

beds occupied by all patients admitted to Powick Hospital over a period of 10 years (unpublished observations). The curve of beds occupied rose steadily for six years, then flattened out by the eighth year, and remained flat for 8-10 years. For a catchment population of 300,000, mixed urban and rural, the maximum number of beds occupied was 350 for patients of all ages (1.16/1,000). For patients under 70 years the figure was 250 (0.83/1,000).

So here are some more figures supporting Dr. Fryers's view that long-stay patients will occupy more beds than forecast by Tooth and Brooke.<sup>1</sup> What one cannot understand is why the Department of Health and Social Security stick so rigidly to Tooth and Brooke's figures and are allowing regional hospital boards to plan for the 1980s on figures produced during the late 1950s. One statistician at the D.H.S.S. with the appropriate clerical and electronic help could have easily produced annual statistics that would have confirmed or denied Tooth and Brooke's findings. Leaving such work to individual psychiatrists is a woeful dereliction of duty on the part of the D.H.S.S. As it is, one can surely say that never has such a large superstructure been built on such a slender foundation as the district general hospital psychiatric units which are going to be built on the basis of Tooth and Brooke's work, admirable though it be. One has the horrible feeling that these units are just not going to be large enough to provide a comprehensive service. "Difficult," unresponsive patients will be shunted off to the local "bin" which will, of course, have done a phoenix act and become the local community hospital. So perishes another dream—that we might in the foreseeable future have seen the physical end of our Victorian and pre-Victorian pauper lunatic asylums.—I am, etc.,

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<sup>1</sup> Tooth, G. C., and Brooke, E. M., *Lancet*, 1961, 1, 710.

#### Concentration of Milk Feeds

SIR,—I read with interest two recent papers (7 April, pp. 12 and 15) on the concentration of infant milks. The suggestion that the milk should be made up into separate pre-weighed packets is excellent, but would be largely negated by the ambiguous instructions which still appear on some brand packets. For example, the Cow and Gate instructions state, "The table below is based on the requirements of the average infant and should be regarded as a guide. It can be altered to suit the needs of the individual child."

Last year my colleagues and I<sup>1</sup> reported a case of hyperosmolar dehydration in infancy due to faulty feeding. At the time that we were treating our case all the major milk powder manufacturers made a similar recommendation. Most have revised their instructions, which are now clear and unambiguous. Some recommend extra fluid during hot weather. There is no acceptable excuse for those manufacturers who still insist on the old dangerously ambiguous instructions.—I am, etc.,

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<sup>1</sup> Stern, G. M., Jones, R. B., and Fraser, A. C. L., *Archives of Disease in Childhood*, 1972, 47, 468.

#### Artificial Insemination by Donor

SIR,—It seems a bit hard with all this talk and learned deliberations about A.I.D. and sperm banks (*Supplement*, 7 April, p. 3), that not one word has been said about the people who have probably done more than any others in establishing the technique of deep-freezing human sperm in this country and in imparting their knowledge and experience to others. Nor apparently were any of them asked to give evidence by the panel set up to inquire into the matter of A.I.D. and storage of sperm.

I refer particularly to Dr. David Richardson, who did the early work with the help of grants from the Eugenic Society and the Ford Foundation, and members of the staff in the department of biology at Exeter University, both lecturers and laboratory technicians. Many of those now concerned with setting up sperm banks learnt the technique and some of the know-how either at first or second hand from these people.—I am, etc.,

MARGARET C. N. JACKSON

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#### Antibiotic levels in tissue fluid

SIR,—In your leading article (10 March, p. 567) you question my assumption<sup>1</sup> that fluid exuding from mildly traumatized skin is an inflammatory exudate. If one defines inflammation as "the immediate protective response whenever cells are injured or destroyed,"<sup>2</sup> then surely the skin exudate will qualify. Further proof lies in the demonstration of typical sequential cellular changes of inflammation<sup>3</sup> in these skin exudates.<sup>4,5</sup> Contamination of the exudate with human sweat (and consequent alteration in the recorded antibiotic concentration) was excluded by appropriate control experiments.

