

# The Medical Journal of Australia • MJA

# MEDIA RELEASE

## **CHILDHOOD CANCER SURVIVORS FACE GREATER ONGOING RISK**

EMBARGOED UNTIL 12:01am Monday 20 January 2020

PEOPLE who have survived childhood cancer are five times more likely to develop a second primary cancer than members of the general population, according to the authors of research published online today by the *Medical Journal of Australia*.

Recent therapeutic advances for treating children with cancer — typically, intensive chemotherapy, often in combination with radiation therapy — have improved survival for many with childhood malignancies.

“However, a large proportion of patients experience adverse health effects throughout life that are attributable to either their cancer or its treatment. One of the most serious potential consequences is a second cancer,” wrote authors led by Associate Professor Danny Youlden, the Senior Manager of Childhood Cancer Research with Cancer Council Queensland.

Using data from the Australian Childhood Cancer Registry, Youlden and colleagues looked at people alive at least 2 months after being diagnosed before the age of 15 years with a primary cancer, between 1983–2013, followed until 31 December 2015 (2–33 years’ follow-up).

“Among 18 230 people diagnosed with cancer during childhood, 388 (2%) were later diagnosed with second primary cancers,” the authors found.

“The overall risk of a new primary cancer was five times as high as for the general population. Relative risk of a second primary cancer was greatest for people who had childhood rhabdomyosarcoma and was also particularly high for children who had undergone both chemotherapy and radiotherapy.

“Relative risk peaked during the 5 years following the first diagnosis (2 to less than 5 years), but was still significant at up to 33 years after the initial diagnosis. The most frequent second primary cancers were thyroid carcinomas (65 of 388, 17%) and acute myeloid leukaemias (57, 15%).”

Youlden and colleagues concluded that second primary cancers were a lifelong possibility for people who survive childhood cancer, and they were a leading cause of treatment-related mortality among survivors.

“Our finding that survivors of childhood cancer are at significantly increased risk of subsequent cancers is broadly consistent with findings from overseas studies; the increase in risk gradually diminishes over time from first diagnosis, but the level of risk never returns to that of the general population.

“Advances in treatment for childhood cancer in recent decades have significantly improved survival for many people with childhood malignancies; the challenge is to reduce treatment-associated morbidity without reducing survival.

“Survivors of childhood cancer should be monitored for second primary cancers as they remain at increased risk well into adulthood. Research is needed to minimise the deleterious late effects of cancer treatment early in life.”

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