



# Efficacy of occupational therapy-based intervention in people with advanced cancer: A randomised controlled trial

**OT, MSc, PhD Marc Sampedro Pilegaard**

in collaboration with

Karen la Cour, Lisa Gregersen Oestergaard, Anna Thit Johnsen, Line Lindahl-Jacobsen, Inger Højris, and Åse Brandt

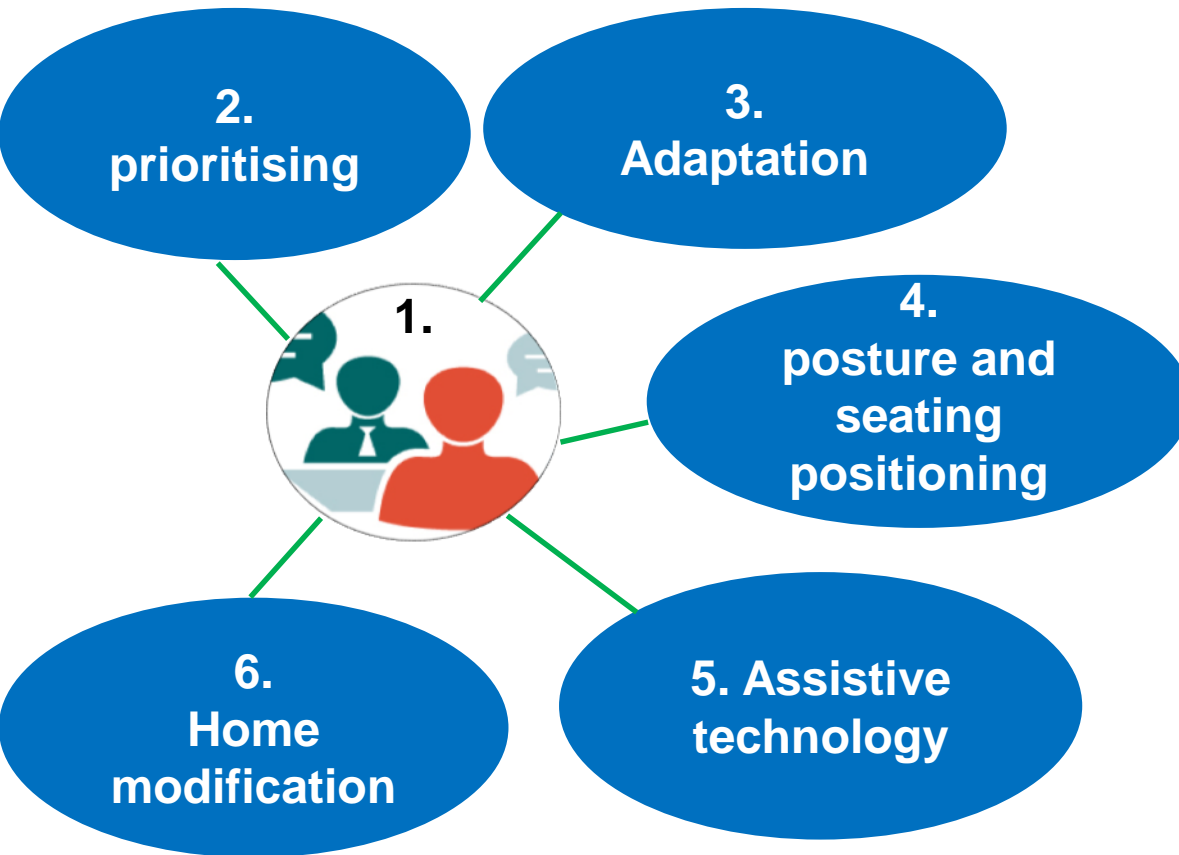


# Background

## Problem:

- People with advanced cancer spend most of their time at home (*la Cour et al, 2009*)
- They report problems with occupations (*Rainbird, 2010; Johnsen et al, 2013*)
- We lack evidence of the effect of occupational therapy-based interventions for people with advanced cancer (*Harrison-Poul et al, 2006; Hegel et al, 2011; Lindahl-Jacobsen et al, 2014*)
- The 'Cancer Home-Life Intervention' (*Brandt, 2016*)

# The 'Cancer Home-Life Intervention'



- Main target are participant-selected occupations
- 1-3 home visits and 1-3 follow-up telephone calls
- Individually tailored

