Workers and blood: Call for caution

In the wake of the report of three new cases of health care workers infected with the AIDS virus (SN: 5/23/87, p.326), officials are stressing that health workers need to apply rigorously the recommended precautions for handling blood of all patients, and not only of those who have AIDS. This message was reinforced by a study appearing in the May 15 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (JAMA), in which researchers found that 3 percent of 203 critically ill emergency patients admitted to one hospital were infected with AIDS.

In its May 22 MORBIDITY AND MORTALITY WEEKLY REPORT (MMWR), the Centers for Disease Control (CDC) describes the circumstances of the 3 new cases:

- An emergency room nurse, whose hands were chapped and who wore no gloves, applied pressure with her finger for 20 minutes to stop the bleeding of a cardiac arrest patient who was later shown to be infected with AIDS. As of four months later, 15 other employees who cared for the patient were not infected.
- While collecting blood from an outpatient suspected to be infected with AIDS, a worker was splattered in the face and mouth with blood. She was wearing gloves and eyeglasses. She had facial acne, but no open wounds. It is possible that she was infected through the mucous membrane in her mouth (although in a later incident she was scratched by a needle used to draw blood from a drug abuser whose AIDS status is unknown). A co-worker who was also splattered with blood on the face and in the mouth at the same time showed no signs of AIDS infection one year later.
- Blood spilled on the unprotected hands and forearms of a technician who was working with a machine used to separate blood components. Afterward, researchers think she may have touched inflamed skin on one of her ears. A co-worker similarly exposed at the same time did not test positive for AIDS three months after the incident.

According to James Hughes, director of CDC's Hospital Infections Program, these cases differ from the six previously reported health-worker infections in that they did not involve any accidental needle-sticks or prolonged exposure to body fluids. Researchers suspect that the virus passed either through mucous membranes or through breaks in the skin. Hughes says this is not an unexpected transmission route, since hepatitis B viruses can infect in the same way.

The new cases, he says, do *not* "provide evidence that there's a greater risk [of infection] than people thought." These kinds of exposures are very common in the health care setting, occurring many times daily all over the United States, he says, but the risk of contracting AIDS through this type of exposure, while not zero, is very small. Ongoing studies show that the risk of being infected with AIDS following a needle-stick injury is less than 1 percent, he says, and none of the nearly 400 workers put under observation after having mucous membranes or open wounds exposed to blood of AIDS patients has tested positive for the virus.

In its report, CDC restates some of its recommendations on the use of gloves, gowns and other protection when there is a possibility of exposure to blood or other body fluids of patients, and it adds a special caution for workers whose exposed skin is "chapped, abraded or afflicted with [inflammation]." Hughes also stresses that "we're not talking about casual transmission" and that the risk of infection through intact skin is minimal.

In their JAMA paper, James Baker and his colleagues at the Johns Hopkins Hospital in Baltimore suggest that health care workers are complacent about taking precautions. "During the treatment of [critically ill emergency] patients, many of the basic invasive procedures continue to be performed with ungloved hands, and major resuscitations are carried out without protective measures . . . ," they write. They recommend precautions both for emergency room personnel and for paramedics, police officers and firefighters caring for a bleeding patient, whatever the patient's AIDS status.

CDC's Hughes adds that the JAMA and MMWR articles "should provide health care workers with a tremendous amount of motivation to follow recommended precautions and to apply those to the care of all patients." — *S. Weisburd*

NASA plans other baskets for its eggs

Nearly 16 months after the explosion of the space shuttle Challenger, during which numerous scientists, congressman and advisory groups complained about NASA's near-total reliance on the shuttle to get into orbit, the agency has at last announced plans to add some rockets of the old-fashioned kind. Now termed Expendable Launch Vehicles (ELVs), they represent NASA's decision—urged in some quarters since before the shuttle even began flying, as ELV production was already being cut back—to stop "putting all its eggs in one basket."

At first, NASA plans to make use, where possible, of ELVs being purchased by the Air Force, then to seek launch services from the private sector on its own. "A major objective of this plan," says NASA Administrator James C. Fletcher, "is to accelerate the deployment of the nation's backlog of space science missions." Already under study for possible conversion from shuttle-launching to ELVs are such payloads as CRRES (a joint Air Force-NASA satellite to study radiation effects and artificially released ion clouds), a TDRS (Tracking and Data Relay Satellite, needed in part for the Hubble Space Telescope), a possible planetary mission spacecraft (unspecified) and others.

Representing the agency last week at a meeting of the Air Force Association in Colorado Springs, NASA Deputy Administrator Dale D. Myers said in a speech that it was time for NASA "to eat a fairly sizable portion of crow." Even before the Challenger disaster, he said, the Air Force was advocating a "mixed fleet" that included ELVs, while NASA pursued its shuttle-only policy. "Today," said Myers, "I admit that the Air Force was right and NASA was wrong . . . . Never more will the United States be caught in the dangerous bind of dependence on a single launch system for access to space."

— *J. Eberhart*

A halt to earmarking

By a vote of 43 to 10, with two abstentions, members of the Association of American Universities (AAU), based in Washington, D.C., have approved a resolution agreeing to observe a moratorium on seeking funds for research facilities by going directly to Congress. The mail ballot followed a lengthy, heated debate at the AAU's annual meeting last month (SN: 4/18/87, p.246).

In a letter to the association's members, Robert M. Rosenzweig, AAU president, admits that the AAU can't force compliance with the moratorium on congressional earmarking. But he suggests that breaking the moratorium would seriously undermine the AAU. "Seventy-eight percent of its members have voted in favor of a difficult, but they believe necessary, course of action," he says. "Those who voted on the other side will, I am confident, give serious consideration to what that means."

Rosenzweig plans to urge other academic associations to establish a similar moratorium and to seek their support in favor of legislation, now before Congress, establishing a competitive program for funding research facilities. Meanwhile, says Rosenzweig, the AAU will no longer fight specific earmarked grants, once they come before Congress, unless those grants are for research rather than buildings. The AAU will also oppose earmarks that appear to reduce funds that would otherwise be available on a competitive basis. □