

CORRESPONDENCE

Risks of Total Hip Replacements J. T. Scales, F.R.C.S., and others.....612	Oxygen Therapy for Pneumatosis Coli P. H. Wright, M.R.C.P.....615	Cerebral Lupus—Wider Implications B. Pastakia.....618
Prognostic Indications in Cancer A. R. Turnbull, F.R.C.S., and others.....612	Beta-blockade and Myocardial Infarction I. M. Graham, M.R.C.P.I., and others.....616	Race Relations J. Haworth, M.R.C.G.P.....618
Prostaglandins and Asthma A. P. Smith, M.R.C.P.....613	Geriatric Admissions N. K. Chakravorty, M.R.C.P.ED.....616	Disaster Planning—Fact or Fiction? W. H. Rutherford, F.R.C.S.ED.....618
Cost of Going Metric D. H. Nelson, F.R.C.R.....613	Aetiology of Chronic Renal Failure and Renal Osteodystrophy J. F. Moorhead, F.R.C.P., and others.....616	B.M.A.: Need for Radical Change G. W. Roberts, F.F.C.M.....618
Abortion (Amendment) Bill H. C. McLaren, F.R.C.O.G.....613	Fatty Acid Composition of Adipose Tissue in Newborn Infants Audrey Fosbrooke, M.Sc., and B. A. Wharton, M.D.....616	Development Allowance and Inflation J. L. Graham, M.F.C.M.....619
Safer Cigarettes C. M. Fletcher, F.R.C.P., and K. P. Ball, F.R.C.P.....613	Scabies in a Spinal Injuries Ward R. W. Carslaw, F.R.C.P.GLAS.....617	Proposed New Contract for G.M.S. D. Lynch, M.R.C.G.P.....619
Better Medical Writing J. A. Farfor, M.D.; J. C. Ballin, PH.D.....614	Operator/Anaesthetists D. Blatchley, F.F.A.R.C.S.....617	Junior Hospital Staff Contract A. P. Brooks, M.B., and others; F. B. V. Keane, M.B., and others; S. C. Rastogi, M.B., and others.....619
Inducious First Aid D. M. Mackay, M.R.C.G.P.....614	Practolol, Indoramin, and Asthma Elisabeth W. Paice, M.R.C.P., and E. S. El Hassan, M.R.C.P.....617	Points from Letters Abortion (Amendment) Bill (J. B. Deasv, C. C. S. Storch, G. W. Theobald, P. Rawson); Prescribing Antibiotics (D. R. H. Norminton); Medicine in the Sun (N. T. W. Pover); Perinatal Research (J. Walker); Manipulation in Treatment of Low Back Pain (Sir Eric Riches); Suicide in Children (H. S. Halevi); Pills over the Counter (Ellen C. G. Grant).....620
Dextran 70 and Thromboembolism M. Marshall, F.F.A.R.C.S.; L. E. Hughes, F.R.C.S.....614	Milk pH and Gastroenteritis in Newborn Infants J. C. Hyde, M.R.C.P., and others.....617	
Haemophilus influenzae Cellulitis R. C. Spencer, M.B., and M. Barnham, M.B.....615		
Freedom of Information E. C. Hamlyn, M.B.....615		

Correspondents are urged to write briefly so that readers may be offered as wide a selection of letters as possible. So many are now being received that the omission of some is inevitable. Letters should be signed personally by all their authors.

Risks of Total Hip Replacement

SIR,—Your leading article (10 May, p. 296), and the letter from Mr. P. A. Ring (24 May, p. 442) have drawn attention to certain problems—for example, metal sensitivity and sepsis—which are presently not fully understood. These problems are applicable to all prosthetic replacements. There are also other problems which should be considered when using highly stressed implants such as femoral components which are subject to fatigue conditions. These components are available in stainless steel, cobalt chromium molybdenum alloy, and titanium alloy. Their mechanical properties depend on a combination of factors such as design, type of metal used, and method of manufacture. For a consistent product there must also be an adequate system of surveillance of manufacture in operation.

