BRITISH MEDICAL JOURNAL

LONDON SATURDAY APRIL 2 1949

WHITHER MEDICINE?*

BY

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Although this Society is not amongst the older-established medical societies of London yet it has, during the 67 years of its existence, attained a high status, following closely the rapid development of the hospital and nurses' training school at Hammersmith. The influence of these medical societies upon the history of our Science and Art is very great, and the contribution made by the West London Society is considerable.

When I was very kindly invited to speak to the Society I was given free choice of subject as between, say, some clinical theme about which I might reasonably convince others, if not myself, that I had had experience, or some aspect of the very topical subject of Medicine in relation to the State. Pressed for a title, I stated it to be " ? A Guild for Doctors " ; and I shall have something to say on that subject. But I have decided to take a larger view of the present situation in our relations with authority, and so I later suggested for my title " Whither Medicine ? " The change was influenced somewhat by the knowledge that the Council of the B.M.A. is itself at this moment considering very seriously the desirability of setting up a Guild of doctors which shall be able to impose sanctions which are not free from legal obligations if imposed by the Association itself. Whether such a body will be actually formed, and, if so, of what nature it will be, is for the time being unknown. It is, however, significant that such a step should be definitely contemplated.

In actual fact the profession of Medicine was never a proper Guild in this country. The nearest thing to a Guild was the Barber Surgeons Company, whose history is sufficiently well known to us all. Its natural successors have been the Royal Colleges and the Society of Apothecaries. But the word " guild " has been used symbolically from time to time, as in an address by Osler to the Canadian Medical Society fifty years ago. In that address Osler spoke of four great features of the Guild of Medicine—its noble ancestry, its remarkable solidarity, its progressive character, and its singular beneficence.

A Beneficial Influence

In dilating on the first of these features—the *origins of Medicine*—Osler quotes Gomperz, who pays homage to the Greek School of Medicine because it very early brought the spirit of criticism to bear upon the arbitrary and superstitious views of the phenomena of life that held sway at that time in the world's history. By introducing quiet methodical research into the domain of the physician's

art it exercised a most beneficial influence on the whole intellectual life of mankind.

" The critical sense and sceptical attitude of the Hippocratic School laid the foundations of modern Medicine on broad lines and we owe to it : *first*, the emancipation of medicine from the shackles of priestcraft and of caste ; *secondly*, the conception of Medicine as an art based on accurate observation, and as a science, an integral part of the science of man and of nature ; *thirdly*, the high moral ideals, expressed in that most ' memorable of human documents ' (Gomperz), the Hippocratic oath ; and *fourthly*, the conception and realization of medicine as the profession of a cultivated gentleman. No other profession can boast of the same unbroken continuity of methods and of ideals. We may indeed be justly proud of our apostolic succession. Schools and systems have flourished and gone, schools which have swayed for generations the thought of our guild, and systems that have died before their founders ; the philosophies of one age have become the absurdities of the next, and the foolishness of yesterday has become the wisdom of to-morrow ; through long ages which were slowly learning what we are hurrying to forget—amid all the changes and chances of twenty-five centuries, the profession has never lacked men who have lived up to these Greek ideals."

Concerning the solidarity of Medicine Osler says :

" Of no other profession is the word universal applicable in the same sense. . . . It is not the prevalence of disease or the existence everywhere of special groups of men to treat it that betokens this solidarity, but it is the identity throughout the civilized world of our ambitions, our methods and our work. To wrest from nature the secrets which have perplexed philosophers in all ages, to track to their sources the causes of disease, to correlate the vast stores of knowledge, that they may be quickly available for the prevention and cure of disease—these are our ambitions. To carefully observe the phenomena of life in all its phases, normal and perverted, to make perfect that most difficult of all arts, the art of observation, to call to aid the science of experimentation, to cultivate the reasoning faculty, so as to be able to know the true from the false—these are our methods. To prevent disease, to relieve suffering and to heal the sick—this is our work. The profession in truth is a sort of guild or brotherhood, any member of which can take up his calling in any part of the world and find brethren whose language and methods and whose aims and ways are identical with his own."

