given to take away. This is based on triple tetracycline, and after their usual meal times have been discussed with them they are advised on the twice-daily dosage times which will produce least disruption to their usual eating habits. They also receive advice on antacids, milk consumption, iron tablets, and "tonics," in addition to the risks of dental teratogenicity and the necessary continuity of antibiotic regimens. It is my hope that in this manner the poor therapeutic response of NSGI to tetracyclines can be enhanced by intelligent patient co-operation. My comments apply, of course, to the use of tetracyclines in any therapeutic situation.

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Coronary arteriography before aortic valve replacement

SIR,—The leading article entitled "Coronary arteriography before aortic valve replacement" (2 June, p 1443) stated that no firm conclusions could be drawn about the place of coronary angiography before aortic valve replacement, but gave tacit approval to a policy of undertaking coronary angiography before aortic valve surgery only in patients with angina.

As you emphasise, in patients with aortic stenosis incapacitating angina is nearly always associated with significant coronary artery disease, but in patients with less severe angina or no angina it is impossible to predict the state of the coronary arteries. Thus in patients with aortic valve disease referred for surgery, the presence or absence of coronary disease can be established only by preoperative coronary angiography. To decide whether or not to perform coronary angiography or coronary surgery in patients undergoing aortic valve replacement one must answer two questions. Does the addition of coronary surgery to aortic valve replacement have any detrimental effect? Does it have any beneficial effect?

The leading article compares the operative mortality rates of aortic valve replacement and combined aortic valve replacement and coronary artery bypass grafting in Britain in 1977, notes that isolated aortic valve replacement had a lower mortality, and states that this difference is due to the shorter time taken for the operation. Modern methods of myocardial preservation, especially hypothermic cardioplegia, allow the surgeon the extra operating time required to carry out the coronary artery bypass graft as well as the aortic valve replacement without increasing the operative risk.¹ In two recent American series^{2,3} no difference in operative mortality was observed between patients having isolated aortic valve replacement and the combined

valve replacement and coronary graft procedure. Thus in 1979 the addition of coronary artery bypass surgery to aortic valve replacement should not be detrimental in patients with coronary disease. But is it beneficial?

Evidence accumulated to date indicates that coronary artery bypass surgery improves long-term survival in patients with obstruction of the left main coronary artery⁴ and improves cardiac function in patients with lesser degrees of coronary artery disease.⁵ In the case of mitral valve replacement in the presence of coronary disease, one series has shown that patients who underwent combined mitral valve replacement and coronary artery bypass grafting had a lower late mortality than those who underwent mitral valve replacement with coronary artery disease left untreated.⁶ Until evidence is presented to the contrary it would seem logical to assume that these beneficial effects also occur in patients who have undergone aortic valve replacement.

It is further suggested in your leading article that there is no need for preoperative assessment of the coronary arteries in patients who undergo aortic valve replacement using cardiac cooling and potassium-induced cardiac arrest (hypothermic cardioplegia). Following cardioplegic arrest there is a mandatory period of supportive cardiopulmonary bypass needed to restore biochemical and functional normality to the myocardium before weaning the patient from the heart-lung machine. In patients with left ventricular hypertrophy and coronary obstructions or narrowings which have not been bypassed, reperfusion of the myocardium is patchy and damage to the subendocardium may result.⁷

For these reasons we advocate and practise in our unit preoperative coronary angiography in all adult patients with valvular heart disease

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Normal vaginal flora

SIR,—In their study of the microbial flora of the vagina in normal young women, Dr M J Goldacre and others (2 June, p 1450) apparently did not attempt to culture *Haemophilus vaginalis* or *Clostridium difficile*. The pathogenicity of the former is uncertain¹; while the latter, when in the bowel, has been cited as a principal cause of colitis associated with the use of some antibiotics.²⁻⁴ However, we can provide some data relevant to both of these topics.

