Evaluating the Usability of an ePRO Diary for Measuring COPD Symptoms at Night and Early Morning

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Introduction

• Two-thirds of adults with moderate to severe COPD symptoms experienced symptoms at night.
• A recent review of the literature identified a lack of validated instruments to measure nighttime COPD symptoms.
• The National Heart, Lung, and Blood Institute (NHLBI) and the ISPOR ePRO Task Force have emphasized the need for reliable and valid outcomes to support evidence-based decisions.

Objective

To develop and test an ePRO diary for measuring nighttime symptoms of COPD.

Methods

• The National COPD Guidelines recommend that adults with COPD use a diary to monitor their symptoms.
• The ePRO diary was developed using qualitative data collection methods to ensure ease of use and flexibility.
• The diary was tested in a sample of COPD patients to ensure feasibility and acceptability.

Results

• Participants completed the ePRO diary in a mean time of 10 minutes.
• Overall, the ePRO diary was easy to use and acceptable to patients.

Conclusions

• The ePRO diary is a feasible and acceptable tool for measuring nighttime symptoms of COPD.
• Further research is needed to validate the diary in a larger population.

References


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Table 1: Demographics and Clinical Characteristics of Participants

- Age range, years: 40-85
- Gender: 53% female, 47% male
- Race: 78% non-Hispanic or Latino (not exclusive of race), 22% Hispanic or Latino

Table 2: Revisions made to response findings from first round of testing

- Based on participant feedback in Round 1, additional minor changes were made to the final version of the ePRO diary (Table 3).

Table 3: Means of response findings to feedback from second round of testing

- The mean time to complete the ePRO diary was 10 minutes.
- Most participants reported that the device was “very easy” to learn and “very easy” to use overall.

Figure 1: Participant’s responses on questionnaires

- The majority of participants (83%) reported that they would be willing to complete the ePRO diary in the future.
- The device was found to be “very easy” to learn and “very easy” to use overall.

Figure 2: Mean time to complete the ePRO diary (n=15*)

- The mean time to complete the ePRO diary was 10 minutes.
- The ePRO diary was found to be “very easy” to learn and “very easy” to use overall.

Figure 3: Mean scores on device usability questionnaire (n=15*)

- The majority of participants (83%) reported that they would be willing to complete the ePRO diary in the future.
- The device was found to be “very easy” to learn and “very easy” to use overall.

Figure 4: Mean number of times participants used the device (n=15*)

- The mean number of times participants used the device was 10.
- The device was found to be “very easy” to learn and “very easy” to use overall.