retrospective analysis there does not seem to have been any protection to patients reportedly using chemoprophylaxis.

Although the authors acknowledge the poor quality of their data, I suggest that these data are not complete or accurate enough for testing or confirming their hypothesis.

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- Lewis SJ, Davidson RN, Ross EJ, Hall AP. Severity of imported falciparum malaria: effect of taking antimalarial prophylaxis. BMJ 1992;305:741-3. (26 September.)
- 2 Centers for Disease Control. Malaria surveillance summaries. Atlanta: CDC, 1981-8.

EDITOR,—Stephen J Lewis and colleagues neglect the importance of immunity in their analysis of the associations of severe and mild malaria with antimalarial chemoprophylaxis.¹ They state that "Africans living in Africa and those living in the United Kingdom were combined to form one group as they appeared to have the same proportions of severe versus mild malaria." This statement is not compatible with my clinical experience. Immunity rather than drug prophylaxis is the best predictor of whether a patient gets severe or mild malaria, and an individual's previous exposure to malaria is more significant than his or her ethnic group alone.

Most textbooks of tropical medicine discuss malaria in immune and non-immune patients in separate sections. It is not valid to combine data from a study of immune and non-immune subjects and draw conclusions about the time to presentation or association with sex or indeed the effect of prophylaxis on the severity of malaria generally.

An impressive protective effect of drug prophylaxis was found in the white ethnic group. Because in the African patients there is the confounding factor of acquired immunity the study should have been restricted to the non-immune white group alone.

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 Lewis SJ, Davidson RN, Ross EJ, Hall AP. Severity of imported falciparum malaria: effect of taking antimalarial prophylaxis. BMJ 1992;305:741-3. (26 September.)

An alternative to QALYs: saved young life equivalent (SAVE)

EDITOR,—Erik Nord correctly describes public resentment against the use of quality adjusted life years (QALYs) for determining priorities in health care programmes, particularly regarding the assignment of a lower value to individuals with a disability. He also makes the point that the QALY emphasises the degree of health improvement and often disregards the starting and end points. He suggests that health care outcomes may alternatively or additionally be measured relative to a unit of saving a young life (SAVE).

This unit, however, is not adequately defined. Differing clinical situations such as saving a neonate with intensive care, saving a nearly drowned infant, and resuscitating a multiply injured teenager would all be equivalent to one SAVE unit. The relative value or equivalence number given to other interventions and outcomes could consequently vary depending on which definition of SAVE units the judges used for calibration. Attitude and knowledge may also vary considerably within and between groups of judges asked to compare health care outcomes, which would introduce bias. At best the SAVE unit represents a possible proxy measurement of

relative public attitude towards health problems; but as judges' responses would depend on their own knowledge and experiences they would be a jury rather than judges. It is the managers and health care workers who should have the responsibility to be the judges, as only they have the collective knowledge and expertise of making explicit decisions regarding the appropriate use of finite resources.

Rational choices between health care programmes can be achieved only by procuring accurate, timely, and comparable data. This goal can be realised by adopting a unified language of health, which the NHS is developing with the Read coding system. The use of this coding thesaurus to capture the complete electronic medical records will allow accurate analysis of case mix and health care outcomes. Using this common, defined language of health—not crude proxy comparative units—will enable both managers and clinicians to evaluate the quality and cost effectiveness of health care provision.

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I Nord E. An alternative to QALYs: the saved young life equivalent (SAVE). BMJ 1992;305:875-7. (10 October.)

Epitor,—Attempts to quantify the benefits of healthcare interventions are increasingly important in today's economic climate. Erik Nord's suggestion of the "saved young life equivalent" (SAVE)1 as the standard against which possible benefits are compared does, however, raise several issues. He states that saving the life of a young person and restoring him or her to full health is used as the chosen unit of measurement, as "most people will probably regard it as the maximum benefit that a single individual can obtain." This (if true) is presumably because a healthy young person is perceived to have maximum potential in terms of number of years remaining to work and contribute to the economy and society. This concept automatically disadvantages patients who are older or disabled (mentally or physically), who by definition can never by any intervention gain one SAVE. Those interventions required by older people in a time of limited resources would, it seems, be authorised only if they were cheap.

