

Supplemental Table 1: Spearman correlations of steps and daily symptoms with 5-year clinical measures for COPD patients (GOLD I-IV), overall and split by daily oxygen use

	<i>COPD I-IV</i>		<i>COPD I-IV, oxygen use</i>		<i>COPD I-IV, no oxygen</i>	
	<i>n=82</i>		<i>n=49</i>		<i>n=33</i>	
	Steps, median	E-RS mean	Steps, median	E-RS mean	Steps, median	E-RS mean
Steps, median	1.00	-0.05	1.00	-0.09	1.00	0.20
E-RS mean	-0.05	1.00	-0.09	1.00	0.20	1.00
Rescue occasions, mean	-0.03	<i>0.52</i>	0.05	<i>0.53</i>	-0.02	<i>0.48</i>
6MWD	<i>0.60</i>	-0.34	<i>0.53</i>	-0.31	<i>0.51</i>	-0.21
FEV₁ % predicted	<i>0.33</i>	-0.29	<i>0.38</i>	-0.35	-0.15	0.06
SF-36 Physical Function	<i>0.30</i>	-0.48	0.28	-0.60	0.10	-0.11
CAT	-0.15	<i>0.72</i>	-0.24	<i>0.68</i>	0.23	<i>0.69</i>
SGRQ	-0.20	<i>0.71</i>	-0.25	<i>0.69</i>	0.23	<i>0.65</i>
MMRC	-0.29	<i>0.60</i>	-0.38	<i>0.54</i>	0.19	<i>0.54</i>
Emphysema %LAA	-0.33	0.16	-0.47	0.14	0.14	0.15
Lung density	<i>0.30</i>	-0.15	<i>0.46</i>	-0.14	-0.17	-0.11
Age	-0.20	-0.14	0.20	-0.29	-0.58	-0.05

BMI	-0.12	-0.15	-0.02	-0.21	-0.13	-0.19
Oxygen use	<i>-0.48</i>	<i>0.27</i>	<i>-0.56</i>	<i>0.17</i>		

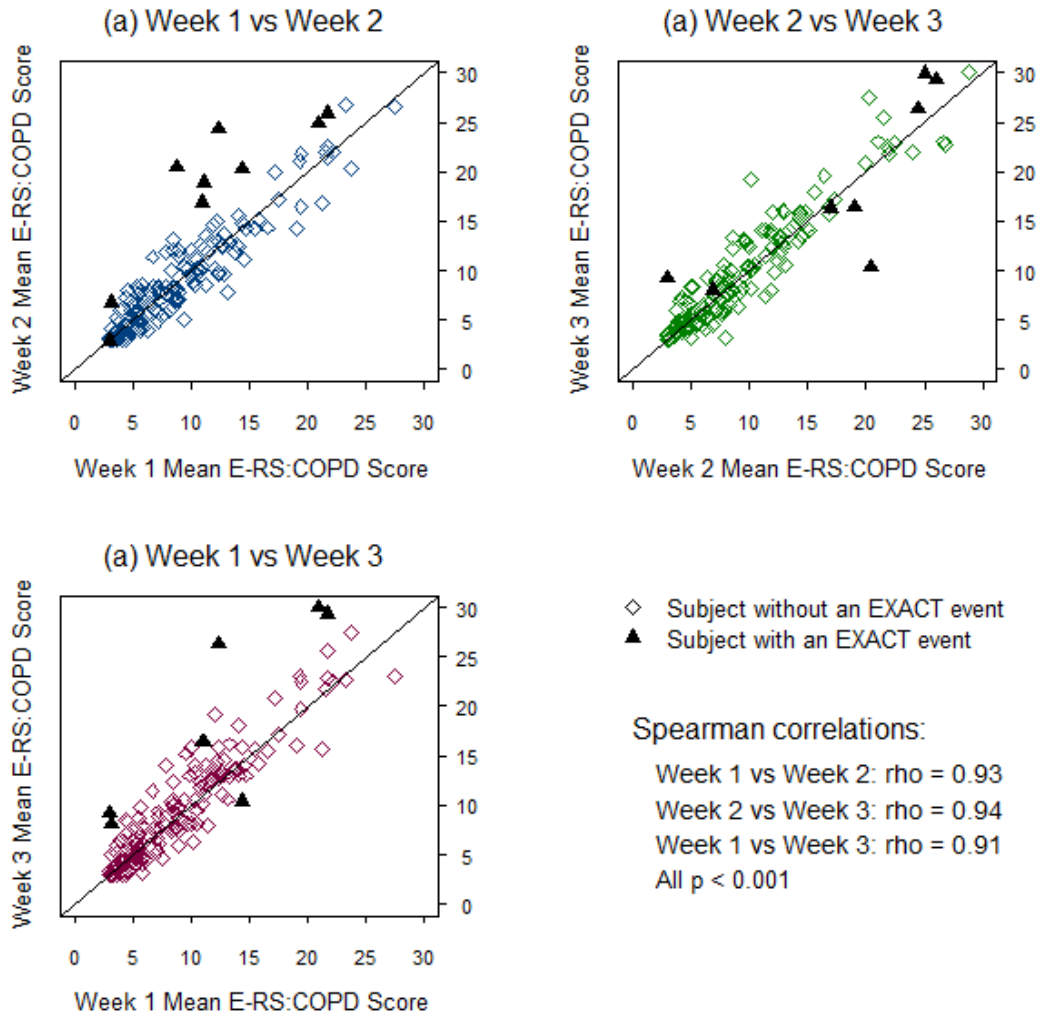
Italicized values have $p < 0.05$.

