Testimony
Senate Bill 137

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Professional Licensure Committee

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Presented by
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Pennsylvania
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Good afternoon Chairwoman Harhart and members of the House Professional Licensure Committee. I am Michael McGarvey, MD, Associate Professor of Neurology at the Hospital of the University of Pennsylvania. I am also a Fellow of the American Clinical Neurophysiology Society and most importantly, for our purpose here today, Director of the Hospital of University of Pennsylvania's Intraoperative Monitoring program. Thank you for the opportunity to share with you, from a clinical perspective, the aspects of Senate Bill 137 that could potentially jeopardize the care surgical patients receive in operating rooms across Pennsylvania.

I should point out that the Pennsylvania Medical Society (PAMED) fully supports those aspects of Senate Bill 137 that address an audiologist's treatment of a patient's auditory and vestibular systems. Our opposition relates to the legislation's specific reference to the independent practice of inter-operative monitoring (IOM) by audiologist and in granting them the ability to interpret intraoperative test results.

Let me briefly explain IOM.

IOM is a multifaceted medical procedure that must not be taken lightly. In order to minimize the probability of neurologic damage and to maximize the probability of obtaining the desired surgical results in real time during surgery, IOM employs the use electrophysiologic testing during surgery on neural tissues or operations in which portions of the nervous system are specifically at risk. These surgeries include neurosurgery, cardiac surgery, orthopedic surgery, and ENT procedures.

IOM monitoring has two components:

- The **technical component**, which is performed by specially-trained IOM technicians, such as non-physician audiology doctorates, who have sufficient training and certification to perform the technical portion of IOM. This technical component involves placing electrodes, performing studies and collecting data, and communicating findings with their supervising physician neurophysiologist.

- The **professional component**, which is the real time review and interpretation of the intraoperative neurophysiologic testing, is performed by physicians who have attained the credentials and expertise to perform IOM. With advances in technology, the professional component can be performed remotely in some instances. However, a significant proportion of this monitoring requires that the physician be present in the operating room. It is imperative that a neurophysiologist oversee the IOM and be readily available to interpret "real time" findings to the operating surgeon and anesthesiologist if necessary.

Today we all rely on a coordinated "health care team" to provide the safest and highest quality care possible to hospitalized patients, who are more acutely ill than ever before. Hospitals are filled with health care providers whose "collective efforts" help save lives.

Every day physicians work hand-in-hand with nurses, pharmacists, psychologists, physical therapists, audiologists, technicians, social workers, and countless others whose coordinated teamwork is highly effective.

While patients have understandably come to rely on team based health care led by a physicians, this integrated approach does not infer that team members are equally trained or interchangeable. In the case of IOM, non-physician audiologists or technicians are not adequately trained to interpret EEG, evoked potentials and EMG muscle signals and assimilate how these changes affect the whole neurologic system. This is the practice of medicine. These deficiencies in education and training could lead to post-surgical neurologic deficits.

For example, patients who undergo a descending aortic aneurysm repair are placed at high risk of stroke and paraplegia. By properly employing monitoring of the brain, spinal cord, and peripheral nerves, using EEG, sensory, and motor-evoked potentials, this risk is significantly lessened. To avoid complications during complex procedures, physician neurophysiologists interpret and monitor the patient's neurophysiology through a clear understanding of the procedure, the patient's anatomy and underlying medical issues, and how anesthesia impacts neurotransmissions. Most importantly, it is the physician who is able, with unwavering confidence, to incorporate this knowledge and make recommendations to the surgical team that will ultimately avoid and lessen permanent injury. This is the practice of medicine.

Surgical cases involving spinal or cranial surgery can be devastating if IOM is deficient. Since anesthesia and its related paralyzing medications can adversely affect nerve function, it is not at all unusual for a neurophysiologist to actively confer with either the operating surgeon or anesthesiologist during a case to insure uninhibited IOM. This "intervention" between the physician neurologist, surgeon, and anesthesiologist is critical in attaining optimal outcomes and is beyond an audiologist's training. While doctorial level audiologists may be superbly trained in some technical aspects of IOM, without physician oversight and direct intervention, their ability to perform IOM at the highest level is severely limited.

Team-based care is what I, as a neurologist at the Hospital of the University of Pennsylvania, or any physician for that matter, rely on. So, when I read Senate Bill 137, specifically those sections pertaining to the definition and practice of inter-operative monitoring (IOM) by audiologists, I grew concerned that the bill would, in large measure, significantly disrupt "team-based" care within surgical suites and very likely put patients at unnecessary risk. In the definitions section of Senate Bill 137, audiologists are defined as "independent" practitioners in hospitals, clinics, schools, etc. While I am not suggesting that an audiologist performing hearing exams at local high schools be supervised by a physician, I strongly believe that such direct oversight is imperative in a hospital operating room. Again, team-based medicine.

I certainly understand and respect the additional training that doctoral level audiologists pursue in order to perform IOM. However, to elevate them to the level of a

neurophysiologist, again, a physician neurologist fellowship trained in IOM, is a disservice to surgical patients who enter an operating room confident that they are receiving the best possible care.

The training that I undertook to achieve the ability to interpret and perform real time IOM, a discipline that is considered a super-specialty even within neurology, included 4 years of medical school, 4 years of neurology residency, and a one year of neurophysiology fellowship where I learned IOM under the direct supervision of an experienced physician. After my formal training, I was required to demonstrate my skills to senior colleagues prior to earning my IOM privileges. In the medical field, we do not allow physicians without this level of training to perform IOM, and we are continuously working to make sure our own physicians who perform IOM are competent and remain so with training, continuing medical education, and formal certification.

Senate Bill 137's fundamental flaw is that it fails to recognize that even a doctoral level audiologist trained in IOM lacks critical medical training in diseases of the spinal cord, nerves of the arms and legs, muscle diseases, epilepsy, Parkinson's disease, heart disease, orthopedic complications, and other areas of medicine that represent 99 percent of IOM. Interestingly, the legislation allows audiologists to establish a certifying body that would issue to audiologists "certificates of competency" in areas of medicine to which they have no expertise.

I respectfully urge you to carefully consider the ramifications of granting audiologists the authority to perform IOM without mandating physician oversight. Please consider who you would want monitoring IOM for you or a member of your family…a "health care team led by a physician" or an independently functioning audiologist.

I appreciate the opportunity to share with you my thoughts and concerns. To the best of my ability, I will be happy to respond to questions.