Abstract P7 Table 1 Patient Characteristics and Prevalence of Frailty

	All (n=29) n (%)	Min	Max
Mean Age (years)	80	66	92
Males	22 (76)		
Ethnicity			
Caucasian	22 (76)		
Asian	3 (10)		
Afro-Caribbean	2 (7)		
Other	2 (7)		
Body Mass Index (kg/m2) mean.	25	17	36
FVC% predicted mean.	90	49	146
TLCO% predicted mean.	46	11	89
Oxygen saturations (%), At rest on room air, mean.	96	92	98
On Oxygen	3		
Antifibrotics			
Not on Antifibrotics	12 (41)		
Nintedanib	13 (45)		
Pirfenidone	4 (14)		
Clinical Frailty Scale (CFS) mean.	5	3	6
CFS score			
4 or under 0	11		
5 (mild frailty)	8		
6 (moderate frailty)	10		
7 + (severe frailty)	0		
GAP score			
1-3 stage I	10 (35)		
4-5 stage II	12 (41)		
6-8 stage III	5 (17)		
Missing data	2 (7)		

Key: Clinical Frailty Scale (CFS) Minimum 1, not frail; Maximum 9, most frail, terminally ill. GAP score using (GAP score): gender, age and physiology, comprising FVC% and DLCO% It identifies three stages of severity: a 1-year mortality risk of 6%, 16% and 39% respectively (Ley et al., (2012))

within our department, and incorporation of frailty assessments into routine clinical care. We will refer our moderately frail patients to existing local services with the aim of reducing hospitalisations and death.

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Clinical developments in non-invasive ventilation and sleep

P8 A RETROSPECTIVE COHORT STUDY OF IDIOPATHIC DIAPHRAGMATIC PALS: A DIAGNOSTIC TRIAD, NATURAL HISTORY AND PROGNOSIS

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Background Isolated diaphragmatic palsy (DP) in the absence of progressive neuromuscular disease is uncommon. It poses diagnostic challenges and limited data are available regarding prognosis. We present retrospective cohort data referred for

Abstract P8 Figure 1 Scatterplot of MEP/MIP against fall in seated supine VC at presentation in subjects with diaphragm paralysis ($p < 0.05$, $r^2 = 0.76$)

non-invasive ventilation (NIV) from two large teaching hospitals in the United Kingdom.

Method Sixty patients who were assessed either as inpatients or outpatients were included in this study. Patients with progressive neuromuscular disease were excluded. Clinical presentation, tests of respiratory muscle function (sitting/supine vital capacity [VC], Maximal Expiratory Pressure [MEP], Maximal Inspiratory Pressure [MIP] and Sniff Nasal Inspiratory Pressure [SNIP]) and outcomes were recorded.

Results For patients with DP, mean $\pm$ standard deviation (SD) seated and supine VC, pre-non-invasive ventilation (NIV) were reduced at 1.7 ± 1.2 L and 1.1 ± 0.9 L, respectively, with a mean $\pm$ SD postural fall in VC of $42 \pm 0.16\%$. The mean MEP/MIP and MEP/SNIP ratios for diaphragmatic palsy (DP) were 3 and 3.5, respectively.

After a year of treatment with NIV, mean $\pm$ SD upright and supine VC had increased to 2.1 ± 0.9 and 1.8 ± 1 L, respectively, and the mean $\pm$ SD fall in VC sitting to supine reduced to $29 \pm 0.17\%$. MEP/MIP and MEP/SNIP ratios reduced to 2.6 and 2.9, respectively, from the pre-NIV values. The values of postural fall in VC correlated ($p < 0.05$) with MEP/MIP and MEP/SNIP ratio ($r^2 = 0.86$ and $r^2 = 0.7$ respectively).

Conclusion Tests of respiratory muscle strength are valuable in the diagnostic workup of patients with unexplained dyspnoea. A triad of a) orthopnoea, with b) normal lung imaging and c) MEP/MIP and/or MEP/SNIP ratio ≥ 3 points towards isolated DP. This needs to be confirmed by prospective studies.

P9 DEVELOPING AN INTRASALIVARY BOTOX SERVICE FOR PATIENTS RECEIVING LONG-TERM VENTILATION (LTV) AT HOME: A SINGLE CENTRE EXPERIENCE

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Introduction Sialorrhoea is a debilitating symptom in neurological disease and there is a growing literature for the use of intrasalivary Botulinum Toxin (botox) injections in its management. The SIAXI trial showed a significant improvement in salivation with intrasalivary botox in patients who had Parkinson's Disease.¹ However, provision of intrasalivary botox remains inconsistent and sialorrhoea is often poorly controlled in Motor Neuron Disease. Sialorrhoea in association with bulbar dysfunction can cause intolerance of LTV and respiratory infection, so its implementation is critical within a home

Abstract P9 Table 1

Diagnostic Group	Number of Patients
MND	28
Cerebral Palsy	7
Congenital Muscle Disease	7
Cuff deflation	8
Other	9

ventilation service (HVS). This treatment can also be used to enable deflation of cuffed tracheostomies to facilitate weaning from ventilation. We report on the outcomes of intrasalary botox in our HVS.

