



CIRUGÍA ESPAÑOLA

www.elsevier.es/cirugia



Editorial

Pursuing Quality in Simulation-Based Surgical Education[☆]

Buscando la calidad en la formación quirúrgica basada en simulación

There is no doubt that the great triumphs of Formula One Grand Prix drivers such as Fernando Alonso are due to the efforts of a perfectly synchronised team accomplishing every multiple and complex task necessary to achieve high performance. Their results are the fruit of structured, organised and effective training outside the competitive environment.

Care is becoming increasingly complex in our speciality of General and Digestive Surgery, as a result of significant and rapidly changing new diagnostic techniques and surgical treatment and increased patient age and severity of comorbidities. Moreover, the healthcare workload makes it very difficult to attend to and supervise residents and medical students appropriately. In this context, in the same way that training is required for highly competitive sport, new training models are necessary to achieve maximum performance and ensure patient safety, and traditional medical training curricula need to be transformed in the area of patient bedside care.¹

In 2006, our association highlighted the need for a different focus in our speciality's surgical training model.² Since then changes have been introduced, for example, the creation and implementation of the Bariatric Surgery Training programme,³ in order to meet new challenges particularly in light of the increasing preference for minimally invasive surgery and limited financial resources. Later, in 2011, clinical simulation was included in the training curriculum of residents and for the professional development of specialist doctors and nurses. An organisational model was also introduced, the functional unit being the team rather than the individual. In this regard, a training approach based on the six core competencies of the Accreditation Council for Graduate Medical Education (ACGME)⁴ is advisable. In other countries around us simulation-based laparoscopic surgery training is standard and debate no longer centres on whether or not it is effective, but on how to make it even more effective.⁵ It has been demonstrated that it is the quality, not

the number, of hours of practice which contributes to the effectiveness of educational programmes and in particular, it is the training of the "trainers" which improves the quality of the training itself.^{6,7}

Our association has taken this change on board and now includes the obligatory completion of two courses on laparoscopic surgery in its General Surgery and Digestive System Training Programme: basic and advanced laparoscopic techniques. Each course is 25 h in duration and is aimed at residents in their first and final years. These courses are provided following the guidelines of the Spanish Association of Surgeons in seventeen training centres throughout Spain.

Given the importance of simulation in the current specialist training process, there needs to be an appropriate choice of training objectives; standardised content; a programme design based on solid teaching principles structured around educational methodology based on experiential learning and target-focused; correctly-designed clinical scenarios including debriefing tools and an assessment of skill acquisition level. This will result in this activity becoming progressively more professional, obliging clinics to incorporate teaching strategies or to work together with educators. The ultimate aim is to provide first-class surgical education.

In this regard, the American College of Surgeons Division of Education (ACS)⁸ through its Program for the Accreditation of Education Institutes offers institutes interested in further developing their teaching programmes a highly useful tool to promote quality surgical education. The main proposal of this programme is to identify, develop and promote standards for surgical training and education, aimed at enhancing and improving patient safety through simulation-based training. In this way, surgical team members are supported in their continual professional development and in the acquisition and maintenance of knowledge and skills. It also furthers inter-professional education and team training, promotes the "science" of surgical education, training and assessment and ultimately

[☆] Please cite this article as: Martín Parra JI, Manuel Palazuelos JC, Gómez Fleitas M. Buscando la calidad en la formación quirúrgica basada en simulación. Cir Esp. 2013;91:623-624.

creates a support system for the dissemination of state-of-the-art training and education in different centres. Accreditation provides access to the Consortium of Accredited Institutes, which is a network of 76 centres (67 comprehensive and 9 focused centres), of which only thirteen are outside the United States and six are in Europe. The first of these institutes was accredited in 2006. This Consortium offers global opportunities for collaboration, research and access to the resources of fellow institutes and the ACS Division of Education by means of various working tools.

The mission of the Valdecilla virtual hospital (HvV) in Santander, Spain, is to achieve a totally safe health system through research and training of healthcare professionals, using clinical simulation in all of its forms. It has recently completed the ACS accreditation programme. The HvV found this programme highly useful in the continuous development of its teaching practice in many different ways. Inter-professional education has been enhanced; advances have been made in the validation of assessment programmes and tools; medical, surgical and emergency programme contents have been standardised; work groups have been created in specific programmes; educational experience has been shared at an international level; networks have been expanded to share training methods for healthcare professionals, and above all, virtual training has been integrated into clinical practice to increase the efficacy of the learning process. In sum, it has enabled us to greatly improve on our teaching structure.

We believe that if other centres in Spain pursue this initiative in the future, a network of educational centres will be established which will work, progress and develop alongside one another. They will participate jointly in international initiatives within the field of professional healthcare education. The HvV's goal is therefore to inspire the Spanish surgical educational community towards completing the transformation in training which society expects of them.

REFERENCES

1. Coleman M, Rockall T. Teaching of laparoscopic surgery colorectal. The Lapco model. *Cir Esp.* 2013;91:279-81.
2. Del Moral I, Maestre JM. A view on the practical application of simulation in professional education. *Trends Anaesth Crit Care.* 2013;3:146-51.
3. Gómez Fleitas M. La necesidad de cambios en la formación y la capacitación quirúrgica: un problema pendiente de resolver en la cirugía endoscópica. *Cir Esp.* 2006;77:3-5.
4. Gómez Fleitas M, Manuel Palazuelos JC. La simulación clínica en la formación quirúrgica en el s. XXI. *Cir Esp.* 2011;89:133-5.
5. Sanchez Santos R, Ruiz de Adana JC. The scientific societies and the lack of skills: a training programme in bariatric surgery. *Cir Esp.* 2013;91:209-10.
6. Selzer DJ, Dunnington GL. Surgical skills simulation: a shift in the conversation. *Ann Surg.* 2013;257:594-5.
7. Singh P, Darzi A. Surgical training. *Br J Surg.* 2013;100:307-9.
8. American College of Surgeons, Division of Education. Available from: <http://www.facs.org/education/index.html>; 2012 [accessed 14.05.13].

José Ignacio Martín Parra^{a*}, José Carlos Manuel Palazuelos^a,
Manuel Gómez Fleitas^b

^aUnidad de Cirugía Colorrectal, Servicio de Cirugía General, Hospital Universitario Marqués de Valdecilla, Hospital virtual Valdecilla, Santander, Spain

^bServicio de Cirugía General, Hospital Universitario Marqués de Valdecilla, Hospital virtual Valdecilla, Santander, Spain

*Corresponding author.

E-mail address: jimparra@hvvaldecilla.es
(J.I. Martín Parra).

2173-5077/\$ – see front matter

© 2013 AEC. Published by Elsevier España, S.L. All rights reserved.