

DENTAL HYGIENISTS: ALLOW TO ADMINISTER NITROUS OXIDE

House Bill 4675 (Substitute H-2)
First Analysis (6-25-03)

Sponsor: Rep. Barb Vander Veen
Committee: Health Policy

THE APPARENT PROBLEM:

Reportedly, the number of practicing dentists has declined nationwide, while the field of dental hygiene has been growing. As patient case loads increase, dentists have been delegating more and more job tasks to their hygienists and assistants. Until recently, however, Michigan law has prohibited dental hygienists from administering local anesthesia to their patients.

For several years, a task force formed between the Michigan Dental Hygienist Association and the Michigan Dental Association has studied the situation and has sought to amend the law. The task force believed that allowing hygienists to administer local anesthesia under the direct supervision of a dentist could promote efficient and quality dental care. Last year, Public Act 423 of 2002 amended the Public Health Code to allow dental hygienists who had passed a stringent training course and examination to administer intraoral block and infiltration anesthesia to patients 18 years of age and older.

Last year's legislation originally included a provision to allow a dental hygienist to administer nitrous oxide, but was removed in order to allow further review of the issue. Approximately 30 states or more currently allow hygienists to administer local anesthesia and/or nitrous oxide. In over 30 years of hygienists administering nitrous oxide, no deaths or serious injuries have occurred. After careful review, it has been decided to again offer legislation to expand the scope of practice of dental hygienists to include the administration of nitrous oxide.

THE CONTENT OF THE BILL:

Currently, only a licensed dentist can administer nitrous oxide to a patient. The bill would amend the Public Health Code to allow a dental hygienist to also administer nitrous oxide, and to allow a dental assistant to monitor and assist in the administration of the drug.

Dental hygienist. Under a dentist's direct supervision, a dental hygienist may currently administer intraoral block and infiltration anesthesia to a patient who is at least 18 years old. The bill would delete the age restriction, allowing a hygienist to administer anesthesia to all patients, and would expand the scope of practice for hygienists to include the administration of nitrous oxide analgesia. However, if a patient under 18 years old was currently taking another sedative, the dentist would have to personally administer the nitrous oxide. Also, the ability for a dental hygienist to administer nitrous oxide would be limited to those circumstances in which the concentration of the drug was not more than 50 percent.

In addition to the training course, examination, and certification now required for the administration of local anesthesia, a dental hygienist would have to complete a course containing at least four hours of didactic instruction and four hours of clinical experience in nitrous oxide analgesia. The course would have to include training in nitrous oxide analgesia medical emergency techniques, pharmacology of nitrous oxide, and nitrous oxide techniques. If available, a course in selection of pain control modalities should be taken by the hygienist intending to administer either local anesthesia or nitrous oxide analgesia.

A state or regional board-administered written examination would have to be successfully completed within 18 months of completing the course work in nitrous oxide analgesia, if such an examination were available and approved by the Department of Community Health (DCH). As in the case of certification to administer local anesthesia, applying for certification in the administration of nitrous oxide would be at the discretion of the hygienist. The bill would specify that the certification for administering either local anesthesia or nitrous oxide would have to be issued or documented by the DCH or its designee.

Dental assistants. The bill would expand the scope of practice for registered dental assistants by allowing them, under a dentist's direct supervision, to monitor and assist the administration of nitrous oxide analgesia. "Assisting" would be defined as setting up equipment and placing the face mask. The term would not include titrating and turning on or off equipment. The nitrous oxide levels would have to be preset by the dentist or dental hygienist and could not be adjusted by the dental assistant except in the case of an emergency. In an emergency, the dental assistant could turn off the nitrous oxide and administer 100 percent oxygen. "Monitoring" would mean observing levels, admonishing, and reporting to the dentist or dental hygienist.

