

out without preparation or consideration is simply ignoring facts. . . .

"No anesthetic should be administered unless (1) oxygen is available and a means of administering it under positive pressure; (2) instruments are at hand to secure and maintain an open airway; and (3) suction machines capable of aspirating tenacious mucous and instruments to aspirate the trachea as well as the pharynx are provided. The patient should not have had nourishment by mouth for preferably six hours, if an elective case. If the case is an emergency and requires a general anesthetic or is at all extensive the stomach should be aspirated or emptied by any means. . . . A patient who is to receive an anesthetic should be pre-medicated. . . . The anesthetic drugs effective locally are all more or less closely related to cocaine. They vary widely in their topical effectiveness and toxicity. . . . Spinal anesthesia is not a simple type anesthesia. The basic techniques are not difficult, it is true, but the proper handling of the patient both psychologically and physically and an appreciation of the problems incident to the inevitable changes in respiratory and circulatory physiology under this type of anesthesia are necessary if this method is to be safe and satisfactory. . . . The principal complication with sodium pentothal is the occurrence of hypoxia which may result in permanent central nervous system damage if not in death. . . . Fatalities occur from drop ether where no evident cause for such an event can be found. Ether produces profound metabolic changes and in few instances there is no doubt that these disturbances may be incompatible with life. . . .

"Obstruction of the airway by saliva, mucous or blood must always be prevented; a partially obstructed airway over any period of time may well lead to death of the patient. . . . It is

well to warn the parents of children who do not measure up to standards for their age and/or who show evidence of having excessive lymphoid tissue or who have been chronically ill that anesthesia is a real hazard. . . . For short procedures such as myringotomies where general anesthesia is desired, vinyl-ether is probably safer than ethyl chloride."

J. C. M. C.

HELLIWELL, P. J., AND HUTTON, A. N.: *Analgesia in Obstetrics*. *Anaesthesia* 4: 18-21 (Jan.) 1949.

"Mr. Gibberd of Guy's Hospital suggested that it might be of interest to analyse the material obtained from a clinical investigation undertaken, by the Royal College of Obstetricians and Gynaecologists, into the use of trichlorethylene administered by means of a Freedman's inhaler. Over a period of 15 months the clinical material from some 2,300 cases, some of which were conducted by ourselves, were analysed. . . . For any complete investigation of trichlorethylene some method of accurately estimating its concentration in blood and also in vapour/air mixtures should be available. . . . A new method was . . . evolved in collaboration with Dr. F. H. Brain of the Chemistry Department of Guy's Hospital. This new technique involved a considerable amount of routine laboratory work which has only just been completed. As a result we are now able to estimate accurately very small concentrations of trichlorethylene in either blood or vapour/air mixtures. Professor Gibson considers this method would be best published in the *Biochemical Journal*. . . .

"From various comments made by observers during the investigation it appeared doubtful if Freedman's inhaler did produce a constant trichlorethylene vapour/air mixture as was claimed. We found upon investigation

that it did not. . . . We decided to investigate administration of trichlorethylene by the rectal route. . . . Because of the lack of suitable subjects, we have not yet been able to estimate accurately the dosage necessary to produce the same concentration of trichlorethylene in the blood as appears from the use of a Freedman's inhaler, but as soon as this has been done, we intend to test the rectal method for the relief of pain in labour. . . . We were able to demonstrate quite easily that in the sheep, trichlorethylene appears in the foetal circulation almost immediately after it is administered to the mother. Furthermore we obtained evidence of an extremely interesting phenomenon, namely that the concentration in the foetal circulation rapidly became higher than in the maternal arterial circulation. In order to confirm this unexpected discovery, laboratory experiments were performed with Barcroft's saturators. Samples of foetal and maternal blood were exposed to similar concentrations of trichlorethylene vapour, and it was found that under these conditions the foetal blood absorbed more than the maternal blood. It is not at present very clear why this should be so, but in view of the work of Barcroft and Popjack it does not appear to depend on the lipid content of the different bloods. . . . It was found that in the goat, whereas the trichlorethylene appeared in the foetal circulation equally quickly, in this species the higher concentration in the foetal blood did not take place. . . . In spite of gross overdosage to the mother, foetal electro-cardiograms have not shown prolongation of the P-R interval, bradycardia or other arrhythmia. To confirm this, we have arranged for a further supply of goats. . . . The ef-

fect of trichlorethylene on uterine contractions has not so far been investigated."

J. C. M. C.

GREENE, B. A., AND PILLION, J. W.: *The Dilute Pentothal Drip Infusion*. *Surgery* 24: 855-859 (Nov.) 1948.

"We and our associates have been administering pentothal sodium in very dilute solution as a drip infusion during the past two years in over 5,000 cases. It has proved to be so widely and variously useful that we believe it deserves greater popularity. . . . As a rule, the needle is 20 gauge, the concentration as 1:1,000, and the total volume infused for sedation is 200 to 400 cc., for basal anesthesia 300 to 1,000 cc. For a short complete anesthesia with pentothal we still prefer the intermittent injection of 2.5 per cent. . . . The valuable characteristics which are made more evidently and widely useful by the highly dilute solution of pentothal sodium are (1) sedative and hypnotic, (2) basal anesthetic, (3) anticonvulsant, (4) antiemetic, (5) antithyrototoxic, and (6) depressant of excessive sympathetic stimulation."

J. C. M. C.

RUSTON, F. G.: *Epidural Anesthesia in Genito-Urinary Surgery*. *Urol. & Cut. Rev.* 52: 651-653 (Nov.) 1948.

"As a general rule, patients who undergo genito-urinary surgical procedures are bad risks. . . . Epidural anesthesia is of great use in the management of such patients. . . . I use a single dose method, but if one uses continuous caudal block as described by Hingson, then a greater range of usefulness may be obtained."

J. C. M. C.