

LETTER

Delayed access to care and late presentations in children during the COVID-19 pandemic: a snapshot survey of 4075 paediatricians in the UK and Ireland

The UK has witnessed large reductions in children attending emergency departments (ED) and paediatric assessment units (PAU) during the COVID-19 pandemic,¹ which began in late January and peaked in mid-April before declining.² These reductions raised concerns about the late presentation of critical illness in children. To address this, the British Paediatric Surveillance Unit undertook a snapshot electronic survey on 24 April 2020 of 4075 paediatric consultants representing >90% of paediatric consultants in the UK and Ireland, asking whether, during the previous 14 days, they had seen any children who, in their opinion, presented later than they would have expected prior to the COVID-19 pandemic (ie, delayed presentation).

Over the next 7 days, 2433 (60%) paediatricians responded. Overall, 241 (32%) of 752 paediatricians working in ED/PAU had witnessed delayed presentations, with 57 (8%) reporting ≥ 3 patients with delayed presentation. Delayed presentation reports ranged between 14% in Wales and 47% in the Midlands (figure 1). Free text responses revealed diabetes mellitus (new diagnosis/diabetic ketoacidosis) as by far the most common delayed presentation,³ but also sepsis and malignancy (table 1). There were also nine deaths where delayed presentation was considered a contributing factor, resulting mainly from sepsis and malignancy.

Of the paediatricians working on hospital wards and in clinics, 18% (178 of 997) had also witnessed delayed presentations. Neonatologists' concerns included late presentations during labour resulting in adverse maternal/neonatal outcomes and early hospital discharges after birth due to COVID-19 concerns before feeding had been established and infants then returning with feeding difficulties and severe dehydration (table 1). Community paediatricians and oncologists were particularly concerned by the fall in referral rates for child protection and cancer assessment, respectively.

A 60% response rate in 7 days highlights the importance given to the survey

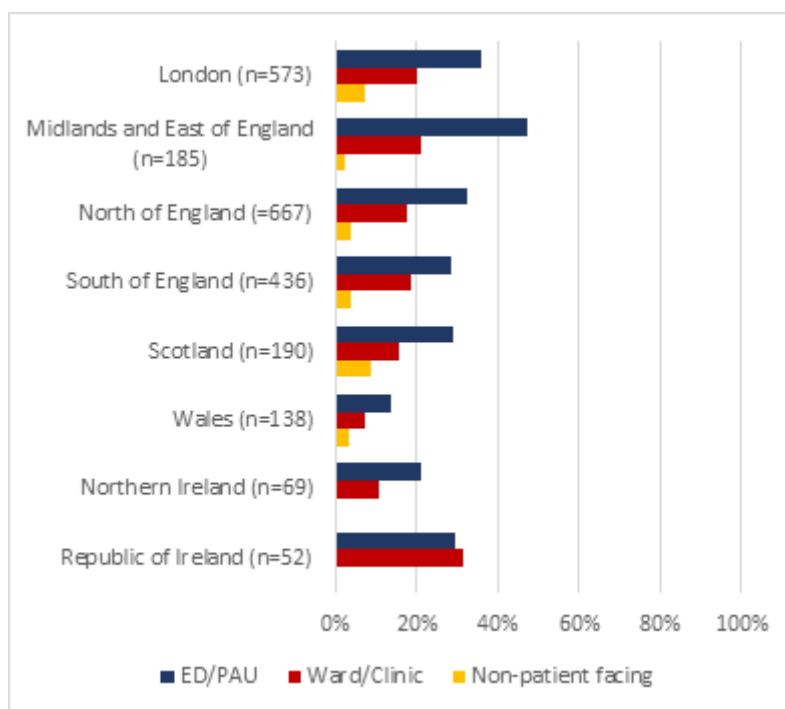


Figure 1 Number of paediatricians working in different clinical areas by region in the UK and Ireland who responded to the survey and the proportion who reported delayed presentation in children during the previous 14 days. ED, emergency department; PAU, paediatric assessment unit.

