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Arthur Coccodrilli, Chairperson  
Independent Regulatory Review Board  
333 Market Street 1 # Floor  
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SUBJECT: DENTAL HYGIENE Scope of Practice Final-Form Regulation, IRRC #2720

Dear Mr. Coccodrilli:

As a board certified, practicing dentist anesthesiologist and academic professor within the Commonwealth, I am writing this letter in SUPPORT for Final-Form Regulation, IRRC #2720 (Expansion of Scope of Practice for Dental Hygienists – Local Anesthesia Injection Administration).

My support of this measure is based on my training background, which includes a three-year hospital-based residency in Anesthesiology following the attainment of my D.M.D., as well as, my explicit knowledge on this subject as an academician and researcher. In the proceeding correspondence, I have outlined the specific reasons why I believe this regulation should be implemented in the Commonwealth of Pennsylvania.

The administration of local anesthetic injections has been implemented into the scope of dental hygiene practice in the United States since the State of Washington approved regulations in 1971. At the time of this correspondence, forty-one state dental boards allow dental hygienists to deliver local anesthetics and three additional states (Indiana, Pennsylvania, and Maryland) have regulations pending for the implementation of this modality. Additionally, a recent study completed at the University of Pittsburgh revealed that not only do the majority of licensed dental hygienists in the United States currently administer local anesthetic injections, but the preponderance of hygienists administering local anesthesia also provide this modality for patients for whom the dentist is providing total care.
It should also be noted that the administration of local anesthesia injections by dental hygienists has been studied and reported in the literature for approximately 30 years. These studies have examined the characteristics associated with the utilization of local anesthesia by dental hygienists in various practice settings and reveal that their employers are delegating this modality and dental hygienists are administering successful injections, which have resulted in positive practice outcomes. The impact on dental practices following the integration of local anesthesia administration by dental hygienists has been recently examined by Anderson, Cross-Poline et al., and DeAngelis et al. Anderson reported that the majority of respondents revealed that their ability to administer local anesthesia was very valuable and that their practice ran more smoothly with local anesthesia injection integration. Following their survey of dentists and dental hygienists from Colorado, Cross-Poline et al. reported in 1992 that a majority of dentists identified benefits to both their practices and their patients because of the administration of local anesthesia by their dental hygienist. In addition, DeAngelis and Goral reported in 2002 that a majority of dentists indicated that local anesthesia administration by dental hygienists produced positive effects on their practice in the form of smoother schedules, patient satisfaction and comfort, and improved hygienist productivity.

Of prime importance in the delegation of local anesthesia administration to dental hygienists is safety and efficacy. Numerous studies have been completed which assess these significant concerns. Methods employed by investigators interested in evaluating the safety of local anesthesia administration by dental hygienists have included surveys to ascertain aspiration rates prior to injection, complications rates, as well as, surveys to quantify disciplinary actions against dental hygienists associated with local anesthesia administration. Both Lobene and Anderson reported minimal rates of complications resulting from the administration of local anesthesia by dental hygienists. Lobene initiated a study of this important concern more than 30 years ago through an experimental program designed to train dental hygienists in expanded functions. In this study, Lobene reported that out of 19,849 anesthetizations by dental hygienists no severe, moderate, or permanent adverse events occurred. The safety of local anesthesia administration by dental hygienists has also been substantiated through the lack disciplinary actions associated with local anesthesia administration. No disciplinary actions or formal complaints associated with local anesthesia administration against
dental hygienists were known to state dental boards or the American Dental Hygienists' Association based on surveys reported in 1990 and again in 2005.

As has been recognized by the educational community, teaching the principles of dental anesthesia provides an excellent opportunity to integrate the clinical and basic science curriculum. The majority of dental hygiene training programs in the United States and Pennsylvania are currently accredited by the Commission on Dental Accreditation and, therefore, have met specific standards that include curriculum in the relevant subjects needed for application of local anesthesia administration. In fact, a recent University of Pittsburgh study of dental hygienists in the United States demonstrated that, overall, hygienists feel prepared in subjects relating to this modality.

As a director for local anesthesia courses, it is my professional opinion that dental hygienists possess the knowledge and skill for training and application of local anesthetic injection administration that will meet and/or exceed the standard of care. In addition, the scientific evidence available demonstrates that hygienists can safely and effectively administer intraoral anesthetic injections. I foresee the addition of this regulation producing positive practice outcomes, as well as, improving overall access to care.

Respectfully Submitted,

Sean G. Boynes, DMD, DA, FADSA, DNDBA
Please find attached a pdf format document including my comments relating to the IRRC #2720 (Regulation Detail: 16A-4617).

Thank you in advance for your time,

Sean G. Boynes, DMD, DA, FADSA, DNDBA