p. 947) that about one in nine of the population (male population, we should have said) commits a criminal offence during life. These figures, of course, were taken from the ingenious calculations of Joseph Trenaman and B. P. Emmett related to the 1930s.1 They are minimum figures, derived from the numbers of persons actually convicted. The rate is higher now.

We agree with Mr. Cooper that it is impossible to derive from the known number of convictions how many crimes are actually committed. Criminal statistics for 1960² reveal that one in every 134 males over the age of 8 years was found guilty of an indictable offence. But convictions are only secured in some 45% of offences known to the police. (The figure varies from region to region and there is a temptation to authorities to write off known crime in order that the gap between conviction and detection, and thus efficiency, does not appear too wide.) There are, in addition, many people who commit criminal offences which are not detected or which are detected but which for one reason or another never come to police notice. For example, offences committed within families, within institutions, or among friends are frequently dealt with without being brought to the notice of the police. We realize the difficulties caused because a few highly criminal people could produce the same number of crimes as a large number of mildly criminal ones. Nevertheless to suggest that what cannot be directly and precisely measured cannot be estimated is nonsense. Common sense often arrives at answers to problems, and is subsequently confirmed when science has advanced to provide the answers.

This discussion arises from one of our smaller points of criticism of Dr. Henry Rollin's paper (March 23, p. 786)namely, that the small antisocial hazard from psychiatric patients must be set in perspective against the mass of nonpsychiatric crime. Because psychiatrists occasionally make mistakes does not provide a reason for compulsorily detaining a patient in hospital any more than, say, the fact that a swab is occasionally left in an abdomen provides a reason for not performing a laparotomy. As we see it, one of the most important factors in the increased admission of patients with psychiatric abnormalities to prison and mental hospital is the recent tendency to close "spikes" (reception centres) by the National Assistance Board and the change of policy in Rowton Houses. It is increasingly impossible for vagrants and eccentrics to live outside institutions. Provision should be made for that small percentage of the population who cannot, or will not, accept the rigid pattern of existence laid down by contemporary society. To force them into mental hospitals seems entirely wrong.

What is worrying is that a criminologist of Mr. Cooper's calibre accepts Dr. Rollin's paper as a valuable contribution despite the serious criticisms which we

and other correspondents have offeredso far without contradiction.-We are, etc..

Severalls Hospital, Colchester, Essex.	Richard	Fox.
	RUSSELL	BARTON.

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Infectious Mononucleosis

SIR.—In reply to the letter by Dr. Michael Kelly (June 1, p. 1473) concerning our communication on a case of auto-immune haemolytic anaemia and thrombocytopenia complicating infectious mononucleosis (May 4, p. 1210), the later history of the patient is as follows.

The dosage of prednisolone was gradually reduced from February 9, 1962. On December 6, 1962, her platelet count was 140,000 per c.mm. and the most recent platelet count was 180,000 per c.mm. on March 7, 1963. She had no ill effects whatsoever during or following withdrawal of steroids and she is at present in good health with no mental or physical sequelae.-I am, etc.,

D. STEWART SMITH. Department of Clinical Pathology, Manchester Royal Infirmary.

Menopausal Flushes

SIR.-I was most interested in letters on this subject from Dr. Denys Kelsey (May 11, p. 1290) and from Dr. A. Guirdham and Dr. P. Hopkins (June 8, p. 1543); and in Dr. Kelsey's suggestion that this is a good subject for research.

We have certainly failed badly in the treatment of a condition that probably causes far more misery than we know. Comparing patients seen in recent years with those seen many years back, one has noticed (a) the menses are tending to cease at a later age: 55 is now as usual as 45 used to be: (b) menopausal symptoms are therefore later; (c) they continue over a longer period, say 55 to 60 years; (d) the older the patient the more severe the symptoms, on the whole; (e) they are often most severe in the least "neurotic" type of patient, and in those who lead full, active lives. The outward signs are borne with humour and philosophy, but the accompanying though temporary exhaustion is frustrating to a busy person, especially when this goes on year after year, with apparently so little being done for her by her doctor. -I am, etc.,

JEAN WILSON. Glasgow S.1.

SIR,-I read with great interest Dr. Denys E. R. Kelsey's letter on menopausal flushes (May 11, p. 1290). He writes that the basic pathology lies in the hypothalamus rather than in ovarian deficiency, but I do not agree with his statement that therapy has not advanced beyond ovarian hormone replacement.

