

This Week in the Journal

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ORIGINAL ARTICLES

Lead Concentration and Intellectual Impairment

The relation between lead concentrations below 10 μg per deciliter (0.483 μmol per liter) and intellectual impairment is not well understood. In this prospective study, an increase in the peak blood lead concentration from 1 to 10 μg per deciliter during several measurements in early life was associated with a 7.4-point reduction in IQ at the age of five years, after adjustment for maternal IQ and other potential confounders.

These data suggest that even a blood lead concentration below 10 μg per deciliter may adversely affect cognitive development, and they provide further support for the goal of primary prevention of lead exposure.

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Lead Concentration and Pubertal Delay

In this cross-sectional study, mild elevations in blood lead concentrations (3 μg per deciliter vs. 1 μg per deciliter) were associated with significant delays in breast and pubic-hair development in African-American and Mexican-American girls and in age at menarche in the African-American girls, after adjustment for measures of body size and other confounders. Pubertal delays associated with higher lead concentrations were nonsignificant in white girls.

Although confirmation is warranted in prospective studies, these findings suggest that mildly elevated blood lead concentrations may affect pubertal development, and they provide support for efforts to further reduce environmental lead exposure.

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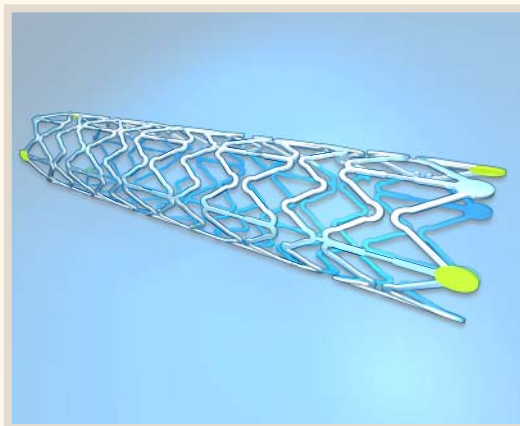
ORIGINAL ARTICLE

Paclitaxel-Eluting Coronary Stents

The efficacy of coronary stenting is limited by restenosis, which is initiated by a process of neointimal proliferation. Paclitaxel is an antiproliferative agent found in preclinical studies to inhibit neointimal proliferation. In this randomized study, coronary stents coated with paclitaxel prevented neointimal proliferation and in-stent restenosis.

Previous studies have shown that coronary stents coated with sirolimus (rapamycin) are very effective in the prevention of coronary restenosis. The current study adds another valuable antiproliferative agent to the armamentarium of drugs that may prevent restenosis and greatly improve the outcome of coronary stenting.

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THIS WEEK IN THE JOURNAL

ORIGINAL ARTICLE

Sepsis in the United States, 1979–2000

This analysis of discharge data from over 750 million acute care hospitalizations shows that the rate of sepsis more than doubled from 1979 to 2000. However, mortality from any cause declined from 28 percent in the early years of the study to 18 percent in more recent years. Since 1988, gram-positive organisms have become the predominant pathogens causing sepsis.

The outcomes of sepsis have improved, but there are major disparities among population groups. Among nonwhites, the incidence and mortality were nearly twice those among whites.

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SPECIAL ARTICLE

Adverse Drug Events in Ambulatory Care

In this study of four adult primary care practices, 25 percent of patients who received a prescription had an adverse drug event. No events were fatal or life-threatening, but approximately 4 percent of patients had a serious adverse event. Many adverse events could have been prevented if a different medication had been chosen or could have been ameliorated by discontinuation of the drug when symptoms related to it developed.

This study suggests that adverse drug events are common among outpatients and that many adverse events are avoidable.

SEE PAGE 1556; EDITORIAL, PAGE 1587

CURRENT CONCEPTS

Amebiasis

Infection with *Entamoeba histolytica* can lead to amebic colitis and to complications including liver abscess. This review summarizes recent research on the pathogenesis and treatment of infection and the prospects for the development of a vaccine. A mucosal IgA response can produce partial, protective immunity to infection with *E. histolytica*.

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HEALTH POLICY REPORT

Medicare and Drug Pricing

In this report, Iglehart describes the debate about Medicare's overpayment to physicians for drugs administered to patients in the outpatient setting, such as chemotherapeutic agents. Oncologists acknowledge that they purchase drugs at prices that are lower than the reimbursement they receive from Medicare, but they argue that they are underpaid for their professional services and practice expenses. Faced with a delicate balancing act, policymakers must weigh the interests of Medicare beneficiaries, physicians, and the public as they work to reform the way in which Medicare pays for drugs.

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