of abuse. In the correct dose, pressurized bronchodilator aerosols are probably all as safe as effective drugs can be made. If toxic effects occur in these circumstances then idiosyncrasy is responsible.

I am quite certain, however, that the statement of Drs. D. Jack and D. Harris that "it would be a pity if . . . patients resumed the use of isoprenaline-containing aerosols instead of those containing drugs such as salbutamol which are likely to be safer even if they are abused" (11 March, p. 689) is an extremely dangerous one. I have on several occasions seen patients very ill as the result of abuse of salbutamol and will be reporting one such case in the near future.—I am, etc.,

L. FEINMANN

Queen Elizabeth Hospital,
Gateshead,
Co. Durham

¹ Conolly, M. E., Davies, D. S., Dollery, C. T., and George, C. F., *British Journal of Pharmacology*, 1971, 43, 389.

Local Government Bill and Notification of Disease

SIR,—I wonder whether I am a lone voice crying in the wilderness, or whether other colleagues will have read your Parliamentary report about the Local Government Bill (1 April, p. 58).

I am sure we are all delighted to learn that the national health services are personal social services, and that public health services are related to materials, buildings, and substances, and that when the National Health Service Bill, not yet published, and the Local Government Bill are put side by side, it will be clear how the division was made. "Later," your report states, "Mr. Page moved an amendment to Schedule 14 (Amendment and Modification of Public Health Acts, etc.) to require that where an individual had to serve a notice on the medical officer of health—for example, where there was an outbreak of disease—the notice should be served on the local authority. The amendment was approved." This is obviously one of those matters where the distinction between personal social services, or should it be personal health services and public health services, is not quite so clear.

I wonder how many family doctors will wish to notify cases of infectious diseases directly to the local authority, as once again the question of confidentiality is being breached. I am not sure, if I should suffer from tuberculosis, that I would want details of my name, address, and illness exposed to any Tom, Dick, or Harry in the local town hall.

Of course, it is assumed that this work will be carried on by the chief public health inspector, but the appointment of chief public health inspector is not a statutory appointment in the new Local Government Bill, as is that of director of social services and director of education, and it can well be in the flexibility of management structure of the new local authorities it is decided that the chief public health inspector is a minor officer in the department of the planning officer or the borough engineer. In fact, it may even be decided that it is not worth having a chief public health inspector at all. The whole system can only be described as "woolly and imprecise," and one can only hope that the working party of the Department of Local Government and De-

velopment and of the Department of Health and Social Security makes sure that a copy of the notice at least goes to the community physician. If this is not done, the excellent control of infectious diseases which we have at present may shortly be a thing of the past. Personally, what I think is likely to happen is that family doctors, realizing that confidentiality once again is being broken, will face similar problems to those they have faced with the transfer of the mental health services to the director of social services, and, therefore, they will tend not to notify infectious diseases.

The result will be poor control of infectious diseases owing to imprecise notification to the local authority, and the resulting statistics will be useless.

I would appreciate comments from medical colleagues and their feelings regarding some of the "improvements" in the services which we are all accepting somewhat too readily.—I am, etc.,

PHILIP NICHOLAS

Health Department,
County Borough of Birkenhead,
Birkenhead

Community Medicine

SIR,—We are living in an age of semantics; new words are coined more often in response to fashionable trends than to portray a new conception. The name "community medicine" is of relatively recent origin but is synonymous with the functions of the early medical officers of health, who in fact practised communal medicine. His canvas was a large one. His functions as defined in some directives from the Ministry of Health were to make himself aware of all matters which might have an effect upon the health of the community that he served—a somewhat comprehensive assignment.