In an unpublished study of 522 women attending a family planning clinic, vaginal secretion specimens were taken at an enrolment visit and, from 380 who returned, at an anniversary visit. The women were mostly aged 25-34 years and in socioeconomic group 3 (husbands in skilled manual jobs, etc). *H vaginalis* was cultured from 6% of the 902 specimens tested, though 10% of the 380

women from whom two specimens were obtained provided positive cultures on at least one occasion. Vaginal symptoms in women from whom *H vaginalis* was cultured were compared with those in controls from whom the organism was neither cultured nor seen microscopically, after excluding from both groups women with other possible sources of these symptoms (yeasts, *Trichomonas vaginalis*, *Neisseria gonorrhoeae*). A heavy discharge was more frequently reported (27%) when *H vaginalis* was cultured than in the controls (17%) and an offensive odour was also more common (16% compared with 6%), though neither of these contrasts was significant at the 5% level (separate χ^2 tests for enrolment and anniversary visits).

Clostridium difficile was cultured by Dr S Hafiz from 17% of the vaginal specimens, whereas in a separate series of faecal specimens from over 100 non-acute surgical outpatients he cultured the organism in only one case, using the same technique and culture medium (personal communication). About half of these patients were women, and they could presumably have been older than those in our family planning clinic study. His results nevertheless suggest that the prevalence of *Clostridium difficile* in the normal female bowel is under 5%, rather lower than in the normal vagina.

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Legionnaires' disease

SIR,—Though your leading article (14 July, p 81) on the proceedings of the Atlanta conference in November 1978 was timely some of its assumptions do not appear to be justified.

Evidence was presented that the disease could follow exposure by inhalation of legionella but not ingestion of contaminated drinking water. This would have been difficult to establish in view of the stated extreme susceptibility of the organism to disinfectants.

At the conference the difficulties of culturing legionella were discussed. Until then relatively few strains had been recovered even in the United States and none elsewhere, so that the impression of repeated isolations from water samples is somewhat exaggerated.

The suggestion, from a Boston group,¹ of wide serological overlap in patients with legionnaires' disease and mycoplasma pneumonia did not receive much support from workers at the Center for Disease Control. That some instances of dual infection may occur has been shown; but on antigen sharing more study, including IgM antibody measurement, is needed. Investigation in Nottingham since the conference of patients suffering from either infection does not favour an overlap.

The frequency of subclinical infection is at this stage difficult to project. Testing of "normal" sera with a rather arbitrary haemagglutinating antigen² may unearth antibody but, if there can be antigen sharing among Gram-negative organisms its specificity may also be in doubt. In the end there has to be some relation to the clinical disease. Another survey³ of over 2000 persons from various population groups in the Nottingham area, which has experienced the disease, showed antibody as measured by specific fluorescence in only 31 (1.5%).

Rapid identification of legionella from patient material is very necessary. Bacteriological methods of culture have been described⁴ and further selective media are under study.

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Drugs for pain

SIR,—Dr L Lasagna (4 August, p 333) expressed some views about morphine which overlook the extensive British literature and experience with this drug.

For severe cancer pain—the commonest reason for using morphine in this country—we treated 250 patients with morphine last year. One hundred and eighty of them never needed more than 40 mg four hourly by mouth. To give a drug which is so potent by mouth parenterally would cause patients much unnecessary discomfort. Indeed, of the last 400 patients to die in our care, only 160 ever needed any injection of any kind. The majority were able to take oral medication to within four hours of their death. Properly used, morphine does not cloud the consciousness of these patients.

As Dr Lasagna indicates, the cook-book "Brompton cocktail" approach to the care of such patients is also outdated.

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Care of children in general practice

SIR,—Dr Stuart Carne, in his article on "Care of children in general practice," (21 July, p 190), appears to have failed to understand the principles of developmental assessment of infants and small children.

Assessment must be done at definite intervals; if the child is well and therefore does not visit his general practitioner, congenital defects such as deafness and squints, speech defects and motor retardation may be missed until well after the optimum time for treatment. A visit for otitis media is most inopportune for testing hearing. Examination of hips for congenital instability needs to be done at intervals, such as 6 weeks, 6 months, and 1 year, and not just on the occasion when the baby has nappy rash. Complete checks for a developmental assessment should never be

carried out on a child with intercurrent illness as an ill child will not show interest, drive, or response.

