



**House  
Legislative  
Analysis  
Section**

House Office Building, 9 South  
Lansing, Michigan 48909  
Phone: 517/373-6466

**ALLOW DENTAL HYGIENISTS TO  
ADMINISTER LOCAL ANESTHESIA**

**Senate Bill 1009 as passed by the Senate  
First Analysis (4-10-02)**

**Sponsor: Sen. Dale L. Shugars  
House Committee: Health Policy  
Senate Committee: Health Policy**

***THE APPARENT PROBLEM:***

Under state administrative rules, a dental hygienist may not give injections of local anesthesia to a patient. Essentially, this leaves a dental hygienist with two options when performing a potentially painful dental procedure: the hygienist may ask a dentist in the office to administer the anesthesia or the hygienist may ask the patient to “tough it out.” In a busy office, asking the dentist to interrupt his or her work on another patient takes valuable time away from both the dentist’s patient and the patient whose teeth the hygienist is currently working on. Yet anyone who has any dental work beyond basic teeth cleaning knows just how painful dental procedures can be.

According to a Michigan Dental Hygienists’ Association (MDHA) spokesperson, the MDHA has been seeking legislation that would allow dental hygienists to administer local anesthesia since 1985. As described in its listing of official policies, the Michigan Dental Hygienists’ Association (MHDA) “advocates the utilization of dental hygienists who have completed both clinical and didactic education in an accredited program in the administration of local anesthesia and other pain options.” A Michigan Dental Association (MDA) spokesperson testified that talks between the MDA and MDHA have been going on for about three years and that a joint task force produced a formal proposal to allow hygienists to administer local anesthesia at the discretion of a supervising dentist. Twenty-eight states currently authorize dental hygienists to administer local anesthesia, and according to committee testimony, there have been no reported incidents of complications arising from a dental hygienist’s injection in the 31 years that dental hygienists have been allowed to do so.

Some people believe that it would be better for all parties involved if dental hygienists were allowed to administer local anesthesia themselves. Legislation has been introduced that would allow a dental

hygienist who had received special education relevant to the administration of anesthesia to anesthetize a patient at the discretion of and under the direct supervision of a dentist.

***THE CONTENT OF THE BILL:***

Senate Bill 1009 would amend Part 166 of the Public Health Code, which provides for the licensing and regulation of dentists, dental assistants, and dental hygienists, to allow dental hygienists who complete certain educational requirements to administer intraoral (nerve) block and infiltration anesthesia to patients 18 years old and older, upon delegation by a dentist and under the dentist’s direct supervision. (*Intraoral block anesthesia* involves the injection of a needle into the main neurovascular bundle in an area of the mouth to numb the area, whereas *infiltration anesthesia* involves the injection of a needle into the tissue directly above or below a single tooth.) The bill would also specify that the Department of Consumer and Industry Services (CIS) could not issue a dental hygienist’s license to an individual unless he or she had attended an accredited program meeting certain curriculum requirements at an accredited school or college. A more detailed summary of the bill is provided below.

Education for licensed hygienists. Part 166 prohibits an individual from practicing as a dental hygienist unless he or she is licensed or otherwise authorized by CIS as a dental hygienist. “Practice as a dental hygienist” is defined as practice at the assignment of a dentist in that specific area of dentistry based on specialized knowledge, formal education, and skill with particular emphasis on preventive services and oral health education. Although the code requires dental hygienists to have “formal education” in dentistry, it does not impose any specific education requirements. (Rule 338.11303 of the Michigan Administrative Code states that the Board of Dentistry uses the July 1995 standards set forth by

Senate Bill 1009 (4-10-02)

the American Dental Association's Commission on Dental Accreditation to determine whether or not to approve a dental hygienist program.) Under the bill, CIS could not issue a dental hygienist's license to an individual unless he or she had graduated from a school or college for dental hygienists that had a dental hygiene program accredited by the Commission on Dental Accreditation and approved by CIS. The bill would require that the school or college be accredited by a regional accrediting agency for colleges, universities, or institutions of higher education that was recognized by the U.S. Department of Education and approved by CIS. The school or college would have to conduct a curriculum consisting of at least two academic years for dental hygiene graduation with courses at the appropriate level to enable matriculation into a more advanced academic degree program.

