I use a Huber point No. 21 gauge needle to administer the ether solution. Care should be taken to preserve veins by using careful technic. We are at the present time experimenting with the use of anti-coagulants in the hope of preserving veins longer. This will be reported later.

"A patient meeting the criteria of ischemia is given 1000 cc. of a 2½ per cent solution of diethyl oxide. This is equivalent roughly to the addition of 25 cc. of diethyl ether to 1000 cc. of dilution media. The dilution media that have been used were standard 1000 cc. flasks of prepared solutions. In the actual necrotizing lesions, a sixth molar lactate solution was used; isotonic sodium chloride for uncomplicated cases; and dextrose in distilled water for arteriosclerotic patients with hypertension. A course of therapy for patients with nongangrenous lesions, and suffering from ischemia and unrelenting pain as in claudication, is 24 liters of 2 per cent diethyl oxide. These infusions are given daily. The rate of administration may range from 75 to 105 drops per minute. Indications for therapy with diethyl ether are two: Pain, and Impending Gangrene. . . . Where pain is the paramount complaint, the patient should receive at least one or two, 2½ per cent ether infusions daily. . . . Good results have been achieved in severe arteriosclerotics among nondiabetics and diabetics who have received as many as 65 treatments —actual improvement in several cases being delayed for as many as forty days. The usual response in the average patient is to see a very definite relief of symptoms in an average of five to seven days. The plan of treatment in acute thrombotic or embolic gangrene would appear to be immediate sympathetic block to release the vasospasm and to protect the leg by allowing the peripheral collateral blood supply to take over. Supplementing this acute process, diethyl oxide is indicated; two liters daily until the actual danger has passed. . . . The actual mechanism of action of this agent is not accurately known. . . .

"To date, the preliminary statistics with this method have been very heartening. The bulk of the patients treated were arteriosclerotics and diabetics. Others that have responded were patients with Buerger's disease, Raynaud's disease, causalgia, and one patient with arterial thrombosis of the subclavian artery. The most promising single attribute of this simple agent is its ability, when successful, to relieve pain, ischemia and edema. Actual arrest of the necrotic process has been seen and a reparative process begun. No untoward toxic effects from diethyl oxide have been observed." 6 references.

J. C. M. C.

LILIENFELD, A. M., AND DIXON, D. MC.: *Sigmodal in Obstetrics. Clinical Observations with a Report of Three Reactions.* Bull. School Med. Univ. Maryland. 31: 135–143 (Apr.) 1947.

"It is desired to report some clinical experiences (including three severe reactions) with an obscurely known barbiturate whose use was first investigated clinically by Emmert and Goldschmidt in 1936. . . . This preparation is marketed under the trade name of Sigmodal. . . . Sigmodal, as the name implies, is administered rectally. . . . Sigmodal produces both analgesia and amnesia with the latter outweighing the former effect. . . . A total of 391 patients, who had sigmodal administered during labor, were studied. Some of these patients received the seconal-sigmodal routine; some received sigmodal alone, and others received sigmodal and demerol intra-muscularly. . . . There are several types of untoward reactions which were observed to occur in patients following sigmodal

administration: 1. Excitement. . . . 2. Muscular twitchings. . . . [and] 3. Respiratory depressant action. In this series there were three cases of severe respiratory depression. . . .

"The first two patients received both seconal and sigmodal. . . . The third case received only sigmodal. . . . All of the reactions occurred postpartum each patient receiving nitrous oxide and oxygen, and, in addition, 2 of the 3 were given ether anesthesia for the delivery. The synergistic effect of the nitrous oxide and sigmodal causing anoxemia may be the cause of these reactions. The substitution of pudendal block or low spinal for the inhalation anesthesia has recently eliminated this complicating factor. To combat these respiratory depressant actions of the drug such respiratory stimulants as coramine and ephedrine are used. The patients are given oxygen depending on whether or not cyanosis is present. Intravenous fluids are also beneficial in that they decrease the blood level of the drug by increasing its excretion in the urine. . . . Satisfactory amnesia was obtained in 91.5 per cent of patients. . . . The average labor for primigravida was sixteen hours and for multigravida it was nine and seven tenths hours. This is slightly higher than those reported with other agents. The incidence of postpartum hemorrhage was 1.3 per cent. In this series 83.6 per cent of the infants did not require any active resuscitation." 7 references.

J. C. M. C.

MACKEY, ROBERT: *Local Anaesthesia in Obstetrics.* M. J. Australia. 2: 593–600 (Nov. 15) 1947.

"This paper is written to bring to notice 2 relatively simple technics which do not require the assistance of the specialist anaesthetist and which are available for use by even the occasional operator, namely, pudendal nerve block and perineal infiltration, and local infiltration anaesthesia for Caesarean section. . . . The anaesthetic agent used in all the work at the Women's Hospital [Sydney, Australia] has been 1.5 per cent solution of 'Metycaine' which has been singularly nontoxic. In the whole series of cases there has been but one in which any reaction to the anaesthetic agent was reported. . . . I should like to present some figures for delivery of infants with breech presentations in primiparae at the Woman's Hospital since 1944. . . .

"Breech delivery was performed on primiparae in 33 cases; the results may be stated briefly as follows: Type of anaesthesia: Pudendal block and perineal infiltration, 30 cases; caudal analgesia, 3 cases; supplemental, 4 cases. . . . Postpartum haemorrhage occurred in three cases. . . . All babies lived; 2 had asphyxia pallida, but all were discharged well. . . . The puerperium was abnormal in three cases owing to a faulty healing of episiotomies. . . . Pudendal block and perineal infiltration is a safe method for both mother and child of delivery in uncomplicated breech presentation in a primipara. . . . I present herewith the statistics for Caesarean section performed under local anaesthesia since 1944. . . . Caesarean section was performed in 53 cases. . . . Anaesthesia Used: Local Infiltration alone, 32 cases; local infiltration plus 'Pentothal,' 13 cases; local infiltration plus gas and oxygen, 2 cases; local infiltration plus ether, 2 cases; local infiltration plus chloroform, 1 case; caudal, 3 cases. . . . The postoperative condition of the mother was good in 49 cases, but complications occurred in four cases. . . . Local anaesthesia, particularly local infiltration supplemented with intravenous administration of 'Pentothal,' is a safe anaesthetic for the mother. . . . There is no anaesthetic risk to the baby." 1 reference.

J. C. M. C.