CT imaging within 3 years of which 7 (30.4%) showed radiological progression. 1 patient progressed to ILD.

Conclusions The majority of patients had subpleural fibrotic ILA. Based on our findings that a significant number of patients had evidence of disease progression over follow-up period, we recommend that patients with ILA should be monitored annually with serial pulmonary function with clinical review if symptomatically deteriorating.

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P6

TELEHEALTH FOR PATIENTS WITH INTERSTITIAL LUNG DISEASES (ILD): RESULTS OF AN INTERNATIONAL SURVEY OF CLINICIANS

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Introduction Clinicians and policy makers are promoting widespread use of home technology and spirometry to detect disease progression for patients with ILD; the COVID-19 pandemic has accelerated this. Data on the potential utility of telehealth in ILD is limited.

Aim This survey investigated clinicians' opinions about methods and practices used to monitor disease progression in patients with ILD using telehealth.

Methods Clinicians were invited to participate in a cross-sectional survey (SurveyMonkeyTM) of 13 questions designed by an expert panel. Telehealth is defined as home monitoring of symptoms and physiological parameters with regular automatic transmission of data from the patient's home to the clinicians. Data are presented as percentages of respondents.

Results A total of 207 clinicians from 23 countries participated in the survey. A minority (81, 39%) reported using telehealth, but of those using telehealth, a total of 41 answered the question asking if telehealth was effective. The majority (n= 32, 78%) believed it to be quite or more effective. Higher telehealth use was observed in Europe (n=94, 45%) than Asia (n=51, 25%) and America (24%). Clinicians reported the most useful telehealth monitoring technologies were smartphone app (59%) and wearable sensors (30%). Telehealth was most frequently used for monitoring disease progression

Abstract P6 Figure 1 Clinicians' opinions about methods and practices that are being used to monitor disease progression in patients with ILD using tele-health

(70%), quality of life (63%), medication use (63%) and reducing the need for in-person visits (63%). Clinicians reported most often monitoring symptoms (93%), oxygen saturation (74%) and physical activity (72%) (Figure 1). The equipment perceived most effective were spirometer (43%) and pulse oximeters (33%). The primary barriers to clinicians' participation in telehealth were technical (47%), training (45%), and organisational structure (43%). Clinicians considered that patients' barriers to participation might include lack of awareness (60%), lack of knowledge using smartphones (49%), and lack of confidence in telehealth (44%).

Conclusion A minority of ILD clinicians completing this survey used telehealth to monitor patients, but of those who did, there was some support for clinical utility. Our findings emphasise the need for robust research in telehealth as a mode for the delivery of healthcare services for ILD and highlight the need to assess patients' perspectives to improve telehealth experiences in ILD patients.

P7

REMOTE FRAILTY ASSESSMENT AND PREVALENCE OF FRAILTY IN OLDER OUTPATIENTS WITH IDIOPATHIC PULMONARY FIBROSIS

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Introduction Idiopathic Pulmonary Fibrosis (IPF) patients are older with impaired physiology, and therefore at risk of frailty syndromes including falls, immobility, and toxicity from polypharmacy. Frailty correlates with quality of life, hospital admissions, and mortality.¹ IPF outpatients would benefit from their clinicians receiving training in frailty identification, to facilitate early referral to frailty services and targeted interventions to reduce admissions and mortality.

Objectives

1. Can respiratory clinicians identify frailty remotely in outpatients with IPF from the electronic patient record (EPR)?
2. What is the prevalence of frailty in older IPF patients in one ILD clinic?

Methods We identified older outpatients with IPF from one clinic, who were alive and aged >65 years in May 2021. Clinicians were trained by a consultant geriatrician to determine the Clinical Frailty Scale (CFS) score retrospectively for IPF patients remotely from the EPR using a validated method.² Demographic, physiologic and lung function data were also collected from EPR. GP summary care records were reviewed for frailty coding to supplement hospital records.

Results See table 1. 11/29 patients were vulnerable (CFS=4). A further 18/29 patients were mild or moderately frail (CFS 5–6). None expressed features of advanced frailty (CFS =7). Another surrogate marker of frailty, weight loss ≥ 5% was evident in 14/29 (average weight loss 5kg (7%) between diagnosis and latest clinic follow up).

Conclusions Respiratory clinicians could determine CFS in all identified IPF outpatients using the EPR. We plan to validate these data with face to face frailty assessments performed by the frailty service when available. We had insufficient data to correlate frailty score with IPF severity. Our findings provide a basis for inter-disciplinary frailty training and education

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
TLC0% 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