

The longitudinal use of EmPHasis-10 and CAMPHOR questionnaire health-related quality of life scores in patients with pulmonary arterial hypertension and chronic thromboembolic pulmonary hypertension

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Funding Acknowledgement: Type of funding sources: Private company. Main funding source(s): This research project was supported by an unrestricted grant by Actelion pharmaceuticals.

Background: Health-related quality of life (HRQoL) is impaired in patients with pulmonary hypertension (PH). The EmPHasis-10 and CAMPHOR questionnaires are developed to evaluate HRQoL specifically in patients with PH. Data on the longitudinal use of both questionnaires are still limited.

Purpose: This paper will evaluate and compare the longitudinal value of two health-related quality of life questionnaires specific for patients with pulmonary hypertension (CAMPHOR and EmPHasis-10 questionnaires) using a broad spectrum of clinical anchor points. Furthermore we will establish minimal clinically important differences (MCID) for both questionnaires.

Methods: Sixty-one treatment naïve pulmonary arterial hypertension or chronic thromboembolic patients were prospectively included. Patients were treated according to the current ESC/ERS guidelines. We compared EmPHasis-10 and CAMPHOR scores between baseline, 6 and 12 months of follow-up and evaluated the correlation between these scores and a 5-scale symptom severity score, 5-scale overall health score, NYHA-

classification, six minute walk test distance (6MWD), NT-proBNP and echocardiographic parameters. MCIDs were calculated using distribution and anchor based calculations.

Results: After one year of treatment a significant reduction in EmPHasis-10 score and CAMPHOR QoL and symptoms domain score was observed. Moderate to good correlations were observed between the questionnaires and the overall-health and symptom severity score and 6MWD. No relevant correlations were seen between the questionnaires and NT-pro-BNP and echocardiographic parameters. EmPHasis-10 scores showed strong correlations with all CAMPHOR domains. The MCID for the EmPHasis-10 questionnaire was –8. The MCIDs for the CAMPHOR domains were: activity –3, symptoms –4, QoL –3.

Conclusion: The EmPHasis-10 and CAMPHOR questionnaires are valid tools for the longitudinal measurement of HRQoL in patients with PH. The much shorter EmPHasis-10 correlates well with the CAMPHOR domain scores and with the clinical endpoints and it may be easier to use in daily practice. We established acceptable MCIDs.