

# MEDICINE TOMORROW

SEAH CHENG SIANG

## INTRODUCTION

Since the late 40s, Medicine in Singapore has undergone much change both in practice, as well as, in the patterns of diseases. As a house physician in 1951, the common conditions dealt with were infections, like malaria, pyogenic diseases, amoebiasis and pneumonia. One can still remember also the adolescents with acute nephritis and rheumatic fever. The degenerative diseases were not common.

Times have changed. Today, hypertension, coronary heart disease, cerebral vascular accidents, peptic ulcer and chronic diseases of the liver and kidney hold sway.

Medicine tomorrow, another 25 years on, with the advent of the 21st century will again have changed. The change and its extent may be difficult to envisage. Indeed, it will be difficult to look into the future with any accuracy beyond ten years, as in most other aspects of human life. I am no Kahn or Toffler. Whilst prediction is difficult, another approach to this subject will be to attempt to plan the possible roads which can be taken towards the important fields of Medicine tomorrow.

I will therefore deal with some of the important frontiers of Medicine today and map out some desired or possible directions to take. Obviously, the horizons are very wide and I shall be only selecting certain portions of it for discussion.

## THE SPECIALTIES

There is no denying that the last two decades saw rapid advances in the specialties. With specialisation and new knowledge successful treatment of hitherto severe diseases, can now be effected. Specialist skills can be employed to prolong life for previously rapidly fatal conditions. These facts, however, have raised difficulties.

Contemporary specialised medicine needs a large number of personnel of many different kinds, working in a

Department of Medicine (III),  
Singapore General Hospital.  
Prof. Seah Cheng Siang, MD, FRCP(E), FRACP  
Clinical Professor of Medicine,  
Senior Physician and Head

new and close relationship. Teams are therefore often involved in the care of a single patient. While it is true that many heads are better than one, the corollary is, indeed, a hazard of many cooks spoiling the soup. Thus, in my 1973 SMA Lecture, I touched on this danger of over-specialisation which can be very real; each ant or bee, whether worker or drone, can now perform only a limited task, but who is queen? The answer to this question is vital to the sick one. The group will have ultimately to delegate its responsibility to one person; and that person ought to be someone of wider range in knowledge than most specialists.

This matter is of immediate concern. In the years to come, therefore, there will be an increasing need for someone capable of looking after the patient's interests in specialist units just as comprehensively as a well-trained general practitioner can look after him at home. In short, if I may put it in another way, the education and training of good general specialists is a matter of urgency, *pari passu* with the development of doctors trained in the narrower specialties.

Specialised medicine, up to date, has advanced mainly at narrow points rather than on a broad front. More and more machines and skills are available for the prolongation of individual lives. This in itself has raised the problem of the timing and the right of death. Long ago, Voltaire did raise the same question by asking, "Who are we to say whom and when should die?" Medicine tomorrow will have to decide on this. Morals aside, it would appear that although technical advance has made the prolongation of life, even vegetative living, a possibility, the true value is suspect.

The trend for the future specialists is to be involved more and more with machines, and measurements. In training and in practice, this draws the specialist away from the humanistic aspects of the sick. Obviously, it is difficult to measure discomfort and pain, anxiety and depression, agony and anguish. Yet, the assessment of these modes of suffering is essential. The specialist of tomorrow must not lose sight of this. Knowledge in this cannot be taught by technocrats. A sensitivity to these immeasurable qualities will have to be developed in the future specialists if this art is not to be lost. Already, the indications are that there has been a waning of this trait.

## LABORATORY MEDICINE

About 40 years ago, the antibiotic era of Medicine emerged. This has been followed by advances in

laboratory technology and the arrival of sophisticated, automated machines so that the era of laboratory medicine has been established. Faced with multiple problems in a patient, today's doctor can at once turn to the laboratory for diagnostic assistance by the easily acquired habit of embarking on numerous laboratory tests whether really pertinent or not. In essence, the doctor hopes that by throwing a wide investigatory net, a significant catch can be effected. This takes a short-cut, bypassing a careful evaluation of the patient's symptoms and then to be followed by indicated investigations only.

This trend will grow since increasing laboratory facilities are becoming rapidly available and in an ever-widening scope. To resist the temptation of over-laboratory investigations, in the future, will become even more cogent and will need more emphasis, than of now.

Another consequence of the rise of laboratory medicine, is a further problem. The doctor, in his education, has not been adequately trained in the analysis and collation of data streaming from technicians, biochemists, physicists and other scientists. The significance of laboratory results has thus often been missed. Medical education tomorrow, both at under- and post-graduate levels, will have to be geared accordingly.

Laboratory screening of the healthy is another facet to consider. The tenet of this practice is the hope of early detection of disease manifested by biochemical change, in asymptomatic individuals. The last decade has shown that this hope has not been fulfilled. It has been demonstrated that by periodic biochemical monitoring, a significant change occurred only rarely, and this at tremendous cost. The lesson for the specialist is clear. Equal care and attention need to be devoted still to listening and examining the patient.

The advent and adaptation of the computer in Medicine was acclaimed, initially and unconditionally. With the passage of time, it is now obvious that the computer has its uses only in certain areas, like the laboratory and radiological departments. In the clinics it has its limitations. Thus, the computer facing a patient, although able to collect definitive and useful data, cannot measure important clinical observations like general appearance, gait and emotional changes in facial and linguistic expressions. There is also the language of the hands. Costs can also be prohibitive. Thus, it is no surprise that some clinical departments have abandoned the use of a computer.

The foregoing are indications that the development of medical technology has reached a stage of maximal usefulness. Indeed, the pendulum is about to swing back towards the well-tryed dependency on close doctor-patient relationship. This is a reversion to trained human skills rather than to mechanised expertise.