Of the progressive character of Medicine Osler says :

" Based on science, medicine has followed and partaken of its fortunes, so that in the great awakening which has made the nineteenth memorable among centuries, the profession received a quickening impulse more powerful than at any period in its history. With the sole exception of the mechanical sciences, no other department of human knowledge has undergone so profound a change—a change so profound that we who have grown up in it have but slight appreciation of its

* A dinner-address to the West London Medico-Chirurgical Society on Feb. 18.

momentous character. And not only in what has been actually accomplished in unravelling the causes of disease, in perfecting methods of prevention, and in wholesale relief of suffering, but also in the unloading of old formulae and in the substitution of the scientific spirit of free inquiry for cast-iron dogmas we see a promise of still greater achievement and of a more glorious future.

"And lastly, the profession of medicine is distinguished from all others by its *singular beneficence*. It alone does the work of charity in a Jovian and God-like way, dispensing with free hand truly Promethean gifts.

"There are those who listen to me" (continued Osler) "who have seen three of the most benign endowments granted to the race since the great Titan stole fire from the heavens. Search the scriptures of human achievement and you cannot find any to equal in beneficence the introduction of Anaesthesia, Sanitation, with all that it includes, and Asepsis—a short half-century's contribution towards the practical solution of the problems of human suffering, regarded as eternal and insoluble. We form almost a monopoly or trust in this business. Nobody else comes into active competition with us, certainly not the other learned professions which continue along the old lines. Every few years sees some new conquest, so that we have ceased to wonder. The work of half a dozen men, headed by Laveran, has made waste places of the earth habitable and the wilderness to blossom as the rose. . . . There seems to be no limit to the possibilities of scientific medicine, and while philanthropists are turning to it as to the hope of humanity, philosophers see, as in some far-off vision, a science from which may come in the prophetic words of the Son of Sirach, 'Peace over all the earth.'

"Never has the outlook for the profession been brighter. Everywhere the physician is better trained and better equipped than he was twenty-five years ago. Disease is understood more thoroughly, studied more carefully and treated more skilfully. The average sum of human suffering has been reduced in a way to make the angels rejoice. Diseases familiar to our fathers and grandfathers have disappeared, the death rate from others is falling to the vanishing point, and public health measures have lessened the sorrows and brightened the lives of millions. The vagaries and whims, lay and medical, may neither have diminished in number nor lessened in their capacity to distress the faint-hearted who do not appreciate that to the end of time people must imagine vain things, but they are dwarfed by comparison with the colossal advance of the past fifty years."

I make no apology for this long quotation from Osler's address. My reason for introducing it is that I wanted to establish at the outset the basic qualities of the great science and art to which we have sworn allegiance. Because, whether we have taken the actual Hippocratic oath or not—and some of us have—we have surely consecrated ourselves and our lives to Medicine in one or other of its branches. And I could not myself state these basic qualities half so well as they were set forth in the passage I have just quoted.

Straight Ahead !

But if Osler could stake out so splendid a claim for Medicine in 1902, what could he not have done to-day, after nearly fifty more years of breath-taking progress ? I remember well, only three years after he gave this Montreal address, he came excitedly into my room straight from Rome, where he had just seen Schaudinn's staggering demonstration of the spirochaete in the lesions of syphilis.

Think what has happened since then. The discovery of radium, the rapid development of x-ray diagnosis and treatment, the recognition of the vitamins, the synthesis of the sex hormones, the introduction of psycho-analysis, the preparation and getting under control of the sulphonamides, of penicillin, and of other antibiotics—this is to name only some of the major additions to the progress of Medicine made during the past half-century, despite two long interrupting world wars.

Very good. A man from Mars, looking on and being ignorant of the queer lapses of the earthly human mind into unintelligence, would think the question that I have taken as the title of this talk to you itself unintelligent. "Whither Medicine ?" he would say. "Why, whither else than straight ahead ; forging still more weapons with which to conquer disease, taking still more toll of science in the interest of humanity, adding more and more culture to more and more learning, improving both the art and the craft. Medicine has really only just begun its task. It has tackled, and, as you say, not unsuccessfully, the simpler and grosser causes of bodily disablement. You don't die any more in swathes—from smallpox, or plague, or even typhoid fever. Though you don't live longer, more of you live to old age than you used to do. You have got a lot of diseases under control. But I see no decrease as yet in the number who fall victims to what you call high blood-pressure and cardiovascular degeneration. Nor any lessening of the psychoneuroses. Indeed, both of these groups of your patients seem to be increasing in number. And as for the spirit of man, rather than his body, have you even begun to tackle that ? Forgive this little criticism," concludes our Martian friend, "but the answer to your question, 'Whither Medicine ?' is as I say, 'Straight ahead.'"

