

Methods We analysed data from 384 patients in the London COPD cohort collected between 1995 and 2012. Patients completed diary cards recording respiratory symptoms. Exacerbation onset was defined as the first of two days of 2 major symptoms (increased breathlessness, sputum volume or purulence) or 1 major and 1 minor symptom (cold, increased cough, increased wheeze, sore throat). Recovery was defined as the first of two symptom free days and exacerbation duration was defined as the period between onset and recovery.

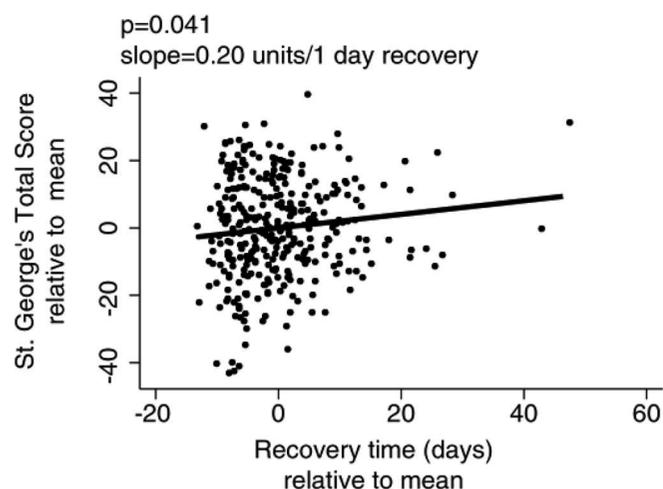
Patients completed the St. George's Respiratory Questionnaire (SGRQ) annually when clinically stable. To avoid bias with repeated measures, exacerbation recovery and SGRQ total scores were averaged. FEV₁% predicted was measured at recruitment.

Results The 384 COPD patients (246 male); mean age 68.6 years (SD8.4), FEV₁ % predicted 45.8% (16.6) and FEV₁/FVC 45.8% (12.2) with 122 patients (32.1%) still smoking at recruitment. There were 3498 exacerbations (median annual rate = 2.13 (IQR 1.0–3.2)).

The median exacerbation duration was 10 days (IQR 6–18). Exacerbation duration was not available for 350 (10.0%) exacerbations as no symptoms were recorded and for a further 109 (3.1%) where the patient continued to recorded symptoms post-exacerbation for 100 days or more.

In a multiple linear regression model, total SGRQ score increased by 0.20 units/1 day increase in exacerbation duration (95% CI 0.008–0.39; $p = 0.041$) after allowance for FEV₁% predicted and exacerbation frequency. The results suggest that halving the duration of 4 exacerbation events from 10 to 5 days will produce a 4 unit change in the total SGRQ score.

Conclusion Shorter exacerbations are associated with improved quality of life. More research is needed on acute interventions designed to ameliorate exacerbations.



Abstract M23 Figure 1 shows the partial residual plot for SGRQ score against exacerbation duration, with allowance of lung function and exacerbation frequency.

M24 MORTALITY PREDICTION BY CURB65 IN PNEUMONIA WITH AND WITHOUT COMPLICATING COPD

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Introduction The CURB65 score was developed to predict mortality in community acquired pneumonia (CAP) but is often used in pneumonia complicating acute exacerbations of COPD (pAECOPD). We have previously shown that CURB65 underestimates in-hospital mortality in pAECOPD, particularly in low risk patients (observed mortality 11.2%, CURB65-predicted 1.5%). [1] Of importance, CURB65 was derived in a population with significant exclusions, notably admission from nursing home, and few patients with dementia were included, whereas in our DECAF AECOPD cohort [1] such patients were included. The higher than predicted mortality in pAECOPD may reflect additional risk conferred by co-existent COPD, a less selected population and/or clinical outcomes in participating hospitals. We have therefore investigated whether the mortality of an equivalent population with CAP, but without COPD, is similar to that found previously in pAECOPD.

Methods Patients admitted with a primary diagnosis of CAP were identified from coding records. Patients with confirmed or suspected COPD were excluded; selection criteria and time frame otherwise matched the DECAF cohort. Demographic, clinical and mortality data were gathered from clinical notes. Categorical variables were compared using Fisher's exact test.

Results 115 patients with CAP were included: mean (SD) age 72.1 (16.4) years, 29.6% were admitted from institutional care and 21.7% had dementia. Median (IQR) CURB65 score was 2 (1–3) and in-hospital mortality 16.5%. Compared to the earlier cohort with pAECOPD, mortality in patients with low or intermediate risk CURB65 scores was lower.

Abstract M24 Table 1.

Curb65 risk score	DECAF pAECOPD			CAP without COPD			P
	N	died	%	n	died	%	
Low	89	10	11.2	30	0	0	.06
Intermediate	98	16	16.3	29	0	0	.02
High	112	34	30.4	56	19	34	.73
Total	299	60	20.1	115	19	16.5	.49

In the present study, 74% of deaths occurred in patients admitted from institutional care (mortality 35%, non-institutional care 9% $p = 0.002$) and/or those with dementia (mortality 36%, without dementia 11% $p = 0.006$).

Conclusions Compared to the BTS national audit, the proportion of patients with severe pneumonia is higher (49% v 30%) and mortality lower (16.5% v 21.2%). Both dementia and admission from institutional care were associated with high mortality rates. Among patients with low or intermediate risk CURB65 scores the mortality of those with CAP without COPD was lower than we previously found in pAECOPD, confirming that the underestimation of mortality risk by CURB65 in pAECOPD was not attributable to less effective clinical care.

REFERENCES

1. Steer. The DECAF score. *Thorax*, 2012;67:970–6.

M25 HAS THE NEW CONTRACT DELIVERED BETTER AMBULATORY OXYGEN DEVICES FOR PATIENTS? A LONDON PERSPECTIVE

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