

# The JOURNAL of PEDIATRICS

April 2021 • Volume 231

Copyright © 2021 by Elsevier Inc.


## The Editors' Perspectives

This Month in *The Journal of Pediatrics* ..... 1

## Special Communication

**Reflections on Ethics and Advocacy in Child Health (REACH): Creating a Forum for Ethical Dialogue**  
Lainie Friedman Ross, MD, PhD, and Mary A. Ott, MD, MA ..... 5

## Notes from the Association of Medical School Pediatric Department Chairs, Inc.

**Pediatric Departmental Advocacy: Our Experience Addressing the Social Challenges of Coronavirus Disease 2019 and Racism**   
Melanie R. Ramirez, BA, Janine S. Bruce, DrPH, MPH, Alexander J. Ball, MD, MPH, Simran Gambhir, MD, Katarzyna Zabrocka, MD, MA, Omar Sahak, MD, MPH, Salma Dali, MD, Kamaal A. Jones, MD, and Lisa J. Chamberlain, MD, MPH ..... 7

## Reflections on Ethics and Advocacy in Child Health

**Global Ethical Considerations Regarding Mandatory Vaccination in Children**  
Julian Savulescu, PhD, Alberto Giubilini, PhD, and Margie Danchin, PhD ..... 10






**In the Wake of a Pandemic: Revisiting School Approaches to Nonmedical Exemptions to Mandatory Vaccination in the US**  
Erin Talati Paquette, MD, JD, MBe ..... 17

**Adolescent Consent for Human Papillomavirus Vaccine: Ethical, Legal, and Practical Considerations**  
Gregory D. Zimet, PhD, Ross D. Silverman, JD, MPH, Robert A. Bednarczyk, PhD, and Abigail English, JD ..... 24

## Editorials

**The Long and Winding Road: Loop Diuretics in Neonatology**  
James M. Greenberg, MD ..... 31

 – contains additional content that can be found at [www.jpeds.com](http://www.jpeds.com)

<b>In Search of an Ideal Protocol to Distinguish Risk for Serious Bacterial Infection in Febrile Young Infants</b> William Bonadio, MD.....	32
<b>Are Breastfed Infants Iron Deficient? The Question That Won't Go Away</b> Frank R. Greer, MD .....	34
<b>Original Articles</b>	
<b>A Substantial Proportion of 6- to 12-Month-Old Infants Have Calculated Daily Absorbed Iron below Recommendations, Especially Those Who Are Breastfed</b>  Steven A. Abrams, MD, Joel C. Hampton, MS, and Kristen L. Finn, DCN, RD.....	36
<b>Loop Diuretics in Severe Bronchopulmonary Dysplasia: Cumulative Use and Associations with Mortality and Age at Discharge</b>  Nicolas A. Bamat, MD, MSCE, Timothy D. Nelin, MD, Eric C. Eichenwald, MD, Haresh Kirpalani, BM, MSc, Matthew M. Laughon, MD, MPH, Wesley M. Jackson, MD, MPH, Erik A. Jensen, MD, MSCE, Kathleen A. Gibbs, MD, and Scott A. Lorch, MD, MSCE .....	43
