



Revista Brasileira de Cirurgia
Cardiovascular/Brazilian Journal of
Cardiovascular Surgery

ISSN: 0102-7638

revista@sbccv.org.br

Sociedade Brasileira de Cirurgia
Cardiovascular

Spiliopoulos, Kyriakos; Deutsch, Oliver; Eichinger, Walter; Gansera, Brigitte
Comments on "Impact of type of procedure and surgeon on EuroSCORE operative risk
validation"

Revista Brasileira de Cirurgia Cardiovascular/Brazilian Journal of Cardiovascular Surgery,
vol. 29, núm. 4, octubre-diciembre, 2014, p. 667
Sociedade Brasileira de Cirurgia Cardiovascular
São José do Rio Preto, Brasil

Available in: <http://www.redalyc.org/articulo.oa?id=398941895029>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative

Letters to the Editor/Cartas ao Editor

DOI: 10.5935/1678-9741.20140120

RBCCV 44205-1605

Comments on “Impact of type of procedure and surgeon on EuroSCORE operative risk validation”

Dear Editor,

We read with great interest the article by Atik et al.: “Impact of type of procedure and surgeon on EuroSCORE operative risk validation”, published recently in the Brazilian Journal of Cardiovascular Surgery^[1]. The issue is very relevant especially in the current era of continuous quality improvement and increasing societal demand for consistent performance assessment and monitoring. We would like to take the chance to add some thoughts about the use of risk stratification models for the prediction of hospital mortality after adult cardiac surgery.

The EuroSCORE in its original version (ES I) firstly introduced in 1999^[2] was a simple and easily applicable risk assessment tool adopted by many surgical units and cardiothoracic surgery societies worldwide. The system performance was highly successful for a decade, but it became less well calibrated, due to the evolution in the field of cardiac surgery, despite a constant adequate discriminatory power with an area under curve (AUC) of 0.75–0.80. To overcome this problem an updated model-version the EuroSCORE II (ES II) was presented in 2011^[3]. This system resulted from a refinement and modification of some of the established risk factors and the way the model evaluates them.

The series of Atik et al.^[1] consists of 2,320 consecutive patients operated on between January 2006 and June 2011. Despite the fact that the study population seems to differ widely, as presented in Table 1, in crucial characteristics such as age, proportion of female patients, incidence of comorbidities, and spectrum of performed surgical procedures, from the EuroSCORE reference population, there is a certain amount of cases operated in a time period contemporary to the ES II development. However this last variable, namely the impact of the institutional cardiac surgical evolution on the EuroSCORE (including ES II), was not evaluated by the authors. In our eyes this specific study-collective structure justifies a validation of the ES II, as long as firstly there exist up to now only a few external model validation studies outside of Europe^[4], and secondly the published European series partly posed concern about the predictive power of the new ES II version especially in high risk- or combined procedures patients^[5].

In general, Atik and coauthors confirm with their study, as the literature reported, ES I limitations. However, it seems that the cardiac surgical community put a lot of unfulfillable expectations in the use of scoring models. We should keep in mind, that those models evaluate only the risk and not the quality of care, meaning that a surgeon should not decide about an indication for surgery based on the scoring. In addition a scoring system should be adjusted on the specific institutional needs and features in order to achieve best possible calibration and discrimination. Nevertheless the individual clinical judgment of the patient based on clinical entities and symptoms, which potentially may affect the outcome, remains the cornerstone in decision making and cannot be totally replaced by a scoring model.

Kyriakos Spiliopoulos, MD¹; Oliver Deutsch, MD²; Walter Eichinger, MD²; Brigitte Gansera, MD²

REFERENCES

1. Atik FA, Cunha CR. Impact of type of procedure and surgeon on EuroSCORE operative risk validation. *Rev Bras Cir Cardiovasc* 2014;29(2):131-9.
2. Nashef SA, Roques F, Michel P, Gauducheau E, Lemeshow S, Salamon R. European system for cardiac operative risk evaluation (EuroSCORE). *Eur J Cardiothorac Surg*. 1999;16(1):9-13.
3. Nashef SA, Roques F, Sharples LD, Nilsson J, Smith C, Goldstone AR, et al. EuroSCORE II. *Eur J Cardiothorac Surg*. 2012;41(4):734-45.
4. Lisboa LA, Mejia OA, Moreira LF, Dallan LA, Pomerantzeff PM, Dallan LR, et al. EuroSCORE II and the importance of a local model, InsCor and the future SP-SCORE. *Rev Bras Cir Cardiovasc* 2014;29(1):1-8.
5. Spiliopoulos K, Bagiatis V, Deutsch O, Kemkes BM, Antonopoulos N, Karangelis D, et al. Performance of EuroSCORE II compared to EuroSCORE I in predicting operative and mid-term mortality of patients from a single center after combined coronary artery bypass grafting and aortic valve replacement. *Gen Thorac Cardiovasc Surg*. 2014;62(2):103-11.

¹Department of Cardiovascular Surgery, Klinikum München Bogenhausen GmbH, Munich, Germany Department of Thoracic and Cardiovascular Surgery, University of Thessaly (Lecturer). ²Department of Cardiovascular Surgery, Klinikum München Bogenhausen GmbH, Munich, Germany