If we agree that the medical officer of health practised community medicine, we may logically review his activities one by one and consider whether such work fills the present day concept of community medicine. The whole environment came within his remit—namely, air, water, sanitation, food supply, and infectious diseases. His duty was to assess the relative health of his community using all available statistical data, and he had to be sufficiently adept in the use of such methods to give an intelligent appraisal of communal situations; in present day jargon we would say he practised epidemiology in his own geographical setting. His functions in connexion with communicable diseases are sufficiently well known to need no comment other than to hint that their effectiveness may well have been a contributory fact in his apparent decease.

With such comprehensive responsibilities it is not surprising that his trained technical and nursing support multiplied, and that he had to rely on other branches of medicine to support his work—for example, laboratory public health service, health inspectorate staff, analyst, and many others.

Professor Alwyn Smith referred to a possible definition of community medicine in the report of the Royal Commission on Medical Education para 133.¹ This paragraph, apart from defining the phrase as being what certain doctors, local authorities, central authorities and others do, says "It is concerned not with the treatment of individual patients but with broad questions of

health and disease in, for example, particular geographical and occupational sections of the community and in the community at large." Paragraph 134 is more forthcoming and is worth quoting.

"In community medicine, as we define it above, the doctor has no monopoly of responsibility or of contribution: many other people's skills are also required. Indeed in some fields, such as environmental control—the pioneering activity which first brought organized community health services into being—the day-to-day responsibility has largely passed out of medical hands. Nevertheless, medical leadership in community medicine is as important as ever."

The medical officer of health was burdened with many duties which are not relevant to a community physician—for example, the care of the physical and mentally handicapped. As a health educator and adviser to teachers the medical officer of health should continue his functions as a school medical officer.

I would suggest that the traditional duties of the medical officer of health where they are of a communal character are as important—if not more so—today than they were in the past.—I am, etc.,

ALAN S. SIMPSON

Werneth Low,
Hyde, Cheshire

¹ Royal Commission on Medical Education. *Report 1965-68*, Cmnd. 3569, London, H.H.S.O. 1968.

Doctor-Patient Relationships

SIR,—We were glad to read the first part of Dr. D. Craddock's letter (11 March, p. 692), in which he claims that the doctor-patient relationship can only be improved by dispelling "the mumbo-jumbo and black magic on which the profession has relied in the past to maintain its authority." We would agree that no time which is spent in explaining illness to patients is ever wasted.

However, Dr. Craddock goes on to say that the doctor-patient relationship may be endangered by the modern trend towards group practice unless patients are trained "to attach themselves to one doctor only." We believe the opposite. We feel that doctors, rather than objecting to their pet patients consulting other partners within the group, should actively encourage this practice. If the group remains small (three or four doctors) the care is still personal, and ideally all patients know all doctors and vice versa. The advantages are as follows.

(1) Wider clinical observation. While no doctor can deny that it is flattering to be in continuous demand by faithful patients, it is easy to forget that this is not necessarily a yardstick of clinical judgement, and his insistence on keeping them to himself denies them the possibility of a different method of management which might be better for them. Everyone knows how frequently such insidious illnesses as myxedema or pernicious anaemia are overlooked, only to be finally diagnosed by a newcomer.

(2) "Personal" 24-hour cover. In a practice where 24-hour cover is provided by partners in rotation patients are rarely attended in an emergency by a doctor that they do not know. There is no occasion when a patient needs to feel more secure than this.

(3) Less "manipulation" (deliberate or accidental) by patients. With increasing familiarity, there is always a danger of less

objectivity in patients' management, so that the doctor might unwittingly be persuaded against a course of action which is ultimately in the patient's own good. In a practice where it is taken for granted that not only may patients choose a doctor but also the doctor frequently may decide to confer with his colleagues in the presence of the patient, this danger is considerably diminished.

