

practices in this country is probably much lower. It is, however, very desirable that more should be known. In university psychiatric clinics, where the sex lives of patients are routinely looked into in detail, it should be possible to stage an inquiry which would give useful results, if only an upper limit for the frequency.

The present state of the law is discussed, and its salutary effects and its disadvantages are analysed in a way that makes it clear that some modifications are thought to be called for. The consequences of relaxation—for instance, by making homosexual practices between consenting adults in private not illegal—are considered, but there is no positive recommendation that the law should be relaxed in this or any other way. Perhaps other witnesses before the Departmental Committee will put more emphasis on the argument—not specifically medical—that it is not always wise, or necessary, to penalize by law actions which are to be morally condemned. But a report in the current issue of *Time* (December 12) suggests that the law should step in to prevent the corruption of youth. The inhabitants of Boise, Idaho, “were shocked to learn that their city had sheltered a widespread homosexual underworld that involved some of Boise’s most prominent men and had preyed on hundreds of teen-age boys for the past decade.” Homosexuality in women is discussed in a section prepared by a committee of the Medical Women’s Federation: it is concluded that female homosexuality has never presented a serious social problem, and no suggestions for legal changes, for prevention, or for treatment are made.

The most important recommendations of the memorandum of evidence relate to the treatment of offenders. Prison is not usually the most suitable place for punishment and reform, and the committee welcomes the development of regional observation centres for first offenders. It recommends the establishment at these centres and in prisons of special teams of workers for the treatment and reform of prisoners. Each team would be composed of a prison officer, the prison doctor, a psychiatrist, a religious worker, and a social worker. To this one might add that the work of such teams might well be extended beyond the limits of sexual offences. The committee thinks that there should be early release from prison for persons responding favourably to treatment. Special precautions should be taken with juvenile offenders and children. Children should be guarded against inquisitions in courts of law, even as witnesses; and young people should be handled as far as possible by normal supervisory organizations, such as schools, in preference to being brought before

a court. On the subject of research, the committee states that a balanced view of homosexuality has not been generally obtained and that further work is necessary. A gain in knowledge would come from a pooling of the experiences of family doctors and prison medical officers.

In the prevention of homosexuality the committee finds the main hope in the education of public opinion to a healthier attitude towards sex. “Training in sexual education, properly undertaken, should take its place with training in table manners, fair play, honesty, and all those other elements on which a boy bases his standards of conduct and which enable him to live on terms of respect for himself and the community.”

COMPLICATIONS OF BLOOD TRANSFUSION

The more common complications of blood transfusion are haemolytic reactions, homologous serum jaundice, circulatory failure, and allergic, anaphylactic and “pyrogenic” reactions. Refinements of cross-matching have in practice reduced the causes of haemolytic reactions to human fallibility—failing to record or to read labels correctly or to distinguish between recipients with similar names. Unfortunately cross-matching is no longer a simple and rapid procedure. Care has to be taken that the patient’s serum is fresh and that incomplete antibodies are recognized by suitable Coombs sera. But it is still true that incubation of donor’s cells with recipient’s serum at 37° C. will suffice, provided even the weakest reactions are taken into account. This proviso applies particularly to Lewis antibodies, which cannot be ignored without risk, as P. L. Mollison and Marie Cutbush¹ have recently shown. The problem of homologous serum jaundice has led to a more conservative approach to the administration of pooled plasma, and more use is being made of other plasma expanders. In blood transfusion the risk is kept low by careful screening of donors, but it can never be entirely eliminated and must of necessity be greater with multiple transfusions. Circulatory collapse is related not to the properties of the transfused blood but to the total volume given and to the speed of replacement. A. S. Wiener² has suggested that many of the so-called instances of allergic shock following transfusion are really examples of “speed shock.”

There remain the less dangerous though unpleasant complications of allergic, anaphylactic, and pyrogenic reactions. All allergic reactions are due to the release of histamine acting on the receptor’s cells, though at least in certain anaphylactic reactions histamine is not the only compound to be released. Antihistamine drugs will prevent reactions of this type. Allergic reactions are recognized by the appearance of a rash, swelling of

¹ Mollison, P. L., and Cutbush, M., *Lancet*, 1955, 1, 1290.

