and assist the removal of any spores.—We are, etc.,

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REFERENCES

1 Rubbo, S. D., and Gardner, J. F., *A Review of Sterilization and Disinfection*, 1965. London.
2 Rubbo, S. D., and Gardner, J. F., *J. appl. Bact.*, 1968, **31**, in press.

SIR,—The advice of Drs. P. W. Harvey and G. C. Purnell (23 March, p. 744) that adrenaline should not be injected into the buttock because it lowers oxygen tension locally and so allows gas gangrene spores carried from the skin to germinate is sound. It has been recommended for several years.[1] The evidence should, as Professor L. P. Garrod (30 March, p. 836) pleads, convince everyone that the buttock is no place in which to inject adrenaline. But it is going too far, I think, to seek to condemn all intramuscular injections mainly for theoretical reasons. Mr. W. H. Beesley (13 April, p. 116) advocates the use of the thighs only, and most of his reasons are sound. But injections into the buttocks can be as safe as those into the thighs if they are properly given. They should not be into the part on which the patient sits, and some patients prefer them.

The real objection to using the buttock applies to injections of all substances, and is that for the nurse the buttock is regarded as the "cheek." The use of the upper and outer quadrant of this area, which is smaller than the buttock as anatomically defined, allows injections to be given dangerously near the sciatic nerve. Patients have complained of tingling down the leg after nurses' injections into the buttock. For this reason the surface marking on the buttock for an intramuscular injection is best chosen by what is sometimes called Winston Churchill's method. For a right-handed operator injecting into the right buttock, place the tip of the left index finger on the anterior superior iliac spine and the tip of the middle finger (abducted as in the "V for Victory" sign) just below the iliac crest. The injection site is then within the triangle formed by the fingers and the iliac crest.

I have seen wrist drop from deltoid injections and a very painful thigh from injection under the tight fascia lata, and so feel that injections (other than adrenaline) into the "meaty" buttock should, if properly placed, continue to be used.—I am, etc.,

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REFERENCE

1 Birch, C. A., *Emergencies in Medical Practice*, 7th edition, 1963. Edinburgh and London.

SIR,—The subject of the best site for intramuscular injections is one which recurs periodically in your columns. Following a leading article in the *B.M.J.* (16 September 1961, p. 758) there was a valuable correspondence, from both injectors and those injected, favouring on the whole the vastus lateralis as the best site, which has again been advocated by Mr. W. H. Beesley (April 13, p. 116). This site, advocated by the late Professors Grey Turner and Lambert Rogers, is so much better, I believe, than the gluteal one that it should be the routine one taught and practised. Some years ago, following the observation of a series of cases showing hideous staining after too superficial injection of iron in the gluteal region, Messrs. Reckitt & Sons (40 Bedford Square, London W.C.1) prepared for me at this hospital a coloured film-strip for the instruction of nurses and others, showing a suitable technique for injections into the vastus lateralis, and this can be obtained from them.—I am, etc.,

BRYAN WILLIAMS.
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Medical Ethics

SIR,—Sir Roger Ormrod (6 April, p. 7) points out some of the difficult problems in ethics now arising as a result of new scientific developments and changes in legislation. He rightly indicates that the traditional code provides guidance to practitioners in a therapeutic relationship with patients but has never dealt adequately with problems outside this sphere, and that the concept of ethical obligations to the State has developed slowly. This is a field where problems other than financial control can arise. All States are not invariably right all the time, and a point may come at which the individual doctor may feel he must make a stand. He may, for instance, feel that the interests of humanity as a whole are endangered by anti-therapeutic activities, such as engaging in the preparation or practice of biological warfare, or he may feel that some action he is required to undertake transgresses the medical ethic in which he believes. The law, therefore, may not inevitably determine the limits within which ethical principles can operate.—I am, etc.,

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South Mimms, Herts.

SIR,—The article "Medical Ethics" (6 April, p. 7) is a model of clarification. It is not quite clear, however, to what extent Sir Roger Ormod himself approves of the circumstances which compel his conclusions. It must also be seriously questioned how far the profession could allow, particularly with regard to such matters as abortion, euthanasia, and transplantation, so clear-cut a distinction between "therapeutic" and "non-therapeutic" aspects within a doctor–patient relationship.

The article prompts two fundamental questions. In his summing up Sir Roger suggests that "the inevitable, logical result of contemporary thought which rejects traditional solutions" is that practitioner and patient at the difficult points must each be left to make his own *individual* decisions. But, if the guide-lines of the traditional codes are to be allowed to fall into abeyance, what will be left except solipsism, self-determination, and self-expression? The prevailing existentialist philosophy, accompanied by contemporary permissiveness, already overindulge the impulse, desire, and whim of the moment. What ethical guide will survive, and what becomes of future law-making? A second question concerns the likely state of the Western World after the completion of the "changing over from a community . . . based more or less firmly on what is called the Christian Ethic . . . to one based on humanist and sociological principles." Ethical decisions will presumably then be in the hands of the scientific humanist, especially the biologist and behavioural scientist? But, on their present showing, are they fit for the job?

We suggest that before it discards them the profession should take a very long and careful look at Geneva's revision of Hippocrates, the Ten Commandments, and Christ's Golden Rule. For, to put it quite bluntly, it is precisely in those countries which have had most time and opportunity to work out the principles of the scientific humanist that free speech and personal liberty are at their lowest. As Albert Einstein reminded us, it was not the liberal politician, press, or university, but "only the Church stood squarely across the path of Hitler's campaign for suppressing truth."[1] We submit that, rightly understood, the Christian faith is the staunch ally of all that is good in medical ethics, and for the nation as a whole it is the main source and buttress of intellectual freedom, personal liberty, and moral integrity.—We are, etc.,

London N.W.2. DAVID TRAPNELL.
Cheam, Surrey. DOUGLAS JOHNSON.

REFERENCE

1 Van Dusen, H. P., *What is the Church Doing?* 1943, p. 38. London.

Ethics and Abortion

SIR,—Your leading article (6 April, p. 3) seeks to set up for the medical fraternity an ethical directive which is basically untenable, and in order to do so has to descend to sophistries. It has already been decided for us what we may legally do and not do, and about this the B.M.A. has now nothing further to say. There is no suggestion that the legal termination of a pregnancy on social grounds would be professional malpractice. What remains will be a question which individual practitioners will have to decide for themselves on the merits of each individual case. It would be preposterous to suppose that any practitioner, acting conscientiously and legally, could come under the effects of any sanction imposed by his fellow doctors. Yet your leading article would seem to imply some such threat.

It is not open to the B.M.A. to attempt to intrude itself between a man and his conscience. You are confusing the issue when you write, "The essence of professional freedom for a doctor is his right to act in professional matters uninfluenced by any considerations other than the judgement of his fellows." The doctor's first duty is to his patient, and when he makes his decisions he must be guiding himself by his own standards, and not looking over his shoulder to see what the others will say. You write: "Medical ethics are the collective conscience of the profession." There is no such thing as a collective conscience, since all consciences are individual. You conclude with the statement that "a plea of 'superior orders' would be a sinister echo of something that ended 20 years ago at Nuremberg."