



CORRESPONDENCE

Semantics or pedantry?

To the Editors:

Naturally in your positions, you are interested in the use of words, as should be your authors and must be your readers. Here are three examples.

SIGNIFICANT

This has been with us for decades. It is sometimes accompanied by statistical probability values in parentheses. It literally means “full of meaning or import” [1]. Used alone it means the authors are stressing, but not justifying, the scientific importance of their results. Even if significant, the results are often unimportant, uninteresting and unconvincing. Unfortunately the word will be with us for many more decades.

ROBUST

Frequent use of the word started a decade or so ago, but its use now seems, thankfully, to be in decline. Its users seem to mean that their results and conclusions are beyond argument and must be accepted, since they are even more than significant. It literally means “strong, vigorous, healthy” [1]. Some scientific statements claimed to be robust are like a house of cards.

PARADIGM

This is recently becoming more popular. I have encountered it 15 times in a few recent publications related to my own research interest (cough). The authors usually seem to mean that their results open a new and important understanding into a hitherto perplexing problem. It literally means “a pattern or example” [1]. But it is also claimed to be “a buzzword deployed by dumb people wishing to sound important” [2]. No less an authority than Mervyn King (Governor of the Bank

of England, and possibly a scientist *manqué*) said: “Paradigm is a word too often used by those who would like to have a new idea but cannot think of one” [2].

Of course the use of “paradigm” is significant, but I hope the word is not so robust that its use in scientific literature survives the present decade.

To complete the analysis, Pubmed [3] gives 1,696,440 references to “significant”, 55,783 to “robust” and 47,082 to “paradigm”. This correspondence contains some paradigms, and it may require a robust but not very significant updating of these numbers.

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The BODE index as a tool to predict survival in COPD lung transplant candidates

To the Editors:

LAHZAMI *et al.* [1] state that lung transplantation conferred a significant survival benefit in their cohort of patients undergoing the procedure for chronic obstructive pulmonary disease (COPD). They came to this conclusion by comparing observed post-transplant survival with predicted survival derived from the body mass index, airflow obstruction, dyspnoea and exercise capacity (BODE) index. They also suggest that the benefit was possibly underestimated due to a limited follow-up time.

Unfortunately, the authors do not discuss an important limitation. The BODE index, as described by CELLI *et al.* [2], was assessed in a population that differed in at least two

important characteristics from the transplanted cohort of LAHZAMI *et al.* [1]. The first is the mean age (55 yrs for transplanted subjects *versus* >65 yrs in the original paper by CELLI *et al.* [2]). The second is the smoking status, as current smokers are denied lung transplantation, but current smoking was not an exclusion criterion for the study by CELLI *et al.* [2].

Since age [3, 4] and smoking status [5] are two important factors predicting survival in COPD patients, it is hazardous to use the BODE index to compare observed and predicted mortality, as the authors did, since there is a potential for an underestimation of the predicted survival derived from the BODE index in this particular subset of COPD patients.

This obviously does not prevent the BODE index from being useful in the assessment of COPD candidates for lung transplantation.

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From the authors:

We thank E. Marchand for his interest and comments regarding our manuscript. We agree that our cohort of severe chronic obstructive pulmonary disease (COPD) patients undergoing lung transplantation [1] differed from the original BODE (body mass index, airflow obstruction, dyspnoea and exercise capacity) index validation cohort [2] by being of a younger age and by the absence of current smokers. This may have led, as suggested, to an underestimation of our cohort's predicted survival.

However, pulmonary hypertension [3, 4] and hypercapnia [5, 6] are other COPD prognostic factors that may have differentiated our cohort from the BODE index validation cohort. Indeed, as both are longstanding criteria for lung transplant listing in COPD patients [7], it is likely that patients with hypercapnia and pulmonary hypertension were over-represented in our cohort when compared to patients with similar BODE index scores in the BODE index validation cohort. In contrast to the differences in age and current smoking status, this may have led to an overestimation of our cohort's predicted survival.

As acknowledged in our article, the BODE index has not been specifically validated in a COPD population listed for transplantation. The 95% confidence interval of predicted

survival was therefore used in our analysis. We believe that this allowed to account for most of the comorbidity differences between our cohort and the BODE index validation cohort.

The Lung Allocation Score (LAS), implemented in the USA since 2005, would theoretically be a more transplantation-specific predictor of survival. However, in contrast to the BODE index, it has not been prospectively validated. The survival probability while on waiting list and 1 yr after transplantation were both used to design the LAS. As such, it cannot be used to determine the effect of lung transplantation on survival. Furthermore, although an association with the probability of dying while on a waiting list has been demonstrated [8], the LAS has not been validated as a predictor of the duration of survival. The BODE index may not be the perfect tool to predict mortality in a COPD population listed for transplantation. Nevertheless, it is probably the best currently available one.

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