Snowboarding injuries

Nearly half of all snowboarding injuries occur during the first three attempts at the sport, according to a study in the December 1994 issue of The Physician and Sportsmedicine.

Snowboards resemble a cross between a skateboard and a ski, and are used without poles. Although snowboarding injury rates are comparable to downhill skiing (3 per 1,000), improper snowboarding can result in deadly deep-snow immersion, especially near trees, where snow can bank up, creating a "wall." Three 1992 snowboarding fatalities were reported where snowboarders were found buried head down in deep-powder snow, near trees. Snowboarders died from combined hypothermia and head injuries.

Researchers estimated that 70 percent of snowboarders never have skied. More than 95 percent of snowboarding accidents occur in adolescent and young-adult males younger than age 30. Impact accounts for most snowboarding injuries. Novices should avoid snowboarding alone, stay on main ski trails, and team up with an experienced enthusiast to learn how to snowboard safely in deep powder.

Rare blood-disease drug

The U.S. Food and Drug Administration (FDA) has licensed filgrastim, under the brand name Neupogen®, for treatment of severe chronic neutropenia (SCN), a rare blood disease. Neupogen, a recombinant granulocyte colony-stimulating factor (G-CSF), stimulates the bone marrow to produce neutrophils, a form of white blood cell severely depleted or destroyed by SCN. Children with congenital SCN often die of severe infections before adolescence. Clinical trials in 120 SCN patients, with a median age of 12 years, showed daily filgrastim injections reduced infections by 60 percent and resulted in a 90 percent complete or partial recovery of normal neutrophil levels, according to the drug's manufacturer, Amgen, Inc. Filgrastim was granted orphan-drug designation in 1990 and was FDA-approved in 1991 to reduce infections in cancer patients undergoing chemotherapy. It was licensed for use in SCN patients in December 1994. The federal orphan-drug program encourages pharmaceutical companies to develop rare-disease treatments.

Global HIV vaccine

The search for a global HIV vaccine must be pursued with greater urgency, according to an editorial written by Wayne Koff, former chief of the Vaccine Research and Development Branch, Division of AIDS, National Institute of Allergy and Infectious Diseases. The editorial appeared in the November 1994 issue of Science.

The National Institutes of Health AIDS Research Advisory Committee voted, last June, to delay first-generation AIDS-vaccine trials, because they were designed before the myriad subtypes and transmission methods of HIV worldwide were discovered, Koff reported. William Paul, director of the federal office of AIDS Research, has called for a reappraisal of the entire AIDS-vaccine effort.

Researchers should consider financial feasibility and consensus of licensing criteria between public and private health sectors and vaccine manufacturers, Koff stated.

Scientists and policy-makers with the Federal Coordinating Council on Science, Engineering, and Technology's Committee on Life Science and Health have generated criteria for an "ideal" AIDS vaccine:

• The vaccine should be safe.
• It should provide immunity to a high proportion of those vaccinated.
• It should stimulate both the cellular and antibody components of the immune system, to encompass all routes and modes of HIV transmission.
• It should protect against different subtypes or variants of HIV found worldwide.

• It should provide long-lasting protection.
• It should provide local immunity in the mucosa of the genital tract or rectum where sexually transmitted HIV occurs.
• Its cost and number of boosters required should be practical for worldwide administration.

Immune globulin and HIV

Intravenous immune globulin (IVIG) decreases the risk of serious bacterial infections in children with advanced HIV disease who also are taking zidovudine (AZT), according to a study reported in the Nov. 3 New England Journal of Medicine.

In a randomized trial of 255 HIV-infected children, ages 3 months to 12 years, all those who received IVIG, in addition to AZT, showed a 60 percent reduced risk of developing serious bacterial infections. However, IVIG therapy did not reduce bacterial infections in children who were taking trimethoprim sulfamethoxazole instead of AZT.

Immune globulin did not improve survival rates.

HIV testing and homeless teens

Runaway and homeless adolescents, with known HIV risk factors, are more likely to seek HIV testing than unaware homeless youth, a study in the November Journal of Adolescent Medicine reported. In interviews with 202 runaway and