The studies of interstitial fluid antibiotic levels of Mr. G. D. Chisholm and his colleagues (10 March, p. 569) are complementary to studies of acute inflammatory exudates.<sup>1,7</sup> By one method the range of antibiotic levels present in the tissues is measured and by the others the changes occurring during acute inflammation. All these studies emphasize that the outcome of antibiotic therapy for bacterial infection depends on whether or not the antibiotic cooperates advantageously with the individual's own immunological mechanisms.—I am, etc.,

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<sup>1</sup> Raeburn, J. A., *Journal of Clinical Pathology*, 1971, 24, 633.

<sup>2</sup> Cameron, R., in *Pathology*, 3rd edn. ed. S. L. Robbins, p. 31. Philadelphia, Saunders.

<sup>3</sup> Hurley, J. V., *Acute Inflammation*, p. 78. Edinburgh, and London, Churchill Livingstone.

<sup>4</sup> Kowal, E., *Polish Medical Journal*, 1969, 8, 824.

<sup>5</sup> Wolff, H. R., *Danish Medical Bulletin*, 1967, 14, 254.

<sup>6</sup> Raeburn, J. A., Van Zwet, T., and Van Furth, R. In preparation.

<sup>7</sup> Tan, J. S., Trotter, A., Phair, J. P., and Watana-kunakorn, C. *Journal of Infectious Diseases*, 1972, 126, 492.

#### Serum Lithium Estimations

SIR,—We read with some amazement the letter from Dr. J. G. Weir on his experience of inaccurate serum lithium estimations (10 February, p. 356). This is a relatively simple and accurate determination when conducted

by atomic absorption spectrophotometry. In this laboratory we use a modification of Bowman's method<sup>1</sup> adapted for use with a Perkin-Elmer model 409 instrument. Bowman reported<sup>1</sup> a reproducibility for serum lithium of  $\pm 0.03$  mmol/l., while Johnson,<sup>2</sup> using an automated technique, found a standard deviation of 0.05 mmol/l. on a specimen containing 1.0 mmol/l. We routinely analyse two standards with each batch of sera for lithium estimation. Mean values and standard deviations on these standards for 23 consecutive analyses are  $0.59 \pm 0.02$  and  $1.69 \pm 0.03$  mmol/l. respectively.

In our experience, difficulties in interpretation of serum lithium results usually arise from the patient, who may have taken the wrong dose, or the psychiatrist, who may have collected plasma, using lithium-heparin as anticoagulant, rather than serum.—We are, etc.,

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<sup>1</sup> Bowman, J. A., *Analytica Chimica Acta*, 1967, 37, 465.

<sup>2</sup> Johnson, K. R., *Medical Laboratory Technology*, 1973, 30, 61.

#### Ch.M. Glasgow

SIR,—I was very sad to read that the Senate of the University of Glasgow had agreed that the degree of Ch.M. should be abolished (14 April, p. 112).

Most of us will agree that "multiple diplomatism" (an ugly phrase which we are constantly hearing in Glasgow) is undesirable, but surely the Ch.M. does not come into the category of "useless diplomas." I particularly deprecate the attempt to denigrate this old Glasgow qualification by such a statement as: "In most universities the status of a master's degree is lowly by comparison with that of a doctorate." Certainly during the time of the late Professor Archibald Young the qualification was not only obtained by submitting a thesis founded upon a long period of hard work and with surgical merit, but it was also required that the candidate pass a stringent written and oral examination accepted as being at least as exacting as that of the Royal College of Surgeons of England. This combination gave the qualification a status above that of the Fellowship.

I do hope that the other universities will not follow the Glasgow lead without serious consideration. If anything, it would be much better to raise the status of this qualification to its previous level than to abolish it.—I am, etc.,

A. LYALL

Greenock

SIR,—I was delighted to read that the University of Glasgow has abolished the Ch. M. degree in favour of the M.D. (14 April, p. 112).

May we hope that the operating physicians of Glasgow will give a further lead to the operating physicians of other universities by dropping the absurd and archaic habit of calling themselves *Misters* instead of *Doctors*? Doctors who insist on being *Misters* not only confuse the general public but are a constant source of innocent merriment to foreigners.—I am, etc.,

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