

Identifying patient profiles with distinct trajectories of health-related quality of life over time

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Introduction

- Yearly **38.000 patients** are diagnosed with stage IV cancer in the Netherlands
- These patients experience several **physical symptoms and impaired functioning**
- Symptoms and functioning may **interact and vary over time**, making health-related quality of life different for each patient

Objective

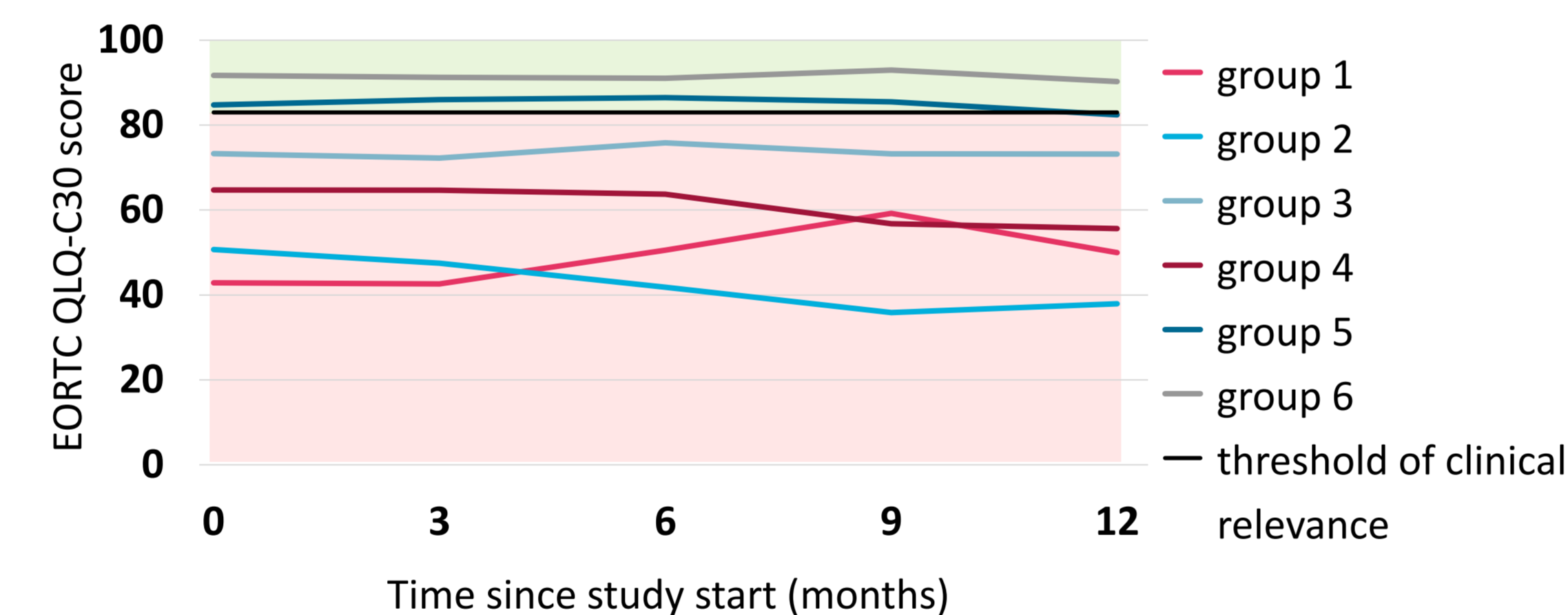
Identify clusters of stage IV cancer patient with distinct trajectories of health-related quality of life and identify patients with impaired trajectories

