recruitment to clinical trials. Pulmonary and Activation-Regulated Chemokine (PARC/CCL18) is a plausible biomarker based on previous reports in other respiratory diseases, making it worthy of study in COPD.

Methods PARC was measured using ELISA in serum samples from 115 patients enrolled in The London COPD cohort, including 44 paired samples taken at baseline and exacerbation (pre-treatment). PARC was assessed with relation to exacerbation frequency and other inflammatory markers.

Results The study cohort comprised of 77 males, 34 current smokers, mean age 69.6 years (SD 9.1), FEV_1 1.13 (0.47) l (45.3 (18.0)% predicted), baseline PARC concentration 124 ng/ml (40.4), median (IQR) exacerbation frequency 1.8/year (0.6–3.0). Higher PARC concentration was associated with more frequent exacerbations (r=0.22, p=0.035). PARC was not related to age, sex, BMI, disease severity (FEV_1), or smoking pack years (all p>0.05). Significantly lower PARC concentrations were found in current smokers compared to ex-smokers, 112 ng/ml vs 130 ng/ml respectively (p=0.036). PARC did not change from baseline to exacerbation (131 ng/ml vs 125 ng/ml, p=0.256), and the correlation between PARC in the two states was highly significant (r=0.53, p<0.0001). PARC was related to baseline CRP (r=0.28, p=0.013) and blood eosinophil count (r=0.39, p=0.001), with no significant associations at exacerbation, and no relationship with neutrophils or total white blood cell count.

Conclusion A relationship has been demonstrated between serum PARC concentration and exacerbation frequency in patients with COPD. Correlations between PARC, eosinophils and CRP indicate that this biomarker may identify a subset of patients with a particular inflammatory profile, suggesting specific treatment options. Further work should be carried out to explore the relevance of PARC as a biomarker in the COPD population.

P117 COMPARISON OF INDICES OF NUTRITIONAL STATUS IN PREDICTION OF IN-HOSPITAL MORTALITY AND EARLY READMISSION OF PATIENTS WITH ACUTE EXACERBATIONS OF COPD

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[1]J Steer, [1]E Norman, [2]G J Gibson, [1]S C Bourke. *[1]North Tyneside General Hospital, North Shields, Tyne and Wear, UK; [2]Institute of Cellular Medicine, Newcastle University, Newcastle-upon-Tyne, UK*

Introduction and objectives In patients hospitalised with an acute exacerbation of COPD (AECOPD), low body mass index (BMI) predicts in-hospital death. The Malnutrition Universal Screening Tool (MUST) incorporates BMI and patient-reported weight loss over the previous 6 months to provide an overall assessment of malnutrition risk. It predicts mortality in elderly hospitalised patients[1] but, to our knowledge, the prognostic value of this tool in AECOPD has not been previously reported.

Methods We prospectively identified patients hospitalised with AECOPD. We investigated the ability of BMI, self-reported weight loss and MUST score to predict in-hospital mortality and 28-day readmission. BMI <18.5 kgm^{-2} was considered underweight (World Health Organisation, 2004). Odds Ratios (OR) were calculated using normal BMI, weight loss <5%, and MUST score 0 as reference values.

Results 608 patients were included; mean (SD) age 72.8 (10.2) years, 55.8% female, mean (SD) FEV_1 (if performed within 2 years of admission, n=398) 43.5 (18) % predicted. 61 (10%) patients died in-hospital (6.9% in those with simple exacerbations, 16.5% in exacerbations associated with pneumonia). Of patients surviving to discharge, 95 (17.4%) were readmitted within 28 days (Abstract P117 Table 1). In-hospital mortality was predicted by BMI <18.5 kgm^{-2} (OR 2.5, 95% CI 1.27 to 4.91, p=0.008) whereas weight loss >10% predicted early readmission (OR 3.90, 95% CI 2.09 to 7.28, p<0.001). A high risk of malnutrition (MUST ≥2) was the only measurement that significantly predicted both in-hospital mortality (OR 2.10, 95% CI 1.18 to 3.74, p=0.011) and early readmission to hospital (OR 1.71, 95% CI 1.04 to 2.83, p=0.034). BMI within the overweight range appeared to be protective against early readmission (OR 0.54, 95% CI 0.29 to 0.99, p=0.046).

Conclusion In patients hospitalised with AECOPD, indices of nutritional status are important predictors of outcome. Of interest, BMI and self-reported weight loss predict different outcome measures (in-hospital death and early readmission respectively). A high risk of malnutrition (MUST score ≥2) is potentially a useful predictor of both in-hospital mortality and early hospital readmission and we suggest that it should be assessed routinely.

Abstract P117 Table 1 Nutritional measurements and their relationship to outcome

	BMI (kgm^{-2})				Weight loss %			MUST		
	<18.5	18.5–24.9	25–29.9	>30	<5	5–10	>10	0	1	≥2
%	17.8	37.5	25	19.7	79.3	11.2	9.5	64.8	10.4	24.8
OR for in-hospital mortality	2.50*	1	1.03	0.89	1	1.52	1.59	1	1.46	2.10*
OR for early readmission	0.86	1	0.54*	0.80	1	1.36	3.90*	1	1.24	1.71*

*Significance <0.05.

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P118 PREDICTING SURVIVAL IN PATIENTS ADMITTED TO HOSPITAL WITH AN ACUTE EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

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K Williamson, A Sullivan, N Folland, S Rees, S Gompertz. *Queen Elizabeth Hospital, Birmingham, UK*

Introduction COPD is the fifth biggest cause of death in the UK. It can be difficult to predict when these patients are coming to the end of their life. There are many clinical tools available to aid prediction of death.[1 2] As part of a wider COPD audit we assessed whether one of these could identify which patients admitted with an exacerbation should be referred for specialist palliative care.

Method 50 consecutive patients admitted to an acute hospital with exacerbations of COPD were assessed between August and September 2009. Gold Standards Framework[1] indicators for organ disease and other general predictors of end-stage illness were recorded. Where available (33/50), we calculated a modified BODE score (without the measure of exercise capacity). At 10 months, we assessed how many patients had survived.

Results 30% (15/50) of the patients had died by 10 months. Median BOD score at admission was five in survivors and in those who had died. The remaining data are summarised in Abstract P118 Table 1.

Discussion In our group of patients a modified BODE score was not helpful in predicting outcome at 10 months. Recurrent admissions, oxygen therapy, severe breathlessness/dependence and resistant organisms were more prevalent in the group that died. These data