

# CJASN

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## Editorials

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**1805 Change in Kidney Function over Time and Risk for Adverse Outcomes: Is an Increasing Estimated GFR Harmful?**

*Tanvir Chowdhury Turin and Brenda R. Hemmelgarn*  
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**1807 Cardiovascular Evaluation before Renal Transplantation: To Cath or Not to Cath?**

*Oscar C. Marroquin and Steven Weisbord*  
See related article on page 1912.

**1810 GFR Estimation in Children: Questions and Answers (and Questions)**

*Jeffrey J. Fadrowski and Susan L. Furth*  
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**1813 Measured GFR as “Gold Standard”—All that Glitters Is Not Gold?**

*Chi-yuan Hsu and Nisha Bansal*  
See related article on page 1963.

## Original Articles

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### Acute Renal Failure

**1815 Urinary Biomarkers and Renal Recovery in Critically Ill Patients with Renal Support**

*Nattachai Srisawat, Xiaoyan Wen, MinJae Lee, Lan Kong, Michele Elder, Melinda Carter, Mark Unruh, Kevin Finkel, Anitha Vijayan, Mohan Ramkumar, Emil Paganini, Kai Singbartl, Paul M. Palevsky, and John A. Kellum*

### Chronic Kidney Disease

**1824 Neurocognitive Functioning of Children and Adolescents with Mild-to-Moderate Chronic Kidney Disease**

*Stephen R. Hooper, Arlene C. Gerson, Robert W. Butler, Debbie S. Gipson, Susan R. Mendley, Marc B. Lande, Shlomo Shinnar, Alicia Wentz, Matthew Matheson, Christopher Cox, Susan L. Furth, and Bradley A. Warady*

**1831 Casual Blood Pressure and Neurocognitive Function in Children with Chronic Kidney Disease: A Report of the Children with Chronic Kidney Disease Cohort Study**

*Marc B. Lande, Arlene C. Gerson, Stephen R. Hooper, Christopher Cox, Matt Matheson, Susan R. Mendley, Debbie S. Gipson, Cynthia Wong, Bradley A. Warady, Susan L. Furth, and Joseph T. Flynn*

**1838 Chronic Kidney Disease Awareness Among Individuals with Clinical Markers of Kidney Dysfunction**

*Delphine S. Tuot, Laura C. Plantinga, Chi-yuan Hsu, Regina Jordan, Nilka Ríos Burrows, Elizabeth Hedgeman, Jerry Yee, Rajiv Saran, and Neil R. Powe, for the Centers for Disease Control Chronic Kidney Disease Surveillance Team*

**1845 Effects of Antiproteinuric Intervention on Elevated Connective Tissue Growth Factor (CTGF/CCN-2) Plasma and Urine Levels in Nondiabetic Nephropathy**

*Maartje C.J. Slagman, Tri Q. Nguyen, Femke Waanders, Liffert Vogt, Marc H. Hemmeler, Gozewijn D. Laverman, Roel Goldschmeding, and Gerjan Navis*

**1851 Chronic Kidney Disease Stage Progression in Liver Transplant Recipients**

*John C. LaMattina, David P. Foley, Joshua D. Mezrich, Luis A. Fernandez, Vijay Vidyasagar, Anthony M. D'Alessandro, Alexandru I. Musat, Milagros D. Samaniego-Picota, Julio Pascual, Munoz D.R. Alejandro, Glen E. Levenson, John D. Pirsch, and Arjang Djamali*

**1858 Racial and Ethnic Differences in Mortality among Individuals with Chronic Kidney Disease: Results from the Kidney Early Evaluation Program (KEEP)**

*Stacey E. Jolly, Nilka Ríos Burrows, Shu-Cheng Chen, Suying Li, Claudine T. Jurkovitz, Keith C. Norris, and Michael G. Shlipak*

**1866 Vision-Threatening Retinal Abnormalities in Chronic Kidney Disease Stages 3 to 5**

*Rajeev Deva, Mohamad Afzal Alias, Deb Colville, Foong Kien Newk-Fon Hey Tow, Qi Lun Ooi, Sky Chew, Nor Mohamad, Anastasia Hutchinson, Ignatios Koukouras, David A. Power, and Judith Savige*

**1872 The Microvasculature in Chronic Kidney Disease**

*Qi Lun Ooi, Foong Kien Newk-Fon Hey Tow, Raj Deva, Mohamad Afzal Alias, Ryo Kawasaki, Tien Y. Wong, Nor Mohamad, Deb Colville, Anastasia Hutchinson, and Judy Savige*

**1879 GFR Decline and Mortality Risk among Patients with Chronic Kidney Disease**

*Robert M. Perkins, Ion D. Bucaloiu, H. Lester Kirchner, Nasrin Ashouian, James E. Hartle, and Taher Yahya*  
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**Clinical Nephrology**