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SIR,—I read with interest Dr Stuart Carne's article (21 July, p 190), "The care of children in general practice," in which he argued cogently that it was in general practice that experience and expertise lay. In his hands I am sure that it does. Nevertheless, his admission that very few handicapping conditions occur in each practice is surely one that cannot be glossed over lightly. It is precisely in this field that the community doctor, whom he scarcely mentions, can offer much help and expertise, not only to the child but also to his family.

We in community medicine see considerable numbers of handicapped children and build up experience and knowledge of their problems. We add this to our roles in preventive medicine and child development. It is not enough to note in passing how a child is progressing. It needs a careful monitoring programme not to miss the potentially damaging degrees of developmental delay, visual and hearing loss, and educational anomalies.

It is often now the senior community staff who can and often do offer training in development and handicapping conditions to the general practitioners in their patch. Where this happens and where other doctors, in both general and hospital practice, are aware of community expertise there is no talk of dismissing the service as irrelevant. Maybe clinical medical officers would do well to learn this lesson and concentrate on perfecting and sharing their skills with their colleagues rather than to complain that they do not enjoy a well-defined place in the NHS structure.

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Neonatal superintensive care

SIR,—The article by Dr Malcolm Chiswick and others (28 July, p 247) gives me the opportunity of expanding the figures for mortality in babies of very low birth weight reported elsewhere.¹

Figures from Hammersmith Hospital² showed that there had been no improvement in survival rates in those infants weighing 1500 g or less born and treated in that hospital from 1961 to 1975. Now Dr Chiswick and his colleagues give their figures for babies imported to St Mary's Hospital, Manchester, in the years 1976-8. From their table I it can be seen that, of the 73 infants in this weight group, 32 survived—a mortality rate of 56.2%. My table shows this figure along with that for Hammersmith Hospital in 1971-5 and compares both with the national results in the

Percentage of neonatal (0-28 d) deaths in babies born weighing 1.5 kg or less

Completed years	Born and treated in Hammersmith Hospital	Imported into St Mary's Hospital	England and Wales
1971-5	51.9		53.9
1976-7		56.2	48.7*

*England only.

same years. It can be seen that the national figures are at least as good as those of the two superintensive care units.

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Travel and health risks

SIR,—The rising numbers of cases of imported malaria in Britain, reported in several recent issues of the *BMJ*, reflect an enormous increase in movement from one country to another by air, now measured in hundreds of millions of people annually. It is probably also a response to malaria becoming a notifiable disease. However, I believe the most important factor is that the profession has become much more alive to the problems of imported disease.¹⁻³

Unfortunately, the growing awareness of the profession is not matched by the general public, who remain almost totally ignorant of the medical risks of travel abroad—mostly trivial but sometimes serious, even fatal. I blame this ignorance largely on the travel agents and to a lesser extent on flight operators and others associated with travel. Apart from seeing that the recommendations of the international health regulations are carried out most agents do very little, although detailed information for particular countries is easily obtainable from regularly produced publications by the World Health Organisation and other bodies or by consultation with embassies and high commissions.^{4,5}

Travel agents are supposed to be issued officially by the Department of Health and Social Security with the pamphlet *Health Protection: Notice to Travellers*, which covers the main medical problems of travel and includes a warning about malaria. (I say "supposed" because on one occasion we telephoned most of the Liverpool agents and only one knew of the pamphlet and had it. It would be interesting to discover whether your readers have better luck with their agents). The absurdity is that, although the agent is issued with the pamphlet, he has no legal responsibility to disclose its contents or give a copy to the intending traveller. This should be mandatory. I agree with Dr A P Hall that legislation is needed, even an Act of Parliament.⁶ I wish him luck. Such matters have been raised several times in the House, with the usual equivocal parliamentary responses.

The airline operators are doing much better. Of these, I have always found British Airways and its predecessors the most understanding and helpful.⁷ Today, for instance, warnings about malaria are announced by the hostess in the cabin, both when approaching and when returning from a malarious endemic area; and passengers are advised to see a doctor if they become ill after return and tell him their recent geographical history. Lavatories in the intercontinental terminal in Heathrow now display signs offering similar advice. Equivalent notices should be placed in every major airport in the world, not only in lavatories but wherever the public and the authorities are likely to meet—for example, in the customs and passport areas.

DHSS has printed a small single sheet (Form Part 35) warning against malaria. This fits the folders provided by banks for traveller's