<b>50 Years Ago in <i>The Journal of Pediatrics</i> – Exocrine Pancreas Insufficiency: Supplementing Our Way to Success</b> Kevin M. Murray, MD, and Stephanie B. Oliveira, MD, CNSC.....	49
<b>Impact of the Coronavirus Disease 2019 Pandemic on Authorship Gender in <i>The Journal of Pediatrics</i>: Disproportionate Productivity by International Male Researchers</b> Wadsworth A. Williams, II, MA, Alice Li, BA, Denise M. Goodman, MD, MS, and Lainie Friedman Ross, MD, PhD.....	50
<b>Early Skin-to-Skin Care with a Polyethylene Bag for Neonatal Hypothermia: A Randomized Clinical Trial</b>  Colm P. Travers, MD, Manimaran Ramani, MD, Samuel J. Gentle, MD, Amelia Schuyler, MD, Catherine Brown, MD, Madeline M. Dills, MD, Claire B. Davis, MD, Musaku Mwenechanya, MBChB, Elwyn Chomba, MBChB, MPH, Inmaculada Aban, PhD, Albert Manasyan, MD, Namasivayam Ambalavanan, MD, and Waldemar A. Carlo, MD .....	55
<b>Rates of Developmental Coordination Disorder in Children Born Very Preterm</b>  Alicia J. Spittle, PhD, Deborah Dewey, PhD, Thi-Nhu-Ngoc Nguyen, PhD, Rachel Ellis, PhD, Alice Burnett, PhD, Amanda Kwong, PhD, Katherine Lee, PhD, Jeanie L. Y. Cheong, MD, Lex W. Doyle, MD, and Peter J. Anderson, PhD.....	61
<b>Association between Hyperbilirubinemia and Hearing Screen Failure in the Neonatal Intensive Care Unit in Infants Born Preterm</b> Anisha Singh, BSE, Howard W. Francis, MD, MBA, P. Brian Smith, MD, MPH, Reese H. Clark, MD, and Rachel G. Greenberg, MD, MB, MHS .....	68
<b>A Graded Approach to Intravenous Dextrose for Neonatal Hypoglycemia Decreases Blood Glucose Variability, Time in the Neonatal Intensive Care Unit, and Cost of Stay</b> Sarbattama Sen, MD, Sara Cherkerzian, ScD, Daria Turner, BA, Carmen Monthé-Drèze, MD, Elisa Abdulhayoglu, MD, and John A. F. Zupancic, MD, ScD.....	74
<b>Alternative Cerebral Fuels in the First Five Days in Healthy Term Infants: The Glucose in Well Babies (GLOW) Study</b>  Deborah L. Harris, PhD, Philip J. Weston, MBChB, and Jane E. Harding, DPhil.....	81
<b>50 Years Ago in <i>The Journal of Pediatrics</i> – Epidemiology and Determining Etiologies of Respiratory Tract Infections: Both Have Changed!</b> Sarah S. Long, MD .....	86
<b>Declines in the Number of Lumbar Punctures Performed at United States Children's Hospitals, 2009-2019</b>  Alexandra T. Geanacopoulos, MD, John J. Porter, MBA, Kenneth A. Michelson, MD, MPH, Rebecca S. Green, MD, Vincent W. Chiang, MD, Michael C. Monuteaux, ScD, and Mark I. Neuman, MD, MPH .....	87

