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Colombian Journal of Anesthesiology, present and future challenges, in its 50th volume

Revista Colombiana de Anestesiología, los retos del presente y del futuro, en su volumen 50

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From its beginnings, anesthesiology as a specialty has advocated patient care, providing relief from pain and suffering during surgical procedures. A plethora of surgical specialties, procedures and technologies have emerged thanks to this specialty which, have increasingly made it safer, with its achievement of lowest adverse effects and highest patient satisfaction. (1)

Since its creation, the Colombian Journal of Anesthesiology (CJA) has joined anesthesiologists along the road of updating their knowledge for daily practice by becoming part of the advancements in the field of peer scientific publications in the world, and gaining local, regional and world recognition.

Anesthesiology, in turn, has made substantial progress during this time, improving patient safety, in particular over the past 15 years. The number of techniques, devices and specific training areas have experienced significant growth, as has also been the case with perioperative patient management and monitoring, where the role of anesthesiologists has been well recognized. (2)

Both the specialty as well as the Journal continue to face challenges given that, over the course of the coming years, the specialty will be expected to embrace tools for accurate and personalized patient management, including genomics, epigenetics (3), telemedicine, green anesthesia and the use of perioperative diagnostic imaging supported by artificial intelligence (2).

However, added to this daunting future landscape, the Lancet Commission on Global Surgery, created in 2014, identified the wide gap existing in the world in terms of access to surgery and anesthesia services and related health outcomes. This prompted

a proposal focused on monitoring of six indicators that reflect safe and affordable universal access to surgical and anesthetic care (4):

1. Timely access to essential (bellwether) surgery, defined as access within less than two hours to tracer procedures (involving cesarean section, laparotomy or open fracture management). It is expected that, by 2030, 80% coverage of anesthetic and surgical services for these procedure will have been achieved.
2. Density of specialists (surgery, obstetrics and anesthesia - SOA) for every 100,000 inhabitants. It is expected that all countries will have at least 20 or more SOA specialists for every 100,000 inhabitants by 2030.
3. Surgical volume, defined as the number of procedures performed in the operating room for every 100,000 inhabitants per year. It is expected that 100% of the countries will monitor surgical volumes and that at least 5,000 procedures for every 100,000 inhabitants will exist by 2030.
4. Perioperative mortality, defined as the proportion of all causes of death in patients taken to surgery. It is expected that 80% of the countries by 2020, and 100% of the countries by 2030, will monitor perioperative mortality; and that, by 2020, global data will have been analyzed and used to establish national goals to be achieved by 2030.
5. Protection against impoverishment due to out-of-pocket payment for surgical and anesthetic procedures. By 2030, 100% protection in all countries is expected.
6. Protection against catastrophic health-related expenses associated with catastrophic out-of-pocket spending for surgical and anesthetic procedures.

In Colombia, the assessment of these indicators (5) revealed the following: 15.1% of the Colombian population has no geographic access to SOA (two-hour drive); the density of the SOA team was 13.7 for every 100,000, below the goal set by the Lancet Commission; in the poorest municipalities (with a larger number of people belonging to the subsidized health system) the proportion of the population with access to a facility with the ability to provide bellwether surgeries, located within two hours, was lower; the most socially and economically disadvantaged municipalities did not have SOA providers; the volume of surgeries ranged between 2,690 and 3,090 procedures for every 100,000 inhabitants; 6.4% of the population became poorer as a result of out-of-pocket spending related to access to surgical care, and 19.4% became impoverished due to catastrophic out-of-pocket spending (5).

The future will be here tomorrow, and solutions to problems of the past are needed today. Existing inequalities could become deeper if future advancements are not accessible to everyone. The inverse care law (6), operationally known as inverse equity (7), showed that new technologies increase health inequities, especially in countries with a strong healthcare market. By way of example, a review can be made of where "Centers of Excellence" are located in each country and how many of them serve vulnerable or socioeconomically disadvantaged populations. Excellence in health is usually promoted among the more socioeconomically advantaged populations that buy the services. The challenge lies in creating centers of excellence with an equity focus (8) in order to show that excellence is also offered to disadvantaged populations. In its statement, the Commission points to those differences among countries in accordance with their level of income or development, and urges countries to arrive at a minimum level of structure and outcomes that will at least ensure access

to SOA teams and bellwether surgeries (3). However, these indicators do not challenge countries to ensure similar compliance for all the populations within their borders. For Colombia, the challenge is huge for the entire range of government institutions, healthcare professionals and organizations that hire them, institutions that train them and scientific societies that guide them.

