No. of premature births:	0	1	2	3	4+
Survey mortality ratio	84	152	186	230	452
Perinatal mortality (%)	2.6	5.0	7.0	7.7	14.9

Termination of pregnancy is likely to have less effect than this on future perinatal mortality.

In your leading article you quote a 40% increase in prematurity following termination of pregnancy. This is the correct figure after one such abortion, but Wynn and Wynn¹ and Gordon³ quote from Hungarian reports showing an increase of more than 100% after three or more terminations in 1968:

No. of terminations	0	1	2	3+
Prematurity rate (%)	9.3	13.0	16.6	20.6

The prematurity rate does not normally increase with parity by more than 2% as the figures from the 1958 British survey show:

Parity	0	1	2	3	4+
Prematurity rate (%)	7.6	5.4	6.7	7.0	7.4

Assuming that the increase in prematurity rate after termination in Britain will be similar to that in Hungary, a rise of about 6% is to be expected. As the perinatal mortality in all prematures is about 26.4% the increase in perinatal mortality after termination will be about 1.6% (16 per 1,000 births).

I predict that the contribution of the increased prematurity rate after termination will affect perinatal mortality in Britain as follows:

No. of terminations	0	1	2	3	4+
Perinatal mortality (%)	2.5	3.0	4.1	5.0	6.0

In Hungary the perinatal rate has doubled since the introduction of abortion on request.⁴ These findings seems likely to be accounted for by the increased prematurity rate and limited special care facilities which are at present available there for neonates. Any increased incidence of placental insufficiency after termination of pregnancy is at best not proven, and we must continue to look for other factors contributing to increased perinatal mortality.

Whatever the answers, the conclusion must be that if we accept liberal abortion in the young, perinatal mortality in Britain can only increase dramatically in this decade.—I am, etc.,

ANTHONY OGBORN

Royal Hampshire County Hospital,
Winchester

- Wynn, M., and Wynn, A., *Some Consequences of Induced Abortion to Children Born Subsequently*, London, Foundation for Education and Research in Childbearing, 1972.
- Butler, N. R., and Bonham, D. G., *Perinatal Mortality*, London, Livingstone, 1963.
- Gordon, H., *British Journal of Hospital Medicine*, 1973, 9, 303.
- Jurukovski, J., and Sukarov, L., *International Journal of Gynaecology and Obstetrics*, 1971, 9, 111.

Mode of Action of Verapamil

SIR,—We thank Dr. D. G. McDevitt and R. G. Shanks (17 March, p. 681) for their comment on our report on the comparative effectiveness of verapamil and propranolol in the treatment of angina pectoris. We certainly did not claim that verapamil blocked β -adrenoceptors. In fact, we were careful to state that our experience suggested that in man an important action of verapamil was to augment the effect of vagal tone on the specialized conducting tissue of the heart. This statement neither ignores nor contradicts the published information about the effect of verapamil in man. Published evidence over recent years has conclusively shown that the mode of action of verapamil consists in the inhibition of influx of calcium ions into the myofibril with a resultant reduction in activity of myofibrillar adenosine triphosphatase and a reduction in oxygen consumption and energy output on the part of the cell.¹

Fitzgerald,² at the Seventh Pfizer International Symposium held in Edinburgh last May, stated that one of the modes of action of beta-blocking agents was to unmask the effects of physiological vagal tone. Though verapamil is not a beta-blocking agent, because of its vagomimetic direct action in the specialized conducting tissue of the heart, it might be expected to be of value in the treatment of tachycardiac angina induced by effort. The end-result of either blocking the sympathetic nervous system or augmenting the effects of the vagus on the heart would be expected to be very similar. Our opinion remains unaltered—namely, that "Our results indicate that both propranolol (100 mg three times a day) and verapamil (120 mg three times daily) significantly reduce the heart rate at rest and throughout the exercise test, and this action together with hypotensive effects may account for the value of these preparations in the treatment of exercise-induced angina pectoris."—We are, etc.,

SAM ORAM
BRIAN LIVESLEY

King's College Hospital
London S.E.5

- Fleckenstein, A., *Arzneimittel-Forschung*, 1970, 20, 1317.
- Fitzgerald, J. D., in *Effect of Acute Ischaemia on Myocardial Function*, ed. M. F. Oliver, D. G. Julian, and K. W. Donald. London, Churchill Livingstone, 1972.

Road Accident Prevention

SIR,—I am much interested in Dr. Elizabeth Vaughan's letter (31 March, p. 803) in which she asks for the founding of a medical body concerned with the epidemiology of accidents. It is probably a reflection on our publicity that she does not know of the existence of the Medical Commission on Accident Prevention.

This was set up in 1964 by the Royal Colleges of Surgeons, Physicians, Gynaecologists, and General Practitioners and other academic bodies, with the considerable support of the B.M.A. Research is conducted on problems relating to accidents in the four environments of transport, the home, industry, and recreation. Conferences are held on these matters as well as upon the problems of rescue and resuscitation at the sites of accidents, and we are particularly interested and involved in the recent develop-

ment of road rescue schemes being organized throughout the country by general practitioners. Our medical expertise is readily available with advice whenever it may be sought.

