The Nimbleness and Resource Costs of Expedited Review and Concerns of Duplicate Publication: SARS-CoV-2 Manuscripts Submitted to *The Journal of Pediatrics*

Sarah S. Long, MD[1], Thomas R. Welch, MD[2], Rebecca Pellett Madan, MD, MS[3], Meghan McDevitt, BA[4], and William F. Balistreri, MD[4]

The editorial office at *The Journal of Pediatrics* received the first manuscript regarding severe acute respiratory syndrome novel coronavirus 2 (SARS-CoV-2) on February 13, 2020. Through November 30, 2020, nearly 550 manuscripts were submitted regarding SARS-CoV-2 in children and adolescents (**Figure**). We pause to consider the phases of the pandemic as reflected in manuscript submissions and take stock of the benefits, costs, and concerns of journal editors committed to the peer review process as well as to the rapid dissemination of new information.

Clearly, this pandemic has impacted children, adolescents, and their caregivers. The phases of *The Journal's* publications on SARS-CoV-2 during the pandemic can be catalogued: description of clinical syndromes and management; factors associated with severity of disease; the negative impact of pandemic restrictions on pediatric preventative and subspecialty care, and on children's mental and behavioral well-being; the oddities of age-related symptoms, viral loads, and immunologic responses; population-based data reporting only a modest role of young children and schools in driving the pandemic; multi-institutional systematic reports solidifying clinical syndromes and describing management and short-term outcomes; and requirements for SARS-CoV-2 vaccines and anticipated steps in vaccine implementation.

Considering the evolving phases of evidence in each of these categories, we are somewhere between the late-early and early-middle phases of knowledge of pediatric SARS-CoV-2. We have yet to see the prospective, controlled, comparative investigations of prophylaxis and therapy that have been accomplished in adults. These studies will be critical because they will validate, or dampen, the enthusiasm generated in preliminary reports. The World Health Organization, the Centers for Disease Control and Prevention, and subspecialty societies have cautioned that guidelines for management of novel coronavirus disease-2019 (COVID-19) are all "living" documents. Until the science is "settled" by prospective critical study, mutability of bottom lines is expected. Cases in point are the failure of hydroxychloroquine, lopinavir, and interferon to hold up under scientific scrutiny and recent challenges to the multiple reports of the benefit of remdesivir.

Remarkably, placebo-controlled trials of SARS-CoV-2 vaccine candidates in adults and the resurgence of the pandemic have permitted rapid accrual of cases and early evidence of vaccine efficacy. Hopefully, these are harbingers of transition to a late phase waning of the pandemic. Vaccine studies in children, however, are works in progress. Documenting pediatric vaccine efficacy outcomes will be trickier and likely will rely on extrapolation of efficacy from pediatric immunogenicity end points. This final phase of SARS-CoV-2 control and prevention in children may not be reflected in the medical literature for some time.

We will reflect on the mass of SARS-CoV-2-related content submitted to *The Journal* to illustrate our approach to effectively process this surge of manuscripts, specifically the nimbleness of our expedited review process, the resource costs, and the emerging concerns as predicted in our Special Communication on COVID-19 and the editorial process (epublication June 30, 2020).[1]

First, the *nimbleness* of electronic submission, expedited peer review, and posting of accepted manuscripts online has exceeded our expectations and aspirations. During the earliest phase, we sought to prioritize rigorously collected and analyzed data, to aid providers' recognition of the manifestations and cadence of COVID-19 lung disease, as well as of the novel multisystem inflammatory syndrome in children. Priority was also established for manuscripts reporting evidence for the use of clinical factors to stratify disease severity and laboratory findings to predict syndromes. Manuscripts documenting the negative impact of the pandemic and its imposed restrictions on the well-being of children were viewed as equally impactful. We also welcomed submissions that proposed solutions, such as those leveraging telehealth or offering roadmaps to reopening schools and to vaccine development. From March through November, the mean time from receipt of a manuscript to epublication

COVID-19	Novel coronavirus disease-2019
SARS-CoV-2	Severe acute respiratory syndrome novel coronavirus 2

From the [1]Drexel University College of Medicine, Philadelphia, PA; [2]State University of New York Upstate Medical University, Syracuse, NY; [3]New York University School of Medicine, New York, NY; and [4]Cincinnati Children's Hospital Medical Center, Cincinnati, OH

T.W. and S.L. serve as Associate Editors, R.M. serves on the Editorial Board, M.M. is a paid employee, and W.B. serves as the Editor-in-Chief of *The Journal of Pediatrics*.

