or telephone clinic varies and there remains a need to improve patient education and self-management plans within our service.

Our service has expanded without an increase in staffing raising the question of whether a bronchiectasis service staffing tool akin to that of CF services could have an important role in driving up the quality of service we can provide.

**P114 NEBULISED MEROPENEM FOR PREVENTION OF BRONCHIECTASIS EXACERBATION**

1. Nadeem, 1T Ingle, 1M Ur Rasool, 1N Mahdi, 2SA Ul Munamm, 1B Rabiei, 1R Vijayabarthathy, 1D Grady, 1S Pai, 1D Grogono. 1Royal Papworth Hospital NHS Trust, Cambridge, UK; 2Health Services Academy, Islamabad, Pakistan

10.1136/thorax-2023-BTSabstracts.266

**Introduction** Intravenous meropenem is commonly used to treat Pseudomonas aeruginosa. To our knowledge, no study has looked at efficacy and tolerability of nebulised meropenem for prevention of exacerbations of bronchiectasis.

**Aim** To examine efficacy and tolerability of nebulised meropenem for prevention of bronchiectasis exacerbation.

**Methods** We retrospectively reviewed clinical data of bronchiectasis patients in our center who were commenced on meropenem nebulisers (Dose 250 mg x BD) between 2011 to 2021.

Data was collected on exacerbations, hospital admissions and sputum culture for the twelve months before and 12 months after starting meropenem nebulisers.

**Results** 95 patients were included in final analysis. The mean age of the patients was 59.88±16.56.

Meropenem nebulisers were initiated due to multiple or frequent exacerbations, intolerance to other antibiotics, failure of alternative prophylaxis and/or persistent positive cultures for Pseudomonas aeruginosa.

The mean number of total exacerbations per year was reduced by 3.4 (p<0.001), following the initiation of meropenem nebulisers. This translates to a reduction in the mean number of exacerbations requiring oral antibiotics, intravenous antibiotics, and hospital admission of 1.064, 1.516 and 0.859 respectively (p<0.001).

Furthermore, the odds of having negative microscopy for Pseudomonas aeruginosa was 5.146 times less after starting meropenem nebulisers as compared to before starting meropenem nebulisers.

73.7% of patients showed no side effects. 26.3% of patients showed minor side effects.

**Conclusion** Nebulised meropenem is a safe and effective treatment option for prevention of bronchiectasis exacerbation and should be tested as part of RCT.

**P115 NEBULISED GENTAMICIN IN BRONCHIECTASIS; TREATMENT CONTINUATION IN A LARGE COHORT**

1K Brooks, 1R Sobala, 5 Shrestha, 1P McCallion, 1J Davison, 1P Close, 1K Hester, 1A De Soya. 1Regional Bronchiectasis Centre, Freeman Hospital, Newcastle-upon-Tyne, UK; 5Population and Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle-upon-Tyne, UK

10.1136/thorax-2023-BTSabstracts.267

**Background** Nebulised gentamicin is an effective treatment to reduce exacerbation frequency in patients with bronchiectasis, but treatment cessation by patients is frequently observed. This study aimed to report continuation rates of nebulised gentamicin and describe patterns of cessation to identify factors associated with treatment failure.

**Methods** A retrospective, cohort study was performed looking at all patients with bronchiectasis started on nebulised gentamicin from April 2010 until February 2022 at a single UK centre. Baseline gender, age, FEV1 (absolute and percentage-predicted), Bronchiectasis Severity Index (BSI), long-acting beta-agonist (LABA) usage and *P. aeruginosa* colonisation were collected. Cessation of treatment at 1, 3 and 12 months was then established and statistical independence and risk ratios calculated at each time point for each characteristic.

**Results** 148 patients were included for analysis. At 1 month 105/148 (70.9%) tolerated treatment; FEV1 ≤50% was associated with an increased risk of treatment cessation (RR 1.77, 95%CI 1.06–2.96, p=0.028). At 3 months 93/148 (62.8%) tolerated treatment and compared to those who stopped treatment they had higher mean absolute FEV1 (1.57 vs 1.31, p=0.027), higher mean percentage-predicted FEV1 (62.8% vs 53.2%, p=0.016), and lower mean BSI (9.9 vs 11.8, p=0.006); FEV1 ≤50% had an increased risk of treatment cessation (RR 1.78, 95%CI 1.16–2.72, p=0.008). At 12 months 64/148 (43.2%) remained on treatment, and had lower mean age (58.8 vs 64.5, p=0.008), higher mean absolute FEV1 (1.62 vs 1.36, p=0.022) and lower mean BSI (9.5 vs 11.6, p=0.002) than those who stopped nebulised gentamicin; age ≥62 was associated with an increased risk of treatment cessation (RR 1.44, 95%CI 1.02–2.02, p=0.037).

**Conclusion** Less than half of patients remain on gentamicin at 12 months. Patients who stopped treatment had reduced lung function and more severe bronchiectasis. Awareness of the risk factors for treatment cessation may inform patient discussions about long-term nebulised gentamicin in bronchiectasis.