

a routine procedure following extractions and surgery. It is particularly useful in immediate dentures. It is used on and in the denture and carried to any desired area in the mouth.

	Gram
Sulfathiazole	5.00
Procaine hydrochloride60
Eugenol15
Base q.s.	30.00

A jar is half filled with the ointment, into which is worked a yard of sterile half-inch plain gauze, to be ready when needed. Following extractions, a wick of this gauze with a liberal amount of ointment is inserted lightly into the bottom of the socket and then partly withdrawn. This leaves an area for blood clotting, and also a center wick containing sulfathiazole which combats infection. The procaine hydrochloride is gradually absorbed by the surrounding tissues, supplementing the injected local anesthesia."

J. C. M. C.

BENNETT, J. H.: *Trichlorethylene in Dental Anesthesia*. Cincinnati J. Med. 25: 159-162 (June) 1944.

"We have adopted as a routine method the use of nitrous oxide, oxygen, and trichlorethylene for dental extractions for children out-patients of the Cincinnati General Hospital. Our results in the series of 260 cases have been satisfactory." 6 references.

J. C. M. C.

CULLEN, S. C.: *Anesthesia in Otolaryngology*. Tr. Am. Acad. Ophth. pp. 240-247 (Mar.-Apr.) 1944.

"Premedication is a misnomer. The nonvolatile drugs administered to the patient preoperatively are actually a part of the anesthesia. They possess definite pharmacological actions and must be administered as intelligently as any other anesthetic agent. . . . The forcible application of local anes-

thesia on the uncooperative patient frequently results in poor anesthesia, inadequate operating conditions, and may terminate tragically. If these anesthetic techniques are to be used, the drugs administered preanesthetically should provide hypnosis, protection against the toxic effects of the anesthetic drug, analgesia, reduction of reflex irritability and amnesia. Such effects can be accomplished by using barbiturates for hypnosis and protection against the toxic effects of cocaine or similar drugs, morphine for the reduction of reflex irritability and analgesia, and scopolamine for amnesia. . . . Premedicating drugs should also be ordered prior to inhalation or other techniques of anesthesia with direct reference to the particular agent to be employed. . . . In order to select the most suitable agent and technic to be used in each individual case, the anesthesiologist must first learn the requirements of the surgeon. . . . The surgeon need only state the desired requirements and the anesthesiologist is obligated to fulfill them without sacrificing the safety of the patient. Fortunately, it is now possible with the application of present day anesthetic agents and methods to achieve mutually satisfactory working conditions. In order that I may illustrate this practically, let me presume the case of a healthy 45 year old man on whom a laryngectomy or a laryngeal fissure is to be done. If the patient is adamant and refuses to have the procedure done under local or regional anesthesia, an agent must be used that will provide complete narcosis with safety for the patient and convenience for the surgeon. The surgeon may desire to use the endotherm and he wants to have room to work unhampered by anesthesia equipment and anesthetist. In this event, one could use avertin and nitrous oxide, nitrous oxide and oxygen alone, or pentothal. In any case,

the patient will need to be intubated. This can be done by transnasal or transoral endotracheal catheterization which may be supplanted later, as the trachea is severed, by a tube passed into the distal end of the cut trachea. . . .

"If the patient is willing, the whole surgical procedure can be done under cervical nerve block. In this case, it is necessary to complement the block by topical application of cocaine in the trachea and by injection of procaine into the superior laryngeal and glosso-pharyngeal areas. The cervical block may be complemented after severing of the trachea by pentothal anesthesia. . . . Intravenous barbiturate anesthesia has proved to be a substantial part of the anesthetist's armamentarium. May I emphasize, however, that it can also, when imprudently used, be a distinct hazard in otolaryngological work. . . . The barbiturates have the property of enhancing the laryngeal reflexes and any direct or reflex excitation predisposes to laryngospasm, coughing, sneezing, or hic-coughing. It is therefore advisable to use pentothal in otolaryngological surgery only when there is to be no contamination of the pharynx with blood, pus, or mucus, unless the patient is intubated. The intubation should be done with the patient awake and the throat and larynx cocaineized. Instrumentation of any sort which involves the vocal cords causes frequent prompt and severe laryngospasm, which has, at times, necessitated tracheotomy. . . . Because of his close supervision of the patient's physical state, the anesthesiologist is first aware of the need for supportive measures in the event of impending shock and, on occasions, can best determine the patient's ability to withstand an extension of the surgery. He should be prepared to impart the details influencing these decisions. . . . In otolaryngological surgery, the principal problem in the technical admini-

stration of anesthesia is the establishment and maintenance of a free airway without hampering the operator. . . . The maintenance of an airway during otolaryngological surgery can, in many cases, be accomplished by simple measures. It is, however, frequently necessary to utilize the endotracheal catheter. The anesthesiologist and the surgeon must not forget that in many patients being operated upon under infiltration, regional or topical anesthetic technics, attention to the airway is also important. . . .