# Objective

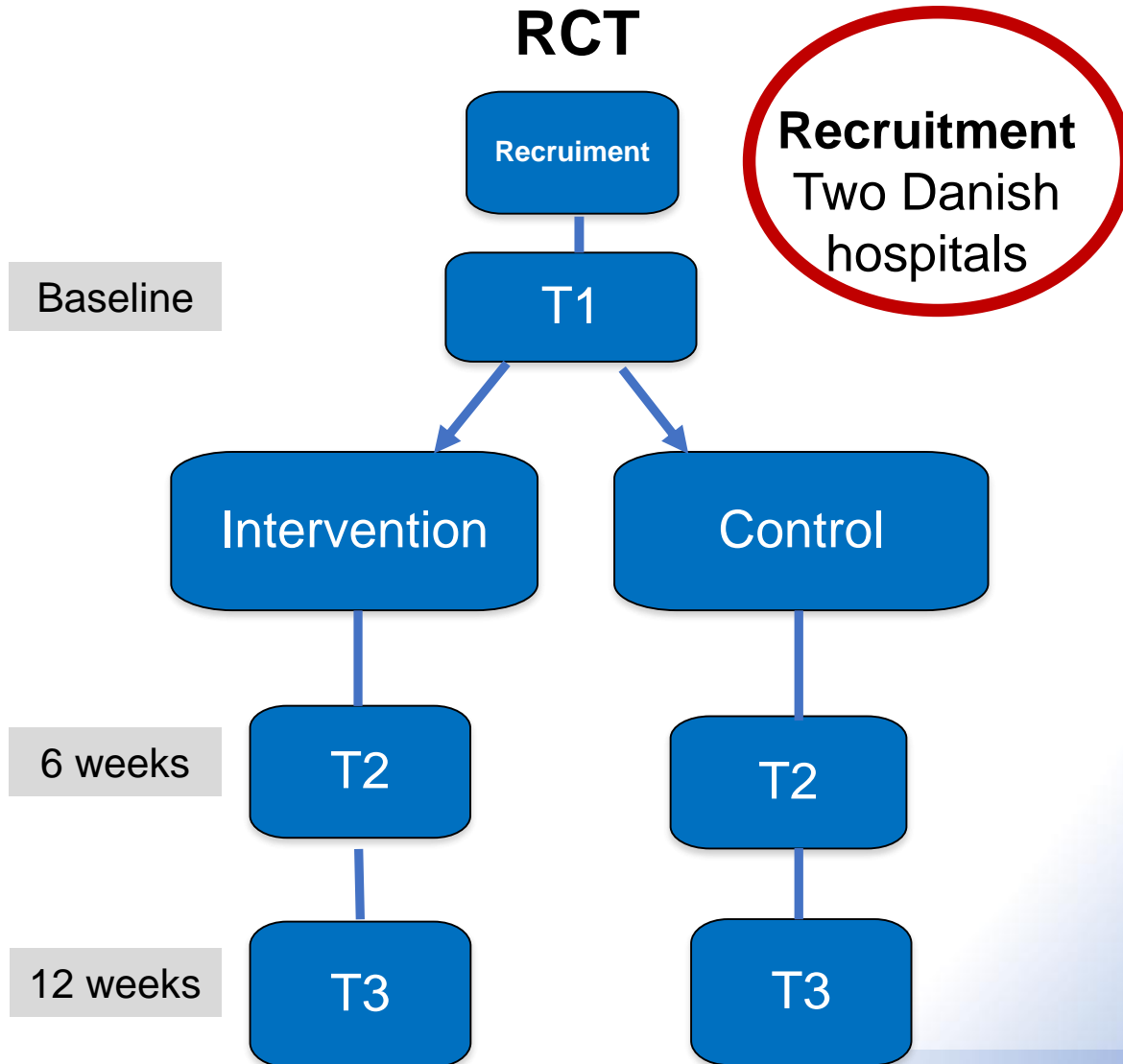
To evaluate efficacy of the 'Cancer Home-Life Intervention' compared with usual care alone on occupational performance and Health-related Quality of Life (HRQoL) in people with advanced cancer living at home

More specifically to examine efficacy on:

## **Attention!**

- 1) ADL ability
- 2) Prioritised occupations
- 3) Participation restrictions
- 4) HRQoL

# Design



# Study population

## Inclusion criteria:

- $\geq 18$  years old
- Evaluated with incurable cancer by their responsible oncologist
- Functional level 1-2 on WHO performance scale (PS)
- Live at home or in sheltered living

