This Month In The Journal of Pediatrics

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The impact of COVID-19 on the scientific community—Highlighting *The Journal*'s editorial commitment and two publications

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We first want to thank our world-wide readers for all that you are doing in your hospital and in your community to assist during these unprecedented times. Many of you are on the front line; your efforts are deeply appreciated. We also offer our thoughts and prayers to all the victims of this global pandemic.

In order to adapt and respond to challenges brought on by the COVID-19 pandemic, all academic journals must adjust their peer-review processes to ensure timely publication and dissemination of impactful coronavirus-related research. The Editors of *The Journal of Pediatrics* have experienced a surge of COVID-19 based submissions since late February 2020. This remarkable pace of emerging data related to COVID-19 has driven home the potential role of biomedical journals and the impact of a flood of information on journals' submissions. This has stimulated us to adopt and revise our procedures and policies on peer review in order to rapidly triage and disseminate important information from around the world. Our goal is to accept and present as medical literature only those submissions that offer scientifically sound evidence, validly interpreted. The true importance and clinical relevance of these rapidly adjudicated manuscripts will be known at some point—as researchers and clinicians gain experience and investigates and refines these observations. In the interim we must review and publish these "rough first drafts" of COVID history.

We also encourage submissions relating to the scientific and health policy implications of the COVID-19 pandemic that are specific to infants, children, and adolescents. Following submission, the journal will immediately triage (desk review) each manuscript. Manuscripts related to COVID-19 chosen for peer review will undergo a "rapid review" process in which a dedicated group of journal editors will solicit and receive reviews within one week. Upon acceptance, the accepted and edited manuscript will be posted on the journal website. Additional submission instructions and recently published articles are available online (https://www.jpeds.com/content/covid-19). The Editors remain committed to publishing original research based on standards of excellence and expert review.

Two articles in this volume were handled using this expedited process—resulting in a turnaround time of three weeks from receipt of submission to publication. These two reports provide timely roadmaps for the medical community challenged by the necessity to implement new paradigms of care during the SARS-CoV-2 pandemic when faced with the urgency to save lives and protect health. Phillips et al describe a New York City children's hospital's call to arms, team approach, and experience gained in repurposing pediatric inpatient beds and providers to staff a 40-bed adult COVID-19 unit. Abrams et al describe how the COVID-19 pandemic and restrictions aimed at its mitigation can adversely affect the health of youth with a chronic health condition. They provide a thoughtful primer on optimizing novel healthcare interactions with patients with a chronic condition, with special reference in this case to asthma. Control of asthma has particularly high stakes in the COVID-19 pandemic as we learn that SARS-CoV-2 infection exacerbates asthma and that management of an exacerbation may increase the severity of COVID. Both reports are examples that people of high purpose, with good will, good leadership and teamwork can accomplish remarkable feats—inspirational and educational.

Articles pages 22 and 221 ▶

Changes in weight early in life are important

— Stephen R. Daniels, MD, PhD

As obesity and its complications have become an increasingly important health concern for children and adolescents, questions have been asked about potential critical periods for weight gain. A critical period is one in which excess weight gain is more likely to occur or a period in which excess weight gained is more likely to be persistent. In this volume of *The Journal*, Stock et al report on a study to determine the age during infancy and early childhood at which greater than expected gain in weight is associated with overweight in adolescence. They found that excess gain in weight any time in early life is associated with increased BMI in adolescence, but the impact is stronger after infancy. Although this does not give us information on specific ages or developmental stages on which to focus, it does emphasize that pediatricians must help families focus on healthy diet and physical activity during the first 4 years of life, particularly from age 1 to 4 years.

Article page 120 ►

Non-inferiority: Not a double negative

— James F. Padbury, MD

In this volume of *The Journal*, Kumar et al report the results of a "non-inferiority trial" designed to compare the effectiveness of oral paracetamol with oral ibuprofen in the setting of a symptomatic patent ductus arteriosus. Key elements of this study are that this was a randomized, controlled, head-to-head trial. They found that oral paracetamol was not inferior to oral ibuprofen. The choice of a "non-inferiority" design is an important element of the investigators' strategy. In an accompanying editorial, Hicks et al provide an outstanding overview of how we should interpret this study design and these findings. They review the nature of non-inferiority trials, their role, in what settings they are to be considered, and how we are to interpret the data. It is especially important to consider the non-inferiority margin chosen by investigators. Kumar et al then provide an encyclopedic summary of current issues related to treating symptomatic patent ductus arteriosus, the many recent clinical trials, and the pros and cons of the current pharmacologic options. It makes great reading!

Article page 79 ►

Liver and kidney disease associated—Again!

