Diagnosis	No. of Cases	Nephrogram			Presence of Pyelogram
		Early (<5 min)	Late (>10 min)	Absent	
Acute tubular necrosis	20	12 { 7 faint 5 dense 2 faint	4	4	7
Subacute glomerular or vascular disease	5		1	2	1

hypertension in one); only one of these patients recovered some renal function.

Urography was performed during the first two weeks of acute renal failure, always before the onset of the recovery phase, 140 ml of methylglucamine iohalamate (Contrix 28; 28% iodine) being given in a single injection lasting less than five minutes. Plain films and tomograms were taken before and up to 24 hours after the injection of the contrast medium. The findings are summarized in the table. In the 20 cases of acute tubular necrosis it may be seen that, contrary to the experience of Dr. Cattell and his colleagues, we found no evidence of a nephrogram in four cases and a delayed nephrogram in four others. Nevertheless, all patients recovered completely and further examination failed to reveal any other associated renal disease. Our findings in subacute glomerular or vascular disease are similar to those of Dr. Cattell.

The reason for the discrepancy between our observations and those of Dr. Cattell and his colleagues in acute tubular necrosis is not immediately apparent. It may be related to the fact that we have studied a larger number of patients and thus observed the full spectrum of urographic patterns in acute tubular necrosis. Alternatively, it may result from the criteria used to assert the presence of a nephrogram. In our experience it may be difficult to decide whether or not a nephrogram is present. An increase in radiodensity noted between control and post-injection films may be due to slight changes in technical conditions despite constant kilovoltage (progressive warming up of the tube, instability of the power supply, physical characteristics of individual film cassettes). As criteria for the presence of a nephrogram we require an increased radiodensity of the kidney not only in reference to control films but mostly in reference to adjacent structures such as the psoas or the sinus fat. We conclude that, unfortunately, the nephrographic patterns are not sufficiently distinctive to lead to an accurate diagnosis in non-obstructive acute renal failure.—We are, etc.,

J. M. VANDENBROUCKE

J. P. GILBEAUX

C. VAN YPERSELE DE STRIHOV

Renal Service and Department of Radiology,
University of Louvain Medical School,
Louvain, Belgium

Contraindications to Smallpox Vaccination

SIR,—Dr. A. B. Christie (23 June, p. 714) raises some interesting points. He says "vaccination as a routine is no longer recommended in Britain, and contraindications are therefore irrelevant." This is only partly true because not all children born in this country will reside here for the rest of their lives and they may go, with their parents, as residents or visitors to countries in Asia—Pakistan, India, and Bangladesh—where smallpox is still endemic and vaccination is required. Furthermore, I have found

quite a number of parents who still wish to have their children vaccinated despite the fact that routine vaccination is no longer recommended, because they feel that primary vaccination if carried out later in adult life may constitute a greater risk than primary vaccination in childhood.

I entirely agree with Dr. Christie that a certificate of contraindication should be accepted for travellers going from one smallpox-free country to another. The relevant paragraph in the International Health Regulations (supplied to me by the Department of Health) states as follows: "If a vaccinator is of the opinion that vaccination is contraindicated on medical grounds he shall provide the person with reasons, written in English or French, underlying that opinion, which health authorities should take into account."

Though there is no agreement or obligation imposed by this article most immigration authorities accept it, though there are some notable exceptions; but during the recent episode of smallpox in London, which was in itself a most unusual epidemiological event, many countries took entirely different views of the situation and many, in my opinion, over-reacted. When the first case of smallpox was diagnosed, London, or more specifically the London Metropolitan Boroughs, were declared a smallpox zone but not the whole United Kingdom. Some countries accepted the World Health Organization definition of the declared zone, but others required a certificate from anyone from the United Kingdom irrespective of whether a certificate of contraindication was made available. As a result many families to my knowledge either had to cancel their holidays or accept the risk of travelling abroad with a certificate of contraindication which in all probability would not be accepted as valid in the circumstances.

In 1970 a considerable advance was made by the Council of Europe by agreeing to create a single area for the health control of international traffic in Europe. Many, but not all, European countries are a party to this agreement but there is always a tendency when a case of smallpox occurs for people to lose their sense of proportion and I would put in a plea for a review of this 1970 agreement, certainly as far as the European countries are concerned. At least a distinction should be made as to what does and what does not constitute a smallpox zone.—I am, etc.,

J. A. DUDGEON

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Great Ormond Street,
London W.C.1

Latent Morbidity after Abortion

SIR,—We read with interest your leading article (3 March, p. 506) which commented favourably on the report by Margaret and Arthur Wynn¹, on the consequences of induced abortion. Having now examined the

report carefully, we find in it ambiguities and inaccuracies that seriously diminish its value as a scientific appraisal of the risks of induced abortion. Some examples of its deficiencies follow.

