation
Job Description

A specialist in the identification, evaluation, and rehabilitation of neuromuscular, musculoskeletal, and functional disorders associated with cancer and its treatment emphasizing the restoration and maintenance of function and quality of life.



Cancer Rehabilitation
"The Dirty Little Secret"


The principles and practice of cancer rehabilitation are generally similar to those of general rehabilitation...

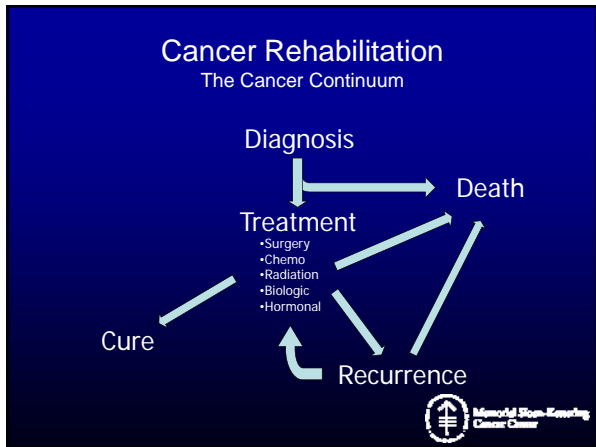


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Successful Rehabilitation Requires and Understanding of:

- Cancer
- Cancer treatments
 - Surgery
 - Chemotherapy
 - Radiation Therapy
 - Hormonal Therapy
 - Biologic Therapy
- Pre-existing disorders
- The interrelationship between all of the above








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What is a Cancer Survivor?

A person who has received a cancer diagnosis but is considered free of active disease and who has completed their primary cancer treatment, although some may remain on maintenance therapy such as Tamoxifen, etc.




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Cancer Survivor "Official" Definitions

The National Coalition for Cancer Survivors (NCCS) defines a 'cancer survivor' as being 'from the point of diagnosis and for the balance of life'.

The National Cancer Institute (NCI) states that "survivorship covers the physical, psychosocial, and economic issues of cancer, from diagnosis until the end of life. It focuses on the health and life of a person with cancer beyond the diagnosis and treatment phases. Survivorship includes issues related to the ability to get health care and follow-up treatment, late effects of treatment, second cancers, and quality of life. Family members, friends, and caregivers are also part of the survivorship experience."¹




<http://www.cancer.gov/dictionary/C44D-445089>

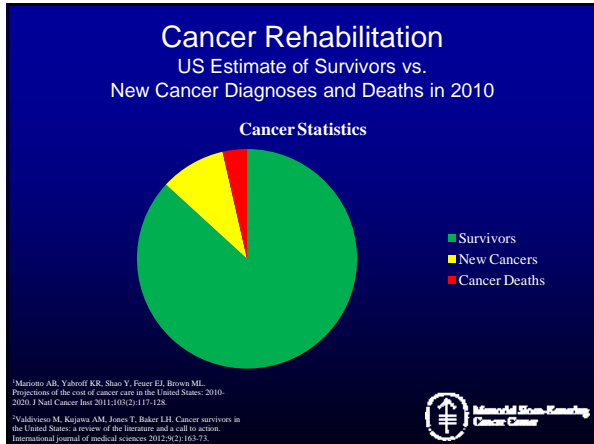
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Contemporary Perspective: United States

- 13.8 million Cancer Survivors in 2010¹
- 18.1 million Cancer Survivors by 2020¹
- There are less than 3 hundred thousand survivors of spinal cord injury as reported in 2008.²
- Approximately 65% of persons diagnosed with cancer today can expect to live at least 5 years after diagnosis compared with only 35% in the 1950's.³
- Patients are increasingly described as "cancer survivors" as opposed to "cancer victims".

¹Marotto AB, Yabroff KR, Shao Y, Feuer EJ, Brown ML. Projections of the cost of cancer care in the United States: 2010-2020. *J Natl Cancer Inst* 2011;103(2):117-128.
²The National SCI Statistical Center. Spinal Cord Injury Facts & Figures at a Glance 2008. <http://www.nscisc.org/infocenter/infocenter.cfm>.
³Ries LAG, Melbert D, Krapcho M, Stinchcomb DG, Howlader N, Horner MJ, Mariotto A, Miller BA, Feuer EJ, Abbisuto SF, Lewis DR, Chagas L, Eisner MP, Reichman M, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2006. National Cancer Institute, Bethesda, MD. http://seer.cancer.gov/csr/1975_2006/, based on November 2007 SEER data submission, posted to the SEER web site, 2008.