## Exclusion criteria:

- Cognitive impairment preventing participants from participating in structured interview
- Considered incapable of complying with trial
- Live in nursing home or hospice

# Outcomes

## Primary outcome

- ADL motor ability (AMPS)

Baseline

12 weeks

## Secondary outcomes

- ADL process ability (AMPS)
- Difficulty performing prioritised occupations (IPPA)
- Participation restrictions (IPA-DK)
- HRQoL (EORTC QLQ C-30)

Baseline

12 weeks

# Baseline (N=242)

## Personal characteristics

67 years

51% women

31% lived alone

70% in a house

47%  $\geq 13$  years of education

## WHO PS

71% PS 1

29% PS 2

## Primary tumour type

31% Gastrointestinal

20% Lung

15% Breast

12% Prostate

22% Other

## Comorbidity

76%  $> 1$



# Outcomes at baseline (N=242)

## AMPS

*ADL motor*: 1.13 logits  
< competence cut-off: 95%

*ADL process*: 0.84 logits  
< competence cut-off: 59%

## IPPA (1-25)

Difficulty performing occupations: 14.25

0	27%
1-3	31%
>3	42%

## IPA-DK (0-4)

*Autonomy indoor*: 0

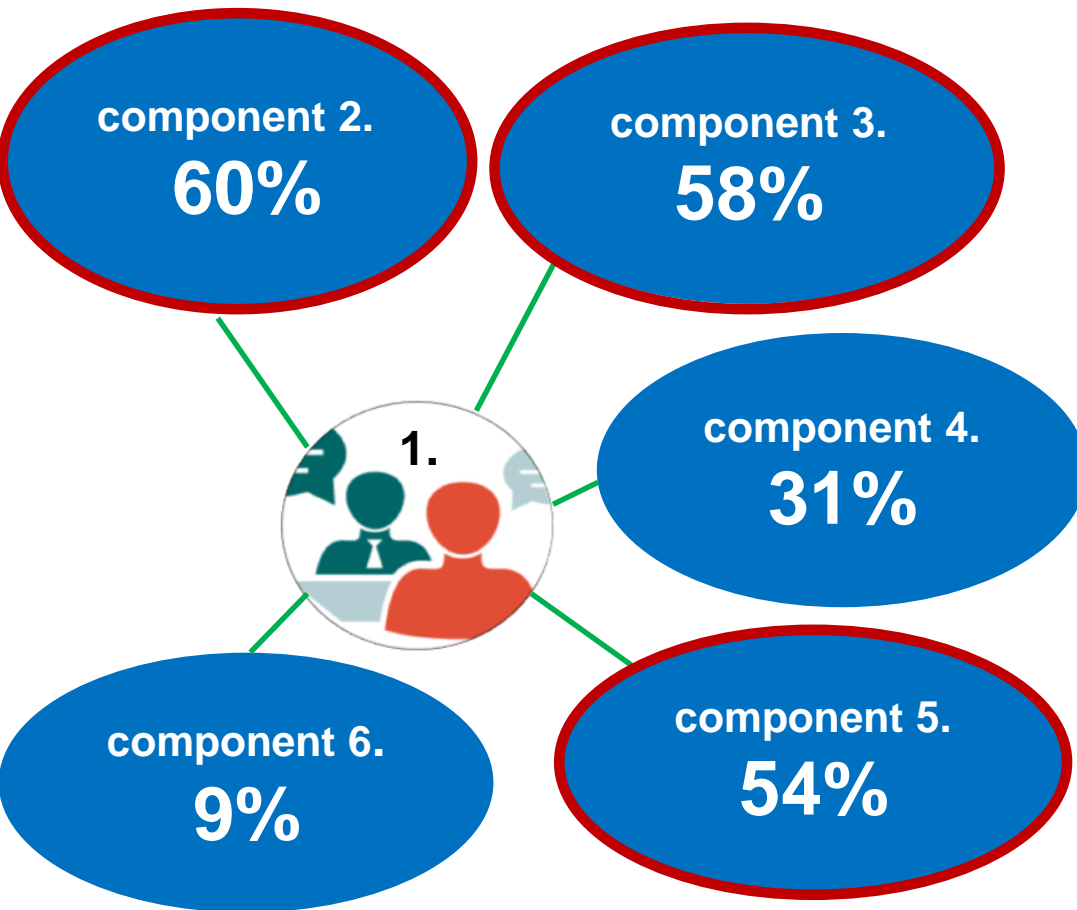
*Family role*: 1

*Social relations*: 0

## EORCT QLQ C-30 (0-100)

*HRQoL*: 58.51

# Delivered interventions (N=121)



**Number of components per participant: 3**

## Home visits

1:	93%	105 min.
2:	26%	45 min.
3:	3%	45 min.

