

likely to be frequent and repetitive. Inter-team conflict is literally built-in to the plans, with associated foreseeable damage to many patients.

Each inpatient unit should really have its own day-patient facilities. Equally, each combined unit should have its own staff team. This would allow for complete continuity of care, and for consistency between inpatient and day-patient treatment. Some departments could perhaps be common to all units, but such arrangements should not result in split transference.

It is said administratively that to adapt the plans will be expensive, and will take a long time. But in the context of the major opportunity that these new units offer, such arguments do not seem valid, even if they might be true. The architectural concept is not only out-of-date now—it was so ten years ago. The plans should surely be centrally amended, as a matter of urgency. Otherwise clinical psychiatry in Britain will be in a strait-jacket for at least the next half-century.

A final point should be made. Such requests should *not* be seen as matters of administrative expediency. They are clinical requirements which influence the results of treatment.

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#### HOSPITAL SITING AND PATIENT VISITING

SIR,—The study of hospital visiting by Professor McKeown and his colleagues (Nov. 13, p. 1082) has been criticised in these columns principally because of its conclusions. However, the discussion section of this paper began with an extraordinary comment which has so far not been challenged. "For nearly a decade hospital policy in Britain has been based on the idea that all acute services should be provided from district general hospitals. This recommendation, first made in 1962, was endorsed in the Bonham Carter Report, and there has been no serious criticism of it." The authors suggested that there were "at least three reasons" for what they call "unanimity".

In taking up the alleged lack of "serious criticism" there is a danger of falling into the trap that seems to have caught the authors. Agreement with one's own views is defined as seriousness. The authors might care to ponder what seems to me to be a commonly held view and one which was reflected in Ann Lapping's statement in *The Guardian* (Dec. 7) that "vast district general hospitals with far-flung catchment areas . . . look like getting as short shrift from Sir Keith as they did from Richard Crossman".

Incidentally, far from there being no serious criticism of the Bonham Carter Report I should have thought that the boot was on the other foot. The report itself was widely judged to be inadequate, and it was, therefore, not taken seriously. Ideas about comprehensive health planning and the need to cater for the interrelationships between services have surely spread widely enough by now for few, if any, to support the notion that specialist services can be satisfactorily planned in such a tripartite and restricted way as demonstrated by the Bonham Carter Report. And even within its own inadequate frame of reference the documentation was, to say the least, thin.

There is, however, a more important point than the extent to which support can now be claimed for the concept of the district general hospital. Surely, we need to help the Department of Health and Social Security to move away from single and dogmatic solutions to complex problems and encourage research and development so that different approaches can be tested. The Department, in its trial of best-buy hospitals, for example, has already shown signs of adopting a less "theological" approach to inno-

vation. If we support a programme of research and development we shall incidentally need to distinguish between primary and secondary acute services, and between ambulatory and inpatient care of various kinds. That might save us from assertions like ". . . all acute services should . . .!"

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#### URINARY-TRACT INFECTION AND LOW-DOSE NITROFURANTOIN

SIR,—In their well-controlled study of antibiotic prophylaxis in urinary-tract infection, Dr. Bailey and his associates (Nov. 20, p. 1112) have not addressed themselves to the non-trivial matter of the cost of such prophylaxis. Dr. Richard Burack<sup>1</sup> has discussed the problem. For nitrofurantoin, the retail price of 100 mg. tablets is \$29.00 per 100, making a total cost of prophylaxis (100 mg. daily) of \$105.85 for one year. This turns out to be approximately equivalent to the cost of suppressive therapy with methenamine mandelate and ascorbic acid. Retailing at \$5.00 per 100 1.0 g. tablets, hexamine mandelate (methenamine mandelate, 'Mandelamine') 4 g. daily costs \$73 for a year of therapy. Ascorbic acid, at \$1.33 per 100 0.5 g. tablets given four times daily, adds \$29.45 per year, totaling \$102.45 for a full year of prophylaxis.

Suppressive therapy in recurrent urinary-tract infection is obviously expensive, regardless of the approach. Should prophylaxis with nitrofurantoin prove equivalent in safety and efficacy to that afforded with hexamine mandelate and ascorbic acid, then the convenience of therapy with a single pill, rather than many, taken daily may reduce the incidence of "patient failure" and render the nitrofurantoin approach the most reasonable.

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#### ORAL CONTRACEPTIVE SIDE-EFFECTS AND ALLERGY: AN IMMUNE AETIOLOGY?

SIR,—The mechanisms responsible for the side-effects of oral contraceptives are of both theoretical and practical interest. Our observations suggest that one of these mechanisms may be an immune reaction to synthetic steroids or their by-products. We have observed that among fifteen oral contraceptive users ('Ortho-Novum', 'Enovid', or 'C-Quens' for a minimum of one year), the seven women who reported side-effects accompanying the regular use of oral contraceptives were also the women who had a history of general allergy. Since the remaining eight women reported neither side-effects nor allergies an immune aetiology is inferred.

The serum of the women with the severest side-effects (vision problems, headaches, and leg pains, all of which disappeared upon cessation of oral contraceptive use) was tested for the presence of precipitating antibody to synthetic steroids. Ouchterlony immunodiffusion tests were used to assess the ability of this serum to precipitate: (1) an unselected panel of female sera, (2) a panel of sera obtained from women with known status of oral-contraceptive use, and (3) solutions of various concentrations of synthetic steroids. A precipitin line was formed between the test serum and 11/65 of the unselected sera, 6/6 of the oral-contraceptive users, 0/11 of the non-users, and all of the concentrations of oral contraceptives. All testosterone solutions gave a negative reaction with this serum. All precipitin lines fluoresced under ultraviolet light, suggesting the presence of a steroid-like compound in the precipitate.