² Wiener, A. S., *Blood Groups and Transfusion*, 1943, Springfield.

³ Mollison, P. L., *Blood Transfusion in Clinical Medicine*, 1951, Oxford.

⁴ Ferris, H. E., et al., *Amer. Practit. (Philad.)*, 1952, 3, 177.

⁵ Whittet, T. D., *J. Pharm. Pharmacol.*, 1954, 6, 304.

⁶ Wilheim, R. E., et al., *J. Amer. med. Ass.*, 1955, 158, 529.

⁷ Stephen, C. R., et al., *ibid.*, 1955, 158, 525.

mucous membranes, urticarial weals, itching, and at times nausea and vomiting; occasionally the body temperature may rise. Mollison³ recommends giving saline-washed cells to patients known to be allergic to plasma. The anaphylactic response resembles shock, and the patient feels great apprehension. H. E. Ferris *et al.*⁴ reported in 1952 on their experience with 607 transfusions after the addition of 25 mg. of the antihistamine drug tripeleennamine ("pyribenzamine") to 500 ml. of whole blood. In comparison with a control group the incidence of allergic reactions was reduced from 2.6% to 0.16%. Surprising, however, was their claim that the incidence of pyrogenic reactions was reduced from 4.31% to none. Much depends on how narrowly pyrogens are defined. Strictly speaking they are substances derived from bacteria and believed to be non-pathogenic polysaccharides of high molecular weight. Many chemicals and materials used in transfusion may be contaminated by pyrogens. T. D. Whittet⁵ numbers among them sodium citrate, dextrose, glassware, rubber tubing, needles, and syringes. The action of true pyrogen is different from that of compounds which release histamine, and no counteraction by antihistaminics can be expected. Thus a recent examination of the problem by a group of workers in Detroit⁶ did not confirm that antihistamine drugs prevented pyrogen reactions in man, nor was any beneficial effect seen when they were administered to rabbits which had received known pyrogens. On the other hand, some authors have upheld the original claim of Ferris *et al.*, and C. R. Stephen and his colleagues⁷ have suggested that in some instances pyrogen may not be an active material itself but may be metabolized in the body before it produces a typical reaction: "It is within the realms of possibility that antihistaminic drugs could block such metabolism and thus prevent the anticipated febrile response."

BILIARY AND ANGINAL PAIN

A connexion of some kind between gall-bladder disease and coronary atheroma has been suspected for the last fifty years. The nature of the link is not fully understood, but there are some interesting possibilities. It has been suggested that both cholelithiasis and coronary disease may have a common factor in their aetiology, such as a disorder of lipid metabolism. This is unlikely in view of the difference in the distribution of the diseases between the sexes. But there is no doubt that both diseases may cause the same symptoms. Gall-bladder pain may be experienced solely in the epigastrium; radiation of the pain to the back and shoulder is frequently absent. Similarly, the pain of coronary disease may be localized in the upper abdomen. There is some evidence that biliary pain may be experienced occasionally in the classical anginal distribution.¹ There is another possibility of a link—namely, via the nerve supply to the heart. Experiments have shown that stimuli reaching the heart through the vagus nerve may cause constriction of the coronary vessels, influence conduction of the cardiac impulse, or cause various arrhythmias. Distension of the biliary tract in animals

has been shown to produce all these effects. In man, anginal pain with electrocardiographic changes has been observed when the common duct pressure is raised by injecting saline into the T-tube drain after choledochostomy. It is possible that afferent impulses from a diseased gall-bladder may affect a poorly vascularized myocardium sufficiently to produce angina or heart block. Two articles have appeared recently which lend clinical support to this hypothesis. The authors of one of them describe² six patients with Adams-Stokes attacks and coexistent gall-bladder disease. Their cholelithiasis was treated surgically, and the authors consider that the syncopal attacks were markedly reduced. In the other article¹ several cases of angina pectoris are described which were relieved after treatment of their concurrent biliary disease.

