

Place of care at end of life and place of death among cancer patients in a rural district in Norway

Anne Kari Knudsen, MD, PhD
Oslo University Hospital, Dept. of Oncology, Section for Palliative Care
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Background

- Cancer care as of today
- Integration of oncology and palliative care
- Place of care and place of death
- The context of care
- Research questions

Cancer care as of today

- We are living longer
- Incidence and prevalence of cancer are increasing
- More treatment options are available
- More treatments are offered in outpatient clinics
- Treatments are offered as locally as possible

*European Guide on Quality Improvement in Comprehensive Cancer Control, CanCon 2018, www.cancercontrol.eu
Kaasa et al. Lancet Oncology 2018
www.kreftregisteret.no
National Cancer Strategy (Norway)
Coordination Reform (Norway)*

Early integration of oncology and palliative care

- Patients
 - Report improved health related quality of life
 - Are receiving less aggressive treatments at end of life
 - May live longer
- Carers report improved health related quality of life before and after the patient's death

Kaasa et al. Lancet Oncology 2018
Hui et al. Annal Oncol 2015
Zimmermann et al. Lancet 2014
Temel et al. NEJM 2010
Jordhøy et al. Lancet 2000
Ahlner-Elmqvist et al. Pall Med 2004
Ringdal et al. Palliat Med 2004
Ringdal et al. JPSM 2002

Place of care and place of death

- Many patients prefer to be cared for at home
- Many patients prefer to die at home
- Death at home a quality indicator of palliative care services

EAPC White Paper on standards and norms EJPC 2009

Hunt et al. Palliative Medicine 2013

Gomes et al. Annals of Oncology 2012

Hui et al. Oncologist 2015

Where do cancer patients die?

- Cancer patients dying at home

- Norway: 12.8 %
- England: 22.1 %
- Belgium: 27.9 %
- Italy: 35.8 %
- The Netherlands: 45.4 %

- Place of death Norway 2011

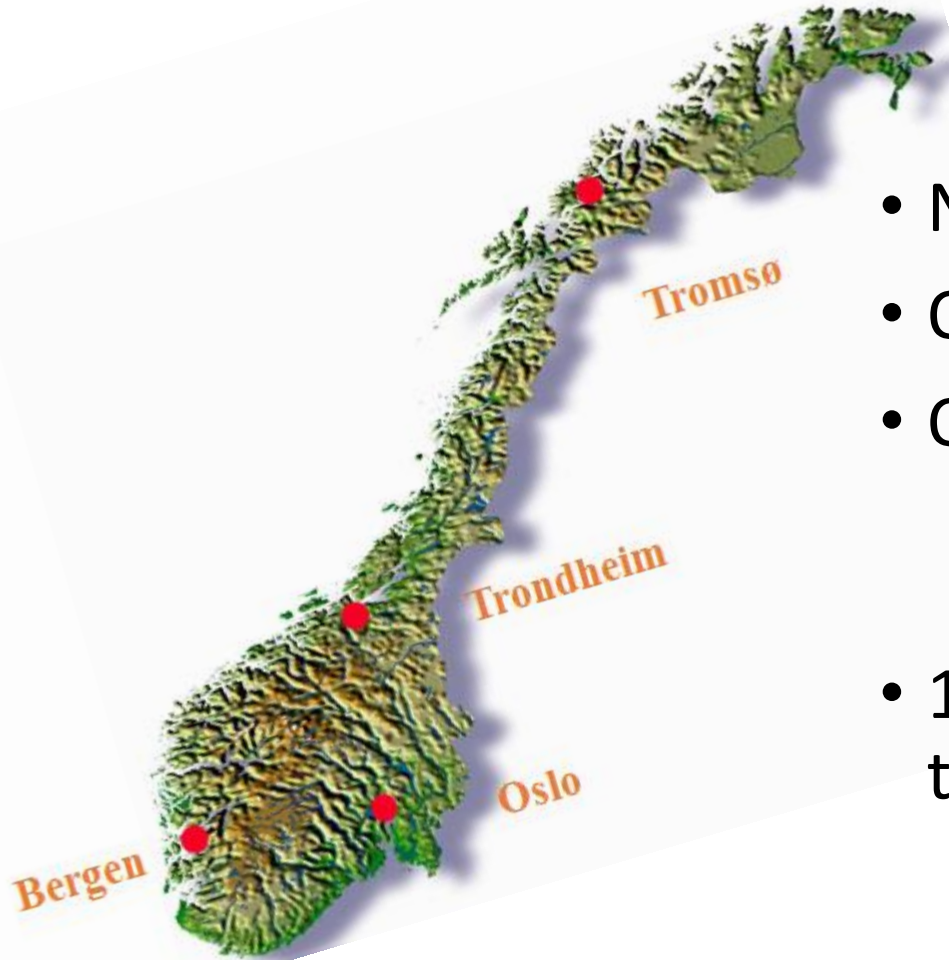
- Home: 14.2 %
- Nursing home: 45.5 %
- Hospital: 34.1 %

