

Online supplement

Relationship between pulmonary rehabilitation and care dependency in COPD

Authors:

D.J.A. Janssen^{1,2}, S. Wilke¹, D.E. Smid¹, F.M.E. Franssen^{1,3}, I.M. Augustin¹, E.F.M. Wouters^{1,3}, M.A. Spruit¹

Affiliations:

1. Department of Research & Education, CIRO, Centre of expertise for chronic organ failure, Horn, The Netherlands; 2. Centre of Expertise for Palliative Care, Maastricht University Medical Centre (MUMC+), Maastricht, The Netherlands 3. Department of Respiratory Medicine, Maastricht University Medical Centre (MUMC+), Maastricht, The Netherlands

Address for correspondence:

Daisy J.A. Janssen, MD PhD

Ciro, centre of expertise for chronic organ failure

PO Box 4009, 6080 AA HAELEN, The Netherlands

Hornerheide 1, 6085 NM HORN, The Netherlands

T +31 (0)475 587 686

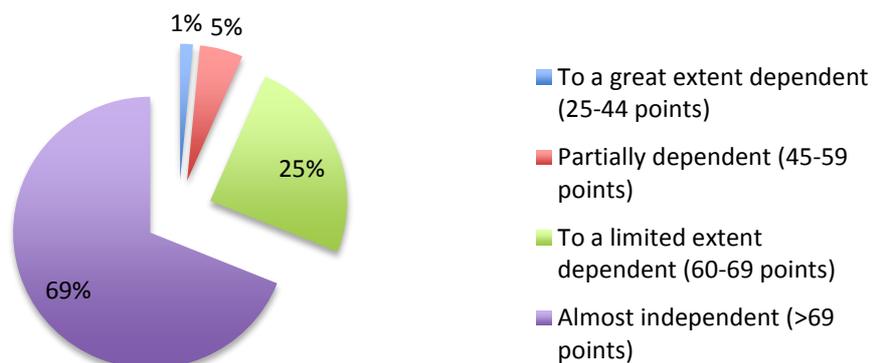
F +31 (0)475 582 618

E daisyjanssen@ciro-horn.nl

Degree of care dependency in patients with COPD entering Pulmonary Rehabilitation (PR)

The degree of care dependency is shown in E-figure. The majority of the care dependent patients were to a limited extent care dependent.

E-figure. Degree of care dependency in patients with COPD entering PR



Degree of care dependency according to the proposed classification of the Care Dependency Scale by Dijkstra A., Buist G.A.H., Dassen T.W.N., van den Heuvel W.J.A. Het meten van zorgafhankelijkheid met de ZorgAfhankelijkheidsSchaal - Een handleiding (Measurement of care dependency with the Care Dependency Scale – a manual). 2012, Second edition. Research Institute SHARE. University Medical Centre Groningen / Groningen University, Groningen, The Netherlands. None of the patients were completely dependent (CDS score <25 points). n=331.

Determinants of a change towards a CDS score >68 points after PR in patients with a CDS score ≤68 points before PR

A binary logistic regression model was developed to explore determinants of a change towards a CDS score >68 points after PR in patients with a CDS score ≤68 points before PR. Change in CDS score to >68 points after PR was entered as dependent variable. Age, gender, FEV₁, use of LTOT, baseline CDS score, baseline CAT score, baseline 6MWD, baseline HADS-A score, baseline HADS-D score, change in CAT score, change in 6MWD, change in HADS-A score, and change in HADS-D score were entered subsequently as independent variables. Variables with a p-value <0.20 were included in the final model. Age, FEV₁, use of LTOT, baseline HADS-D score, change in CAT score, change in 6MWD,

change in HADS-A score, and change in HADS-D score had a p-value ≥ 0.20 and were excluded.

Gender, baseline 6MWD, baseline CAT score, baseline CDS score and baseline HADS-A score were included in the final model. Only baseline CDS score remained a determinant for of a change towards a CDS score >68 points after PR. (E-Table) Patients with a higher baseline CDS score were more likely to have a CDS score >68 points after PR. So, baseline patient characteristics as well as changes in other outcomes of PR do not predict the response to PR with respect to care dependency.

E-table. Determinants of a change towards a CDS score >68 points after PR in patients with a CDS score ≤ 68 points before PR

Determinants	Odds ratio (95% CI)	Adjusted p-value
Male	0.848 (0.322-2.231)	0.738
Baseline 6MWD	1.002 (0.997-1.007)	0.382
Baseline CAT score	0.975 (0.897-1.061)	0.563
Baseline CDS score	1.104 (1.001-1.218)	0.048
Baseline HADS-A score	0.952 (0.847-1.070)	0.414

n=83. pseudo $R^2=0.194$, $p=0.025$. Abbreviations: 6MWD= six-minute walk distance; CAT= COPD

Assessment Test; CDS= Care Dependency Scale; HADS-A= Hospital Anxiety and Depression Scale, anxiety subscale.