The association of these two conditions is no longer of merely academic interest, because reflex coronary spasm due to gall-stones can be satisfactorily treated by surgery. It is no longer justifiable to withhold the benefits of surgical treatment because of the risks which a patient with cardiac disease may run. These risks have been diminished tenfold by improvements in anaesthesia and surgery of the last fifteen years. From the technical point of view two factors are of great importance. The patient must be well oxygenated during the operation, and his blood pressure must not be allowed to fall. If these precautions are observed, coronary thrombosis is unlikely. There cannot be many patients with inter-linked coronary and biliary disease, but such cases are worth looking out for because of the happy results that may be expected from treatment. Suspicion should be aroused when angina occurs apart from its usual stimulus. Pain experienced at rest, particularly after meals or during the night, should suggest the possibility of an exciting stimulus from a diseased gall-bladder. If one is found, the patient is not "unfit for surgery": surgery may relieve him completely.

REPORTS OF HEALTH

The once prevalent habit of spitting by factory workers (and no doubt others) has almost disappeared, according to the latest report⁸ of the Chief Inspector of Factories. He attributes this happy state of affairs to the steady improvement, which still continues, in the working environment of industry. Cleaner, lighter, and more cheerful factories have the natural consequence of keeping the people who work in them more alert and responsive to hygienic measures. Even so, the accident rate did not change much from 1950 to 1954, the latest year reviewed. That some firms could do more to prevent accidents is suggested by the evidence that others have succeeded when they have made "a special point of accident prevention and training." In the more distant future self-governing machines may increasingly intervene between man and his product, and the industrial scene is expected to become safer as a result. However, according to the Chief Inspector, the push-button factory "will take a long time to develop." So too, perhaps, will the push-button man.

⁸ *Annual Report of the Inspector of Factories for the Year 1954, 1955* (H.M.S.O., 8s.).

⁴ *Report of the Ministry of Health for the Year Ended December 31, 1954, Part II, 1955* (H.M.S.O., 8s. 6d.).

¹ Ravdin, I. S., Fitz-Hugh, T., jr., Wolfert, H. C. C., Barbieri, E. A., and Ravdin, R. G., *Arch. Surg. (Chicago)*, 1955, **70**, 333.

³ McLemore, G. A., jr., and Levine, S. A., *Amer. J. med. Sci.*, 1955, **229**, 386.

If he and his companions were born last year they had an expectation of life at birth of 68 years, or 73 for girls, and those who survived a year would find that their expectation of life had risen to 69 and 74 years respectively. These figures, from the latest annual report⁴ of the Chief Medical Officer of the Ministry of Health, are among the several records in vital statistics recently established for England and Wales. Babies born in 1954 also had the best ever chance of attaining their first birthday, for the infant mortality rate in that year was the lowest recorded figure of 25.4 per 1,000 related live births. This is lower than the rate in the U.S.A. (27), Scotland (31), Northern Ireland (33), and Eire (38), but higher than the rate in Sweden (19), Canada and the Netherlands (21), and Australia and New Zealand (22). An investigation from several centres and under the general direction of Professor Leslie Banks, of Cambridge, is being held into accidental suffocation as a supposed cause of children's deaths, for there is reason to believe that this may be mistaken for infective causes. Anaesthetic deaths are the subject of a special section. On the whole they have been decreasing in number year by year, if somewhat irregularly, since 1938, though an exception is the slightly upward trend in number of anaesthetic deaths of men and women aged 65 and over. A possible explanation of this could be that more operations are being performed than formerly on older people, when the death rate might be falling; or it may be a real increase. No figures are available from which to calculate valid rates, but such as are point to the need for more information.

CORTISONE IN TUBERCULOUS MENINGITIS

The property of cortisone and A.C.T.H. of inhibiting the formation of inflammatory exudates has led several workers to use these hormones in the treatment of tuberculous meningitis as an adjuvant, and recently some favourable results have been claimed. As the combined use of isoniazid and streptomycin (with or without P.A.S.) has given very good results in experienced hands without the use of cortisone, only rigorously controlled therapeutic trials can now establish the value of these hormones. Such trials have not been published to date.

