


Discussion

Dr David H. Harpole (Durham, NC). I have no conflicts to disclose. I congratulate Falcoz and coworkers on an excellent presentation and article. These data were collected with a computer database developed by the French Society of Thoracic and Cardiovascular Surgery and coordinated by Dr Dahan in Toulouse, France. It is noted in the article that the Epithor database is financially independent and not related to any surgical or tobacco firm. It includes 40-plus institutions of all types in France and is a good cross-section of thoracic surgery in France during the study interval, in fact including two thirds of all thoracic cases performed in France during that time. The statistical methods were sound, with a 10,000-patient training set and a 5000-patient test set, both of which were random and allowed excellent model fit coefficients. The data included more than 22,000 patients from 2002 to 2005, a recent interval. My first question concerns the amount and quality of the data.

First, more than 12% of the patients had missing data. So ultimately the analysis was only on 15,000 patients, although this is still a very large data set. What are your plans to improve this? Are you going to include site audits, better data manager training, or another method for data entry in your computerized model?

Second, although good, your hospital data were only on mortality at 30 days. Do you plan, because you are collecting morbidity data, to create morbidity models? Are there plans for long-term analyses in your cancer population, which are our ultimate goals for risk adjustment?

Finally, what are your future plans with this excellent database? Do you plan to analyze these data with other databases in Europe, and do you plan to increase the scope of the data that you are collecting, including other types of surgical procedures?

Dr Falcoz. Thank you, Dr Harpole, for the important points you raised. First, concerning the missing values, in Epithor, patient data entry was recorded exclusively by means of a pull-down menu. By deliberate choice, an initial deliberate choice of the database programmer, most of the entries are mandatory, such as in-hospital mortality. Unfortunately, however, not all data entries are mandatory, and this explains this large numbers of missing values. We thought that it was better to have a large database with lots of patient files, even if incomplete, than fewer patient files.

The second question was about the morbidity. I think dealing with mortality, even just in-hospital mortality, was difficult, and to add morbidity may be a much more difficult task. So for now we only want to make a predictive score for in-hospital mortality.

This brings me to your question about our future plans. We have validated the Thoracoscore in France by the methodology we used, but the next plan will be to validate the Thoracoscore in other countries, including North America and the rest of Europe.

Concerning your point about the patient with cancer, it is in our plan to make a specific score for primary lung surgery to individually assess these patients. Most of the important factors in the multivariate analysis are those dealing with cancer, such as the procedure class (pneumonectomy or other) and the diagnosis group (malignant or other).