

Testimony 2/21

My name is Brian Kim. I moved to Vermont directly out of training 13 years ago, and have made Vermont the home for myself and my family. We love it here, and plan to remain here for the entirety of my career and beyond.

So that you have my educational background, I earned my medical degree from St Louis University School of Medicine. I completed a one year medical internship, followed by a three year ophthalmology residency at the Cleveland Clinic, and a two year fellowship in retina surgery at Johns Hopkins. I came to Vermont directly from Hopkins, and feel fortunate to serve as Chair of Ophthalmology at the University of Vermont. Like you, I have many duties, but the one duty that I hold closest to my heart is patient care. I have made it a priority to maintain a very busy clinical practice. I understand that it is privilege to serve the patients and people of Vermont, and take that responsibility quite seriously.

I am very concerned about Section 9, Chapter 30 of H.104. This proposal significantly lowers the standards required to perform surgery of the eye. Specifically speaking, this proposal would allow providers who have never actually performed a certain procedure to perform that very procedure for the first time on Vermonters.

Defining surgery is an important. Surgery consists of any act that alters living tissue in an irreversible manner. The instruments that can perform this include a needle, a scalpel, lasers of any form, cautery, among many other tools. During surgery, human tissue is altered in a controlled but irreversible way in an effort to treat disease. I want to again stress the irreversible nature of change that occurs through surgery.

The training paths of Ophthalmologists and Optometrists are intensive and effective in very different ways. They share some similarities, and I have always felt that Optometrists are our colleagues and team members in delivering eye care. However, Ophthalmology differs greatly from Optometry in the preparation of its graduates to become surgeons performing procedures.

In the current state, surgeons are medical doctors who are held to extremely high standards by regulatory agencies in order to maintain the safest environments for performing surgery. Patients deserve such standard of care when undergoing procedures. Any medical professionals performing a surgical procedure must be held to the same extremely high standard for training to ensure the highest levels of patient safety and quality outcomes.

Every ophthalmologist has intensive, extensive training aimed at consistently increasing responsibility under controlled, directed and mentored opportunities with real patients. While there is some teaching with models, videos, courses and reading, the crux of ophthalmology training is based on performing these surgeries on real patients with meticulous oversight by senior, experienced mentors. This is in direct contrast to the training obtained by optometrists, which is based on models, lectures and videos, without direct surgical experience with real patients.

I hope that most of you have had the chance to see the letter I wrote. It describes one of the procedures that is being requested by the Vermont Optometric Association. Here is a picture of that procedure. It is called a subconjunctival injection. One of the most striking parts of this picture should be how close to the eyeball the needle is during this procedure. In general, this procedure is mainly used for things such as deposition of a steroid substance to treat inflammation inside the eye, anesthesia for a more invasive procedure, or injection of antibiotics for an infected part of the eye. While termed a “simple procedure” by some, I want to make you aware of all the elements that would go into performing a subconjunctival injection of steroid.



To be effective, the steroid must be injected in a plane of tissue that is less than a millimeter in depth. Going too deep by even one millimeter can result in inadvertent puncturing of the eyeball itself. Again, I think the picture itself shows how close to the eyeball the needle is. Puncturing of the eye may seem innocent enough, but it is a catastrophic event, which can lead to retinal detachment, and blindness even if the damage were to be successfully repaired. Many parts of the eye, such as the retina, cannot be replaced once damaged. Even with repair, the retina can function poorly if it were subjected to such damage as an inadvertent puncture with a needle. Without a functional retina, that patient is essentially blind. This seems like a rare complication, but perforation of the eye during an injection is a real complication with significant morbidity.

Many are uncomfortable looking at this picture of a needle by an eye. And certainly, as you can imagine, patients who receive injections are often very nervous. They sometimes shake, squeeze their

eyes, and move unpredictably during the procedure itself. This procedure is challenging enough on a calm, non-moving patient. The only way to appropriately learn how to perform these tasks is not with a plastic model, or watching a video, or observing someone complete an injection. While each of these steps is an important initial step, the real learning and perfecting of technique comes from actually performing these tasks on real patients, who react in unpredictable ways that cannot be replicated by models or reading. During my years of ophthalmology residency, I was directly proctored by my mentors who guided me step by step through this process over an extended period of time to be able to perform what is viewed as a “simple procedure” on real patients. This stepwise process of learning all the skills to safely complete an injection often takes years under strict supervision. If the current proposal passes, there would be no stipulation requiring prior experience with these procedures before performing them for the very first time on Vermonters. I do not feel this is in any way in the best interest of our patients’ safety.

