

cient concentration to exert a definite inhibiting effect on the action of sulfonamide drugs that may be present in the blood. Infection introduced into an area which has been infiltrated with procaine may become established locally in spite of the continuous presence in the body of bacteriostatic concentrations of sulfonamide drugs. It is desirable to use local anesthetic drugs other than p-aminobenzoic acid derivatives for infiltration when performing exploratory punctures of potentially infected areas. Procaine, or similar anesthetics of the p-aminobenzoic acid series should also be avoided in extensive operative procedures on patients having severe infections, in which rapid and effective action of sulfonamide drugs is essential." 23 references.

J. C. M. C.

THOMAS, G. J.: *Pentothal Sodium—Range of Usefulness, Complications and Their Management*. J. Indiana M. A. 37: 5-8 (Jan.) 1944.

"The intravenous method of administering an anesthetic agent has a strong appeal to the experienced anesthetist, the surgeon and the patient. This method has, further, the advantage of causing a patient to traverse from the first to the middle of the surgical stage of anesthesia within a period of one to three minutes. . . . Pentothal sodium has a wide range of usefulness in surgery and medicine. . . . Pentothal sodium may be administered rectally or intravenously. . . . The intravenous method is the most practical. . . . With pentothal anesthesia complications are rare. However, some occur and should be handled without serious results. The most common is respiratory depression. . . . We found that oxygen administered through a mask or a catheter is frequently sufficient to stimulate the respiration, although we occasionally find

it necessary to administer nitrous oxide and oxygen, in the meantime reducing the amount of pentothal. This technic has become quite popular with our staff. Other complications are coughing, laryngospasm, and hiccups, which may occur either in deep or light anesthesia. These may cause alarming cyanosis and perhaps cardiac embarrassment, if persistent. Such complications are undoubtedly due to parasympathetic hyperactivity. Physiologically, we find that the administration of atropine in proper amounts will readily control these complications. However, should they occur under anesthesia, we aspirate the mucus or other material in the pharynx, deepen the anesthesia and immediately administer nitrous oxide-oxygen under pressure. Trismus (a tetanic spasm of the jaw muscles) is another complication. This is undoubtedly a result of parasympathetic hyperactivity that can be controlled with atropine preoperatively. Should this occur during anesthesia, a nasopharyngeal tube should be inserted immediately and oxygen administered under pressure. Delay in this procedure may be serious. Sneezing usually occurs in eye surgery. This must be treated preoperatively. We instill two drops of 4 per cent cocaine in each eye thirty minutes before the operation, again ten minutes before operation, and again immediately before starting the anesthetic.

"Urticarial rash has appeared on three occasions in our series of cases. It occurred during the induction of the anesthetic and is an interpretation of the idiosyncrasy of the patient to that drug. . . . Should the condition occur during anesthesia, discontinue the pentothal and immediately administer four to six minims of neosynephrin intramuscularly. . . . Pentothal sodium should not be employed or recommended when there is a marked physiologic or mechanical interference with

the respiratory function. It is contra-indicated in inflammatory conditions of the neck complicated by edema of the glottis, and in tumors of the neck encroaching on the glottis and interfering with respiration. Children under seven or eight years of age, unless very robust, are poor subjects. . . . It is inadvisable to use this agent on patients suffering with respiratory embarrassment due to cardiac decompensation. I feel that it is contraindicated in the presence of bronchiectasis, severe anemia and shock. I also believe that pentothal is contraindicated in abdominal surgery when deep relaxation is important. Furthermore, cases of intestinal obstruction react poorly to pentothal sodium alone. Pentothal should be supplemented with block or spinal analgesia in this type of surgery. . . . The drug should be administered by a thoroughly-trained anesthetist who is competent to deal with any situation that may occur during the administration of this popular but potent drug." 1 reference.

J. C. M. C.

BRAY, LORNA: *Intravenous Anaesthesia*.  
M. J. Australia 1: 46-49 (Jan. 15)  
1944.

"All patients for intravenous anaesthesia are prepared as they would be for general anaesthesia. . . . Intravenous anaesthesia is contraindicated for the following subjects: (i) children who are less than ten years of age, because all the rapidly acting barbiturates used intravenously are respiratory depressants; (ii) patients with severe dyspnoea from pulmonary or cardiac disease. . . . As a rule a capsule of 'Seconal' (1.5 grains) is given the night before operation, and the dose is repeated in the morning one and a half hours before the patient goes to the operating theatre. This is followed one hour later by the injection of morphine (one-sixth of a grain) with atropine (one one-hundred and

twentieth of a grain) or hyoscine (one two-hundredth of a grain). . . . The method of administration here described is that for 'Pentothal Sodium.' . . . It is made up in ampoules of 0.5 and 1.0 gramme and is used in solutions of 2.5 per cent to 5 per cent strength. . . . As soon as the stage of muscular relaxation is reached, a metal airway is introduced and oxygen is run in slowly through a nasal catheter. The subsequent rate of injection and amount of anaesthetic agent used are now determined by the behaviour of the patient and by the ordinary signs which are used as a guide to the depth of anaesthesia—namely, the increase in depth of respiratory phase, the pupillary reactions, and the diminution or increase of muscular relaxation. If dyspnoea should appear in the course of the operation, the anaesthesia must be immediately discontinued. . . . The repeated dose method is the technique usually employed. . . . The single dose method has been infrequently employed by the writer. . . . It induces an anaesthesia of short duration with extremely deep narcosis, and produces low blood pressure and depressed respiration. . . . The continuous method is selected in the following circumstances: (i) in cases in which difficulties are likely to be encountered during prolonged anaesthesia; (ii) for debilitated patients, when it is desirable to cut down to a minimum the quantity of anaesthetic agent used. . . . Before the patient leaves the operating theatre the reflexes should be returning. . . .

"Used as a preliminary to inhalational anaesthesia, intravenous anaesthesia abolishes all knowledge of the operation. . . . When intravenous anaesthesia is employed as a supplement to spinal anaesthesia, great care must be exercised in its use. . . . In cases in which spinal anaesthesia has failed completely, it is not wise to use intravenous anaesthesia. But in borderline cases, in which the induction of the