

CAN OLDER, CHRONICALLY ILL ADULTS USE ELECTRONIC DIARIES? COMPLIANCE RATES IN A PROSPECTIVE STUDY OF COPD

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OBJECTIVES Background: Electronic data capture for daily diary and survey-style patient-reported outcomes (e-PRO) is becoming widespread. Concern has been expressed that older adults may have difficulty with this methodology, particularly e-diaries requiring independent completion and data transmission at home. Objective: To evaluate e-diary compliance rates in adults with stable and acute chronic obstructive pulmonary disease (COPD) using data from the EXACT (Exacerbations of Chronic Pulmonary Disease Tool) prospective item-reduction and validation study. **METHODS** N=410; 188 stable patients were asked to complete an e-diary for 7 days; 222 acute patients were to complete the e-diary for 28 days and again on days 60-67. Site coordinators provided standardized training, take-home instructions, and a toll-free helpdesk number. Patients were instructed to complete the 30-item diary each evening during a 6-hour variable window (based on bedtime) and upload data daily. Audible alarms were used as reminders. Compliance feedback (%) was provided via PDA each entry day. Site coordinators tracked compliance via web portal, contacting patients after two missed entries. Centralized compliance monitoring was performed to detect low rates and re-train sites. **RESULTS** Mean age=65 years (± 10); 48% male; 77% retired or disabled; 64% = high school education; mean FEV₁ % predicted=51% (± 20); 92% moderate to severe disease; 75% of acute patients had moderate to severe exacerbations based on clinician rating. Study retention was 99% and 88% for the stable and acute groups, respectively; compliance rates were 96% for days 1-7 in stable patients and 94% for days 1-28 in acute patients. **CONCLUSIONS** High compliance rates were observed in stable and acute patients with COPD participating in a study that included patient training, real-time reminders, and daily monitoring. Further study of compliance over longer periods of time and an evaluation of the most effective compliance enhancement methods within and across patient populations is warranted.

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