by paediatricians in the UK and Ireland and the widespread professional concern about delayed presentations. Elsewhere, others have raised concerns about declining immunisation rates,⁴ and the mental health and well-being of children during lockdown.⁵ While the information collected in the survey was subjective and based on the opinion of individual paediatricians, and although we do not have baseline


data for comparison, our findings highlight an urgent need to improve public health messaging for parents, which until recently instructed everyone to stay at home. Children attending primary care and hospitals remain at very low risk for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. Parents should continue to access medical care if they are concerned and must not delay getting

Table 1 Summary of the main conditions reported in children and the perinatal period and deaths where delayed presentation was considered by the reporting paediatrician to be a contributing factor

	n
Top 5 delayed diagnoses reported	
Diabetes mellitus (diabetic ketoacidosis)	44 (23)
Sepsis	21
Child protection	14
Malignancy	8
Appendicitis	6
Delayed perinatal presentations	
Pregnant women presenting late in labour	2
Hypoxic ischaemic encephalopathy	1
Unbooked pregnancy resulting in adverse outcomes	1
Poor feeding after early hospital discharge	2
Dehydration following poor feeding	4
Reported deaths associated with delayed presentation	
Sepsis	3
New diagnosis of malignancy	3
Cause not reported	2
New diagnosis of metabolic disease	1

emergency treatment if their child appears seriously ill. Otherwise, the unintended consequences of the lockdown will do more harm and claim more children's lives than COVID-19.

BPSU Scientific Committee: Nick Bishop, Dr Gavin Dabrera, David Elliman, Lamiya Samad, Ellen Pringle, Simon Nadel, Marc Tebruegge, Hani Ayyash, Sarah Clarke, Chenqu Suo, Jane Sutton, Madeleine Wang, Peter Davis, Ifeanyichukwu Okike, Robert Negrine, Arlene Reynolds.

Richard M Lynn,^{1,2} Jacob L Avis,² Simon Lenton,² Zahin Amin-Chowdhury,³ Shamez N Ladhani ^{2,3}

¹Institute of Child Health, University College London Research Department of Epidemiology and Public Health, London, UK

²BPSU, Royal College of Paediatrics, London, UK

³Immunisation and Countermeasures Department, Public Health England Colindale, London, UK

Correspondence to Dr Shamez N Ladhani, Immunisation and Countermeasures Department, Public Health England Colindale, London NW9 5EQ, UK; shamez.ladhani@phe.gov.uk

Twitter Richard M Lynn @bpsutweets and Shamez N Ladhani @shamezladhani

Acknowledgements The BPSU Committee would like to thank all the paediatricians in the UK and Ireland

for their continuing support of rare disease surveillance in children.

Collaborators Nick Bishop, Dr Gavin Dabrera, David Elliman, Lamiya Samad, Ellen Pringle, Simon Nadel, Marc Tebruegge, Hani Ayyash, Sarah Clarke, Chenqu Suo, Jane Sutton, Madeleine Wang, Peter Davis, Ifeanyichukwu Okike, Robert Negrine, Arlene Reynolds.

Contributors RML and SL wrote the first draft of the manuscript. All authors contributed to the interpretation of the results and the discussion.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

This article is made freely available for use in accordance with BMJ's website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

© Author(s) (or their employer(s)) 2020. No commercial re-use. See rights and permissions. Published by BMJ.



To cite Lynn RM, Avis JL, Lenton S, *et al.* *Arch Dis Child* Epub ahead of print: [please include Day Month Year]. doi:10.1136/archdischild-2020-319848

Accepted 14 June 2020

Arch Dis Child 2020;0:1–2.

doi:10.1136/archdischild-2020-319848

ORCID iD

Shamez N Ladhani <http://orcid.org/0000-0002-0856-2476>

REFERENCES

- 1 Isba R, Edge R, Jenner R, *et al.* Where have all the children gone? decreases in paediatric emergency department attendances at the start of the COVID-19 pandemic of 2020. *Arch Dis Child* 2020;archdischild-2020-319385.
- 2 Public Health England. National COVID-19 surveillance reports. Available: <https://www.gov.uk/government/publications/national-covid-19-surveillance-reports> [Accessed 16 May 2020].
- 3 Lazzarini M, Barbi E, Apicella A, *et al.* Delayed access or provision of care in Italy resulting from fear of COVID-19. *Lancet Child Adolesc Health* 2020;4:e10–11.
- 4 McDonald HI, Tessier E, White JM, *et al.* Early impact of the coronavirus disease (COVID-19) pandemic and physical distancing measures on routine childhood vaccinations in England, January to April 2020. *Euro Surveill* 2020;25:pii=2000848.
- 5 Golberstein E, Wen H, Miller BF. Coronavirus disease 2019 (COVID-19) and mental health for children and adolescents. *JAMA Pediatr* 2020. doi:10.1001/jamapediatrics.2020.1456

