

Dana Farber Cancer Institute/Acute Lymphoblastic Leukemia (DFCI/ALL) Consortium

The University of Miami, Department of Pediatrics, led by Dr. Steven Lipshultz collaborates with the Dana Farber Cancer Institute/Acute Lymphoblastic Leukemia (DFCI/ALL) Consortium to investigate new means of reducing treatment-related cardiotoxicity among children with ALL. The DFCI/ALL Consortium began in 1981 and now has a group of nine collaborating institutions who collectively accrue newly diagnosed pediatric ALL patients for treatment in a consecutive series of clinical trials.

Advances in chemotherapy treatment for pediatric ALL patients has resulted in a five-year survival rate of over 80%. Despite this tremendous success, an important limitation to the current treatment regimens is their well-recognized cardiotoxicity. The University of Miami, Division of Pediatric Clinical Research operates as a cardiac remeasurement center for the DFCI/ALL consortium and directs research relating to the evaluation of cardiac damage during and after cancer treatment in this pediatric population. The objective of our work is to better characterize the short-term and long-term cardiac effects of pediatric ALL treatments, develop novel means for the early identification of children at high-risk for treatment-related cardiotoxicity, and evaluate cardioprotective treatments. Our current research efforts focus on improving our understanding of the mechanisms of treatment-related cardiotoxicity, developing a panel of biomarkers that may be used to evaluate cardiac damage during and after therapy and guide treatment strategies, and characterizing the short-term and long-term cardioprotection of concurrent treatment with dexrazoxane.

Together with the oncologists and other specialists at the Dana-Farber we hope to refine the medical care and treatment regimens for pediatric ALL patients to maximize their oncologic effectiveness while minimizing their long-term damage to the developing heart.