So long as all partners are present in one central surgery at most, if not all, consulting times, so long as clinical notes are made concisely and clearly, and so long as regular (preferably daily) formal conversations take place between the partners in addition to in-surgery discussions, then we believe that encouraging the patients to consult any of the doctors can only enhance the standard of medical care in general practice.—We are, etc.,

R. LEFEVER

J. WEST

T. TREVELYAN

London S.W.7

Discontinuation of Evening Surgery

SIR,—Many of Dr. T. Ternent's patients (1 April, p. 51) must now be attending his surgery during working hours. Since one's doctor is in one's home area (the dentist need not be), the commuters will also be taking time out for travelling. Is this trend to be encouraged? It is also likely to have serious effects for the patient with a long illness who is trying hard to hold down a job, and can at present obtain any necessary medical supervision in his own time.—I am, etc.,

H. E. MARGARET WELCH

London N.6

Contaminated Drip Fluids

SIR,—Early in January 1972 we investigated possible sources of contamination during the manufacture of sterile fluids, since some bottles of Darrow's solution (not for intravenous administration) were found to be contaminated. We also had a personal communication from Dr. Ian Phillips concerning similar difficulties, which he has since reported (18 March, p. 746).

The autoclave used for the production of sterile fluids was of a type designed originally for the process of canning, which involves sterilization under pressure and subsequent cooling of the hermetically sealed containers by water. We suspected that this process might be unsuitable for the type of screw-cap bottles now in general use, and that when these bottles are cooled in a spray-cooled autoclave, if there is the slightest imperfection in the seal, they may draw in some cooling water. (The cooling water is deionized, but not sterilized.) We tested this hypothesis by autoclaving some bottles inverted in a tray of red dye and also incorporating fluorescein in the cooling water in another cycle. In both experiments dye entered some bottles of each batch.

The thread of the bottles and the metal caps used for sterile fluids at present is relatively coarse. The type of closure which relies upon a rubber liner is altogether unsuitable as the liner cannot be relied upon to form a hermetic seal with the top of the bottle. Even when the cap is firmly screwed on some fluid may enter an apparently sealed glass bottle. For this reason we no

longer use spray-cooling for this type of bottle although leaving out this step prolongs the sterilizing cycle. It is clear that this type of autoclave although conforming to the specification for steam sterilizers for bottled fluids (British Standard, 3970, Part 2, 1966) is entirely incompatible with the type of bottle at present widely used.

So far we have not been able to demonstrate the contamination by cooling water of solutions autoclaved in M.R.C. bottles which are closed by means of a rubber plug and metal screw-cap.

We should also like to re-emphasize the importance of the inspection of bottles before use.¹ We have recently found visible fungal hyphae growing in commercially prepared dextrose solutions. The apparently intact bottles, on close inspection, were found to have fine cracks running through areas of mould growing in the gum on the back of the labels. The cracks were presumably due to rough handling in transit. An episode of this type has been reported and discussed by Robertson.²—We are, etc.,

ANNE C. MADDOCKS

GEORGE RAINE

Departments of Pharmacy and Microbiology,
St. George's Hospital,
London S.W.1

¹ Guy, J., and Jenkins, E. W., *British Medical Journal*, 1966, 2, 523.

² Robertson, M. H., *Journal of Medical Microbiology*, 1970, 3, 99.

Acute Salicylate Poisoning

SIR,—Your leading article (29 January, p. 263) on acute salicylate poisoning does not sufficiently emphasize the importance of alkalizing the urine, particularly to the pH of 7.6-8.0 by acetazolamide or acetazolamide and sodium bicarbonate. Morgan and Polak,¹ by the latter regimen, reduced salicylate half life in eight poisoning cases (from the normal of about 20 hours) to 6.3 hours, a considerable achievement. No toxicity or biochemical problems were encountered.

Your article states that "the use of acetazolamide in aspirin poisoning has shown that it may worsen metabolic acidemia." But of the three articles cited the first² does not mention acetazolamide (or any carbonic anhydrase inhibitor) at all and the second³ and third⁴ state explicitly that metabolic acidosis was not increased by the combination of acetazolamide and either lactate or bicarbonate. There are in fact no data to show that even acetazolamide alone could conspicuously worsen metabolic acidosis over the relatively short time of treatment.

