

# CJASN

Clinical Journal of the American Society of Nephrology

February 2014 • Vol. 9 • No. 2

## Editorials

---

**219 Serum Potassium in Dual Renin-Angiotensin-Aldosterone System Blockade**

*Stephen L. Seliger and Linda F. Fried*  
See related article on page 295.

**222  Early Dialysis Initiation, a Look from the Rearview Mirror to What's Ahead**

*Steven J. Rosansky*  
See related article on page 310.

**225 Progressive Inflammation and Wasting in Patients with ESRD**

*George A. Kaysen*  
See related article on page 318.

**227 Rehospitalization after Living Kidney Donation**

*Bryan N. Becker and Yolanda T. Becker*  
See related article on page 355.

## Original Articles

---

### Acid/Base and Electrolyte Disorders

**229 Use of Desmopressin Acetate in Severe Hyponatremia in the Intensive Care Unit**

*Cédric Rafat, Frédérique Schortgen, Stéphane Gaudry, Fabrice Bertrand, Romain Miguel-Montanes, Vincent Labbé, Jean-Damien Ricard, David Hajage, and Didier Dreyfuss*

### Acute Kidney Injury /Acute Renal Failure

**239 Fibroblast Growth Factor-23 and the Long-Term Risk of Hospital-Associated AKI among Community-Dwelling Older Individuals**

*Jeremiah R. Brown, Ronit Katz, Joachim H. Ix, Ian H. de Boer, David S. Siscovick, Morgan E. Grams, Michael Shlipak, and Mark J. Sarnak*

### Chronic Kidney Disease

**247 Medication Treatment Complexity and Adherence in Children with CKD**

*Tom D. Blydt-Hansen, Christopher B. Pierce, Yi Cai, Dmitri Samsonov, Susan Massengill, Marva Moxey-Mims, Bradley A. Warady, and Susan L. Furth*

### Clinical Immunology and Pathology

**255 Renal Interstitial Infiltration and Tertiary Lymphoid Organ Neogenesis in IgA Nephropathy**

*Guangchang Pei, Rui Zeng, Min Han, Panli Liao, Xuan Zhou, Yueqiang Li, Ying Zhang, Ping Liu, Chunxiu Zhang, XiaoCheng Liu, Ying Yao, and Gang Xu*

### Clinical Nephrology

**265 The Histopathologic Spectrum of Kidney Biopsies in Patients with Inflammatory Bowel Disease**

*Josephine M. Ambruzs, Patrick D. Walker, and Christopher P. Larsen*

- 271 Cyclosporine C<sub>2</sub> Monitoring for the Treatment of Frequently Relapsing Nephrotic Syndrome in Children: A Multicenter Randomized Phase II Trial**  
*Kazumoto Iijima, Mayumi Sako, Mari Saito Oba, Shuichi Ito, Hiroshi Hataya, Ryojiro Tanaka, Yoko Ohwada, Koichi Kamei, Kenji Ishikura, Nahoko Yata, Kandai Nozu, Masataka Honda, Hidefumi Nakamura, Michio Nagata, Yasuo Ohashi, Koichi Nakanishi, and Norishige Yoshikawa, for the Japanese Study Group of Kidney Disease in Children*
- 279 Renal Flare as a Predictor of Incident and Progressive CKD in Patients with Lupus Nephritis**  
*Samir V. Parikh, Haikady N. Nagaraja, Lee Hebert, and Brad H. Rovin*
- Critical Care Nephrology**
- 285 Predictive Performance of Urine Neutrophil Gelatinase-Associated Lipocalin for Dialysis Requirement and Death Following Cardiac Surgery in Neonates and Infants**  
*Mirela Bojan, Stéphanie Vicca, Vanessa Lopez-Lopez, Agnes Mogenet, Philippe Pouard, Bruno Falissard, and Didier Journois*
- Diabetes and The Kidney**
- 295 Potassium Handling with Dual Renin-Angiotensin System Inhibition in Diabetic Nephropathy**  
*Peter N. Van Buren, Beverley Adams-Huet, Mark Nguyen, Christopher Molina, and Robert D. Toto*  
*See related editorial on page 219.*
- Epidemiology and Outcomes**
- 302 Incidence and Renal Survival of ESRD in the Young Taiwanese Population**  
*Tzu-Chun Tsai, Yu-Chun Chen, Chiao-Wei Lo, Wei-Shu Wang, Su-Shun Lo, Gau-Jun Tang, and Peck-Foong Thien*
- 310  Provider and Care Characteristics Associated with Timing of Dialysis Initiation**  
*Yelena Slinin, Haifeng Guo, Suying Li, Jiannong Liu, Benjamin Morgan, Kristine Ensrud, David T. Gilbertson, Allan J. Collins, and Areef Ishani*  
*See related editorial on page 222.*
- ESRD and Chronic Dialysis**
- 318 Clinical Predictors of Decline in Nutritional Parameters over Time in ESRD**  
*Claire H. den Hoedt, Michiel L. Bots, Muriel P.C. Grooteman, Neelke C. van der Weerd, E. Lars Penne, Albert H.A. Mazairac, Renée Levesque, Peter J. Blankestijn, Menso J. Nubé, Piet M. ter Wee, and Marinus A. van den Dorpel, for the CONTRAST Investigators*  
*See related editorial on page 225.*
- 326 Longitudinal Study of Small Solute Transport and Peritoneal Protein Clearance in Peritoneal Dialysis Patients**  
*Zanzhe Yu, Mark Lambie, and Simon J. Davies*
- Genetics**
- 335 HLA-DQA1 and PLA2R1 Polymorphisms and Risk of Idiopathic Membranous Nephropathy**  
*Gemma Bullich, José Ballarín, Artur Oliver, Nadia Ayasreh, Irene Silva, Sheila Santín, Montserrat M. Díaz-Encarnación, Roser Torra, and Elisabet Ars*
- Mineral Metabolism/Bone Disease**
- 344 Disordered FGF23 and Mineral Metabolism in Children with CKD**  
*Anthony A. Portale, Myles Wolf, Harald Jüppner, Shari Messenger, Juhi Kumar, Katherine Wesseling-Perry, George J. Schwartz, Susan L. Furth, Bradley A. Warady, and Isidro B. Salusky*
- Renal Transplantation**
- 355 Hospitalizations Following Living Donor Nephrectomy in the United States**  
*Jesse D. Schold, David A. Goldfarb, Laura D. Buccini, James R. Rodrigue, Didier Mandelbrot, Emily L. G. Heaphy, Richard A. Fatica, and Emilio D. Poggio*  
*See related editorial on page 227.*

