needs to develop women as well as men, especially in a situation where the majority of national leaders are still male. The main point is that the system needs to make the best of us all.

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Survival statistics

The article by Neal *et al*[1] looking at survival from cancer by fast track referral is of considerable interest. It has some nice looking survival curves. However, we feel that they raise some issues around the appropriate interpretation and display of survival data, particularly when there are many censored observations, as is the case here.

The main points about the data display are:

- Table 2 contains mean survival times with standard errors and confidence intervals. We appreciate that the statistical package SPSS produces these as routine, but that does not mean they should be quoted, as this raises the question of how to interpret a mean when some of the data are censored? This is particularly apparent in the case of the urgent referrals for prostate cancer, in which there was only one death, and yet somehow a standard error and confidence interval was calculated. It would perhaps be more appropriate to refer to this as mean follow-up time. For this group the mean survival is given as 755.7 days, and yet Figure 3 suggests this will be exceeded by no more than 3 (out of 45) censored survival times.

- The survival curves have different starting points for the y-axis, giving the impression, for example, that mortality from prostate cancer is comparable to the others. A better plot is to show the cumulative mortality curves showing increasing curves, which all start at zero and have the same scales.[2]

- While it is a good idea to show the censored data on the survival curves, in the paper one of the labels for the curves is an open box, which is not used in the figures.

- Figures should always indicate sample sizes, and these do not. In order to improve the plots one suggestion is to give the numbers at risk along the x-axis. This would then make apparent why some of the curves drop suddenly to zero, the reason being the longest survival time is a death.

At a more fundamental level is the issue of when is a non-significant result indicative of no difference. Lack of evidence to support a difference is not evidence of no difference. A non-significant difference in, say, prostate cancer survival, does not necessarily mean 'no difference' as stated in the abstract. One should present an estimate of the hazard ratio and a confidence interval, and if this confidence interval is narrow enough to exclude a clinically meaningful difference, only then one can conclude there is no difference.

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Authors' response

We are grateful to Campbell and Freeman for raising issues relating to the presentation of data in our paper.[1] Interestingly, their comments do not change our findings or their interpretation. We would like to respond to the points they raise in turn.

We acknowledge that survival data are positively skewed and therefore reporting a mean survival time is not always the most helpful statistic. We do not necessarily agree that this is best called 'mean follow-up time' as they suggest, but feel that a median survival time may do more justice to the data.

We agree that the four figures showing survival have different starting points for the y-axis, which can cause confusion. However the axes were clearly labelled and should therefore be easy to interpret. It is a question of style for a particular journal as to whether this is the norm or not. We originally chose to start the axes at different points in order to demonstrate the data as clearly as possible and because we did not directly compare differences between the four cancers. We are not convinced that there is consensus within the statistical community that cumulative mortality curves are better as they suggest.

We are grateful for their diligence in spotting the absence of open boxes on the figures. These appear to have been lost in final production of the paper, but their absence does not detract from the main messages from these data.

Again we are grateful for their suggestion of including the number of patients along the x-axis, and agree that in some circumstances this can add clarity to survival curves. However we do not believe that it has become routine practice. A quick look through recent similar papers has confirmed these beliefs. Perhaps it is time for journals to lay down explicit guidelines about the presentation of such data?

Lastly, they raise the issue of when a non-significant result is indicative of no difference. Certainly it is possible to calculate a hazard ratio and a confidence interval, but this should not detract from the more important question of when a statistical difference equates to a clinically meaningful difference.

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