**Table 1.** Cohort characteristics by mould colonisation status expressed as numbers (sex, genotype, CF related diabetes, LTX, ABPA, chronic bacterial infection) or medians with range (age, respiratory samples, FEV1 % predicted and BMI z-score)

| | A<br>No moulds | B<br>*Aspergillus,*<br>new cases | *P* (A vs. B) | C<br>*Aspergillus* persistent* | *P* (A vs. C) | D<br>*Aspergillus,*<br>Cleared colonisation | *P* (A vs. D) | E<br>Other moulds | *P* (A vs. E) | *P* |
|---|---|---|---|---|---|---|---|---|---|---|
| | (n=130) | (n=44) | | (n=63) | | (n=38) | | (n=12) | | |
| Age, median (range) | 17.5 (0-51) | 18.5 (0-49) | 1.0 | 23.0 (5-57) | 0.0149 | 25.0 (2-47) | 0.0173 | 25.0 (8-36) | 0.44 | 0.0345 |
| Sex F/M (F%) | 66/64 (51%) | 22/22 (50%) | 1.0 | 38/25 (60%) | 0.22 | 20/18 (53%) | 0.86 | 7/5 (58%) | 0.77 | 0.75 |
| CF genotype | | | | | | | | | | |
| ΔF508/ΔF508 | 80[a] (62%) | 31 (70%) | 0.36 | 45 (71%) | 0.20 | 30[b] (79%) | 0.0536 | 9 (75%) | 0.54 | 0.26 |
| ΔF508/other | 41 (32%) | 11 (25%) | 0.45 | 18 (29%) | 0.74 | 5 (13%) | 0.0372 | 3 (25%) | 0.75 | 0.27 |
| other/other | 5 (4%) | 2 (5%) | 1.00 | - | 0.18 | - | 0.59 | - | 1.00 | na |
| CF related diabetes | 37 (28%) | 13 (30%) | 1.00 | 9 (14%) | 0.0318 | 10 (26%) | 0.84 | 4 (33%) | 0.74 | 0.23 |
| LTX | 10 (8%) | 5 (11%) | 0.53 | 4 (6%) | 1.00 | 11 (29%) | 0.0014 | - | 1.00 | 0.0015 |
| ABPA | 6 (5%) | 1 (2%) | 0.68 | 9 (14%) | 0.0405 | 5 (13%) | 0.13 | 3 (25%) | 0.0293 | 0.0119 |
| Respiratory samples | | | | | | | | | | |
| No. of samples | 1317 | 490 | | 874 | | 458 | | 197 | | |
| Median (range) | 10 (1-29) | 12 (2-22) | 0.16 | 12 (4-28) | < 0.0001 | 12 (3-20) | 0.0231 | 17 (8-28) | 0.0085 | <0.0001 |
| Proportion positive samples, median (range) | - | 0.14 (0.05-1.00) | | 0.42 (0.09-1.00) | | 0.15 (0.00-0.67) | | 0.08 (0.04-0.22) | | <0.0001 |
| FEV1 % predicted, median (range) | | | | | | | | | | |
| 2007[c] | 80.9 (20.0-118.2) | 79.3 (36.8-129.7) | 0.63 | 75.4 (29.8-122.5) | 0.65 | 74.6 (22.0-112.9) | 0.29 | 70.9 (40.1-116.1) | 0.76 | 0.77 |
| 2009[d] | 81.0 (17.0-115.8) | 85.4 (33.1-135.8) | 0.25 | 75.1 (28.8-115.0) | 0.46 | 78.1 (26.8-125.5) | 0.90 | 72.1 (37.5-116.5) | 0.37 | 0.43 |
| mean 2007+2009 | 81.4 (20.0-117.0) | 85.2 (35.0-135.8) | | 74.8 (29.3-118.7) | | 74.8 (22.0-119.2) | | 71.5 (40.2-115.9) | | 0.32 |
| change 2007 – 2009 | 0.0 (-16.8-38.7) | 0.0 (-19.6-9.2) | | -1.0 (-19.8-23.3) | | 0.0 (-20.0-55.86) | | -4.1 (-19.0-8.6) | | 0.60 |
| BMI z-score, median (range) | | | | | | | | | | |
| 2007[e] | -0.2 (-3.5-2.2) | -0.3 (-3.8-1.7) | 0.90 | -0.4 (-2.5-2.7) | 0.73 | -0.4 (-5.9-0.7) | 0.23 | 0.3 (-1.3-1.2) | 0.0945 | 0.28 |

| | A | B | p | C | p | D | p | E | p | p |
|---|---|---|---|---|---|---|---|---|---|---|
| 2009[f] | -0.4 (-4.0-2.4) | -0.3 (-2.7-0.9) | 0.91 | -0.4 (-2.7-2.6) | 0.89 | -0.3 (-3.1-1.1) | 0.77 | 0.3 (-1.7-1.6) | 0.0329 | 0.27 |
| Chronic bacterial infection, total | 63 (48%) | 23 (52%) | 0.73 | 41 (65%) | 0.0323 | 28 (74%) | 0.0090 | 8 (67%) | 0.37 | 0.0301 |
| *Pseudomonas aeruginosa* | 37 (28%) | 14 (32%) | 0.70 | 25 (40%) | 0.14 | 16 (42%) | 0.12 | 6 (50%) | 0.19 | 0.26 |
| *Burkholderia* spp. | 11 (8%) | 2 (5%) | 0.52 | 3 (5%) | 0.55 | 2 (5%) | 0.73 | - | 0.60 | na |
| *Achromobacter* spp. | 10 (8%) | 4 (9%) | 0.75 | 6 (10%) | 0.78 | 6 (16%) | 0.20 | - | 1.00 | 0.46 |
| *Stenotrophomonas maltophilia* | 3 (2%) | - | 0.57 | 3 (5%) | 0.39 | 3 (8%) | 0.13 | 1 (8%) | 0.30 | na |
| Other Gram-negative | 2 (2%) | 2 (5%) | 0.22 | 1 (2%) | 1.00 | 1 (3%) | 0.54 | 1 (8%) | 0.23 | na |
| Mycobacteria | - | 1 (2%) | 0.25 | 1 (2%) | 0.33 | - | na | - | na | na |
| *Nocardia* spp. | - | - | na | 2 (3%) | na | - | na | - | na | na |

LTX = lung transplant recipients; ABPA = allergic bronchopulmonary aspergillosis; - = 0, na = criteria for test not fulfilled.

\* 57/63 were persistently colonised with *A. fumigatus*; 4/63 were colonised with *A. fumigatus* in 2007 and *A. niger* 2009; 1/63 were persistently colonised with *A. terreus*; 1/63 were colonised with *A. fumigatus* in 2007 and other *Aspergillus* species in 2009.

Non-normally distributed continuous data were compared using Kruskal-Wallis test. When Kruskal-Wallis test gave a significant result, the groups were compared to each other, two at a time, using Mann-Whitney test. Categorical data were compared using Chi-square test and Fisher's exact test when comparing two groups.

[a] Insufficient data on four patients. [b] Insufficient data on three patients. [c] No. of patients with data in column A, B, C, D and E were 101, 30, 60, 32 and 12, respectively. [d] No. of patients with data in column A, B, C, D and E were 108, 36, 60, 27 and 12, respectively. [e] No. of patients with data in column A, B, C, D and E were 113, 38, 60, 33 and 12, respectively. [f] No. of patients with data in column A, B, C, D and E were 120, 40, 60, 27 and 12, respectively.