Fracture of the stem of femoral components has occurred. We do not know the fatigue properties of many of the various designs of components available. This lack of knowledge is in part due to the fact that implants can be used in patients without adequate laboratory evaluation. In engineering practice fatigue studies of a highly stressed component, a failure of which, if it occurred, might involve personal injury, would be undertaken. Thousands of femoral components are being used annually in patients throughout the world and yet it is not mandatory for either designers or manufacturers of implants to carry out the necessary investigations. Representation has been made to various responsible bodies regarding the present state of affairs with little success. The reason for the indecision is that the studies are relatively costly and there is not general agreement concerning the methods of testing.

The establishment of a national total joint replacement register proposed by Mr. Ring, required if there is to be correlation between laboratory testing and clinical practice, has been considered by the Department of Health and Social Security at the request of the technical committee of the British Standards Institution dealing with surgical implants. The matter has been referred to the British Orthopaedic Association.

Surveillance of manufacture, certain laboratory studies and tests, particularly relating to wear, fatigue, and corrosion of components, and the setting up of a national register of total joint replacements which will provide a continuous feedback of information concerning the clinical performance of total joint replacements and the response of the tissues to the presence of these massive foreign bodies and the products of wear are matters which require urgent attention. Only the Department of Health and Social Security can initiate and finance the necessary comprehensive programme.—We are, etc.,

JOHN T. SCALES
K. W. J. WRIGHT
H. DOBBS
G. D. WINTER
H. KEMP

Department of Biomedical Engineering,
Institute of Orthopaedics,
Royal National Orthopaedic Hospital,
Stanmore, Middlesex

St. Bartholomew's Hospital,
London E.C.1.

Princess Elizabeth Orthopaedic Hospital,
Exeter

Middlesex Hospital,
London W.1

A. W. F. LETTIN

G. BLUNDELL JONES

PHILIP NEWMAN

Prognostic Indications in Cancer

SIR,—In recent years there has been considerable interest in the interplay between the immune system of the host and the growing tumour, and the possibility of developing immunological tests for prognosis in cancer has received much attention. Several workers have assessed delayed hypersensitivity skin reactions to common recall antigens,¹ to tumour-specific antigenic extracts,² or to skin-sensitizing agents such as dinitrofluorobenzene (DNFB)³ in cancer patients and have found that low-grade reactivity correlates well with reduced survival. However, few centres employ skin tests in routine prognostic investigations.

In an ongoing study of immunological reactions in patients with operable mammary carcinoma⁴ we have found a significant correlation between skin test energy to P.P.D., candida, and streptokinase-streptodornase and the absence of both lymphocytic infiltration of the primary tumour and lymphocyte stimulation in the tumour-draining lymph nodes, the latter being assessed by the criteria of Tsakraklides *et al.*⁵ Of 30 patients with infiltration of the tumour by lymphocytes, only two failed to give positive delayed cutaneous hypersensitivity reactions to at least one of the skin test antigens, while one out of 25 patients with lymph node stimulation but no lymphocytic infiltration of the tumour was anergic. This gave a total of three out of 55 (5%) patients anergic by skin test but reactive by histopathology. Only six patients had neither infiltration of the tumour by lymphocytes nor reactive lymph nodes, and three of these were anergic on skin testing. A further 21 patients had no tumour infiltration with metastatic replacement of lymph nodes, and seven of these failed to react to P.P.D., candida, and streptokinase-streptodornase. Skin test energy was therefore seen in 10 out of 27 (37%) patients with no demonstrable lymphocyte reactivity against the

tumour, and this was significantly different (χ^2 with Yates's correction = 11.18, $P < 0.001$) from histopathologically reactive patients. Though it is too soon to assess our results in terms of patients' survival, we would like to suggest that histopathological analysis of tumour and lymph nodes might provide an alternative when skin testing is not feasible.—We are, etc.,

A. R. TURNBULL

Surgical Division,

C. E. CONNOLLY

Department of Pathology,
Southampton University Medical School,
Southampton

B. M. JONES

Tenovus Research Laboratories,
Velindre Hospital,
Cardiff

- 1 Hughes, L. E., and Mackay, W. O., *British Medical Journal*, 1965, 2, 1346.
- 2 Hughes, L. E., and Lytton, B., *British Medical Journal*, 1964, 1, 209.
- 3 Levin, A. G., McDonough, E. F., Miller, D. G., and Southam, C. M., *Annals of the New York Academy of Sciences*, 1961, 12, 400.
- 4 Jones, B. M., and Turnbull, A. R., *British Journal of Cancer*, 1974, 29, 337.
- 5 Tsakraklides, V., Anastasiades, O. T., and Kersey, J. H., *Cancer*, 1973, 31, 860.

