

# THIS WEEK in the JOURNAL

## ORIGINAL ARTICLE

### A 4-Year Trial of Tiotropium in COPD

In this large, randomized trial, the investigators compared outcomes in patients with chronic obstructive pulmonary disease (COPD) treated with once-daily inhalation of tiotropium or placebo. There was no benefit of treatment on the rate of loss of lung function over time, although benefits were observed in some secondary end points.

SEE P. 1543; EDITORIAL, P. 1616

## ORIGINAL ARTICLE

### Effect of Maternal Influenza Immunization on Mothers and Infants

Influenza infection causes significant morbidity in pregnant woman and neonates. In this randomized study of 340 pregnant women in Bangladesh, influenza vaccination during pregnancy was found to decrease laboratory-proven influenza infection in neonates by 63% and febrile respiratory illness in the mothers by more than a third.

SEE P. 1555

## ORIGINAL ARTICLE

### Long-Term Follow-up after Control of Blood Pressure in Diabetes

A post-trial monitoring study involving follow-up of patients with type 2 diabetes who had been assigned to tight or less-tight blood-pressure control revealed that benefits of previously improved control were not sustained when between-group blood-pressure differences equalized. Early improved blood-pressure control in patients with type 2 diabetes and hypertension was associated with a reduced risk of complications, but it must continue for benefits to be sustained.

SEE P. 1565; EDITORIAL, P. 1618; CME, P. 1643

## ORIGINAL ARTICLE

### 10-Year Follow-up of Intensive Glucose Control in Type 2 Diabetes

This trial was conducted to determine whether the reduction in microvascular risk and improved glycemic control that had been observed with medical therapy, as compared with conventional dietary treatment, in patients with newly diagnosed type 2 diabetes was sustained during 10 years of follow-up. Despite an early loss of glycemic differences, continued microvascular risk

reduction and emergent risk reductions for myocardial infarction and death from any cause were observed.

SEE P. 1577; EDITORIAL, P. 1618; CME, P. 1642

## CLINICAL THERAPEUTICS

### Breast Reconstruction after Mastectomy

A 45-year-old woman with breast cancer elects to undergo mastectomy and is referred to a plastic surgeon for evaluation for postmastectomy breast reconstruction. For some patients, breast reconstruction restores body image and sexuality and improves the quality of life. Reconstructive surgery does not interfere with detection of breast-cancer recurrence. Special considerations apply to patients who require radiation therapy.

SEE P. 1590; CME, P. 1641

## CASE RECORDS OF THE MASSACHUSETTS GENERAL HOSPITAL

### A Man with Chest Pain, Arthralgias, and a Mediastinal Mass

A 39-year-old man was admitted to this hospital because of chest pain, arthralgias, and a mediastinal mass. He had had pericarditis 1 year earlier and optic neuritis 5 years earlier. On examination, the first heart sound was absent, the second was loud with a prominent split, and there was a new systolic ejection murmur at the left upper sternal border. Imaging showed an infiltrative mediastinal mass surrounding the aorta and narrowing the lumen of the main and right pulmonary arteries.

SEE P. 1603

## CLINICAL IMPLICATIONS OF BASIC RESEARCH

### Inflammation and Influenza

Lethality caused by the H5N1 influenza virus is partly attributed to a "cytokine storm" in the lung, mediated by prostaglandin E<sub>2</sub> (PGE<sub>2</sub>). A recent study shows that mice infected with the virus and treated with an antiviral agent and a PGE<sub>2</sub> inhibitor are better able to survive than mice treated with an antiviral agent alone.

SEE P. 1621

## VIDEOS IN CLINICAL MEDICINE

### Umbilical Vascular Catheterization

Placement of umbilical catheters is an important skill for the treatment of critically ill neonates. Catheters can provide vascular access for resuscitation, monitoring, fluid administration, blood transfusion, and parenteral nutrition. This video demonstrates the placement of both umbilical-artery and umbilical-vein catheters.

SEE P. e18

