fields of anesthesiology may make it possible for a single physician to administer, control and monitor from a single console, the anesthesia 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 visible 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

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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 (computers) may well cause comparable shifts in society’s intellectual manpower; 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 manpower. In recent decades we have seen several examples of reduced need for doctors in some specialties—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
enable a man to earn a passable living working at 25 per cent and an excellent one at 50 per cent of his capacity.) Perhaps it would be better for the American public if some of the young doctors now beginning surgical training entered anesthesiology instead.

Dr. Jones is right to warn us that as other countries develop their own training centers, America may receive fewer and fewer residents from overseas. We must take this into account.

My aim has been to stimulate debate and critical thinking about all aspects of the future of the specialty. The attitude which we adopt must, of course, be based on reality. However, that attitude itself, whether optimistic or pessimistic, will have a large influence on the image, status or prestige of the specialty in the eyes of the profession and of the public. In turn, this will help or hinder recruiting. So we must be doubly careful not to lose faith prematurely.

Under a democratic system of society it is our duty to strive to see the grand view of mankind. Nevertheless, as a minority group, we have the responsibility to plead our cause with all the vigor and eloquence which we can command. No one else will be advocates for us.

We can argue about what kind of anesthesia service is morally right in a modern affluent society. We can examine what has happened in the past and what is happening now. So far, the information we have is sparse. As we gather more we shall be able to debate its significance for the future. If, and when, we predict that we are headed for disaster (and Dr. Jones and others fear that this is now) we should have to change our course. There would be several alternatives—one is the nurse-anesthetist (supervised or unsupervised), another is increased recruiting from other fields of medicine. It would be fitting for the profession to look at all its branches, not merely anesthesia, to see where economies of manpower could reasonably be made. Form-filling, lumbar punctures, thoracenteses, assisting at operations and a hundred other tasks are all far less dangerous than anesthesia and could well be done by nonphysicians.

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Reference


Halothane and Cerebral Circulation

To the Editor.—We were most interested in the well-controlled study by Wollman, Alexander, Cohen, Chase, Mellman and Behar on the effects of halothane on the cerebral circulation of man. Their conclusion that halothane increases total cerebral flow confirms the suspicions of those who have observed a rise in intracranial pressure during the administration of this drug.2,3,4

However, Wollman and his colleagues, in attempting to explain the differences between their results and our own5 make certain comments which we wish to discuss further. It is true that we induced anesthesia with thiopental; indeed, we gave further supplementary doses of this drug while surgery was proceeding, in order to ensure that anesthesia was adequate. However, after the surgical preparation had been completed, a pause of at least an hour was observed to ensure that the barbiturate effects had disappeared before making our control measurements (the disappearance of barbiturate depression was also confirmed by serial electrocorticograms). As the control—i.e., nitrous oxide without halothane—observations were made before the halothane ones, and as thiopental reduces cerebral blood flow, a residual barbiturate action would have had more influence in slowing the control measurements than the halothane ones.

Succinylcholine was employed by us but, as it was administered during both control and halothane measurements, it is difficult to see how its administration could selectively affect flow only during halothane anesthesia.