Under a dentist's delegation and direct supervision, a registered dental assistant could assist and monitor the administration of nitrous oxide analgesia by the dentist or dental hygienist if the dental assistant had successfully completed a course in assisting and monitoring the administration of the drug offered by a dental or dental assisting program accredited by the Commission on Dental Accreditation of the American Dental Association and approved by the DCH. The course would have to contain a minimum of five hours of didactic instruction and include the following content:

- Nitrous oxide analgesia medical emergencies techniques;
- pharmacology of nitrous oxide techniques; and,
- nitrous oxide techniques.

The Public Health Code defines "direct supervision" of a dentist to mean that a dentist designates the patient upon whom the procedures are to be performed and describes the procedures to be performed; examines the patient both before prescribing the procedures and upon completion of the procedures; and is physically present in the office at the time the procedures are being performed.)

MCL 333.16611

FISCAL IMPLICATIONS:

Fiscal information is not available.

ARGUMENTS:

For:

The majority of states already allow dental hygienists, and in some cases dental assistants, to

administer nitrous oxide. This is an appropriate practice as dental hygienists are highly trained health professionals; the educational curriculum for nationally registered dental hygienists is almost identical to that for registered nurses. As the case loads in dental offices increase due to a decline in the numbers actively practicing, it is necessary for dentists to shift some duties to appropriately trained staff. Without doing so, dentists may be forced to turn away new patients or patients may have to wait weeks or months for appointments.

The bill is loaded with safety features. The bill would require training and examination in administering nitrous oxide, and could only be done under the direct supervision of the dentist. Machines used in dental offices differ from those used in hospitals; hospitals may use higher concentrations of nitrous oxide than the machines do in dental offices, and unlike dental offices, hospitals may mix the nitrous oxide with other drugs. When administered by a dental hygienist, the nitrous oxide could not exceed 50 percent. Also, equipment used in dental offices automatically shut off if the oxygen fails. In addition, where masks used in hospitals often cover both the nose and mouth, a mask used in dental offices covers only the nose – thereby allowing a patient to have some control over the amount he or she breathes in.

Though dental assistants could monitor and assist in the administration of nitrous oxide, they also would be required to undergo additional training. They would be restricted to setting up the equipment and placing the face mask, observing the levels of the drug, and reporting to the dentist or hygienist. If an emergency were to occur, the assistant could shut off the nitrous oxide and administer 100 percent oxygen.

This issue has been studied and debated by dentists, dental hygienists and assistants, and anesthesiologists. Many of the safeguards incorporated into the bill were recommendations made by members of these groups. Data from other states support that it is appropriate for trained dental hygienists to provide this service, and that it is safe for dental assistants to assist and monitor the procedure.

Against:

The bill would allow dental hygienists to administer local anesthesia and nitrous oxide even to children. Children may react very differently to medications, and emergency medical care for children can differ from adults. Also, when legislation was enacted last year to allow hygienists to administer local

anesthesia, concerns were raised then by some in the dental profession because of the potential for harm to the patient. The same is true for nitrous oxide, which can cause serious side effects. Shifting responsibility to other office staff simply because dentists are too busy to do what they are trained to do is not a good enough reason. Some procedures need to remain in the hands of the more highly trained dentists, and better methods to recruit new members to the profession need to be developed.

Response:

If a child under 18 years of age is already taking sedatives, only a dentist could administer the nitrous oxide. The issue was looked at by members of the dental profession and anesthesiologists and their concerns were addressed in the legislation. Other states have allowed dental hygienists to administer local anesthesia and nitrous oxide without negative incidents for years. It should be up to the national organizations representing these professionals to determine the scope of practice that ensures access to care yet provides a high level of quality and safe care.

POSITIONS:

The Department of Community Health and the Department of Consumer and Industry Services have indicated support for the bill. (6-24-03)

The Michigan Dental Association has indicated support for the bill. (6-24-03)

The Dental Hygienists Association has indicated support for the bill. (6-24-03)

The Michigan Dental Assistants Association has indicated support for the bill. (6-24-03)

Analyst: S. Stutzky

■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.