(1) The appropriate denominator in examining variation in abortion rates with time is the population at risk—that is, women in the childbearing years. The use of number of live births as a denominator can artificially inflate the abortion rate, if the live birth rate decreases with time. Data shown by Klinger² illustrate this well.

(2) The statement quoted from Klinger³ "It is clear that induced abortion plays an important role in the development of a subsequent child"—is prefaced in the original with "these relationships have not yet been studied in detail." By removing this prefatory clause Klinger's statement is given a misleading air of certainty.

(3) The table referring to "Abortion and Subsequent Prematurity: Hungary 1964" is attributed to Horsky⁴ but does not appear in this paper. It does appear in somewhat different form (the prematurity rate specific for the number of induced abortions and time period) in both of Klinger's papers.^{2,3} Horsky's paper does not deal with the matter of abortion and subsequent prematurity at all. Further, if the relationship between induced abortion and prematurity is to be properly examined, maternal age and parity must be taken into account, since the prematurity rate is known to vary with both of these variables.⁵

(4) A paper by Matsunaga⁶ is quoted to show that the infant death rate in Japan due to congenital malformation in 1960 (after legalization of abortion) was 30% higher than in 1947 (prior to legalization of abortion). Again, little can be concluded about the contribution of abortion to this increase without making the congenital malformation death rates specific for both maternal age and parity, both of which are known to affect the incidence of malformations.⁵

(5) In the context of examining sterility following induced abortion, the Wynn Report cites a Norwegian paper⁷ in which sterility is found to occur in 3.4% of women who have had an abortion. However, 45.8% of the women in that study were seeking an abortion on medical grounds. These women, therefore, had conditions such as pelvic and metabolic disorders very likely to be associated in themselves with sterility.

We are puzzled by the inclusion of references at the end of the paper by Margaret Wynn which are not cited in the text. For example, those by Maramatsu,⁸ Muller,⁹ and Potts.¹⁰ The first paper presents no data on the influence of induced abortion on subsequent pregnancy. The second supports access to abortion and deals with the consequences of unwanted pregnancy. The third offers no support for the Wynns' position and, although data are not presented, it states that in Czechoslovakia no relation-

ship was found between abortion and subsequent ectopic pregnancies.

Like Dr. A. Hordern (12 May, p. 368), we find the report biased; unlike him we find it neither carefully nor extensively referenced.—We are, etc.,

CAROL BUCK
KATHLEEN STAVRAKY

Department of Epidemiology and Preventive Medicine,
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London, Ontario

- ¹ Wynn, M., and Wynn, A., *Some Consequences of Induced Abortion to Children Born Subsequently*. London, Foundation for Education and Research in Childbearing, 1972.
- ² Klinger, A., in *Family Planning and Population Programs*, ed. B. Berelson. Chicago, University of Chicago Press, 1966.
- ³ Klinger, A., *International Journal of Gynaecology and Obstetrics*, 1970, 8, 680.
- ⁴ Horsky, J., in *Seventh World Congress on Fertility and Sterility*. Amsterdam, Excerpta Medica, International Congress Series No. 234, p. 146, 1971.
- ⁵ Ontario Department of Health, *The Second Report of the Perinatal Mortality Study*, Toronto, Ontario, 1967.
- ⁶ Matsunaga, E., *Journal of the American Medical Association*, 1966, 198, 533.
- ⁷ Kolstad, P., *Acta Obstetrica et Gynecologica Scandinavica*, 1957, 36, Supplement 6.
- ⁸ Maramatsu, M., in *Proceedings of the Conference of the International Union of the Scientific Study of Population*, 1969.
- ⁹ Muller, C., *American Journal of Public Health*, 1971, 61, 1110.
- ¹⁰ Potts, D. M., *Eugenics Review*, 1967, 59, 232.

Hospital Medicine Sheets

SIR,—I would like to support Dr. D. A. Spencer's appeal (30 June, p. 774), for a standard prescription sheet and point out that such a standard is in use in Wales.

Two forms, for short- and long-term therapy respectively, were produced by the Representative Chief Pharmacists Committee of the Welsh Hospital Board at the request of the Medical Advisory Committee. Within a year they have been adopted by the majority of hospitals in Wales. Simultaneously an explanatory pamphlet was distributed and this has done much to ensure the ease with which the forms have been accepted and used.—I am, etc.,

A. R. ISAAC

Nevill Hall Hospital,
Abergavenny, Mon.

Redesign of Medical Records in General Practice

SIR,—May I join those who have written to you criticizing the proposed A4?

With the aid of a good secretary, I find the present record an ideal "tool," (to use Dr. J. J. C. Cormack's word (9 June, p. 613))—that is to say, when properly used all important points in the patient's history can be recorded in an orderly manner on appropriate sheets and can be retrieved in a few seconds. Further, those letters which cannot be summarized in a line or two, or which for any reason need keeping, take up little room and can be kept. Of course, a larger folder will do all this, but in my view no better, and in some respects the A4's bulk makes the task of retrieving relevant summaries—which is, after all, what one wants—more difficult. Also, it seems to me that the size of the A4 sheets will be an invitation to ramble.—I am, etc.,

J. E. HODGKIN

Bury St. Edmunds,
Suffolk

New Materials for Prostheses

SIR,—The Bath Institute of Medical Engineering is sponsoring a project in the School of Materials Science, University of Bath, for study of new materials covering a wide range of prostheses.