<b>50 Years Ago in <i>The Journal of Pediatrics</i> – Familial Russell-Silver Syndrome</b> Philip F. Giampietro, MD, PhD .....	93
<b>Cost Analysis of Emergency Department Criteria for Evaluation of Febrile Infants Ages 29 to 90 Days</b>  Courtney Coyle, MD, Guy Brock, PhD, Rebecca Wallihan, MD, and Julie C. Leonard, MD, MPH .....	94
<b>Characterizing Pain in Children with Acute Gastroenteritis Who Present for Emergency Care</b>  Samina Ali, MDCM, Claudia Maki, BN, Jianling Xie, MD, MPH, Bonita E. Lee, MD, MSc, James Dickinson, MBBS, PhD, Shannon E. MacDonald, PhD, RN, Naveen Poonai, MD, MSc, Jennifer Thull-Freedman, MD, Otto Vanderkooi, MD, Manasi Rajagopal, MBT, Mithra Sivakumar, BN, Linda Chui, PhD, Timothy A. D. Graham, MD, MSc, Alberto Nettel-Aguirre, PhD, PStat, Lawrence W. Svenson, PhD, and Stephen B. Freedman, MDCM, MSc, on behalf of the Alberta Provincial Pediatric EnTeric Infection TEam (APPETITE Team) and Pediatric Emergency Research Canada (PERC) .....	102
<b>50 Years Ago in <i>The Journal of Pediatrics</i> – Syndromic Intellectual Disability: A Never-Ending Genomic Odyssey</b> Mounika Endrakanti, MD, Neerja Gupta, MD, DM, and Piyush Gupta, MD, FAMS .....	109
<b>Changes in Liver Stiffness and Noninvasive Fibrosis Scores in Egyptian Adolescents Successfully Treated with Ledipasvir-Sofosbuvir for Chronic Hepatitis C Virus Infection</b> Doaa M. Fahmy, MD, MSc, Mohamed Shokeir, MD, PhD, Sherine M. El Zeiny, MD, PhD, Maureen M. Jonas, MD, and Ahmed Abdallah, MD, PhD .....	110
<b>50 Years Ago in <i>The Journal of Pediatrics</i> – Wilson’s Disease Remains a Great Masquerader</b> Debora Kogan-Liberman, MD, and Nadia Ovchinsky, MD, MBA.....	116
<b>Meal-Induced Symptoms in Children with Dyspepsia–Relationships to Sex and the Presence of Gastroparesis</b> Liz Febo-Rodriguez, MD, Bruno P. Chumpitazi, MD, Salma Musaad, PhD, Andrew C. Sher, MD, and Robert J. Shulman, MD.....	117
<b>Standardized Feeding Approach Mitigates Weight Loss in Infants with Congenital Heart Disease</b>  Amy Jo Lisanti, PhD, RN, CCNS, CCRN-K, Melanie Savoca, MS, RD, CNSC, LDN, J. William Gaynor, MD, Maria R. Mascarenhas, MBBS, Chitra Ravishankar, MD, Erin Sullivan, RD, LDN, Karyn Pieciak, BSN, RN, CCRN, Andrew Costarino, MD, Jodi Chen, MD, Andrea Kennedy, BS, Robert Olsen, BA, Jungwon Min, PhD, MS, Antara Mondal, BS, Jing Huang, PhD, and Sharon Y. Irving, PhD, RN, CRNP, FCCM, FAAN.....	124
<b>50 Years Ago in <i>The Journal of Pediatrics</i> – The Oxygen Dilemma</b> Jannicke H. Andresen, MD, PhD, and Ola Didrik Saugstad, MD, PhD .....	130
<b>Trends in Nutrient- and Non-Nutrient–Containing Dietary Supplement Use among US Children from 1999 to 2016</b>  Anita A. Panjwani, PhD, Alexandra E. Cowan, MS, Shinyoung Jun, PhD, and Regan L. Bailey, PhD.....	131
<b>Median Arcuate Ligament Syndrome with Orthostatic Intolerance: Intermediate-Term Outcomes following Surgical Intervention</b> Jeffrey P. Moak, MD, Carolyn Ramwell, RN, Robin Fabian, RN, Sridhar Hanumanthaiiah, MBBS, MS, Anil Darbari, MD, MBA, and Timothy D. Kane, MD.....	141
<b>50 Years Ago in <i>The Journal of Pediatrics</i> – Routine Ambulatory Blood Pressure Monitoring to Detect Hypertension in Early Life</b> Abhijeet Saha, MD, and Piyush Gupta, MD.....	147
<b>Congenital Disorders of Glycosylation in Portugal—Two Decades of Experience</b> Dulce Quelhas, PharmaD, MSc, Esmeralda Martins, MD, PhD, Luísa Azevedo, PhD, Anabela Bandeira, MD, Luísa Diogo, MD, PhD, Paula Garcia, MD, Sílvia Sequeira, MD, Ana Cristina Ferreira, MD, Elisa Leão Teles, MD, Esmeralda Rodrigues, MD, Ana Maria Fortuna, MD, Carla Mendonça, MD, Helena Cabral Fernandes, MD, Ana Medeira, MD, Ana Gaspar, MD, Patrícia Janeiro, MD, Anabela Oliveira, MD, Francisco Laranjeira, MSc, Isaura Ribeiro, MSc, Erica Souche, MSc, Valérie Race, MSc, Liesbeth Keldermans, MSc, Gert Matthijs, PhD, and Jaak Jaeken, MD, PhD .....	148