## Ethics Series

---

### 366 Ethics and Health Policy of Dialyzing a Patient in a Persistent Vegetative State

*Anna Skold, Jason Lesandrini, and Steven Gorbalkin*

## Moving Points in Nephrology

---

### 371 Renal Relevant Radiology: Introduction

*Sarah Faubel*

### 373 Renal Relevant Radiology: Use of Ultrasound in Kidney Disease and Nephrology Procedures

*W. Charles O'Neill*

### 382 Renal Relevant Radiology: Use of Ultrasonography in Patients with AKI

*Sarah Faubel, Nayana U. Patel, Mark E. Lockhart, and Melissa A. Cadnapaphornchai*

### 395 Renal Relevant Radiology: Renal Functional Magnetic Resonance Imaging

*Behzad Ebrahimi, Stephen C. Textor, and Lilach O. Lerman*

### 406 Renal Relevant Radiology: Radiologic Imaging in Autosomal Dominant Polycystic Kidney Disease

*Frederic Rahbari-Oskoui, Ankush Mittal, Pardeep Mittal, and Arlene Chapman*

### 416 Renal Relevant Radiology: Imaging in Kidney Transplantation


*Asif Sharfuddin*

## Public Policy Series

---

### 430 Improving Outcomes for ESRD Patients: Shifting the Quality Paradigm

*Allen R. Nissenson*

 eJournal club provides a timely and interactive electronic journal club experience by offering a forum in which CJASN readers have the opportunity to converse with the featured study authors. Visit [ejc.cjasn.org](http://ejc.cjasn.org) to learn more.

### On the Cover

*What's the diagnosis?* The patient presented with multiple small and large renal calculi which occupied the majority of the renal collecting system (cover image). Based on stone size and the potential for renal damage, treatment was recommended. The density of the stones on computed tomography (CT) scan was < 400 Hounsfield units, consistent with uric acid composition. A 4 mm stone which the patient previously passed per urethra was analyzed by infrared spectroscopy and confirmed the diagnosis of 100% uric acid composition. First-line therapy for an asymptomatic uric acid stone that requires treatment is alkalinization of the urine to dissolve the stone as the solubility of uric acid in urine increases with increasing urine pH – if this fails, endourologic management is often considered if the stone burden is large. Common medications used for dissolution of uric acid calculi include sodium bicarbonate and potassium citrate. For this particular patient, potassium citrate 30 mEq three times per day was prescribed (total of 90 mEq daily). A follow-up CT scan 6 months later demonstrated complete dissolution of the stone burden but there was a question as to whether the patient has a left ureteropelvic junction obstruction versus extra-renal pelvis (image below). Diuretic renography was performed to evaluate for obstruction and the results showed no evidence of ureteropelvic junction obstruction, thus this was an extra-renal pelvis, which can be found in ~5% of the population. The patient is now on a maintenance prophylactic dose of potassium citrate 10 mEq po three times per day and has been stone free for 1 year on this regimen. (Images and text provided by Brian Eisner, Massachusetts General Hospital, Harvard Medical School)

