

## 6.01 Retrospective review of the prevalence and change in organisms grown sputum culture in the cohort of CF patients on CFTR modulator Kaftrio

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Lower respiratory tract infections are a challenge in the management of CF patients due to the colonisation of multiple resistant pathogen. Current evidence suggests in already established lung disease that the CFTR modulators are unable to eradicate organisms however may have an effect on the younger less severe population.

Our aim was to establish the prevalence of different organisms in the sputum cultures of CF patients in Beaumont Hospital and also to review the change in organisms after patients have commenced on Kaftrio. We reviewed microbiology results for all CF patients established on Kaftrio in Beaumont hospital before and after commencing the CFTR modulator. Data was collated on an excel spreadsheet. 75 patients were prescribed Kaftrio, 58 patients were included in the study, 67% were men. 19 organisms were identified, main organisms are outlined in the Table 1 below. In total there was an overall reduction in organisms grown including a reduction of 46.8% in *Ps. Aeruginosa*, 83% reduction in *H. Influenzae*, 51% of *S. Aureus*. 17.2% cultured no organisms post treatment.

We have shown a significant reduction in pathogen burden in Cf patients which may lead to less frequent respiratory tract infections however larger studies are needed to validate this data.

Table 1(6.1).

Organism	%Before (n)	%After (n)
<i>Pseudomonas aeruginosa</i>	81% (47)	41%(25)
<i>Candida</i>	93% (54)	60.3% (35)
<i>Stenotrophomonas Maltophilia</i>	44.8% (26)	6.8% (4)
<i>H. Influenzae</i>	51% (30)	8.6% (5)
<i>Staph Aureus</i>	84% (49)	41. 3% (24)
MRSA	13.7% (8)	12% (7)
<i>Aspergillus</i>	51% (30)	8.6%(5)

**Conflict of Interest:** None to declare