Place of Death Among Patients Diagnosed with Cancer in Childhood and Adolescence : A Finnish Registry Based Study

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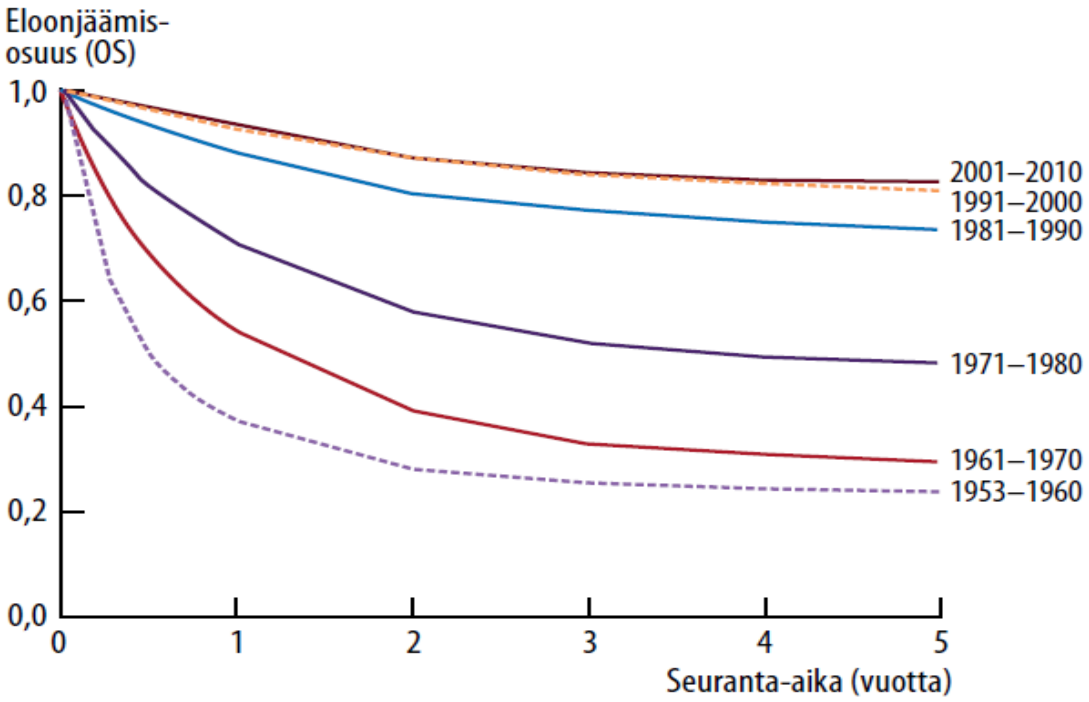
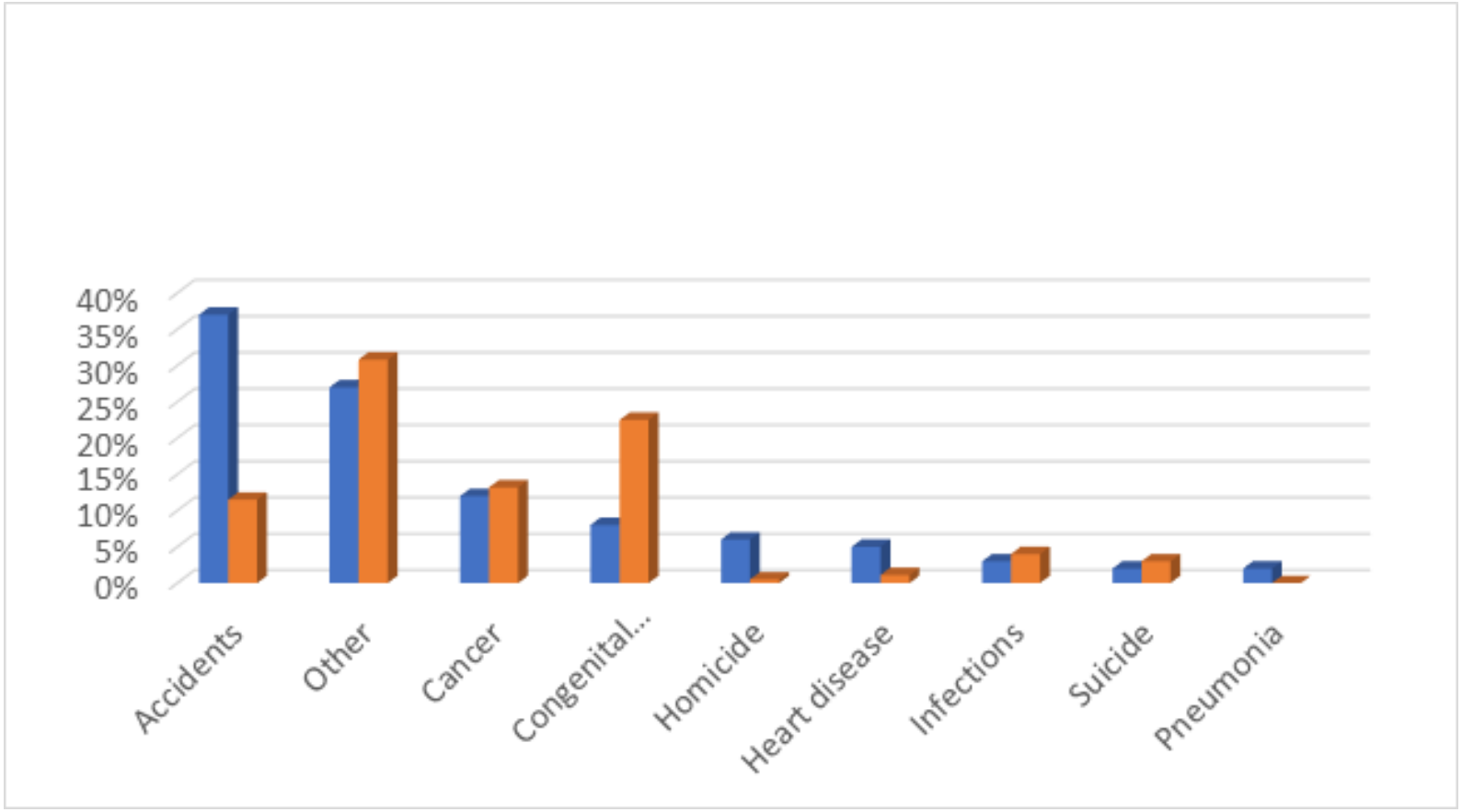
Childhood Cancer Success Story: from to 20% to 0ver 80%