Allow administration of intraoral block and infiltration anesthesia. Administrative rules prohibit a dentist from delegating to a dental hygienist certain intraoral procedures, including the administration of local anesthesia. The bill would allow a dental hygienist to administer intraoral block and infiltration anesthesia to a patient who was 18 years old or older, upon delegation by a dentist and under the direct supervision of the dentist. ("Direct supervision" would mean that the dentist was physically present in the office at the time procedures were performed, examined the patient before prescribing procedures and upon completion of the procedures, and designated a patient of record upon whom procedures were to be performed, and described the procedures.) The dental hygienist would have to have successfully completed a course in the administration of local anesthetic offered by a dental or dental hygiene program accredited by the Commission on Dental Accreditation and approved by CIS. The course would have to contain a minimum of 15 hours didactic and 14 hours of clinical study, including content in all of the following:

- theory of pain control;
- selection of pain control modalities;
- anatomy;
- neurophysiology;
- pharmacology of local anesthetics;
- pharmacology of vasoconstrictors;
- psychological aspects of pain control;

- systemic complications;
- techniques of maxillary anesthesia;
- techniques of mandibular anesthesia;
- infection control; and
- local anesthesia medical emergencies.

The dental hygienist would also have to have successfully completed a state or regional board-administered didactic examination on local anesthesia within 18 months of the completion of required course work. A dental hygienist would have to maintain and show evidence of current certification in basic or advanced cardiac life support, in compliance with Rule 338.11701 of the Administrative Code (which requires such certification for dental hygienists who are renewing their licenses). Application for "certification" in the administration of local anesthesia would be at the discretion of each individual dental hygienist. (Such certification is granted by the dental or dental hygiene program, not by CIS.)

Deep scaling, root planing, and removal of calcareous deposits. Currently the code specifies that deep scaling, root planing, and removal of calcareous deposits may only be performed by a licensed dental hygienist or a licensed dentist. The bill would allow a person licensed as *or otherwise authorized as* a dental hygienist or dentist to perform these procedures.

MCL 333.16611

### ***FISCAL IMPLICATIONS:***

According to the House Fiscal Agency, the bill would have no fiscal impact on the state or on local units of government. (4-10-02)

### ***ARGUMENTS:***

#### ***For:***

Dental hygienists who receive special training in administering anesthesia should be allowed to inject anesthesia under a dentist's supervision. Such training could be provided in a (long) weekend course providing 29 hours of clinical and didactic instruction. Although this may not seem like much, the course would build upon a hygienist's previous education—typically a three- to four-year process with a course of study including classes in anatomy, physiology, head and neck anatomy, histology,

embryology, microbiology, oral pathology, pharmacology, medical emergency and assessment, radiology, periodontics, infection control, nutrition, and community dentistry. Nothing in the bill mandates that hygienists take on this responsibility or that dentists delegate the authority. The bill would allow a hygienist to decide whether to train to administer anesthesia, and even if he did receive such training, he could decide that he did not feel comfortable actually injecting the anesthesia. The bill would also leave it up to each individual dentist to decide whether to allow individual hygienists under her supervision to administer anesthesia. In other words, a dental hygienist could only administer anesthesia after having received special (didactic and clinical) training and after having been delegated such authority by a dentist who directly supervised the administration of the anesthesia. Both the dentist and the hygienist could be held liable for any problems that resulted, which would provide assurance that the dentist and hygienist felt comfortable with the situation before they agreed to delegate and accept the responsibility. Still, if the responsibility was delegated and accepted, all parties would benefit. A dental hygienist could inject the anesthesia and concentrate on the patient whose teeth he or she is working on, the patient would not have to wait around for the dentist, and the dentist would not be forced to interrupt his or her work. Perhaps equally important, a dental hygienist would not have to make the awkward choice of whether to interrupt his or her supervising dentist or whether to suggest to the patient, however diplomatically, that he or she just deal with the pain. Dental hygienists are injecting anesthesia in 28 other states and have not caused any serious problems. The success of similar legislation elsewhere provides a solid precedent for allowing dental hygienists in Michigan to administer local anesthesia.

