ratio, affords considerable protection against narcotic induced respiratory depression. (*Margolis, B. and Kepes, E.: Meperidine—Levallorphan in Anesthesia, Am. J. Surg. 95: 787* (*May*) *1958.*)

MORPHINE POISONING The effect of bromides was investigated in white mice injected with a lethal dose of morphine (12 mg.). The influence of various doses of sodium bromide on the survival of the mice was determined. Bromides in a dosage of 0.3 mg. protected 70 per cent of animals from death. A second series of experiments studied the effect of prior administration of bromides upon the symptoms of morphine intoxication. Prior administration of sodium bromide prevents the development of the most characteristic signs of morphine poisoning in dogs (vomiting) and in cats (excitement). Bromides are therefore indicated in cases of morphine intoxication and of morphine addiction. In rats, the administration of bromides significantly reduces the analgesic effect of morphine and lowers the threshold of the tail reaction and the squeak reaction to stimulation by an induction current. (*Meshcheryakov, A. N.: Antagonism of Bromides and Morphine, Farm. i Toks. 5: 22 1956.*)

HYPOXIA Heart rate and blood pressure of the fetal lamb *in utero* were studied when the latter was subjected to mild and severe hypoxia. This was accomplished by having the ewe breathe 13 per cent, 10 per cent and 6 per cent oxygen. In this study the heart rate usually became slow with hypoxia, and the more severe the hypoxia, the greater the frequency of this response. However, cardiac acceleration may occur, or the heart rate may return to normal. Thus heart rate alone is not a valid criterion of anoxia. Changes in the blood pressure were in both directions. At the 6 per cent oxygen level when the heart rate decreased to 140–160 beats/minute, the blood pressure fell. Fetal stroke volume does not suffer until fetal blood oxygen goes to near 12 mm. of mercury tension. Blood pressure is more useful than pulse rate as an indicator of the effect of hypoxia on the fetus. (*Reynolds, S. R. M., and Paul, W. M.: Relation to Bradycardia and Blood Pressure of Fetal Lamb In Utero to Mild and Severe Hypoxia, Am. J. Physiol. 193: 249* (*May*) *1958.*)

HYPOXIA Biochemical investigations were carried out with the aim of elucidating the character of swings in the consumption of oxygen by the tissues and the activities of some enzymes of tissue respiration (succindehydrase and cytochromoxidase) in hypoxia, the organism being saturated with vitamins. Thiamine influences preferentially the dehydrase activity, particularly in the substance of the basal ganglia of the brain; the changes in the activity of the cytochromic system, usually arising under conditions of hypoxia, are smoothed under the influence of thiamine. The favorable influence of thiamine on the level of resistance of the animals in the experiments is connected to some extent with the activation of tissue enzymes following the administration of this vitamin. (*Kosmolinskii, F. P.: Influence of Thiamine on Tissue Respiration Under Conditions of Hypoxia, Vopr. Pitan. 15: 73 1956.*)

HYPOXIA Vitamins B_1, B_2 and PP increase the endurance of animals in oxygen lack due to a lowered tension in the atmosphere. Under conditions of oxygen deficiency (at reduced atmospheric pressure) the activity of the respiratory enzymes is changed. The degree and pattern of these changes depend on the degree of anoxia and the length of exposure of the animals to the conditions of lowered atmospheric pressure. The administration of vitamins B_1, B_2 and PP before the animals were put into a decompression chamber at the simulated altitude of 11,000 meters prevented to a considerable degree the fall of activity of dehydrogenase and cytochrome oxidase in the liver, kidneys and heart. The activity of dehydrogenase and cytochromoxidase in the brain appeared to be even greater than under sea level conditions. These experiments have shown that in oxygen deficiency there is an increased need of vitamin B complex by the body. (*Udalov, Y. F.: Action of Vitamin B Complex in Oxygen Deficiency, Vopr. Pitan. 15: 22 1956.*)