S. J. Shane and C. Riley¹ treated seven patients with cortisone, two of whom died. These results were not better than might have been expected without the use of cortisone, but the amount of exudate at the base of the brain in the two fatal cases was less than the authors used to see in their earlier cases. Winifred Bulkeley² treated 31 patients without controls. The mortality rate in her series was not low (6 deaths); the period of observation was very short, and many of the patients were still under active treatment at the time of her report. The fallacies in the interpretation of Winifred Bulkeley's results did not allow valid conclusions to be drawn about the value of A.C.T.H.³ O. Wasz-Höckert⁴ gave oral cortisone and intrathecal hydrocortisone to 15 patients, two of whom had died at the time of his preliminary report. De Lavergne *et al.*⁵ were able to achieve with cortisone three remissions from blindness which developed in a woman under

treatment for tuberculous meningitis, and which relapsed each time cortisone was discontinued, but they failed to repeat their success in two other similar cases. M. Ashby and H. Grant⁶ compared six adult patients treated with oral cortisone plus oral isoniazid and intramuscular and intrathecal streptomycin with their six previous patients treated similarly but without cortisone. The numbers in the two groups were too small to obtain conclusive evidence, but the patients in the cortisone group responded to treatment more promptly, and all survived without sequelae. Of the "controls" one patient died and three had permanent sequelae, but, of these three, one had a presumably irreversible hemiplegia on admission, and deafness in the second was probably the result of prolonged intrathecal streptomycin treatment. The period of observation was much shorter in the cortisone group, and the absence of spinal blocks in these patients was not particularly notable, since this complication is rare with current methods of treatment.⁷

F. Michel and W. Pulver⁸ treated eight patients with oral cortisone in addition to streptomycin, isoniazid, and P.A.S., and all of them survived. The period of treatment with cortisone varied between 3 and 5 weeks, but the antibacterial treatment continued for much longer periods. None of the patients have neurological sequelae and none of them showed intolerance to cortisone. The tuberculous process in other organs was not adversely affected, and the dangers of spreading tuberculosis during cortisone treatment do not appear to apply if efficient antituberculous therapy is given concurrently. Michel and Pulver's results are good, but eight consecutive survivals are quite common now in any large series without the use of cortisone. The charts illustrating their paper do not suggest that the cerebrospinal fluid approached normal quicker than might have been expected without the use of cortisone.

Although there is no evidence to date that cortisone used in this manner enhances the tuberculous infection, there are risks that pyogenic infections may supervene and that these might be difficult to recognize. One of Bulkeley's patients, for example, died of associated pyogenic meningitis. Thus there is still need for more conclusive evidence that cortisone is of benefit before its routine use can be advocated.

HEROIN

As we went to press the Government announced its decision not to ban the manufacture of heroin at least in 1956. This reversal of policy was in response to the doubts that Lord Jowitt cast, in the House of Lords debate (see p. 1507), on the legality of invoking the Dangerous Drugs Act to prevent the proper as well as the improper use of heroin by prohibiting its manufacture. Lord Woolton agreed, for the Government, that it was a point of great importance, and the ban on heroin would not be imposed until it was clear that such action could lawfully be taken.

¹ Shane, S. J., and Riley, C., *New Engl. J. Med.*, 1953, **249**, 829.

² Bulkeley, W. C. M., *British Medical Journal*, 1953, **2**, 1127.

³ Lorber, J., *ibid.*, 1953, **2**, 1433.

⁴ Wasz-Höckert, O., *Nord. Med.*, 1954, **51**, 101.

⁵ Lavergne, V. de, *et al.*, *Rev. méd. Nancy*, 1954, **75**, 134.

⁶ Ashby, M., and Grant, H., *Lancet*, 1955, **1**, 65.

⁷ Lorber, J., *ibid.*, 1954, **1**, 1149.

⁸ Michel, F., and Pulver, W., *Schweiz. med. Wschr.*, 1955, **85**, 717.