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Adopting the American anesthesia oral examination in China: value and roadblocks[☆]

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Abstract The quality and standardized training and certification of young physicians is key to the quality of health care in the future. In contrast to the American system, there is no nationwide and standardized oral examination in the training and certification process for anesthesiologists in China. The adoptability of the American anesthesia oral examination in China, as well as potential roadblocks, has not been specifically discussed. In this commentary, we share our experience of introducing the American oral examination to an audience of Chinese anesthesiologists and propose a pragmatic approach for adopting the anesthesia oral examination in China. This initiative has the potential to reform the current anesthesia training and certification process and improve the quality of anesthetic care in China.
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In order to be certified as an attending anesthesiologist in China, a medical school graduate must first go through 3 years of general training that is similar to internship in the United States, followed by 3 to 5 years of anesthesia training in the hospital that has accepted him or her as a formal employee, and finally pass the anesthesia written examination at the end of training. In comparison, in the United States, in order to be board certified in anesthesiology, residents must pass the written and oral examinations administered by the American Board of Anesthesiology (ABA) in sequence after the successful completion of anesthesia training in an Accreditation Council for Graduate Medical Education–accredited program. Therefore, one of the major differences between these two systems is the national standardized oral examination, which is mandatory in the United States but absent in China.

The ABA oral examination is designed to assess a candidate's ability to demonstrate the attributes of an ABA diplomate when managing patients presented in clinical scenarios. These attributes are specified to be "sound judgment in decision making and management of surgical and anesthetic complications, appropriate application of scientific principles to clinical problems, adaptability to unexpected changes in the clinical situations, and logical organization and effective presentation of information" (<http://www.theaba.org/>). The value of ABA certification in identifying the characteristics considered necessary for high-quality practice in the specialty has been validated [1].

In China, although there are non-standardized anesthesia oral examinations in a few major cities, these are primarily tests for academic promotion that are different from the ABA oral examination. In 2015, a new policy in China mandates that all medical school graduates receive standardized residency training. However, details of the program accreditation, training curriculum, teaching and learning resources, supervision requirements, and assessment and certification process await specifications. This is an opportunity for the Chinese anesthesia community to learn from the experiences in countries that already have standardized anesthesia training and certification mechanisms. As a test promoting clinical competency, it is important to ask if the ABA oral examination can be adopted for use in China and how.

In this commentary, we share our experience of introducing the ABA oral examination in China, emphasizing its unique value and discussing roadblocks and possible approaches for its adoption in China.

1. Introducing the ABA oral examination in China

On April 16, 2015, in Shanghai, China, the Chinese Association of Anesthesiologists (CAA) and the International Chinese Academy of Anesthesiology (ICAA) jointly held the first ever workshop to introduce the ABA oral examination and explore its adoptability in China. The

workshop was designed as a one-day course consisting of four 90-minute sessions focusing on different anesthesia subspecialty topics. The four course instructors, who speak both English and Chinese, are ICAA members and ABA-certified anesthesiologists with more than 10 years of working experience in university-affiliated teaching hospitals in the United States. The workshop invited 24 young attending anesthesiologists who are practicing in major teaching hospitals and actively involved in resident education in China.

At the workshop registration, all attendees received a handout that had a brief introduction of the ABA oral examination in addition to four ABA-style cases to be used during the workshop. The workshop instructors prepared the cases. The actual questions that were used during the workshop were not given to the attendees beforehand. Each session was conducted in the format of question-answer interactions between the instructor and the attendees, similar to the ABA oral examination. Attendees took turns answering questions. The instructor gave the attendees timely feedback and explanations of the purpose and rationale of each question being asked. A formal introduction to the ABA oral examination took place during the luncheon break. At the end of the day, a round-table informal discussion was held to solicit feedback and a survey with 10 multiple-choice questions was distributed.

All 24 attendees finished the one-day workshop and 21 completed the survey. In summary, more than 90% of the attendees claimed to understand the goal and format of the ABA oral examination. More than 95% of the attendees regarded the oral examination as valuable in improving an anesthesiologist's clinical competency and irreplaceable by a written examination. All attendees expressed their satisfaction with the quality of the workshop, calling it informative, educational, and refreshing.

2. Adoptability of the anesthesia oral examination in China and roadblocks

The workshop specifically solicited feedback on the adoptability of the ABA oral examination in China, with 75% of the attendees expressing positive opinions for and the remainder unsure of the implementation of a standardized anesthesia oral examination in China. Some attendees commented that the nationwide conduction of anesthesia oral examination in China is challenging due to the wide variation in the quality of the anesthesiologists who practice at different levels of hospitals and in different regions in China. However, participants suggested that trials of the anesthesia oral examination could be considered in selected tertiary teaching hospitals that have both the resources and a higher standard of the quality of anesthetic care. One participant commented that the human factor plays a dominant role in China (without further specification), implying that there should be a mechanism for monitoring the conduct of oral examination if it were to be adopted. It was also suggested that

with governmental support, an independent organization should be formulated to start evaluating the adoptability of anesthesia oral examination in China by taking into account the advantages and disadvantages of the current anesthesia training and certification system, the resources needed for training the examiners, the coverage of the examination process, the establishment of the case/question bank, the recognition of those who pass the oral examination, and the large number and heterogeneous quality of practicing anesthesiologists.

