Letters to the Editor

A Single Entry Level into the Perfusion Profession is Not the Solution

To the Editor:

Dr. Sistino makes some important points regarding perfusion education and the future needs of our profession in his article, “The Case for a Single Entry Level into the Perfusion Profession by 2020.” It is certainly true that we are experiencing more complex cases now than in the past with associated increases in morbidity and mortality risk. It is also true that tomorrow’s perfusionists will be required to master an increased knowledge base as additional treatment modalities (hyperthermic intraperitoneal chemotherapy [HIPEC] ex vivo lung, etc.) come into play. Although we agree with Dr. Sistino that our profession needs to work toward maximizing the quality of graduates as well as the rigors of our educational programs, we disagree with his stance on how to achieve this goal.

We respectfully disagree that making a single entry level into our profession is the first step in attempting to increase the quality of education in our profession. Perhaps what we need to consider is first revisiting the standards of education that are being delivered as well as the certification process. Our profession has in place multiple mechanisms for modifying the preparation of its members. One of these is the approved consensus curriculum set forth by the Accreditation Committee–Perfusion Education. If we as a profession feel it is important to educate our new graduates on topics such as evidence-based medicine, or interprofessionalism, as Dr. Sistino suggests, we should consider incorporating these into the consensus curriculum. If we feel it is necessary for trainees to execute a set number of simulations at a specific level of fidelity, then certainly that should also be added to the consensus curriculum. In parallel, if high-fidelity simulation is agreed on as an important tool, then concurrent steps should also be taken with the American Board of Cardiovascular Perfusion (ABCP) to make this a requirement for eligibility for certification examinations. More stringent entry barriers such as a return of the oral boards or an addition of a pass/fail simulation could also be added to the ABCP examination. All of these additions and requirements would functionally increase the quality of new perfusionists without restructuring of the entire domestic perfusion education system.

Indeed, we are not aware of any data that demonstrate that perfusionists of graduate-level programs perform better than those from Bachelor’s or certificate schools on any known measure of quality. In fact, Dr. Sistino states in his own editorial that board scores and passing rates vary. If graduate-level programs confer an advantage, that advantage is not apparent when looking at ABCP scores and passing rates.

It does appear true, as Dr. Sistino states, that the majority of research presentations are from university-based programs. Perhaps this is because, as Dr. Sistino points out later in his editorial, that the majority (>75%) of graduates are from university-based programs. If anything more than one of four presentations came from certificate programs, the certificate programs would be disproportionately overrepresented. Whether this is true or not, it is our personal belief that the focus on research is primarily a cultural factor, a reflection of the program’s director and faculty, or, better yet, simply a requirement. There are most likely certificate programs with a strong research emphasis just as there are likely graduate programs with a very small commitment to research.

Dr. Sistino’s editorial also seems to insinuate that university facilities, which include such things as Smart Boards, audience response systems, and lecture recordings, offer superior didactic preparation. Although these accoutrements are nice, a multitude of international education studies show that they have no effect on academic preparation (1–4). The rigor of the program is the one thing that affects the quality of an educational program. Indeed, these same studies show that students in classrooms with just paper and pen routinely outperform students who have personal iPads, digital books, Smart Boards, and online learning opportunities provided the lower technology class places more rigor on education.

The editorial also states that there is no parallel in other health professions to have numerous entryways into the profession. This is untrue. Nursing has three entry-level possibilities: diploma program, Associate’s degree, and Bachelor’s degree. There is no ambiguity on what it means to be an RN, what they do, or their status as a practitioner.
Other professions such as respiratory therapists and medical technologists also have similar structures.

Furthermore, there are some infrequently cited advantages to nonuniversity-associated programs. Certificate programs can be flexible when university programs become trapped in political or budgetary battles. It is interesting to note that the two oldest currently operating schools, The Texas Heart Institute School of Perfusion Technology and the Cleveland Clinic School of Cardiovascular Perfusion, are certificate programs because their academic partners abandoned them. Both these programs were affiliated with a very large and established university system. Based on this, it is plausible to say that university affiliation does not guarantee financial viability nor does it guarantee success. Certificate programs also generally have a shorter duration as well as a shorter application process, allowing them to adjust enrollment up or down more nimbly in response to the needs of the profession. Additionally, university accreditation requirements typically mandate that graduate-level students be educated by graduate-level instructors. If all programs were required to be Master’s level, what would happen to the program directors and faculty who do not have a minimum of Master’s level degrees? Nonuniversity-associated programs are free to hire the best applicants they can recruit to staff their programs, whatever their terminal degree. As one can see, it is entirely possible to increase the quality of graduates without a minimum requirement of graduate-level education. The mechanisms are already available to us. To be clear, we are in favor of graduate-level programs and are eagerly awaiting the time when the availability of a clinical or professional doctorate program in perfusion becomes reality, but it should not be a required minimum. Why? Because a graduate-level mandate is a bureaucratic change, not a functional one.

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REFERENCES
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