Population and outcomes

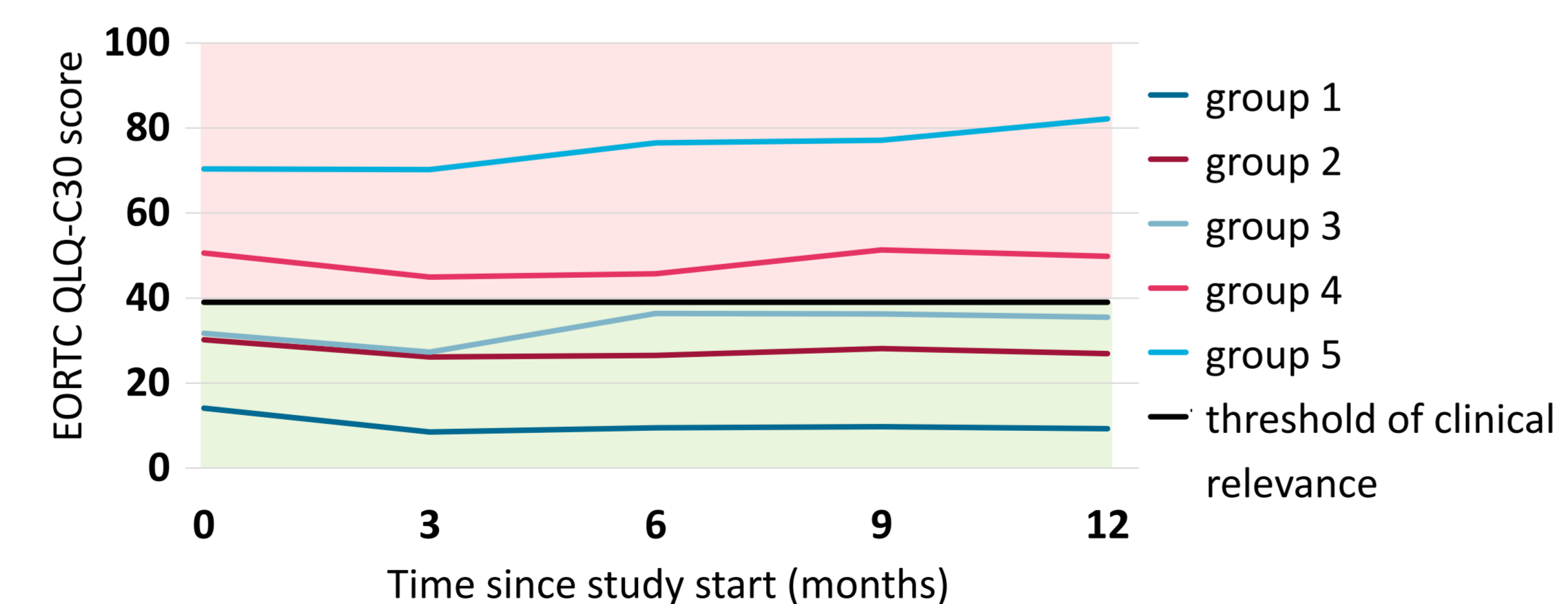
- Population.** Patients with stage IV cancer of eQuiPe¹ and SYMPRO-Lung² studies: **841 patients**
 - Age: 65 years
 - Male: 50%
 - Tumour type: lung cancer (47%), gastrointestinal (18%)
 - Comorbidities: none (29%), 1-2 (56%), ≥3 (15%)
- Primary outcome.** EORTC QLQ-C30 functioning and symptom scales, assessed at baseline, 3, 6, 9 and 12 months

Trajectory clusters

- Model.** Group-based multi-trajectory modelling³
- Functioning.** 6-group model showed best fit (example for physical functioning)



- Symptoms.** 5-group model showed best fit (example for fatigue)



