# From the Editor's Desk - Quality in Surgery: From Quality of Care to Quality of Life

# *From the Editor's Desk* - Qualidade na Cirurgia: Da Qualidade do Cuidado à Qualidade de Vida

Henrique ALEXANDRINO✉[1,2,3]
**Acta Med Port 2018 Jul-Aug;31(7-8):366-367** ▪ https://doi.org/10.20344/amp.11103

**Keywords:** General Surgery; Outcome Assessment (Health Care); Quality Improvement; Quality of Life
**Palavras-chave:** Avaliação de Resultados (Cuidados de Saúde); Cirurgia Geral; Melhoria de Qualidade; Qualidade de Vida

*"The scalpel is the greatest proof of the failure of Medicine."*
Gabriel Garcia Marquez, in *'Love in the Time of Cholera'*

This quote is mentioned by Juvenal Urbino, a physician and one of the characters in a novel written by Colombian writer and Nobel prize winner Gabriel Garcia Marquez. Ideally, human diseases and suffering should be preventable, or at least treatable, with behavioural changes or pharmacological therapies. In reality, however, the role of surgery is still needed now as much as it was in the 16th century, when French surgeon Ambroise Paré wonderfully described its aims: "*to remove what is superfluous, to restore what has been dislocated, to separate what has grown together, to reunite what has been divided, and to redress the defects of nature".*[1]

Since then the discipline of surgery has come a long way, with the discovery and improvements in asepsis, technological refinements, expanded knowledge on the biology of diseases and advances in anaesthesia and perioperative care. Surgery can now be successfully performed for the most diverse indications with increasing safety in the extremes of age or in patients with severe co-morbidities. However, like any other human activity, surgery also requires a time for self-assessment and reflection on the quality of its practice.

In this issue of Acta Médica Portuguesa we are privileged to publish three original scientific articles devoted to the subject of quality in the field of surgery in the Portuguese context.[2-4] The definition of quality in healthcare is an interesting subject and it can include three distinct dimensions: clinical outcomes; patients' expectations; and the motivation and job satisfaction of health professionals.

Clinical outcomes are the most commonly used indicators of quality in surgery. Classically, surgery and other invasive procedures were mostly used to treat life-threatening conditions. Diseases requiring surgical intervention, such as cancer, trauma or cardiovascular diseases, are often lethal or can cause significant morbidity. As such, surgical performance has mostly relied on endpoints such as morbidity, mortality, and overall, disease-free and event-free survival. Morbidity is particularly useful in this regard, especially by comparing observed and expected adverse events.[5] When surgery is performed for more benign indications functional outcomes can also be measured, particularly using measurable scales.

However, up until recently surgical science has largely neglected quality of life (QoL). With the outstanding development in surgical and anesthetic techniques, surgical procedures are being increasingly performed with lower morbidity and mortality and for less conventional indications. Fortunately, surgery is nowadays competing with other less morbid therapies. One such example is the use of proton-pump inhibitors for the treatment of peptic ulcer disease, making gastric surgery for ulcer almost obsolete and usually reserved for acute complications.[6] Thus, the issue of quality of life is paramount, as advances in medical science have allowed the discovery and development of less invasive therapies for many conditions previously treated with surgery.

In cardiovascular disease in particular, surgery has been usually considered one of the last-line therapies in the armamentarium, given the diversity of medical therapies and the expanding role of percutaneous interventions. These have extended well beyond coronary revascularization and nowadays also include structural and electrophysiological interventions. In face of all these recent technical developments there is the need to know what is the real impact of open heart surgery on QoL. And thus the article by Coelho *et al* is welcome as it demonstrates that aortic valve replacement is associated with a postoperative improvement in QoL. Moreover, one year post-procedure, age-adjusted QoL is similar to that of the general Portuguese population.[2] These results should set the standards, not only for procedure-associated morbidity and mortality, but also for QoL measurements against which competing therapies should be

1. Faculdade de Medicina. Universidade de Coimbra. Coimbra. Portugal.
2. Serviço de Cirurgia A. Centro Hospitalar e Universitário de Coimbra. Coimbra. Portugal.
3. Editor-Associado. Acta Médica Portuguesa. Lisboa. Portugal.
✉ Autor correspondente: Henrique Alexandrino. halexandrino123@gmail.com
Recebido: 23 de julho de 2018 - Aceite: 23 de julho de 2018 

compared.

The increasing safety of surgery has expanded the indications and even created new ones. In fact, surgery can now be used to prevent diseases, in a secondary prevention strategy. One illustrative example is bariatric surgery, recognized as the most effective therapy for morbid obesity. Obesity is a severe condition in developed nations and in our country the prevalence of overweight and/or obese children is estimated to reach 35%.[7] Morbidly obese patients have an increased risk of developing cardiovascular disease and cancer,[8] but most are otherwise fully functional adults. In this issue, Silva *et al* demonstrate a beneficial effect of bariatric surgery on both mental and physical QoL in a Portuguese cohort.[3] This effect is particularly interesting as it is becoming increasingly known that the weight loss and metabolic benefits afforded by bariatric surgery are not only dependent upon the effects of physical manipulation of the upper gastrointestinal tract (restrictive, malabsorptive, or both), but also from the modification of several neuroendocrine pathways with significant impact on whole-body metabolism.[9,10] What is becoming increasingly known is that these neuroendocrine loops can have a considerable effect on brain function, mediated by a brain-gut axis.[11] This may partially explain why the beneficial effect of bariatric surgery is highest in physical QoL than in mental QoL.[12] In fact, it is possible that non-bariatric abdominal surgery may impact QoL in more ways than just the physical functioning by modulating the neuroendocrine pathways connecting the digestive tract and the brain. Further research into this subject would be welcome.

