Appendix A

Table 1 Standard set of outcome domains and associated measures for patients with COPD accepted by all stakeholders as described in recent research[1]

| Domain | Measure | Guided measurement protocol | | |
|-----------------------------------|---|-----------------------------|---------|----------------|
| | A: mandatory for all patients with COPD | Intake | Every 3 | End |
| | | | months | |
| Practice/physical therapist level | Characteristics of practices and physical | Once a | | |
| | therapists | year | | |
| Physical capacity | 6-Minute Walk Test (6 MWT) | X | X | Χ |
| Health-related quality of life | Clinical COPD Questionnaire (CCQ) | Х | Х | X ¹ |
| Experience | Global Perceived Effect (GPE) | | Х | Х |
| | B: Conditional measures | | | |
| Quadriceps strength | Hand-Held Dynamometer (HHD) (with a | Х | X | Х |
| | Microfet™) | | | |
| Dyspnea | Medical Research Council Dyspnea | X | X | Х |
| | (MRC) | | | |
| | C: Exploratory measures ² | | | |
| Physical activity | Accelerometer (for physical activity in | | | |
| | daily life) | | | |
| ABC-Tool | The Assessment of Burden of COPD tool | | | |

¹ After treatment ≥12 months the CCQ needs only to be measured once a year.
² The exploratory measures were not included in this study

Table 2 Description of PROMs and physical performance measures

| Patient Reported Outcome Measures (PROMs) and physical performance measures | Description |
|---|--|
| 6-Minute Walk Test (6 MWT)[2] | Physical performance test where the patients walks for 6 minutes, according to the structured guidelines of Butland et al.[2] |
| Clinical COPD Questionnaire (CCQ)[3] | The CCQ is an 10 item questionnaire scores the health-related quality of life for patients with COPD, scored on a 7-point Likert scale, score 0 is "very good health status" and 6 "extremely poor health status" |
| Global Perceived Effect Dutch Version (GPE-DV) [4] | This 2-item questionnaire is about patient satisfaction and the patient experienced effect of the treatment on a 7-point likert scale |
| Hand Held Dynamometrie (HHD)[5] | Physical performance test where the patients scores his maximal isometric quadriceps strength |
| Medical Research Council Dyspnea (MRC)[6] | Single item scores the patient experienced symptoms of dyspnoea during physical activity on a 5-point Likert scale, score 1 is "symptoms of dyspnoea during heavy activities" and 5 "to symptoms of dyspnoea to leave the house" |
| The Assessment of Burden of COPD index [7] | A 15 item questionnaire scores the experienced burden of the COPD disease |
| Accelerometer | Tool to measure physical activity in daily practice in average steps per day |
| Characteristics of practices and physical therapist | This structure measure scores the education level of the physical therapists and identifies the characteristics of the practice (e.g. equipment's, training facilities) |

References:

- 1. Verburg, A.C., et al., Development of a Standard Set of Outcome Domains and Proposed Measures for Chronic Obstructive Pulmonary Disease in Primary Care Physical Therapy Practice in the Netherlands: a Modified RAND/UCLA Appropriateness Method. Int J Chron Obstruct Pulmon Dis, 2019. **14**: p. 2649-2661.
- 2. Butland, R.J., et al., *Two-, six-, and 12-minute walking tests in respiratory disease.* Br Med J (Clin Res Ed), 1982. **284**(6329): p. 1607-8.
- 3. van der Molen, T., et al., *Development, validity and responsiveness of the Clinical COPD Questionnaire.* Health Qual Life Outcomes, 2003. **1**: p. 13.
- 4. Hudak, P.L. and J.G. Wright, *The characteristics of patient satisfaction measures.* Spine (Phila Pa 1976), 2000. **25**(24): p. 3167-77.
- 5. Desrosiers, J., et al., *Comparison of the Jamar dynamometer and the Martin vigorimeter for grip strength measurements in a healthy elderly population.* Scand J Rehabil Med, 1995. **27**(3): p. 137-43.
- 6. Fletcher, C.M., Standardised questionnaire on respiratory symptoms: a statement prepared and approved by the MRC Committee on the Aetiology of Chronic Bronchitis (MRC breathlessness score). BMJ 1960. **2:1665**.
- 7. Slok, A.H., et al., 'To use or not to use': a qualitative study to evaluate experiences of healthcare providers and patients with the assessment of burden of COPD (ABC) tool. NPJ Prim Care Respir Med, 2016. **26**: p. 16074.