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. L.: *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 unsuccesful 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 indiscriminately 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 icteric 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