I learned during residency and still practice this now, that there is no such thing as a simple procedure, and there must be respect for any procedure done near around the eye. Even after 15 years of practicing as a surgeon, and even with a very high volume of procedures done daily, I approach each procedure with the respect that it should demand. Procedures listed as simple can have drastic outcomes if done incorrectly.

An important nuance of surgery--in this case an injection--is that there is so much more involved than simply injecting fluid into a tiny space. That act alone is challenging enough. However, there are so many additional factors to consider besides just the procedure itself. In my training, even though much time was spent learning how to actually perform safe technique on real patients, far more time was spent learning patient selection, patient education, and post injection management. Again, these skills were learned on real patients with fastidious supervision, a process that cannot be replicated by models or observation alone.

Almost as damaging as a poor outcome from a complication such as inadvertent perforation of an eye during an injection, is the injection of a patient who did not need the injection in the first place. Patient selection comes from understanding the patient as a whole, and not simply an eyeball. That is the reason why it is so important that all ophthalmologists complete an additional four years of rigorous education in medical school followed by a year-long medical internship before even beginning years of ophthalmology residency. When education is focused solely on the eye, the factors actually causing the issues are forgotten and not addressed. The years of medical school training ophthalmologists receive better prepare them to treat the patient as a whole, and not simply an eyeball.

Finally, an under discussed topic of procedures is complications. There are two important components to dealing with complications. The first, is recognition that one has occurred, and second and just as vital, being able to treat the complication. A basic fact is that for every single procedure, there are always complications. Data showing a zero complication rate for any procedure is either false, or inaccurate in that complications were either not reported or even worse, not recognized. We all have complications as no surgery is perfect. To restate a recurring theme: there is no substitute for actual experience in perfecting technique. As a young surgeon in residency training, I was extremely limited by

my inexperience. As I was learning, I would make mistakes that I was unaware of, but that my senior observing mentor would point out. Without their oversight, my lack of experience could have had dramatic effects on these patients. Because these errors were identified, we were able to treat the complications immediately and achieve good outcomes. Someone performing procedures for the first time on Vermonters without previous real life surgical experience would struggle with recognition of these mistakes until too late. Furthermore, their lack of surgical experience would make them incapable of being able to treat these complications in a timely manner.

The number of anatomic locations of injections being requested by the Vermont Optometric Association is quite broad. By the nature of my practice, I am often called upon to do injections into the eye for things such as macular degeneration, diabetes, infection, trauma, and bleeding. The volume of these injections likely qualifies me as an expert in injections of the eye. With that being said, even with my experience, I would not even attempt an injection into an eyelid because I don't feel qualified to do so. These injections often are performed with Botox for patients with visually disabling spasm of their eyelids. I am very comfortable with injections around the eye. I do not think this qualifies me to do the other injections listed.

I want to close by stressing again, that I have the absolute highest regard for my colleagues (and I truly mean colleagues and partners in eye care) in Optometry. I feel that they have excellent training and are crucial to the delivery of primary and non-surgical eye care to all of our collective patients. I consider many my friends, and share close relationships with many others as well. We, together care for the patients across Vermont, and into New Hampshire and New York. Optometry should play a key role in the delivery of primary, non-surgical eye care. However, I also feel strongly that the current educational structure in Optometric training programs lacks the hands on, supervised, surgical experience that is required to perform the procedures listed by the Vermont Optometric Association. To allow providers to perform these procedures on Vermonters without previous real life experience is quite simply not quality or safety driven.

Medicine is complex. There are many decisions to be made. When I make a decision for a patient of mine, I picture my family member sitting across me, and I ask what I would do for them. I am not always right, but I know in my heart that I have made the decision to the best of my ability, and the same decision I would have made for my family. I know that if I had to choose a provider to perform any procedure on my family member, I would make sure they had the appropriate training to do that procedure. I am asking you to ask yourself that same question: if this were your family member, and they needed eye surgery, would you trust the provider who has thousands of hours of training on real life patients with extensive oversight and mentoring, or one who has practiced for hours with models, cadavers and observation. Please do not support the optometry section of H.104 and the advanced procedures endorsement.