Drexel Cardio-Oncology Service Initiative

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What is Cardio-Oncology?

Inclusive discipline focused on the cardiovascular health of cancer patients and cancer survivors

Purpose

This is a pilot program initiative to start a cardio-oncology service at the Drexel University. The purpose of this program will be to establish a clinical protocol that focuses e cardiovascular health of cancer patients and cancer survivors.

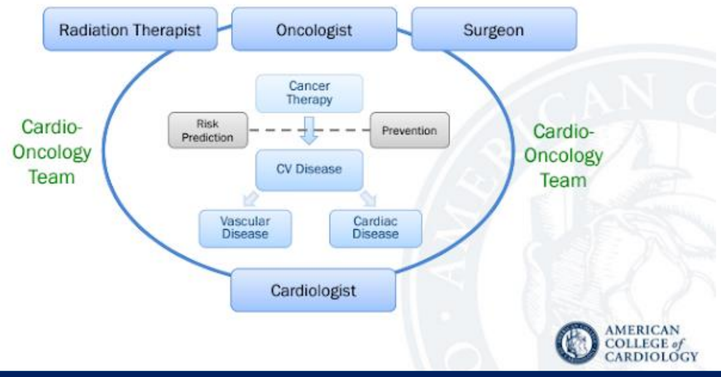
Background

- Cancer remains a major cause of morbidity and mortality in the U.S.. It is estimated that almost 1.7 million new cases of cancer will be diagnosed this year. Because of improved therapies, cancer death rates have been declining in males and females since the early 1990s. From 1991 to 2014, the combined death rate dropped by 25%. This improvement in survivorship is even more profound amongst the pediatric population.[1]
- Since 1975, cancer incidence rates have been increasing slightly by about 0.6% per year, while cancer death rates have decreased by more than half. As cancer survivors live longer, they also develop chronic conditions associated with aging.
- Unfortunately, however, studies have shown that they are disproportionately affected by cardiovascular disease. Not only do they have a higher incidence of CVD, but they have a higher risk of suffering and potentially dying from CVD compared to those without a history of cancer.[2]
- Rates of cardiotoxicity from cancer-related therapeutics have been reported to be in excess of 30%, with some events occurring several decades after the completion of treatment. In addition, cardiac toxicity is the second most common cause of morbidity and mortality in cancer survivors.
- Cardiotoxicities range from arrhythmias, to worsening hypertension/pulmonary hypertension, to ischemic heart disease and full blown heart failure. These toxicities can occur acutely during therapy or decades afterwards. Attention to both acute and chronic toxicities because acute cardiotoxicity can result in the interruption and cessation of potentially life-saving cancer treatment, while chronic cardiotoxicity can impair quality of life for patients.[3]

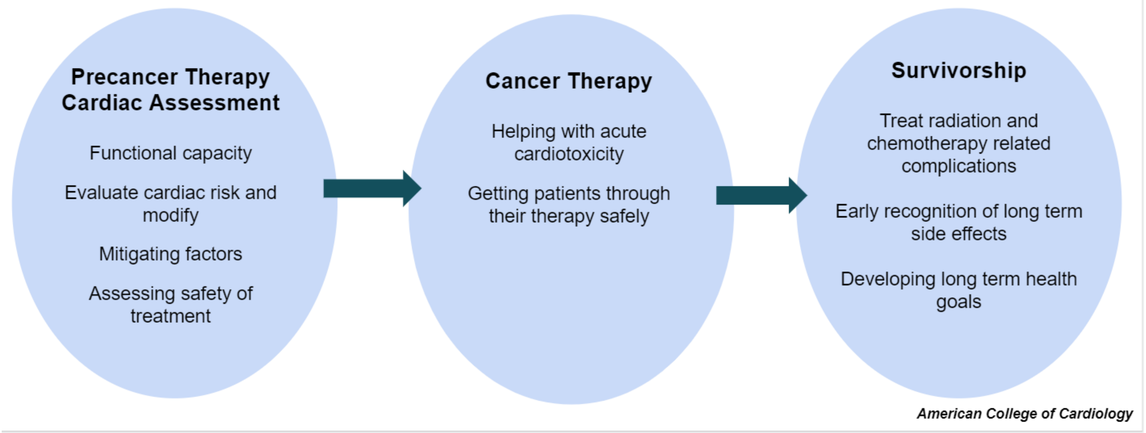
Goals

- Collaborate with our oncology experts to identify those patients at high- and moderate-risk for CV disease prior to initiating cancer therapy to ensure they get the proper diagnostic tests and follow-up during therapy
- Develop a dedicated team of cardiologists, nurse practitioners and administrative staff to coordinate efficient and effective care for patients undergoing cancer therapy
- Educate the cardio-oncology team on the current guidelines and algorithms in caring for patients with cancer and CV disease
- Utilize our cohort of cardio-oncology patients to conduct research to enhance our understanding of how cancer therapy affects CV health in these patients and to improve effective and timely care of CV disease in these patients

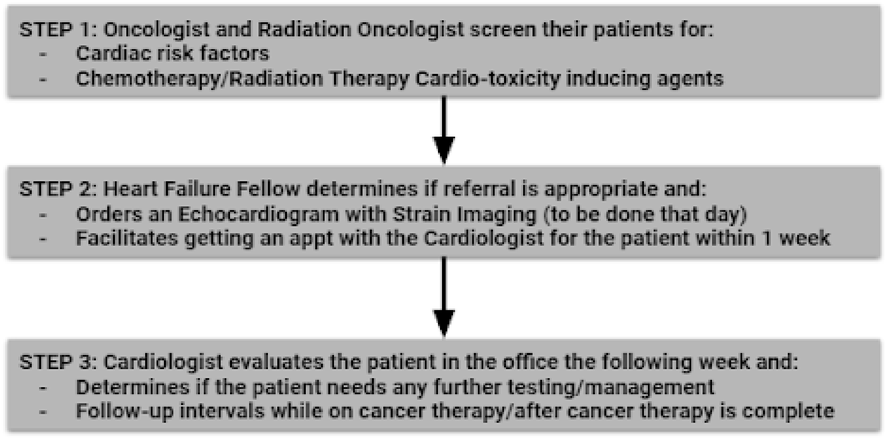
The Cardio-Oncology Team



The Role of the Cardiologist



Drexel Cardio-Oncology Service Model



References

(1) "Cancer Facts and Figures 2017." *American Cancer Society.* <https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2017.html>.
(2) Armenian et al. "Cardiovascular Disease Among Survivors of Adult-Onset Cancer: A Community-Based Retrospective Cohort Study". *Journal of Clinical Oncology.* 2016, 34, 1122-1130.
(3) Yeh ET, Tong AT, Lenihan DJ, et al. "Cardiovascular complications of cancer therapy: diagnosis, pathogenesis, and management." *Circulation* 2004;109:3122-31.