

**Abstract P36 Table 1** Clinical characteristics of patients with pulmonary sarcoidosis at presentation

	Black Caribbean (n = 108)	Black African (n = 105)	Other (n = 30)	White (n = 54)	Total population (n = 503)
Age (mean ±SD)	42.1 ± 12.0	40.7 ± 10.5	44.8 ± 10.0	41.4 ± 12.6	41.7 ± 11.2
Female (%)	69.4	62	43.3	41	58.3
Organ involvement >2 (% patients)	70	63	70	59.3	63.1
Initial treatment with corticosteroids (% patients)	79.6	69.5	66.7	66.7	71.2
≥2 Immunosuppressant drugs required (% patients)	36	39	33	26	36.0
Elevated serum ACE (% of group)	79	84.2	65.2	58.1	71.7
FVC (% predicted ±SD)	77.8 ± 17.9*	80.2 ± 15.8*	84.7 ± 16.1	93.2 ± 18.2	82.5 ± 17.9
CPI (mean ±SD)	41.8 ± 14.3*	36.5 ± 13.7*	32.8 ± 15.2	30.2 ± 18.8	36.9 ± 15.6

\*p = < 0.001.

are needed to determine the long-term outcome in this patient cohort, such as decline in PFTs, quality of life and mortality.

**REFERENCE**

- Walsh SL, Wells AU, Sverzellati N, et al. An integrated clinico-radiological staging system for pulmonary sarcoidosis: a case-cohort study. *Lancet Respir Med.* 2014;2:123–130

**Acute exacerbations of COPD and acute NIV**

P37

**FRAILITY AND ITS RELATIONSHIP TO MORTALITY IN PATIENTS RECEIVING ACUTE NON-INVASIVE VENTILATION (NIV) FOR RESPIRATORY FAILURE IN A DISTRICT GENERAL HOSPITAL**

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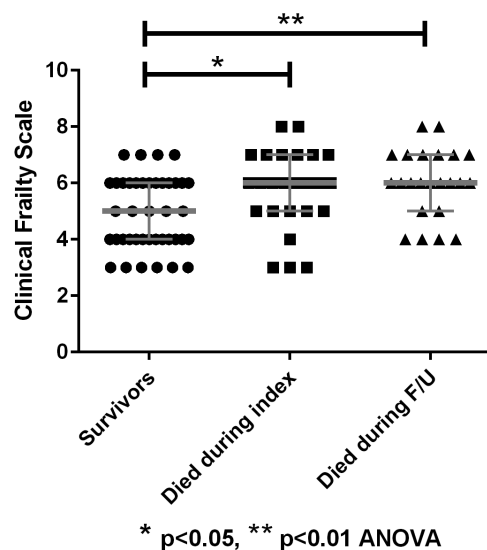
**Introduction** NIV is a treatment for acute respiratory acidosis in patients admitted with exacerbations of COPD. BTS audits have demonstrated that NIV is frequently used for other conditions, functional dependency is common and in-hospital mortality is high. Tools to prognosticate outcome from acute use of NIV tend to be disease-specific. Targeting the use of NIV to those who are most likely to benefit from it should be a clinical and ethical priority. Frailty relates to patient outcome in clinical settings including elderly patients with COPD and critical care admissions. We hypothesised that patients with higher frailty scores who receive NIV for acute respiratory failure have inferior outcomes, compared to those assessed as being less frail.

**Methods** Prospective study of patients receiving acute NIV for respiratory failure; over 15 months. The respiratory physiotherapists manage all such patients and collect data into the EPR. An additional item of data was collected – the Clinical Frailty Scale (CFS). All analyses were by episode apart from demographics and mortality which were by individual.

**Results** 89 patients received 110 episodes of acute NIV, median age 79, (range 23–97) years. Diagnoses: COPD (56%), Pneumonia and ‘other’ (30%), cardiogenic pulmonary oedema (4%), obesity-related (4%), chest wall/neuromuscular (7%). At initiation of NIV: median pH 7.26, PaCO<sub>2</sub> 9.8 kPa, PaO<sub>2</sub> 8.5 kPa.

Duration of hospital stay, median 16.5 days, in-hospital mortality (28%). CFS median score 6, range (2–8). There was no

correlation between CFS and age. CFS was statistically significantly higher in those who died (either during their index admission or during follow-up) than in those who survived – see Figure 1. Patients with a CFS of 7 or 8 had an in-hospital mortality of 40% and a total mortality of 80%. By contrast those with a CFS of less than 7 had an in-hospital mortality of 24% and a total mortality of 46%.



**Abstract P37 Figure 1** Clinical Frailty Scale and outcome from acute NIV Median and IQR shown

**Conclusions** Patients receiving acute NIV who are very frail (CFS 7 or 8) are less likely to experience a mortality benefit. These data should inform discussions and decision-making about use of NIV.

P38

**IMPROVED MORTALITY AND OUTCOMES FOR PATIENTS REQUIRING NON-INVASIVE VENTILATION MANAGED IN A DEDICATED HYPER ACUTE MEDICAL UNIT**

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**Introduction** Non-invasive ventilation (NIV) improves survival and outcomes in hypercapnic (type 2) respiratory failure. Following below average performance in a district hospital in the BTS national NIV audit, NIV delivery moved from acute medical and respiratory wards to a new hyper-acute medical unit (HAMU) providing level 1 nursing care and NIV. The unit is supervised by Respiratory Physicians and a dedicated NIV-