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P073**Observed impact on admissions during the COVID-19 pandemic of paediatric cystic fibrosis patients in a tertiary hospital setting**

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Introduction: Healthcare patterns across many conditions changed during the COVID-19 pandemic. Factors such as school closure and limited social mixing reduced the risk of infective spread in the cystic fibrosis (CF) population. A change in outpatient care to a virtual platform followed efforts to mitigate spread, including for the paediatric CF population.

Method: A single centre retrospective cohort study aiming to answer the following:

At annual review during the pandemic, did FEV₁ follow a different pattern to the expected 1.52% drop a year (Caley et al 2021)?

Were children admitted for different reasons than before?

Were fewer children admitted during pandemic than prior to it?

Results: Fifty-four children undertook 2 annual reviews during the pandemic and were included in the first analysis. FEV% dropped less than has been previously documented, mean (S.D) = -0.97(11.75), but this was not significant.

A further subgroup analysis was undertaken between those children on modulator therapy and those that were not. This found that those on modulators had a mean increase in FEV₁% over this period (mean (S. D) = 0.08(13.22)), whereas those not on modulators had a larger than predicted drop (mean (S.D) = -2.24(9.82)). Neither of these were significant.

Pre-pandemic, 88.09% of admissions were for a respiratory reason while during the pandemic this dropped to 62.86%. Fewer children were admitted during the pandemic for respiratory admissions (15 children with 22 admissions) then the year before (24 children for 37 admissions). FEV₁% was significantly higher in those admitted during the pandemic (mean(S. D) = 79.90(19.41)) than before (mean(S.D) = 60.60(21.92) t(47) = -3.132, p = 0.001).

Conclusion: Changes in FEV₁ during the pandemic were not significantly different and appeared to be linked to modulator use. Admission patterns appeared to change over the period with fewer admissions of healthier patients.

P074**Post-COVID-19 condition in children with cystic fibrosis**

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Background: Cystic fibrosis (CF) is a rare disease characterised by multisystem involvement and especially affecting the bronchopulmonary system. In the COVID-19 pandemic, data on COVID-19 in CF patients is emerging. However, long-term experiences of COVID-19 are still poorly characterised for CF children. WHO defines the post-COVID-19 condition as occurring in individuals with a history of SARS CoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis.

Methods: 9 CF patients (5–17 years, median 13 years) who receive regular examination and treatment at a pulmonology department were included. Eligibility criteria was history of PCR-verified COVID-19. All of the patients had mild COVID-19 a year prior and were assessed using ISARIC (International Severe Acute Respiratory and emerging Infection Consortium) COVID-19 paediatric follow-up. Parental consent was received, ISARIC survey was completed by proxy. Comparison of exacerbation frequency, chest CT-scan and spirometry data prior and 1 year after COVID-19 exposure were performed.

Results: There were no significant negative dynamics of chest CT-scan in the whole group. 4 (44.4%) of the patients reported increased exacerbation frequency after COVID-19 with 1 (11.1%) of them having moderate decrease of pulmonary function parameters (FEV₁ from 29 to 22%, FVC from 44 to 32%). The most frequently reported persistent symptoms of COVID-19 were

fatigue (33.3%), decreased physical activity (22.2%), and memory impairments (11.1%). 1 patient (11.1%) reported palpitations occurring for the first time after COVID-19. 4 patients (44.4%) assessed their health worse than before COVID-19 (using a 100-point scale, where 0 is the worst state of health, 100 is the best state of health).

Conclusion: Further qualitative studies are needed to develop diagnostic criteria, management tactics and prevention measures of post-COVID conditions in CF paediatric patients.

P075**COVID-19 vaccination uptake in patients with cystic fibrosis**

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Objectives: COVID-19 vaccinations, including Pfizer (PZ) and AstraZeneca (AZ), can greatly reduce the risk of serious illness and death in COVID-19 positive cases. Patients with cystic fibrosis (pwCF) have been encouraged to complete the two-dose vaccination course, with subsequent booster jab(s), as per the UK government vaccination programme. It was assumed that due to the perceived vulnerability of contracting COVID-19 with an underlying chronic respiratory disease, pwCF would have a near to 100% uptake of the vaccine. It was therefore decided to ascertain the proportion of pwCF at the All Wales Adult Cystic Fibrosis Centre that have had completed their two-dose COVID-19 vaccination course, and suggest potential reasons why patients decline vaccine invitation.

Methods: Vaccination data was retrieved from WIS, a national database, as well as patient records, and by contacting patients via telephone or at routine clinic.

Results: Of the 336 pwCF, 8 were excluded as vaccination status was undetermined. Of those where vaccine type was established, 217 = AZ, 77 = PZ, 2 = AZ/PZ and 2 = Moderna. 2 patients had a single dose and 27 had not been vaccinated. Of those who had an incomplete course, there was a moderately even split between genders (F = 12, M = 17). Possible reasons behind lack of vaccine uptake could be ethical, political, personal or for health reasons – one female patient stated fertility as her reason for declining vaccination.

Conclusion: Although the uptake of the COVID-19 vaccines amongst pwCF (91.2%) was much higher than the general population in Wales (74.4%), it is still surprising that there is a significant percentage who had actively decided not to receive a full course. Further research should be done to determine reasons why pwCF are declining the vaccine, to help us increase the uptake to closer to 100% and protect pwCF from COVID-19. Ongoing data collection will decipher what proportion of pwCF are receiving a booster dose.

P076**COVID-19 vaccination in children and adolescents with cystic fibrosis - a single-centre experience**

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Objectives: Since the beginning of the SARS-CoV-2 pandemic, the population in general and especially patients with chronic pulmonary diseases were waiting for a solution – a cure or a vaccine. The first vaccine (Comirnaty[®]) that was recommended for adults is now approved in Europe for children from 5 years on. So far, we know that not many patients with cystic fibrosis (CF) experienced severe COVID-19 disease, but there is still not enough data on what the long-term consequences would be. Also, considerable ambiguity about SARS-CoV-2 vaccines is present in the general population and although the recommendations are clear, a lot of people, even those with chronic pulmonary diseases, reject vaccination. The aim of our study was to evaluate the SARS-CoV-2 vaccination coverage in our CF centre's patient population.

Methods: A retrospective, single timepoint chart review study was performed in December 2021. Information on patients' vaccination status were collected from all available hospitals and national electronic medical records (EMR).

Results: Data for all of the centre's vaccination-eligible patients (72; 30 female) could be obtained. Their mean age was 14 ± 6.4 years. Thirty-five