

lem. A survey of disabled persons¹ found the overall frequency of involved joints to be: knee 64%, fingers 37%, and hips 27% (percentages not exclusive). While inpatient stays are shorter for finger joints, mean stays for total knee replacement are at least as long as for hips.

Since my article was written Taylor,² of the Office of Health Economics, has shown that the net economic benefit of total joint replacements to the health and social services as a whole is considerable.—I am, etc.,

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¹ Thompson, M., Anderson, M., and Wood, P., *Disabled Arthritics in Newcastle upon Tyne*, Arthritis and Rheumatism Council Symposium, London, May 1973.

² Taylor, D., *Economic Cost of Arthritis and Benefits of Joint Replacement Surgery*, Royal Society Meeting on Total Joint Replacement, London, 27 February 1975.

Crisis in Medical Education

SIR,—At a time when the nation is calling for an increased production of medical graduates medical education is in a state of crisis even greater than that of the N.H.S. The number of medically qualified teachers in so-called "preclinical" departments is diminishing so rapidly that fears have been expressed that there will be none within a few years; and good-quality technicians, paid at rates below the Whitley scales, are almost impossible to recruit. Furthermore, the savage cuts recently inflicted on higher education are being applied as much to medical faculties as to others.

Two other points should be noted: (a) postgraduate medical education is organized through the N.H.S. and carried out by medical schools on a purely voluntary basis; (b) the University Grants Committee has fairly recently been placed under the direct rule of the Department of Education and Science—a government department with no experience of medical organization.

Arising in part from a consideration of the Merrison Report¹ and with the intention of keeping medical education firmly integrated with the university system, the following suggestions may serve as a basis for reorganization:

(1) Medical schools to be the direct and independent responsibility of the Medical Subcommittee of the U.G.C.

(2) The Medical Subcommittee of the U.G.C. to be responsible to, and funded by, the Department of Health and Social Security and not the D.E.S.—together with an appropriate interdepartmental transfer of Government funds.

(3) Postgraduate education to be a statutory obligation on medical schools.

(4) All medically qualified teachers, irrespective of subject, to be paid at appropriate N.H.S. rates.

(5) If merit awards are to be retained, all medically qualified staff to be eligible—those in laboratory-based subjects on the basis of achievement in research.

(6) Academic and graduate research staff who are not medically qualified to be assimilated to appropriate N.H.S. grades.

(7) Technical staff to be assimilated to Whitley Council structure.

Various comments have recently been made about the position of medically qualified staff in "preclinical" departments, some of whom hold (honorary) consultant con-

tracts in the hospital service. The traditional division between "preclinical" and "clinical" has not been between direct patient care and its absence (for example, pathology and microbiology) but on whether the departments concerned teach medical students in the first two or the last three years of the course. Given the increasing vertical integration of the undergraduate curriculum and the large amount of postgraduate teaching frequently undertaken by "preclinical" departments, this distinction is becoming increasingly blurred. Furthermore, the argument put forward in the past by the Committee of Vice-Chancellors and Principals that differential salaries within "preclinical" departments would be intolerable seems to be invalidated by the presence in "clinical" departments of increasing numbers of lecturers and senior lecturers who are not medically qualified.

The sums involved in these proposals are relatively small in the context of total N.H.S. costs, and in any event good medical education cannot be had on the cheap; nursing tutors, for example, are, rightly, not the lowest-paid S.R.N.s. In the interest of the quality of future medical practitioners the profession must take united action on its own educational problems.—I am, etc.,

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¹ *Report of the Committee of Inquiry into the Regulation of the Medical Profession*, London, H.M.S.O., 1975.

Ulceration of Small Intestine and Slow-release Potassium Tablets

SIR,—The letter from Mr. T. Treasure (2 August, p. 302) confirms my suspicion that some doctors are unaware of the formulation of potassium chloride in HydroSaluric-K tablets. Mr. Treasure obviously believes that the potassium is present in a slow-release base when in fact it is in an enteric-coated form. The ability of enteric-coated potassium chloride to cause intestinal ulceration and stricture is well known, the case described by Mr. Treasure being a further illustration.

