the surgical services in whom survival could clearly be attributed to the restoration of blood pressure to normal or nearly normal levels by the use of these agents. Sympathicomimetic agents should be reserved for situations in which it is clear that the hypotension is entirely, or in part, due to vasomotor paralysis. (*Simeone, F. A.: Shock and Blood Pressure, Surg. Gynec. & Obst. 108: 740 (June) 1959.*)

BLOOD VOLUME Because of the lack of information on the changes in plasma and blood volume in chronic anemia, these parameters have been studied on 74 patients who were either hematologically normal or had chronic nutritional anemia, some with a hemoglobin level of less than 2.0 Gm. Blood volume was found to fall as hemoglobin levels declined. This drop was almost wholly due to the diminution in red cell volume. (*Tasker, P. W. G.: Blood-Volume in Chronic Nutritional Anaemia, Lancet 1: 807 (April 18) 1959.*)

DEXTRAN Nonbiologic colloid solutions have been used for over 100 years for research purposes. However, it was not until 1913 that the value of the infusion of such a colloid solution for the preoperative and postoperative treatment of conditions associated with a diminished blood volume was demonstrated in man. By accident, dextran was found to have satisfactory properties to enable it to be administered intravenously to man. By the end of World War II, it had been refined and approved in Scandinavia, England, and in the United States. It is an excellent plasma expander and it is especially rational to maintain an adequate blood volume with dextran during operation, so long as not more than three-quarters of a liter of blood is lost. If more than this amount of blood is lost, then blood should be administered. (*Thorsen, G.: Use of Dextrans as Infusion Fluids, Surg. Gynec. & Obst. 109: 43 (July) 1959.*)

HEPATITIS FROM TRANSFUSION. An analysis has been made of the incidence of serum hepatitis following the administration of 14,445 units of whole blood; 3,349 patients were given 7,315 units of blood. Nineteen patients, or 1 in 380, developed serum hepatitis. Six-hundred and seventy-four patients received plasma and whole blood. There were 6 cases of hepatitis in this group, 1 in 360. An additional 317 patients received pooled plasma obtained from 4,461 donors and stored for six months at room temperatures averaging 80.6 F. No patient developed hepatitis in this group. (*Hoxworth, P. I., Haesler, W. E., Jr., and Smith, H., Jr.: Risk of Hepatitis from Whole Blood and Stored Plasma, Surg. Gynec. & Obst. 109: 38 (July) 1959.*)

HEMOPHILIA Fresh frozen plasma in a dose of about 20 ml./kg. bodyweight, normalized blood coagulation in hemophilia for 2-4 hours. The administration has to be repeated daily as long as there is risk of hemorrhage—about 15 days after surgery. (*Cazal, P., Izarn, P., and Paleirac, G.: Problems with Operations on Hemophilics, Der Anaesthesist 8: 129 (May) 1959.*)

HYPOTHERMIA Twelve patients with intracranial aneurysms have been treated satisfactorily using hypothermia and total arterial occlusion. Patient's body temperature was lowered to 27 to 30 C. by immersion in an ice tub, and subsequent transfer to a cooling blanket. The intracranial aneurysm and the superior mediastinal arteries were closed simultaneously by two surgical teams. During the dissection of the aneurysm, systemic arterial hypotension was induced by Arfonad. Totol occlusion of the circulation to the brain was effected during repair of the aneurysms. The complications encountered were avoidable. Temporary cardiac arrest occurred in two patients, in one due to an overdose of Arfonad. There was one operative death due to recurrent hemorrhage. Six of the patients have been followed four to fifteen months and are well. (*Adams, J. E., and Wylie, E. J.: Value of Hypothermia and Arterial Occlusion in Treatment of Intracranial Aneurysms, Surg. Gynec. & Obst. 108: 631 (May) 1959.*)