Prostaglandins and Asthma

SIR,—I read the paper by Dr. K. R. Patel (17 May, p. 360) on the effects of possible antagonists on $\text{PGF}_{2\alpha}$ -induced bronchoconstriction with interest; he confirms previous reports¹⁻³ on the effect of this prostaglandin and the failure of disodium cromoglycate to inhibit it.³ As atropine does not inhibit the effect of $\text{PGF}_{2\alpha}$ in normal subjects^{1,3} it appears to have a direct action on the bronchus, but the response in asthmatics, whose sensitivity varies between 9300 and 10 times more than normal,³ is partially inhibited by anticholinergic drugs such as atropine and ipatropium bromide (Sch 1000).⁴ Patients with asthma are known to react adversely to irritant inhalants,⁵ to which we have always attributed the exaggerated response of asthmatics to $\text{PGF}_{2\alpha}$.

Dr. Patel's statement that PGE_2 is a less potent bronchodilator than isoprenaline is not supported by any data, which is a pity, as it is at variance with other published reports.⁶ To draw such conclusions it is necessary to construct dose-response curves to the two drugs and to calculate the dose ratio. Such an experiment, to be published, shows that in man PGE_2 (when it causes bronchodilatation) and isoprenaline are approximately equipotent. Several of our patients have developed bronchoconstriction as a result of inhaling PGE_2 , an observation also made by others,² which was not prevented by atropine, suggesting a pharmacological rather than an irritant response. The bronchospasm that occurs in about half the subjects receiving it by the intravenous route^{7,8} may be due to an active metabolite.

As the mixture of E- and F-series prostaglandins, in a ratio of 6:1,⁹ released during anaphylaxis would tend to inhibit the development of bronchospasm, and because of the failure of indomethacin to affect day-to-day asthma or challenge by exercise or antigen,¹⁰ it seems unlikely that the parent prostaglandins contribute to the pathogenesis of asthma. It may be that their metabolites are more important, but the wide variety of factors leading to prostaglandin release by the lungs suggests that they represent a non-specific response. The latter may have

important autoregulatory functions.—I am, etc.,

A. P. SMITH

King's College Hospital Medical School,
London S.E.5.

- 1 Smith, A. P., and Cuthbert, M. F., *British Medical Journal*, 1972, 3, 212.
- 2 Mathé, M. M., et al., *British Medical Journal*, 1973, 1, 193.
- 3 Smith, A. P., Cuthbert, M. F., and Dunlop, L. S., *Clinical Science*, 1975, 48, 421.
- 4 Alanko, K., and Poppius, H., *British Medical Journal*, 1973, 1, 294.
- 5 Simonsson, B. G., Jacobs, F. M., and Nadel, J. A., *Journal of Clinical Investigation*, 1967, 46, 1812.
- 6 Cuthbert, M. F., *Proceedings of the Royal Society of Medicine*, 1971, 64, 15.
- 7 Smith, A. P., *Clinical Science*, 1973, 44, 17.
- 8 Smith, A. P., *British Journal of Clinical Pharmacology*, 1974, 1, 399.
- 9 Mathe, A. A., and Levine, L., *Prostaglandins*, 1973, 4, 877.
- 10 Smith, A. P., *British Journal of Clinical Pharmacology*. In press.

Cost of Going Metric

SIR,—The recent comments regarding SI units by Mr. B. H. Hand and others (17 May, p. 389) call for a resurvey of the equally unnecessary transfer of x-ray film sizes from imperial to metric standards. In a district serving 250 000 people but considerably underprivileged financially it cost £4000 to replace the cassettes, hangers, etc.

