

THIS WEEK in the JOURNAL

ORIGINAL ARTICLE

Screening Blood Donations for West Nile Virus

In 2003 and 2004, routine testing of blood donations for West Nile virus RNA in the United States led to the identification of 540 positive donations, of which 67 percent were IgM-negative and most likely to be infectious. The rates of positive donations decreased from 1.49 per 10,000 in 2003 to 0.44 per 10,000 in 2004.

The rapid implementation of a nucleic acid amplification test to screen for West Nile virus has made the blood supply safer. There were no confirmed cases of West Nile virus infection among recipients of tested blood.

SEE P. 451; EDITORIAL, P. 516; CME, P. 539

ORIGINAL ARTICLE

Testing for West Nile Virus

In 2003, nucleic acid amplification screening of 677,603 blood donations for West Nile virus with the use of “minipools” of 16 samples led to the identification of 1 positive donation for every 3703 analyzed (0.027 percent). In 2004, a strategy of testing individual donations in selected regions led to a 32 percent increase in the identification of donations with West Nile virus.

This study shows that screening of pooled blood samples for West Nile virus prevented hundreds of infections but missed donations with a low level of viremia.

SEE P. 460; EDITORIAL, P. 516

ORIGINAL ARTICLE

An Exercise Nomogram for Women

Exercise capacity is a predictor of the risk of death among both women and men. Whereas there are extensive data on expected functional capacity for age among men, normative values for women have not been well established. In a study of 5721 asymptomatic women who underwent symptom-limited exercise testing, a nomogram was developed to compare a woman's exercise performance with levels predicted for age.

SEE P. 468; EDITORIAL, P. 517

ORIGINAL ARTICLE

Modafinil for Excessive Sleepiness Associated with Shift-Work Sleep Disorder

About 1 of 10 night-shift workers suffers from severe excessive sleepiness on the job. This realization has led to the development of specific diagnostic criteria for peo-

ple affected with shift-work sleep disorder. In this multicenter study, patients meeting this case definition were treated with placebo or modafinil. Although there was a significant improvement in laboratory measures of sleep, treated patients were still quite sleepy.

Modafinil improves performance among patients with shift-work sleep disorder but does not come close to returning them to a normal level of sleepiness.

SEE P. 476; EDITORIAL, P. 519

DRUG THERAPY

Adherence to Medication

The full benefit of many effective medications will be achieved only if patients adhere to prescribed treatment regimens. Unfortunately, applying terms such as “noncompliant” and “nonadherent” to patients who do not consume every pill at the desired time can stigmatize them in their future relationships with health care providers. This article on medication adherence (or compliance) reviews strategies to assess and enhance this important aspect of patient care.

SEE P. 487; CME, P. 538

CURRENT CONCEPTS

Diagnosis from the Blood Smear

Even in the age of automated analysis, the examination of the blood smear remains an important diagnostic tool. An expert examination of the blood smear can identify errors, establish a diagnosis, or lead to a useful fortuitous finding. An atlas of instructive blood smears is included and is available at www.nejm.org as a set of slides.

SEE P. 498; CME, P. 537

CLINICAL PROBLEM-SOLVING

A Fractured Diagnosis

A 44-year-old woman came to the emergency department because of pain in her right thigh shortly after she had a minor fall. A right femoral-neck fracture was diagnosed, and she was admitted to the orthopedic ward to await surgery. Six months before hospitalization, limb pain had developed, which became progressively worse. The patient also reported a weight loss of 30 kg and fatigue.

SEE P. 509

CLINICAL IMPLICATIONS OF BASIC RESEARCH

An Enzyme Critical to Osteoarthritis

The aggrecanases — enzymes that break down cartilage — are attractive candidates as drug targets. Studies of two mouse models implicate a single aggrecanase as a mediator of the erosion of cartilage in osteoarthritis.

SEE P. 522