OXIMETER A new type of cathode oxyhaemograph is described free from defects of earlier oxyhaemometers. The measurement is based on photoelectric registration of changes in the spectroscopic properties of hemoglobin; the electromotive force is determined only by saturation

of blood by oxygen. The diagram tape is moving at a constant speed; the degree of blood saturation can be determined directly on the scale of the apparatus; it does not suffer from vibrations and shaking and can be used on planes, autocars and in racing. The oxyhaemograph can work for many hours without regulation. (*Kreps, E. M., and others: Self-Recording Cathode Oxyhaemograph, Vopr. Med. Khimii 2: 457 1956.*)

PULMONARY EMBOLISM Symptoms and physical findings associated with fatal pulmonary embolism are (in order of decreasing frequency): tachycardia, cyanosis, dyspnea, tachypnea, diaphoresis, hypotension, cough, rales, hemoptysis and pain. In differentiating massive pulmonary embolism from acute myocardial infarction, it is to be noted that cyanosis is uncommon in myocardial infarction unless cardiac failure supervenes. The combination of restricted activity, fever and tachycardia prior to operation suggests the presence of thrombosis, and in these patients preoperative prophylaxis is of equal importance to postoperative therapy. The use of intravenous infusions in the lower extremities of patients whose activity may be limited postoperatively should be condemned. (*Anderson, M. C., and Shields, T. W.: Significance of Fatal Pulmonary Embolism in Immediate Postoperative Period, J. A. M. A. 167: 422 (May 24) 1958.*)

TRANSFUSION REACTION The use of chlorpheniramine (Chlor-treimeton) in the prophylaxis of pyrogenic reaction to blood transfusion has been studied in 200 blood transfusions. The results of this control study indicate that there is no justification for the routine prophylactic use of an antihistaminic in each bottle of transfused blood in an effort to prevent pyrogenic reaction. These conclusions do not apply in the instance of patients with a known history of allergy. (*Hobsley, M.: Chlorpheniramine Maleate in Prophylaxis of Pyrexial Reactions During Blood Transfusions, Lancet 1: 497 (March 8) 1958.*)

TRACHEOSTOMY IN BRONCHIECTASIS Seven individuals with extensive bilateral bronchiectasis, excessive secretions, and severe pulmonary insufficiency were treated utilizing elective permanent tracheostomy. All patients were supplied with suction apparatus for tracheobronchial aspiration at home. Self aspiration of secretions proved extremely effective in long term management of individuals in whom postural drainage, frequent bronchoscopy, and other treatment had proved inadequate. (*Overhold, R. M., and Segal, M. S.: Long Term Tracheostomy in Extensive Bilateral Bronchiectasis, New England J. Med. 257: 1108 (Dec.) 1957.*)

HEAD AND NECK CANCER In the aged patient the selection of anesthetic agent for head and neck surgery is of the utmost importance. Light anesthesia, adequate blood and electrolyte replacement and the avoidance of unnecessary vasoconstrictors is essential. Inept anesthesia is readily recognized by a prolongation of postoperative recovery. The estimated incidence of carotid sinus reflex difficulties in these patients is 30 per cent. It may be prevented by infiltration of the carotid bulb region with 1 per cent procaine. (*Conley, J. J.: Significance of Cancer of Head and Neck in Aged, Geriatrics 13: 197 (April) 1958.*)

ANESTHESIA FOR T AND A A Magill endotracheal tube fitted with a nasal connecting piece is passed through the mouth and fixed carefully in the midline by strapping below the lower lip. The Boyle-Davis mouth gag is then introduced over the tube. The gag may be opened as wide as required with the surgeon being unaware of the presence of the tube in his field of operation. (*Rotter, K., and Mountford, L.: Airway in Tonsillectomy, Lancet 1: 772 (April 12) 1958.*)

INTESTINAL SURGERY Depth of anesthesia, muscle relaxation, unobstructed airway, hyperpyrexia, shock, hypodrenalism, antihypertensive therapy, abdominal reflexes and hiccups are problems which may occur during gastrointestinal surgery. (*Artusio, J. F., Jr., and Mazzia, V. D. B.: Physiological Problems in Anesthesia During Surgery of Gastrointestinal Tract, Surg. Clin. North America 38: 321 (April) 1958.*)

PYLORIC STENOSIS One hundred and fifty infants were operated upon for hypertrophic pyloric stenosis. The method of anesthesia in 142 of these was with local