And this is surely the answer that every thinking man and woman of us will also give. Why, then, does the question arise ? I want to try to answer this further question.

Emergence of the Individual

At this point we have to consider what our American friends are fond of calling "the changing order." On analysis, the salient feature of this "changing order" seems to be the emergence of the individual in Society. This emergence has synchronized with a number of profound alterations in the way of living and in social attitude. Among these are industrial expansion, poverty, the rise of big business and big government, the arrival of social service, and the development of voluntary health insurance plans.

There are two even more basic elements in this concentration upon the individual which is the fundamental feature in the changing order. The first is recognition of the fact that the citizen himself, and not his goods and chattels or the want of them, constitutes the real wealth or poverty of a nation. Thinking men have told us this again and again. (You remember the old cliché: "The health of its citizens is a nation's greatest asset.") But we did not listen until dire national peril was upon us. During the recent war we passed our men and women through a finer comb than we had ever done before, and now, in the post-war era, man-power is the commodity we find in shortest supply.

The second basic element leading to the emergence of the individual is his own spiritual evolution. That the evolution of personality proceeds along lines which tend to help humanity forward is generally accepted. In the course of this advance the individual very reasonably says to Medicine, "What can you do for me ?"

The Medical Ideal

Now although it is true that, being based upon Science, Medicine, to be really progressive, should command a degree of autonomy—of freedom—there is agreement that its full powers should be applied to the attainment of the health and happiness of the individual. In so far as the State acts wisely in the interests of the citizen, this desideratum has always been recognized. At first it was recognized only dimly, but later more clearly. There has to-day opened

up for the statesman, the sociologist, and the physician a large field for their inquiry and their action, and this field is common ground. The man of Medicine must not spend all his time in this field ; he must go apart, whether in the laboratory or at the bedside, or, like Harvey, walk under the trees rapt in thought so that by observation, by experiment, and by contemplation he may keep Medicine dynamic. For it is *through Medicine* that he makes his contribution, a contribution which no one else can make. To stand aloof from the work going on in this same field is to do a disservice not only to society but to Medicine itself ; but to become entirely absorbed in it is to do a disservice no less serious.

Yes, but the contribution that Medicine makes must be fitted into the social structure of the day—"fitted into," mark you, not just attached.

As Sigerist puts it, and very aptly :

"The history of the medical ideal is the history of human society. We have seen that the Greek physician was an artisan, that the Roman was a slave to begin with, and the physician of the early middle ages was a cleric, and of the latter part, a doctor. The position of the sick in society differed with every cultural epoch. So the demands upon the doctor and his position in the social structure changed constantly. Even the intellectual physician undergoes changes. He develops with advances in science. The physicians whom Molière caricatures so mercilessly in his comedies are also scholars, but their actions are grotesque because they abide by worn-out scientific ideals. The 17th century expected quite different treatment from its physicians and had a new medical ideal.

"Thus the demands made upon the physician by society in the renaissance, the Baroque period, the enlightenment, the bourgeoisie epochs, are different in detail, but remain the same in their fundamental claims.

"The good physician was at all times the physician who felt himself bound by the medical ideal of his time. Men like Hippocrates, Sydenham, Laennec, Billroth and Osler, were therefore great physicians and will always occupy a special position in the history of medicine, for they came closest to the medical ideal of their time. The clear understanding of the prevailing medical ideal is of great importance."

Can we achieve this end, about which we are agreed ? And, if so, how ? Let us suppose that we had been given the chance of helping the State by making constructive suggestions—what would these have been ? In the first place there is surely consensus concerning certain basic desiderata. Medical services should provide everything that science can offer towards the preservation of health and the cure of disease ; the whole corpus of knowledge, as it is termed, must be implemented in the citizen's interest. Then these benefits should be available to the entire population. Seeing that the general public has a vital interest in our plans, it should be adequately represented in their formation. But inasmuch as it is the doctor who must render the medical care, he should play the dominant part in the preparation of the scheme he will be called upon to carry out.

We should have emphasized our belief that gradual extension and improvement of medical care is preferable to revolutionary changes and that, while recognizing Government responsibility for the citizen's health, sweeping legislative action would defeat its own purpose by impairing the spirit and quality of a service which is essentially individual and personal.

