decreased by 1687 ng/mL (IQR: 291 to 3992 ng/mL; p = 0.0229).

There was no significant association between change in plasma HHQ and change in FEV1 during treatment of a pulmonary exacerbation (Spearman's correlation co-efficient, r = −0.42; p = 0.15).

Conclusions Plasma HHQ declined significantly during treatment of a pulmonary exacerbation and merits further investigation as a biomarker for measuring treatment response in CF. There was no significant decline in plasma NHQ during systemic antimicrobial therapy.

P93 IN- VITRO ACTIVITY OF SEVEN HOSPITAL BIOCIDES AGAINST MYCOBACTERIUM ABSCESSUS

[1]S Caskey, [2]JE Moore, [1]JC Rendall. *[1]Adult Cystic Fibrosis Centre, Belfast City Hospital, Belfast, UK; [2]Northern Ireland Public Health Laboratory, Belfast City Hospital, Belfast, UK*

10.1136/thoraxjnl-2016-209333.236

Introduction and objectives *Mycobacterium abscessus* pulmonary infection in patients with cystic fibrosis (CF) is associated with significant morbidity, and the prevalence is increasing. The cause of the apparent increase is unknown. Contributing factors may include the ageing CF population, and the potential for patient-to-patient transmission. To date, there is a paucity of data describing the activity of common hospital biocides against this organism.

Methods *M. abscessus* isolates (n =13) were recovered from CF and non CF respiratory specimens. Seven commonly employed hospital biocides (Steri-7™, Difficile-S™, Hydrex™, Cutan™, Stellisept™, Rely^{+}On™ PeraSafe™, Distaclor™) were assayed for their biocidal activity against *M. abscessus*. Fresh cultures of NTM were exposed to biocide in liquid medium as per manufacturers instruction and were immediately plated following the completion of the contact period. The mean concentration of NTM plated was 9.82×10^6 colony forming units (CFU) (range: $1.63 \times 10^5 - 1.12 \times 10^8$). Additionally, the remaining bacteria/biocide solution was enriched non-selectively in Mueller Hinton broth (37 ° C/1 week). Following this, growth of surviving bacteria was assessed with broth turbidity.

Results After appropriate exposure of NTM to biocide, all NTM isolates survived in Steri-7™, Hydrex™, Stellisept™ and Rely^{+}On™ PeraSafe™. One out of 13 NTM cultures was killed by Difficile-S ™ and 1 by Distaclor™, representing a 5 log kill. Two isolates were killed by Cutan™ again representing a 5 log kill. Following enrichment, Stellisept™ showed the greatest biocidal activity with 11/13 isolates, whereas 2/13 cultures were killed by Distaclor™. All other biocide/culture combinations yielded growth.

Conclusions These data indicate that *M. abscessus* may persist after exposure to several commonly employed hospital biocides. Given the importance of effective infection prevention and control, further work is urgently needed to define unequivocal biocide contact treatments to ensure successful eradication.

Acknowledgements SC is a CF Trust funded Clinical Fellow

P94 THE MANAGEMENT OF RESPIRATORY TRACT FUNGAL DISEASE IN CYSTIC FIBROSIS – A UK SURVEY OF CURRENT PRACTICE

M Boyle, JE Moore, DG Downey. *Northern Ireland Regional Adult Cystic Fibrosis Centre, Belfast, UK*

10.1136/thoraxjnl-2016-209333.237

Aspergillus fumigatus is commonly found in the airways of patients with Cystic Fibrosis, (CF). Allergic Bronchopulmonary Aspergillosis, (ABPA), is the most recognised clinical condition associated with *Aspergillus*. The most widely used diagnostic criteria are from the Cystic Fibrosis Foundation Consensus Conference 2003. However, diagnosis remains challenging due to the overlap of classical symptoms and radiological features of ABPA and CF. There are a lack of clinical trials with clear outcomes to guide management of fungal disease, leading to variability between CF centres.

The aim of this survey was to assess the variability in current practice across the UK in diagnosis and management of fungal lung disease in CF patients.

A 21 question anonymous online survey was sent to 94 paediatric and adult CF consultants in the UK.

The response rate was 60.6% with 55 full and 2 partially completed surveys. Thirty-two respondents were adult physicians and twenty-five paediatricians. For a first diagnosis of ABPA 20 (35.1%) treat with Prednisolone alone, 19 (33.3%) use Prednisolone with Itraconazole capsules, 19 (33.3%) use Prednisolone with Itraconazole liquid and 2 (3.5%) choose Voriconazole.

Only 5 (8.8%) treat with Prednisolone alone for a 1st relapse, preferring Prednisolone with Itraconazole Liquid (33.3%) or with Itraconazole capsules (24.6%).

To reduce treatment, 21 (36.8%) decrease steroids to zero over time and maintain azole therapy, 18 (31.6%) stop the azole and steroid after a fixed time and 5 (8.8%) stop azole after a fixed time and maintain a small steroid dose. Variations in specific therapies were reported, including the use of pulsed Methylprednisolone, Posaconazole, nebulised Amphotericin and Omalizumab.

Thirty-eight (66.7%) respondents believe *Aspergillus* colonisation of the airway can cause clinical deterioration and 37 (66.1%) would treat this. *Scedosporium apiospermum* infection has been diagnosed and treated by 35 (61.4%) of respondents.

Results of this survey highlight significant differences in treatment regimes for ABPA, with increasing variation seen in the management of subsequent relapses. Respondent comments showed a wide range of opinions. This survey highlights the lack of evidence currently available to guide the management of CF fungal disease.

P95 EXPLORING THE TIMING OF HYPERTONIC SALINE (HTS) AND AIRWAYS CLEARANCE TECHNIQUES (ACT) IN CYSTIC FIBROSIS (CF): A CROSS OVER STUDY

[1]K O'Neill, [2]F Moran, [3]I Bradbury, [4]DG Downey, [4]J Rendall, [5]MM Tunney, [1]JS Elborn, [6]JM Bradley. *[1]Queen's University Belfast, Centre for Experimental Medicine, UK; [2]School of Health Sciences, Ulster University, UK; [3]Frontier Science (Scotland) Ltd, UK; [4]Belfast Health and Social Care Trust, UK; [5]Queen's University Belfast, School of Pharmacy, UK; [6]Queen's University Belfast, Clinical Research Facility, UK*

10.1136/thoraxjnl-2016-209333.238

Thorax: first published as 10.1136/thoraxjnl-2016-209333.236 on 15 November 2016. Downloaded from http://thorax.bmj.com/ on April 8, 2024 by guest. Protected by copyright.