HYPOTHERMIA Controlled hypothermia has been successfully used in the treatment of a 23 year old patient with fulminating eclampsia. In addition, nitrous oxide, oxygen fluothane, meperidine, and phenothiazines were

administered. The patient's body temperature was lowered to 92 F. by exposure to cold air from an electric fan. Diuresis occurred during the cooling. Recovery was uneventful, and infant and mother were discharged from the hospital 22 days after the onset of the attack. (*Malcolm, J. E., and others: Fulminating Eclampsia Treated by Hypothermia, Lancet 1: 863 (April 25) 1959.*)

HYPOTHERMIA After hypothermia, patients may be rewarmed by placing them between layers of a blanket through which warm water from a faucet is circulated. This obviates the need for an elaborate system with pumps. A regulating valve to assure the proper temperature of the water is attached to a mixing faucet from hot and cold pipes. A thermostatic switch protects the patient in case the water temperature exceeds a preset level. (*Knowles, G. S. A.: Control of Temperature in Rewarming Blankets During Hypothermia, Lancet 1: 1231 (June 13) 1959.*)

HYPOTHERMIA Profound hypothermia (10 to 15 C.) has been produced in a series of animals (dogs) by the use of an extracorporeal circuit containing two reservoirs, one to collect pulmonary venous blood from the left atrium, and the other to collect systemic venous blood from the right atrium. The blood from the left atrium is circulated through a heat exchanger. By this combination, complete circulatory arrest was produced for thirty minutes, followed by rewarming and recovery. (*Drew, C. E., Keen, G., and Benazon, D. B.: Profound Hypothermia, Lancet 1: 745 (April 11) 1959.*)

HYPOTHERMIA By the technique described above, three persons have been operated upon for repair of congenital cardiac defects. Body temperature was lowered to 15 C., ventricular fibrillation did not occur in any of the three patients four years or less of age. In one patient total circulatory arrest lasted 45 minutes. One patient died shortly after completion of the operation. The other two recovered and have shown no evidence of neurological or other damage. (*Drew, C. E., and Anderson, I. M.: Profound Hypothermia in Cardiac Surgery, Lancet 1: 748 (April 11) 1959.*)

NEOMYCIN APNEA Neomycin exerts a curare-like action at the myoneural junction so that complete or partial paralysis ensues. This neuromuscular blocking action is potentiated by ether and muscle relaxants but can be antagonized by neostigmine and calcium. The presence of an optimum concentration of calcium at the myoneural junction is essential for the effective release of acetylcholine after stimulation of a motor nerve. The neuromuscular blockade produced by streptomycin and that resulting from magnesium is reversed by calcium. (*Jones, W., and Philip, G.: Calcium Treatment for Ineffective Respiration Resulting from Administration of Neomycin, J. A. M. A. 170: 943 (June 20) 1959.*)

CURARIFORM ACTION Case histories of 3 patients with infectious processes treated with streptomycin were presented. All 3 patients complained of muscular weakness, and two had visual difficulties. When streptomycin was stopped and neostigmine and atropine were given, the symptoms disappeared promptly. (*Loder, R. E., and Walker, G. F.: Neuromuscular-Blocking Action of Streptomycin, Lancet 1: 812 (April 18) 1959.*)

BELLADONNA DRUGS The curarizing properties of atropine and scopolamine quaternized by a polymethylene chain at the nitrogen groups have been determined in rabbits by the head-drop crossover procedure. Atropine and scopolamine so treated become potent curarizing agents. They also retain much of the activity of the parent compounds with respect to their ability to inhibit blood pressure drop from vagal stimulation and to produce mydriasis. (*Eckfeld, D. K.: Curarizing and Atropine-Like Properties of Bis-Atropinium and Bis-Scopolaminium Compounds, J. Pharmacol. Exper. Therap. 126: 21, (May) 1959.*)

ATROPINE Physostigmine or adrenergic central nervous system stimulants (amphetamine and methamphetamine) produce a fast electroencephalographic activity. High mid-brain resection in albino rabbits abolishes this