In another interesting study, Nunes *et al* performed a critical review of the literature on quality indicators in ambulatory surgery and compared these with the existing indicators used by the Portuguese health regulatory authority (Entidade Reguladora da Saúde). The authors found that two key indicators of quality are missing from the list released by Portuguese health authorities: same day cancellations and patient satisfaction.[4] Since one of the advantages of ambulatory surgery is the reduced disturbance in patients' professional and social lives, it is paramount to also consider patients' perspectives in the reflection on the quality of care.[13] After all, the most important person in any operating room is the patient.

Furthermore, at a time when non-clinical health authorities and non-clinical administrators are too keen to implement health policies, the article by Nunes *et al* is a welcome testimony that doctors are key stakeholders in any health policy and underscores the fact that physicians are probably the best equipped professionals for taking clinical management decisions in health institutions.

Finally, what about the surgeons? What is their quality of life and how could it impact their care? This has been largely unexplored in the Portuguese reality and probably deserves investigation. In a questionnaire performed on over 200 Portuguese General Surgeons and residents in General Surgery, feelings of moderate or severe exhaustion were reported by more than half of the respondents (Miguel Fernandes *et al*, personal communication, 2017). This is particularly relevant because at least one study has proved a significant bivariate correlation between surgeons' job satisfaction and patients' overall satisfaction with their care.[14] These results should raise awareness that high quality surgical care can only exist with highly motivated and satisfied professionals.

In conclusion, in order to achieve high quality care we must first be able to measure it. So, as both an Associate Editor and Surgeon I am pleased to welcome these articles in the current issue of AMP.

## CONFLICTS OF INTEREST

The author has no competing interests to declare.

## REFERENCES


1. Drucker CB. Ambroise Paré and the birth of the gentle art of surgery. Yale J Biol Med. 2008;81:199–202.
2. Silva JN, Vasconcelos H, Figueiredo-Braga M, Carneiro S. How is bariatric surgery improving the quality of life of obese patients: a portuguese cross-sectional study. Acta Med Port. 2018;31:391-8.
3. Coelho P, Ferreira LN, Vital C, Fragata J. A cirurgia de substituição valvular aórtica melhora a qualidade de vida dos doentes? Acta Med Port. 2018;31:399-408.
4. Nunes JS, Gomes R, Povo A, Alves CE. Quality indicators in ambulatory surgery: a literature review comparing portuguese and international systems. Acta Med Port. 2018;31:425-30.
5. Fragata J. Evaluation of surgical performance: how to do it?. Rev Port Cir Cardiotorac Vasc. 2006;13:137-43.
6. Hermansson M, Ekedahl A, Ranstam J, Zilling T. Decreasing incidence of peptic ulcer complications after the introduction of the proton pump inhibitors, a study of the Swedish population from 1974-2002. BMC Gastroenterol. 2009;9.
7. Camarinha B, Graça P, Nogueira PJ. Prevalence of pre-obesity/obesity in pre and basic school children at Vila Nova de Gaia, Portugal. Acta Med Port. 2016;29:31-40.
8. Abdelaal M, le Roux CW, Docherty NG. Morbidity and mortality associated with obesity. Ann Transl Med. 2017;5:161–161.
9. João AL, Reis F, Fernandes R. The incretin system ABCs in obesity and diabetes - novel therapeutic strategies for weight loss and beyond. Obes Rev. 2016;17:553–72.
10. Eickhoff H, Matafome P, Seiça R, Sousa FC E. Cirurgia metabólica em doentes com diabetes tipo 2. Ficção ou opção terapêutica? Rev Port Cir. 2016;36:19–28.
11. Eickhoff H. Central modulation of energy homeostasis and cognitive performance after bariatric surgery. In: Advances in Neurobiology. Berlin: Springer; 2017. p. 213–36.
12. Lindekilde N, Gladstone BP, Lübeck M, Nielsen J, Clausen L, Vach W, et al. The impact of bariatric surgery on quality of life: a systematic review and meta-analysis. Obes Rev. 2015;16:639–51.
13. Mueck KM, Cherla D V, Taylor A, Ko TC, Liang MK, Kao LS. Randomized controlled trials evaluating patient-reported outcomes after cholecystectomy: a systematic review. J Am Coll Surg. 2018;226:183–193.e5.
14. Mache S, Vitzthum K, Klapp BF, Groneberg DA. Improving quality of medical treatment and care: are surgeons' working conditions and job satisfaction associated to patient satisfaction? Langenbeck's Arch Surg. 2012;397:973–82.