

and other details of the protocol. The effect of this adjustment was to reduce our estimated increase in mean dose-response ratio between 1982 and 1992.

Until Booth and colleagues publish the details of their methods and their data, and until clinical data on the practical effects of differences between nebulisers are available, we suggest that our method of adjusting for methodological differences on the basis of our own epidemiological data was the most accurate adjustment that could be made. Using that adjustment, we found that the level of airway responsiveness had increased between 1982 and 1992 in both study regions. This finding, which supported our conclusions that the children studied in 1992 had a higher prevalence of airway hyperresponsiveness than the children studied in 1982, is consistent with other Australian studies that have reported a significant increase in the prevalence and severity of asthma.^{3,4}

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Smoking and death

EDITOR,—It is interesting to contrast the survival curves for the British male doctors studied by Doll and colleagues¹ with what is, to my knowledge, the first published life table for smokers and non-smokers. This was computed by Pearl in 1938 in an "investigation of the influence of tobacco upon human longevity" in American men.² The figure shows survival in the British (fig (a) and (b)) and American (fig (c)) studies.

In the British study the population is homogeneous in occupation and social class and is large (34 439 subjects); qualitative and quantitative information is available on smoking habits; and the population has been followed up for 40 years, longer than any other cohort. In the American study the population was heterogeneous in occupation and social class and was comparatively small (6813 subjects); smoking habits were more broadly defined (non-users of tobacco, 2094; moderate smokers, 2814; heavy smokers, 1905); and the population was observed over a restricted period. Still there is a close resemblance between the differences in survival between smokers and non-smokers in the two populations, particularly when

the earlier period (1951-71 (figure (a)) is considered for the British doctors.

Although the average (median) age of survival for subjects older than 35 is nearly 79 for the British doctors and only 69 for the American men, reflecting the differences between the two populations, the studies, and the epochs of observation, the loss of survival for smokers compared with non-smokers (averaging over moderate and heavy smokers in the American data) is five years for the British doctors (figure (a)) and 4.9 years for the American men.

There may be an element of chance in such nearly exact concordance, but it is unlikely to be a major one: Pearl stated that "the smoking of tobacco was statistically associated with an impairment of life duration, and the amount or degree of this impairment increased as the habitual amount of smoking increased." We know today that such an impairment—which has increased in recent times with increasing survival of non-smokers (figure (b))—arises from the specific diseases and deaths caused by smoking. Coincidentally, Pearl's remark is the type of remark that Richard Peto makes in his letter on the nature of the evidence available on the issue of smoking and health in the late 1930s.³

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Care of dying patients in hospital

EDITOR,—Nicholas Albery is shocked by the way in which Mina Mills appeared to neglect the needs of dying patients while she was a non-participant observer researching the care of patients dying in hospital and regrets the delay in publishing the research.¹ Mills and colleagues explain that the delay occurred partly because of antipathy to the findings.² This turning of a blind eye, albeit to the unbearable, underlines the need for the research.

There was a similar reluctance 50 years ago when Bowlby, Spence, Winnicott, MacCarthy, and a few others tried to develop the rational and humane care of children in hospital; the need for unrestricted visiting and, especially, for mothers or fathers to say in hospital with their young children was recognised. In despair, in 1953 James Robertson made his film *A Two Year Old Goes to Hospital*—a film using non-participant observation. Because the film was so upsetting Robertson experienced similar antipathy to that experienced by Mills and colleagues. Some doctors suggested that the film was of a specially selected disturbed child, and one thought that the film was a fake. This film was, and remains, influential.

Had these doctors been able to allow themselves to notice the misery of the young children in their own wards—to be participant observers—Robertson need not have made the film.

Participant and non-participant observation of miserable and neglected patients is hard and requires training. Mills should be congratulated. People need help to cope with the complex feelings of helplessness, despair, shame, and guilt stirred up by caring for those who are sick.³ The help needs to be continuing and is probably best provided in small group discussions led by experienced trained staff. Maybe another film with non-participant observation needs to be made.

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New or old antidepressants?

EDITOR,—In their article on the new antidepressants Harrison and Owens mention that "certain depressed patients may require a broader spectrum of synaptic blockade than that offered by the selective serotonin reuptake inhibitors."¹ Surely the idea is to enhance transmission at serotonergic synapses by presynaptic reuptake blockade, which is rather different from synaptic blockade.

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Author's reply

EDITOR,—It is now clear that there is not a single 5-hydroxytryptamine or noradrenaline receptor but a family of receptors subserving different functions at presynaptic and postsynaptic sites. Different antidepressants seem to have both sensitising and desensitising effects on postsynaptic 5-hydroxytryptamine receptors, and evidence exists of adaptive reduction in receptor binding sites after long term administration.

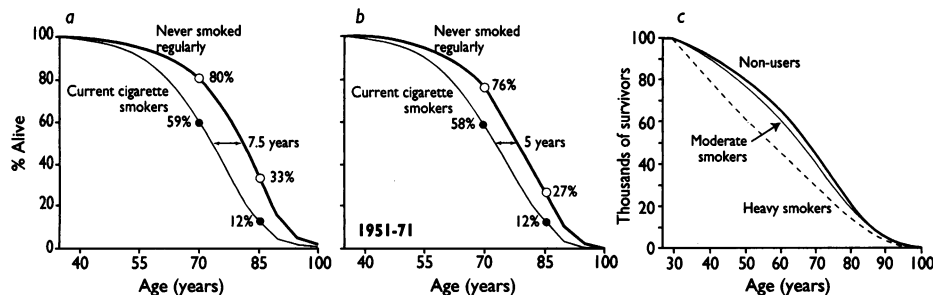
Because of the evidence of agonistic and antagonistic effects associated with different antidepressants, at both the presynaptic and postsynaptic levels, the term receptor regulation would have been more comprehensive than blockade. The point is that we shall continue to need a range of old and new antidepressants to meet the needs of our patients.

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Breast disease

EDITOR,—Justine Foster advocates aspiration of breast cysts by general practitioners in their surgery because, in her experience, "the first thing a surgeon would do is attempt to aspirate the cyst."¹ While we accept that it is appropriate for general practitioners to aspirate cysts of patients known to have recurrent cystic disease, we do not believe that this is appropriate for patients who



Survival of (a) British doctors 1951-71 and (b) British doctors 1951-91 from Doll and colleagues' study and (c) of American men in 1930s. Figure (c) is adapted from Pearl with permission of "Science" (copyright 1995 American Association for the Advancement of Science)