clinical practice in the management of patients with severe COPD and persistent hypercapnia.

Abstract S115 Figure 1 Time to hospital re-admission by treatment arm

S116 HOT DECAF: A RCT COMPARING HOME TREATMENT AND INPATIENT CARE IN COPD EXACERBATIONS SELECTED BY LOW RISK DECAF SCORE

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Background The DECAF score is a robust predictor of early mortality in patients admitted with an acute exacerbation of COPD (AECOPD),¹ and should be routinely documented on admission.² Of importance, 45–53% of admitted patients are low risk by DECAF (0–1), therefore potentially suitable for hospital at home (HAH). Compared to existing criteria, selection by DECAF would allow inclusion of substantially more patients, some with higher medical dependency.

Methods In a randomised controlled trial (RfPB PB-PG-0213-30105), patients admitted with an AECOPD were allocated to HAH or usual care (UC). Readmissions for AECOPD within 90 days were managed according to the allocated arm, provided they were low risk (DECAF = 0–1). Eligibility criteria included: primary diagnosis AECOPD, DECAF score 0–1, age 35 or more, 10 or more cigarette pack-year history and obstructive spirometry (FEV1/VC less than 70%). Total bed days and readmissions over 90 days, and 14 and 90 day mortality were captured. At day 14, patients were asked for their preferred place of care during future exacerbations of similar severity.

Abstract S116 Table 1 Outcome by allocated group

Outcome	UC n = 58	HAH n = 60
Bed days, n (IQR)	5 (2–12)	1 (1–7)
Readmission*†	23 (39.7%)	22 (36.7%)
14 day mortality*	0	0
90 day mortality*	1 (1.7%)	1 (1.6%)
Preference for HAH	51/57	54/60

*All cause. †One or more readmissions.

Results Between June 2014 to January 2016 118 of 207 eligible patients were randomised: female = 56/118 (52.5%), mean age (SD) = 69.8 (10.2), mean FEV1% predicted (SD) = 43.9 (17.6) and coexistent pneumonia = 24/118 (20.3%).

At 14 days, 105/117 (90%) patients expressed a preference for HAH. Median bed days were 4 days lower in the HAH arm ($p = 0.001$), with no difference in mortality or readmissions.

Conclusions Selection for HAH by low risk DECAF score is safe, clinically effective, preferred by most patients, reduces total bed days and is a suitable option for up to 50% of admitted patients.

REFERENCES

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Occupational Lung Disease

S117 WORK-RELATED SYMPTOMS IN LABORATORY ANIMAL WORKERS

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Introduction Laboratory animal workers frequently report ocular, nasal and respiratory symptoms which occur in the workplace and improve away from work. A proportion of these will be sensitised to animal proteins on the basis of skin prick tests (SPTs) or serum specific IgE testing and will have laboratory animal allergy. The remainder will have work-related symptoms due to other (unknown) causes.

Methods We performed a cross-sectional study (SPIRAL (Safe Practice In Reducing Allergy in Laboratories)) of laboratory animal workers exposed to mice across six UK research institutions. Participants completed a self-administered questionnaire, which included detailed questions about symptoms, and underwent SPT to common aeroallergens and mouse epithelium, and specific IgE testing to mouse proteins (epithelium and urine). Those participants reporting ocular, nasal or respiratory symptoms which were worse at work were compared with those with no association between their symptoms and work.

Results 685 laboratory workers were recruited (response rate 88%). 187 (28%) reported at least one symptom and of these, 45% ($n = 85$) were work-related (WR). 56/105 (53%) reported work-related conjunctivitis; 67/156 (43%) reported WR nasal symptoms and 22/44 (50%) reported WR respiratory symptoms. There were no differences between the two groups in sex, smoking status, atopy to a common aeroallergen or job title. Those with at least one WR symptom were significantly more likely to be sensitised to mouse proteins (32 (37.7%) vs 10 (9.8%) $p < 0.001$ (Table)). WR symptoms were significantly more common in those working with mice housed in open cages compared with those housed in Individual Ventilated Cages (IVCs) Prevalence of sensitisation to a common aeroallergen was similar in both groups.

Conclusion In this large study population, prevalence of WR symptoms is reasonably high in all laboratory animal workers and is attributable to mouse allergy in around 50% of cases, consistent with other previous studies. Symptoms are less prominent in people working with IVCs compared with conventional open cages. Exposure to airborne endotoxin may be a cause for nasal and respiratory symptoms on exposure to mice in non-mouse