








Acknowledgements

This study was unsupported. The views expressed in this publication are those of the author(s) and not necessarily those of the NHS or the RCPCH.

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Accepted for publication 30 March 2021.

Conflict of interest: No financial conflict of interest is identified. AY is employed, part-time, by Huma Therapeutics.

Author contributions: GS performed the literature searches. All authors contributed to the conception and writing of the manuscript. All authors approved the final version of the manuscript.

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Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Appendix S1: Supporting Information

doi:10.1111/jpc.15495

Dear Editor,

CHILDREN WITH CYSTIC FIBROSIS HOSPITALISED WITH COVID-19: MULTICENTRE EXPERIENCE

The Centres for Disease Control and prevention listed cystic fibrosis (CF) among comorbidities which predispose children to severe COVID-19.¹ Respiratory viruses can cause significant morbidity and mortality in this population; therefore, it is expected that COVID-19 will have a similar impact in this population.² Surprisingly, until now, this has not been proven to be the case.¹ Bain *et al.* reported 105 children with CF who developed COVID-19 from the CF Registry Global Harmonization Groups across 13 countries between February and August 2020.³ More than 70% of these children were managed in the community and hospitalisation was associated with pre-existing severe lung disease.³

Here, we report a year of experience of COVID-19 among children with CF in three main paediatric admitting centres in Oman: Royal Hospital, Sultan Qaboos University Hospital and Suhar Hospital. Only three children with CF (3/233; 1.3%) had COVID-19-related hospitalisation in the three centres since the start of the pandemic. Only one child required oxygen supplements through non-invasive ventilation and monitoring at the intensive care unit. This patient has moderate-severe CF with forced expiratory volume in the first second of 50% and severe asthma on omalizumab. He was admitted for about 2 weeks where he was managed with oxygen, salbutamol, dual antipseudomonal antibiotics and chest physiotherapy. The other two children were managed for mild disease and required hospitalisation for 2–5 days only (Table 1).

A study done in Veneto, Italy, reported only one child with CF who developed mild COVID-19 among 532 CF patients. The rate and severity of COVID-19 have been lower than the general population in this area.² Although the respiratory tract is the major part for SARS-CoV-2 entry into the body, Manti *et al.* hypothesised that COVID-19 may not be primarily a pulmonary disease as the angiotensin-converting enzyme 2 which this virus uses as an entry co-receptor has only medium expression in the respiratory tract compared to the other parts of the body which has maximum expression of this co-receptor.¹ They also hypothesised that vascular endothelium is the primary target for the virus. CF patients have continuous endothelium injury secondary to the chronic inflammation which may lead to impairment of the viral entry in these patients.¹ This could be one of the main reasons why these patients have lower risk of infection compared to the other children. In addition, adhering to infection control measures including using face mask, social distancing and proper hand hygiene could also be another factor in lowering rates of infection in these children.² Our experience is similar to the results of the international observational study published at the end of last year.³ Children with CF, especially those with severe lung function, should continue to adhere to infection control measure. In light of the development of some new SARS-CoV-2 variants, which may cause severe disease in children, paediatricians should consider virtual follow-ups, delaying non-urgent bronchoscopies in children with CF and cancelling unnecessary clinics visits as long as this does not affect the patients' care.⁴

Table 1 Summary of all children with cystic fibrosis (CF) hospitalised with COVID-19 at the Sultan Qaboos University Hospital, Royal Hospital and Suhar Hospital, Oman

No. #	Age/ year	Gender	Comorbidities	FEV1	SARS-CoV-2 PCR	WCC		CRP, mg/L	CXR findings	Management	O ₂ requirement	NIV	PICU admission	Intubation/mechanical ventilation	Length of hospital stay, days	Outcome
						(4.5–14), 10 ⁹ /L	Lymphocyte count (1.9–9.8), 10 ⁹ /L									
1	5	M	Mild CF	–	+	13.0	5.1	4.9	Hyperinflated lungs	Tazocin Salbutamol Chest physiotherapy	No	No	No	No	5	Full recovery
2	13	M	Moderate–severe CF Severe asthma Resolving allergic pulmonary aspergillosis	50%	+	18	1	–	Bilateral infiltration with cystic changes	Tazocin Gentamicin Omalizumab Chest physiotherapy	Yes	Yes	Yes	No	15	Full recovery
3	1.8	M	Mild CF	–	+	17.8	11.5	–	Parahilar infiltration	Tazocin Chest physiotherapy	No	No	No	No	2	Full recovery

+, Positive; –, not done; CRP, C-reactive protein; CXR, chest X-ray; FEV1, forced expiratory volume in the first second; M, male; NIV, non-invasive ventilation; PCR, polymerase chain reaction; PICU, paediatric intensive care unit; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2; WCC, white cell count.

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Accepted for publication 31 March 2021.

Conflict of interest: None declared.

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doi:10.1111/jpc.15504

Dear Editor,

I am writing regarding Professor Isaacs' editorial on bilingual children.¹ While I agree with many of the sentiments in the document, I wanted to point out that I do not think that the sign in Figure 1 is in Welsh as per the figure legend. Balbriggan is actually a town in North County Dublin in Ireland.

I believe the green part of the sign, 'Fáilte go Baile Brigín' is written in Irish (Gaeilge). Then the inscription under the shield is written in traditional Irish script.

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Accepted for publication 31 March 2021.

Conflict of interest: None declared.

Reference

- Isaacs D. Bilingual children. *J. Paediatr. Child Health* 2021; **57**: 316–7.