The assumption that HydroSaluric-K contains slowly released potassium chloride is understandable, as all other diuretic/potassium combined tablets do contain potassium in either a slow-release or effervescent base.—I am, etc.,

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SI Units

SIR,—Just think—a few years ago we were told we must measure things in milli-equivalents and so we did. Now it's moles. What next?

We are assured that the recommendation for using SI units was made by a "broadly based working party." But who were they? Representatives of the Association of Clinical Biochemists, the Association of Clinical Pathologists, the Biological Engineering Society, the British Society for Haematology, the Hospital Physicists' Association, the Institute of Medical Laboratory Technology,

the Royal College of Pathologists, and the Section of Measurement in Medicine of the Royal Society of Medicine. Where were the bedside clinicians?

The advantages of climbing on the SI bandwagon are said¹ to be these.

(1) "Laboratories all over the world are, or will be, adopting SI units"—except the U.S.A.

(2) "The great advantage of these units is that they are the same for all branches of science, and . . . will ensure that [medicine] does not become isolated with such units as mmHg and Calorie." What disadvantages existed for scientists and doctors in the use of such well-tried units as these?

(3) "Molecular units . . . per unit volume . . . corresponds to the actual biological activity, whereas . . . mass per volume does not." But the biological activity of a substance depends upon many things besides its molecular weight. Take insulin—the effect of a given serum level, however expressed, is dependent upon how fat the person is, how much insulin antibody he has, and other variables.

(4) "The units currently used . . . are . . . so diverse that there is a danger that results may be misunderstood by those not familiar with the particular scale . . . used." Who are those, unfamiliar with the current units, who need to be familiar with them? Far greater is the real practical danger of a slip in the decimal point which might cause a blood glucose of 45 mg/100 ml (2.5 mmol/l) to be mistaken for one of 450 mg/100 ml (25 mmol/l).

(5) "SI units are being . . . taught in schools and universities." A medical student, however, during his long training, is quite capable of learning a system which has worked admirably for years in medicine and is safe.

(6) "The system . . . is designed to provide a coherent system of units." Unfortunately there are so many substances measured in medicine which cannot be measured in molar concentrations (for example, proteins, haemoglobin, vitamin B₁₂, folate, enzymes, etc.) that it can hardly be called coherent.

Add to the very real dangers of conversion to SI units the cost of redesigning forms, diet cards, and instruments and the time-consuming inconvenience of the local education programmes involved and one wonders if we are not all heading for a lunatic asylum.—We are, etc.,

EDWARD ARMITAGE, RICHARD BURWOOD, D. A. CHAMBERLAIN, T. A. COPP, GEORGE DEUTSCH, PATRICK HALL-SMITH, ALEC HARDEN, BRIAN HOGGIN, JOHN HORLEY, R. P. JUNIPER, EUAN KEAT, P. A. LANE-ROBERTS, B. A. LATHAN, D. R. LEVINSON, ALEC MACFARLANE, BRIAN MEASDAY, DAVID MELCHER, B. R. P. MURRAY, C. E. QUIN, JOHN REES, DONALD REID, CLIFFORD RILEY, DAVID S. T. C. ROBERTS, PAUL SHARPSTONE, JOANNA SHELDON, P. G. SOMERVILLE, J. R. R. SPURRELL, ANTHONY TRAFFORD, JAN DE WINTER, P. A. D. WILLIAMS.

Brighton Health District

¹ Baron, D. N., et al., *Journal of Clinical Pathology*, 1974, 27, 590.

Local Renal Hypothermia

SIR,—Your leading article on this subject (12 July, p. 62) misrepresents my views and those of my colleagues. Please allow me to make my position clear.

