there association between bacterial burden and BAL differential cell count, the presence of symptomatic reflux or use of anti-reflux medication. The authors conclude that bacterial load is independent of disease severity at presentation, however there is an association with disease progression, which supports the role of bacterial burden in the pathogenesis of IPF that warrants further investigation.

PAMREVLUMAB IN IPF: SLOWS DECLINE IN FVC WITH LOW REPORTED ADVERSE EVENTS

Pamrevlumab is a fully human recombinant monoclonal antibody against connective tissue growth factor (CTGF). CTGF is a glycoprotein shown to mediate fibrosis and has been implicated in the pathogenesis of fibrosis in patients with IPF. PRAISE (Lancet Resp Med 2020;8:25) is a multicentre, phase 2 double-blind placebo-controlled trial which randomised 103 patients with radiological or biopsy confirmed usual interstitial pneumonia to receive either 30 mg/kg pamrevlumab or placebo every 3 weeks, for 48 weeks. Recruited patients were 68±7 years old with moderately impaired lung function (FVC 75%±12%, DLCO 53%±14%). The primary outcome was change from baseline in percentage of predicted FVC, with the mean decline in the pamrevlumab group significantly lower than that in the placebo group (−2.9% vs −7.2%, between-group difference 4.3%, 95% CI 0.4% to 8.3%, $p=0.033$). Additionally, the pamrevlumab group showed a significant reduction in absolute decline in FVC (−0.1 L vs −0.3 L, between-group difference 0.2 L, 95% CI 0.0 to 0.3, $p=0.025$) and significantly lower quantitative lung fibrosis high-resolution computed tomography (HRCT) scores at 24 and 48 weeks. Of those receiving pamrevlumab, only 10% experienced disease progression (classified as ≥10% decline in FVC or death) compared with 31% ($p=0.013$) who received placebo. Adverse events were similar between treatment groups and no safety concerns were identified. The results of the phase 3 trial using pamrevlumab (ZEPHYRUS) are much anticipated.

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LUNG TRANSPLANTATION IN IDIOPATHIC PULMONARY FIBROSIS: ONE IS (NEARLY) AS GOOD AS TWO

Recommendations for double lung transplant (DLT) as a procedure of choice over single lung transplant (SLT) in idiopathic pulmonary fibrosis (IPF) are common but controversial. Ranganath *et al* (Ann Thorac Surg 2020;109:211) retrospectively collected data from the Scientific Registry of Transplant Recipients in the USA between 2007 and 2017. They reduced selection bias by including only patients with IPF who had been listed for both SLT and DLT simultaneously and used a 24 variable propensity matching system. SLT recipients had improved perioperative outcomes, requiring less prolonged post-transplant ventilatory support (31.6% vs 42.0%, $p=0.001$) and lower rates of postoperative dialysis (2.6% vs 5.0%, $p=0.060$) with a shorter length of hospital stay. There was no significant difference in patient survival at 1, 5 or 10 years (SLT vs DLT: 88% vs 88%; 57% vs 61%; 27% vs 24%), and no significant difference between acute rejection rates, bronchiolitis obliterans syndrome free survival and graft survival. The authors highlight the limitations of their study design while acknowledging the challenges of performing randomised trials in this field. They emphasise that the previously reported survival advantage of DLT over SLT in IPF may represent selection bias and acknowledge that performing SLT in selected patients with IPF would lead to improved allograft availability.

HOME MONITORING IN IPF: PREFERRED BY PATIENTS BUT LITTLE OBJECTIVE IMPROVEMENTS

Pilot studies in IPF have suggested home monitoring is both feasible and popular with patients but efficacy is yet to be established. Moor *et al* (AJRCCM 2020; doi:10.1164/rccm.202002OC-0328OC) assessed whether a comprehensive home monitoring programme could improve health related quality of life (HRQL) and medication use in patients with IPF. Eligible participants from four sites in the Netherlands were randomly assigned to home monitoring ($n=46$) or standard care ($n=44$) for 24 weeks. Home monitoring included daily spirometry, weekly reporting of symptoms and side effects, access to information about IPF, a medication coach and availability of

eConsultation. Standard care comprised of three-monthly outpatient clinic review with lung function testing. Both groups completed patient reported outcome measures at baseline, 12 and 24 weeks. HRQL as measured by the King's Brief Interstitial Lung Disease score was not significantly different between the two groups. Although home monitoring enabled more responsive, personalised medication adjustments, it was not associated with improved anxiety or depression scores. Daily home spirometry was well adhered to, correlated well with hospital spirometry and therefore could have a future role both clinically and for research. There was significant improvement in Visual Analogue Scale scores for general well-being in the home monitoring group (0.65 ± 0.36) compared with standard care (-0.39 ± 0.31 , between-group difference 1.04 95% CI 0.09 to 2.00, $p=0.032$), patient satisfaction was high but no cost analysis was performed. The use of eHealth programmes could offer a new model of care when face to face consultations are more limited, as during the COVID-19 pandemic.

LOWER AIRWAY BACTERIAL IN IPF: ASSOCIATED WITH DISEASE PROGRESSION INDEPENDENT OF RADIOLOGICAL SEVERITY

The relationship between dysbiosis and IPF has been explored previously, however, it remains unclear whether dysbiosis merely reflects the underlying disease process or could influence disease progression. In this article Invernizzi *et al* (Eur Respir J 2020; doi:10.1183/13993003.01519-2019) explore the relationship between lower airway bacterial burden, radiographic findings in IPF and disease progression. The authors recruited 193 patients who were undergoing bronchoscopy with bronchoalveolar lavage for suspected IPF with a mean age of 70±8 years and mild to moderate lung function impairment (forced vital capacity (FVC) of 79%±18%, diffusing capacity for carbon monoxide (DLCO) 48%±14%). Quantitative PCR of 16S rRNA was performed to quantify the bacterial burden of the lower airways. Increased bacterial burden was significantly associated with disease progression (HR 1.16, 95% CI 1.02 to 1.30, $p=0.0022$) using a composite endpoint of all-cause mortality within the first year, or ≥10% decline in FVC at 12 months. The relationship remained significant after adjusting for age, sex and baseline lung function. No association was identified between bacterial burden and the type, extent or severity of radiographic changes at diagnosis, nor was

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