— Sharon P. Andreoli, MD

Liver and kidney injury have been associated in several diseases, such as hepato-renal syndrome. In this volume of *The Journal* Yodoshi et al describe another association of liver disease and kidney disease. The authors investigated the prevalence of renal impairment in a large cohort of youths with histologically confirmed nonalchoholic fatty liver disease (NAFLD) and determined the association of kidney injury with liver disease severity. Clinical, laboratory, and histologic data were collected on 179 children in a retrospective study between 2010 to 2017.

The authors found that one-third of the children had abnormal renal function, with 20% having glomerular hyperfiltration and 15% glomerular hypofiltration. The authors concluded that in this large cohort of patients with histologically confirmed NAFLD, renal impairment was highly prevalent and associated with liver disease severity and that screening patients with confirmed NAFLD for renal complications is recommended.

A similar finding has been described in adult patients by Byrne and Targher (*J Hepatol* 2020; 72:785-801). The authors found that a growing body of epidemiologic evidence suggests that NAFLD is an independent risk factor for chronic kidney disease and that recent evidence also suggests that associated factors such as metabolic syndrome, symbiosis, unhealthy diet, platelet activation, and processes associated with aging could contribute also to mechanisms linking NAFLD to chronic kidney disease.

It is interesting that in the report by Yodoshi et al, the investigators found that renal function was increased in some children and decreased in others. The reasons for these findings are unclear and deserves additional investigation and research. Hopefully, additional studies to define this association will be forthcoming in the near future.

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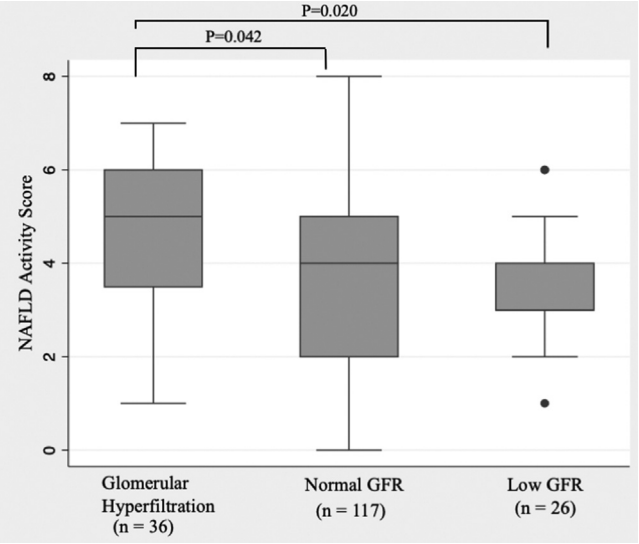

Figure. Relationship between median GFR categories and NAS in the study cohort.

Is COVID-19 an adverse childhood experience (ACE): Implications for screening for primary care

— Lee M. Sanders, MD, MPH

The report by DiGangi et al supports the feasibility of primary-care screening for adverse childhood experiences (ACEs) in pediatric primary care, however, significant controversy persists about the wisdom and clinical utility of implementing universal screening in pediatric primary care. In fact, many experts suggest that universal ACEs screening may introduce more harm than good. Instead, the study's findings provide an opportunity to raise awareness. Such a high prevalence of ACEs among children carries practical implications for primary care and public policy (https://www.acesaware.org/treat/clinical-assessment-treatment-planning/). Trauma-informed care could be considered a universal need for primary care practice.

In fact, the response to the COVID-19 pandemic may be amplifying some ACEs. There are several ways in which ACEs may be exacerbated by the social isolation, job loss, school closures, and other stressors unleashed by the pandemic. First, the pandemic may have increased intra-familial adversity, by exposing children to increased parental anxieties, especially those associated with job loss, food insecurity, and housing insecurity. Second, by amplifying toxic stress, increased family adversity may impair child brain development, particularly during the early years. Third, the pandemic's indirect social and economic impact on family stress may linger for months or years. Fourth, the pandemic and its response are disproportionately affecting low-income and ethnic minority populations, which are already at increased risk for ACE-impacted chronic conditions like preterm birth, diabetes, hypertension, and chronic lung disease. Taken together, the indirect effects of the pandemic response could exacerbate each of the common ACEs in children's lives.

Instead of adopting universal screening for ACEs, the evidence base suggests other pediatric responses (*Am J Prevent Med* 2020 https://doi.org/10.1016/j.amepre.2020.01.009) (*Acad Pediatr* 2020 PMID: 32272231). Medical providers can assure that all staff members are trained in trauma-informed care. Universal screening in primary care should include attention to actionable social needs, including unmet healthcare access, and a subset of ACEs, including household food insecurity, housing insecurity, job loss, and intimate-partner violence. Pediatric-care offices may offer additional structural buffers, including integrated mental-health services and partnerships with local agencies, including food shelters, schools, and legal aid. Beyond the clinic, local public-health officers may offer training in social-determinants screening and trauma-informed care. In fact, local leaders might extend this social-skills training to the new cadre of COVID-19 "contact tracers," who while mitigating the direct effects of the virus, may also help mitigate the long-term impact of ACEs on child health.

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