129 Chronic infection with *Stenotrophomonas maltophilia* in patients with cystic fibrosis in the Copenhagen CF Centre

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Background: An increasing number of CF patients are colonized with the Gram-negative multiresistant bacterium *Stenotrophomonas maltophilia*. The clinical consequences of this infection are not known. The purpose of our study was to assess the effect on lung function and nutritional status (z-score BMI) in patients chronicailly infected with *S. maltophilia.*
Methods: All CF patients (278) treated at the CF centre in Copenhagen were included in the study. Numbers of sputum cultures positive for *S. maltophilia* in the period from 1.1.2008 to 31.12.2009 were counted. FEV1% predicted and BMI z-score were compared in patients with and without chronic *S. maltophilia* pulmonary infection.
Results: Eighty-two CF patients (30 %), median age 19 years (range 2–60) had at least one culture with *S. maltophilia.* Chronic infection defined as occurrence of *S. maltophilia* in >50% of sputum samples or less often when combined with the presence of elevated levels of precipitating antibodies against *S. maltophilia*. During the study period 499/1877 (27%) sputum samples in 82 patients were positive. Nineteen patients were chronic infected with *S. maltophilia*. No differences were found in FEV1% or BMI z-score between patients intermittent colonised and patients chronic infected: median 82% (27–126) and 79% (35–106) and –0.5 (–3.18–2.01) and 0.07 (–1.89–1.26) respectively.
Conclusion: This cross-sectional study does not show any effect of chronic *S. maltophilia* infection on neither FEV1 nor BMI z-score. Longitudinal study of impact of chronic *S. maltophilia* infection on decline of clinical condition of chronically infected patients is needed.

130 The experience of managing *Mycobacterium abscessus* in adults with cystic fibrosis in a large regional adult CF centre

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Background: *Mycobacterium abscessus* (MA) is increasingly common in CF patients, with associated increased morbidity. The aims of this study were to determine the prevalence of MA in our centre, to identify associated clinical factors and to review the antibiotic regimes used to treat this organism.
Methods: This is an observational study of patients currently attending the West Midlands Adult CF Centre. In MA +ve patients we obtained: spirometry, BMI, microbiology, corticosteroid use, CFRD and ABPA status. We also reviewed their anti-MA treatment.
Results: Of 325 adult CF patients cared for in our centre, 7 have at least 2 confirmed sputum isolates of MA: 4 male, mean age 19 (range 16–25) yrs, median BMI 19.1 kg/m^2. 4 patients have impaired glucose tolerance (IGT) and 3 have CFRD. All are chronically infected with *P. aeruginosa*. 6 of 7 patients are on long-term oral corticosteroids, none have a history of ABPA.
Our current treatment protocol in stable MA +ve patients consists of at least 3 antibiotics used on a continuous basis: 2 oral antibiotics (clarithromycin, doxycycline or moxifloxacin) with nebulised amikacin or meropenem. Exacerbations are treated with 2 IV antibiotics (tigecycline, meropenem, imipenem, cefoxitin or amikacin). 4 of 7 patients experienced adverse effects that limited IV treatment, most commonly nausea with tigecycline. 5 of 7 patients continue to culture MA, although 2 patients have been culture –ve for at least 12 months.
Discussion: Intravenous antibiotic therapy for MA is associated with significant adverse effects. 6 of 7 of our MA +ve patients have been on long-term oral corticosteroids and all either have IGT or CFRD.

131 Nosocomial outbreak of *Pandoraea pulmonicola* in a French cystic fibrosis (CF) center

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Pandoraea spp. are recently described bacteria causing chronic lung colonization in CF patients. Their pathogenicity is not well known but invasive disease is possible. We describe a nosocomial outbreak of *Pandoraea pulmonicola* in our CF center in 2009. Bacterial strains were analyzed by MALDI-TOF mass spectrometry, 16S rDNA gene sequencing and Pulsed Field Gel Electrophoresis (PFGE).
Pandoraea spp. were found in 6 patients (5 males, 1 female) out of 243 CF patients attending our center (incidence rate 20.6‰). The source patient was chronically colonized since 2000. 1 patient was already colonized by *P. pulmonicola* before attending our center and is not thought to be part of the outbreak. 4 other patients (1 female, 3 males) acquired *Pandoraea* spp. between June and November 2009. All were chronically colonized with *P. aeruginosa* (P.a) and 2 with *S. aureus* (S.a). All strains were identified as *P. pulmonicola*. Preliminary PFGE results evidence an epidemiological link between strains. All patients had matching hospitalization periods and had contacts without strict barrier protection. All strains were resistant to colimycin, aminoglycosides, betalactams including imipenem but partially susceptible to cefotaxime, tigecycline and rifampicin.
This study shows cross transmission of *Pandoraea pulmonicola* in CF patients with chronic P.a or S.a infection, pointing out its potential ability to colonize such patients and the need to reinforce barrier protection and strict bacteriological screening.

132 Increased incidence of *Achromobacter xylosoxidans* infections in a Danish CF centre is not caused by cross infections

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Achromobacter xylosoxidans is an aerobic, non-fermentative, gram-negative bacterium found in a variety of natural environments. *A. xylosoxidans* strains are innate resistant to many antibiotics and may rapidly develop resistance to virtually all available antibiotics. *A. xylosoxidans* is being isolated from cystic fibrosis patients with increasing frequency, however, the clinical significance of *A. xylosoxidans* infection and colonisation in CF patients has not been fully elucidated.
A. xylosoxidans was cultured from 16 of 143 (11%) CF patients at Aarhus University Hospital Skejby during 2009. Five patients had been chronically infected for more than six years and five patients had been infected for two to three years. However, six patients experienced a first-time identification of *A. xylosoxidans* in their respiratory cultures during 2009. Four of the chronically infected patients carry *A. xylosoxidans* with the same genotype, as evaluated by Pulsed-Field Gel Electrophoresis. These patients are known to have had close contact outside the centre. The remaining patients, including all patients with isolates acquired during 2009, carry unique genotypes.