

prognosis. With reference to this group, the period for which a patient must survive after surgery in order to be considered cured, on the whole, was similar in the two studies (19 v 18 years).

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Testicular cancer and age at puberty

EDITOR.—The paper by the United Kingdom Testicular Cancer Study Group confirmed that undescended testis is a risk factor for germ cell testicular cancer and showed an increased risk with earlier puberty in white men in Britain.¹ The postulated model to explain this was based on an increased exposure to pituitary gonadotrophins.

We have studied the incidence of testicular cancer in New Zealand. We found that Maoris had a higher incidence of germ cell testicular cancer than their white compatriots and than any other non-white race worldwide. We thought that genetic and hormonal factors were relevant and noted that Maori infants had lower birth weights and that there was a higher incidence of maternal obesity.² These factors support the theory that increased exposure to oestrogen during pregnancy may be linked with an increased risk of germ cell testicular tumours.³ This theory also explains the association with cryptorchidism.

In contrast to the findings of the United Kingdom study group that testicular cancer is associated with earlier puberty, Maori boys start and complete pubertal development later than non-Maori boys.⁴ These findings seem to be discrepant, but puberty in boys cannot be assigned to a precise time and the ages at onset and completion are prone to inaccuracy. Furthermore, the United Kingdom study group used variables more indicative of completion of puberty, whereas our data were based on direct inspection and the Tanner scale of pubertal development.⁵

The contribution of the timing of puberty to the incidence of testicular cancer cannot be straightforward, and genetic factors and exposure to oestrogen could confound these observations.

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Risk of death in meat and non-meat eaters

EDITOR.—Margaret Thorogood and colleagues omit what is arguably the most important summary statistic from the abstract of their paper comparing mortality in vegetarians with that in meat eaters.¹ A comparison of total (all cause) mortality after five years (after the well known "healthy volunteer effect" has had time to wear off) shows a relative risk of 0.99 (95% confidence interval 0.76 to 1.30). Classifying (and comparing) cause of death is more subjective than is reporting the fact of death itself.² Jan P Vandebroucke has remarked on the authors' unusual method of selecting controls.³ Burr and Sweetnam compared similar numbers of vegetarian volunteers with non-vegetarian volunteers invited in a comparable manner and found a death rate ratio (all causes) of 0.96 (0.81 to 1.13), which did not alter appreciably after the exclusion of early deaths (those occurring in the first year).³ Vegetarian volunteers clearly have a low standardised mortality ratio, comparable to that of university teachers and ministers of the church but perhaps no lower than that of similarly health conscious meat eating volunteers.

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Information and choice in decisions about cancer treatment

EDITOR.—We support L J Fallowfield and colleagues' conclusions that patients' "desire for autonomy may be less strong than the need for clear and accurate information" and that patients "have the right to decline the opportunity to participate in decision making."¹ In a study of 165 patients treated for Hodgkin's disease within protocols of the British national lymphoma investigation, with a median interval from diagnosis of eight years, we examined patients' participation in decision making and the provision of information and choice. Of special interest was the impact on patients' views of the success or otherwise of treatment. Successful treatment was defined as complete response with no relapse, while unsuccessful treatment was defined as a failure of initial treatment to result in complete response or a relapse requiring further treatment.

Patients' answers to self administered questionnaires indicated that, although 102 patients thought that all decisions about treatment had been made entirely by their doctor, almost half of these were satisfied with this while the other half were not. A

perception of participation in the decision making process did not necessarily mean that patients thought that they had been given choices with respect to treatment: 41 of the 53 who said that they had participated in decision making perceived that no real choices had been available. Satisfaction with the information given to patients at and around the time of diagnosis was significantly linked to satisfaction with the perceived level of participation in the overall decision making process (table). The success or otherwise of treatment had less influence than expected on the relation between satisfaction with the information given and satisfaction with the degree of participation in decisions (sums of squares test), although numbers are small.

These data, like those reported by Fallowfield and colleagues, imply that patients' overall experience of decision making is more positive if they view the provision of information as adequate but not that their involvement in choices concerning treatment is necessarily desired. Many people may actively seek to relinquish the decision making role to the doctor and should be allowed to do so. Moreover, the outcome of a particular choice of treatment may not have any bearing on patients' satisfaction with information or their level of participation.

Many patients seem not to distinguish clearly between participation, information, and choice. Further research into understanding the complex relation between patients' desire for information, their need to participate, and choice in medical decision making should be a priority.

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Methadone maintenance in general practice

EDITOR.—Philip Wilson and colleagues reported encouraging health gains in drug users receiving methadone maintenance treatment in general practice.¹ We were concerned, however, that their reported cost of £2000 per patient per year may be seen by general practitioners as too high and thus dissuade them from providing a similar service. In fact, the real budgetary cost is less than that reported and should include only counsellor time, drug cost, and some toxicological costs. In support of this, we illustrate how some costs cited by Wilson and colleagues are superfluous.

Primarily, the general practitioner and practice time represents an opportunity cost unless patients are congregated in one or two practices, while the dispensing fees are paid from non-cash limited monies held at government level. This total is set

Relation between satisfaction with information given, participation in decision making, and success or failure of treatment*

	Satisfied with participation in decision making					
	Yes			No		
	Treatment		Total	Treatment		Total
Success	Failure	Success		Failure		
Satisfied with information						
Yes	41	26	67†	6	4	10†
No	15	13	28	29	14	43
Total	56	39	95	35	18	53

*Excludes 17 patients who could not remember or did not answer.

†P < 0.001 (χ^2 test).