Various forms of therapy have been

used in the past to inhibit pituitary gonadotrophin secretion including the use of androgens1² and progesterone,³ although these appear to have a limited effect. Last year I described a clinical trial⁴ in which norethisterone was used in the control of menopausal symptoms. This drug appeared to reduce the incidence of flushes considerably, although it had the disadvantage of causing breakthrough bleeding in some cases. The mode of action of norethisterone was not altogether clear and three alternative mechanisms were considered. Norethisterone may have a primarily oestrogenic action, its effect may be due to an oestrogenic contaminant or metabolite or its effect may be due to direct inhibition of the pituitary.

Dr. Arnold Klopper⁵ suggested it might be worth while examining the effect of a true progesterone derivative such as 6-dehydro-retro-progesterone ("duphaston") on menopausal flushes, since it was unlikely that this type of preparation would be converted to oestrogen in the body. I have recently completed a trial along these lines and hope to publish the results in due course.-I am, etc.,

London W.1.

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Dangers of Lignocaine

SIR,-Credit is due to our Australian colleagues (May 25, p. 1416) for recording their unfortunate experience with this local anaesthetic, which I have used for some fifteen years. As they frankly admit, the dose they used, without a vasoconstrictor, was rather excessive.

My reason for entering this correspondence, however, is not on the question of dosage but to discuss two other aspects on the use of this local anaesthetic in minor surgery. Firstly, I often use 2% lignocaine for ring-block anaesthesia in the removal of finger- and/ or toe-nails. In spite of earlier teaching, I have for many years used it with a vasoconstrictor on these occasions without any complications. Is it really essential to avoid using a vasoconstrictor on such occasions when the patient has a normal circulation, or have I been lucky for so long?

My second point is the use of lignocaine in patients who are sensitive to procaine. Last month, when on the table, a sensible man of 65 stated he could not take "locals," and described how he had collapsed on two occasions during dental operations when procaine and later novocain were used. He was given a small test dose of 2% lignocaine with adrenaline 1/80,000, and after five minutes his pulse rate was unaltered and

London W.1. IAN MARTIN-SCOTT.

SIR,—Further to my previous communication (June 29, p. 1741) on dangers of lignocaine, may I add another case which occurred in my casualty department?

On June 24 a man aged 41 complained of pain in the right shoulder as a result of bowling in cricket. This used to happen each year, but was much worse this time. He also had old subluxation of the right acromio-clavicular joint with osteoarthritis.

I found in his notes that in August, 1962, he was given local injection of cortisone with procaine, to which he showed much improvement. This time, again when his condition worsened, it was decided to inject 25 mg./ml. hydrocortisone and 2% "xylocaine," 1 ml. each. The patient was sitting on a stool and about one minute after my finishing the injection he perspired badly, went pale, and showed respiratory distress, with cyanosis and shallow and slow breathing. There was also bradycardia with pulse rate of 48 per minute. I dragged him to the floor, put an airway in his mouth, and gave artificial respiration and oxygen. In another minute I got 0.5 ml. of 1/1,000 adrenaline injected.

The patient showed signs of recovery after about two minutes of adrenaline injection. He afterwards felt dizzy and sick and complained of headache for a couple of hours, but was later allowed to go home. (Ten years ago he was found to be sensitive to penicillin, when he showed skin rash and severe itching reaction to an injection of penicillin.)— I am, etc.,

Wanstead Hospital, K. P. SINGH. London E.11.

SIR,—You have pointed out previously in an annotation (January 6, 1962, p. 42) that lignocaine is a potent drug and must be used with due consideration of its possible toxic effects; but the recent letters from Drs. Janet L. Elder and William G. Smith (May 25, p. 1416) and Dr. K. Dawson-Butterworth (June 22, p. 1674) suggest that the pharmacology of lignocaine is still not as well understood as it should be after nearly 15 years' use.

In your annotation you also recommend that a total dose of 500 mg. should not be exceeded. There is probably no such thing as a "safe maximum dose" of a local analgesic drug; so much depends on who administers it, on the general state of the patient, and on the region to be anaesthetized—matters of clinical judgment that cannot be defined in a set of rules. As manufacturers, however, we have always recommended that the total dose for an adult should not exceed 200 mg. in "plain" solutions and 500 mg. in solutions where absorption is slowed by the addition of adrenaline; and as far as we are aware no untoward effects have occurred when these doses have been adhered to and intravascular injection avoided. Accidental intravascular injection seems, on the evidence, to be the most likely explanation of the events reported by Drs. Elder and Smith.

