

gerous to try to get the patient deep enough to allow the tracheal tube to be passed with direct laryngoscopy. Even when the anaesthetic level is deep cyanosis causes spasm of the jaw muscles which makes intubation exceedingly difficult. Again, facial injuries may render the direct method impossible or inadvisable. Facilities must therefore be immediately at hand for the performance of tracheotomy. On the rare occasions when it is necessary, anaesthesia can proceed . . . through the tracheal opening. . . . Postoperatively, all these cases are benefited by a course of oxygen therapy."

J. C. M. C.

LYMAN, E. E.: *Praeanesthetic Medication with Special Consideration of the Problems in Maxillo-Facial Surgery*. *Mil. Surgeon* 88: 57-62 (Jan.) 1941.

"The problems of preanesthetic medication encountered in maxillo-facial surgery are not the same problems as those of general surgery. In the latter it is imperative to have relaxation of the muscles. It is of little importance to the general surgeon if his patient remains unconscious from heavy narcotization for several hours after his surgery is complete. On the other hand, in maxillo-facial surgery it is desirable to narcotize the patient as deeply as possible, depending on the type of case, etc., and yet retain the cough reflex for the protection of the patient against aspiration. Furthermore, it adds greatly to our safety factor if the patient, when returned from surgery, is sufficiently conscious to spit out products of hemorrhage and emesis. The psychic effect of premedication in both local and general anaesthesia is to lessen or abolish the patient's fears and apprehensions, and to safeguard him from the recognized entity of psychic shock. . . .

"The properties of an ideal hypnotic may be summarized as follows: 1. The

drug must produce a reliable hypnotic effect. 2. The hypnotic action must be produced without a preliminary stage of excitement. 3. The drug must not irritate the stomach. 4. It must be absorbed rapidly so that the hypnotic action is produced at a regular interval after its administration. 5. The drug must either be broken down in the body or else be excreted rapidly so that it produces no after-effects the next day and does not produce cumulative poisoning when taken daily. 6. The drug must not produce dangerous side actions, such as cardiac depression. 7. There must be a sufficient margin of safety between the dose required to produce hypnosis and that which produces medullary depression. 8. The drug must not produce tolerance nor a drug habit when given regularly over long periods. . . .

"The fast-acting barbiturates, either secondal (Lilly) grains 3 to 4½ orally or nembutal (Abbott) 1 to 2 cc. intravenously combined with H.M.C. No. 1 or No. 2, are to be preferred as a basal narcotic for maxillo-facial surgery." 11 References.

J. C. M. C.

MUSHIN, W. W.: *Anaesthesia for Major Dental Surgery: an Alternative to the Endotracheal Method*. *Brit. M. J.* 1: 46-48 (Jan. 11) 1941.

"Pernasal endotracheal inhalation anaesthesia is now firmly established as a method of choice for major dental and oral surgery. It has, however, long been felt that in spite of the obvious advantages attached to the method the liability to trauma of the mouth and pharynx would make a simpler but equally satisfactory alternative desirable for major dental surgery. . . . To obtain the minimum of postanesthetic sequelae the anaesthetist must avoid the deeper planes of anaesthesia—the first plane of the third stage is all that is necessary for this work; nitrous-

oxide-oxygen is still the most suitable one for the type of surgery involved.

"To be satisfactory any alternative inhalation method must permit the mouth or pharynx being efficiently packed. . . . Nasopharyngeal inhalation of gas-and-oxygen has probably been used at some time or other by most anaesthetists. . . . A technic has . . . been evolved in which two tubes of as large a bore as possible are passed, one through each nostril. The ends of these tubes lie just beyond the epiglottis and opposite the glottis. The tubes are then connected to a McKesson machine, and the pharynx or mouth is packed with gauze. A state of affairs is obtained which has the advantages of the endotracheal method without most of its disadvantages. The only causes of obstruction of the respiration, if the tubes are the correct length, are spasm of the glottis—a condition rarely seen with nitrous-oxide-oxygen anaesthesia—and depression of the jaw by the surgeon, which can usually be countered by the anaesthetist. . . . By experiment and checking with laryngoscopic examination two average lengths [of tubes] were determined: for men, 6½ inches; for women, 5¾ inches. The tubing is that used for endotracheal work by Magill (the thin-walled variety) cut with a short bevel (45 degrees). The anaesthetist should be prepared to cut tubes for any individual patient. . . .

"Anaesthesia is induced with nitrous oxide, and when the patient is in deep third-stage anaesthesia the face-piece is quickly lifted and one of the tubes of large diameter (8-10 Magill tube) is passed through whichever is the larger nostril. The tube should be inserted at right angles to the face and the point kept in contact with the floor and septal wall of the nasal fossa. The face-piece is replaced and the patient re-anaesthetized. The second tube is

then inserted in like manner. As a rule the two sides of the nose differ in size, and a smaller tube will be used for the other side. . . . The patient is now stabilized with oxygen, the pressure of the gases being increased, if necessary, to 10 to 15 mm. Hg. to overcome air leakage through the mouth while the pack is inserted. As a rule the mouth can be easily opened at this stage, and the pharynx or mouth packed. . . . As a rough guide the anaesthetist should pack in exactly the same way as for an endotracheal tube, but not quite so far back towards the glottis. . . .

"Altogether 230 patients have been anaesthetized in this manner, the majority at the Royal Dental Hospital, for a variety of dental operations. . . . From the surgeon's point of view they were all satisfactory, and in about half the cases he was not aware until after the operation that an endotracheal tube had not been used. Postoperative symptoms which could conceivably be due to the tubes were absent, except in two cases. . . . The method described above has its limitations. . . . It should not be used in patients in whom obstruction due to depression of the mandible is difficult to overcome or in young children." 6 references.

J. C. M. C.

TOLLEFSON, D. G.: *Analgesia and Anaesthesia in Labor*. West. J. Surg. 49: 44-55 (Jan.) 1941.

"In the first six years of my practice, obstetrical analgesia presented no problem. The writer was satisfied with the use of nitrous oxide analgesia and small doses of morphine. However, the constant publicity concerning 'painless childbirth' in the lay press, and the use of the barbiturates by colleagues with apparent satisfaction from the patient's standpoint, reduced my resistance to the more complete analgesic technic. It was obvious that patients