in Patients with Cardiovascular Disease, Am. J. Med. Sc. 233: 40 (Jan.) 1957.)

CARDIAC MASSAGE The anatomic changes produced by cardiac massage in 60 patients are described and categorized. Massage can result in injury to any or all portions of the cardiac tissues. Gross laceration of the heart occurred in 10 per cent. Cardiac injuries from massage are technical errors and are not due to duration of massage. Successful massage can exceed one hour without significant cardiac damage resulting. *(Adelson, L.: Clinicopathologic Study of Anatomic Changes in Heart Resulting from Cardiac Massage, Surg. Gynec. & Obst. 104: 513 (May) 1957.)*

CORONARY ANGIOGRAPHY A mixture of 90 per cent Hypaque, 25 per cent potassium citrate and saline was injected proximal to an occlusion of the ascending aorta. This made it possible to simultaneously arrest the heart and to obtain a coronary angiogram. The combination of drugs caused no apparent damage to the myocardium even though it remained in the heart during periods of cardiac arrest exceeding one hour. *(Miller, E. W., and Kolff, W. J.: Angiography of Coronary Arteries in Dogs, Cleveland Clinic Quarterly 24: 123 (April) 1957.)*

CARDIAC ARREST Potassium chloride seemed to be as effective as potassium citrate in producing cardiac arrest, thus the potassium ion is responsible for this effect. Citrate without potassium sometimes produced ventricular fibrillation probably as a result of the binding of calcium. An unusual type of 2:1 atrioventricular block was found when sodium citrate so prolonged Q–T intervals that alternate P waves occurred before repolarization of the ventricular myocardium was completed. *(Kolff, W. J., and others: Demonstration of Role of Potassium and Citrate Ions Under Conditions of Elective Cardiac Arrest for Open-Heart Operation, Cleveland Clin. Quart. 24: 128 (April) 1957.)*

CARDIAC ARREST Seven cases of cardiac arrest under trichloroethylene anesthesia were reviewed. The employment of alternate agents whenever possible is recommended. *(Norris, W., and Stuart, P.: Cardiac Arrest During Trichloroethylene Anesthesia. Brit. M. J. 1: 860 (April 13) 1957.)*

CARDIAC ARREST The records of 8 patients who had cardiac arrest during anesthesia were studied. All had thoracotomy and cardiac massage. Four survived to leave the hospital perfectly well. All had multiple drugs and sedatives. Cardiac arrest is believed to result from (1) hypoxia with starvation of myocardium; (2) administration of drugs or anesthetics that poison the heart; or, (3) a combination of these. *(Sharpe, G. P., Whitaker, H. T., and Parson, W. H.: Clinical Problem of Acute Circulatory Failure, Surg. Gynec. & Obst. 104: 535 (May) 1957.)*

HEART BLOCK Heart block treated with sodium lactate may go on to more serious arrhythmia. Of 12 patients given 0.5 or 1.0 *M* sodium lactate, 6 developed ventricular tachycardia on 10 occasions. The magnitude of increase of the heart rate suggests that the uptake and utilization of the lactate by the myocardium promotes myocardial alkalosis and altered irritability. Molar sodium lactate is less efficacious and more hazardous than isopropylnorepinephrine in treating this condition. *(Murray, J. F., and Boger, S. H.: Ventricular Arrhythmias After Intravenous Sodium Lactate in Heart Block, Circulation 15: 547 (April) 1957.)*

DIPIPANONE Dipipanone, which is the piperidino analogue of methadone, has been used for 18 months as a supplement in anesthesia for general surgical operations, thoracic operations and as an analgesic for relief of pain in labor with a minimum of undesirable side effects. *(Coleman, D. J., and others: Dipipanone Hydrochloride as an Adjunct to Anesthesia in Obstetrics and Surgery, Brit. M. J. 1: 1092 (May 11) 1957.)*

