Global study shows need for changes in cancer care for teens and young adults
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While cancer survival rates have improved for pediatric patients and adults over the age of 40, outcomes for certain types of cancer have lagged among the age groups in between. That includes what is known as adolescent and young adult (AYA) cancer patients. In fact, cancer remains a leading cause of non-accidental deaths among 15-to 39-year-olds.

Pediatric oncologist Elysia Alvarez is advocating for changes in how cancer care is provided for this age group after leading a study that looked at the global burden of cancer on AYAs. The research was published recently in the medical journal *The Lancet Oncology*.

Alvarez, a UC Davis assistant professor of clinical pediatrics, was lead author of the global study involving 730 collaborating scholars. She said approaches to clinical care often fail to acknowledge the unique physical and emotional needs of people in this age group who are engaged in transition from childhood to adulthood. With respect to cancer diagnosis treatment and research, AYAs are figuratively drifting on an ice floe between the pediatric and adult domains.

The study found that adolescents and young adults not only develop certain cancers that are common among children but also some types of cancers more typical among adults. In addition, AYAs are more susceptible than younger or older individuals to specific types of cancers, including Hodgkin's lymphoma and testicular tumors. As a result, adolescent and young adult cancer patients may have difficulty finding care that is optimal for their cancer type and their age-related treatment and support needs.

The report noted that cancer treatment teams often are not well resourced to help these patients manage the psychosocial problems they may experience in response to a diagnosis of cancer. The authors wrote: "The age range of adolescents and young adults encompasses their formative years in life, and spans the time from completing education, to possibly starting a career and raising children, and potentially contributing to society more broadly. A cancer diagnosis during these years can have a considerable impact on individuals' future life trajectory through major stressors, including feelings of isolation, anxiety and depression, concerns about infertility, discontinuing schooling or work, and financial hardship."

Adolescent and young adult cancer patients frequently are grouped with adults in clinical trials and clinical care, and there are disparities to accessing care and outcomes in this age group. Previous studies of the global burden of AYA cancer have analyzed only incidence and mortality. This is the first formal Global Burden of Disease study to assess the global cancer burden in AYAs using disability-adjusted life years (DALYs).

Alvarez said that while incidence and mortality are important barometers, they do not capture the full
impact of a disease on a population. One DALY is the equivalent of one year of healthy life lost. For their study, the researchers collated and analyzed statistics from cancer registries and mortality data from sources throughout the world. The important work that these cancer surveillance systems do around this world makes this study possible.

The greatest burden of cancer in adolescents and young adults in 2019, represented by age-standardized DALY rates, was concentrated in parts of Asia, southern sub-Saharan Africa, and South America.

"This finding reveals global mortality disparities that need to be addressed," Alvarez said.

The study shines a light on the need to develop a new approach to global cancer control in adolescents and young adults. Alvarez and her colleagues conducted their study to provide estimates that can inform improved resource allocation and policies to support adolescent and young adult clinical care needs. However, because many countries lack sufficient resources to increase clinical trials, another goal of the study was to increase awareness of the uniqueness of this demographic group regarding cancer diagnosis and treatment.

"This comprehensive estimate of the global burden of cancer is a critical first step in providing valuable information needed for governments and policy makers to proactively address adolescent and young adult patients in cancer control programs," Alvarez said.


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