The simplest illustration of the consequent increased running costs is in chest radiography. In the past almost all female and perhaps 15% of male chests could be taken on a 15×12-in film; the metric substitute, 30×40 cm is longer but thinner and can only rarely be used. Thus the larger 35×43-cm or sometimes the 35×35-cm film has to be employed, the former being a 32% and the latter a 9% increase in emulsion area. The following figures are only approximate, having been obtained by sampling. It is doubtful if a more accurate assessment could be made.

Total P.A. chest films annually in District	20 000
50% of patients needing larger film	
Half at 9% increase	
Half at 32% increase	1950
	(whole film equivalents)

Assuming an equal population usage the national annual increase is approximately 400 000 film equivalents at a cost (this week) of £164 000. This is only one single common but cheap type of examination and can be matched in almost every field of radiography. The imperial standards happened to be ideally matched to their task and the American continent, probably the largest user, has no intention of being inveigled into a change that can be of advantage only to a minority.

As the world supply of silver at the rate of present usage will probably last less than 20 years and x-ray film is one of its most wasteful users, in conservation terms the transfer was not simple stupidity but criminal folly.—I am, etc.,

DOUGLAS NELSON

Royal Victoria Hospital,
Folkestone, Kent

Abortion (Amendment) Bill

SIR,—On reading your extraordinary leading article (17 May, p. 352) opposing the tightening of the Abortion Act, I re-read the original 1967 Act in search of the words "entitled to abortion." There is no such phrase in the Act, nor a hint that a request for an abortion is ipso facto an indication

for an operation. You quote the Lane Committee as stressing that to advise against an abortion urgently requested is unfeeling, implying that to accede is kind—to the mother, but not of course to the unborn son or daughter. I take it that you would suggest the obverse. A doctor, after all, receives a patient seeking an abortion as a patient (patior=to suffer). He receives her with compassion, and when the facts are established he offers not necessarily an operation (easily bought in private State-licensed abortoria) but his *opinion* as to what is best for both patients now and in the future. The opinion of a colleague may or may not agree, but a second opinion is obligatory.

Mr. White proposes the amendment of section 1(1)(a) of the 1967 Abortion Act to read "that the continuance of the pregnancy would involve: (i) grave risk to the life of the pregnant woman; or (ii) risk of serious injury to the physical or mental health of the pregnant woman or any existing children of her family," and of section 1(3) to make it necessary that a consultant (not yet defined) should be on the staff of all places licensed to carry out abortions. I see such additions as a great clarification and a help to the family doctor who may be in a quandary when presented with an abortion request.

I heard Parliament debate Mr. White's amending Bill 12 weeks ago. Obviously our M.P.s have been shocked at the rackets, touts, and agencies which were inevitable when in 1967 their predecessors agreed to "nursing home" abortions (section 1(3)) without proper supervision or control. No M.P. suggested, however, that abortion on demand—the code of private abortion practice—should be transferred, with its special morality, to N.H.S. hospital practice. If, however, the State does decide to limit abortions to the N.H.S., first of all it must persuade willing doctors and nurses to carry out abortion on demand and chiefly for socioeconomic indications. Then the State must also finance the service (for an abortionist should be well paid) but not by cutting into the funds available for the care of other deserving patients. Any attempt to graft what I regard as illegal abortion on demand on to modern gynaecological or obstetric practice I believe will fail, and not only on moral grounds but also on aesthetic grounds. Despite constant pressure I believe that very few doctors or nurses believe that abortion on demand is either good medicine or acceptable ethics.—I am, etc.,

HUGH CAMERON MCLAREN

Birmingham Maternity Hospital,
Queen Elizabeth Medical Centre,
Birmingham

Safer Cigarettes

SIR,—In the title of your leading article "Safer Cigarettes" (17 May, p. 354) you are helping to promote the idea, fondly encouraged by the tobacco industry, that cigarettes containing synthetic materials are "safer," or even "safe." Surely "Less Lethal Cigarettes" would have been more accurate? And it will be many years before the question mark could be removed. Though these new cigarettes may be less carcinogenic, synthetic materials produce just as much carbon monoxide as tobacco. Carbon monoxide is probably the most important