

Atypical presentation of COVID-19 in young infants

As of April 27, 2020, more than two million people worldwide have been diagnosed with coronavirus disease 2019 (COVID-19), with Europe being one of the current major clusters of the pandemic.¹ Despite an absence of evidence, children have been targeted as a potential source of children-to-adult virus dissemination, and schools have been closed in most countries. However, findings seem to indicate a lower susceptibility of children to COVID-19 and low contagiousness.² Within 7 days of imposed population quarantine in France (initiated on March 17, 2020), we observed an increase in number of young infants with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.

In our paediatric hospital, patients presenting with fever or respiratory symptoms, or both, and requiring admission to hospital are admitted to a dedicated SARS-CoV-2 infection unit. During the first week of quarantine, 14 infants younger than 3 months were admitted to this unit, and five of these young infants were diagnosed with COVID-19 on the basis of nasopharyngeal swabs positive for SARS-CoV-2. Their clinical presentations differed from those reported in articles about children with COVID-19,^{3,4} which present little data from younger infants.

The five infants with COVID-19 were boys. They had been healthy, but were admitted with poorly tolerated and isolated fever (appendix). None of the boys received non-steroidal anti-inflammatory drugs before admission, they had no respiratory symptoms before or during hospitalisation (in contrast with published data⁵), and they did not need intensive care (chest x-rays are provided in the appendix).

Four of the boys showed neurological symptoms at admission, such as axial hypotonia or drowsiness and moaning sounds, or both (appendix),

which prompted us to do lumbar punctures. Cerebrospinal fluid samples were normal and tested negative for SARS-CoV-2 by RT-PCR. The infants received no drugs other than acetaminophen. Their clinical course was rapidly favourable, which allowed hospital discharge 1–3 days after admission. A dedicated paediatrician supervised the follow-up, which consisted of a daily phone call using a standardised questionnaire for 2 weeks.

Here we describe our experience of COVID-19 in five young infants. In the pandemic context, infants younger than 3 months with isolated fever should be tested for SARS-CoV-2. Although infants might initially present signs of severe infection, our experience is that the youngest children tolerate and rapidly improve from COVID-19, in contrast to adults admitted to hospital with COVID-19. However, because little is known about SARS-CoV-2 infection in infants,^{4,6} close monitoring is required for at least 2 weeks after the diagnosis. All of the infants' parents showed mild signs of viral infection (ie, rhinitis, or cough or fever, or both, for <1 week), which could be related to undiagnosed COVID-19.

We declare no competing interests.

**Nadia Nathan, Blandine Prevost,
*Harriet Corvol**

harriet.corvol@aphp.fr

Paediatric Pulmonology Department and Reference Centre For Rare Lung Disease RespiRare, Trousseau Hospital, Assistance Publique-Hôpitaux de Paris, Paris 75012, France (NN, BP, HC); and Sorbonne Université, Centre de Recherche Saint Antoine, Paris, France (HC)

- 1 WHO. Coronavirus disease 2019 (COVID-19) situation report – 93. April 22, 2020. https://www.who.int/docs/default-source/coronavirus/situation-reports/20200422-sitrep-93-covid-19.pdf?sfvrsn=35cf80d7_4 (accessed April 23, 2020).
- 2 Lu X, Zhang L, Du H, et al. SARS-CoV-2 infection in children. *N Engl J Med* 2020; **382**: 1663–65.
- 3 Dong Y, Mo X, Hu Y, et al. Epidemiological characteristics of 2143 pediatric patients with 2019 coronavirus disease in China. *Pediatrics* 2020; **145**: e20200702.
- 4 Qiu H, Wu J, Hong L, Luo Y, Siong Q, Chen D. Clinical and epidemiological features of 36 children with coronavirus disease 2019 (COVID-19) in Zhejiang, China: an observational cohort study. *Lancet Infect Dis* 2020; published online March 25. [https://doi.org/10.1016/S1473-3099\(20\)30198-5](https://doi.org/10.1016/S1473-3099(20)30198-5).

- 5 Sun D, Li H, Lu XX, et al. Clinical features of severe pediatric patients with coronavirus disease 2019 in Wuhan: a single center's observational study. *World J Pediatr* 2020; published online March 19. DOI:10.1007/s12519-020-00354-4.
- 6 Wang J, Shi Y. Managing neonates with respiratory failure due to SARS-CoV-2—Authors' reply. *Lancet Child Adolesc Health* 2020; **4**: e9.



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What does it mean to be made vulnerable in the era of COVID-19?

We read with interest the Editorial¹ about redefining vulnerability in the era of coronavirus disease 2019 (COVID-19). The Editors recognise underserved and marginalised populations enduring the COVID-19 pandemic, and that the category of vulnerable individuals or groups is not fixed but evolves in response to policies that might create or reinforce vulnerability. When we ask what being vulnerable means, are we also creating the spaces needed to question what it means to be made vulnerable?

The Editors' opening question, "What does it mean to be vulnerable?"¹ strongly suggests that more ground-work is needed to shift the landscape from an individual pathologising of capacity, autonomy, and agency to the identification of divisions that define vulnerability within cultures, communities, and particular social groups.

Although the particular needs of vulnerable groups must be accounted for in health policy, guidance, and practice at the frontline of crises, these needs reflect existing contextual, rather than individual, injustices and thus require reparation.