Supplemental Table 2: Baseline clinical characteristics and study summary measures split by rescue medication use pattern

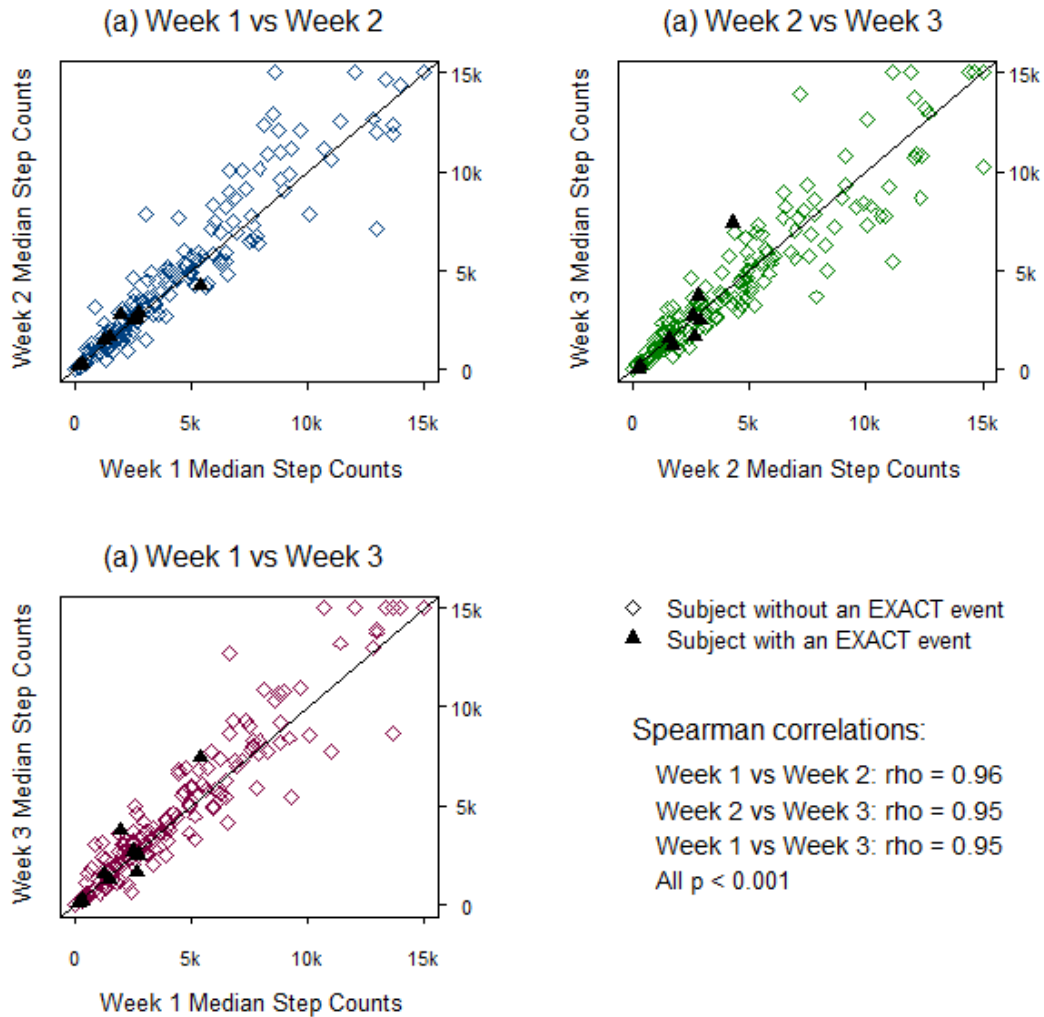
	Scheduled use (n=9)	No pattern, frequent use (n=17)	No pattern, infrequent use (n=22)	Bad days (n=3)	p-value
Clinical Characteristics					
Age (years)	68 (6)	64 (7)	64 (8)	63 (2)	0.478
Male, n (%)	4 (44%)	7 (41%)	9 (41%)	1 (33%)	0.990
Body mass index (kg/m ²)	26 (4)	28 (6)	32 (8)	38 (7)	0.030
Current Smoker, n (%)	2 (22%)	7 (41%)	5 (23%)	1 (33%)	0.603
Smoking Pack-year history	48 (26)	50 (34)	52 (24)	61 (64)	0.899
FEV ₁ , (% predicted)	51 (21)	45 (17)	62 (24)	67 (21)	0.072
6-minute walking distance (m)	406 (79)	312 (126)	366 (151)	359 (198)	0.378
BODE index	3.1 (1.2)	3.5 (1.4)	2.1 (2.0)	1.7 (2.1)	0.050
Emphysema LAA% (-950HU)	17 (18)	8 (7)	8 (11)	5 (5)	0.340
Lung density (g/L)	54 (23)	68 (22)	72 (21)	72 (10)	0.349