"Otolaryngologists use cocaine and similar drugs frequently. Reactions to these drugs are not uncommon. . . . The anesthesiologist can be of service in emergencies of this sort and should be prepared to institute prompt and thorough treatment. Reactions to cocaine or similar drugs are in 99 per cent of the cases due, not to drug idiosyncrasy or sensitiveness, but due to the presence of the drug in the circulating blood in sufficient concentration to depress the vital functions of the brain stem. . . . Prophylactic treatment of reactions to cocaine or similar drugs includes the use of barbiturate as premedication. The barbiturate depresses the hypothalamus and helps to minimize convulsant features of drug reactions. Whenever these drugs are applied to areas where absorption is rapid, the concentration must be as low as possible and still effect good anesthesia, and it should be applied slowly. . . . The immediate type of reaction is caused by the sudden absorption of a large amount of the drug in a short time, such as accidental intravenous injection or the application of a high concentration to a vascular area. It is manifest by prompt and complete circulatory and respiratory collapse. Immediate artificial respiration with oxygen and intravenous use of ephedrine or neosynephrin to elevate the blood pressure may save

the lives of a few of these individuals. Intracardiac administration of adrenalin may also be a life saver. Ephedrine or neosynephrin should be used intravenously until the blood pressure is restored to within 10 per cent of normal. Usually 15 mg. of ephedrine or 5 minims of neosynephrin can be given intravenously at ten-minute intervals until results are obtained. The delayed type of reaction is due to a slower build-up of a toxic level of the drugs in the blood stream of the patient. In this type of reaction the patient becomes stuporous, the pulse becomes slower, the blood pressure falls, and twitchings or convulsions may develop with respiratory failure. Oxygen is again of benefit with artificial respiration, if necessary. Ephedrine or neosynephrin may be used if the blood pressure falls. If convulsions develop, a barbiturate, such as sodium amytal or pentothal sodium, introduced intravenously, will check them. The barbiturate should be given until the convulsion is stopped. The breathing may also stop, but such stoppage can be easily remedied by artificial respiration. The majority of patients developing this latter type of reaction can be saved, provided prompt, complete physiologic and pharmacologic methods are used. All otolaryngologists should have oxygen, with a means of applying it, immediately available together with ephedrine or neosynephrin and an intravenous barbiturate. . . . Coramine, metrazol, caffeine, hot coffee enemas, rectal dilation . . . have no place in the treatment of reactions to cocaine or similar drugs. When adrenalin is used in combination with procaine, it is important to differentiate between adrenalin reaction and procaine reaction. . . .

"Another interesting and new example of the cooperation that can be manifest between anesthesiologist and surgeon is the recent introduction of

the use of curare for muscular relaxation during endoscopy. . . . Its application during endoscopy came about as a result of a search for a satisfactory answer to the problem of the occasional individual who either could not or would not relax his jaws and neck sufficiently to permit good endoscopic examination. . . . By using topical anesthesia in combination with curare in a patient well premedicated, the relaxation is excellent, the examination can be completed with ease, and the patient is reasonably comfortable and spared the hazards of general anesthesia for such a procedure. . . . Occasional laryngospasm is encountered, but this can be eliminated or minimized by adequate cocainization. Respiratory depression occurs at times, but is usually not sufficient to embarrass the patient. If it is, brief artificial respiration with oxygen soon restores adequate function and the procedure can be completed without haste. Curare is recommended only for the difficult patient, who, fortunately, appears infrequently, as a substitute for general anesthesia."

J. C. M.

BROWNE, G. F.: *General Anesthesia for Total Laryngectomy*. Ann. Oto. Rhin. & Laryng. **53**: 140-143 (Mar.) 1944.

"Recently I have had occasion to administer anesthesia for four total laryngectomies. . . . Routine pre-anesthetic sedation was employed in all cases where respiratory obstruction was not severe. This consisted of pentobarbital gr. 11½ the night before operation and a moderate dose of morphine and atropine (or scopolamine) 1½ hours pre-operatively. If severe obstruction was present, little or no sedation was used. These patients were anesthetized with nitrous-oxide-oxygen ether and an ordinary Magill endotracheal tube inserted. The nasal route