Practical application of PROs in stepped care for late effects

Danish Cancer Research Days, 2025

Improvements in cancer survivorship care needed
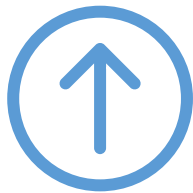
Accessibility
under pressure

[1] Evans Webb et al. Journal of Cancer Education, 2021. [2] Molassiotis et al. Annals of Oncology, 2017
[3] Sanson-Fisher et al. Cancer, 2000. [4] Okediji et al. Cureus, 2017. [5] Springer et al. J Cancer Res Clin Oncol, 2024

PROMs in clinical practice to improve survivorship care

<u>Patient Reported</u>
<u>Outcomes</u>
- Quality of life
- Symptoms
- Anxiety, Depression
- (Lifestyle)

<u>Use in clinical</u>
<u>practice:</u>
- Supportive care in personalized way
- Referral (Center for Quality of Life)

<u>Use of data:</u>
- Redesigning pathways of supportive care

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PROMs at the NKI

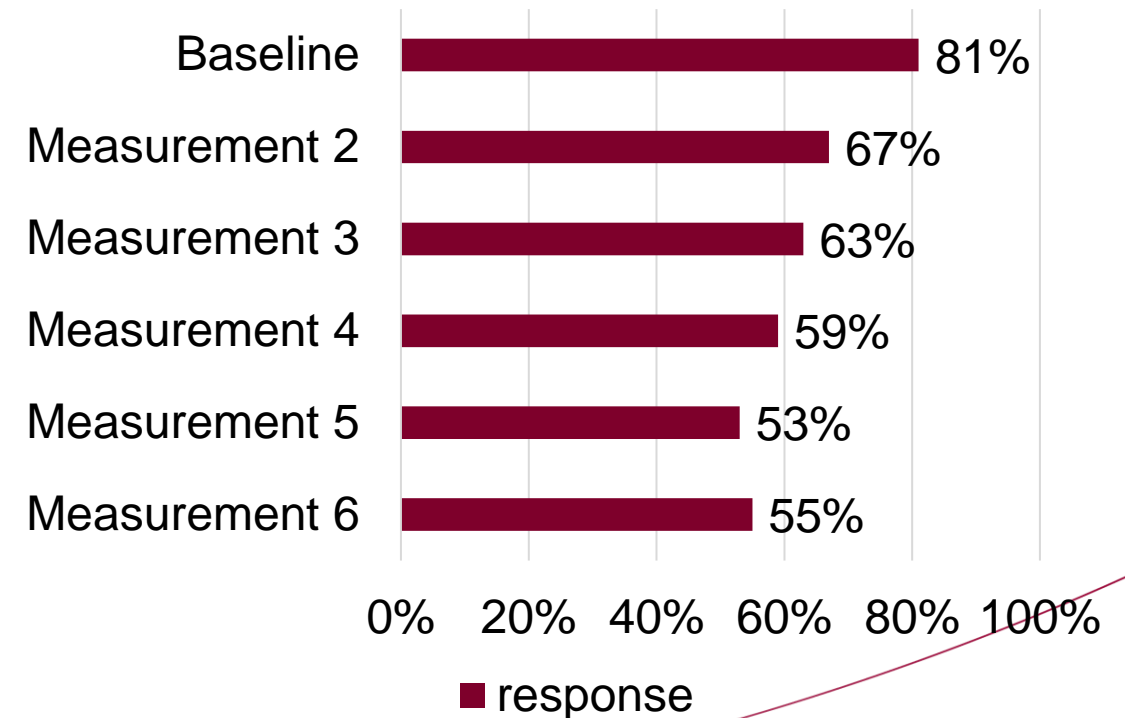
Boomstra et al. Qual Life Res 2025

PROMs implementation at the NKI[1]

Completed for:
- 9 cancer types
- 1500-2000 new patients/year

- EORTC QLQ-C30 + module
- Fixed measurement intervals
  - e.g. baseline, 3-6-9-12-18 months post-diagnosis, annually in follow-up

Response in 2024[2]

Measurement	Response
Baseline	81%
Measurement 2	67%
Measurement 3	63%
Measurement 4	59%
Measurement 5	53%
Measurement 6	55%

0% 20% 40% 60% 80% 100%

■ response

[1]Boomstra et al. Qual Life Res 2025 [2]AVL Dashboard, PROMs response

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Which care do they currently receive?

Referral to:	Excellent QoL (N=448)	Psychosocial concerns (N=229)	Poor QoL (N=100)
Supportive care nurse at Center for Quality of Life	**161 (36%)**	94 (41%)	36 (36%)

From PRO profiles to actionable interventions
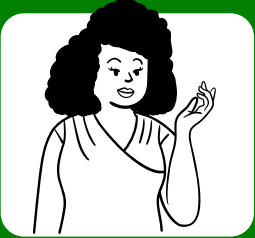
Excellent QoL
- Supported self-management

