Editorials

217  Guiding Physician Decisions for Initiating Dialysis for AKI: Is Progress on the Horizon?
Etienne Macedo and Ravindra L. Mehta
See related article on page 228.

220  Serum Potassium and Cardiovascular Outcomes: The Highs and the Lows
Robert D. Toto
See related article on page 245.

222  We Need to Talk about Depression and Dialysis: but What Questions Should We Ask, and Does Anyone Know the Answers?
Maree L. Hackett and Meg J. Jardine
See related articles on pages 280 and 298.

225  Preventing Emergency Department Use among Patients with CKD: It Starts with Awareness
Rachel E. Patzer, Justin D. Schrager, and Stephen O. Pastan
See related article on page 304.

Original Articles

Acute Kidney Injury

228  A Decision-Making Algorithm for Initiation and Discontinuation of RRT in Severe AKI
See related editorial on page 217.

Epidemiology and Outcomes

237  Mean Corpuscular Volume and Mortality in Patients with CKD
Yao-Peng Hsieh, Chia-Chu Chang, Chew-Teng Kor, Yu Yang, Yao-Ko Wen, and Ping-Fang Chiu

245  The Relation of Serum Potassium Concentration with Cardiovascular Events and Mortality in Community-Living Individuals
Jan M. Hughes-Austin, Dena E. Rifkin, Tomasz Beben, Ronit Katz, Mark J. Sarnak, Rajat Deo, Andrew N. Hooînagle, Shunichi Homma, David S. Siscovick, Nona Sotoodehnia, Bruce M. Psaty, Ian H. de Boer, Bryan Kestenbaum, Michael G. Shlipak, and Joachim H. Ix
See related editorial on page 220.

253  Maternal Smoking during Pregnancy, Household Smoking after the Child’s Birth, and Childhood Proteinuria at Age 3 Years
Maki Shinzawa, Shiro Tanaka, Hironobu Tokumasu, Daisuke Takada, Tatsuo Tsukamoto, Motoko Yanagita, and Koji Kawakami

262  Dual Antiplatelet Therapy and Clinical Outcomes after Coronary Drug-Eluting Stent Implantation in Patients on Hemodialysis
Yung-Tai Chen, Hung-Ta Chen, Chien-Yi Hsu, Pei-Wen Chao, Shu-Chen Kuo, Shuo-Ming Ou, and Chia-Jen Shih
Epidemiology and Outcomes (Continued)

272 Healthy Dietary Patterns and Risk of Mortality and ESRD in CKD: A Meta-Analysis of Cohort Studies
Jaimon T. Kelly, Suetonia C. Palmer, Shu Ning Wai, Marinella Ruospo, Juan-Jesus Carrero, Katrina L. Campbell, and Giovanni F. M. Strippoli

ESRD and Chronic Dialysis

280 Sertraline Versus Placebo in Patients with Major Depressive Disorder Undergoing Hemodialysis: A Randomized, Controlled Feasibility Trial
Karin Friedli, Ayman Guirguis, Michael Almond, Clara Day, Joseph Chilcot, Maria Da Silva-Gane, Andrew Davenport, Naomi A. Fineberg, Benjamin Spencer, David Wellsted, and Ken Farrington
See related editorial on page 222.

287 Mortality, Hospitalization, and Quality of Life among Patients with Hepatitis C Infection on Hemodialysis
David A. Goodkin, Brian Bieber, Michel Jadoul, Paul Martin, Eiichiro Kanda, and Ronald L. Pisoni

298 Acceptance of Antidepressant Treatment by Patients on Hemodialysis and Their Renal Providers
Julio E. Pena-Polanco, Maria K. Mor, Fadi A. Tohme, Michael J. Fine, Paul M. Palevsky, and Steven D. Weisbord
See related editorial on page 222.

Health Services Research

304 Emergency Department Use among Patients with CKD: A Population-Based Analysis
Paul E. Ronksley, Marcello Tonelli, Braden J. Manss, Robert G. Weaver, Chandra M. Thomas, Jennifer M. MacRae, Pietro Ravani, Robert R. Quinn, Matthew T. James, Richard Lewanczuk, and Brenda R. Hemmelgarn
See related editorial on page 225.

Mineral Metabolism/Bone Disease

315 Blood Calcification Propensity, Cardiovascular Events, and Survival in Patients Receiving Hemodialysis in the EVOLVE Trial
Andreas Pasch, Geoffrey A. Block, Matthias Bachtler, Edward R. Smith, Wilhelm Jahnen-Dechent, Spyridon Arampatzis, Glenn M. Chertow, Patrick Farfay, Xiaoye Ma, and Juergen Floege

Renal Transplantation

323 Long-Term Outcomes and Discard Rate of Kidneys by Decade of Extended Criteria Donor Age
Maria Messina, Davide Diena, Sergio Dellepiane, Gabriella Guzzo, Luca Lo Sardo, Fabrizio Fop, Giuseppe P. Segoloni, Antonio Amoroso, Paola Magistroni, and Luigi Biancone

Glomerular Diseases: Update for the Clinician

332 Minimal Change Disease
Marina Vivarelli, Laura Massella, Barbara Ruggiero, and Francesco Emma

Commentary

346 The CKD Classification System in the Precision Medicine Era
Yoshio N. Hall and Jonathan Himmelfarb

Education Series

349 Integrating Quality Improvement Education into the Nephrology Curricular Milestones Framework and the Clinical Learning Environment Review
Lisa K. Prince, Dustin J. Little, Katherine I. Schexneider, and Christina M. Yuan
On the Cover

What is the diagnosis? A 48-year-old woman presented to the Emergency Department with altered mental status. Laboratory work revealed: sodium of 138 mEq/L, potassium 5.1 mEq/L, chloride 102 mEq/L, bicarbonate of < 5 mEq/L, blood urea nitrogen (BUN) 28 mg/dL, and serum creatinine of 2.3 mg/dL. Serum osmolar gap was calculated at 52 mOsm. Arterial blood gas confirmed severe acidemia and metabolic acidosis. 4-methylpyrazole (fomepizole) was administered for presumed toxic alcohol ingestion and hemodialysis was initiated. Urine sediment examination revealed numerous monohydrated calcium oxalate crystals (left picture), which were birefringent with polarization, raising concern for ethylene glycol intoxication. Ethylene glycol level subsequently returned at 302 mg/dL. Kidney biopsy was undertaken after the patient remained dialysis dependent for 3 weeks. The biopsy demonstrated significant calcium oxalate crystal deposition within tubules (middle picture) that were positively birefringent (right picture). These findings were consistent with acute calcium oxalate nephropathy from ethylene glycol ingestion. Ingestion of ethylene glycol is classically complicated by an increased osmolar gap and anion gap metabolic acidosis as well as multiple organ dysfunction from glycolic acid and oxalic acid. Acute kidney injury is primarily the result of calcium oxalate deposition within the renal tubules, which leads to tubular obstruction and an inflammatory response within the renal interstitium. Visualization of calcium oxalate crystals at the time of the presentation can help confirm ethylene glycol intoxication. (Images and text provided by Mark A. Perazella, MD, Yale University School of Medicine, New Haven, Connecticut)