- human blood. J Pharmacol Exp Ther 59: 206-210, 1937
- Larson CP, Eger EI II, Severinghaus JW: The solubility of halothane in blood and tissue homogenates. ANESTRIENIOLOGY 23: 349–355, 1962
- Wortley DJ, Herbert P, Thornton JA, et al.: The use of gas chromatography in the measurement of anesthetic agents in gas and blood. Brit J Anaesth 40:624-628, 1968
- Theye RA: Estimation of partial pressure of halothane in blood. ANESTHESIOLOGY 29: 101-103, 1968
- Shaffer PA, Ronzoni E: The determination of ethyl ether in air and in blood, and its distribution ratio between blood and air. J Biol Chem 57:741-760, 1923
- Jones CS, Saari JM, Devloo RA, et al.: Analysis of gases in blood with the mass spectrometer. II. A method for the determina-

- tion of diethyl ether in blood. Anesthesiology 14:490-497, 1953
- Hattox JS, Saari JM, Faulconer A: Analysis of gases in blood with the mass spectrometer. III. A method for the determination of nitrous oxide in blood. ANESTHESIOLOGY 14:584-590, 1953
- Eger EI II, Shargel R, Merkel G: Solubility of diethyl ether in water, blood, and oil. ANESTHESIOLOGY 24:676-678, 1963
- Rackow H, Salanitre E, Wolf GL: Quantitative analysis of diethyl ether in blood. ANESTHESIOLOGY 27:829–834, 1966
- Haggard HW: An accurate method of determining small amounts of ethyl ether in air, blood and other fluids, together with a determination of the coefficient of distribution of ether between air and blood at various temperatures. J Biol Chem 55:131-143, 1923

Drugs

NEUROLEPTANESTHESIA A comparison of neuroleptanesthesia with anesthesia with nitrous oxide, opiate, relaxant, or halothane was made in 400 patients undergoing open-heart surgery. Repeated administration of a fixed mixture of droperidol and fentanyl resulted in overdoses of both agents. Separate administration of droperidol and fentanyl was not accompanied by the adverse effects (chest-wall rigidity) seen when the combination was used. Neuroleptanesthesia provided greater cardiovascular stability and ease of management than did anesthesia with the other agents studied. Postoperative ventilatory support was considerably easier in the patients given neuroleptanesthesia than in those given the other agents. Neuroleptanesthesia is preferred for most patients requiring cardiac surgery. (Jacobson, E., and others: Neuroleptanesthesia for Open Heart Surgery: A Comparative Study of 400 Patients, Der Anaesthesist 19: 16 (Jan.) 1970.)

AEROSALS, ASTHMA AND DEATH The pressurized aerosols widely used in the treatment of asthma and chronic bronchitis contain bronchodilators (e.g., iso-proterenol) and a mixture of fluorocarbons as propellants. This study was undertaken following reports of sudden deaths among young people "sniffing" these fluorocarbons and after a notable increase in the death rate from asthma during the 1960's. The arterial and venous blood levels of fluorocarbons were measured in four volunteers and two patients after various "doses" from a commercially-available inhaler. Low but detectable concentrations of the propellants were found in both venous and arterial blood at different intervals following exposure. Although the significance of these low blood levels of fluorocarbons is not known, it is suggested that further work is necessary to elucidate the possible relationship to the catecholamines inhaled and potentially fatal cardiac arrhythmias. (Dollery, C. T., et al.: Blood Concentrations in Man of Fluorinated Hydrocarbons after Inhalation of Pressurized Aerosols, Lancet 2: 1164-1166, 1970.)