Laboratory medicine will still be a useful hand-aid in the future but not in the elevated position of master as at present.

### AN ENLARGING PHARMACOPOEIA

Medicine today has another hallmark, namely, the emergence year after year, of new drugs. New drugs for the Old seems to be the order of the day, but one must consciously remember that the new is not necessarily the best. The habit is to acclaim the new and yet a few years after introduction, the sad story is reported of side-effects, interaction with other drugs and in many cases, a complete withdrawal from the market. This is not to decry some of the newer drugs which have in the course of time been proven to be useful but to emphasize the point of exercising caution.

The search for new compounds will go on, at a pace maintained and predictably accelerated by large international corporations, motivated mainly by economic gain. There is no denying this. Doubtless, there will be some results which will benefit patients. The profession will have to learn to sieve from this plethora of pills, the chaff from the grain. How can this be effected? Whilst experimental animals provide useful indications and prevent the issue of poisonous drugs, the next stage of trial leads to human subjects and this is a borderland for controversy. Is human experimentation justifiable? Human therapeutic trials can only be embarked on after very careful assessment and this is only with the consent of each individual subject.

### CARE OF THE AGED

The proportion of the aged in the population of many countries will increase with time. In between the years 1961 and 1968, the pensionable population in U.K. had risen by 2 million to 8.5 million and the number of people over 75 had increased to 2½ million. A recent Scandinavian projection saw a need for residential care of 10 per cent of the elderly. 25 years on, in Singapore, there will be tens of thousands. Medicine tomorrow must cater for their needs. The correct twin approach is to rid of the popular mental image of

an aged person sitting in his rocking chair, useless and decrepit and at the same time maintain the view that many of the illnesses of the aged are, in fact, remediable.

Instead of regarding the aged as passive individuals and therefore requiring constant help, activation of the healthy aged is best. Witness the sextagenarians to octogenarians in the corridors of power in various parliaments, the aged authors, scientists, artists and philosophers. The old should be encouraged to be active rather than relegated to institutions, accepting the inevitability of death. Whatever life is left should be lived to the full.

The doctor's approach to the aged sick needs to be altered. It is fatal to turn one's back and assume that most symptoms are incurable. What is thought to be permanent deafness can be due to easily extricated hard wax, chronic intestinal obstruction due to removable impacted faeces, mental change due to folate or Vitamin B12 deficiency and weakness from Parkinsonian rigidity now easily ameliorated by drugs. It is well to remember that the aged sick can be put back to the road of health.

### THE PROFESSION'S MAJOR ILLNESSES TODAY

At this juncture, it will not be out of place to examine what is ailing the profession today. This having been done, Medicine tomorrow will be in a healthier state.

The profession has been divided into a private and public sector. This divisive effect has created the "holier than thou" attitude held by one or the other, heightened by righteous indignation. There is no place for this in Medicine. Each doctor in each area has his own pertinent role and therefore there is no necessity for comparison.

Another major illness is the "commercialisation" of medical practice, with economic objectives set as important goals at the expense of the doctor-patient relationship. For example, massive practices are built up after acquiring numerous contracts from firms. One doctor, in fact, held a captive population from more than a hundred business houses. I cannot see how this contractual practice can promote the bond between patient and doctor. The plea here is for true family practice as in days gone by.

The current illness in hospital doctors is that of "institutionitis". The trend is for the formation of large medical institutions, paralleling that of business, like the multi-national conglomerates.

In large hospitals, depersonalisation of the patient and staff gradually affect human behaviour. Motivation declines and apathy sets in. A lack of personal interest prevails and again, the doctor-patient relationship suffers. These lead to the threatened reduction of human to veterinary medicine. These are the symptoms of a disorder, the prevention of which will have to be worked out for Medicine tomorrow.

The "socialisation" of Medicine is another illness. Governments and politicians have always taken it as right and as well as prudent, to dish out health services, in different proportions in different countries. The changing world will see the state wanting more and more to contribute to the preservation of health. Albeit wise, this is beset with difficulties. The classical example is Britain's National Health Service which, since its inception, has always involved doctors and authority in a tangle.

I feel that, for Medicine tomorrow, some of the present-day services provided by some governments can go. Some of these fields are the function for the well-trained family doctor. However, any consideration for an area that might be hived off from the service can come up against difficulties, for example, the fear that those needing the service most may not get it.

### **MEDICAL EDUCATION**

I now draw your attention to the foundation stone of Medicine tomorrow, namely, today's medical students and their education. With the foregoing

in mind, it is clear that undergraduate education needs certain changes.

With the advances of specialisation and laboratory medicine, the future doctor will have to be taught to be capable of the synthesis of science, adept at the interpretation of data and sensitive to the interaction between patient and physician and disease. Coupled with this, the student shall be taught to learn to care. The humanities have been subjects long neglected in the curriculum. There is a need for the inculcation of respect for life and for patients, as persons. And to educate such a doctor, the medical school must preserve the environment of learning; it must foster inquiry, resist dogma and accept as a primary educational objective, the learning of the skills required for the doctor of tomorrow.

"What is it that thou ask of me? Of what dost thou crave?" asked the poor ghost from the unquiet grave. So might our profession ask now of the people. It may be that the profession is not offering the people the sort of Medicine which they want. The future may well be even more complex. Let our hopes run high. Problems, there are and changes there will be but take thought when introducing change. It is important that the advances of Medicine be integrated into larger, intellectual and social systems of co-operation.

The greater our capacity to control our lives and destiny, the greater is our need for a humane definition of life. And this above all, is not human life—life which is accepted, loved and lived to the full.