Third of UK paediatricians report seeing 'delayed presentations' in emergency care during lockdown

Children with diabetes most often involved, but also those with life-threatening sepsis and cancer

One in three UK paediatricians report dealing with emergency 'delayed presentations'--children who would have been expected to present much earlier for diagnosis/treatment of their condition--during the COVID-19 pandemic lockdown, reveal the results of a snapshot survey, published online in the Archives of Disease in Childhood.

Children with diabetes were most often involved, but also those with life threatening sepsis (blood poisoning) and cancer, the survey responses indicate.

Amid reports of falling attendances at emergency care departments during the pandemic lockdown in the UK, and serious concerns about the implications for children's health, the British Paediatric Surveillance Unit (BPSU)* carried out a snapshot poll of senior paediatricians in the UK in late April this year.

The 4075 consultants surveyed represent more than 90% of all those working in the UK and Ireland.

The doctors were asked whether, in the preceding 14 days, they had seen any children, who, in their opinion, turned up later for treatment/diagnosis than would have been expected before the COVID-19 pandemic, referred to as 'delayed presentations.'

In all, 2433 of the consultants replied, giving a 60% response rate. Almost a third (241 out of 752; 32%) of those working in emergency care and paediatric admissions said they had dealt with delayed presentations. Some 8% (57) of the respondents reported dealing with more than 3.

The numbers of children suspected of having turned up later than expected for treatment/diagnosis varied considerably, ranging from 14% of reports in Wales to 47% of those in the Midlands.

The free text responses indicated that a child with diabetes was by far the most common delayed presentation, but sepsis (blood poisoning) and cancer also featured prominently.

Delayed presentation was thought to be a contributory factor in the deaths of nine children.

Nearly 1 in 5 (18%; 178 out of 997) senior paediatricians working on hospital wards and in outpatient clinics also reported late presentations.

These included problems arising during labour for mothers and their babies and early discharge after birth because of COVID-19 concerns before feeding had been established, prompting return visits due to feeding problems and dehydration.

The responses revealed that community paediatricians and cancer doctors were especially concerned by the fall in referrals for child protection and suspected cancer.

"A 60% response rate in 7 days highlights the importance given to the survey by paediatricians in the UK and Ireland and the widespread professional concern about delayed presentations," write the authors.

“Elsewhere, others have raised concerns about declining immunisation rates, and the mental health and wellbeing of children during lockdown,” they add.

They acknowledge that the survey responses were subjective and based on opinion and that there were no baseline data for comparison.

Nevertheless, they point out: “Our findings highlight an urgent need to improve public health messaging for parents, which until recently instructed everyone to stay at home. Children attending primary care and hospitals remain at very low risk of SARS-CoV-2 [the virus that causes COVID-19] infection.”

They emphasise: “Parents should continue to access medical care if they are concerned and must not delay getting emergency treatment if their child appears seriously ill. Otherwise, the unintended consequences of the lockdown will do more harm and claim more children’s lives than COVID-19.”

Professor Russell Viner, President of the Royal College of Paediatrics and Child Health, which co-owns Archives of Disease in Childhood with BMJ, said: “We know a lot more than we did three months ago about the impact of COVID-19 on children and young people. One of the few consistent points of good news is that children are unlikely to become unwell, even if exposed to the virus. The impact for children is what we call ‘collateral damage,’ including long absences from school and delays or interruptions to vital services. We know that parents adhered very strongly to the ‘stay at home advice’ and we need to say clearly that this doesn’t apply if you’re child is very sick.

“Should we experience a second wave or regional outbreaks, it is vital that we get the message out to parents that we want to see unwell children at the earliest possible stage. Contact your GP, call 111, or in serious cases come and see us at A&E. The NHS is here for you now and for the duration of this difficult period.”