Sir,—I was distressed to read in Sheila Hancock's contribution to the symposium on “Care of the Dying” that she had been told that her mother had about nine months and, later, that her husband had about one year to live. Surely no one can predict the length of time even a terminally ill patient has to live. Such a prediction could and indeed has, in my experience, caused great distress to patient, relatives, and friends, not to mention nursing staff and other members of the caring team.

I was just a little surprised, too, that no one spoke of the need for doctors and nurses to prepare themselves, get their thoughts in order, and sort out their feelings as regards their own demise because, in my opinion, unless they do so they cannot have the understanding and insight required in the treatment and nursing care of their dying patients.

Dr. Elisabeth Kübler Ross in her book On Death and Dying has said that she helps people to live until they die, and this approach has obviously subscribed to all those taking part in the symposium, but here again one cannot do so effectively if one's thoughts, beliefs, and feelings are in a turmoil.—I am, etc.,

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Predicting Survival in Terminal Cancer

Sir,—Dr. C. Murray Parkes recently reported (1 April 1972, p. 29) that in predicting the survival time of dying cancer patients before their admission for terminal care to an institution, doctors (and other hospital staff members) were typically over-optimistic. Their predictions, which were usually in the 0-12-week range, generally exceeded actual survival times. Errors in prediction were frequently in excess of 100% (actual survival time either more than double or less than half that predicted) and when such excessive errors occurred they were in large positive numbers. In contrast, Mr. J. Scotto and Dr. M. A. Schneider (7 October, p. 50) reported that in a controlled clinical trial involving less-terminal patients (estimated survival was supposed to be at least two months, but a few shorter predictions were made) physicians' predictions of survival time were reasonable and gave no indication of being either typically over-optimistic or typically over-pessimistic.

Both reports in fact indicate that doctors do make reasonable and useful predictions of survival time. But a distinction must be made between survival predictions in the terminal situation and those made when death is not yet imminent. For a disease a physician might in one instance reasonably estimate that it would likely take two years for death to occur. With passing time and as the physician can view what is happening to the patient he can make more accurate estimates. But these more accurate estimates will display greater relative inaccuracy; an error of a week when the prediction is two weeks may seem large, but it would be unnoticeable small when the prediction is two years.

The true difficulty in predicting terminal survival time may be that when death does finally occur it is due to some singular and essentially unpredictable event. (Evidence for this essential unpredictableness in the report by Dr. Parkes is the number of patients whose survival times did not vary even when predictions were as long as five weeks. It may be that movement to the hospital was contributory.) Perhaps the best we can expect the doctor to do is to say, from his past experience, what he would judge to be the average time remaining to the terminal patient. If the physician can do a perfect job in making such average predictions he will nevertheless seem to be unduly optimistic by standards he has used. For constant risk of death the probability of living beyond the average is only 36.8%, while that of dying sooner would be 63.2%—thus seemingly optimistic predictions would outnumber seemingly pessimistic predictions by 1:7 to 1. Errors of prediction in excess of 100% would be commonplace, with actual survival times more than twice average occurring with 13.5% probability and survival times less than average occurring with 39.3%-probability—here seemingly extreme optimistic predictions would outnumber seemingly extreme pessimistic ones by 2:9 to 1. The physician could perhaps have avoided these errors in optimism by giving as his prediction the time to which he thought the patient had a 50-50 chance of surviving; but then he would seem over-pessimistic as on the average he would be underestimating.

What is not clear from Dr. Parkes's report is exactly what physicians thought they were supposed to predict. For hospital planning purposes it would be desirable that the prediction be of an average survival time. Conceivably the doctor's prediction may be in some instances only an estimate of how long the patient might well live, while in other instances it may be only a warning of how soon the patient might well die. It is unreasonable to ask the doctor to provide a single number which will serve all possible purposes. Perhaps the doctor could specifically be asked to make an average prediction together with a likely upper limit. A likely lower limit may also be useful, but would probably be close to zero for most patients. Thus a prediction could take the form of an average of three weeks, but death may occur any time between now and nine weeks. —We are, etc.,

DAVID P. BYAR
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Organization of Conferences

Sir,—In “Personal View” (24 February, p. 480) Dr. Clifford Hawkins gives good reasons for having “a new look at organizing medical conferences.” He is somewhat critical of the current conferences, and yet “audience participation in a specialized society is surely the best way to encourage cross-fertilization of ideas.”

In recall a conference, over 30 years ago, at which time was obviously running out. Accordingly, the last three speakers were given two minutes each (instead of 15 as they had expected) and were invited to state their conclusions without presenting their evidence. The resulting discussions were the liveliest, the most informative, and the best sustained of the whole conference.

I am sure that the reason why many conferences fail to produce good discussion is that the audience have been offered far more than they can take. The essence of art is selection.—I am, etc.,

JAMES HOWIE
London W.1

Treatment of Status Asthmaticus

Sir,—In your leading article (9 December, p. 563) the use of heavy sedation with opiates is recommended to abolish the patient's respiratory drive during mechanical ventilation. We feel that the use of opiates in patients with asthma is unwise and potentially dangerous.

As early as 1915 the possible broncho-constrictive effects of morphine and heroin

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