Publication bias

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SIR—Chalmers and Moher's (Oct 30, p 1116) reaction to our modest report about publication bias (Sept 4, p 621), seems to stem from a simple view of the nature of medical progress. They seem to believe that we can catch truth by amassing as much so-called objective data as possible, thereby disregarding the subjective nature of decisions about which data are worthwhile. Even in the most formal type of clinical research, the randomised controlled trial, subjective judgment plays a large part. Subjectivity starts with decisions about drug dosage, timing, and inclusion and exclusion criteria, and continues with all types of practical daily decisions—eg, whether to stop a trial prematurely. It is most strongly present in data analysis:[1] should we adjust for imbalances after randomisation in order to believe the results? The mere asking of this question shows that decisions about the acceptance of a particular randomisation are inherently subjective.[2] Subjectivity, not surprisingly, is equally present in the decision whether, when, and where to publish.

Subjective judgment is neither good nor bad, it is merely inescapable and part of our human condition: facts do not exist by themselves, but they become accepted because they fit a certain theory.[3,4] The results of a randomised controlled trial will only be accepted if they fit the pre-existing convictions of at least part of the medical community—which is how progress is made—and this is already apparent in the decision to adjust for post-randomisation imbalances. It becomes even more clear when we look at the interpretation of a trial. For example, a large and perfectly executed randomised 'trial showing a pharmacological benefit of homoeopathy will be rejected out of hand, because dilutions beyond Avogadro's number forbid biochemical activity. The trial will be seen as a mere game of chance between a placebo and an infinite dilution, which accidentally came out positive. Likewise, physicians will throw away glossy advertisements with impressive p-values showing memory improvements in dementing elderly persons who use some new vasodilator: it simply cannot be. In its lesser extremes, this mechanism accounts for citation bias. Publication bias, like citation bias, is only part of subjective judgment that we should gladly enjoy to make meaningful contributions to medicine.

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1 Editorial. Subjectivity in data analysis. *Lancet* 1991; **337**: 81–82.
2 Urbach P. The value of randomization and control in clinical trials. *Stat Med* 1993; **12**: 1421–31.
3 Carr EH. What is history? London. Penguin Books, 1980.
4 Fleck L. Genesis and development of a scientific fact. Chicago: University of Chicago Press, 1979.

Influenza and meningococcal disease

SIR—Since 1984 the annual incidence of meningococcal disease in England and Wales has increased, but between 1988 and 1992, with one exception, it has remained at a steady high level and may now have begun to decline. The winter of 1989/90 showed a peak incidence of meningococcal disease and this was associated with the widespread outbreak of influenza in November/December, 1989.[1] Lately the reports of influenza-like illness from the Royal College of General Practitioners have risen sharply although not synchronously in all regions. At the Public Health Laboratory Service Meningococcal Reference Unit, strains of meningococci are received from laboratories in England and Wales from most laboratory-proven cases.

In November, 1993, 162 such isolates were received, whereas in November, 1992, 107 strains were submitted. This represents a striking difference at a time when the perception of the level of meningococcal disease in England and Wales is that it is at least steady and may be declining. This temporal increase in infections probably represents the effect of influenza and perhaps other respiratory viruses on the occurrence of meningococcal disease. Precisely how this interaction is mediated remains obscure, the meningococcal infections arise in the wake of the virus infections so it is at least a possibility that some modulation of the immune response occurs, rendering some individuals more susceptible to meningococcal infection. How long such an influence might last in an individual is conjectural. The early symptoms of both the viral and bacterial infections may be very similar and not very specific, so it is most important for practitioners to be aware that although meningococcal infection is fairly uncommon, there is an increased likelihood of meningococcal disease in winters when there are many influenza infections in the community.

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1 Cartwright KAV, Jones DM, Smith AJ, Stuart JM, Kaczmarski EB, Palmer SR. Influenza A and meningococcal disease. *Lancet* 1991; **338**: 544–57.

Commercialisation and medical education in India

SIR—It is a pity that the authorities in India seem to be preoccupied with the commercial interests associated with medical education, however undesirable they may be (see Kumar, Nov 13, p 1227). The policy of capitation fees can never be condoned, but the disadvantage of examining this policy in isolation may mean undervaluation of the contribution the private medical colleges make to health care of the communities in India: the fact that most of these colleges make health care accessible to communities, especially in rural areas, should not be overlooked.

As Kumar's report suggests many of these institutions have their own hospitals for teaching purposes, and these hospitals do provide health care to the populations surrounding them. Without these hospitals much of the essential health care would not be available to the local people. Accessibility is a major difficulty for much of the rural population and I believe that the private medical colleges have attempted to meet this need.

Instead of attempts to curb commercialisation of the colleges, which may result in their extinction, what is needed is a comprehensive examination of the contribution private medical colleges make to wider health care, with a view to reaching a consensus on how this effort can be encouraged without compromising standards of medical education or profitable operation of the colleges. The Indian cabinet sub-commitee perhaps should enlarge its remit to include this issue.

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Does cyclosporin affect lipoprotein(a) concentrations?

SIR—Lipoprotein(a) concentrations have been found to be higher in renal transplant recipients treated with cyclosporin than in those maintained on azathioprine and prednisolone.[1] Moreover, we have shown that lipoprotein(a) is an important,