IMPACT PROFILE

Improving Outcomes After Pediatric Cancer and Curative Therapies

Translational Science Benefits Model

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Identifying long-term health effects of pediatric cancer treatment and bone marrow transplant to build programs that help children live healthier lives after treatment.

The Challenge

Today, more than 85% of children diagnosed with cancer survive, a remarkable achievement. But surviving is just the beginning. Children who receive treatments such as chemotherapy, radiation, or bone marrow transplants often face health challenges later in life, including problems with thinking and memory, physical weakness, and chronic illness. Understanding what puts children at risk, and what can be done to reduce that risk, is essential to help survivors thrive.

The Approach

Improving long-term health for childhood cancer survivors by:

- Studying how healthy habits during the teen years affect long-term health after childhood cancer.
- Tracking changes in thinking and memory before and after bone marrow transplant
- Developing and testing a healthy habits program for children receiving treatment for leukemia at St. Louis Children's Hospital.
- Talking with childhood cancer survivors to understand barriers to and supports for receiving long-term follow-up care.

The Impact

This research will help cancer doctors and care teams improve long-term care for children who have had cancer. It will give care teams better information about which children may be at higher risk for later health problems, so they can monitor and support them more effectively over time. Survivors and their families will also have practical tools and trusted information to help them build healthy habits and manage their health after treatment ends. The goal is to help every child who survives a serious illness live a full, healthy life and reach their long-term potential.

RESEARCH HIGHLIGHTS

- **500,000+ childhood cancer survivors in the U.S.** are at higher risk for physical weakness, problems with thinking and memory, and chronic illness.
- Understanding how bone marrow transplant and gene therapy affect thinking, memory, and long-term health **will help families and doctors make better treatment decisions**.

Key Benefits

Our work is already making a difference for patients and communities with ***Clinical*** and ***Community*** benefits.

Guidelines: Shape national guidelines for the long-term care of children who have survived cancer or bone marrow transplant. (*Potential*)

Health education resources: Developed and currently testing a healthy habits program for children with leukemia, complete with step-by-step guides for families and teachers. (*Potential)*

Life expectancy & quality of life: Develop a program based on healthy habits linked to better long-term health in childhood cancer survivors. (*Potential*)

The team:

Primary mentors: Allison A. King, MD, PhD and Robert J. Hayashi, MD

Contact:

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