is under the supervision and instruction of medical and dental anesthesiologists. The instruction in the operating room is directed towards both inpatient and outpatient care of the anesthetized patient. The dental residents are then taught office-type anesthesia in the outpatient clinic of the department of dentistry. The dentist-anesthesiologists are taught when they do go into private practice to operate as a team of two dentists or two oral surgeons. Monitoring of the patient's vital signs is routine during the pre-, intra- and postoperative periods. Facilities for excellent recovery room care are mandatory, and well established. Those of us in anesthesiology for dentistry are equally concerned that optimum care be given a dental patient who needs general anesthesia.

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Anesthesiology
49:374, 1978

To the Editor:—Having read Dr. McLaughlin's letter in the May 1978 issue of ANESTHESIOLOGY,[1] we feel that the reply by Drs. Klein, Wollman, and Cohen[2] is inadequate.

A three-month training program in general anesthesia is not considered adequate, nor is it acceptable for a dentist to administer general anesthesia and render dental treatment simultaneously, any more than it is acceptable for a physician–anesthesiologist to administer anesthesia to several patients in different operating rooms at the same time. In addition, it is unconscionable to state that patients who need dental treatment should be denied the full range of pain control methods that are available for other health services.

The American Dental Society of Anesthesiology requires a minimum of one year of full-term hospital training in general anesthesia for eligibility for its Fellowship program. The American Dental Association and a number of state boards have accepted this criterion.

The economic impact on the patient would be overwhelming if every general anesthetic were to be administered in a hospital, the cost easily being three to four times what it is in the dental suite. In addition, there is serious question as to the ability of institutions and personnel to handle the multitudes who need these services daily if that were to become a requirement.

Dentistry's role in general anesthesia and other methods of pain control requires no apology. From Wells to Heidbrink to Monheim, we have contributed to discovery and progress in the field of anesthesiology. This progress will not be sidetracked. Training programs that we need and want must continue to be developed.

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Rational Use of a Scavenging Mask

To the Editor:—One of the commonest faults in the conduct of dental anesthesia is to neglect the critical balance between fresh gas flow and suctioning at the mask. Considered superficially, the very idea of the scavenging mask seems so self-defeating as to be ludicrous, for if the velocity of suctioning equals or exceeds the peak velocity of fresh gas flow plus peak expiratory flow rate, not one molecule of nitrous oxide will become available to the patient. On the other hand, if the velocity of inspiratory flow exceeds the velocity of fresh gas flow, rather more resistance than was intended in the Brown Exhalation Valve (McKesson)

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will be encountered. In fact, with a tight-fitting mask, a feeling of suffocation would be inevitable and, in practice, the patient would simply augment inspiration through his mouth.

Using time-weighted sampling with gas chromatography, we found ambient levels of nitrous oxide, as measured next to the patient's feet, of 114, 201, 108, and 135 ppm in an exceptionally well-ventilated operating room of our dental clinic. Under the same conditions, we then employed the Brown Scavenging Mask and found the following consecutive levels of nitrous oxide at the patient's feet: 114, 23, 60, 25, 25, 90, 101, 69 and 125 ppm. The first and last high values were measured at times when we also monitored the force of suctioning and found that it was 1 to 2 l/min below the recommended level of 7 l/min. The other high values were, in our opinion, inevitable, if only because of a basic dilemma. The dilemma is that of potentially scavenging the anesthetic before it can reach the patient. Normally, during quiet breathing, the peak velocity of flow attained in the upper airway is of the order of 25 to 30 l/min. For a patient sitting in the dentist's chair, one may safely assume a higher figure. Spillage, and incidentally provision of at least some anesthetic to the patient, are two inevitable results of the use of correspondingly high fresh gas flows. We are trying to find a solution such as McKesson himself provided with his now defunct demand-flow machine, and that should not be beyond the ken of the manufacturers of anesthetic apparatus.

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Uvular Edema

To the Editor:—We were interested in the report by Drs. Ravindran and Priddy[1] of a case of uvular edema following endotracheal intubation. We had a similar case last month. A 50-year-old man was admitted for repair of an epigastric hernia. He had no history of allergy to medications, and physical examination showed him to be in good condition. ECG, electrolyte, hemoglobin and urinalysis values were all within normal limits. He was premedicated with meperidine, 100 mg, diazepam, 5 mg, and glycopyrrolate, 0.2 mg. Anesthesia was induced with thiopental, 300 mg, followed by succinylcholine, 50 mg, and endotracheal intubation was accomplished atraumatically using an 8.5-mm Murphy low-pressure, high-volume cuffed tube. Because the patient had capped front teeth, we elected not to place an oral airway; but, in anticipation of possible airway obstruction after extubation, a no. 30 soft latex rubber nasal airway was placed in the left nostril at the time of intubation. Anesthesia was maintained with nitrous oxide, oxygen, and succinylcholine supplemented with Innovar®, 2 ml, and 0.15 mg fentanyl infusion, and was uneventful. Anesthesia lasted 50 min. The patient was returned to the recovery room awake and breathing normally. The nasal airway was removed at the time of extubation and in fact had not been functionally useful. The following day the patient complained of a feeling that something was "falling down" the back of his throat. On inspection, the tip of the uvula was found to be deep red, swollen and necrotic. There was no respiratory difficulty, and no treatment was needed. Eight days later the tip of the uvula had sloughed off and the area had healed.

Like Drs. Ravindran and Priddy, we could find no report of a similar incidence in our review of the literature until we saw their report. In our case, we felt that the cause was entrapment of the uvula between the nasal airway and the endotracheal tube. With the head turned slightly to the right, as is customary following endotracheal intubation, it would not be surprising if the uvula fell towards that side and were entrapped between the two tubes. This is particularly possible when the nasal tube comes from the left, since its direction in the pharynx would be from left to right towards the midline. Similar entrapment could theoretically occur between an oral airway and the endotracheal tube, and we wonder whether such might have been the cause in the case reported by Drs. Ravindran and Priddy. One might infer that there would be insufficient pressure to occlude blood flow in such a juxtaposition of soft latex rubber with

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