1. Burack R: *The New Handbook of Prescription Drugs*. New York, 1970.

These experiments demonstrate the presence of a precipitating agent in the serum of this severely affected individual which reacts with steroid. The immune effects due to ingestion of steroid hormones should be considered.

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### PREVENTION OF LEPROSY

SIR,—Dr. Meade (Oct. 30, p. 975) states that "Leprosy 'control' through the treatment of established cases (secondary prevention) has cured and alleviated much illness since 1948, but has achieved little if anything in reducing incidence and thus enabling eradication". There is, however, ample quantitative information supporting the opposite point of view. The start of the decline in the incidence of leprosy in Japan,<sup>1</sup> South Africa,<sup>2</sup> and the former Eastern Region of Nigeria<sup>3</sup> has been attributed to the effects of patient isolation and rising standards of hygiene, antedating the sulphone era. But in Nigeria the introduction of sulphones in 1949 has also been considered to play some part in the decline.

In other countries and areas where leprosy control has been introduced, there has been a striking decline in the prevalence and incidence of the disease. This evidence comes from Southern Zambia,<sup>4</sup> Uganda,<sup>5</sup> Northern Nigeria,<sup>6</sup> the former French territories of Chad, Congo-Brazzaville, Central African Republic, Gabon, Eastern Cameroons,<sup>7</sup> and from four areas of India,<sup>8-11</sup> and it is difficult to explain on any other basis than mass chemotherapy with sulphones. Even in studies which had as their aim the protection of healthy individuals with B.C.G. or chemoprophylaxis with dapsone there have been substantial declines in incidence-rates in the controls. For example, in Uganda the incidence-rate in controls has declined from 11 per 1000 in 1964 to 3 per 1000 in 1968, and in India the incidence has declined from 11.35 per 1000 in 1964 to 4.32 per 1000 in 1968 in a group which received neither prophylactic dapsone nor a placebo. Both the authors of these trials comment on the influence of chemotherapy on their findings.<sup>12,13</sup>

The dramatic results achieved by Dr. Sloan and his colleagues<sup>14</sup> emphasise that whatever theories are current about the spread of the disease it is possible by the widespread use of sulphones to interrupt transmission completely in a very short time. In your editorial<sup>15</sup> you state that "the results might be interpreted as confirming the efficacy of treatment of cases of leprosy reducing to zero their capacity to disseminate viable bacilli within a few months of the institution of treatment rather than as providing protection against challenge by *M. lepræ* in the environment", and in

essence the trial is a combination of chemotherapy and chemoprophylaxis. This conclusion can also be inferred from the fact that no infants born after October, 1968, were considered to need protection.

Dr. Sloan and his colleagues mention that mass chemoprophylaxis would be difficult to apply in endemic leprosy areas in Africa, India, and Latin America. However, mass chemotherapy is a very practicable proposition and has already been realised in the leprosy control studies I have mentioned, but especially in vast areas of West and Central Africa; not only does this fulfil an urgent need for leprosy patients to obtain treatment, but, by offering them an incentive to attend clinics, it automatically selects the affected group in the community and brings them under supervision. A constant feature of these control projects is the success achieved both in patient attendance and in the decline of the disease, so that they can hardly be considered "largely ineffective and impracticable", as Dr. Meade claims. Thus, mass chemotherapy schemes could be applied to the rest of the world where leprosy is still endemic either through the long-acting repository sulphone, acedapsona, or by the oral administration of dapsone given by paramedical staff trained in the diagnosis and treatment of the disease and in the recognition of the complications. Chemoprophylaxis could then be offered to close contacts. This would obviate the need to conduct huge population surveys and to try to keep enormous numbers of healthy people under constant chemoprophylaxis. It is to be hoped that Dr. Meade's remarks will not delay progress in this direction.

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### AID FOR THE ADOLESCENT

SIR,—In his letter in your issue of Dec. 4 (p. 1263) Dr. Allchin, I hope, mistakes natural anger for sneering. If not, the fault is mine. The anger stems from letters just like that from Dr. Ryle in the same issue, which did make me very angry—but it is anger about ideas, and not about people. I could have nothing but respect for either doctor as a person, because they are fighting as hard as I am for what they believe to be right. I just happen to think that Dr. Ryle, at any rate, is dangerously wrong.

I am mildly amused when he accuses me of dismissive arrogance because I think that a certain class of social worker is ineffective as a result of the wrong sort of training, which is hardly their fault. Yet, in the next breath, he himself arrogantly dismisses the whole class of psychotropic drugs, and, by implication, the psychiatrists who prescribe them.

I am quite sure that he is wrong about the generality of young people. He probably will not recall the days of the Jarrow marchers, the Left Book Club, and the Spanish civil war. I can look back and marvel at the purposive dedication of the young in those troubled days. The difference was that their social awareness took the form of fighting for defined and possible goals. The young today are more introverted and, often, purely destructive.

Whatever view one takes, it is wilful deception to ignore the hard figures. Venereal disease is rising at an intolerable rate. Dr. Ryle must know as well as I do how the abuse of drugs is becoming an epidemic. In an age of contraception, abortions and illegitimate births are very high. Most frightening of all is the age at which children are getting into trouble. He, presumably, deals with the 18-21 age-group. I wonder if he would feel the same when faced with 14- and 15-year-old girls from "good" homes who have become pregnant when under the influence of drugs. Children who are too frightened even to get a test:

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15. *ibid.* p. 534.