In Colombia, the turning point in equity was evident from the very inception of the health system, when one health benefits plan was created for workers and their beneficiaries and a different one for people who were unable to pay (subsidized system). This led to the establishment of differential availability of surgical and anesthetic services without the same conditions in terms of safety, technology, devices and the like between the two systems, resulting in even deeper inequalities between those populations.

Scientific societies of surgery and anesthesia must revisit their potential present and future contributions in terms of closing the gaps in global surgery and implementing future advancements, in order to preempt a deepening of these inequalities.

Both the Colombian Journal of Anesthesiology as well as the Colombian Society of Anesthesiology and Resuscitation (S.C.A.R.E.) have to meet the challenge of remaining abreast of the scientific advancements in the field of anesthesia and its subspecialties. Their other challenge is to identify and address the urgent need for evidence required to insert Colombia and the region in the global surgery approach required in the world in order to diminish existing inequalities.

As for us, authors and researchers, we are called upon to approach the technological advancements and developments embraced by our specialties or fields of training, but we are also compelled to ensure inclusion of vulnerable and disadvantaged populations as beneficiaries of these advancements and technological developments.

We celebrate the arrival of Colombian Journal of Anesthesiology at the landmark of its 50th Volume and we are certain that future volumes will be teeming with these topics.

REFERENCES

1. Eichhorn JH. The Anesthesia Patient Safety Foundation at 25. *Anesthesia & Analgesia*. 2012;114(4):791-800. doi: <https://doi.org/10.1213/ANE.0b013e3182427536>
2. Fawcett WJ, Klein AA. Anaesthesia and peri-operative medicine over the next 25 years. *Anaesthesia*. 2021;76(10):1416-20. doi: <https://doi.org/10.1111/anae.15552>
3. Bravo SB, Caminos JE, Schmalbach JHE. Tailored medicine: Pharmogenomics and pharmacogenetics. *Colombian Journal of Anesthesiology*. 2011;39(3):308-13. doi: <https://doi.org/10.5554/rca.v39i3.248>
4. Meara JG, Leather AJM, Hagander L, Alkire BC, Alonso N, Ameh EA, et al. Global Surgery 2030: Evidence and solutions for achieving health, welfare, and economic development. *Lancet*. 2015;386(9993):569-624. doi: [https://doi.org/10.1016/S0140-6736\(15\)60160-X](https://doi.org/10.1016/S0140-6736(15)60160-X)
5. Hanna JS, Herrera-Almarino GE, Pinilla-Roncancio M, Tulloch D, Valencia SA, Sabatino ME, et al. Use of the six core surgical indicators from the Lancet Commission on Global Surgery in Colombia: a situational analysis. *Lancet Glob Heal*. 2020;8(5):e699-710. doi: [https://doi.org/10.1016/S2214-109X\(20\)30090-5](https://doi.org/10.1016/S2214-109X(20)30090-5)
6. Hart JT. The inverse care law. *Lancet*. 1971;297(7696):405-12. doi: [https://doi.org/10.1016/S0140-6736\(71\)92410-X](https://doi.org/10.1016/S0140-6736(71)92410-X)
7. Victora CG, Joseph G, Silva ICM, Maia FS, Vaughan JP, Barros FC, et al. The inverse equity hypothesis: Analyses of institutional deliveries in 286 national surveys. *Am J Public Health*. 2018;108(4):464-71. doi: <https://doi.org/10.2105/AJPH.2017.304277>
8. Eslava Schmalbach JH, Bejarano Daza JE. Proyecto académico de expansión del Hospital Universitario Nacional de Colombia. Bogotá: Facultad de Medicina, Universidad Nacional de Colombia; 2021.