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Letter to the Editor Response

## Response to Letter to the Editor from Justin M. Gregory: “Age and Hospitalization Risk in People With Type 1 Diabetes and COVID-19: Data From the T1D Exchange Surveillance Study”

Carla Demeterco-Berggren,<sup>1</sup> Osagie Ebekozen,<sup>2,3</sup> Carol J. Levy,<sup>4</sup> and David M. Maahs<sup>5</sup>

<sup>1</sup>Rady Children’s Hospital, University of California, San Diego, CA 92123, USA; <sup>2</sup>T1D Exchange, Boston, MA 02111, USA; <sup>3</sup>University of Mississippi School Medical Center, Jackson, MS 39216, USA; <sup>4</sup>Icahn School of Medicine at Mount Sinai, New York, NY 10029, USA; and <sup>5</sup>Stanford University, Stanford, CA 94305, USA

**ORCID numbers:** 0000-0002-1140-644X (C. Demeterco-Berggren); 0000-0002-8473-249X (O. Ebekozen); 0000-0002-4602-7909 (D. M. Maahs).

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We thank Gregory for his comments (1) regarding our observational, multisite, cross-sectional study of patients with type 1 diabetes (T1D) and laboratory-confirmed coronavirus disease 2019 (COVID-19) from 56 clinical sites in the United States, quantifying the risk for COVID-19–related hospitalization and adverse outcomes by age in people with T1D (2).

It is reassuring to review the data from the American Academy of Pediatrics and the Children’s Hospital Association, which show a low percentage of all pediatric COVID-19 cases resulting in hospitalization (3). This aligns with our findings that among people with T1D, young age is clearly protective against severe COVID-19 outcomes. In our study, only patients known to have COVID-19 were included, and, as a multicenter registry, likely overestimated the proportion of young patients with T1D and COVID-19 who were hospitalized and underestimated those with minimal symptoms who were either not tested for COVID-19 or whose illness did not come to the attention of the diabetes care team. We believe that comparing the percentage of our patients younger than age 18 years with T1D and

COVID-19 who required hospitalization with data from all pediatric COVID-19 cases has the potential to lead to inaccurate suppositions. Children with underlying medical conditions may have been more likely to receive COVID-19 testing and require hospitalization unrelated to COVID-19. Although T1D was associated with hospitalization, admission may have been related to diabetic ketoacidosis rather than COVID-19 as earlier reported (4). This may also be true regarding a study that found T1D to be the strongest risk factor for hospitalization and for COVID-19 severity among children with underlying medical conditions (5). Children with diabetic ketoacidosis may be routinely cared for in the ICU, in contrast to the general wards leading to disease severity estimation bias. It has been reported that although pediatric hospitalization rates are used as a marker of COVID-19 disease severity, it is likely overestimated by the detection of mild or asymptomatic infection via universal screening of patients (6).

A recent review commissioned to address questions to the World Health Organization about COVID-19 in people with diabetes stated that the risk of severe disease

in children and adolescents is low in the general population and that none of the systematic reviews suggested otherwise in children and adolescents with diabetes. The review noted that if COVID-19 posed a substantial risk to youth with diabetes, the evidence would have started to emerge by now (7). This further emphasizes that COVID-19 infection in youth with T1D differs from adults and that health care providers should not generalize COVID-19 data from adults to youth with diabetes.

We thank Gregory for the opportunity to reiterate that public health recommendations, including wearing masks and vaccination, are important and need to be followed by all to reduce the risk of contracting COVID-19 and that a review with parents and children with diabetes of appropriate sick-day management including contact with the diabetes care team is recommended.

### Additional Information

**Correspondence:** Carla Demeterco-Berggren, MD, PhD, Rady Children's Hospital, University of California, San Diego, 7960 Birmingham Drive, Suite 4111, San Diego, CA 92123, USA. Email: [cdemeterco@rchsd.org](mailto:cdemeterco@rchsd.org).

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Roche; he has consulted for Abbott, Aditxt, the Helmsley Charitable Trust, Sanofi, Novo Nordisk, Eli Lilly, Medtronic, Insulet, and Dompe. C.D.B. has nothing to disclose.

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