KUVA. Lapsuusiän syövän ennusteen kehitys Suomessa 1953–2010 (1).

Madanat-Harjuoja et al. *Int J Cancer* 2014

Cancer remains the leading cause of non-accidental childhood death in developed countries



Background

- Place of death: A proposed quality measure of palliative care in end of life in pediatric patients
  - More suffering in patients dying in acute setting
  - More psychosocial distress in parents of children who died in a high acuity setting
  - High preference for home death (68%)[1]

- Late palliative care involvement shown to be a predictor of death in the intensive care setting [2]

1 **Vickers J** et al. Place and provision of palliative care for children with progressive cancer. *J Clin Oncol*, 2007.
2 **Kaye EC et al.** Predictors of Location of Death for Children with Cancer Enrolled on a Palliative Care Service. *Oncologist*, 2018.

Background

- 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[1]
- Non-local residence, newly diagnosed hematological or non-metastatic solid tumors and those on surgical services had an increased risk of dying in the ICU[1]

1 Wallace SK et al. Place of Death among Hospitalized Patients with Cancer at the End of Life. *J Palliat Med*. 2015 Aug;18(8):667-76.

Aims

- To explore place of death among pediatric and adolescent cancer patients in Finland
- To explore possible geographical and temporal trends in home deaths in this patient population

