FILM REVIEW

ANESTHESIA UPDATE

This videotape provides an excellent update of anesthetic agents administered during surgical intervention. Its main focus is to provide vital information to nursing personnel who care for patients receiving general anesthesia, so that specific nursing interventions for providing optimum patient care will be achieved.

The four main objectives for the use of general anesthesia agents are discussed. The videotape emphasizes that ideal anesthetic agents should be easy to administer and useful for all ages. In addition, the ideal anesthetic should have predictable elimination, high specificity of action, and a high margin of safety and should not have untoward effects on vital signs or toxic metabolites.

This videotape clearly and systematically presents a large volume of information regarding the advantages and disadvantages of inhalation and intravenous anesthetic agents. It explores the use of benzodiazepines, narcotics, and muscle relaxants used in conjunction with anesthetic agents. The videotape emphasizes that when benzodiazepines and narcotics are used simultaneously, they potentiate the effect of the other. Physical properties of frequently used inhalation agents, intravenous agents, benzodiazepines, narcotics, and muscle relaxants are discussed.

The differences in using a depolarizing muscle relaxant versus a nondepolarizing muscle relaxant are discussed. This videotape provides explicit nursing interventions for caring for patients receiving anesthetic agents. Packed with up-to-date, specific, and practical information regarding anesthesia, this videotape provides comprehensive information and is a necessity for all perioperative and postanesthesia care nurses.

This 28-minute concise videotape can be purchased for $285 or rented for $70. The cost includes a study guide, and this program has been approved for continuing education credit. Mail requests to American Journal of Nursing Co, Educational Services Division, 555 W 57th St, New York, NY 10019-2961.

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RESEARCH REVIEWS

THE USE OF HIGH-EFFICIENCY PARTICULATE AIR-FILTER RESPIRATORS TO PROTECT HOSPITAL WORKERS FROM TUBERCULOSIS

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After outbreaks of multidrug-resistant tuberculosis (TB) throughout the United States, the Centers for Disease Control and Prevention (CDC) proposed the use of high-efficiency particulate air (HEPA) respirators as a method of protecting workers against infection. The cost of HEPA respirators ranges from $7.51 for disposable models to $9.08 for respirators with replaceable filters. The cost of a product change (ie, implementing HEPA respirators and the associated programs) is approximately 10 times the cost of respirators in current use.

Researchers at the University of Virginia (UVA) Hospital, Charlottesville, conducted a cost utility and cost-effectiveness study to determine whether demonstrable risk reduction benefits could be achieved using HEPA respirators.

They also evaluated the efficacy of currently used dust-mist respirator masks in protecting workers from nosocomial transmissions of TB. The UVA Hospital is a tertiary care facility with 700 beds and 47 negative-pressure ventilation rooms. The study was conducted between June 1992 and May 1993. During that time, 11 of 28,000 patients admitted to the facility were diagnosed as having TB; 81% of these patients had isoniazid-sensitive strains of TB.

Patient data were gathered from health department records and from computer records of isolation orders written by physicians at the UVA Hospital. To ensure accurate recording of the number of health care workers who entered isolation rooms and to determine the number of daily visits, all personnel were expected to sign logbooks each time they entered isolation rooms. According to these records, 76 patients stayed in isolation rooms during 82 admissions for a total of 611 days (mean = 7.5 days per admission). An average of 25 health care workers visited each isolation room each day; the number of visits per isolation room per day averaged 50.

Existing UVA Hospital policy requires compliance with isolation protocols, the use of personal protective equipment, and engineering controls to prevent nosocomial transmission of TB. All employees are screened annually with purified protein derivative (PPD). If health care workers demonstrate conversion (ie, a newly positive PPD test with induration of 10 mm or more