Of course we feel it is better to remove every least fragment of a renal calculus; we have never said anything to the contrary.¹ What we have shown is that even an incomplete removal is better than leaving a large, bulky stone in situ² and, furthermore, that even when the surgeon thinks he has got all the stone out he is usually deluding himself, since contact x-rays on the operating table cannot reveal with any accuracy

calculi under 2 mm in diameter.³ To remove most large branched calculi (and we now have experience of 154 such stones) it is usually quite unnecessary to cool the kidney. However, there certainly are occasions when the extra protection afforded by hypothermia is useful in permitting a more thorough and more leisurely search for stones, particularly when these are lying in a relatively healthy thick mass of renal parenchyma. Indeed, as you should have remembered, we have been to some trouble to devise a very simple and effective method of renal hypothermia which any surgeon can use without purchasing expensive apparatus for the purpose.⁴

The need to cool the kidney has arisen about a dozen times in our experience with staghorn stones and about an equal number of times as an aid in doing other conservative operations on the kidney. The surgeon who embarks on any big and difficult operation on the kidney should not do so without providing himself with the means to cool it. But we do not think he is likely to use them very often.—I am, etc.,

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- 1 Singh, M., et al., *British Journal of Urology*, 1973, 45, 593.
- 2 Blandy, J. P., and Singh, M., *Journal of Urology*. In press.
- 3 Singh, M., Marshall, V. R., and Blandy, J. P., *British Journal of Urology*, 1975, 47, 125.
- 4 Marshall, V. R., and Blandy, J. P., *British Journal of Urology*, 1974, 46, 253.

Sexual Life after Gynaecological Operations

SIR,—I am concerned to find two of my personal friends, Mr. Alan Amias, consultant gynaecologist, and Mrs. Claire Rayner, medical journalist and sometime nursing sister, expressing such vituperative disagreement in your columns (9 August, p. 368). As a general practitioner and member of the Medical Journalists Association I stand midway between them.

I believe that both have unanswerable cases. Mr. Amias is quite right to be concerned by "erroneous notions" in patients' minds, but I think (without any hard evidence) that if he were to follow this up he would find a considerable divergence between what patients thought they had read (or even what the girl at the next desk said she had read) and what was actually written. This is in part the fault of journalists but perhaps more significantly may be the product of fear. Nevertheless, outside responsible "agony columns" such as Mrs. Rayner's, there does remain a body of journalism that seeks to titillate or scare and is not always mindful of the human consequence of doing so.

My own experience in this part of London is based not so much on hysterectomy as on abortion, but the same principles must surely apply. The greater part of my time has to be spent in dispelling erroneous fears, whatever their origin, rather than in clinical or practical matters. I know that Mr. Amias would be the first to agree with this approach and, indeed, his article speaks for itself.

Mrs. Rayner has gone farther and is so concerned by patients' erroneous fears that she has changed, or at least modified, her profession in an attempt to get through to

those whose need is greatest. Doctors should give her every encouragement because she may be able to help some among her vast number of readers whom even the medical profession may have made more frightened rather than less.—I am, etc.,

ROBERT LEFEVER

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SIR,—I feel that Mrs. Claire Rayner (9 August, p. 368) deserved a reply from Mr. A. G. Amias more in keeping with the normal tone of the correspondence columns of the *B.M.J.* I for one would be very grateful if Mr. Amias would be kind enough to supply a reference to back his assertion that "some of the poor results of hysterectomy can be directly attributed to the harmful effects of newspaper medicine" (14 June, p. 609). Can he also advise the readers of this journal of any research done anywhere in the world to substantiate his statement that "erroneous notions . . . are fostered by opinionated and ill-informed comment in the lay press"?

I am a humble new recruit to the ranks of medical journalism dealing with medical matters generally and with reader's letters on medical problems written to one of the many women's magazines. It is a humbling experience. Lack of knowledge, fear, guilt, anxiety, all compel the writers to seek help from other than their medical attendants. I am ashamed on occasion by the intolerance of my profession and its lack of ability to communicate. Until the medical profession can learn to do so there is a vital place for people like Mrs. Rayner who can and do answer a very clear and strongly felt need. I am sure that even Mr. Amias would see the need when he has read some of the sad letters we receive and would be relieved and even cheered by the humanity and wisdom shown in the replies given by Mrs. Rayner and others like her.

Of course the profession needs to learn how to communicate, but how can we criticize others who do our task for us because of our inability to do so. Mr. Amias's comments do not help.—I am, etc.,

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Reversed Loops in the Short Gut Syndrome

SIR,—Your leading article (28 June, p. 709) was a welcome précis of the sequelae of massive bowel resection. The following observations on this intriguing subject may be of relevance.