BUTHALITONE The usual nitrous oxide, oxygen and trichloroethylene anesthesia for short cases in the outpatient department was replaced by the use of Buthalitone sodium (10 per cent solution-11 mg. per kg. of body weight) with the

result that induction was smoother, recovery more rapid and the postanesthetic drowsiness and confusion were absent. (*Henderson, A. G., and Mackett, J.: Buthalitone Sodium in Out-Patient Anesthesia, Brit. M. J. 1: 1095 (May 11) 1957.*)

MORPHINE Thirteen patients who had a cholecystectomy and T-tube drainage were studied by cholangiography, with and without morphine medication. The effect of morphine on the biliary tree and sphincter of Oddi was unpredictable. The fibers of the autonomic nervous system supplying the musculature of the common duct and sphincter of Oddi may be removed by cholecystectomy. (*Thomas, W. P., Erickson, V., and McCort, J. J.: Effect of Morphine Sulfate on Common Bile Duct; Clinical Study, Am. J. Med. Sc. 233: 87 (Jan.) 1957.*)

CONTROLLABLE APNEA Prolonged apnea is induced in patients anesthetized with thiopental-nitrous oxide by intravenous administration of alphaprodine. Spontaneous respiratory activity is reestablished by levallorphan. (*Foldes, F. F.: Narcotic Induced Controllable Apnea, Am. J. Med. Sc. 233: 1 (Jan.) 1957.*)

NALORPHINE The subjective effects of 10 mg. nalorphine and of 15 mg. morphine were compared in the same and different groups of patients. Nalorphine produced all the subjective effects of morphine, but in addition produced sweating, paresthesias, and mental changes described as sensations of unreality. Sedation was more frequent and more intense after nalorphine, but the subjective effects of nalorphine were more unpleasant than those of morphine. (*Keats, A. S., and Telford, J.: Subjective Effects of Nalorphine in Hospitalized Patients, J. Pharmacol. & Exper. Therap. 119: 370 (March) 1957.*)

SYNTHETIC ANALGESIC A new analgesic, differs from morphine and meperidine, chemically by its structure, pharmacologically by a more potent analgesic effect and a lesser toxicity (experimental evidence), clinically by a marked pain-relieving effect without hypnosis and a definite antitussive action. It has no effect upon the electroencephalogram and is antagonized by *N*-allylnormorphine. (*David, M., and Deligné, P.: New Synthetic Analgesic: R 857 or 2–2 Diphenyl-3 Methyl-4 Morpholine-Butyryl-Pyrrolidine; Pharmacological Considerations on its Use in Neurosurgery, Presse Méd. 65: 731 (April 20) 1957.*)

DIGITALIS TOLERANCE TEST A precise inverse quantitative, linear relationship exists between calcium and digitalis producing electrocardiographic end points. Increasing increments of 10 per cent calcium gluconate are given intravenously until the end point is reached and a rapidly acting calculated therapeutic dose of digitalis can be given safely at the termination of the test avoiding digitalis toxicity. (*Nalbandian, R. M., and others: New Quantitative Digitalis Tolerance Test Based Upon Synergism of Calcium and Digitalis, Am. J. Med. Sc. 233: 503 (May) 1957.*)

RELAXANTS Data on the effects of neuromuscular blocking agents on central breathing mechanisms were obtained from 17 cross circulation experiments in dogs. Succinylcholine, decamethonium, and *d*-tubocurarine were studied. The data recorded clearly show that these relaxant drugs have no effect upon central respiratory function when administered in doses large enough to produce prolonged neuromuscular block. Apnea appears after relaxants solely from a peripheral action of the drugs. (*Irwin, R. L., and Wells, J. B.: Respiratory Activity of Certain Neuromuscular Blocking Compounds; Direct Peripheral and Central Comparison, J. Pharmacol. & Exper. Therap. 119: 329 (March) 1957.*)

MEPHENTERMINE The effect of mephentermine (Wyamine) on cerebral metabolism and circulation was measured in 11 normal human volunteers by the method of Kety and Schmidt. Cerebral metabolism was increased whereas cerebral blood flow and vascular resistance were unchanged. The mechanism of the increase in oxygen utilization is unknown. (*Richardson, D. W., Ferguson, R. W., and*