Further, as your correspondents point out, the toxicity of lignocaine depends on the concentration of the solution as well as on the total dose, becoming disproportionately greater as the concentration is increased. It is unfortunate that so many users of local analgesics still seem to think in terms of procaine although they use lignocaine; lignocaine is at least twice as active as procaine. and concentrations greater than 1% are needed only in a very few specialized situations, 0.5% being adequate for most general purposes. We have records of several tragedies which could easily have been avoided : in each case not only was there a gross overdose of lignocaine but it was given in the form of a 2% solution.

It is a matter of great concern to us that lignocaine is still being used in too high concentration and in too big doses. May we draw the attention of your readers to our booklet on the pharmacology and clinical uses of lignocaine, and to our dosage chart for lignocaine solutions? Both are available on request.— I am, etc.,

W. T. SIMPSON. Duncan, Flockhart & Co. Ltd., Wheatfield Road, Edinburgh 11.

Oral Contraception

SIR,—In October, 1961, the oral contraceptive "conovid" was approved by the Family Planning Association for use in their clinics, and became available to patients at their request. At a later date "conovid E" and "anovlar" were approved, and early in 1962 we started using these at the Slough Family Planning Clinic.

Since August, 1960, an oral contraceptive trial has been running in Slough under the auspices of the Council for the Investigation of Fertility Control. In this trial we use tablets containing varving quantities of norethynodrel and mestranol, but in the majority of cases we use 2.5 mg. norethynodrel and 0.1 mg. mestranol, the tablet now known as conovid E. Of this and other trials there have been many reports, but it may be interesting to compare the results obtained among volunteers in the trial and patients coming to the Family Planning Clinic at Slough and asking for oral contraception in preference to more conventional methods.

Following our experience with conovid E in the trials, we elected to give this tablet initially, and the results have been

most gratifying. Most frequently the woman, having discussed the matter with her husband, and often on the advice of her own doctor, comes by appointment for oral contraception, and is not interested in other methods. There have been no pregnancies reported. The incidence of side-effects has been both relatively and absolutely less than in the trials, in that the degree of nausea and breast tenderness has tended to be slighter, and the breakthrough bleeding when present occurs later in the cycle. Telephone calls and queries, numerous at the start, have diminished and are now very rare. In the 16 months of use in the clinic 176 patients have now completed one cycle, and 100 have completed six cycles, with a total of 1,166 cycles of treatment over all patients. Fourteen per cent. of cycles were shortened compared with 26% in the trial; nausea occurred in 3.3% compared with 8.1%; breast discomfort 1.6%compared with 7%; premenstrual tension was noted in only 0.3% and headache in 0.7%.

In 1962 624 women came as new patients for cap and cream, and 131 for the pill. In the first four months of 1963 about 50% of new patients have asked for the oral contraceptive. Perhaps the most interesting feature is that, apart from one patient who has stopped her tablets in order to become pregnant, only one woman has not continued with the method: she complained of abdominal distension, and discontinued after one cycle. Four patients have been transferred to anovlar because of persistent short cycles; two of these were controlled, and the other two continue to have shortened cycles.

We are particularly fortunate in Slough to have had, and still to have, the personal experience of the trial, for I am convinced that the resultant confidence of doctors, nurses, and lay workers, and indeed of the early volunteers, is largely responsible for the happy results which we are now obtaining.—I am, etc.,

Beaconsfield, Bucks. AVIVA WISEMAN.

Oral Contraception and Coagulability

SIR,—In his letter Professor Armand J. Quick (June 15, p. 1604) refers to his theory of the blood-clotting mechanism and also considers that (a) excess of any factor including platelets is unlikely to predispose to thrombosis, and (b) his study of platelets in thrombocythaemia shows that they are functionally normal.

In regard to (a) there is considerable evidence of venous and arterial thromboses being associated with thrombocythaemia. References to the literature are given by Shaw and Oliver' and Fountain and Losowsky.² Concerning (b) Shaw³ and Fountain and Losowsky² point out that although the results of investigations of platelet thromboplastic function in thrombocythaemia have been variable there are many patients in whom