**1887 A Randomized Study of Allopurinol on Endothelial Function and Estimated Glomerular Filtration Rate in Asymptomatic Hyperuricemic Subjects with Normal Renal Function**

*Mehmet Kanbay, Bulent Huddam, Alper Azak, Yalcin Solak, Gulay Kocak Kadioglu, Ismail Kirbas, Murat Duranay, Adrian Covic, and Richard J. Johnson*

**1895 Oxalate Nephropathy Associated with Chronic Pancreatitis**

*Claire Cartery, Stanislas Faguer, Alexandre Karras, Olivier Cointault, Louis Buscail, Anne Modesto, David Ribes, Lionel Rostaing, Dominique Chauveau, and Patrick Giraud*

**1903 Oxidative Stress and Galactose-Deficient IgA1 as Markers of Progression in IgA Nephropathy**

*Roberta Camilla, Hitoshi Suzuki, Valentina Daprà, Elisa Loiacono, Licia Peruzzi, Alessandro Amore, Gian Marco Ghiggeri, Gianna Mazzucco, Francesco Scolari, Ali G. Gharavi, Gerald B. Appel, Stéphan Troyanov, Jan Novak, Bruce A. Julian, and Rosanna Coppo*

**1912 Cardiac Survival after Pre-emptive Coronary Angiography in Transplant Patients and Those Awaiting Transplantation**

*Nicola Kumar, Christopher S.R. Baker, Kakit Chan, Neill Duncan, Iqbal Malik, Andrew Frankel, Damien R. Ashby, Adam McLean, Andrew Palmer, Tom D. Cairns, and David Taube*  
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**1920 The Relationship between Epicardial Adipose Tissue and Malnutrition, Inflammation, Atherosclerosis/ Calcification Syndrome in ESRD Patients**

*Kultigin Turkmen, Hatice Kayikcioglu, Orhan Ozbek, Yalcin Solak, Mehmet Kayrak, Cigdem Samur, Melih Anil, and Halil Zeki Tonbul*

**Dialysis**

**1926 Cardiac Geometry in Children Receiving Chronic Peritoneal Dialysis: Findings from the International Pediatric Peritoneal Dialysis Network (IPPN) Registry**

*Sevcan A. Bakkaloglu, Dagmara Borzych, Il Soo Ha, Erkin Serdaroglu, Rainer Büscher, Paulina Salas, Hiren Patel, Dorota Drozd, Karel Vondrak, Andreia Watanabe, Jorge Villagra, Onder Yavascan, Maria Valenzuela, Deborah Gipson, K.H. Ng, Bradley A. Warady, and Franz Schaefer, for the International Pediatric Peritoneal Dialysis Network*

**1934 Defining Left Ventricular Hypertrophy in Children on Peritoneal Dialysis**

*Dagmara Borzych, Sevcan A. Bakkaloglu, Joshua Zaritsky, Angela Suarez, William Wong, Bruno Ranchin, Cao Qi, Attila J. Szabo, Paula A. Coccia, Jérôme Harambat, Florin Mitu, Bradley A. Warady, and Franz Schaefer, for the International Pediatric Peritoneal Dialysis Network*

**1944 Geographic and Educational Factors and Risk of the First Peritonitis Episode in Brazilian Peritoneal Dialysis Study (BRAZPD) Patients**

*Luis C. Martin, Jacqueline C.T. Caramori, Natalia Fernandes, Jose C. Divino-Filho, Roberto Pecoits-Filho, and Pasqual Barretti, on behalf of the Brazilian Peritoneal Dialysis Multicenter Study BRAZPD Group*

**Epidemiology and Outcomes**

**1952 Systematic Shifts in Cystatin C Between 2006 and 2010**

*David M. Maahs, Diana Jalal, Kim McFann, Marian Rewers, and Janet K. Snell-Bergeon*

**1956 Kidney Function Reference Values in US Adolescents: National Health and Nutrition Examination Survey 1999–2008**

*Blanche M. Chavers, Michelle N. Rheault, and Robert N. Foley*  
*See related editorial on page 1810.*

**1963 Relative Performance of the MDRD and CKD-EPI Equations for Estimating Glomerular Filtration Rate among Patients with Varied Clinical Presentations**

*Kazunori Murata, Nikola A. Baumann, Amy K. Saenger, Timothy S. Larson, Andrew D. Rule, and John C. Lieske*  
*See related editorial on page 1813.*

**1973 Association of Hemoglobin and Survival in Peritoneal Dialysis Patients**

*Miklos Z. Molnar, Rajnish Mehrotra, Uyen Duong, Csaba P. Kovesdy, and Kamyar Kalantar-Zadeh*

