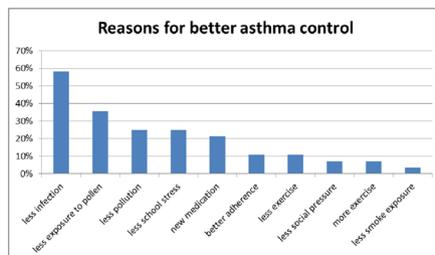


## Evaluation of the impact of shielding to avoid COVID-19 infection on respiratory symptoms in children with severe asthma

Further to Krivec *et al*'s<sup>1</sup> report of a significant decrease in asthma admissions during their state's lockdown in response to COVID-19 we have performed a service evaluation of children attending specialist paediatric respiratory clinics for their asthma at Southampton University Hospital while shielding according to National Health Service advice up until the end of July 2020. Patients and their parents were asked to complete a pre-prepared series of questions about how their asthma had been affected by shielding as a part of telephone/video link follow-up consultations having shielded for between 2 and 5 months.

Sixty-eight families were identified, and 58 patients (male 33, female 25) provided data. Of the 10 families not included, four were not contactable and six did not have follow-up within the survey period. Fifty of the patients were identified as receiving tertiary-level specialist follow-up because of the severity of their symptoms. The mean age of respondents was 12 years (range 5–18 years). All families were shielding. Only one patient had been admitted for acute asthma since shielding. They were COVID-19 positive at the end of their admission and had responded to nebulised bronchodilators. One other asymptomatic patient was COVID-19 positive after routine screening unrelated to their asthma. Eleven (19%) reported they were currently less likely to self-refer for asthma symptoms with 6 (11%) more likely and 41 (70%) no different. Twenty-three (40%) reported better asthma control, 10 (17%) worse asthma and 25 (43%) no different. Twenty-nine (50%) had an asthma control test (ACT)  $\geq 20$  indicative of well-controlled asthma.



**Figure 1** Reasons for better asthma control.

Forty-seven (81%) were using the same or less relief medication, 40 (69%) were sleeping the same or better at night and 38 (66%) were the same or less anxious. Comparing their asthma control to the same period in the previous year, 28 (48%) reported better symptom control, 7 (12%) worse control and 23 (40%) no different.

Self-reported reasons for improved asthma are shown in the accompanying figure 1. Reasons for the seven patients (12%) who reported worse asthma control included increased seasonal allergic rhinitis in three patients (43%) and more indoor aeroallergen exposure in three others (43%).

Thirty-one families (53%) preferred video link (attend anywhere) consultations, while 11 (19%) expressed a preference for face to face appointments.

Our data are consistent with that reported by Krivec *et al* and usefully identified multiple interacting factors that children with severe asthma and their families believe have been important in determining their symptom control. Overall, asthma was much improved although shielding precluded the collection of objective measures such as lung function to confirm this. Ongoing care might usefully include the continued use of video link consultations that were acceptable for the majority of families attending our service. The future challenge will be to maintain the clinical benefits achieved during lockdown, as measures are gradually eased and children return to school at a time of year

when asthma symptoms are typically more problematic.<sup>2</sup>

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