**Results of Testing Children for Severe Acute Respiratory Syndrome Coronavirus-2 Through a Community-based Testing Site** 

Joelle N. Simpson, MD, MPH, Monika K. Goyal, MD, MSCE, Joanna S. Cohen, MD, Gia M. Badolato, MPH, Mark McGuire, MBA, Abigail Ralph, MS, MBA, Meleah D. Boyle, MPH, Ellen K. Hamburger, MD, Kathleen C. Gorman, MSN, RN, Denice Cora-Bramble, MD, MBA, and Meghan Delaney, DO, MPH..... 157

**50 Years Ago in *The Journal of Pediatrics* – The Wind of Change in Lactose Malabsorption Diagnostics: From Invasive Tolerance Tests to Hydrogen Breath Tests**

Michelle Saad, MD..... 161

**Kawasaki Disease Shock Syndrome Versus Septic Shock: Early Differentiating Features Despite Overlapping Clinical Profiles**

Alyssa Power, MD, Kyle Runeckles, MSc, Cedric Manlhiot, PhD, Andreea Dragulescu, MD, PhD, Anne-Marie Guerguerian, MD, PhD, and Brian W. McCrindle, MD, MPH ..... 162

**The Impact of the Novel Coronavirus Disease 2019 on Therapy Service Delivery for Children with Disabilities** 

Ashley Murphy, MA, MS, Linzy M. Pinkerton, BS, Ellie Bruckner, MA, and Heather J. Risser, PhD..... 168

**Association of Cesarean Delivery with Childhood Hospitalization for Infections Before 13 Years of Age** 


Nathalie Auger, MD, MSc, FRCPC, Safiya Soullane, MDc, Thuy Mai Luu, MD, MSc, FRCPC, Ga Eun Lee, MScPH, Shu Qin Wei, MD, PhD, and Caroline Quach, MD, MSc, FRCPC..... 178

**50 Years Ago in *The Journal of Pediatrics* – Recognizing Familial Thyroid Dysgenesis**

Avani Ganta, MD, and Lisa Swartz Topor, MD, MMSc..... 184

**Acute Kidney Injury Associated with Late-Onset Neonatal Sepsis: A Matched Cohort Study** 

Sarah A. Coggins, MD, Benjamin Laskin, MD MSCE, Mary Catherine Harris, MD, Robert W. Grundmeier, MD, Molly Passarella, MS, Kristin J. McKenna, MD MPH, and Lakshmi Srinivasan, MBBS MTR..... 185

**Effect of a Sepsis Screening Algorithm on Care of Children with False-Positive Sepsis Alerts** 


Alexandra H. Baker, MD, Michael C. Monuteaux, ScD, Kate Madden, MD, MMSc, Andrew J. Capraro, MD, Marvin B. Harper, MD, and Matthew Eisenberg, MD MPH..... 193

**50 Years Ago in *The Journal of Pediatrics* – Advances in Neonatal Thyrotoxicosis**

Luisa F. Valenzuela Riveros, MD, and David M. Maahs, MD, PhD..... 199

**Adjusting for Pubertal Status Reduces Overweight and Obesity Prevalence in the United States** 

Eric Morris Bomberg, MD, MAS, Opong Yaw Addo, PhD, Kyriakie Sarafoglou, MD, and Bradley Scott Miller, MD, PhD ..... 200

**A Randomized Trial of Digitally Delivered, Self-Administered Parent Training in Primary Care: Effects on Parenting and Child Behavior** 

Susan M. Breitenstein, PhD, Caitlin Fehrenbacher, BSN, Alicia F. Holod, BSN, BA, and Michael E. Schoeny, PhD..... 207

**Patient Characteristics and Treatment Outcomes of Symptomatic Catheter-Related Arterial Thrombosis in Infants: A Retrospective Cohort Study**

Clay T. Cohen, MD, Viiia Anderson, CPNP, Sudhen B. Desai, MD, Athis Arunachalam, MD, Mubbasheer Ahmed, MD, and Rosa Diaz, MD..... 215

**50 Years Ago in *The Journal of Pediatrics* – Measurement of Urinary Catecholamine Excretion in Patients with Neuroblastoma**

Rachel Offenbacher, MD, and Daniel A. Weiser, MD..... 222


**Prospective Evaluation of the First Option, Second-Line Therapy in Childhood Chronic Immune Thrombocytopenia: Splenectomy or Immunomodulation**

Stéphane Ducassou, MD, PhD, Helder Fernandes, PhD, H el ene Savel, PhD, Yves Bertrand, MD, PhD, Thierry Leblanc, MD, Wadih Abou Chahla, MD, Marl ene Pasquet, MD, PhD, Guy Leverger, MD, PhD, Vincent Barlogis, MD, PhD, Caroline Thomas, MD, Sophie Bayart, MD, Isabelle Pellier, MD, PhD, Corinne Armari-Alla, MD, Corinne Guitton, MD, Nathalie Cheikh, MD, Djamel Kherfellah, MS, Gilles Vassal, MD, PhD, Rodolphe Thi ebaut, MD, PhD, Salim Laghouati, PharmD, and Nathalie Aladjidi, MD..... 223

