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Letters

Ethics of clinical trials from bayesian perspective: Medical decision making should use posteriors, not priors

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EDITOR—The article by Lilford is a curious contribution to the debate about recruitment to randomised trials.[1] While each sentiment seems, individually, to be reasonable, in composite they lead to the dangerous conclusion that patients should be denied the evidence that protects them against prejudice based medicine.

It is remarkable that a piece apparently arguing from the viewpoint of the Reverend Bayes omits the key feature of bayesian inference—that prior beliefs are modified by data to create a posterior distribution on which inference or decisions may be based. Priors alone are choices based on prejudice. The respect that most patients have for their doctors tends to mean that such prejudice is that of the "expert," not the patient.

To advocate the precedence of patient preferences under a cloak of respect for their autonomy is particularly disingenuous in the case of screen detected prostate cancer. Patients, otherwise well, are placed by their expert advisers in an uninterpretable state of "risk" and then asked to make an informed choice where there is no good information on which to base it. They may be influenced by their attendants' priors—surgeons recommend surgery, while radiotherapists recommend radiotherapy—but these are data-free preferences, and few patients are advised on the basis of current knowledge that conservative management may be a good option.[2]

There are two aspects to the Reverend Bayes's character. That which now has wide currency is his contribution as a probabilist. He was also, of course, a Presbyterian minister. By an odd inversion we now seem to be seeing the creation of a debased bayesian tradition in which naive reverence for his mathematical contribution is abused to obstruct the pursuit of the very data that allow his insights to be applied to public protection. It would be a tragedy if the obscurantism of bayesian terminology allowed promotion of a plausible, novel form of the "in my clinical opinion" mindset that the evidence based medicine movement has successfully displaced. Lilford's piece, under its bayesian gloss, embeds just those dangerous sentiments.

Footnotes

- Competing interests SF is a coinvestigator on the ProtecT trial.

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2.Fowler FJ, McNaughton Collins M, Albertsen PC, Zietman A, Elliott D, Barry M. Comparison of recommendations by urologists and radiation oncologists for treatment of clinically localized prostate cancer. *JAMA* 2000; **283**: 3217–22.