three to five months later showed that only one child had remained faintly Schick-positive. As the tetanus used in the D.T.P. was a toxoid one would expect the jet injection of this to be satisfactory.

It may appear that I am suggesting that two intradermal doses of 0·1 ml of diphtheria would be adequate, but this is not necessarily true. Until 1962 it was generally accepted that the Schick test dose of toxin of 1/50 guinea-pig minimum lethal dose was far too minute to function as a primary stimulus. L. B. Holt and I investigated this[2] and showed conclusively that the test was capable of exercising a primary stimulus. In retrospect, therefore, my series should be regarded as a three dose method.

At the time I did my work, even Wellcome A.P.T. was not much purified, and local reactions and tiny intradermal abcesses made me conclude that the method was unsuitable in practice. It is nice to know that modern highly purified toxoids can be satisfactorily administered intradermally.—I am, etc.,

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1 *Medical Officer*, 1944, **71**, 141.
2 Bousfield, G., and Holt, L. B., *Monthly Bulletin of Ministry of Health and Public Health Laboratory Service*, 1962, **21**, 31.

Vasectomy

SIR,—It is my impression that vasectomy, as carried out by the standard method through the scrotum is, in more instances than is acceptable, followed by tiresome wound complications. I wonder whether any statistics on this are available?

For some time now I have approached the cord through a 2·5 cm incision over the external ring. By doing so I find the vas identified, and kept identified, with the greatest ease, and the wound invariably healing cleanly.

I wonder whether any of your readers could tell me what the disadvantages of this approach may be? To me it looks the obvious and satisfactory one.—I am, etc.,

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Breast-milk Jaundice and the Pill

SIR,—We share the disappointment of Dr. D. E. Barnardo and others (6 May, p. 348) in not being able to confirm a relationship between prior maternal oral contraceptive pill consumption and jaundice in breast-fed neonates. However, their results for the incidence of pill taking (admittedly losing 38 out of 120 cases, which may influence the result either way) can be simply presented as follows:

	Incidence of Mothers taking the Pill consumption	
Jaundiced Infants		
Breast-fed	15/38	39·5%
Bottle-fed	9/44	20·5%
Non-jaundiced infants		
Breast-fed	8/33	24·2%
Bottle-fed	12/49	24·5%

The incidence of pill taking is highest in mothers of breast-fed jaundiced infants and may suggest the two conditions are related in some way, as we stated (13 November 1971, p. 403). Regarding their criticism on data, these were given in our last paragraph.

We have already agreed (25 December 1971, p. 815) that the title "breast-milk jaundice" was misleading, but we do not agree that it should be reserved only for instances where there is evidence that breast milk does indeed contain a factor inhibiting conjugation of bilirubin in vitro, since it is still questioned whether inadequate fluid and/or calorie intake may be responsible (25 July 1970, p. 178). The term "breast-milk jaundice" will remain confusing until its aetiology is clarified.

It is hoped that the report of Dr. Barnardo and his colleagues will stimulate further studies from other centres.—We are, etc.,

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Evidence to the Lane Committee

SIR,—I should be grateful for space in your columns to raise a matter of importance to gynaecologists. The Royal College of Obstetricians and Gynaecologists has just submitted evidence (8 April, p. 65) to the Committee of Enquiry into the Working of the Abortion Act (1967), and this evidence may well be taken as representing the considered views of at least the majority of practising gynaecologists in this country.

Unfortunately parts of the document, which has been widely circulated, would seem to present views, unsupported by evidence, from which I would wish to be publicly disassociated. I would quote one section, part of the evidence dealing with the effect of the Abortion Act upon gynaecologists, as an example.

"We fear that not only will the young doctors of today hesitate to take up obstetrics and gynaecology as a specialty but that those who do, will be of inferior quality so that the whole obstetrical and gynaecological service will deteriorate. Already there is evidence that those who see possibilities for financial gain by undertaking abortions are seeking to take up obstetrics and gynaecology. And these post-graduate students sometimes come from overseas countries where the ethical standards are different from those which obtain among the medical profession in Britain. A few of these young specialists, having become members of our College, are then enticed into working in approved places."—I am, etc.,

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Forgotten Bradykinin?

SIR,—How odd that Dr. E. J. Ross (18 March, p. 735) in his description of carcinoid syndrome fails to mention the role of bradykinin in the production of the acyanotic flush that characterizes a proportion of patients with the syndrome. While he points out the difference between carcinoid tumour arising from mid- or foregut derivatives—in as much as the latter produce 5-hydroxytryptophan and histamine mainly and the former 5-hydroxytryptamine—the omission of discussion of the role of bradykinin surely gives an incomplete view of the syndrome.

Serious doubt as to the role of 5-hydroxytryptamine in producing the flushing attacks characteristic of the syndrome was raised by the work of Robertson *et al.*[1] This was complemented by the work of Oates *et al.*,[2] who showed that the flushes induced by intravenous adrenaline in patients with the carcinoid syndrome were accompanied by a rise of kinin concentration in the hepatic venous blood.

In contradistinction Levine and Sjoerdsma[3] found it difficult to induce flushes by the administration of serotonin (5-HT), that with spontaneous flushing it was rare for blood serotonin levels to increase, and that severe flushing could occur in the absence of significant rise in the urine concentration of 5-hydroxyindoleacetic acid. Furthermore, the work of Oates showed that the severest flushing was found in those patients who showed the most marked rise in kinin concentration of hepatic vein blood.

In many patients with the syndrome both 5-hydroxytryptamine and bradykinin may have a role—for example, flushes caused by bradykinin but diarrhoea caused by 5-hydroxytryptamine (the latter can be limited by the 5-hydroxytryptamine antagonist, methysergide[4]), both having a part to play in causing symptoms. Thus to attribute all symptoms to 5-hydroxytryptamine, 5-hydroxytryptophan, and histamine while there is much good evidence that the kinins have a part to play is surely an unnecessary oversimplification.—I am, etc.,

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1 Robertson, J. I. S., Peart, W. S., and Andrews, T. M. *Quarterly Journal of Medicine*, 1962, **31**, 103.
2 Oates J. A., Melmon, K., Sjoerdsma, A., Gillespie, L., and Mason, D. T., *Lancet*, 1964, **1**, 514.
3 Levine, R. J., and Sjoerdsma, A., *Annals of Internal Medicine*, 1963, **58**, 818.
4 Peart, W. S., and Robertson, J. I. S., *Lancet*, 1961, **2**, 1172.

Abortion Act

SIR,—Mr. H. P. Dunn of Auckland (6 May, p. 354) refers to the paper by Forssman and Thuwe[1] on 120 children born after therapeutic abortion was refused. He says that the key question always overlooked when this paper is quoted is: what was the initial selection of the abortion-seeking patients? And goes on to say that they were all patients of the psychiatric department of the Sahlgren Hospital. This is true, but all applicants for abortion came to the department only because it served as a counselling centre for mothers seeking legal abortion. There is nothing to suggest that the population studied was simply a group of psychiatric outpatients, as I take it Mr. Dunn intends to imply.—I am, etc.,

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1 Forssman, H., and Thuwe, I., *Acta Psychiatrica Scandinavica*, 1966, **42**, 71.