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LETTER TO THE EDITOR

The anesthesiologist thoughts on medical residency in anesthesiology in Brazil

Dear Editor,

The significant role of the anesthesiologist in the management of critical patients has been comprehensively revealed during the COVID-19 pandemic. Theory and technical skills and leadership capacity became evident, showing the resourcefulness that distinguishes anesthesiologists.[1]

However, recognition by peers, scientific societies, and patients is a recent fact, given the anesthesiologist is classically described as the unrecognized or even hidden "hero",[2] and anesthetics is labelled by non-anesthesiologists as straightforward procedures, merely limited to delivering induction of amnesia and analgesia.[2]

In fact, the low-profile perception towards anesthesiology practice may result on one hand from the massive advance of the specialty observed in recent decades, leading to an extremely low incidence of anesthetic complications,[3] and, on the other, from the almost exclusive dedication of anesthesiologists to perioperative medicine.

In 2010, the Helsinki Declaration on Patient Safety in Anesthesiology clearly stated the anesthesiologist's domains in the areas of anesthesia, intensive care, emergency, and pain.[2] As such, the resourcefulness of anesthesiologists has resulted not from the acquisition of new skills, but from the mere opportunity to apply already acquired knowledge.

Residency in anesthesiology is a training program that will make a general practitioner competent in the several domains previously described. Thus, institutions/hospitals establish training programs by defining the several skills and knowledge residents ought to master after training completion. Anesthesiology training programs differ from one country to another.[4]

Anesthesiology training in Brazil lasts a minimum of three years, comprising a 60-hour week schedule, and is regulated by the National Commission for Medical Residency (CNRM) with the scientific assistance of the Brazilian Society of Anesthesiology (SBA). The learning program includes the 54 key-point content the resident must master at the end of training.[5] In total, Brazilian medical residents will have completed at least circa 9300 hours of practical training before being able to obtain the title of anesthesiology specialist. The resident may choose to attend an extra training year in more specific areas of anesthesiology (fellowship) after completing the residency program, although the option is only available in a minority of training centers.

In comparison, in the European Union (EU), anesthesiology training lasts a minimum of five years[6] with a schedule of 37 to 45 hours weekly, depending on the country.[7] The resident will have to master the content established by the European Board and Section of Anesthesiology program, that includes 16 areas of knowledge divided into the four domains of activity of the anesthesiologist. A Portuguese medical resident, for example, ought to complete at least circa 10,400 hours of practical training (based on a 40-hour week schedule).[8]

In practice, the difference between Brazil and the EU regarding the duration of training is almost entirely explained by the fact that the weekly workload of a Brazilian medical resident is 50% greater than of an EU resident. Even though shortening program time allows for quick training of specialists, the heavy weekly workload may lead to greater fatigue and a predisposition to medical error.[7]

After critical analysis of the Brazilian and EU training programs one can realize that the major difference between them lies in the domain of intensive care and medical emergencies. The EU program contemplates the fact that acquisition of knowledge in these two areas is crucial for training residents. Indeed, training residents in these areas enables them to acquire not only important skills for the anesthesia management of critically ill patients, but also plays an important role in the early and late clinical management of the same patients.

A training program that encompasses intensive care and emergency enables the resident to have broader useful medical knowledge, impacts management of patients, and consolidates the fundamental role anesthesiologists can play in the intensive care and emergency units in Brazil. In practice, taking into consideration the number of weekly working hours, introducing these two areas of knowledge would result in a six-month increase in the duration of the Brazilian training program.

Finally, we would like to encourage a reflection on the Brazilian anesthesiology residency program. Considering the role that anesthesiologists may have in Brazil, the following issues should be addressed while elaborating a new curricular program: Should anesthesiology training be given "in bolus or continuous infusion"? Is the implementation of a

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curriculum in the domains of intensive care and emergency relevant to training anesthesiologists? Should the duration of the anesthesiology training program be extended?

Declaration of Competing interest

The authors declare no conflicts of interest.

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