The data in the literature suggest strongly that in both adults¹ and children^{3,4} aspirin poisoning can generally be handled safely and well by acetazolamide and sodium bicarbonate, in addition to the supportive treatment outlined in your article.—I am, etc.,

THOMAS H. MAREN

Department of Pharmacology and Therapeutics,
University of Florida,
U.S.A.

¹ Morgan, A. G., and Polak, A., *British Medical Journal*, 1969, 1, 16.

² Hoffman, W. S., and Nobe, C., *Journal of Laboratory and Clinical Medicine*, 1950, 35, 237.

³ Schwartz, R., Fellers, F. X., Knapp, J., and Yaffe, S., *Pediatrics*, 1959, 23, 1103.

⁴ Feuerstein, R. C., Finberg, L., and Fleishman, E., *Pediatrics*, 1960, 25, 215.

. The two major regimens of treatment discussed in the leading article were forced diuresis with bicarbonate and the acetazolamide and bicarbonate regimen described by Morgan and Polak.¹ These would not have been stressed if the promotion of an alkaline polyuria had not been considered extremely important.

If when Professor Maren refers to "salicylate half line" he means the mean time for the plasma salicylate level to fall to half the peak level, and the various treatments for acute salicylate poisoning are judged on this basis alone, then the following results are obtained.¹⁻³

Regimen	Mean Time (Hours) to Reduce Plasma Salicylate Level to Half Peak Level
Forced oral	22.0
Forced saline/laevulose	10.0
Forced alkaline	5.0
Forced "cocktail"	6.7
Acetazolamide and bicarbonate	6.3

On this basis forced alkaline diuresis is the best, but the differences between the three most effective regimens mentioned are not of practical importance. The final choice of alkalizing regimen must be made with consideration of complications of acid-base and electrolyte imbalance resulting from treatment other than the rate of fall of plasma salicylate level. Despite Professor Maren's comments to the contrary rapid biochemical and acid-base changes do occur with acetazolamide and bicarbonate regimens, and at the least close biochemical monitoring is required, which is not necessary with forced "cocktail" diuresis.³

Schwartz *et al.*⁴ described a clinical study of three children treated with acetazolamide. The therapy was successful from the point of view of salicylate recovery but there were very severe biochemical changes encountered and large quantities of intravenous bicarbonate had to be administered to control the systemic acidosis which developed in the patients. As evidence of the severity of the changes two of the children had convulsions. Feuerstein *et al.*⁵ gave sodium lactate infusion before and during administration of acetazolamide, and so any conclusions which they made about acetazolamide and metabolic acidosis must be treated with reserve. Other authors raised serious objections to the clinical use of acetazolamide in salicylate poisoning. Smith⁶ suggested there may be an adverse synergistic action between salicylate and acetazolamide and concluded that in view of available information there was doubt about the clinical use of acetazolamide particularly in severe salicylate poisoning.—Ed., B.M.J.

¹ Morgan, A. G., and Polak, A., *British Medical Journal*, 1969, 1, 16.

² Lawson, A. A. H., M.D. Thesis *Management of Acute Salicylate Poisoning*, 1968, Edinburgh, p. 266.

³ Lawson, A. A. H., *et al.*, *Quarterly Journal of Medicine*, 1969, 38, 31.

⁴ Schwartz, R., Fellers, F. X., Knapp, T., and Yaffe, S., *Pediatrics*, 1960, 25, 215.

⁵ Feuerstein, R. C., Finberg, L., and Fleishman, E., *Pediatrics*, 1960, 25, 215.

⁶ Smith, M. J. H., in *The Salicylates*, p. 282, London, Interscience, 1966.

Sickle-cell and Altitude

SIR,—The lengthy letter of Dr. R. L. Green and others (25 March, p. 803) failed to tell your readers how the categorical statement