Methods In 2015, we set up an intrasalary botox service for patients under our HVS. We used ultrasound guidance and injected submandibular gland (SMG), parotid gland (PG) or both.

Results 92 intrasalary botox procedures were performed in 59 patients.

Prior to treatment with botox, 32% of patients had received hyoscine and 76% had received glycopyrronium. Glands injected were, SMG (6.5%), PG (42.4%) and both SMG and PG (51.1%). The majority (98.9%) received the Dysport preparation with mean dose 273 Units (range 150–500 Units). 92% were USS guided. 63% of injections resulted in subjective improvement in symptoms, with 28% patients requesting repeat injections after a mean of 4.1 months.

Complications were angioedema (1%) and worsening dysphagia (2.2% following SMG injection).

One patient received salivary radiotherapy and one patient underwent SMG excision to avoid repeated injections.

Median survival following initial treatment was 27 months with 42% patients still alive at the time of writing.

Conclusions Intrasalary botox appears effective across a range of neurological conditions requiring LTV with few complications. 63% of patients noticed symptomatic improvement and nearly 30% opted for repeated treatment. Dysphagia may be a complication of SMG injection. A randomised controlled trial may help establish the evidence base.

REFERENCE

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P10 EXPLORING INFORMATION NEEDS OF PATIENTS WITH SEVERE CHRONIC OBSTRUCTIVE PULMONARY DISEASE REQUIRING HOME NON-INVASIVE VENTILATION

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Introduction The benefits of home non-invasive ventilation (NIV) in patients with chronic obstructive pulmonary disease (COPD), including association between compliance and outcomes, is becoming increasingly well evidenced. With other treatments for COPD, such as inhaled treatments, improved patient understanding and education has been positively associated with compliance. However, little is known about patients' understanding of NIV and how this may impact compliance with treatment.

Aim To explore patients' understanding of NIV and their information needs.

Methods A postal questionnaire exploring the understanding of home NIV through both quantitative and free text responses was sent out to all patients with COPD established on home NIV within a large regional service. Quantitative data were recorded and analysed in Excel and thematic analysis of qualitative data was undertaken.

Results 46% (90/197) of postal questionnaires were returned. Although 86% felt confident using NIV, 40% reported needing help (family support 83%, professional carers 17%). 92% stated that they knew how NIV helped them, yet free text explanations often highlighted a lack of understanding. Four key areas were identified using thematic analysis:-

Breathing and sputum: Patients reported that NIV helped by supporting their breathing, including 'regulating breathing rate', 'opening up airways' and 'expanding the lungs'. Some patients understood NIV worked by helping them to bring up sputum more easily.

Sleep: Some patients reported that NIV worked by helping them sleep, including improving morning headaches and disorientation.

Gases: Some patients described NIV reducing carbon dioxide (CO₂) levels by 'forcing' CO₂ out of their body and 'cleaning' CO₂ out of the blood. Others thought that NIV put oxygen into their bodies.

Information needs: Patients described not knowing enough about what to do when unwell; using their NIV machine and making changes to treatment. Patients reported that specific information resources such as a pamphlet (62%) or online resources (36%) would be beneficial.

Conclusions Amongst this cohort of patients we identified variable understanding of home NIV and a need for specific, patient-centred information. More work is required to fully understand the experiences and unmet information needs of this patient group, to inform development of information resources that meet these needs.

P11 A SURVEY OF COPD PATIENTS SELF-REPORTED SLEEP PROBLEMS

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Introduction Many patients with chronic obstructive pulmonary disease (COPD) report poor quality sleep. Sleep disturbance may be attributed to a range of factors including cough, wheeze, needing inhaler, snoring or anxiety. It is recommended that patients with poor quality sleep undergo further investigation through clinical interview/questionnaires and overnight sleep studies (McNicholas et al. 2019).

Methods An electronic survey was designed to explore the sleep issues experienced by people with COPD and whether they had discussed these with healthcare professionals. In May 2021, a national respiratory society promoted this survey over email and social media. The survey was advertised to people who had issues with their sleep and a diagnosis of COPD.

Results There were 330 survey responses: 292 had COPD. 96% of people with COPD reported issues with sleep. Symptoms reported: feeling unrefreshed (70%), nocturia (63%),