Abstract P212 Table 1 Demographic, co-morbidities, treatment and outcome data

Data for all patients treated with CPAP/HFNO on respiratory wards for COVID-19

	Adults for intubation (n=203)	Adults not for intubation (DNI) (n=106)	p-value
<i>Demographics and co-morbidities</i>			
Age*	60.3 (± 12.6)	76.3 (± 11.4)	<0.001
Male sex (%)	68.8	57.5	0.049
Black, Asian & Minority Ethnic (%)	61.1	48.1	0.029
Body mass index*	29.8 (± 5.7)	29.7 (± 9.7)	0.95
Diabetes (%)	30.2	41.5	0.047
Cardiovascular disease (%)	49.5	69.8	<0.001
Chronic respiratory disease (%)	20.3	40.6	<0.001
Mental health disease (%)	7.9	18.9	0.04
Smoking history (%)	34.0	41.9	0.277
Charlson co-morbidity index	3 (2–5)	3 (2–5)	0.956
Clinical frailty score	3 (2–4)	5 (4–6)	<0.001
<i>Admission data and outcomes</i>			
Day of COVID-19 symptoms on admission to respiratory ward	9 (7–12)	8 (5.5–12)	0.119
Treated with dexamethasone (%)	99.5	97.2	0.085
Treated with remdesivir (%)	37.1	29.5	0.184
Treated with tocilizumab (%)	10.4	4.7	0.089
Died (%)	25.6	74.5	<0.001
Factors associated with mortality in adults with DNI treated with CPAP/HFNO			
	Odds ratio	95% lower confidence interval	95% upper confidence interval
Age	1.04	1.00	1.09
Male sex	2.51	1.03	6.13
Black, Asian & Minority Ethnic	1.00	0.41	2.40
Body mass index	0.99	0.95	1.04
Diabetes	1.28	0.52	3.16
Cardiovascular disease	0.76	0.28	2.02
Chronic respiratory disease	0.99	0.41	2.41
Mental health disease	0.75	0.26	2.21
Smoking history	1.40	0.41	4.80
Charlson co-morbidity index	1.02	0.85	1.22
Clinical frailty score	1.06	0.73	1.54
Treated with remdesivir	0.73	0.28	1.88
Treated with tocilizumab	1.39	0.15	12.98
Given sedatives	4.35	1.37	13.82

*Presented as mean with standard deviation. Non-parametric data presented as median with IQR.

Introduction Respiratory failure in COVID pneumonia is often associated with ARDS. Invasive mechanical ventilation (IMV) is associated with high mortality and prolonged hospital stay. Continuous positive airways pressure (CPAP) has emerged as a bridge to IMV or as ceiling of care in patients with high clinical frailty scale (CFS).

Methods We retrospectively analysed data of patients admitted to our respiratory support unit (RSU) between September 2020 till January 2021. Patients admitted to our RSU received CPAP, High flow nasal oxygen (HFNO) and non invasive ventilation (NIV).

Results 118 patients were included in the analysis. Mean age was 71 years with 61% (n = 72) comprising of male patients. 77 patients (65%) patients receiving respiratory support (RS) died. 80(67%) patients had more 2 or more co morbidities. 60%(n=71) and 20.3% (n =24) received CPAP and HFNO as predominant modality respectively. Mean CFS was 4.3 in survival group as compared to 4.7 in survival group (p 1.98). 88% patients (n=67) who died were aged above 65. Average time on RS was 7.5 days and length of stay (LOS) was 12.5 days. RS compliance was higher in survival group 85%(n=35) as compared to deceased group 42%(n=32). Time on RS in survival and deceased group were comparable 7.2 days and 8.4 days respectively (p 1.98). Time from positive PCR test to start of RS was lower in survival group (2.9 days vs 2 days, p 0.18). Mean D Dimers were 1.7 in survival group as compared to deceased group 3.5 (p 0.18). Use of syringe driver was high in deceased group (66% n=51) as compared to survival group (n=2). Mean BMI was higher in survival group (33.9 vs 28.7, p 0.001)

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	CPAP survived	CPAP Deceased	P value
Age	62	77	0.000004*
BMI	33	28.7	0.001*
CFS	4.3	4.7	1.98
CRP	89	136	0.004*
D Dimer	1.7	3.6	0.18
Troponin	325	125	0.19
Time to start RS (days)	2	2.9	0.10
Length of stay(days)	13.4	12.1	0.42
Days on RS (days)	8.4	7.2	1.98

*p < 0.05 = statistically significant

Discussion Age, high CFS, and poor compliance with CPAP is associated with higher mortality in COVID 19 related ARDS. Further studies are needed to assess impact of troponin and D Dimer on COVID related ARDS outcomes.

P213 FACTORS INFLUENCING OUTCOME IN COVID-19 PATIENTS REQUIRING RESPIRATORY SUPPORT – A SINGLE CENTRE EXPERIENCE FROM WEST MIDLANDS

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P214 COVID-19 MORTALITY RATES IN A DISTRICT GENERAL RESPIRATORY SUPPORT UNIT

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