



Central California Pediatrics

Specialty information for physicians who treat children and expectant mothers.



The [r]evolution in Pediatric Cancer Care

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"Your child has cancer" are four of the most devastating words for any parent and with good reason. Childhood cancer is the number one disease killer of children in the United States and the second leading cause of death (following accidents) in children ages 5 to 14.

SEPTEMBER IS "CHILDHOOD CANCER AWARENESS" MONTH

Childhood Cancer Awareness Month is an apt time to reflect on the marked improved outcomes in children with cancer, with greater than 80% of patients today becoming 5-year survivors. In contrast, just 60 years ago, the median survival for pediatric acute lymphoblastic leukemia (ALL), the most common pediatric malignancy, was a mere six months.

While several contributing factors exist, this dramatic historical decrease in mortality is directly related to cooperative group clinical research, resulting in standardization of therapy across the globe. This international collaboration has led to notable improvements such as determining the most effective chemotherapy combinations for rhabdomyosarcoma to appropriate addition of localized or pulmonary irradiation in Ewing's sarcoma. Added to this, advances in surgical techniques, and in administration modes of radiation therapy, along with progress in other fields of medicine have also contributed significantly.

Today's Treatment Technology

Targeted therapy continues to play a significant role in pediatric cancer therapy. However in recent years, the development of CAR T-Cell Immunotherapy has been one of the most innovative advancements in pediatric oncology treatments.

While our natural immune system has long been identified as a critical component in our innate fight against cancer, naturally occurring T-lymphocytes are not good at recognizing and fighting cancer cells. Chimeric Antigen Receptor (CAR) T-cell therapy has become an extremely promising form of immunotherapy, in which the patient's own T-cells are removed and genetically re-engineered to modify them to confer the ability of recognizing antigens on the surface of cancer cells. These modified T-cells are multiplied by the hundreds of millions and then infused back into the patient to fight the cancer.

Side Effects of Treatment

Not surprisingly, many of these advances have come with the cost of both acute and long-term toxicity as more than 99% of childhood cancer survivors are estimated to have a chronic health problem and by the age of 50 years, they experience about five severe or life-threatening chronic health conditions on average. These side effects are proof of the need for continued research to ultimately find a cure.

What Are We Doing

At Valley Children's, our team of specialists are dedicated to adopting cutting edge treatments and continuing research in order to provide each child with the best chance of survival. Each year, our center provides therapy options in more than 100 clinical trials, consistently ranking in the top 5-8% worldwide for patient enrollments in Children's Oncology Group (COG). Just last year, we cared for a total of 1,256 children battling cancer with an average survival rate in par with the top pediatric oncology programs in the nation.

The fight against childhood cancer has indeed been revolutionary and we are close to hopefully a day when we declare a "childhood cancer-free world."

Partnering in Care

Valley Children's oncology and hematology team is committed to partnering with referring physicians to provide the best comprehensive pediatric family-centered care in the Central Valley. Our specialists are available to provide a new diagnosis, offer a second opinion, care for a relapsed patient or provide childhood cancer survivorship services.

Our pediatric oncology team sees all emergent referrals on the same day. Routine referrals are reviewed and scheduled within two weeks.

Medical Staff News

The following pediatric specialists recently joined Valley Children's:

Hospitalist

Enrique Valladares, MD

Otolaryngology

Kyle Robinette, DO

Primary Care

Niyate Bondale, MD

Jian Kang, MD