Short Course Chemotherapy for Tuberculosis

Sir,

The possibility of short course chemotherapy for tuberculosis is currently attracting a great deal of interest and was a topic for several sessions at the recent I.U.A.T. meeting in Brussels. The report of that Congress published by the Bulletin of the I.U.A.T. provides a useful background, particularly the papers of Fox and Grosset.

As I see it successful shorter course chemotherapy programme requires:

(1) A drug regime that is capable of being bacteriocidal and with a very high kill rate which can be given in doses pulses optimal for killing the bacterial population at some interval rather longer than one day, unless the treatment regime can be very short.

(2) As the treatment being given probably has much less safety margin than longer course chemotherapy, each dose must be supervised to ensure that the patient actually receives it. This requires:
   (a) The patient should be available to be supervised in taking the treatment.
   (b) There should be staff available to give the drugs.

Unfortunately at the moment because of drug toxicity it seems a twice weekly treatment regime based on Rifampicin and Isoniazid is the optimum. Possibly initial supplementation with the more weakly bacteriocidal drugs, Streptomycin and Pyrazinamide, may be helpful but this point is not yet clearly established. It seems now to have been demonstrated that a 6 month twice weekly supervised chemotherapy regime produces cure rates in tuberculosis comparable with that of the conventional 9 months unsupervised regime. Encouraging results have been obtained with regimes as short as 3 months in length, but the relapse rate is significantly higher than with conventional chemotherapy. This is probably not acceptable by current standards in a developed country.

My own view at the moment is that the benefit to be obtained from a reduction in the duration of treatment from 9 months to let us say 5 months, together with the need to set up the apparatus for supervision of treatment to ensure that it can be organized to deliver it at a time when the patients would be accessible does not justify the effort. I feel the present regimes which are rather longer probably carry a considerably larger safety margin and therefore are less at risk from failure of patient compliance. Given the policy of minimum clinic visits such as I outlined in the article in the *Journal of the College of Physicians* I think this probably represents less of a problem to the patient than a treatment course 2 or 3 months shorter but requiring

supervision of each dose of the drug. I have therefore not felt that the advantages offered by short course chemotherapy in our practice where we have a fairly large number of patients (about 300 a year) were such as to justify its introduction. I also see major problems in the logistics of a wider scale introduction of short course chemotherapy. With the existing drugs in the presently required dosage frequency it seems to me that if the dose interval is anything shorter than once a week, the logistics of large scale supervised chemotherapy must present formidable problems and I would not be convinced that in the third world countries where tuberculosis remains a major problem the skills that are required for this would be available.

I am sorry if my conclusion conflicts with the views of those who are enthusiastic to explore the possibilities of short course chemotherapy in leprosy. My initial reaction to the possibility of short course chemotherapy in tuberculosis was one of considerable enthusiasm, but the information presently available has, as you see, greatly tempered it.

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