(1) It is agreed that reversed segments may be of value in the management of established cases of the short gut syndrome. However, recent experimental studies¹ showed that reversal at the time of resection significantly lowered the extremely high mortality of this operation ($P < 0.001$). Indeed, in subsequent studies (unpublished) delayed or secondary reversal did not confer this benefit.

(2) The varying capacity of intestinal remnants to adapt structurally and functionally to the insult is undeniable.² Within weeks of primary reversal, and long before sufficient adaptation was anticipated, consistent and progressive improvement in

nutritional indices and survival was recorded.¹ Thus likely candidates for the short gut syndrome may have been retrieved.

(3) Of 27 documented cases reviewed, almost half had primary reversals with good results. While the reports by Venables *et al.*³ and Fink and Olson⁴ cited in your article are excellent, some others^{5,6} unfortunately lack clinical evaluation and are inconclusive. Nevertheless, of all adjunctive surgical procedures, attempted, segmental reversal is the most encouraging⁷ and its potential application in clinical practice must be evaluated further. An understanding of the pathophysiology of extensive resection and its alteration by reversal is required. Gastrointestinal hormonal data from recent animal studies⁸ suggest possible mechanisms for certain secondary disorders such as accelerated transit and gastric hypersecretion.

(4) Rygick and Nasarov⁹ introduced an elegant technique on the misapprehension, not founded in reality,¹⁰ that rotation compromised vascularity. While that technique may prove useful in cases of Crohn's disease with shortened mesentery,¹¹ it was applied originally to 20-cm segments—that is, well above the optimal range quoted in your article. With 10-cm segments it was awkward and unnecessary.¹ The advice of Ellis and Coll¹² to observe the segment for 30 min on completion of anastomoses was adequate precaution after rotation. I am aware of only one case of anastomotic breakdown after secondary reversal.¹³

(5) Reversed loops have no place when 100% resection (ligament of Treitz to ileocaecal junction) becomes obligatory. Despite enthusiastic treatment, including central cannulation and arteriovenous shunts, the serious dilemma of prolonged management remained unsolved. Even recent investigations¹⁴ with colonic interposition were done with 10% intact small bowel.—I am, etc.,

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- 1 Barros D'Sa, A. A. B., et al., *British Journal of Surgery*, 1974, 61, 917.
- 2 Dowling, R. H., *New England Journal of Medicine*, 1973, 288, 520.
- 3 Venables, C. W., Ellis, H., and Smith, A. D., *Lancet*, 1966, 2, 1390.
- 4 Fink, W. J., and Olson, J. D., *Archives of Surgery*, 1967, 94, 700.
- 5 Madding, G. J., Kennedy, P. A., and McLaughlin, R. T., *Annals of Surgery*, 1965, 161, 601.
- 6 Blades, J. F., and Peole, W. L., *Virginia Medical Monthly*, 1970, 97, 3600.
- 7 Grenier, I. F., et al., *Acta Gastroenterologica Belgica*, 1973, 36, 92.
- 8 Barros D'Sa, A. A. B., et al., *British Journal of Surgery*, 1975, 62, 152.
- 9 Rygick, A. N., and Nasarov, I. U., *Diseases of the Colon and Rectum*, 1969, 12, 49.
- 10 Hollender, L. F., *Mémoires de l'Académie de Chirurgie*, 1968, 94, 877.
- 11 Pettsemilidis, D., and Kark, A. E., *American Journal of Gastroenterology*, 1974, 62, 526.
- 12 Ellis, H., and Coll, I., *British Medical Journal*, 1968, 1, 556.
- 13 Forster, E., et al., *Bulletin de l'Association Nord-Lorraine de Gastroentérologie*, 1968, 15, 1.
- 14 Hutcher, N. E., Mendez-Picon, G., and Salzberg, A. M., *Journal of Pediatric Surgery*, 1973, 8, 771.

Pleural Effusion

SIR,—It is sad to see that in your leading article (26 July, p. 192) pleural biopsy is not allocated its rightful place in diagnosis—as an automatic step during the first aspiration and not as something that may be needed later in difficult cases. There are good