## Telephone contacts:

0:	11%
1:	51%
2:	32%
3:	6%

# Outcome

Outcomes	n	Intervention group	n	Control group	Between-group mean change (95% CI)	p value
		Mean change		Mean change		
<b>AMPS</b>						
ADL motor ability T1-T3 <sup>abcd</sup>	97	-0.14 (-0.27 to 0.00)	94	-0.10 (-0.24 to 0.05)	-0.04 (-0.23 to 0.15)	0.69
ADL process ability T1-T3 <sup>bcde</sup>	97	-0.10 (-0.20 to -0.01)	94	-0.04 (-0.14 to 0.06)	-0.06 (-0.20 to 0.07)	0.37
<b>IPPA</b>						
IPPA score T1-T2 <sup>cdf</sup>	67	-1.27 (-2.01 to -0.53)	65	-1.16 (-1.91 to -0.41)	-0.11 (-1.17 to 0.95)	0.83
IPPA score T1-T3 <sup>cdf</sup>	62	-1.38 (-2.35 to -0.40)	63	-1.03 (-2.00 to -0.05)	-0.35 (-1.71 to 1.01)	0.61
<b>EORTC QLQ C-30</b>						
HRQoL T1-T2 <sup>cdgh</sup>	94	-1.40 (-5.49 to 2.68)	93	-1.19 (-5.39 to 3.01)	-0.21 (-5.97 to 5.54)	0.94
HRQoL T1-T3 <sup>cdgh</sup>	93	1.50 (-2.97 to 5.97)	90	3.11 (-1.52 to 7.74)	-1.61 (-7.95 to 4.73)	0.62
Outcomes	n	Intervention group	n	Control group	Odds ratio for no perceived participation restrictions (95% CI)	p value
		Odds <sup>j</sup>		Odds <sup>j</sup>		
<b>IPA-DK<sup>i</sup></b>						
Autonomy Indoor T2	95	7.64 (4.07 to 14.32)	91	6.00 (3.36 to 10.79)	1.27 (0.54 to 3.02) <sup>kl</sup>	0.59
Autonomy Indoor T3	89	8.89 (4.46 to 17.71)	87	8.67 (4.35 to 17.28)	1.03 (0.39 to 2.75) <sup>kl</sup>	0.95
Family role T2	95	1.21 (0.81 to 1.81)	91	1.39 (0.92 to 2.12)	0.83 (0.46 to 1.50) <sup>kl</sup>	0.54
Family role T3	89	1.70 (1.10 to 2.61)	87	1.56 (1.01 to 2.40)	1.08 (0.59 to 1.99) <sup>kl</sup>	0.81
Social relations T2	95	18.00 (7.31 to 44.30)	89	13.83 (6.04 to 31.68)	1.22 (0.35 to 4.21) <sup>kl</sup>	0.75
Social relations T3	89	11.71 (5.41 to 25.34)	87	13.50 (5.89 to 30.94)	0.86 (0.28 to 2.69) <sup>kl</sup>	0.80

# Some possible explanations

↓ Intensity and extent

0 Prioritised occupations

? Right population match



# Summing up

- No effect of 'Cancer Home-Life Intervention'

## HOWEVER

- People with advanced cancer have substantial problems performing their occupations, and the majority also needed an intervention addressing these problems
- Need and benefit of occupational therapy

# Thank you for your attention

Thanks to the participants, the occupational therapists, nurses and physicians from the two Danish hospitals

The study was funded by Trygfonden, The Danish Cancer Society, The Danish Association of Occupational Therapists, The University of Southern Denmark and The Region of Southern Denmark

**TrygFonden**  **Kræftens Bekæmpelse**



# Contact information

**Marc Sampedro Pilegaard, OT, MSc, PhD**

The Research Initiative for Activity Studies and Occupational  
Therapy, General Practice, University of Southern Denmark &  
Knowledge Centre for Rehabilitation and Palliative Care (REHPA)

Mail: [mpilegaard@health.sdu.dk](mailto:mpilegaard@health.sdu.dk)