Previous development of such materials has been based on largely empirical methods of choice, and general development in co-operation with surgeons. The present project proposes to characterize the material before its use as fully as possible, including simulated tests where feasible to establish the likely performance. When such material is utilized as an implant it is our intention to collect the medical history of the patient and record it in a data bank for subsequent follow-up of the behaviour of the prosthesis. When an implant is subsequently removed for change or substitution, or following decease of a patient, it will be again examined for changes in structure or behaviour by repetition of measurements. Related to the original concept and medical history it is hoped to learn more from such examination of the material and thereby contribute to development of improvements.

To establish a basis for examination of implants after service. I now welcome the receipt of any prosthesis or implant removed from a patient during surgery or necropsy to guide this work. Wherever a medical history can be provided this information will greatly enhance the value of the examination, but even a brief reference to that history will be of importance. The Bath Institute will be happy to receive specimens on my behalf where appropriate.

May I appeal to surgeons and directors of pathological laboratories to assist in what we hope and believe may be of value to them in the future and of even greater assistance to patients. All types of material are included, metal, ceramic, and plastic, and size has no significance; even a simple joint pin may reveal surface effects when viewed on the scanning electron microscope.—I am, etc.,

C. R. TOTTLE

School of Materials Science,
University of Bath,
Bath, Somerset

Beta-blocking Agents in Hay Fever

SIR,—The danger of using beta-adrenergic blocking agents in known asthmatics was established early on in the history of these drugs. The risks with the subclinical bronchospasm which must often accompany hay fever may not be recognized, since most hay fever victims have gone into remission by middle age, before essential hypertension commonly occurs.¹

A woman aged 57 had been treated with propranolol since November 1971. Though her hypertension was well controlled on three 40 mg tablets a day, an increase in effort angina in March 1973 was treated by increasing the dose to five tablets a day. She had had mild hay fever since about the age of 30 but had never previously noticed any bronchospasm. This summer, coinciding with the onset of her rhinitis, she began to wake regularly at 3 a.m. with wheeze and cough which prevented further sleep. This symptom has completely cleared on treat-

ment with sodium cromoglycate inhalations.

A change of beta-blocking agent to oxprenolol was the obvious alternative management, but this patient has had side effects on several previous hypotensive drugs and was averse to a further change. The pollen season here is always over by the second week of July.—I am, etc.,

M. J. AYLETT

Corsham, Wilts

¹ Fry, J., *Profiles of Disease*, p. 83. Edinburgh, Livingstone, 1966.

Simple Finger Tourniquet

SIR,—The finger tourniquet improvised from the cut-off finger of a disposable rubber glove by Mr. M. Z. A. Salem (30 June, p. 779) is similar in principle to a commercially available clear plastic ring tourniquet. The main disadvantage with this type of tourniquet is that because of its small size and translucency it can be easily overlooked at the end of the operative procedure and left in place. This is by no means a theoretical objection to its use as I am informed that several cases of such tourniquets being left in place have been dealt with by the Medical Defence Union. It is for this reason that such tourniquets have been withdrawn from use in this hospital.

I have always found the traditional tourniquet of a rubber tube and artery forceps quite satisfactory for minor operations on the digits. The danger of forgetting to remove such a tourniquet is remote.—I am, etc.,

E. M. HOARE

Manchester Royal Infirmary,
Manchester

SIR,—I was interested to read Mr. M. Z. A. Salem's description of a simple digital tourniquet (30 June, p. 779). I have used a somewhat similar technique for the past two years: when the whole hand (or foot) has been prepared it is inserted into a sterile surgical glove. The tip of the appropriate glove finger is cut off and the remainder is rolled proximally to exsanguinate the digit and to form a tourniquet at the base.

In addition to its efficacy, this method has the outstanding advantage of absolute safety, as one cannot forget to remove the tourniquet.—I am, etc.,

D. J. BOUCHIER-HAYES

Department of Surgery,
University College Dublin

Leptospirosis in 1972

SIR,—I was most interested to read in the *B.M.J.* notes on 60 cases of leptospirosis reported from the United Kingdom and the Republic of Ireland during 1972 (23 June, p. 723) that the occupation was recorded in 47, or just over 78% of cases, and that there were five fatal cases, a mortality of over 8%.

Comparatively, I have much experience of leptospirosis—in Germany,¹ Western and Eastern Malaysia, and in the Sultanate of Brunei^{2,4}—and I have never seen a fatal case since I started treating this disease, in 1955, with penicillin,² which, when institu-