- ### Cancer Rehabilitation
- Neuromuscular and Musculoskeletal Disorders Commonly Seen in Cancer Patients
- Neuromuscular
 - Cerebroathy
 - Myelopathy
 - Radiculopathy
 - Plexopathy
 - Neuropathy
 - Polyneuropathy
 - Mononeuropathy
 - Mononeuropathy Multiplex
 - Ganglionopathy
 - Small Fiber
 - Myopathy
 - Disorders of Neuromuscular Transmission
 - Musculoskeletal
 - Rotator Cuff Tendonitis
 - Adhesive Capsulitis
 - Epicondylitis
 - De Quervain's Tenosynovitis
 - Neuroforaminal/Central Stenosis
 - Spinal Instability
 - Fracture/Impending Fracture
 - Arthritis
 - Enthesopathy
 - Osteoporosis
 - GVHD
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Other Disorders Commonly Seen in Cancer Patients

- Lymphedema
- Fatigue
- Myalgia
- Fibromyalgia
- Cardiac insufficiency
- Pulmonary insufficiency
- Bowel and bladder dysfunction
- Autonomic dysfunction
- Baroreceptor failure
- Cognitive dysfunction
- Psychiatric dysfunction
- Psychosocial dysfunction





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The Core Rehabilitation Team


- Rehabilitation Medicine
- Physical Therapy
- Occupational Therapy
- Lymphedema Therapy
- Prosthetics & Orthotics
- Speech & Language Pathology



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The Medical Team


- Medical Oncology
- Surgical Oncology
- Radiation Oncology
- Anesthesia Pain
- Pain & Palliative Care
- Rehabilitation Medicine
- Psychiatry
- Primary Care
- Internal Medicine
 - Cardiology
 - Endocrinology
 - Gerontology
 - Nephrology
 - Pulmonology
 - Rheumatology



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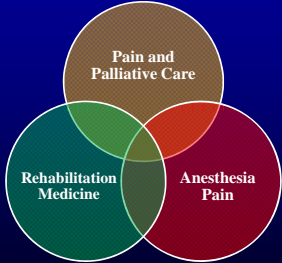
The Support Team

- Chaplaincy
- Nursing
- Nutrition
- Psychology
- Social Work
- Vocational Counselors
- Family
- Everyone Else




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Pain Management Teams



The diagram consists of three overlapping circles. The top circle is brown and labeled 'Pain and Palliative Care'. The bottom-left circle is green and labeled 'Rehabilitation Medicine'. The bottom-right circle is red and labeled 'Anesthesia Pain'. The overlapping areas between the circles are shaded in various colors.






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What is Comprehensive?


- National Cancer Institute (NCI)
 - 41 Comprehensive Cancer Centers
- National Comprehensive Cancer Network (NCCN)
 - 21 Member Institutions



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Change in Oncology Practice

- 1980s
 - The majority of cancer care delivered in large specialized tertiary cancer centers
- Present day
 - Most cancer care delivered in physician-owned practices
 - earlier detection
 - improved treatments (less radical surgery, combined-modality therapy, and adjuvant endocrine therapy)
 - Hospitalized patients have shorter stays




Alfano CM, Ganz PA, Rowland JH, Hahn EE. Cancer survivorship and cancer rehabilitation: reevaluating the link. J Clin Oncol 2012;30(9):904-6.

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Early Cancer Rehabilitation Programs

- Early 1980s
 - At least 36 cancer rehabilitation programs in the US
 - Programs were generally multidisciplinary, hospital-based and either integrated into a rehabilitation service or an oncology department

Harvey RF, Jellinek HM, Habbeck RV. Cancer rehabilitation. An analysis of 36 program approaches. JAMA. 1982;247(15):2127-31.




