

# THIS WEEK in the JOURNAL

## ORIGINAL ARTICLE

### Maraviroc for Previously Treated Patients with R5 HIV-1 Infection

The CCR5 coreceptor may be a therapeutic target to block HIV infection. HIV-1–infected patients who had received previous antiretroviral treatment were enrolled in one of two phase 3, placebo-controlled, double-blind international studies of treatment with maraviroc (a CCR5 antagonist). Maraviroc significantly lowered the HIV-1 viral load and increased the CD4 cell count at 48 weeks.

SEE P. 1429; EDITORIAL, P. 1509

## ORIGINAL ARTICLE

### Subgroup Analyses of Maraviroc in Previously Treated R5 HIV-1 Infection

In key subgroups of the HIV-infected patients in the MOTIVATE 1 and MOTIVATE 2 studies, a consistent treatment benefit of maraviroc over placebo was seen at 48 weeks. These subgroups include patients with a low baseline CD4 cell count and a high HIV viral load at screening and those receiving no active background antiretroviral agents. In patients in whom maraviroc failed, the CXCR4-using virus was often present at failure.

SEE P. 1442; EDITORIAL, P. 1509

## ORIGINAL ARTICLE

### Toll-like Receptor 3 and Geographic Atrophy in Age-Related Macular Degeneration

A variant of the toll-like receptor 3 (TLR3) provides protection against geographic atrophy, or “dry” age-related macular degeneration, and reduces apoptosis of cultured retinal pigment epithelial cells on exposure to TLR3 ligand. Because double-stranded RNA is a ligand of TLR3, this finding gives rise to the hypothesis that viral infection causes this disease and to concerns about therapeutic intraocular injection of short interfering RNA.

SEE P. 1456

## ORIGINAL ARTICLE

### Continuous Glucose Monitoring and Intensive Treatment of Type 1 Diabetes

In this randomized study, patients undergoing intensive therapy for type 1 diabetes mellitus who had glycosylated hemoglobin levels of 7.0 to 10.0% were stratified into three prespecified age groups and were assigned to receive continuous glucose monitoring or usual monitoring. The primary outcome was the change in

glycosylated hemoglobin levels after 26 weeks. Continuous glucose monitoring was associated with improved glycemic control in adults but not in children and adolescents with type 1 diabetes.

SEE P. 1464; CME, P. 1535

## CLINICAL PRACTICE

### Autosomal Dominant Polycystic Kidney Disease

Shortly after being elbowed in the flank during a basketball game, a 35-year-old healthy man has severe, colicky abdominal pain followed by gross hematuria. A renal ultrasound scan reveals bilateral polycystic kidneys and liver cysts. The blood pressure is 160/100 mm Hg. The serum creatinine concentration is 0.9 mg per deciliter (80  $\mu$ mol per liter). The pain subsides in 2 days with analgesics, rest, and fluids; the gross hematuria resolves in 4 days, although microscopic hematuria persists.

SEE P. 1477; CME, P. 1534

## DRUG THERAPY

### Hepatitis B Virus Infection

More effective and less resistance-prone antiviral agents are now available to treat hepatitis B virus (HBV) infection. Profound, durable, therapeutic HBV DNA suppression to slow and reverse the progression of chronic HBV infection is important, given the evidence linking high-level HBV replication and the late consequences of chronic HBV infection. This article reviews strategies for treating HBV infection.

SEE P. 1486; CME, P. 1533

## CLINICAL PROBLEM-SOLVING

### Variations on a Theme

A 57-year-old man presented to the emergency department with a 2-week history of progressive dyspnea on exertion, edema of the legs, a nonproductive cough, and scant hemoptysis. He also reported occasional passage of bright red blood from his rectum and intermittent nausea and vomiting during the previous 4 days.

SEE P. 1502

## HEALTH LAW, ETHICS, AND HUMAN RIGHTS

### Lethal Injection and the Constitution

In the 2008 U.S. Supreme Court case, *Baze v. Rees*, the Court ruled that Kentucky's three-drug protocol (sodium thiopental, pancuronium bromide, and potassium chloride) for lethal injection does not constitute cruel and unusual punishment and does not violate the U.S. Constitution. The author summarizes the seven separate opinions written by the justices and discusses the implications of the decision.

SEE P. 1512