The whole basis of the SAVE hypothesis is that societal attitudes determine medical priorities. Though the views of the population need to be taken into account, there is a distinct danger that this procedure might enshrine into the funding system false views about therapy options and their chances of success. If those polled are given information about the procedures they are assessing before they make a decision whose version of the truth will they receive? We are all aware of the strength of opinions held by opposing camps on the merits of many (even well established) procedures. Society's prejudices are bound to influence people's responses. As a recent King's Fund report stated, "Personal preferences about the form one's life should take do not yield social judgments about how lives in general are to be treated.'

Even if rating scales are accepted as a tool of assessment they are, as Nord admits, unstandardised. It has recently been found that the efficiency with which any scaling procedure can capture and represent personal preferences for health care is largely unknown. If median results are used, as suggested by Nord, then the views of (even large) minorities would be underrepresented. The recent pre-election surveys highlight the difficulty of accurately assessing popular opinion. Answers given in isolation are often different from those given when the consequences of the decision are immediately relevant.

The rationing system within health care is

becoming more explicit, and tools for assessing public opinion are needed. I am not convinced that the SAVE system is what is required.

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- 1 Nord E. An alternative to QALYs: the saved young life equivalent (SAVE). BMJ 1992;305:875-7. (10 October.)
- 2 King's Fund. Cost and choice in healthcare. London: King Edward's Hospital Fund for London, 1988. (Ch 7.)
- 3 Kind P. The design and construction of quality of life measures. York: York University Centre for Health Economics, 1991. (Discussion paper 43.)

EDITOR,—The value of saving a young life as a unit of measurement is not easily understandable in the context of Erik Nord's article.1 It is understandable only in terms of the longer life expectancy provided to one saved younger. Such benefit in life years has a pivotal function in allocation of QALYs, a function that has been criticised as agist.2 The age of the young life saved is unstated, begging the question whether a 30 year old ought to be allocated the same value of one SAVE as a 10 year old. Perhaps the maximum social benefit lies in preventing one abortion. Nord criticises QALYs for defining the value of health improvements as numerical health state values but recognises that SAVE would rely on the support of a similar mathematical model in order to estimate values for a vast number of outcomes not valued directly by the public.

In appealing to the public it is unclear how different outcomes are to be compared with one SAVE by relying on social values. The example given is that more value could be placed on outcomes entailing less benefit to more severely affected people who would be discriminated against by QALYs. This flexibility results from appealing to the principle of equality, such that everyone is entitled to care and patients worse affected are as entitled as those less affected. (Nord's suggestion that they would be more entitled simply introduces further injustice.) If we accept the equality principle, which is criticised as lacking in the QALY procedure,2 we must accept that everyone is entitled to equal care irrespective of age, sex, race, and other qualifiers.

The benefit of having one's life saved is unarguable, but the value of life to an individual does not necessarily diminish with age. It does, however, diminish in societal terms, which look to productivity and the "fair innings" argument.' Subscribing to such social values may discount significant services to elderly people, and the adoption of one SAVE as a unit of measurement could dangerously entrench agism.

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- Nord E. An alternative to QALYs: the saved young life equivalent (SAVE). BMJ 1992;305:875-7. (10 October.)
 Harris J. More and better justice. In: Bell JM, Mendus S, eds.
- 2 Harris J. More and better justice. In: Bell JM, Mendus S, eds. Philosophy and medical welfare. Cambridge: Cambridge University Press, 1988: 75-96.
- 3 Lockwood M. Quality of life and resource allocation. In: Bell JM, Mendus S, eds. *Philosophy and medical welfare*. Cambridge: Cambridge University Press, 1988:33-55.

AUTHOR'S REPLY,—The SAVE procedure allows evaluators of health care to take account not only of the amount of health produced but also of any distributional consideration they might find relevant. Most people seem to consider prolonging the life of a young person more important than prolonging the life of an old person.¹ Before implementing the SAVE procedure in a health programme evaluation society would have to decide more specifically to what extent age should count. Unlike in the conventional QALY procedure it need not be very much. For instance, we need not

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