

Abstract P241 Figure 1 (A) Longterm effect of antireflux surgery on cough score, (B) Longterm effect of anti-reflux surgery on AQLQ

cough and 10 = worst cough) significantly improved from a baseline mean of 7.3 (SD=1.9) to 2.6 (SD=3) at 3 months and 3.9 (SD=3.1) long term (Figure 1). In the asthma group we also observed an improvement in the mean HRCQ (0 = no reflux, 70 = worst reflux) from 49.2 (SD 13.8) at baseline to 22 (SD 13.9) long-term, without corresponding improvement in FEV1. Conclusion Anti-reflux surgery provides sustainable long-term benefit to patients with significant GORD and poorly controlled asthma or chronic cough. These data require further confirmation in controlled trials.

## Transplantation advances

P242 PIRFENIDONE AS A BRIDGE TO LUNG TRANSPLANTATION
IN PATIENTS WITH PROGRESSIVE IPF

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Introduction and objectives Lung transplantation provides a significant survival benefit to patients with advanced idiopathic pulmonary fibrosis (IPF). However, at this time, the transplant community is unable to meet the requirements on it services due to donor organ shortages. This results in an increased length of time spent on the waiting list and an increased risk of death prior to transplantation.

Pirfenidone has been reported to reduce the rate of disease progression in patients with IPF. It may therefore prolong the length of time that patients are able to spend on the transplant waiting list. We report the outcomes of three patients with progressive IPF who were successfully bridged to transplantation with Pirfenidone.

Methods We retrospectively reviewed the medical records of all patients who had undergone lung transplantation for IPF from 2012–14 at our institution. Three patients who had been prescribed Pirfenidone prior to transplantation were identified. Each patient continued Pirfenidone until the day of transplantation. Patient demographics, lung function and post transplant data were collated.

Results Prior to the commencement of Pirfenidone the mean decline in forced vital capacity (FVC) was 52.2ml per month. Following Pirfenidone therapy, the mean decline in FVC was 29.2ml per month. The mean length of time from commencing Pirfenidone to transplantation was 419 days (range 190–768 days). The mean length of time spent on the transplant waiting list was 144 days (range 35–271 days).

With a mean follow up of 1.45 years, no episodes of acute or chronic rejection have occurred. Post-transplant survival is 100%. No adjustment in immunosuppressant induction or post-transplant therapy was necessitated. In the post-transplant period, Pirfenidone therapy was not linked to any adverse events.

Conclusion Pirfenidone has been reported to reduce disease progression in IPF. However, despite this, lung transplantation remains necessary in the management of this condition. For patients with IPF, in whom the transplant window is short, Pirfenidone may allow for valuable added time on the lung transplant waiting list.

P243 A RETROSPECTIVE OBSERVATIONAL STUDY OF 20 YEAR

LUNG TRANSPLANT SURVIVORS — A SINGLE CENTRE EXPERIENCE

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Introduction and objectives Lung transplant patients have a reduced survival rate compared to other solid organ recipients. Chronic lung allograft dysfunction (CLAD) remains the main factor in limiting longevity in lung transplant patients, with 50% of recipients developing Bronchiolitis Obliterans Syndrome (BOS) by 5.6 years. There is a lack of published data on the

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## **Poster sessions**

course and history of long term survivors and we describe characteristics and outcomes of all lung transplant recipients who have survived greater than 20 years at our centre.

Results Twenty-one (16.2%) out of a possible total of 121 transplant patients survived at least 20 years with an overall median survival of 21.3 (range 20.1–24.9) years. The mean age at transplantation was 31.8  $\pm$  9.9 years and 13 (61.9%) were male. The most common indication for transplantation in the group was Cystic Fibrosis (33.3%); heart-lung and bilateral lung transplant operations were equally the most commonly performed.

The median six-minute walk distance (6MWD) was 600m (range 419–785m). The median time to the development of BOS was 9.7 years. At time of evaluation, 2 (10%) patients had BOS score 0, 3 (14%) BOS 1, 6 (29%) BOS 2 and 10 (48%) BOS 3.

