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Title: Eosinophilia as marker of outcome in hospitalised patients with AECOPD

H.J. 17775 Prins h.j.prins@mca.nl MD ¹, D. 17776 Snijders d.snijders@mca.nl MD ¹, J.M.A. 17777 Daniels j.daniels@vumc.nl MD ² and W.G. 17778 Boersma w.boersma@mca.nl MD ¹. ¹ Pulmonary Diseases, MCA, ALkmaar, Netherlands, 1800AM and ² Pulmonary Diseases, VUMC, Amsterdam, Netherlands, 1007 MB .

Body: Background: blood eosinophilia > 2% has been promising marker for outcome in AECOPD treated with 14 days course of prednisolone. ¹ Methods: Patients included in an ongoing randomised controlled intervention trial (the CATCH study) patients were grouped based on blood eosinophil count >2% and ≤ 2% on admission, respectively. Treatment was standardised in the trial and consisted of prednisolone therapy, bronchodilators and based on the allocated treatment algorithm patients were treated with antibiotics or not. The two groups were analysed with respect to baseline characteristics and outcome parameters. Results: Ninety patients hospitalised for AECOPD were included. All three types of Anthonisen AECOPD were included. Each patient could be included once.

	Eos ≤ 2% (n=74)	Eos > 2% (n=16)	p-value
FEV1 %pred	42.2±18.1	49.8±15.7	0.10
Inhalation corticosteroids (CS)	66(89%)	11 (69%)	0.05
Pretreatment systemic CS	35(47%)	7 (44%)	0.80
Exacerbations last 2 years	3.7±3.8	2.5±2.4	0.34
CRP mg/l	55.4±68.6	39.5±63.2	0.17
Treatment failure ≤ day 30	33 (44.6%)	6 (37.5%)	0.60
Time to treatment failure(days)	53.54±79.25	55.27±61.33	0.19
Length of Stay (LOS) (days)	8.69±6.00	6.00±2.28	0.03
Mortality	4 (5.4%)	1(6.3%)	0.46

Conclusions : subanalysis of the results of the CATCH study showed that eosinophilia (>2%) is associated with lower LOS. These patients used more often inhalation CS than those with low eosinophil count. ¹

Bafehei M, et al. Blood eosinophils to direct corticosteroid treatment of exacerbations of chronic obstructive pulmonary disease. Am J Respir Crit Care Med 2012;186:48-55.