0022-3476/$ - see front matter.
https://doi.org/10.1016/j.jpeds.2020.12.003

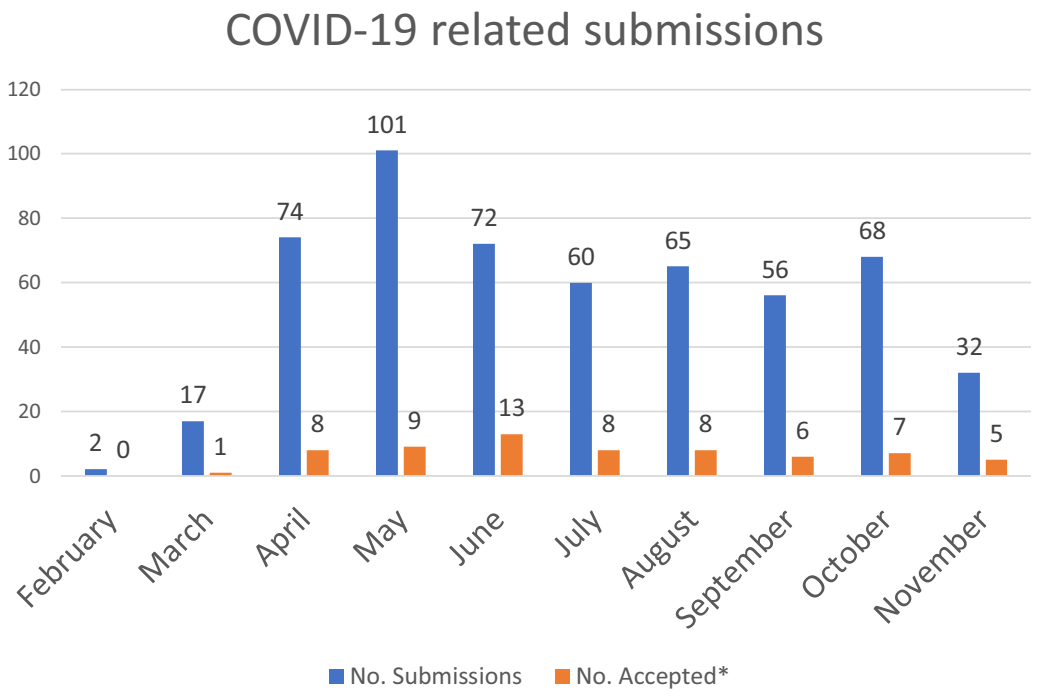

Figure. COVID-19 related manuscripts submitted and accepted in 2020. *Final disposition set during that month.

was 21.5 days. The mean time from manuscript receipt to rejection was 4.5 days.

Clearly, there were increasing *costs* of the expedited review process as the pace of submissions increased in parallel with the initial surge in infections (**Figure**). This increased workload was felt by the editorial office, subject experts among associate editors, and the editorial board, the editor, and the publisher. As health care personnel strove to continue to provide their best care to their non-COVID patients, *The Journal* staff pledged to maintain diligence and fairness for all authors and manuscripts. Clinician content experts stepped up to the surge in reviewing and editing responsibilities while also adjusting to new models of care, such as telehealth and limitations in personnel.

As we approach the early-middle phase of SARS-CoV-2 discovery, the number of submitted manuscripts and those warranting expedited review has begun to decrease. We pause to look back at the expedited process beyond facilitation. Has the speed to publication jeopardized scientific validity? We note that the rate of acceptance for SARS-CoV-2-related manuscripts to date is 65 of 547 (12%), which is lower than *The Journal's* nonpredetermined, but relatively stable annual acceptance rate of approximately 19% ± 3% for submitted manuscripts over the last decade. The acceptance rate for SARS-CoV-2 manuscripts supports the fulfillment of a key responsibility of a peer-reviewed journal, namely, to protect the medical literature from scientifically invalid, incomplete, repetitive, or incorrectly analyzed or interpreted data. We have attempted to mitigate overinterpretation and generalization of findings by requiring that authors restrict their conclusions to the limits of their data and to caution readers as to the preliminary nature of published results. To date, we have uncovered no invalid information published in *The Journal* nor issued a retraction or erratum.

We expressed concern in our June 2020 Special Communication regarding the risk for *duplicate publication*. Early on, we received manuscripts describing, wholly or partially, the same cohort of patients, submitted by different subspecialties, often with overlapping authors, from the same institution. Laudably, some institutions with an early high burden of SARS-CoV-2 disease established a gatekeeper system for external reports to limit repeated publication of the same cases or observation. We also recognized that after the preliminary report of a novel disease, it could be warranted to describe a substantially larger series when cases accrued over time, or across institutions, cities, countries, and so on. In the interest of transparency, we required explicit declaration and citation when any case included in a newly submitted manuscript had been reported previously, with delineation of the exact numbers of cases and the clinical setting/syndromes (eg, inpatients vs outpatients, screening vs diagnostic testing, multisystem inflammatory syndrome in children vs COVID lung disease) when relevant. However, patient and institution de-identified summary publications from registries (eg, as in Emergency Medicine and Critical Care) and public health reporting have blurred these lines, precluding the dissection of new from published cases. Duplicate publication continues to be a concern. Manuscripts constituting systematically collected reports on a variety of SARS-CoV-2 topics arrive daily and are being

published in many journals. We must determine if the authors have assiduously read sources of subjects and deleted duplicate cases, or could they reasonably detect duplicate reporting of cases from hospital consortia, registries, or public health notifications? The validity of systematic reviews/meta-analyses depends on counting 1 case once. Including the same cases as separate data points falsely exaggerates the sample size and falsely narrows variability in results presented.

The pandemic battle viewed through the lens of *The Journal* leaves us in awe of those on the front lines caring for patients daily, of those in public health making decisions daily in attempts to protect us all, and of investigators forging ahead at breakneck speed to give us hope. We thank them for pushing through their exhaustion to take the steps to hypothesize, collect, analyze, interpret, and submit their data for peer review. The resulting science is a formidable weapon against SARS-CoV-2. In conjunction with caretakers, investigators, and policy leaders, peer-reviewed journals have an important role to play to advance and protect science. ■

Reference

1. Welch TR, Long SS, Madan RP, McDevitt M, Balistreri WF. COVID-19 and the editorial process: reflections from *The Journal of Pediatrics*. J Pediatr 2020;224:4-5.