Cancer Rehabilitation

From Cancer Patient to Cancer Survivor: Lost in Transition

- 2006 Institute of Medicine (IOM) report
- Discussed the contribution of rehabilitation services in helping cancer survivors “regain and improve their physical, psychosocial, and vocational function within the limitation imposed by the disease and its treatment.”
- The IOM report noted the **paucity of organized cancer rehabilitation programs and practitioners**
- The few programs that exist are generally housed within hospital-based physical medicine and rehabilitation programs or in large cancer centers.
- With the shift in cancer care from the inpatient to the outpatient setting **the IOM report raised the concern that the rehabilitation needs of cancer survivors are not being met.**

Hewitt M GS, Stovall E. From Cancer Patient to Cancer Survivor: Lost in Transition. Washington, DC: The National Academies Press, 2006.




Cancer Rehabilitation

Does Lymphedema = Comprehensive?

A 2002 study of services offered by National Cancer Institute (NCI) -designated comprehensive cancer centers demonstrated that 70% had a lymphedema management program but no other cancer rehabilitation program.


Tesaro GM, Rowland JH, Lutz C. Survivorship resources for post-treatment cancer survivors. Cancer Pract 2002;10(6):277-83.



Cancer Rehabilitation

Does Accreditation = Comprehensive?


- American College of Surgeons Commission on Cancer (CoC)
 - 1508 CoC-accredited programs in the United States and Puerto Rico treating 71% of all new diagnosed cancer patients annually.
 - Cancer Program Standards 2012 concerning rehabilitation services states that they "can be provided either **on-site or by referral** to hospitals, freestanding facilities, physicians offices, or local community agencies that are external to the CoC-accredited cancer program."
 - Does **NOT** make recommendations concerning the type or quality of rehabilitation services that should be offered.
 - Does **NOT** set minimal standards for rehabilitation services
 - Does **NOT** seek to provide guidance as to what constitutes comprehensive cancer rehabilitation or set minimal standards that will in any way improve the quality of rehabilitation services in the future



Cancer Rehabilitation

Key Components of a Successful Comprehensive Cancer Rehabilitation Program

- A busy comprehensive cancer center or program treating patients from a multitude of disease types
- An understanding of the cancer survivor's rehabilitation needs
- A commitment to the addressing long-term needs of cancer survivors, particularly those with the greatest functional impairments (i.e., **not** just lymphedema and fatigue), and a willingness to create a culture dedicated to addressing those needs
- Skilled and highly trained cancer rehabilitation physicians and therapists (PT's and OT's) – both may need to be created.
- Facilities suitable for the practice of cancer rehabilitation




Benefits of a Cancer Rehabilitation Program



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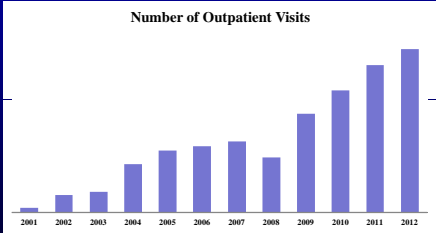
Benefits

- Enhanced patient care
- Decompress oncology practitioners
- Revenue generation
- Resident & fellow training
- Prestige & marketing
- Research
- Program development




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Growth of Outpatient Physician Practice at MSKCC




Year	Number of Visits
2001	10
2002	15
2003	20
2004	30
2005	40
2006	45
2007	50
2008	40
2009	60
2010	75
2011	90
2012	100



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Revenue Generators

Intervention	Relative Revenue
Physical/Occupational Therapy	\$\$\$\$\$
Botulinum Toxin Injection	\$\$\$\$\$
Fluoroscopic Injection	\$\$\$\$
USG-guided Injection	\$\$\$\$
New Patient Visit (Level 4 & 5)	\$\$\$\$
EMG	\$\$\$
Joint Injection	\$\$\$
Trigger Point Injection	\$\$
Follow-up Visit (Level 3 & 4)	\$\$



Cancer Rehabilitation Education



- Training
 - Residents
 - Fellows
 - Therapists
- Cancer Rehabilitation Symposium
- Lectures at National & International Meetings
- Leadership Development
- Patient Outreach
- Develop other Cancer Rehabilitation Programs



Cancer Rehabilitation Program Development

- Extensive opportunity
 - QI projects
 - Community outreach
 - Program expansion





Thank You
