

Cancer Advances: Advances in Cancer Treatment Have Averted 38,000 Childhood Cancer-Related Deaths Between 1975 and 2006

Posted online April 19, 2010, on www.jco.org [1].

A new review of more than three decades of childhood cancer deaths, incidence and survival reports that an estimated 38,000 deaths have been averted because of substantial advances in cancer drugs and treatment strategies, and continued return on past investments in cancer research. The authors cautioned, however, that progress against many cancers has slowed and that new research on targeted treatments is urgently needed.

In the study, published in the *Journal of Clinical Oncology*, researchers examined data from the National Cancer Institute's (NCI) Surveillance, Epidemiology, and End Results (SEER) program registries and the U.S. Centers for Disease Control and Prevention. They found that childhood cancer death rates declined by more than 50 percent from 1975 to 2006. At the same time, however, childhood cancer incidence increased significantly, with one form of leukemia, acute lymphoblastic leukemia (ALL), rising most quickly. The incidence of childhood brain cancers has been stable, while all other childhood cancers have slowly increased in incidence.

The review revealed that much of the progress against childhood cancer occurred in the two decades after 1975. The decline in death rates in leukemia, the most common type of childhood cancer, was among the highest over the 32 year study period, though the rate of decline in deaths slowed between 1996 and 2006, to roughly 2 percent a year.

The death rates for all other childhood cancers decreased significantly between 1975 and 1996, and then leveled off from 1996 to 2006. The researchers called this a critical period for childhood cancer research, citing little decline in death rates for most cancers in the last decade of the study.

The researchers noted that innovative treatment strategies are needed to ensure continued progress against childhood cancers, particularly new agents targeting the molecular biology of patients' disease. Several effective targeted agents have been developed already, such as imatinib (Gleevec) for a specific form of ALL in children. Researchers can take advantage of the ever-improving understanding of how cancer behaves on a genetic level to develop more individualized treatments.

What this means to patients

There have been outstanding improvements in childhood cancer therapies in the last three decades, and death rates have dropped more than 50 percent during that time. Nearly 80 percent of childhood cancer patients will live for a long time after treatment, and most will be cured. But the rate of progress has slowed in the last 10 to 15 years, and researchers want to take advantage of their increasing understanding of the biology of cancer and its behavior to develop newer, more targeted drugs that will be more specific for individual types of cancer.

Helpful Links

- [Cancer in Children](#) [2]
- [Guide to Childhood Cancer](#) [3]
- [Understanding Targeted Treatments](#) [4]

Links:

[1] <http://www.jco.org>

[2] <http://www.cancer.net/patient/Coping/Age-Specific+Information/Cancer+in+Children>

[3] <http://www.cancer.net/patient/Cancer+Types/Childhood+Cancer>

[4] <http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Feature+Articles/Treatments%2C+Tests%2C+and+Procedures/Understanding+Targeted+Treatments>