Identifying high risk patients

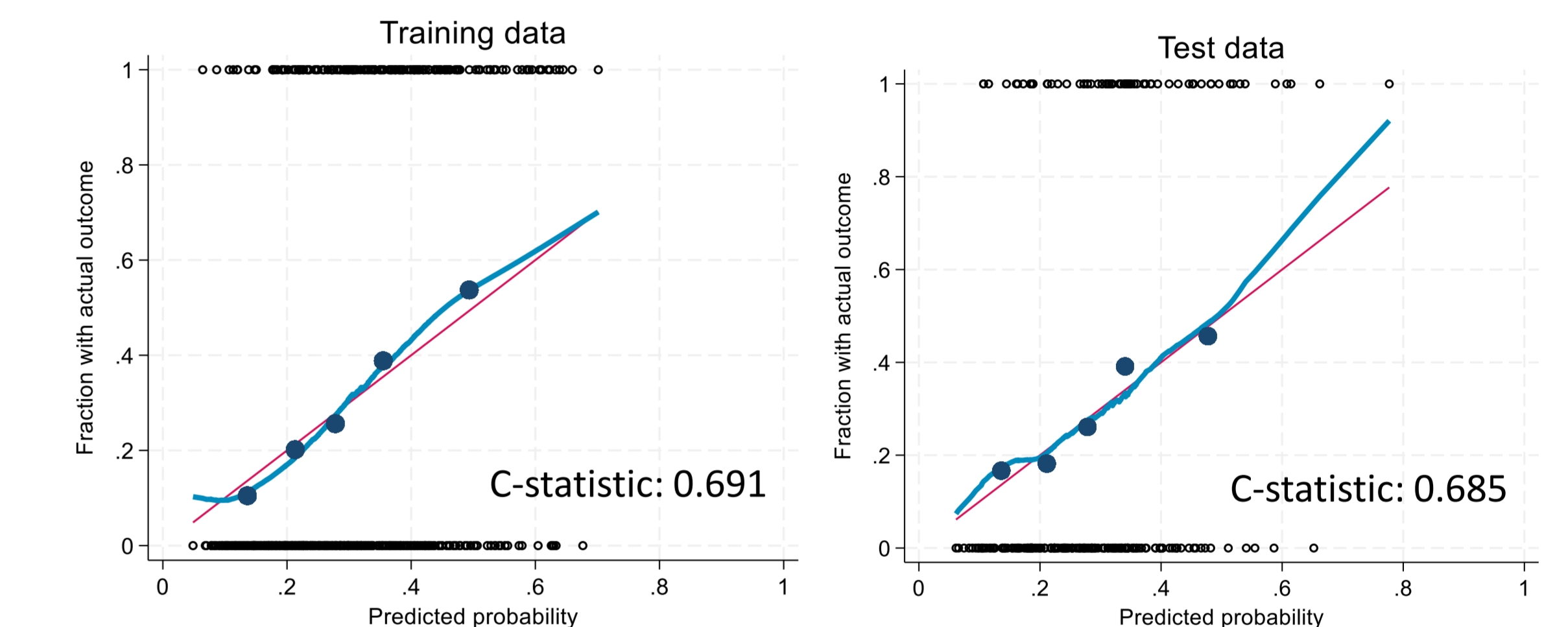
- Model.** Multinomial logistic regression, backward selection
- High risk population.** **29% of patients** showed trajectories of both high symptom burden and impaired functioning (see table)

	Impaired symptoms and functioning	P-value
	OR (95% CI)	
Age	0.97 (0.95-0.99)	0.001
Educational level (ref: low)		
• Medium	0.68 (0.42-1.08)	0.104
• High	0.55 (0.33-0.90)	0.018
Comorbidities (ref: 0)		
• 1-2	1.91 (1.17-3.16)	0.010
• 3 or more	2.49 (1.29-4.81)	0.007
Stage IV trajectory (>36 months)	1.83 (1.20-2.80)	0.005

For more information on the study and detailed results, please scan the QR code



- Model calibration.** In training (70%) and test data (30%)



Discussion

- 1/3 of patients** shows impaired symptom burden and functioning
 - Younger age, lower educational level, more comorbidities and a longer stage IV trajectory are predictive
- This patient group should be offered **evidence-based monitoring of symptoms and functioning**

Conclusion

Patients with stage IV cancer develop health-related quality of life in distinct trajectories. Evidence-based symptom monitoring should at least be offered to patients with increased risk of impaired symptoms and functioning.

References

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