The President of the Singapore Medical Association, Dr Khoo Chong Yew, the Council of the SMA, distinguished guests, colleagues, ladies and gentlemen:

I would like at the beginning of this lecture to thank most sincerely the President and the Council of the SMA for having conferred on me this most singular honour of delivering the 1986 SMA lecture. By tradition a senior member of the profession has been invited to deliver this prestigious lecture on a topic pertaining to the practice and ethics of medicine. I am mindful of this great honour and I hope that I will do justice to the task of keeping in focus the moral force in the practice of what is still considered to be a noble profession.

The topic I have chosen may need a little explanation. Perhaps all of us feel we know what excellence means. It is the best of something; that it is the highest class in a grading or ranking; that there is nothing better than excellent; it is just first class or first rate. An Indian scientist and educator, Dr Sudarshan, speaking at a recent convocation stated "Excellence is not a zero sum game in which one person's gain is at the cost of another person's loss — Excellence is certainly not restricted to higher education but those who have had the good fortune to undertake higher education have a social contract to seek excellence, to grow in knowledge and to propagate that knowledge". It is important to recognise the key concept that the pursuit of excellence should not be regarded as one-upmanship or at the expense of anyone but as a driving force for self improvement that in its passage benefits everyone.
THE SINGAPORE MEDICAL SCENE

Medical education began in Singapore in 1905. In 1920 the local diploma was granted recognition by the General Medical Council of the United Kingdom indicating that our standards were equivalent to that of medical schools in Great Britain. In 1950 the University of Malaya was incorporated and medical education was on an University level with the MBBS (Malaya) replacing the LMS (Singapore). The medical school became the Faculty of Medicine but the name of the University underwent changes to the University of Malaya (in Singapore) to the University of Singapore and now it has become the National University of Singapore. Each change saw growth but with the Faculty of Medicine finally moving over to Kent Ridge in 1985 and with the establishment of the National University Hospital, we should be poised for greater advances in medical education and research. In the Medical School of 1905 the teachers were Government servants but gradually with the establishment of a Faculty of Medicine of the University of Malaya, strong University departments in various broad specialities grew as part of the development of the Faculty.

ADMISSION CRITERIA INTO THE MEDICAL FACULTY

Our system is based on meritocracy and if this were to be practised fairly then it should breed excellence. Unfortunately there is one notable field where the principle of meritocracy is not practised. Until recently, one obtained admission to the Faculty of Medicine solely on the results of the HSC examination. The best students of the science stream usually enrolled in the Medical Faculty. The University administration/Government felt that because of this trend, the other disciplines were not obtaining their fair share of talent and it was assumed that this state of affairs could have serious consequences for the country. As a result of this, the admission criteria have changed. As I understand it only 15% of the cream of the Science stream can get into the medical faculty. Furthermore, to add to the heartbreak for the aspiring student, the selection of this 15% appears to be by an interview which has so far not proven to be able to really select those best suited for a career in Medicine. There are some who feel that perhaps only a small group would merely ballot or draw lots and save a lot of time and heartache. Moreover it is also well known that in spite of having women’s rights entrenched in our constitution the maximum number of women that can be admitted into the Medical Faculty is not more than a third of the enrollment. This is because of what is termed a wastage of manpower in that many married women doctors are not as economically productive as their male counterparts and the country cannot afford the luxury of giving women an education in Medicine.

In my view one of the chief factors in the progress of western civilization was the extension of equal rights and equal educational opportunities for women. The benefits of an educated mother are transmitted to the whole family and through the family to society at large. Women interact more intensively in the social milieu in matters concerning health and the family. The experience of countries with significant female participation in the medical profession has so far been positive and in these countries community health has benefitted greatly. There is therefore much to be said for restoring to women the equal opportunity to study medicine which they enjoyed previously.

To my mind these restrictive practices can only lead to a fall in excellence in the quality of our medical students. The second deputy Prime Minister has rightly remarked that every Singaporean will be given the opportunity to develop his/her potential to the full.

Many a bright young man/woman wanting very much to be a doctor may well ask why not review the admission criteria again. The more well to do can still bypass the system and go overseas but the poorer brilliant student must go through life feeling that our society has punished him/her for trying to excel.