Dr. Vaughan should know that we have published valuable and influential reports, including "Medical Aspects of Fitness to Drive" and "Medical Aspects of Home Hazards." We are sending copies of these reports to Dr. Vaughan, but the medical profession as a whole should know of our existence. Greater attention to the medical factors, both physical and psychological, is vital in any campaign in this field.—I am, etc.,

NORMAN CAPENER
Chairman Medical Commission on
Accident Prevention

50 Old Brompton Road
London S.W.7

Contact Sensitivity to Toothpaste

SIR,—We read with interest the report by Dr. L. G. Millard (17 March, p. 676) of three cases of contact dermatitis due to cinnamon in a recently marketed toothpaste. We have been investigating a small group of 10 patients with symptoms such as those described by Dr. Millard. Only three had been referred to the clinic because of their symptoms and in no case had sensitivity to toothpaste been considered as the cause. It was, indeed, the patients' own observation that led to an inquiry into this possibility and subsequent patch testing to the full range of ingredients of the preparation. Patch tests were strongly positive to 1% cinnamic aldehyde.

As the patients had developed symptoms soon after the toothpaste was marketed, we questioned the next 600 patients attending the clinic about their use of toothpaste and any adverse reactions they might have experienced. Two other cases of apparent sensitivity of a similar type came to light and these were tested with the same result. We were not able to establish any link between the use of this toothpaste and conditions such as hand eczema and chronic urticaria.

We proceeded to circulate all dental and general practitioners in our areas asking for any patients with symptoms of this type to be referred. The exercise produced, among a plethora of oral pathology, two further cases. Several other patients complained of similar symptoms but had not used this particular brand of toothpaste and had negative test results to cinnamic aldehyde and related chemicals.

Certain features are of particular interest. Most patients with adverse reactions developed these symptoms soon after the toothpaste was marketed, a phenomenon well known in the cosmetic and toiletry field. One patient with positive patch-test reactions was able to continue using the toothpaste without ill effect, though the others, naturally, have changed the brand. Though sensitization of the skin to cinnamon is well recognized, mucosal reactions have rarely been reported and the mucosal epithelium has always been regarded as less rapidly sensitized. It is obviously easy to overlook toothpaste and mouth washes as a cause of stomatitis and cheilitis, and Dr. Millard is to be congratulated on his speedy recognition of the relationship in his cases. His report has drawn attention to an area of contact der-

matitis that has been rather neglected in the past. It also emphasized the importance of obtaining a full environmental history on patients with complaints involving the skin or mucosae and of proving an allergic cause by patch testing.

We hope that our findings will be published in full in the near future.—We are, etc.,

V. KIRTON
D. S. WILKINSON

Wycombe General Hospital,
High Wycombe, Bucks.

Deputizing Services

SIR,—With reference to Dr. I. P. F. Mungall's comment (31 March, p. 799) on the calculation by Dr. B. T. Williams and others (10 March, p. 593) that 92% of night calls in Sheffield were handled by the deputizing service, the latter authors gave reasons why they thought this to be an overestimate. I can confirm that this figure bears no relation whatever to reality. I have personally made innumerable night calls and submitted a claim form on one occasion only. Like most other family doctors, I dislike thoroughly the idea of asking a sick patient or his anxious relatives to confirm my claim that I have actually paid him a visit and therefore do not ask them to do so.—I am, etc.,

H. M. HALLE

Sheffield

Advertising of Antibiotics

SIR,—We are concerned about the content of current advertisements for antibiotics, some of which have appeared in the *B.M.J.* A recent example is an advertisement for amoxycillin (Amoxil), which is being recommended for the treatment of throat infections in spite of the fact that the large majority of these conditions, if of bacterial aetiology, are caused by *Streptococcus pyogenes* for which benzylpenicillin is the antibiotic of choice. Further, amoxycillin is closely related to ampicillin (they differ only by an OH group), a fact not mentioned in the advertisement, and it is now well recognized that ampicillin is contraindicated in glandular fever, a common cause of sore throat, because of the frequent occurrence of skin rash. Many other advertisements for amoxycillin have also failed to mention its close similarity to ampicillin, which includes an identical antibacterial spectrum. Doctors could be misled into believing that ampicillin and amoxycillin are different compounds and therefore prescribe amoxycillin for infections which have failed to respond to ampicillin. Professor Garrod¹ has recently drawn attention to the consecutive prescribing of chloramphenicol under two different trade names.

Ceporex, one of the two forms of cephalixin sold in Britain, has recently been extensively advertised for the treatment of bronchitis in spite of the fact that the most important bacterial pathogen in exacerbations of chronic bronchitis is *Haemophilus influenzae*, an organism which is frequently relatively resistant to cephalixin.

