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**Title:** The effect of exacerbation rate on SGRQ (St Georges respiratory questionnaire) score in earlier and later COPD

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**Body:** COPD exacerbations are associated with morbidity although how their effect on health status relates to the severity of airflow limitation is unclear. We investigated the relationship between exacerbation rate and health status in "earlier" COPD(FEV1>60%predicted) versus "later" COPD(FEV1<60%predicted). Symptom diary card and clinic visit data were prospectively collected on 211 London COPD Cohort patients over seven years. Patients completed SGRQs yearly when stable. We investigated the relationship between SGRQ score and exacerbation frequency in the two groups by regression analysis. Exacerbations were defined as previously(Seemungal et al 2000). The earlier(n=63) and later(n=148) groups were similar in demographics but the earlier group had fewer exacerbations(Table 1).

Table1:Spirometry&exacerbation rates of earlier&later COPD groups

	Earlier	Later
Mean FEV1(L)(SD)	1.63(0.45)*	1.02(0.33)*
Mean FVC(L)(SD)	3.04(0.92)*	2.43(0.77)*
Mean FEV1/FVC(SD)	0.55(0.11)*	0.44(0.12)*
Median Exacerbations/yr(IQR)	1.65(0.70-2.40)*	1.99(1.07-3.19)*

<sup>\*</sup>p<0.05

Exacerbation frequency related significantly to increasing SGRQ score(p=<0.001). There was no difference in slope(p=0.947) or intercept(p=0.161) between the earlier and later groups(See Fig 1).

The effect of exacerbation frequency on health status is similar in earlier and later COPD. Thus interventions that reduce exacerbations will improve health status across all disease severities.