**1982 Survival Trends of US Dialysis Patients with Heart Failure: 1995 to 2005**

*Austin G. Stack, Amir Mohammed, Alan Hanley, Arif Mutwali, and Hoang Nguyen*

**ESRD and Chronic Dialysis**

**1990 All-cause Mortality in Hemodialysis Patients with Heart Valve Calcification**

*Paolo Raggi, Antonio Bellasi, Christopher Gamboa, Emiliana Ferramosca, Carlo Ratti, Geoffrey A. Block, and Paul Muntner*

**1996 Outcomes of Arteriovenous Fistula Creation after the Fistula First Initiative**

*Carrie A. Schinstock, Robert C. Albright, Amy W. Williams, John J. Dillon, Eric J. Bergstralh, Bernice M. Jenson, James T. McCarthy, and Karl A. Nath*

**2003 Toward a Definition of Masked Hypertension and White-Coat Hypertension among Hemodialysis Patients**

*Rajiv Agarwal, Arjun D. Sinha, and Robert P. Light*

**2009 Flow-Mediated Vasodilation in End-Stage Renal Disease**

*Francis H. Verbeke, Bruno Pannier, Alain P. Guérin, Pierre Boutouyrie, Stephane Laurent, and Gérard M. London*

**Hypertension**

**2016 Intradialytic Hypertension and its Association with Endothelial Cell Dysfunction**

*Jula K. Inrig, Peter Van Buren, Catherine Kim, Wanpen Vongpatanasin, Thomas J. Povsic, and Robert D. Toto*

**Renal Transplantation**

**2025 Monitoring of CD4<sup>+</sup>CD25<sup>high</sup>IL-7R $\alpha$ <sup>high</sup> activated T Cells in Kidney Transplant Recipients**

*Laure Vallotton, Karine Hadaya, Jean-Pierre Venetz, Leo H. Buehler, Donatella Ciuffreda, Ghaleb Nseir, Laura Codarri, Jean Villard, Giuseppe Pantaleo, and Manuel Pascual*

**2034 Long-term Outcome of Renal Transplantation Patients with Henoch-Schönlein Purpura**

*Joyce P. Samuel, Cynthia S. Bell, Donald A. Molony, and Michael C. Braun*

## Original Articles (Continued)

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### **2041 Incompatible Live-Donor Kidney Transplantation in the United States: Results of a National Survey**

*Jacqueline M. Garonzik Wang, Robert A. Montgomery, Lauren M. Kucirka, Jonathan C. Berger, Daniel S. Warren, and Dorry L. Segev*

## Mini-Reviews

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### **2047 Insights from the Chronic Kidney Disease in Children (CKiD) Study**

*Lawrence Copelovitch, Bradley A. Warady, and Susan L. Furth*

### **2054 Should Living Kidney Donor Candidates with Impaired Fasting Glucose Donate?**

*Christine Buchek Vigneault, William Stuart Asch, Neera Kanhouwa Dahl, and Margaret Johnson Bia*

## Moving Points in Nephrology

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### **2060 Nephrolithiasis—New Directions in 2011**

*Howard Trachtman*

### **2062 An Update on the Changing Epidemiology and Metabolic Risk Factors in Pediatric Kidney Stone Disease**

*David J. Sas*

### **2069 Chronic Kidney Disease in Kidney Stone Formers**

*Andrew D. Rule, Amy E. Krambeck, and John C. Lieske*

### **2076 Role of the Calcium-Sensing Receptor in Reducing the Risk for Calcium Stones**

*Kirsten Y. Renkema, René J.M. Bindels, and Joost G.J. Hoenderop*

### **2083 Pathophysiology-Based Treatment of Idiopathic Calcium Kidney Stones**

*Fredric L. Coe, Andrew Evan, and Elaine Worcester*

### **2093 Potential Pharmacologic Treatments for Cystinuria and for Calcium Stones Associated with Hyperuricosuria**

*David S. Goldfarb*

## On the Cover

*What's the diagnosis?* Sickle cell anemia occurs due to a mutation in the globin gene that causes the replacement of one pair of amino-acid residues, resulting in drastically reduced solubility of deoxyhemoglobin S and its precipitation in the red blood cells. Affected red blood cells become elongated and rigid; this deformation and stiffness is the distinguishing feature of sickle cell anemia and is the primary cause of the symptoms. The pictured electronmicrograph shows a glomerular capillary loop filled with distorted red blood cells in a patient during sickle cell crisis. Normal red cells show dark and homogenous cytoplasm ultrastructurally, while sickled cells are of elongated and sometimes bizarre shapes, and reveal intracytoplasmic fibers organized in bundles; occasional vacuoles can also be seen in the cytoplasm of the abnormal red blood cells. These changes in the structure and shape of red blood cells result in injury to the endothelium and, over time, the glomerular capillary walls can show signs of remodeling, reduplication of the basement membranes, and a membranoproliferative pattern of glomerular injury, without electron-dense deposits - changes typically seen in patients with repetitive endothelial cell injury and chronic thrombotic microangiopathies. (Image and text provided by Dr. Vanesa Bijol, Brigham and Women's Hospital.)