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Editorial

The new challenges in pediatric anesthesia in Colombia[☆]

Los nuevos retos de la Anestesia Pediátrica en Colombia

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Pediatric anesthesia is a branch of anesthesiology that has become increasingly relevant around the world during our professional practice of the last 50 years. In developed countries it is considered a supra-specialty, to the extent that in many healthcare systems in the developed world, pediatric patients under one year of age, or with complex pathologies, are exclusively being cared for in pediatric institutions by specialized anesthesiologists or with advanced training in pediatrics, accompanied by a physician, surgeon and paramedic with vast experience in comprehensive management of children.^{1,2} The end result is the optimization of an environment of safety and wellbeing, where children may receive multidisciplinary care that ensures prompt recovery and return to their regular school activities, in addition to a maximum reduction of adverse events or perioperative complications associated to poor care due to preventable human errors.³

When these considerations are expressed in terms of healthcare quality, important aspects such as clinical safety, effective healthcare, comprehensive patient-centered care, efficiency, equality, and prompt care shall be addressed. All these aspects highlight the importance of having specialized

human resources for pediatric care, with clear competencies in this area and a perfectly synchronized team.³

This kind of approach to pediatric anesthesia involves a constant evaluation of the clinical results in terms of patient and family satisfaction, the incidence of adverse events or complications, time of care, healthcare costs and team performance that finally are expressed as quality indicators. However, to reach this goal, highly skilled human resources are required who are specialized and constantly being trained through continued medical education for mastering psychomotor skills, promoting research in pediatric anesthesia and developing non-technical skills for team work.^{4,5}

The overall landscape in our country is grim due to a failure to establish pediatric anesthesiology as a subspecialty in Colombia and a formal university endorsed program, since the Colombian Ministry of Health and Social Protection considers it is not relevant, keeping in mind that there are no active programs in pediatric anesthesia in the country and that a professional graduated from an approved anesthesiology program may be prevented from practicing the competencies inherent to his/her specialty because of the establishment of new subspecialties.⁶ From this perspective, the challenges for

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the anesthesiologist managing pediatric patients are tougher. Consequently, since advanced training options for pediatric anesthesia are not available in the country, continuous education should be strengthened with the support of the scientific societies and universities or higher education institutions that enable the development of psychomotor skills, the development of new research projects, simulation workshops under high-fidelity clinical settings, and finally, the development of technical competencies and non-technical skills in supervised clinical practice.⁴

Training the human resources that provide care to the pediatric population is essential for a positive impact on the outcomes and for improving the healthcare quality indicators.³ The implementation and design of interventions aimed at reducing the number of adverse events in an institution demands a huge effort in training and education and a cultural change in order to accomplish the best clinical results in patients through an institutional continuous improvement model.^{7,8}

Integrating a quality improvement system into the practice of pediatric anesthesia is key to ensure patient safety. However, this integration entails a systematic exercise for the teams involved and encouraging the comprehensive examination of the care provided and the performance of each individual team member participating in children care to make our specialty as safe as possible.⁸

Focusing on this objective, the National Committee of Pediatric Anesthesia developed a work plan to establish continuous education projects aimed at strengthening anesthesia training and knowledge in pediatric anesthesia of the anesthesiologists interested in this area of their practice. This project began with the publication of the Treaty on Pediatric Anesthesia in June 2015, in a multinational participation that brought together 95 authors from 8 different countries and with various medical specialties including anesthesiology, pediatrics, pediatric pulmonology, pediatric intensive care, pediatric surgery, inter alia. This project was followed by the organization of the First International Congress of the Surgical Neonate,⁹ held in partnership with the American Society of Pediatric Anesthesia (SPA), the Colombian Society of Neonatology, and the Colombian Society of Pediatric Surgery. This enabled the various medical specialties to share and broaden their knowledge since they all have a joint responsibility for the care, safety and wellbeing of our children.

In order to provide some continuity to this educational project, a compilation of recent publications in pediatrics was done with the exclusive purpose of preparing a pediatric anesthesia supplement with the participation of renowned international authors with vast experience and important publications in the world literature; i.e., Dr Lynn Martin, Dr. Anne Lynn and Dr. Nathalia Jiménez. Moreover, this project has been a platform to include new authors and researchers that with their effort and devotion have made valuable contributions to our knowledge and research in the area of pediatric anesthesia in our country, regarding relevant topics such as sedation outside the OR, regional anesthesia, neonatal surgery and ventilation perioperative management in children.

The Center for Technological Development of the Colombian Society of Anesthesiology and Resuscitation – SCARE

– has organized a team to carry out the editorial work and be able to publish this collective paper that comprises anesthesiologists experts in pediatric anesthesia, as well as other specialists interested in advancing and strengthening the continuous medical education program as a cornerstone for improving the quality of perioperative care of pediatric patients.

These projects are just the beginning of an ambitious, more formal and structured continuous medical education program, that in the near future will involve virtual courses for the advancement of knowledge, practical workshops for the development of specific psychomotor skills, simulation workshops in high fidelity settings to ensure learning and integration of theoretical knowledge with psychomotor skills, without the exposure of patients to human errors from caregivers in the process of learning.¹⁰ Further down these activities shall be integrated with the development of competencies in the supervised clinical area, within the framework of institutional protocols.

In conclusion, the pediatric anesthesia supplement we herein submit, is the result of a continuous education project proposed by the National Committee of Pediatric Anesthesia, with a view to promote an updated knowledge in topics of interest relating to pediatric anesthesia, to encourage research and increase the number of new members participating in the Committee to publish their work and share their professional pediatric experience. Strengthening our human resources in the area of pediatric healthcare is essential to ensure safety and wellbeing, and to underpin all quality improvement programs.

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Conflicts of interest

The author is the coordinator of the National Committee of Pediatric Anesthesia at S.C.A.R.E.

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