The total number of rejections requiring augmentation with corticosteroids was 30 episodes in 21 patients with an average of 1.4 (range 0–3) episodes per patient. Eighteen patients had at least one episode of rejection needing corticosteroids.

No patient developed symptomatic ischaemic heart disease; systemic hypertension was found in 19 (90.5%) patients. Two (9.5%) patients developed post-transplant lymphoproliferative disease. Four patients developed other malignancies, 3 of which were skin cancers and 1 renal cancer.

All 4 cases of diabetes post transplantation occurred in patients with Cystic Fibrosis. Eight patients required renal replacement therapy as a result of ciclosporin toxicity and four underwent renal transplantation.

Conclusion Twenty-one (16.2%) patients in our cohort survived 20 years. Although nearly all patients developed an element of CLAD, exercise tolerance was preserved as judged by 6MWD. Hypertension was common and renal failure remained the most problematic complication of immunosuppression.

## P244 CHARACTERISTICS AND OUTCOMES IN LUNG TRANSPLANT RECIPIENTS AGED 65 AND OVER

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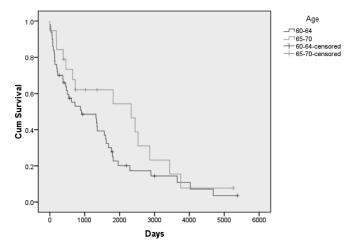
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Rationale Lung transplantation has become an accepted treatment option in a select group of patients with end-stage lung disease. The current International Society for Heart and Lung Transplantation (ISHLT) guidelines suggest age above 65 is a relative contraindication. However, increasingly patients with COPD and IPF are being referred for consideration after this age. The outcomes in this group (above 65) are not well described. We have studied the characteristics and outcomes of patients aged 65 and over, offered lung transplantation in our institution.

Method Retrospective review from the transplant database and patient records. We examined the Age, Sex, Indication for transplant and cause of death in all transplant recipients aged 65 and over from 1991 to July 2013. As a control group we compared them with 50 single lung transplant recipients front the same era and institution who were under 65. We used SPSS to generate the survival curves.

Results In total we had 19 lung transplant recipients aged 65 and over who all had a single lung transplant, with a mean survival of 1600 days post-transplant. 13/19 were male recipients.

## **Survival Functions**



Abstracts P244 Figure 1 Survival Functions

The indication for transplantation was COPD and IPF in all. The cause of death was BOS in 9/14, malignancy in 2/14 and pulmonary embolism, stroke and bleeding in the others. When compared with 50 single lung transplant recipients aged 60–64, we did not find any statistically significant differences in survival (p value 0.158) (see figure 1), cause of death and reason for transplantation.

Conclusion We have shown from our limited data that patients aged 65 and over have very similar outcomes to their younger counterparts. Hence, age whilst still important should not be a deterring factor when referring patients for lung transplant assessment. It would also be important to examine longer term outcomes and complications such as rates of renal dysfunction, hypertension, rejection and admissions into hospital. As the number of patients aged 65 and older receiving lung transplant increases, we should be able to gather more effective data.

P245 EVALUATION OF OUTCOMES OF ORAL RIBAVIRIN IN THE TREATMENT OF VIRAL LOWER RESPIRATORY TRACT INFECTION IN LUNG TRANSPLANT PATIENTS

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Introduction Viral lower respiratory tract infections are common in lung transplant patients and contribute to the development of chronic rejection. Studies have highlighted the improvement in lung function and reduction in relative risk of chronic rejection in patients who are treated with appropriate anti-virals. Our study aimed to investigate the efficacy of three different routes of administration in patients with symptomatic declines in lung function and positive viral cultures.

Method Retrospective cohort study of viral respiratory tract infections treated with Ribavirin over a 5 year period was performed. Patients were divided in to 3 groups dependent on route of administration – Oral, Nebulised or Intravenous. Data was collected on patient demographics along with the indication for transplant, time since transplantation, pre and post treatment (6–8 weeks) lung function, viral cultures and details of any confounding factors such as prior rejection or concomitant bacterial infection were recorded.

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