Two pharmaceutical companies have recently introduced a new oral cephalosporin called cephadrine (Eskacef; Velosef). It is claimed that it is effective in eradicating

penicillinase-producing staphylococci in spite of the fact that the minimum inhibitory concentration of this organism for cephadrine is said to be 18.7 µg/ml while the mean peak serum concentration following the recommended dose of 500 mg is stated to be 11 µg/ml. If these facts are true then in our opinion penicillin-resistant staphylococci are, for practical purposes, resistant to cephadrine. In the advertising booklet produced by one of the companies marketing this antibiotic the sensitivity to cephadrine of various organisms, including penicillinase-producing staphylococci, is compared only with those of ampicillin, tetracycline, and chloramphenicol. Surely it is now universally accepted that chloramphenicol should not be prescribed systemically for conditions other than typhoid fever or severe haemophilus infections, and it would therefore seem inappropriate to include this antibiotic in such a comparative table. It would have been much more useful to compare the sensitivities of organisms to cephadrine with those to penicillin, cloxacillin, lincomycin, co-trimoxazole, and the other cephalosporins.

The tetracyclines are contraindicated in children and in pregnant women because of their staining and possible hypoplasia-producing action on developing teeth. In spite of this, recent advertisements for doxycycline (Vibramycin) include obstetric and gynaecological infections among the indications for this antibiotic; the paediatric dosage is also prominent. The advertisement does mention the side effects of the antibiotic, but the dental implications are not spelled out in detail.

We recognize the necessity for these advertisements and have no objection to healthy competition between pharmaceutical companies. We would, however, urge their medical departments to curb the enthusiasm of commercial colleagues in the content of their promotional literature.—We are, etc.,

J. D. WILLIAMS

Dudley Road Hospital,
Birmingham

A. M. GEDDES

East Birmingham Hospital

¹ Garrod, L. P., *British Medical Journal*, 1972, 4, 473.

Anticoagulants after Mitral Valvotomy

SIR,—In a leading article last year (11 March 1972, p. 641) you discussed my full use of anticoagulants in patients with mitral valve disease not needing surgery.¹ You also mentioned operation under cover of anticoagulants—a practice which I have long followed.

It had not been my practice to use anticoagulants after successful valvotomy, as suggested in your leader. Because of your recommendation I have reviewed the systemic emboli occurring postoperatively in my patients. In the 12-year period from 1960 to 1972, 285 patients have had mitral valvotomy. In this group there have been noted 17 cases of systemic embolism. These have occurred from one to 12 years after operation. Six of the patients were in sinus rhythm. The group was far from homogeneous and the numbers were much too small for statistical analysis. In a number of cases there were also contraindications to the use of anticoagulants. Only three patients

retained the result of a good mitral valvotomy and had systemic embolism.

Analysis of individual cases suffering postoperative systemic embolism suggested that the majority came under the following headings: (1) poor valvotomy because of the pathology of the valve; (2) considerable mitral incompetence; (3) considerable cardiomegaly; (4) considerable valve calcification; (5) re-stenosis; and (6) a group of patients who seemed to be particularly prone to embolism. It is therefore now going to be my practice to anticoagulate only these particular groups of patients and not patients who have had a successful mitral valvotomy with atrial appendectomy.

Numbers are too small to allow valid conclusions to be drawn, but it did appear that in the postoperative group the recovery from even quite large cerebral emboli was better than in the preoperative group.—I am, etc.,

HUGH A. FLEMING

Papworth Hospital,
Cambridge

¹ Fleming, H. A., and Bailey, S. M., *Postgraduate Medical Journal*, 1971, 47, 599.

Fashions in Duodenal Ulcer Surgery

SIR,—In your leading article (10 March, p. 563) you rightly take a cynical view of the claims made for each new operation for duodenal ulcer. It should be pointed out, though, that recent trends represent a retreat from former over-enthusiasms.

Starting with simple, revocable gastroenterostomy, attempts to raise the cure rate led to partial gastrectomy and ultimately to vagotomy combined with gastrectomy. As you point out, only three of Draegstedt's first 15 patients required additional surgery to relieve gastric retention following truncal vagotomy, yet the addition of a "drainage" procedure soon became routine, even though the majority of patients do not require it and may be harmed by it.

As a former seeker after 100% effectiveness through vagotomy combined with mucosal antrectomy,¹ I changed some three years ago to proximal gastric vagotomy without "drainage." I did so not because I believed the new operation to be better, but because it seemed to be the least assault upon the patient. Its safety makes Mr. J. F. Newcombe's report of a fatality (10 March, p. 610) unique. I accept that the operation will fail unpredictably in some patients, but other procedures can be added if, and only if, the patients display their need for them. Out of 63 patients treated I have so far had to re-operate on only one for recurrent ulcer and one for gastric retention. I regret the extra operation on these two patients but am overwhelmingly more relieved at sparing the other 61 patients an unnecessary procedure that might be harmful and irrevocable.—I am, etc.,

JERRY KIRK

London W.1

¹ Kirk, R. M., *American Journal of Surgery*, 1972, 123, 323.

Contraceptives on the N.H.S.

SIR,—The addition of family planning to the services to be provided by the general practitioner under the N.H.S. has so far been greeted by complete silence, possibly because