CORRESPONDENCE

Specialty of Anesthesia

To the Editor.—It is heartening to know that the thoughtful study of medical manpower is penetrating into our specialty. I read with very great interest the special article by Dr. D. Vernon Thomas ("The Specialty of Anesthesiology") in your March-April issue and I hope that it stimulates discussion in your Journal as well as in the ranks of the A. S. A. membership. As a contribution towards a clearer understanding of the complex but vital issues involved, I would like to offer the following observations which are not intended to be in any way a criticism of Dr. Thomas' conclusions.

It should be realized that the medical population of the United States is a relatively "closed" one with little permanent immigration or emigration of doctors. This factor is very important in several ways but particularly so because it makes prognostication of future man-power resources in medicine more accurate. Between 1909 and 1937 the number of new born infants who finally graduated into the ranks of the medical profession rose from 1.8 to 2.9 per 1,000 live births (assuming age 24 on graduation), and on this basis we can make a useful estimate of the number of 1964 babies likely to graduate into medicine in 1988.1 Dr. Thomas, in figures 3 and 4, refers to the growth in the total numbers of the population, of physicians as a whole and of anesthesiologists. But if the proportion of live-born infants who become doctors is relatively fixed, the rate of growth of the specialty will depend critically upon the influx from elsewhere and on the rate of decay or extinction of the physician population. Under these circumstances too, a rapid increase in recruitment into one specialty will only be achieved at the expense of other specialties which are currently unfashionable.

If the present ratio of anesthesiologists to physicians as a whole is 1 to 37, experience elsewhere suggests that the curve of growth of the specialty is rapidly approaching its asymptote.

This latter fact is probably obscured by another factor to which Dr. Thomas has referred in passing only. In the residency training program anesthesiology has maintained an average of 80 per cent of places filled compared with a general average of 81 per cent. But what were the origins of the residents themselves? The Annual Reports of the Committee on Interns and Residencies of the A. M. A. show that in 1959,2 for example, 23 per cent of all residents in training were foreign graduates. We see from this that only 62 per cent of the estimated needs of the Specialty at Resident level can be supplied by native-born citizens. The foreign graduates are frequently admitted on a student visa only and will ultimately return to their place of origin where they will build, not only a patient service, but a training program of their own. As a result, not only will they cease to contribute materially to the future growth of the specialty in the United States but they will in time make it unnecessary for their fellow-countrymen to apply for training posts in the United States.

That this is in fact what happens, is borne out by a study of those countries which already have a physician-anesthetist service. Dr. Thomas mentions the British Commonwealth as an example. For many years Great Britain has trained, first of all the medical graduates of countries such as Australia, New Zealand, India and South Africa and more lately, the would-be specialists. The number of "foreign-born" medical students in British medical schools dwindled as an increasing number of medical schools were established in the Commonwealth countries, and at the moment the number of foreign-born specialists-in-training (residents) is also apparently dwindling. At present some 32 per cent of the resident posts in the United Kingdom are filled by foreign-born doctors and 9 per cent of the posts are vacant 3 so that only 59 per cent of the posts are filled by native-born. If the supply of foreign graduates dries up, Great Britain may be forced to copy the United States and utilize nurse-anesthetists because she has a coexistent attrition of her general practitioners.

Of course, developments in the technical
fields of anesthesiology may make it possible for a single physician to administer, control and monitor from a single console, the anesthesis for a number of patients at once.

It is also possible, but highly unlikely, that the physician-population ratio, which Dr. Thomas places at 1 to 690 in the United States at present, will improve towards unity; but this ratio is not really a helpful figure, largely because, as Dr. Thomas has hinted in reporting that in the distribution of anesthesiologists 9.8 per cent are in full-time teaching, administration or research, a significant number of doctors are no longer engaged in direct patient-care. While it is certainly true that a single Pasteur probably confers greater benefits on mankind than a thousand general practitioners, the man who is visibly on the job where personal aches and pains are involved is the really important physician-figure to the public.

It would be tragic to displace the nurse-anesthetist prematurely, only to find that physician anesthesiologists and the occasional practitioner-anesthetists are unable to provide a reasonable service, let alone a good service. Situations akin to this are threatening to develop elsewhere.4

Dr. C. S. Jones  
Associate Professor, and  
Director of Anaesthesia  
The University of New South Wales  
Kensington, Australia

References


To the Editor.—Dr. Jones does a service by reminding us that the issues are complex although I am not sure that he succeeds in his intention to make them clearer.

I think he means to say that things may not really be going as well with physician-anesthesia as I implied in the article. He may be right, but I do not think his statistics go far toward proving it.

Dr. Jones is wrong in stating that the medical population of the United States is a relatively closed one. In 1962 there were 8,005 American-trained additions to the medical profession; in the same year the number of foreign-trained doctors who passed state licensing examinations was 1,980.1 Thus a significant part of the growth of the American Medical profession has been, and still is, due to immigration. (I realize that while immigration helps America, it robs the donor countries—but that is another problem and one which was outside the scope of my article.)

Moreover, there is no reason to assume, as Dr. Jones does, that the proportion of live-born infants who become doctors is relatively fixed. Medicine may easily attract more students. In this century we have already seen how mechanical machines caused huge shifts in our manual labor force from the farms, the mines and the factories into the so-called “service” industries. In years to come the wider application of electronic machines (computors) may well cause comparable shifts in society’s intellectual man-power; medicine, along with other service professions, is likely to gain from this.

I agree that any growth of anesthesiology must have been, and can only continue to be, achieved at the expense of other specialties; but I see nothing wrong with this. Changing challenges to medicine demand and produce different distributions of medical man-power. In recent decades we have seen several examples of reduced need for doctors in some specialities—phthisiology is one, venereology another. One speciality which appears to be over-doctored in the United States at present is surgery. I do not have comparative figures from other countries but the impression is certainly strong that the nation’s surgical load could be accomplished by, at most, half as many surgeons as there actually are. (Presumably, this state of affairs is fostered by the level of surgical fees which is high enough to