3. The unique value of the anesthesia oral examination

The traditional written test, now often administered on computers, is different in many ways from tests that are conducted face-to-face, such as an oral examination. The written examination is primarily a knowledge test and the test taker does not need to worry about the pressure of performing in front of a knowledgeable, experienced, and trained examiner in the same room. The oral examination is designed to assess the examinee's capability of appropriately applying scientific principles, making sound decisions, managing surgical and anesthetic complications and crises, adapting to unexpected changes in the clinical situations, and presenting information and communicating with peers and patients in a logical, poised, and organized manner [2]. The questions being asked during the oral examination can be unpredictable, intrusive, conflicting, and without a definitive answer; however these are all for the purpose of assessing the ability of the anesthesiologist who most likely will encounter the same challenges when practicing in the real world. A successful oral examination taker needs to be efficient in information analysis and decision making, adaptive when being confronted with conflicting interests, calm and capable in dealing with complications and crises, and able to communicate with difficult surgeons and patients in a professional and poised demeanor. The information relayed through eye contact, body language, and communication style during an oral examination cannot be acquired via a written test. Therefore, an oral examination is different from a written test and has the unique advantage of assessing clinical competencies, which is irreplaceable by other means of examination [3]. However, the ABA oral examination does not assure or claim to assure "competency"; instead, the ABA certification is based currently on the concept of satisfactory completion of qualification through a multimodal assessment process.

4. Special benefits of adopting the anesthesia oral examination in China

There should be no difference in the value of the anesthesia oral examination in promoting an anesthesiologist's clinical competency in the United States and China. However, there

are special benefits that the anesthesia oral examination may offer in China. The adoption of a standardized anesthesia oral examination facilitates the improvement of future anesthesiologists by reforming the current anesthesia training and certification system in China. One of the challenges in China is the occasional mistrust between patients and physicians. A discussion of this social issue is beyond the scope of this commentary. However, we propose that improving clinical competency via an oral examination can help anesthesiologists handle difficult patients and situations in a more professional and competent demeanor. In light of these considerations, we advocate for the adoption of the anesthesia oral examination in China.

5. A pragmatic and systemic approach for adopting the anesthesia oral examination in China

As recognized in the workshop, there are roadblocks in adopting the anesthesia oral examination in China. Moreover, the differences in system, resources, and practice environment between the United States and China can be profound [4]. Therefore, the adoption of anesthesia oral examination should be thoughtfully considered. However, given the unique value of oral examination, these roadblocks can and should be overcome.

Pragmatically, we propose first establishing an independent organization or one that is affiliated with the Chinese Association of Anesthesiologists (CAA) or the Chinese Society of Anesthesiology (CSA) to start evaluating and blueprinting the goal, format, and execution of a Chinese version of the anesthesia oral examination. The blueprint of the oral examination should be formulated based on the training curriculum and not the other way around. Although the American experience can be referenced, the realities in China should be taken into account [5]. A dedicated group of experts is required for leading training and certification reform, which should be customized with considerations of the resources, culture, and social realities in China.

Efforts must be made and completed first to standardize access to training, training itself, qualifications for examination and level of practice commensurate with exam expectations. The qualifications and criteria that must be completed to even enter the oral exam process must be established. These are progressive benchmarks as the candidate gets further into the exam process. First off, they must have an assessment by the program director and competency committee at their training centers. They must have passed preliminary exams that will allow acquisition of a full medical license (equivalent of the state license in the United States) and then they must eventually gain a free, unencumbered license prior to taking their oral exam and receiving full qualifications/certification. Mock oral examinations should be instituted in the resident training programs

in China. A mechanism of recognizing those who pass the oral examination should be established.

Trials in selected tertiary teaching hospitals in major cities are advisable; however these may not be representative of the reality in under-resourced regions. It is estimated that there are 150,000 to 200,000 active anesthesia providers in China, with the majority of them practicing in smaller and remote non-teaching hospitals. The focus of anesthesia training and certification reform in China should be on this group of anesthesiologists who have not been trained in major teaching hospitals that possess significantly better learning and teaching resources. One suggestion would be consideration of establishment of tiered certification—basic, intermediate, and advanced.

In the future, in addition to advanced certification, subspecialty certification in critical care, pain, pediatrics, etc. should be established for those with appropriate training and qualification.

6. Summary

A counterpart of the American anesthesia oral examination does not exist in China. As a valuable means for both training and certification, the anesthesia oral examination can facilitate the improvement of the quality of anesthesiologists in China. However, the value of the anesthesia oral examination has to be weighed against the roadblocks of its adoption in China, and further appraisal is needed.

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