Conditions for Fulfilment

As to the conditions necessary to bring about the desiderata I have enumerated, there are certain paramount criteria: the quality of medical care must be preserved ; provision of public health services is essential ; there must

be effective use of hospitals with adequate facilities ; trained professional and non-professional personnel is a *sine qua non* ; optimal results require organization and co-ordination of physicians through the extension of medical groups and health centres ; voluntary prepayment plans are needed ; extensive education for both physicians and the public is required ; the local needs of the community must be allowed for ; and finally Government help, preferably by grants-in-aid, would be necessary. Indeed, a method of grants-in-aid would seem to offer the brightest promise, so far as help by a central authority is concerned.

We must realize that the practical expressions of unplanned energies are often cumbersome and wasteful. This is the price we pay for highly individualized societies. We began doing things many years ago ; we did some of them so well that it has never been considered helpful to scrap them. There are parts of the machinery of our health services which work perfectly ; some units stand out as pieces of perfect organization and efficiency—the large teaching hospitals, the well-run cottage hospital, some of our public health services, our Medical Research Council. It is when we come to consider the machine as a whole that organization, and therefore efficiency, are found to be unsatisfactory.

Then, lastly, to make Medicine a complete science in the service of man we must see that it infiltrates the important and now more clearly perceived sphere—as yet largely neglected—of social need. This sphere lies between that in which the diseases of the individual patient are presented to, and treated by, the individual doctor and the sphere in which the preservation of the public health is achieved by the proved methods of the Medical Officer of Health. This largely untitled field includes all the environmental factors which influence the citizen's health and happiness: his conditions of working, his home life, his sense of security or insecurity, and his ignorance of the things that make for the salvation of his body and his mind. In short, as Professor Ryle has stated: "Our next advance (in Medicine) will be . . . concerned with causes, but with the ultimate, rather than the intimate, causes of disease."

Professor Ryle's work at Oxford merits not only recognition but high praise. His term "social pathology" is an apt designation for this work. A study of the environmental factors in the aetiology of disease was overdue ; it is high time that they were studied and the results statistically analysed. But when Professor Ryle says that Social Medicine is concerned with the ultimate, rather than with the intimate, cause of disease, I am sure he realizes that he is covering only a part, and not the whole, of a disease process. A disease is the resulting interaction between various extrinsic aetiological factors and the individual patient. It is always the patient that is the main factor. Hence the wisdom of Trousseau's exhortation: *Le malade, toujours le malade*.

Attention to Basic Needs

That, I think, is how we should have put the case for making our contribution to society. But we should have failed in an important part of our duty if we had not, at the same time, warned the State that if it did not attend to the more basic needs of the citizen our direct contribution from Medicine would avail little. By basic needs I mean: a sufficient amount of the proper food, suitable shelter and clothing, a satisfactory job of work, access to fresh air and sun, reasonable leisure, and the amenities of life. The doctor must stake out his claim in every one of these needs, for his is the knowledge that can guide and his is the enthusiasm that can stimulate to achievement. We physicians must lead ; we must guide the politicians, since they

cannot act without expert help ; we must keep the citizen's end up, since he learns to rely upon us for support.

But suppose the politician won't be guided. Suppose it is as Swift wrote in a letter to Pope: "Although I have known many great Ministers ready enough to hear opinions, yet I have hardly ever seen one that would descend to take Advice ; and this pedantry ariseth from a maxim which they themselves do not believe at the time they practise it, that there is something profound in politics, which men of plain honest sense cannot arrive to." In that case the physician has no alternative but to appeal to public opinion, continuing to serve his patient in the manner which he believes to be in the patient's best interest.

Conclusion

That, I say, is how I think we should have stated our case. And so far as we had a chance of so doing, we did. It was a pity that we had no mechanism by which we could express ourselves as a corporate whole. We had no actual Guild. Following a lead by Sir Stewart Duke-Elder, some of us foresaw this plight and urged the formation of an Academy of Medicine, a body which would receive the unquestioned confidence of the Government, the people, and the profession. We failed to get support. So, scattered in different camps, we were taken off our feet. Precipitate action was the order of the day. Action, as Dr. Walshe reminded us in his recent Harveian Oration, is easier than contemplation. Many of us were hustled into this premature action against our better judgment. Almost we became politicians by *force majeure*.