**Response:**

It is unclear what to make of the claim that there have been no *reported* incidents arising from dental hygienists' faulty administration of anesthesia in the 28 states where it is currently allowed. It is unlikely that someone would report such an incident to the state unless such reporting were required by law. Perhaps the bill should be amended to require that serious problems—such as a stroke or cardiac arrhythmia—arising from dental hygienists' administration of anesthesia be reported to the Department of Consumer and Industry Services so that the state can gather important information on the effects of the proposed legislation.

**Reply:**

No other licensed health professional is required to report such an incident unless it results in a malpractice settlement. It would not be fair to single out dental hygienists in such cases.

**Against:**

Despite the Michigan Dental Association's support for the bill, not all dentists in the state agree. To begin with, it is unclear whether the bill's education requirements are sufficient to ensure responsible administration of anesthesia. A weekend course is simply not adequate to prepare hygienists to properly anesthetize patients. The bill would not even require that the instructors of such courses be dentists or anesthesiologists. Moreover, it is possible that dental hygiene schools will try to squeeze the course into their current programs and cut out attention to other important material that they are currently teaching to ensure that hygienists can still get through the program in the same amount of time.

Whether or not the training is sufficient for certain anesthetization procedures, other procedures ought to be left to dentists. As introduced, the bill would have allowed dental hygienists to administer nitrous oxide as well as local anesthesia. However, the Senate Health Policy committee reported, and the full Senate passed, the current substitute version of the bill, which would not allow hygienists to administer nitrous oxide (i.e., "laughing gas"). Only twenty states allow hygienists to give patients nitrous oxide because of the risks that it poses to patients. Similar attention needs to be given to the two types of injections which hygienists would be allowed to give under the bill—infiltration anesthesia injections and intraoral (nerve) block anesthesia injections. Injecting infiltration anesthesia is a relatively simple procedure, which consists of a shot into the tissue directly above or below a single tooth to be numbed. Injecting intraoral block anesthesia is a far more complicated procedure since it involves the injection of a needle (sometimes a full 1.75 inches) into the main neurovascular bundle of a larger area of the mouth, and so has a greater potential for causing serious problems, such as hematoma, permanent or partial paresthesia, stroke, cardiac arrhythmia, and syncope. Only dentists should be allowed to inject intraoral block anesthesia. Of the 28 states that allow hygienists to administer local anesthesia, four (wisely) do not allow hygienists to inject intraoral nerve block anesthesia.

The bill should also restrict dental hygienists' administration of infiltration anesthesia to hygiene

procedures only. A hygienist should not be allowed to anesthetize a patient for a root canal or other oral surgery. Dental hygienists are supposed to assist dentists by cleaning the teeth and gums; dental hygienists are not dentists or anesthesiologists and ought not to be given duties which properly belong to professionals who have received more, and more specialized, training.

**Response:**

In addition to meeting the general educational requirements for dental hygienists, which are similar to those required for a registered nurse, and passing a special course on administering anesthesia, a hygienist would have to pass a special board exam. Although four states that permit hygienists to administer local anesthesia do not allow them to give nerve block injections, the other 24 states do allow them to do so. The threat of liability will give dentists and dental hygienists a serious incentive to think through the exact conditions under which a hygienist will administer anesthesia.

**POSITIONS:**

The Department of Consumer and Industry Services supports the bill. (4-9-02)

The Michigan Dental Hygienists' Association supports the bill. (4-9-02)

The Michigan Dental Association supports the bill. (4-9-02)

Analyst: J. Caver

---

■ 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.