tion Act. She said that these fell into three categories: "To know and understand its provisions; to apply the knowledge objectively; and to avoid using it if at all possible." What an extraordinary statement! The Abortion Act is the law of the land and has already proved of immense benefit to many of my patients. It is there to be used and to be applied uniformly throughout the country. It is the antagonism to abortion reform of many doctors, particularly N.H.S. consultants in certain parts of the country, that creates long queues for abortion. It is only necessary for two doctors, a general practitioner and his colleague, to sign certificate A—the patient is then ready for operation. A great deal of valuable time is now being wasted in referring these unfortunate patients to psychiatrists, and the gynaecologist could perform three abortions in the time that he takes, unnecessarily, to investigate one case. Some psychiatrists will not approve termination under the Act but will admit the patient to a mental hospital for supportive therapy. What nonsense!

If all doctors, general practitioners and consultants, put their patient's welfare before their own religious and biased cobwebbed ideas on abortion, then the new Act would present no problems at all. A patient for termination of pregnancy would appear in hospital as an acute appendix does today, and would be dealt with as quickly and without question.—I am, etc.,

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Busulphan and Bone Marrow Depression

SIR,—Busulphan (Myleran) has an established place in the control of chronic myeloid leukaemia. It is not always appreciated, however, that permanent bone-marrow aplasia may follow its use. We were reminded of this danger recently by the clinical course of four patients with chronic myeloid leukaemia.

The first patient, a 32-year-old male with a white cell count of 315,000/cu.mm. at diagnosis, was treated with busulphan, 6 mg. daily for four months. He was then referred to the haematology unit at Liverpool Royal Infirmary, when the white cell count was found to be 6,200/cu.mm. and the platelet count 48,000/cu.mm. Busulphan was discontinued, but over the next few weeks the platelet count continued to fall to less than 5,000/cu.mm., at which level it remained until his death in a blast cell crisis, nine months later.

The second patient, a 76-year-old woman, presented with a white-cell count of 246,000/cu.mm., and busulphan 4 mg. daily was administered for six months, when the white cell count had fallen to 11,500/cu.mm. The daily dose of busulphan was reduced to 3 mg., and three months later the white cell count was 4,700/cu.mm. and the platelet count 8,000/cu.mm. Busulphan was discontinued and she was referred to the haematology unit. The bone marrow was found to be hypoplastic, and several massive bleeding episodes occurred during the two months before death.

The third patient, a 27-year-old woman, received busulphan 4 mg. daily for nine months, the white cell count falling from 185,000/cu.mm. to 2,000/cu.mm. and the platelet count from 200,000/cu.mm. to 33,000/cu.mm., at which time she was admitted to the Royal Postgraduate Medical School. The bone marrow was hypoplastic, and a further sample taken during the remaining six weeks of life showed no evidence of regeneration.

The fourth patient, seen at the Royal Marsden Hospital, was a 22-year-old man who had received busulphan 12 mg. daily for 19 days, 8 mg. for six days, and 4 mg. for 16 days. The leucocyte count fell from 40,000/cu.mm. to 2,000/cu.mm. in six weeks, and to zero two weeks later. The platelet count fell from 865,000/cu.mm. to 10,000/cu.mm. in eight weeks. He deteriorated rapidly, but a transfusion of leucocytes from a patient suffering from chronic myeloid leukaemia (kindly provided by Professor G. Mathé and Dr. L. Schwarzenberg) has led to a temporary improvement.

We have observed other instances of marrow depression from busulphan toxicity. In some cases the daily dosage has been excessive (12–16 mg.), but in the majority conventional doses were used, the administration being continued longer than was justified by the falling white-cell count. Occasionally the platelet count has fallen disproportionately. We believe that marrow depression is avoidable in most cases, and suggest the following safeguards:

The daily dosage should not exceed 4 mg.; follow-up counts should be carried out weekly as the white-cell count approaches 20,000/cu.mm.; treatment should be stopped when the white-cell count falls below 20,000/cu.mm., or earlier if the platelet count falls below 100,000/cu.mm.

The white-cell count should then be observed at least fortnightly, and busulphan resumed at a low daily dosage—for example, 2 mg.—to stabilize the white-cell count at about 10,000/cu.mm. If the white-cell count does not rise, the patient should be followed up at fortnightly intervals without therapy until a rising trend is established. This is best appreciated visually, plotting the count on a chart incorporating a logarithmic scale before deciding on further treatment. The chart is particularly helpful if the patient is not always seen at each visit by the same doctor. However, continuity of supervision should be aimed at.

On maintenance therapy blood counts should be performed at least every four weeks, and the quantity of tablets prescribed should not exceed the number to be taken by the date of the next visit.

It is true that some patients who have suffered severe busulphan-induced marrow hypoplasia have recovered and long remissions have followed, but the risks of permanent marrow depression are high and we feel it is important to observe the precautions suggested.—We are, etc.,

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Ammonia in the Eye

SIR,—The frequent use of ammonia during attempts at robbery from security cars, banks, shops, and other places has resulted in damage to the eyes of those assaulted which has led to serious and permanent visual defects.

It is important to emphasize the necessity for the immediate treatment of those who have been attacked, and this should be known to all who might have to look after these persons in the few important minutes after the assault. It is essential that the eyes are well washed out with any bland fluid. This can best be achieved by holding the head under a running cold-water tap, or by submerging the upper part of the head in a bucket of cold or lukewarm water, with orders to the patient to blink his eyes. Alternatively, there are available a variety of industrial irrigators which give satisfactory washing of the eyes. This immediate treatment can mean the difference between normal vision and some permanent visual defect. It is suggested that all places and vehicles where persons may suffer these attacks should be provided with the means for immediate and adequate treatment of ammonia injury of the eyes.—I am, etc.,

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Rejection on Medical Grounds

SIR,—Dr. F. H. Tyrer (15 February, p. 441), while agreeing that much medical rejection is improper, suggests some circumstances when it is justified. He says that one reason for a pre-employment medical examination is "To determine the applicant's fitness to comply with the physical requirements of his, or her, job." A difficulty here is in definition. The conclusion that an applicant is "unfit" apparently means either that in the doctor's opinion he will probably be incapable of the job, or that in the doctor's opinion he will probably be damaged by doing the job. Capability cannot properly be assessed by the doctor; it should be assessed from the consideration of the applicant's experience and previous work record, or by putting him to the job and observing whether he can do it. I can think of very few circumstances when a doctor can rightly deduce whether someone will be damaged by a particular job. And if a doctor thinks that someone may be damaged, is he justified in preventing the man from doing the job, if he is willing to accept the risk?

Dr. Tyrer comments that some employers "take out life insurance policies on behalf of certain employees." In consequence, if an applicant is not a first-class life in the insurance sense, he is not given the job. "The whole transaction is part of a business deal, the terms of which are clearly defined and understood by all the parties" says Dr. Tyrer, "and one seldom hears any complaints about the practice from doctors." But I have heard many bitter complaints from those who are affected—the unfortunates who have been given jobs "subject to medical examination" and later turned down because they were not first-class insurance lives.

Nothing in this correspondence, in numerous conversations with all manner of people, and in various writings on the subject have changed my view that—leaving aside those whose illnesses may endanger others—rejection on medical grounds should be outlawed. If it were, numerous people would be saved from grave injustice, and numerous doctors would be saved from the tedium of carrying out routine medical examinations.

May I finally suggest that those doctors who believe they are justified in advising rejection on medical grounds should ask