The lived experiences of vulnerable groups are defined by a form of epistemic injustice²—the dismissal of the knowledge of their own lives and needs that socially marginalised groups experience. Such knowledge should have a vital role in pandemic response, such as triage protocols to prevent further health disparities

See Online for appendix

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For the global call to action for inclusion of migrants and refugees in the COVID-19 response see <https://www.migrationandhealth.org/call-to-action>

and discrimination.³ Vulnerability occurs in the gap in global health between those with the power to define and dismiss knowledge and needs, and those who are being defined and dismissed. A pandemic can be a call for recognition and repairing of the sociocultural, sociopolitical, and sociohistorical ruptures that generate vulnerability within specific categories of marginalised groups. As we continue to leap forward into the pandemic response, we risk missing the opportunity to avoid the “pervasive failure to consult members of vulnerable groups and/or their representative organisations during crisis response”.⁴ We can prevent the epistemic injustices of not listening and of silencing, and avoid delineating moral agency in ways that perpetuate vulnerability in a global pandemic.

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**Ayesha Ahmad, Ryoa Chung, Lisa Eckenwiler, Agomoni Ganguli-Mitra, Matthew Hunt, Rebecca Richards, Yashar Saghai, Lisa Schwartz, Jackie Leach Scully, Verina Wild aahmad@sgul.ac.uk*

Institute for Medical and Biomedical Education, St George's University of London, London SW17 0RE, UK (AA); Department of Philosophy, Université de Montréal, Montréal, QC, Canada (RC); Department of Philosophy, George Mason University, Washington, DC, USA (LE); Mason Institute for Medicine, Life Science and the Law, University of Edinburgh, Edinburgh, UK (AMG, RR); School of Physical and Occupational Therapy, McGill University, Montréal, QC, Canada (MH); Department of Philosophy, Universiteit Twente, Enschede, Netherlands (YS); Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, ON, Canada (LS); Disability Innovation Institute, UNSW, Sydney, NSW, Australia (JLS); and Institute of Ethics, History and Theory of Medicine, Ludwig-Maximilians-Universität München, München, Germany (VW)

- 1 The Lancet. Redefining vulnerability in the era of COVID-19. *Lancet* 2020; **395**: 1089.
- 2 Fricker M. Evolving concepts of epistemic injustice. In: Kidd IJ, Medina J, Polhaus G Jr, eds. *The Routledge handbook of epistemic injustice*. London: Routledge, 2017: 53–60.
- 3 Savin K, Guidry-Grimes L. Confronting disability discrimination during the pandemic. *The Hastings Center*, April 2, 2020. <https://www.thehastingscenter.org/confronting-disability-discrimination-during-the-pandemic/> (accessed April 22, 2020).

- 4 Eckenwiler L, Hunt M, Leach Scully J, Wild V. 4.11-P16 Understanding and operationalizing vulnerability in International Humanitarian Health Organisations. *Eur J Public Health* 2018; **28** (suppl 1): cky048.181.

Global call to action for inclusion of migrants and refugees in the COVID-19 response

Lancet Migration¹ calls for migrants and refugees to be urgently included in responses to the coronavirus disease 2019 (COVID-19) pandemic.² Many of these populations live, travel, and work in conditions where physical distancing and recommended hygiene measures are impossible because of poor living conditions³ and great economic precarity. This global public health emergency highlights the exclusion and multiple barriers to health care⁴ that are faced by migrants and refugees, among whom COVID-19 threatens to have rapid and devastating effects.⁵ From an enlightened self-interest perspective, measures to control the outbreak of COVID-19 will only be successful if all populations are included in the national and international responses. Moreover, excluding migrants and refugees contradicts the commitment

to leave no one behind and the ethics of justice that underpin public health. Principles of solidarity, human rights, and equity must be central to the COVID-19 response; otherwise the world risks leaving behind those who are most marginalised. Join our global call to action for the inclusion of migrants and refugees in the COVID-19 response (panel).

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**Miriam Orcutt, Parth Patel, Rachel Burns, Lucinda Hiam, Rob Aldridge, Delan Devakumar, Bernadette Kumar, Paul Spiegel, Ibrahim Abubakar m.orcutt@ucl.ac.uk*

Centre for Public Health Data Science, Institute of Health Informatics (PP, RB, RA), and Institute for Global Health (MO, IA, LH, DD), University College London, London WC1N 1EH, UK; Norwegian Institute of Public Health, Oslo, Norway (BK); and Johns Hopkins Bloomberg School of Public Health and Johns Hopkins Center for Humanitarian Health, Baltimore, MD, USA (PS)

- 1 Orcutt M, Spiegel P, Kumar B, Abubakar I, Clark J, Horton R. Lancet Migration: global collaboration to advance migration health. *Lancet* 2020; **395**: 317–19.

Panel: Lancet Migration's immediate actions urged in response to COVID-19

Urgent universal and equitable access to health systems, preparedness, and response

Access should exist for migrant and refugee populations, regardless of age, gender, or migration status, including the immediate suspension of laws and prohibitive fees that limit access to health-care services and economic support programmes.

Inclusion of migrant and refugee populations in health protection responses

Immediate responses should include the transfer of people held in overcrowded reception, transit, and detention facilities to safer living conditions; suspension of deportations and upholding the principle of non-refoulement; and urgent relocation of and family reunification for unaccompanied minors.

Responsible, transparent, and migrant-inclusive public information strategies

Strategies should include regular, accurate, and linguistically and culturally appropriate public communication and information sharing, alongside community mobilisation. Confronting racism and prejudice with a zero-tolerance approach should be at the core of government and societal action.