

generally taken for patients with active hepatitis B or cytomegalovirus. Gloves and masks are worn in the operating area. There is no evidence that gowns, hoods, or strict patient isolation is of value for routine patient contact. Patients are brought from their rooms or from the unit to the holding area through the usual route by our patient transport personnel. Patients wear masks only if reverse isolation is felt to be necessary. Because AIDS patients in later stages may be infected by transmissible, opportunistic agents (e.g., *Pneumocystis carinii*, *Toxoplasma gondii*), they are taken directly to the operating room rather than to a holding area. Gloves are worn for intravenous line placement, and needles are disposed of in containers marked "contaminated."

Although there is no evidence that the virus is spread by the respiratory route, airway secretions can be mixed with blood, which is a medium for transmission. We use a disposable anesthetic circuit with disposable soda lime (Dryden Corp., 401-10-01), and a disposable ventilator filter (Pall Biomedical, BB-50 T). A disposable laryngoscope (Welch-Allyn) is used, although current information indicates that routine sterilization should kill the virus. Anesthetists and operating room personnel wear protective glasses or their own prescription glasses. Gloves are worn by everyone in the operating room. Because cytomegalovirus infection has been noted in AIDS patients, pregnant operating room personnel do not work with these patients.

No particular anesthetic agents or techniques are used for AIDS patients in our hospital. Although these patients are young and most have been healthy previously, AIDS can result in significant systemic disease that may limit the choice of anesthetic. For instance, *P. carinii* pneumonia can result in significant impairment of gas exchange with the need to administer a high-inspired oxygen concentration.

Anesthesiology
64:661, 1986

Surgical specimens are marked with "H/A precautions" ("hepatitis" or "has AIDS") labels and placed in plastic bags with the label attached to the outside. Surgeons use disposable drapes and gowns that are put into standard "contaminated material" bags. At the end of the procedure, instruments are cleaned and sterilized in the usual way. The room is cleaned with a dilute (1:10) solution of 5.25% sodium hypochlorite (bleach) to which the virus is sensitive. Care is taken not to spill undiluted bleach, which generates fumes when it reacts with protein.

Postoperatively, patients who are not to be ventilated mechanically are extubated in the operating room. AIDS patients are brought to a section of the recovery room reserved for patients with communicable diseases. A nurse assigned to an AIDS patient does not take care of another patient at the same time. The recovery room staff observes the same precautions as operating room personnel.

Because anesthesiologists are usually involved in cardiopulmonary resuscitation (CPR), appropriate protection during CPR must be available. Masks, gloves, and glasses should be worn as in the operating room. Mouth-to-mouth resuscitation is avoided. While a variety of protective airway devices are available, early endotracheal intubation is the safest technique for both the patient and resuscitator.

We hope that our recommendations will provide rational guidelines for other hospitals to follow so that health-care workers may be adequately protected and able to treat these patients with appropriate caution and concern.

JAMES ARDEN, M.D.
Department of Anesthesia
San Francisco General Hospital
San Francisco, California 94110

(Accepted for publication December 3, 1985.)

From the History of Anesthesia in Military Surgery

To the Editor:—I wish to correct a statement made by Aldrete *et al.*¹ They state, "Previous publications have reported the initial wartime use of anesthesia for surgery as occurring in either the Crimean or German–Danish conflicts after 1848."

Actually, it was used in the summer of 1847, just after July 8, in the Caucasus War by the Russian surgeon Proff. Nicolay Pirogov.²

In the Mexican–American War (spring 1847), the use of ether anesthesia was occasional. Pirogov has reported more than 100 surgical operations in war situations in which ether anesthesia was used.

MARK TVERSKOY M.D., PH.D.,
Chief, Department of Anesthesia
Safed Government Hospital
Safed, ISRAEL

REFERENCES

1. Aldrete JA, Marron GM, Wright AJ: The first administration of anesthesia in military surgery: On occasion of the Mexican–American War. *ANESTHESIOLOGY* 61:585–588, 1984
2. Пирогов Н: Отчет о путешествии по Кавказу. Санктпетербург, Прац, 1849

(Accepted for publication December 4, 1985.)