Methods

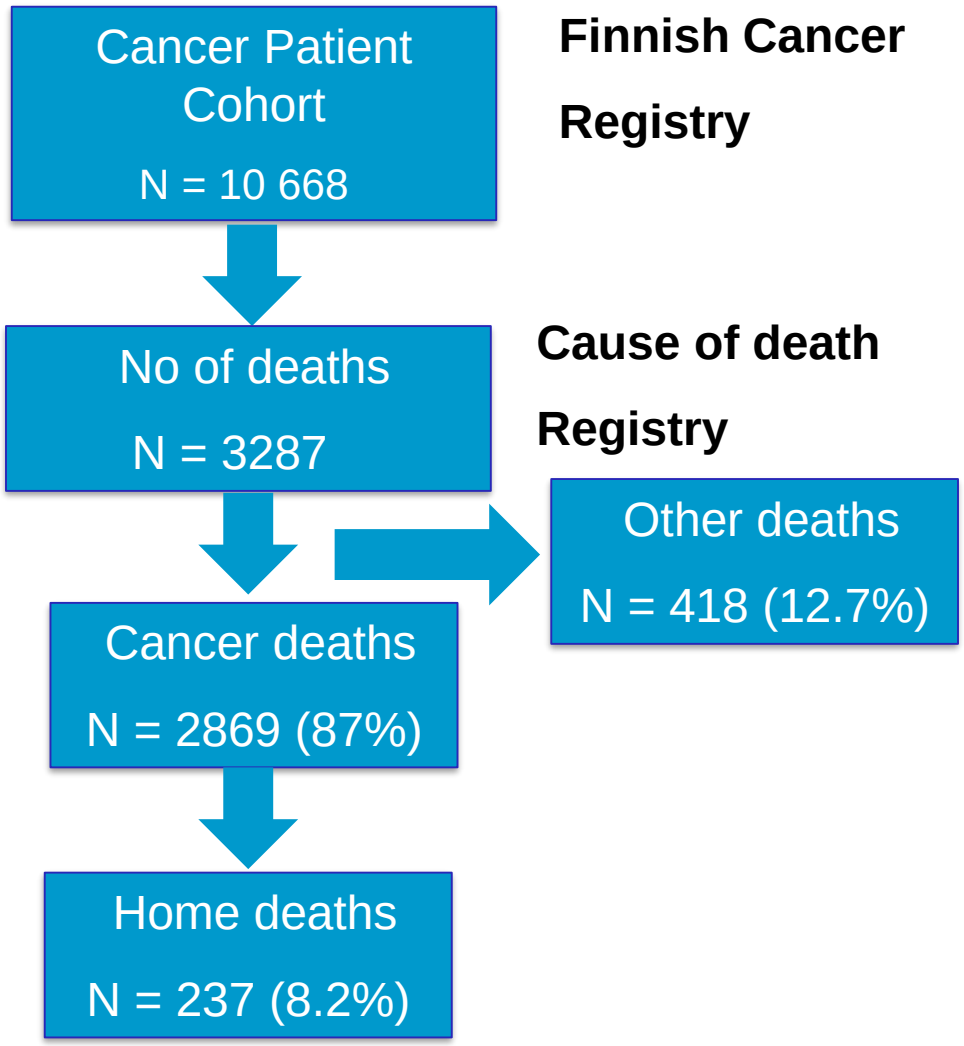
Cohort Characteristics

Patients

- Aged < 20 years at diagnosis
- Diagnosed with a malignant neoplasm in Finland
- Diagnosed 1970-2015
- Mean age 6.6yrs (0-15)
- 54% boys, 46% girls

Outcome

- Place of death
- Stratified by: age at diagnosis region and decade of death



Results

Deaths by age at diagnosis

Patients	Total N	Deaths n	Cancer n
Pediatric 0-14yrs	7096	2270	2017 (89.9%)
Adolescent 15-19yrs	3572	1017	852 (83.8%)
Total	10 668	3287	2869

Place of Death for Patients Dying of Cancer

Place of Death	Diagnosis 0-14 yrs	Diagnosis 15-19 yrs
Home	197 (9.8%)	40 (4.7%)
Hospital	1586 (78.6%)	754 (88.5%)
Other	57 (2.8%)	16 (1.9%)
Abroad	132 (6.5%)	30 (3.5%)
Missing	45 (2.2%)	12 (1.4%)

Proportion of home deaths by hospital district

	Pediatric		Adolescent	
Hospital District	Cancer deaths	Home deaths	Cancer deaths	Home deaths
Helsinki	622	88 (14.1%)	249	17 (6.8%)
Turku	323	22 (6.8%)	120	9 (7.5%)
Tampere	384	28 (7.3%)	186	5 (2.7%)
Kuopio	335	39 (11.6%)	141	2 (1.4%)
Oulu	342	20 (5.8%)	151	6 (4.0%)
Missing	11	0	5	1

Proportion of home deaths by decade

	Pediatric		**Adolescent**	
Time period	Cancer deaths	Home deaths	Cancer deaths	Home deaths
1970-1979	791	4 (0.5%)	341	2 (0.6%)
1980-1989	476	4 (0.8%)	216	2 (0.9%)
1990-1999	368	48 (13%)	150	8 (5.3%)
2000-2009	273	104 (38.1%)	107	17 (15.9%)
2010-2015	109	37 (33.9%)	38	11 (28.9%)

Conclusions

- The likelihood of a home death in the PO population varies by region and may reflect availability of home hospital services
- Overall the proportion of home deaths appeared to increase with time
- The advent of targeted therapies may explain the slightly lower proportion of home deaths in the most recent era

Thank you!

Home Deaths by Primary Diagnosis in Pediatric Patients

Primary diagnosis	Deaths	Home deaths
Leukemia	696	44 (6.3%)
Lymphoma	145	3 (2.1%)
CNS	582	79 (13.6%)
Neuroblastoma	169	21 (12.4%)
Soft tissue sarcoma	136	24 (17.6%)