I like to think that were Osler with us to-day he would resist the allurements of the song of the siren of Politics and even, if need be, order his sailors to bind him to the mast of his ship until the danger was past. It is clear to me, from talks I had with him as well as from his published essays, that an attitude of dignity and calm detachment would have characterized this great custodian of Medicine in face of the threat of political pressure.

I have more than once, in my own fashion, preached this gospel. "It is paramount that we remain detached from the general clamour . . . political clamour, the clamour of 'left' and of 'right.' For Medicine there can be no left or right. For Medicine there is only expert knowledge and a rooted adherence to truth. . . . Detachment, public confidence, courage—these are the essentials that enable Medicine to make its contribution to the common Health and Happiness."

One of the finest tributes to the heritage of which we are the trustees was that of Karl Marx: "For thousands of years," he said, "Medicine has united the aims and aspirations of the best and noblest of mankind. To deprecate its treasures is to discount all human endeavour and achievement as naught."

As a humanist I passionately want to see this great heritage placed at the disposal of my fellow men. It is a pity that the present effort of the State to bring this about has so largely failed of its purpose. It might have been a great success. We must still labour to make it so.

The work during 1947 of the Water Pollution Research Laboratory is described in "Water Pollution Research 1947," published for the Department of Scientific and Industrial Research by H.M.S.O. (price 1s. 6d., by post 1s. 8d.). The report of the Board deals chiefly with the results obtained in some of the investigations made. The report of the Director of Research gives a more complete survey of the work on the treatment of water, sewage, and industrial effluents, and on the effects of pollution of natural waters. An appendix gives references to papers published during the year in scientific journals describing some of the investigations in detail.

VENOUS THROMBOSIS AND ANTICOAGULANTS

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Venous thrombosis and pulmonary embolism are common occurrences in all branches of medical practice, and are conditions which cause prolonged disability or sudden death. In recent years both pathologists and clinicians have demonstrated that the usual site of origin of venous thrombosis is the deep veins of the calf. It has also been shown that venous thrombosis can be prevented, and that when it does occur effective treatment can be given.

This paper deals with 100 consecutive patients requiring anticoagulant treatment. They have been drawn from 17 of the 23 wards of the hospital over a period of 20 months. Its purpose is to indicate the frequency of venous thrombosis, to discuss its early clinical features, and to show that anticoagulants are an effective method of treatment.

Incidence

Venous thrombosis and pulmonary embolism occur more often in medical patients than is generally realized. In a series of necropsies on cases of pulmonary embolism Hampton and Castleman (1940) found that 60% were in medical patients and that one-half of these had suffered from heart disease.

Bauer (1946) found that, out of 804 cases of thrombosis from ten of the largest Swedish hospitals in the year 1939, 56% came from medical wards. In the present series 42.5% of the cases of thrombo-embolism were medical, 35% were obstetric, and 22.5% were surgical. The distribution of the 85 cases of venous thrombosis and pulmonary embolism, and of the 15 cases treated prophylactically, was as follows:

Aetiology of 100 Cases Treated with Anticoagulants

Treated cases of thrombo-embolism (85):

Medical (36):	
Cardiovascular (cardiac infarction, 9; heart failure, 4; angina pectoris, 1; old apoplexy, 3)	17
Previous leg thrombosis	4
Pneumonia	3
Carcinoma	2
Axillary vein thrombosis	2
Other conditions	8
Surgical (19):	
Gynaecological (hysterectomy, 5)	7
Appendicectomy	2
Herniorrhaphy	3
Other operations	7
Obstetric (30):	
Normal delivery	9
Forceps delivery	5
Caesarean section	3
Other abnormalities of childbirth, toxæmia, post-partum hæmorrhage, etc.	7
Abortion	5
Pregnancy	1
Prophylactic treatment (15):	
Myocardial infarction	7
? Developing thrombosis	5
History of previous thrombosis	3

Development of Venous Thrombosis

Most textbooks state that pulmonary emboli are secondary to thrombosis in the pelvic or femoral veins, upholding the view put forward by Virchow a hundred years ago. However, a number of workers have shown that in nearly all cases of venous thrombosis the process, although often spreading to the femoral veins, begins in the deep veins of the calf. From a series of necropsies Frykholm (1940)