Pi10 (mm)	3.6 (0.1)	3.7 (0.1)	3.6 (0.1)	3.7 (0.1)	0.396
MMRC dyspnea score ≥ 2 , n (%)	8 (89%)	16 (94%)	14 (64%)	2 (67%)	0.301
SGRQ total score	40 (16)	54 (19)	34 (17)	32 (34)	0.013
Prior Year Exacerbation History	0.4 (0.5)	1.4 (1.5)	1.4 (1.6)	0.0 (0.0)	0.157
Outcome Measures					
Steps per day, median [IQR]	3072 [1566-4433]	1607 [1124-5616]	2136 [617-4652]	9582 [195-12184]	0.859
Calories, median [IQR]	1289 [952-1651]	1767 [1094-2129]	1666 [994-2216]	2110 [1314-3779]	0.349
E-RS:COPD score	13.3 (6.3)	16.7 (5.4)	10.1 (4.9)	7.8 (3.0)	0.002
Mean rescue Occasions/day	2.2 (1)	3.5 (2.1)	0.2 (0.2)	0.6 (0.3)	N/A

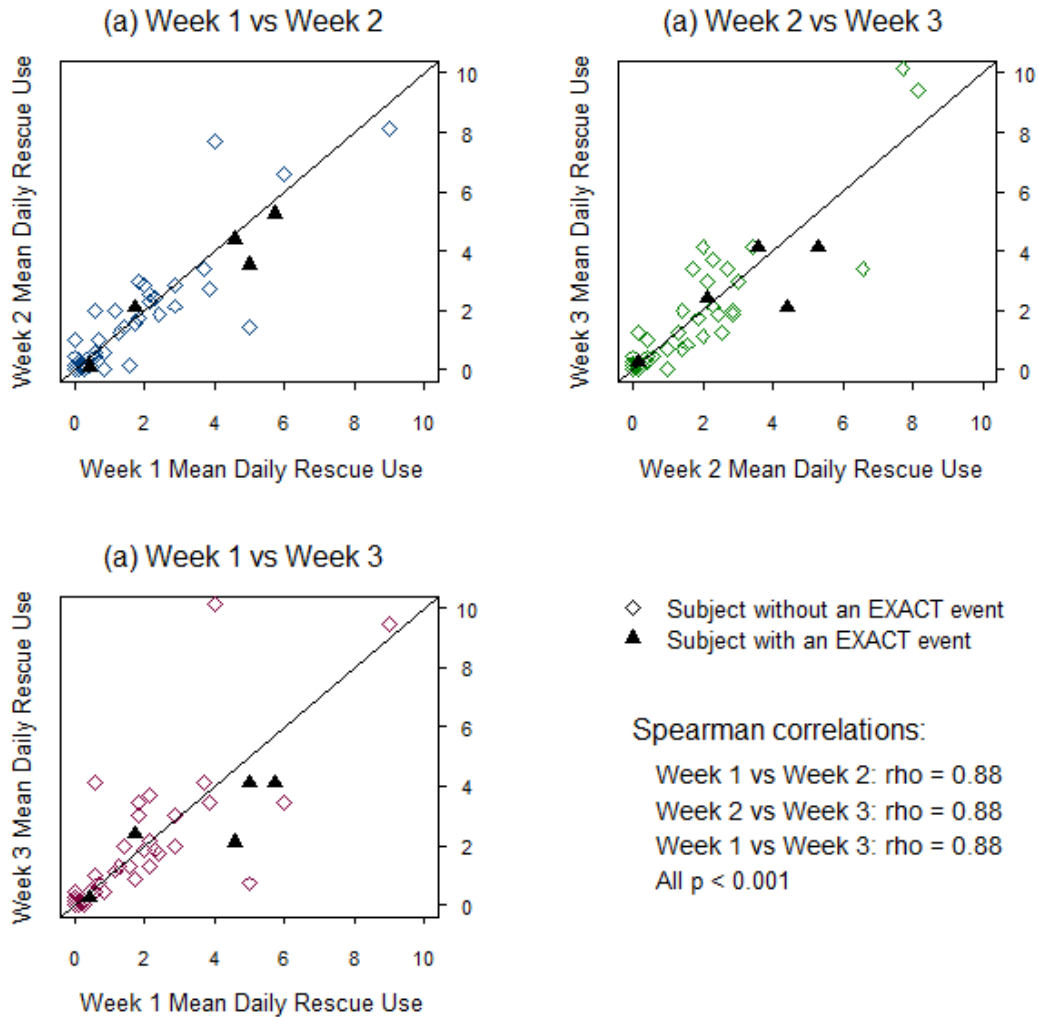
Supplemental Figure 1: Correlation of Weekly Mean E:RS-COPD scores