<b>50 Years Ago in <i>The Journal of Pediatrics</i> – An Early Description of Persistent Pulmonary Hypertension of the Newborn</b> Maxwell Mathias, MD.....	230
<b>A Cluster Mediation Analysis Confirms the Validity of the “Fat but Fit” Paradigm in Children’s Cognitive Function and Academic Achievement</b>  Vicente Martinez-Vizcaino, MD, PhD, Celia Álvarez-Bueno, PhD, Mairena Sanchez-Lopez, PhD, Estela Jimenez-Lopez, PhD, Alba Soriano-Cano, MSc, Francisaco B. Ortega, PhD, Ivan Caverro-Redondo, PhD, and Miriam Garrido-Miguel, MSc.....	231
<b>50 Years Ago in <i>The Journal of Pediatrics</i> – Opioid Use Disorder Treatment in Adolescents: Then and Now</b> Kimberly McBrayer, DO, and Mary A. Ott, MD, MA.....	238
<b>Assessment of Peak Inspiratory Flow in Young Infants with Acute Viral Bronchiolitis: Physiological Basis for Initial Flow Setting in Patients Supported with High-Flow Nasal Cannula</b>  Christophe Milési, MD, Anne Requirand, GN, Aymeric Douillard, PhD, Julien Baleine, MD, Erika Nogué, MS, Stephan Matecki, MD, PhD, Pascal Amedro, MD, PhD, Marti Pons-Odena, MD, PhD, and Gilles Cambonie, MD, PhD.....	239
<b>Long-Term Survival and Causes of Death in Children with Trisomy 21 After Congenital Heart Surgery</b>  Jennifer K. Peterson, PhD, Lazaros K. Kochilas, MD, MSCR, Jessica Knight, PhD, Courtney McCracken, PhD, Amanda S. Thomas, MSPH, James H. Moller, MD, and Shaun P. Setty, MD.....	246
<b>Commentary</b>	
<b>Coronavirus Disease 2019 and Vaccination of Children and Adolescents: Prospects and Challenges</b> Gregory D. Zimet, PhD, Ross D. Silverman, JD, MPH, and J. Dennis Fortenberry, MD, MS.....	254
<b>Integrating Public Health Ethics into Shared Decision Making for Children During the Novel Coronavirus Disease-19 Pandemic</b> Angira Patel, MD, MPH, Dalia M. Feltman, MD, MA, and Erin Talati Paquette, MD, JD, MBe.....	259
<b>Brief Reports</b>	
<b>Thrombotic Microangiopathy Following Onasemnogene Apeparvovec for Spinal Muscular Atrophy: A Case Series</b> Deepa H. Chand, MD, Craig Zaidman, MD, Kapil Arya, MD, Rachel Millner, MD, Michelle A. Farrar, MBBS, Fiona E. Mackie, MBBS, Natalie L. Goedecker, CPNP, Vikas R. Dharnidharka, MD, Raja Dandamudi, MD, and Sandra P. Reyna, MD.....	265
<b>Variation in Oophorectomy Rates for Children with Ovarian Torsion across US Children’s Hospitals</b>  Susan C. Lipsett, MD, Lalita Haines, MD, Michael C. Monuteaux, ScD, Katherine Hayes, MD, and Kenneth A. Michelson, MD.....	269
<b>Neurodevelopmental Outcomes after Premedication with Atropine/Propofol vs Atropine/Atracurium/Sufentanil for Neonatal Intubation: 2-Year Follow-Up of a Randomized Clinical Trial</b>  Manon Tauzin, MD, Laetitia Marchand-Martin, MSc, Cécile Lebeaux, MD, Sophie Breinig, MD, Olivier Claris, MD, PhD, Pierre Tourneux, MD, PhD, Cénéric Alexandre, MD, Corinne Levy, MD, PhD, Camille Jung, MD, PhD, Agnès Dechartres, MD, PhD, and Xavier Durrmeyer, MD, PhD, for the PREmedication Trial for Tracheal Intubation of the NEONate Research Group.....	273
<b>Three Infants with Pathogenic Variants in the ABCA3 Gene: Presentation, Treatment, and Clinical Course</b>  Xin Si, MD, Lea C. Steffes, MD, Jennifer C. Schymick, MD, Florette K. Hazard, MD, Michael C. Tracy, MD, and David N. Cornfield, MD.....	278
<b>Rediscovering the Physical Exam</b>	
<b>Macula as a Window to Diagnosis</b> Thuppanattumadam Ananthasubramanian Sangeeth, MBBS, Hansashree Padmanabha, MBBS, MD, DM, Rashmi Santhosh-Kumar, PhD, Sadanandavalli R. Chandra, MBBS, MD, DM, Debjyoti Dhar, MBBS, Pooja Mailankody, MBBS, MD, DM, and Vani Santosh, MBBS, MD.....	284

