

## Poster sessions

patients. To date, 68.9% have not received regular anti-microbial therapy. 19 (21.1%) are on long term anti-bacterials, and 7 (7.8%) are being treated with specific anti-NTM therapy (5 of these MAC). Over the two year period 483 pulmonary samples have been tested for mycobacteria; at a mean frequency of 5.4 samples per patient, with approximately one in three being NTM positive.

**Conclusion** Different microbes are frequently isolated on serial lung sampling from patients with NTM. Clinicians often utilise a treatment strategy that focuses on organisms other than NTM to control symptoms. The value of this approach requires longer term assessment, but highlights the importance of systematic, microbial surveillance cultures in pulmonary NTM management.

### P114 NON-TUBERCULOUS MYCOBACTERIA—AN INCREASING PROBLEM WITH MANY COMPANIONS

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10.1136/thoraxjnl-2013-204457.264

**Introduction** Infections secondary to non-tuberculous mycobacteria (NTM) are emerging with increasing frequency in various clinical settings. The determination of the clinical and prognostic significance of NTM isolates remains challenging and, in the absence of large trials, the evidence around the different therapeutic options is limited[1]. We aimed to identify the number of patients with single/multiple NTM isolates in our hospitals and evaluate their complexity with respect to coexistent microbiology.

**Method** A retrospective case review of patients in whom NTM were isolated over the last two years in two large teaching hospitals.

**Results** 195 patients were diagnosed with an NTM within the specified time period. Of those, 29 patients (14.8%) had cystic fibrosis (CF) and 11 patients (5.6%) were HIV-positive.

In the non-CF population, in 112 of 166 patients (67.5%) NTM were isolated in 1 sample, in 24 patients (14.5%) in 2

samples and in 30 patients (18%) in 3 or more samples. In 8 patients (4.8%) 2 or more different NTM species were isolated in the same samples. The NTM source was: sputum in 130 patients (78.3%), bronchial washings in 23 patients (13.8%) and other pulmonary/non-pulmonary sites in 13 patients (7.9%). Table 1 shows the NTM species isolated. 61 patients (36.7%) were co-infected with other organisms; most commonly with *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Haemophilus influenzae*. Co-infection with other organisms was not related to the NTM species, or to the number of NTM isolates. 114 patients (68.7%) were reviewed by a respiratory physician; this included all patients with 3 or more NTM isolates. 122 patients (73.5%) underwent CT imaging. 36 patients (21.7%) were commenced on treatment.

**Conclusion** NTM infection is an increasing and often complex challenge in respiratory medicine that requires specialist input. Further studies are needed to clarify whether co-infection with other organisms is related to the nature (e.g. bronchiectasis, cavitation) or severity of respiratory disease.

### REFERENCES

1. Griffith DE *et al*; "An Official ATS/IDSA Statement: Diagnosis, Treatment, and Prevention of Nontuberculous Mycobacterial Diseases", *AJRCCM* 175: 367–416 (2007)

### P115 EPIDEMIOLOGY, CHARACTERISTICS AND MANAGEMENT OF NON TUBERCULOUS MYCOBACTERIA IN A DEVON POPULATION

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10.1136/thoraxjnl-2013-204457.265

**Introduction and Objectives** Non-Tuberculous Mycobacteria (NTM) are ubiquitous species typically residing in soil and water. Their presentation as pathogens in disease is believed to be rising with the most common site of isolation being pulmonary. We have examined the epidemiology and characteristics of NTM presenting to our clinic over the period 2005–2012.

**Method** Our database, including all patients with at least one identification of an NTM during the period of 2005–2012, was reviewed. Data presented includes all incidences documented from 2009 onwards, with additional data from before 2009 used to gain further demographic information about the population. Those who were non-resident in the area were excluded.

The data was collected from Clinical Letters, Radiology and Pathology records, with data being reviewed by the lead investigator and one other in cases where information was uncertain.

**Results** Data was obtained from 74 new isolations, with a total of 11 different species of NTM identified. Patients presenting had a median age of 68 and a range of 8–88 years. 39(53%) were female and 46 (62%) were "one-off" isolates. *M. Avium-intracellulare* (MAI) was the most frequently reported isolate (42 cases, 57%) followed by *M. Chelonae* (8, 11%) and *M. Xenopi* (6, 8%). The majority (68, 92%) of isolates were pulmonary with 45(66%) of these found in standard sputum culture. Most frequently recorded co-morbidities were bronchiectasis (35 cases, 47%) and COPD (20, 27%). Of the total of 74 cases only 24 (32%) had received treatment by the time of our survey. The overall rates for eradication and subsequent relapse in those treated patients were 50% and 25% respectively for the total population and 57% and 38% for those with MAI. At completion of the study the mortality rate within 2 years of the first positive sample was 18%.

**Abstract P114 Table 1. NTM species isolated and number of patients treated**

Mycobacterium species	Number of patients growing NTM	Number of patients treated
<i>M. avium</i> complex (MAC)	36	10
<i>M. fortuitum</i>	34	2
<i>M. kansasii</i>	28	17
<i>M. gordonae</i>	22	1
<i>M. xenopi</i>	17	2
<i>M. peregrinum</i>	12	0
<i>M. chelonae</i>	7	1
<i>M. abscessus</i>	6	1
<i>M. mucogenicum</i>	4	0
<i>M. malmoense</i>	4	1
<i>M. scrofulaceum</i>	2	0
<i>M. hassiacum</i>	1	0
<i>M. szulgai</i>	1	1
<i>M. smegmatis</i>	1	0
<i>M. marinum</i>	1	0
<i>M. neoaurum</i>	1	0