*Cohen et al. JCO 2010
Kalseth and Theisen 2017*

Collaboration is challenging



A rural district in Mid-Norway



- Norway: ca. 5 million inhabitants
- Orkdal region 45 km south of Trondheim
- Orkdal Hospital = local hospital
 - Part of Trondheim University Hospital
 - Serving ca. 100.000 inhabitants (19 municipalities)
- 13 municipalities (ca. 56.000 inhabitants) in the project

The Orkdal Model

- Integrated oncology and palliative care outpatient clinic 2012
- Complex intervention 2013-2014->
 - A standardised care pathway
 - An educational programme
 - An information strategy
- Evaluation in a prospective controlled intervention study 2014-2019
 - Primary endpoint: Time spent at home last three months of life

ClinicalTrials.gov Identifier: NCT02170168
Jordhoy et al. Lancet 2000

Research questions for the present project

Patients with advanced cancer in the Orkdal region:

Place of care

- Where did they prefer to be cared for at end of life?
- How many days did they spend at home during the last three months of life?

Place of death

- Where did they prefer to die when asked at inclusion?
- Where did the patients die?
- Did they die according to their preferences?

Methods I

- Data from the prospective controlled Orkdal Model study
- Adult cancer patients receiving treatment with non-curative intention
- Only intervention group (inhabitants of 13 municipalities in Orkdal)
- Only patients who died within 7 November 2018

Methods II

- Patients and health care professionals filled in questionnaires every 4 weeks
 - Data at inclusion: sociodemographics, medical information and preferences
 - Data on place of care last three assessments before death
- Days spent at home last three months of life calculated based upon days hospitalized (nursing home + hospital)
- Mean survival = date of death – date of inclusion in the study

Results

- 129 patients evaluable
- 94 dead as of 7 November 2018

Patient characteristics (N= 94)

- Mean age 69.3 years
 - Females 56 (59.6%), males 38 (40.4%)
 - Living with a partner: 60 (65.2%)
 - Mean Karnofsky performance status 80.5%
 - Metastatic disease: 83 (88.3%)
- At inclusion
- Mean number of days from inclusion to death was 338.5

Results: place of care

- 47 patients reported preferred place of care at end of life at inclusion:
 - Home 35 (74.4%)
 - Nursing home 3 (6.4%)
 - Hospital 9 (19.1%)
- Mean number of days staying at home during the last three months of life:
63.3 days (N= 94)
 - Nursing home 13.7 days
 - Hospital 12.8 days

Results: place of death (N= 94)

- Home: 20 (21.3%)
- Nursing home: 36 (38.3%)
- Hospital: 38 (40.4%)

Preferred place of death

Preferred place of death
reported at inclusion (N = 70)

Home	45	(64.3%)
Nursing home	3	(4.2%)
Hospital	18	(25.7%)
Other	4	(5.7%)
Total	70	

Preferred and actual place of death

Preferred place of death reported at inclusion (N= 70)		Actual place of death		
	Total	Home	Nursing home	Hospital
Home	45 (64.3%)	13	14	18

Preferred and actual place of death

Preferred place of death reported at inclusion		Actual place of death		
	Total	Home	Nursing home	Hospital
Home	45 (64.3%)	13	14	18
Nursing home	3 (4.2%)	0	2	1

Preferred and actual place of death

Preferred place of death reported at inclusion		Actual place of death		
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Home	45 (64.3%)	13	14	18
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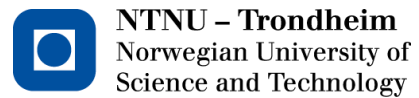
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Hospital	18 (25.7%)	2	11	5
Other	4 (5.7%)	2	1	1
Total	70	17	28	25

Conclusions I

- The majority of patients with advanced cancer in the Orkdal region preferred to be cared for at home
- On average they spent more than 2/3 of the last three months of life at home
- Home was also the most commonly preferred place to die
- About 1/5 died at home

Conclusions II

- To investigate patients' preferences regarding end of life care during the disease trajectory and to plan accordingly may improve quality of care
- Prospective data on preferences to be analysed
- Early integration of oncology and palliative care as well as structured collaboration and education across health care levels may facilitate the process of advance care planning
- Data comparing intervention and control group may be informative



Thank you