

This Week in the Journal

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ORIGINAL ARTICLES

Enfuvirtide for HIV-1 Infection in North and South America

Enfuvirtide (T-20) is a peptide that binds to glycoprotein 41 and inhibits the entry of human immunodeficiency virus type 1 (HIV-1) into CD4+ cells. In this randomized, open-label trial, patients who were treated with enfuvirtide plus an optimized antiretroviral regimen had significantly greater reductions in viral load and greater increases in CD4+ cell counts. Eosinophilia was a common finding; bacterial pneumonia was more common in enfuvirtide-treated patients.

This 24-week trial shows the effectiveness of the first of a new class of agents for the treatment of HIV-1 infection after the failure of standard regimens. Longer studies of safety and efficacy are needed.

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EDITORIAL, PAGE 2249

Enfuvirtide for HIV-1 Infection in Europe and Australia

This randomized study, conducted in Europe and Australia, included 335 patients in the enfuvirtide group and 169 in a control group treated with only an optimized antiretroviral regimen. All patients had previously received multiple anti-HIV regimens. At 24 weeks, there was a greater decrease in the plasma viral load and a greater increase in the CD4+ cell count in the enfuvirtide group.

Longer-term studies of the safety of this HIV-1 fusion inhibitor are needed, but these results show evidence of considerable efficacy in a population with extensive previous therapy.

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EDITORIAL, PAGE 2249

ORIGINAL ARTICLE

West Nile Virus Infection after Organ Transplantation

This investigation documents severe West Nile virus infections in four recipients of organs from a single donor. Three of the recipients had encephalitis. The probable source of infection in the donor was a blood transfusion from a blood donor with West Nile virus viremia.

This report documents the transmission of the West Nile virus by both transplanted organs and transfused blood and highlights the need for improved screening tests for West Nile virus infection.

SEE PAGE 2196; PERSPECTIVE, PAGE 2173

BRIEF REPORT

Pernicious Anemia in Sickle Cell Disease

This case report describes a woman with sickle cell disease in whom routine folate supplementation masked the development of cobalamin deficiency, with full-blown neuropsychiatric complications and an increased frequency of painful crises.

The routine use of folate supplementation in patients with sickle cell disease should be reconsidered.

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THIS WEEK IN THE JOURNAL

SPECIAL ARTICLE

Regionalization and the Underuse of Angiography in the VA Health Care System

The Veterans Affairs (VA) health care system offers some invasive procedures, such as cardiac angiography, at selected hospitals. This study showed that the underuse of cardiac angiography after myocardial infarction was more common among VA patients than among Medicare fee-for-service patients. This difference was explained by the availability of cardiac catheterization on site.

Underuse of needed medical procedures is a potential drawback of strategies to concentrate invasive procedures at high-volume hospitals.

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SPECIAL ARTICLE

Effect of the Transformation of the VA Health Care System on the Quality of Care

To improve the efficiency and quality of care, in 1995, the Veterans Health Administration launched a program that included increased use of information technology, performance measurement and reporting, realigned payment policies, and integration of services. After the implementation of this program, the quality of preventive, acute, and long-term care substantially improved.

A large, coordinated effort to improve the quality of care corrected many deficiencies in the VA system.

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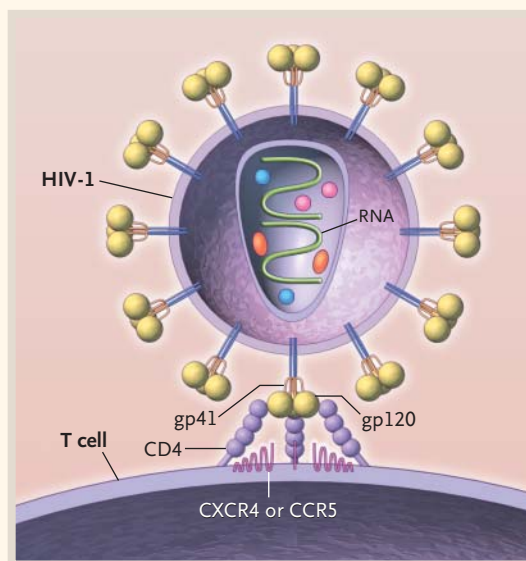
MECHANISMS OF DISEASE

Novel Therapies Based on Mechanisms of HIV-1 Cell Entry

Inhibitors of human immunodeficiency virus type 1 (HIV-1) enzymes are central to the treatment of HIV-1 infection, but the development of resistant viruses remains a problem. Another approach is to thwart the entry of the virus into cells by preventing the fusion of the viral envelope with the cell surface. This article reviews the way in which HIV-1 enters cells and potential means of denying the virus admission to cells.

This review complements two articles in this issue on enfuvirtide, a peptide with clinical activity against HIV-1 that blocks fusion of the viral envelope with the cell membrane.

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