<b>Bitot's Spots and a Bilirubin Ring</b> Moinak Sen Sarma, MD, DM, and Umesh Reddy, MD .....	285
--	-----

## Insights and Images

<b>Congenital Giant Juvenile Xanthogranuloma in a 3-Month-Old Boy</b>  Dolores Ferrara, MD, Paolo Tomà, MD, Mario Diplomatico, MD, Maria Elena Errico, MD, Massimo Zeccolini, MD, and Francesco Esposito, MD.....	287
---	-----

<b>A Bladder Mass in a Patient with Henoch-Schönlein Purpura</b> Natsumi Inoue, MD, PhD, Tadafumi Yokoyama, MD, PhD, Naoto Sakumura, MD, Yuko Tasaki, MD, PhD, and Taizo Wada, MD, PhD .....	289
---	-----

<b>Pulmonary Sarcoidosis: An Unusual Presentation with Acute Abdominal Pain</b> Durga Prasad, DM, Abhai Verma, DM, and Rajneesh Kumar Srivastava, MD.....	290
--	-----

<b>The Wandering Calcified Lung Nodule</b> Michael Schnapper, MD, Avigdor Mandelberg, MD, Michaela Witzling, MD, Racheli Sion Sarid, MD, Ilan Dalal, MD, and Keren Armoni Domany, MD .....	293
---	-----

## Letters to the Editor

<b>Could the QTc Prolongation Seen in Diabetic Ketoacidosis Be Due to More Than Just a Raised Anion Gap?</b> Rebecca Clarke, MBBS, BSc, and Adam Ioannou, MBBS, BSc, MRCP.....	295
---	-----

<b>Reply</b> Michelle M. Perez, MD, and Bradley C. Clark, MD.....	295
--	-----

<b>Changes in Hospitalization in Children During COVID-19 Pandemic Quarantine in a Single Center in Turkey</b> Meltem Akcaboy, MD, Harun Terin, MD, and Saliha Senel, MD.....	296
--	-----

<b>Reply</b> Haomin Li, PhD .....	297
--------------------------------------	-----


<b>Willingness of Parents to Vaccinate their Children Against Influenza and the Novel Coronavirus Disease-2019</b> Bedour AlHajri, BSc, Deema Alenezi, BSc, Heba Alfouzan, BSc, Saba Altamimi, BSc, Sayed Alzalalah, BSc, Waleed Almansouri, BSc, Yosor Alqudeimat, BSc, Zain Almokhaizeem, BSc, and Ali H. Ziyab, PhD .....	298
---	-----

<b>Reply</b> Ran D. Goldman, MD, FRCPC, and Julie C. Brown, MDCM, For the International COVID-19 Parental Attitude Study (COVIPAS) Group .....	299
---	-----

<b>Pediatric Acute Respiratory Distress Syndrome Associated with Respiratory Viruses</b> J. Scott Baird, MD .....	300
--	-----

<b>Reply</b> Kim R. Derespina, MD, Shubhi Kaushik, MBBS, Henry M. Ushay, MD, PhD, and Shivanand S. Medar, MD.....	301
--	-----

## European Paediatric Association Pages

<b>The Role of Pediatricians in Providing Greater-Quality Care for Children: An Ongoing Debate</b>  Maria Aparicio Rodrigo, MD, PhD, Angel Carrasco Sanz, MD, Concepción Sánchez Pina, MD, Carmen Villaizán Pérez, MD, PhD, Mercedes Fernández Rodríguez, MD, Gloria Orejón de Luna, MD, Pilar Aizpurúa Galdeano, MD, and Massimo Pettoello-Mantovani, MD, PhD.....	303
---	-----