Psychosocial concerns
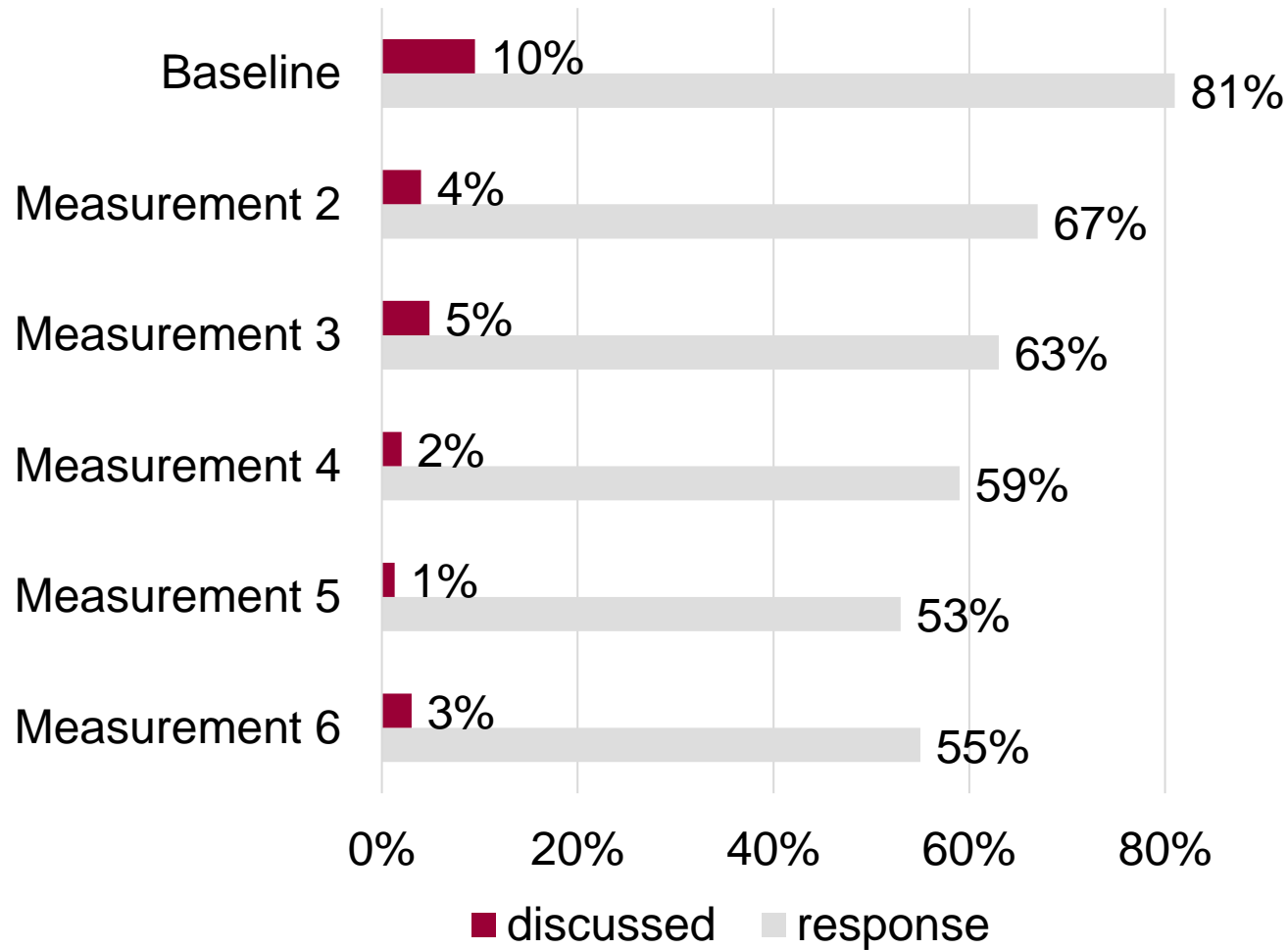- Specific interventions

Poor QoL
- Complex case management

- QoL at baseline to stratify supportive care for patients
- Low transition probabilities between subgroups (1-5%)

Boomstra et al. Submitted at Breast Cancer Res Treat
Unpublished data; do not copy/photograph

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Response in 2024[2]

Implementation evaluation study[1]

"What do you expect me to do? I cannot fix everything!"

"If I discuss PROs with patients, they will all want supportive care – there is no capacity for that!"

[1]Boomstra et al. Qual Life Res 2025 [2]AVL Dashboard, PROMs response

Pilots of PRO-based stepped care

Screening for cognitive issues in breast and III/IV melanoma[1]

Step 1

Patients complete PROMs

- EORTC QLQ-C30 cognitive functioning
- 6 months surgery/ start neo-adj chemo

[1]Albers et al. Support Care Cancer 2025 [2]Giesinger et al. J Clin Epidemiol. 2020 [3]Feenstra et al. J Clin Exp Neuropsychol. 2018

Stratified care options for cognitive impairment

No/little impairment
- Additional information

Mild impairment
- E-health tool for cognitive rehabilitation

Severe impairment
- Extensive neuropsychology evaluation
- Symptom clusters with fatigue and insomnia

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Screening for cognitive issues[1]

	Melanoma	Breast	
Step 1: Who completed PROMs at 6 months?	n=154	n=107	
Step 2: Who reported clinically relevant cognitive impairment?	38/154 (25%)	43/107 (40%)	• Disease progression (5) • Not interested/no time (17) • No response (14) • Unknown (12)
Step 3: Who was invited to the ACS?	15/38 (40%)	18/43 (42%)	• Deceased (1) • Disease progression (1) • No computer (1) • Unknown (3)
Step 4: Who received ACS feedback?	12/38 (32%)	15/43 (35%)	**Cognitive impairment** Melanoma: 4/154 Breast: 10/107

[1]Albers et al. Support Care Cancer 2025

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What's next?

Improving and extending PRO-based stepped care at the NKI

- Implementing+evaluating stratified care for breast cancer patients
  - Grant application in the making ☺

- Pilots included much manual labor -> automated processes
  - Automatic referral based on decision algorithm
  - Chatbot to inform patient about PROs and appropriate care options

- Improving discussion of PROs in clinical practice
  - Technology could support, but not replace human interaction!

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- Lonneke van de Poll Group
- Centre for Quality of Life
- PROMs steering committee

All patients who complete PROMs and participated in our pilots

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