WHAT IS EXCELLENCE IN MEDICINE

When we ask around as to how one defines excellence in Medicine one is bound to get innumerable definitions. To the layman or patient, excellence means that whenever he/she falls ill he/she will get the most careful attention from a skilful, informed, intelligent, honest, responsible and compassionate physician whose sole aim would be to get his/her patient well irrespective of the demands on his/her time. In the private sector this must be at a reasonable cost to the patient. In the public sector the doctor is expected to sacrifice his/her other pursuits, be they in research or teaching or administration and forgetting leisure and family and place the welfare of the patient above everything else. Singaporeans should perhaps derive great satisfaction in knowing that we do have a comprehensive health service and have progressed from a position in 1950 when the biggest cause of death was Infective and parasitic diseases (21.5%) to a point now when cancer and heart disease are the major causes of death — a pattern seen in the advanced nations of the world. We take much of the excellence in medical care for granted and one has only to travel to other developing countries to be made aware of what we were like a few decades ago.

FAMILY MEDICINE

The recent sub-committee report on medical services which forms part of the report on "The Singapore Economy: New Directions" classifies medical services as an industry that should receive priority for promotion. What is to be promoted does not appear to be Primary Health Care or Secondary Health Care, for example the provision of Health Centres and better facilities for general practitioners who are the mainstay of the "curative" and to a great extent the "preventive" aspects of medicine. While allowing for private enterprise, Government could make available to the general practitioners setting up practices in the housing estates, where most of the Singaporeans reside, specialised ancillaries such as laboratory and x-ray facilities which require high capital cost. It is important for general practitioners to build family practices with closer rapport with their patients and better understanding of their problems and a moderate fee for service will promote this type of practice. Consideration can be given to subsidising the private medical expenses of the unemployed or indigent. If the patient gets a personalised service of this nature there will be less duplication of treatment and better regulated use of laboratory and specialist facilities.

The College of General Practitioners, since its inception in 1971, has encouraged postgraduate and continuing education among the general practitioners. Its present membership is 430. Ideally all general practitioners should seek admission to the College by taking the prescribed courses and to continually upgrade their knowledge. Continuing education and the acquisition of new skills is a life-long commitment in medical practice be it for the specialist or the general practitioner.

SPECIALISATION IN MEDICINE

The great advances in Medicine have come from im-
provement in Science and Technology. The volume of scientific knowledge is so vast that no one can keep up with new developments in every field. Gone are the days of the horse and buggy doctor or the generalist. There is a steady demand for specialist services and the pace of medical development and the advances in medicine inevitably mean that Singapore too will see more and more specialists among the practitioners of medicine. In the near future the number of family practitioners will be equal to or be less than the number of specialists. The present doctor population ratio is 1: 987 and the specialist population ratio is 1: 2665. The doctor population ratio will also see an improve-ment though in the foreseeable future the number of admissions to the medical faculty now close to 200 per annum may be reviewed.

SUBSPECIALISATION/SUPERSPECIALISATION

The development of the institutions of tertiary care has been in the direction of providing more and more specialist services. The key to excellence in medicine is in subspecialisation. As an example if one or two surgeons concentrated on the difficult problems of hip surgery then we will have hip surgeons comparable with those in the developed countries of Europe and North America and Japan. This is because the number of patients with such problems will not be large in Singapore and if all orthopaedic surgeons wanted to tackle such problems then hip surgery cannot be taken to great heights. This is where able leadership and foresight will be needed to pick and train the right people and ensure that they acquire all known skills and knowledge and have the problem cases in their field referred to them. The encouragement of subspecialisation is a path to excellence.

