

THIS WEEK in the JOURNAL

ORIGINAL ARTICLE

Air Pollution and Cardiovascular Events

In this prospective study of more than 65,000 women, fine particulate air pollution was found to be associated with an increased risk of cardiovascular events and death from cardiovascular causes. These observations add to the growing evidence that air pollution, especially fine particulate matter, has important adverse health consequences.

SEE P. 447; EDITORIAL, P. 511; CME, P. 539

ORIGINAL ARTICLE

New JAK2 Mutations and Erythrocytosis

A V617F mutation in the Janus kinase 2 gene (*JAK2*) occurs in most patients with polycythemia vera and in many with essential thrombocythemia or idiopathic myelofibrosis. The mutation causes unregulated signaling by the cytoplasmic tyrosine kinase of the *JAK2* protein. The authors describe new mutations in exon 12 of *JAK2* in patients with polycythemia vera or idiopathic erythrocytosis who do not have the V617F mutation. The exon 12 mutations, which also induce unregulated signaling by *JAK2*, appear to define a distinctive myeloproliferative syndrome.

SEE P. 459; PERSPECTIVE, P. 444

ORIGINAL ARTICLE

A Communication Strategy and Brochure for Relatives of Patients Dying in the ICU

The death of a loved one in an intensive care unit is an emotionally trying experience. These investigators compared a proactive end-of-life conference with family members, including the provision of an informational brochure, with a customary conference; outcomes were reported by family members 90 days after the loved one's death. Family members who participated in the intervention conference had improved outcomes, as compared with those who participated in the standard conference.

SEE P. 469; EDITORIAL, P. 513; CME, P. 538

BRIEF REPORT

Prepubertal Gynecomastia and Lavender and Tea Tree Oils

Three otherwise healthy prepubertal boys with normal endogenous steroid levels had gynecomastia coinci-

dent with the topical application of products containing lavender and tea tree oils. Gynecomastia resolved after the use of these products was stopped. Studies in human cell lines indicated that both oils exhibited estrogenic and antiandrogenic activities, suggesting that repeated topical exposure probably caused prepubertal gynecomastia.

SEE P. 479

SPECIAL ARTICLE

Public Reporting and Pay for Performance in Hospital Quality Improvement

This study compared hospitals engaged in public reporting alone with hospitals engaged in both public reporting and pay-for-performance programs. Performance on quality measures improved in both groups, but improvements were modestly larger for hospitals participating in pay for performance.

SEE P. 486; EDITORIAL, P. 515

CLINICAL THERAPEUTICS

Inhaled Insulin for Diabetes Mellitus

A 52-year-old man with type 2 diabetes mellitus requires insulin therapy. The possible role of inhaled insulin is considered. Inhaled insulin is a short-acting insulin that has been shown to have an efficacy similar to that of subcutaneous insulin in clinical trials. However, severe hypoglycemia has occurred more frequently with inhaled insulin than with subcutaneous insulin in some trials, and the long-term safety of this form of therapy is unknown. Inhaled insulin is not recommended for smokers or for patients with underlying lung disease.

SEE P. 497; CME, P. 537

CLINICAL PROBLEM-SOLVING

Anchors Away

A 50-year-old Asian woman presented with a papulonodular, erythematous rash on her legs below the knees. The skin lesions were nontender and nonpruritic and were accompanied by paresthesias. She had no fever, arthralgias, or other systemic symptoms.

SEE P. 504

CLINICAL IMPLICATIONS OF BASIC RESEARCH

Mechanism of Huntington's Disease

A protein that regulates gene expression may be the key to the neurodegeneration observed in Huntington's disease.

SEE P. 518