

through the field of operation. For this reason, the manipulations of the surgeon interfere with those of the anaesthetist, and a reasonable compromise must be reached. The nature of the operation makes haemorrhage unavoidable, and the prevention of aspiration of this blood is a necessity. The anaesthesia is required to be of considerable depth in order to prevent throat reflexes. In addition to anaesthetic, sufficient oxygen must also be passed through the field of operation. . . .

"Anaesthesia is induced with ethyl chloride and ether. As soon as the jaws relax, a Magill tube is introduced into the larynx through the mouth by means of a laryngoscope. . . . The mouth gag is immediately dropped over the oral end of the tube. By means of rubber tubing, the Magill tube is connected with the ether can. The ether can is an ordinary one-pound can, with the tube attached to the central opening and with several other openings punched into the top of the can. . . . Further attention is necessary only to maintain a small amount of ether in the can, and to vary the concentration of ether vapour by covering or opening the holes in the top of the can, according to the requirements of the patient. Apart from this, the anaesthetist is free to render assistance to the surgeon. . . . It is necessary to instruct nurses watching these patients during postoperative recovery, that they must not remove the tube until pharyngeal reflexes have returned, or better still, the patient should be left to remove the tube himself."

J. C. M. C.

FAKEHANY, J. P.: *Combined Anaesthesia*. Ohio State M. J. 41: 921-922 (Oct.) 1945.

"The ideal sought for by every anaesthetist is to produce anesthesia which is conducive to little shock and also makes for greater ease in the surgeon's

operative efforts. One also wishes to leave the patient's memory of the anesthetic a pleasant one, and not wrought with disagreeable impressions. Attempt is also made to minimize the postoperative complications which may be derived from the anesthetic. . . . In combined anesthesia, the burden of the anesthetic is carried by several anesthetics instead of one, the load being divided among the two or more we may use. . . . Use of a combination of anesthetics may be termed 'spot' anesthesia. In other words, using an anesthetic at the time when it can be utilized to greatest advantage. . . . It must be warned that one must be careful not to administer inadvertently too great doses of combined anesthetics, as it readily can be foreseen what deleterious results may follow." 7 references.

J. C. M. C.

WHITE, C. M.: *The Use of Nitrous Oxide and Oxygen for Cavity Preparations and Other Dental Procedures*. Dent. Items of Interest 67: 776-779 (Aug.) 1945.

"In spite of the need for increased production in the dental offices of America, many dentists are not using nitrous oxide and oxygen. . . . The proportions necessary for the average patient are 75% oxygen and 25% nitrous oxide with one pound pressure. This will enable cavity preparation to be carried on with ease in most cases, and without the suffocating feeling experienced when greater pressure is used. . . . Since much of the pain of bur excavation is caused by generated heat, a stream of water under pressure on the revolving bur will help greatly. . . . If, as sometimes happens, it is thought best to use a local anesthetic after analgesia has been started, the puncture of the needle and injection can be made painlessly at this time. . . . It must be remembered that at

no time, and there are no exceptions to this rule, must operative procedures be performed in the mouth of an unconscious patient without thoroughly packing the mouth with gauze."

J. C. M. C.

LIEBERMAN, S. I.: *Intrasternal Administration of Pentothal Sodium*. New York State J. Med. 45: 2191 (Oct. 15) 1945.

"During the New Georgia campaign in the central Solomons, a wounded Japanese prisoner was admitted to our collecting station. After several unsuccessful attempts at venipuncture, a sternal puncture was performed with a 17-gage needle. An infusion of normal saline was started. Shortly thereafter, pentothal sodium was used for induction and maintenance of surgical anesthesia for thirty minutes. A 3 per cent solution of pentothal was intermittently injected into the sternal bone marrow via the saline infusion previously set up. Induction and maintenance of anesthesia was similar in every respect to intravenous administration. The patient became drowsy within one minute of the initial injection of about 70 mg. of pentothal. . . . The patient's reaction to each pentothal injection was just as rapid as to an intravenous injection. . . . A total of 400 mg. was employed. The patient recovered from the anesthesia in the usual manner, but seemed excessively drowsy for about four hours after the operation. We attributed this to marked fatigue from three days' constant exposure in the field."

J. C. M. C.

KLENDSHOG, NIELS C., AND WITEBSKY, ERNEST: *Transfusion of O Blood*. J. A. M. A. 128: 1091-1093 (Aug. 11) 1945.

The author feels that universal type O blood should not be used indiscrimi-

nately for transfusions in patients of different blood groups. "To overcome objections to the use of group O blood with potent isoagglutinins as a universal blood, we have recommended the addition of the purified blood groups specific substances A and B as a means of reducing the isoagglutinins titers to low levels."

A series of 389 transfusions of O blood containing purified group specific substances was compared with 1,830 transfusions of homologous blood given under identical conditions. In the 389 transfusions of O blood 5 to 10 cc. of a previously standardized solution of the blood group specific substances was added to each pint of O blood before transfusion was given. A careful record was kept of the transfusion noting the temperature, pulse rate and blood pressure from six to eight hours following transfusion. When indicated an ieteric index, cell count and urine analysis for hemoglobinuria was carried out. The authors found the same incidence of transfusion reactions whether homologous blood or condition universal donor blood was used. In some cases they suggested that conditioned universal blood (group O blood to which has been added A and B substances) could be used without cross-matching blood for the patient.

This conditioned blood was given to 48 patients who had all received previous transfusions of conditioned blood. The reaction rate was 6.2 per cent in this series of 48 patients who received 81 transfusions. There was no significant difference in the rate of reaction to this blood as compared to patients receiving homologous blood. The author concludes that "in spite of rigid and critical observations, no harmful effect was observed attributable to the groups specific substances employed. The addition of the purified specific substances A and B to O blood as a