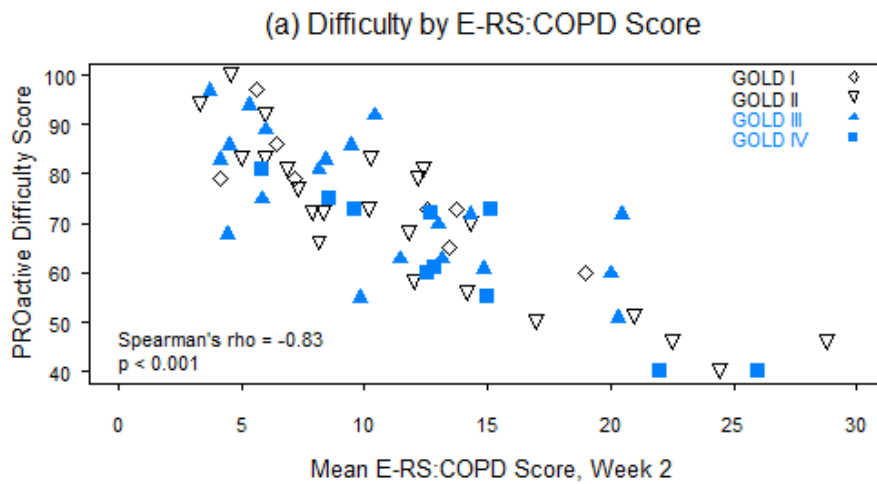
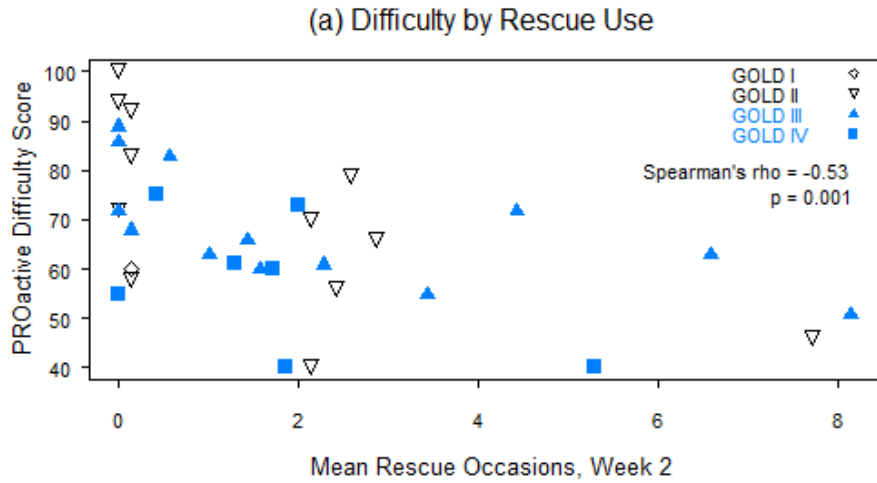
Supplemental Figure 2: Correlation of Weekly Median Step Counts



Supplemental Figure 3: Correlation of Weekly Mean Rescue Use (occasions per day)



Supplemental Figure 4: Association of self-reported difficulty with activity (PROactive Rasch Difficulty Score) with (a) mean rescue occasions and (b) E-RS:COPD score.



Supplemental Figure 5: Additional daily use profiles for participants with EXACT-defined events.

