Reviewer’s report

Title: Comparison of cerebral oximetry (INVOS) in cardiac surgery vs. vascular surgery patients. A prospective observational study

Version: 2 Date: 22 January 2010

Reviewer: Donato Triggiani

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MAJOR COMPULSORY REVISION

The authors do not explain which is the kind of heart surgery the patients enrolled in the study underwent. If it was coronary surgery, they do not specify whether it was ON-PUMP or OFF-PUMP, the Cardio-pulmonary by-pass (CPB) times, the temperature and the cardioplegia.

In addition, they should also take into account the transitory hearth failure caused by the dislocation of the heart generated by the grafts on the posterior vessels in case of without CPB procedures. The endoarterectomy was performed with shunt?

MINOR ESSENTIAL REVISION

I would suggest that the authors focus on the frequency of the neurological events linked to the baseline INVOS values rather than on the differences of such values among patients affected by diabetes, ipercholesterolemia and smokers. This also considering the fact that the mechanisms underlying these differences have not been clarified yet.

DISCRETIONARY REVISION

In my opinion is not important to precise:“The use of INVOS has been reported to help detect aortic cannula displacement.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests