

Hitt, E.,¹ Whited, M.,² Scales, R.²
¹Arizona State University, ²Mayo Clinic, Arizona

Abstract

The American Cancer Society ranks Arizona as having the 14th highest number of cancer survivors in the nation. Survivorship often comes with a wide range of persisting medical complications that result from the cancer and associated treatment. As survival improves there will be an increased need for services tailored to the health and wellness of cancer survivors. At the Mayo Clinic Cancer Center in Arizona, survivors receive a comprehensive care plan, including the option of services in Integrative Medicine and other speciality clinics. There are other local medical and community-based programs. However, support services within the state are significantly limited for survivors from cancer compared with heart disease. There is extensive evidence to support the value of cardiac rehabilitation. This provides a successful model of healthcare delivery for oncology to consider while supporting the cancer patient in their journey of recovery.

Learning Objectives

1. Identify common medical complications experienced by cancer survivors.
2. Describe the services available to cancer survivors at Mayo Clinic-Arizona and examples of other local medical and community-based programs.
3. Understand the how the cardiac rehabilitation model may provide a framework for cancer survivorship care.

Background

Cancer survivors often suffer from persisting medical complications due to their cancer and associated treatment, including cardiopulmonary complications (systolic and diastolic dysfunction, cardiac ischemia and arrhythmias, pericarditis, valvular heart disease, chemotherapy-induced repolarization abnormalities), weakness, fatigue, localized and generalized pain, lymphedema, stiffness and limited range of motion, weight changes, sexual dysfunction, anxiety and depression.¹⁻²

Survivors can benefit from health and wellness programs that are tailored to cancer survivorship care, with the aim to reduce medical complications, improve quality of life and decrease the probability of recurrence. Arizona is nationally ranked with the 14th highest number of survivors (Figure 1).¹ As survival improves there is an increased need for services tailored to the needs of cancer patients in remission.

Purpose

To identify local services for survivors and describe how the cardiac rehabilitation (CR) model provides a framework to support the wellness of this special patient population.

Medical And Community-Based Cancer Survivorship Services

Mayo Clinic Arizona (MCA)

- **MCA Cancer Survivorship Program:** Patients in remission receive a clinical consultation from an Internal Medicine physician as a bridge in the transition from specialized oncology treatment to mainstream primary care.
- Comprehensive care plans include clarification of the initial diagnosis and treatment, recommended referrals, instruction for follow-up care/surveillance, and patient education/support for potential physical and emotional complications.
- **MCA Integrative Medicine Program:** Located within MCA Cancer Center (Figure 2) survivors may access self-pay Integrative Medicine services such as acupuncture, massage, cupping, nutrition counseling and supervised exercise classes (Figures 3-7).
- **Exercise Physiology (EP) Consultation:** A medically-directed preventive cardiology EP visit provides individualized counseling and a home exercise prescription as a bridge to community services (Figure 8-9).
- **Cardio-Oncology Clinic:** Physicians specializing in cardio-oncology provide a collaborative evaluation and medical guidance to prevent, monitor and manage cardiovascular toxicities.² Echocardiography evaluations are available onsite at the MCA Cancer Center X 5 days/week.

Virginia G. Piper Cancer Center (VGCC) at Honor Health

- **VGCC Medical Referral System:** Oncology facilitates a network of supportive referrals to social workers, registered dietitians, oncology nurse navigators and genetic counselors.
- **VGCC Exercise Rehabilitation Center:** Physicians endorse access to a benefactor funded service that consists of a cancer-specific EP consultation and free access to supervised exercise within the center.³

Livestrong at the YMCA

- **Livestrong:** The YMCA offers a 12-week charity-sponsored community-based cancer survivor program with access to the numerous facilities.⁴
- Exercise instructors have received training in cancer survivorship, post-rehabilitation exercise and supportive cancer care.

It should be noted that there are other Arizona-based medical and community-based programs.⁵ However, a description of these services was beyond the scope of this paper.

Learning From Cardiac Rehabilitation

- Practice guidelines recommend CR as the standard of care to recover from a heart condition (Figure 10).⁶⁻⁸
- Reimbursement is covered by governmental and private insurance organizations.
- It is model that evolved from post-event, in-patient physical therapy in the 1950s aimed at regaining physical function,⁹⁻¹⁰ to the current model of a comprehensive, multidisciplinary team-based approach to in-patient and out-patient rehabilitative therapies.¹¹⁻¹³
- Evidence documents increases in functional capacity,¹³ psychological well-being,¹⁵⁻¹⁶ risk factor control,¹⁷ symptom management,¹⁸ adherence to preventive therapies,¹⁹ and reductions in recurrent events (including hospital readmissions) and mortality.²⁰⁻²³

With approximately 100 published studies since the 1980's, cancer rehabilitation research is in its infancy compared with CR.²⁴⁻²⁵ However, there is no denying that the physical and emotional challenges of cancer survivorship compare closely with those encountered in CR.

Figures

Figure 1. Cancer Survival Statistics

