Interactive CardioVascular and Thoracic Surgery

eComment: The first Latin-American risk stratification system. A timely report

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Interact CardioVasc Thorac Surg 2009;9:208-
DOI: 10.1510/icvts.2008.199083A

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doi:10.1510/icvts.2008.199083A

The institutional report by Carosella et al. [1] comes to us very timely. It is, of course, agreed that accurate risk assessment is a critical part of our current practice. Quality assurance has emerged in recent years as a fundamental tool in the clinical arena and the pioneering example given by cardiothoracic surgeons in developing different risk stratification models has changed the perception of some areas of our practice. There are indeed a number of differences among models due to the intrinsic differences among patient populations, institutions and even healthcare systems. This is one of the reasons why American and European models do differ. Subgroup analyses have shown that cardiac surgical populations are different according to epidemiology, geography, pathology and even to institution. In other words, not all the populations are the same and, therefore, this may lead to different categorization of risks.

The report by Carosella et al. seems to be appropriate as it is the consequence of a deep analysis of a specific regional population in South America. An important part of this model is the internal and external validation of datasets. The consequence of such a model is that the authors believe it has strong value in their regional practice based on practicality and the bedside usage looks attractive. The authors have also used EuroSCORE and the Parsonnet score for comparison. The eventual conclusion is that of a new regional model addressing a specific population that works with acceptable precision [1]. This is of particular importance considering all the above mentioned differences that were also apparent when EuroSCORE was developed through cooperative effort of a number of institutions from different countries in Europe [2].

Very recently Zheng et al. have come with a study in a Chinese population operated on for coronary bypass aiming at defining if EuroSCORE is a good predictor of operative risk in such a population [3]. The authors, after analyzing a population in excess of 9000 patients roughly close to 50% of the initial EuroSCORE population, have concluded that this model does not accurately predict the risk in a purely Chinese population. An appropriate comment by Choong et al. [4] confirms that all available systems have limitations and EuroSCORE is not an exception. Many other variables not currently included in the risk stratification systems may also have an impact on the final outcome. For all of us who embraced EuroSCORE as a very useful tool in Europe, which I believe still works, a number of doubts regarding accuracy have arisen. The paper by Carosella et al. is definitely as timely as that by Zheng et al. and supports the fact that perhaps geographical, ethnic, institutional, individual and case-mix have to be considered too.

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