

## Place of Death Among Pediatric and Adolescent Cancer Patients in Finland

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**Background:** Improvement of pediatric palliative care and end-of-life care has been identified as an ongoing research priority globally. Place of death has been used as a quality measure of palliative care in end of life. Patients who had late palliative care involvement were more likely to die in the intensive care setting over the home/hospice setting compared to those with earlier palliative care involvement.

One study performed in the US indicated that pediatric cancer patients who had received a palliative care consultation on hospital admission were less likely to die in the hospital and without ICU services. Patients who were of non-local residence, newly diagnosed hematological or non-metastatic solid tumors, elective admission, and on pediatric or surgical services had an increased risk of dying in the ICU.

**Aims:** To explore place of death among pediatric and adolescent cancer patients in Finland and to explore possible trends over time.

**Methods:** Using population based nationwide registries we identified all patients diagnosed with cancer under the age of 20 between 1970 and 2016. After that, by linking to the cause-of-death registry we will look into causes and place of death. We compared place of death in the pediatric and adolescent age group and over time.

**Results:** A total of 10,664 patients with cancer diagnosed under the age of 20 years were identified from files of the Finnish cancer registry, of these 7092 were diagnosed in childhood (0-14 yrs) and 3572 in adolescence (15-19yrs). By linking to the cause of death registry files, a total of 2869 deaths could be identified, of which 2017 and 852 deaths were among patients diagnosed in childhood and adolescence, respectively. Information on place of death was available for 91.2% and 98.1% of patients diagnosed in childhood and adolescence, respectively. 10.7% of pediatric patients died at home, while the equivalent figure for adolescents was 4.9%. 92% of home deaths occurred after 2010, with the proportion of home deaths out of all deaths being highest in this period for both diagnostic age groups.

**Discussion:** A larger proportion of pediatric patients died at home compared to patients diagnosed in adolescence. The proportion of home deaths increase over time, the proportion being highest after 2010.

**Conclusion:** The proportion of home deaths can be used as a measure of quality of palliative care in the pediatric population. Our preliminary evaluation of place of death revealed that pediatric patients were more likely than adolescent patients to die at home, with an increase in home death proportion over time in both groups. Understanding existing patterns of care at the end of life will help guide decisions about resource allocation and the need for pediatric palliative care programs.