PRIVATISATION OF PUBLIC HOSPITALS

Until recently our public medical service was developed in the British mould with the state taking the initiative and providing for basic medical care at all levels. Now we are witnessing a change to the North American model which has developed in the direction of privatisation of medicine. A rapid transition from one to the other is not in the best interest of the public and the development of excellence in medicine. What is perhaps the most striking development recently has been the re-building of the Singapore General Hospital with over 1,650 beds and the erection of a completely new hospital at Kent Ridge — the National University Hospital (with a provision of 767 beds). Recently it has been announced that the Singapore General Hospital will be privatised in the near future and will operate like the National University Hospital. The Ministry of Health apparently feels that privatisation of these two hospitals will enhance the development of Medicine in Singapore. The Singapore General Hospital and the NUH must aim to emerge as the leading hospitals in Singapore and in the region for postgraduate training and educa-

Whilst agreeing that millions of the tax-payers money is being channeled into these institutions I must question why only in medical education it is necessary to make money for the Institution; in none of the other disciplines, say architecture, engineering, law or even in business administration is it considered necessary to attract business and earn money for the institution. The professors and other academicians in medicine are being encouraged to promote medicine as big business. It is not the management of diseases in the mass that will bring about excellence. The NUH and the SGH should be the places to which all regional hospitals could turn to, to manage the more problematic cases requiring greater skills in manage-ment. The doctor in charge of the patient could be encouraged to continue looking after his patient but the superspecialist brought into the picture will perform the more difficult operations or procedures or have the final say in the medical management. The patient could go back to his own doctor even if he is a specialist after the crisis is over as patients are sent back to family physicians for further management after specialist care. This suggestion will break down the barriers that exist in medical practice today be-tween public hospitals and between the public and private sectors. The superspecialist could be invited to manage patients with consultants in any hospital in Singapore and similarly consultants in other hospitals should be allowed to be part of superspecialist teams at the NUH or SGH for limited or extended periods of time. This cross-fertilization is a vital catalyst to pro-mote excellence. Medical postgraduate training will be enhanced with such team work and the subspeciali-ties will flourish.

But can medicine advance if most of these beds are filled with ordinary run of the mill patients who can be more cheaply and equally effectively treated in the regional hospital which term is being used to embrace even the private hospitals and nursing homes? If this system be adopted there will be a wealth of clinical cases for study as it is in the treatment of problem cases that there are true challenges. New methods of management would emerge if there is such pooling of material and concentration of talent.

UNDERGRADUATE CLINICAL INSTRUCTION IN THE NUH & SGH

How will undergraduate education fare in this con-text? Private patients will not generally want medical students procuring and probing them. Some may not mind this in the interest of education. It should be part of the conditions of admission to public hospitals that patients in subsidized beds (B2 and even B1) should allow medical students to examine them and perform simple procedures on them such as setting up drips, lumbar punctures, wound dressings, etc which will not endanger their lives. The National University Hospital must have a sufficient number of such patients but the major clinical teaching could be conducted by Univers-ity dons and clinical (non-University) teachers in all hospitals in Singapore. The administrators of private hospitals could allow medical students under supervi-sion of the clinical teachers in private practice to ex-amine patients in the private hospitals. In this way there will be no dearth of clinical material for teaching. Many a time former University teachers, now in private practice, have regretted not having one or two students around who could be shown the educationally interesting problems encountered in their practice. There should be no problem in getting consent to discuss the patient with students. Most patients would welcome making a contribution to learning if they did not suffer any real inconvenience. Also this open attitude will serve to upgrade the standard of practice, for the doctor who is not afraid to discuss his patients with others even if they are only medical students is practising ethical medicine. There is greater alertness all round whenever students with critical and enquiring minds are around.
SINGAPORE AS A REGIONAL POSTGRADUATE CENTRE

Though the National University of Singapore awards the higher degree of Master of Medicine in Internal Medicine, Paediatrics, Obstetrics and Gynaecology, Surgery, Anaesthesia, and Psychiatry, the M Sc in Public Health and in Occupational Medicine are the only ones for which foreign students regularly enrol. Even with local candidates the M Med is still not popular enough. Often it is easier to become a member or fellow of one of the Royal Colleges (of Medicine, Surgery, or Obstetrics and Gynaecology). The requirements for the Master of Medicine are perhaps stringent and foreign graduates cannot easily qualify to sit for this examination. This is as it should be to lower the standards would mean that the degree of Master of Medicine, which is now recognised in the Commonwealth as equivalent to a fellowship or membership of one of the Royal Colleges in so far as it allows the holder of such a qualification to proceed further for higher training may cease to have such recognition.

For example the holder of the M Med (Surgery) can enter the course of study for the postgraduate degree of M Ch Orth of the University of Liverpool which course is normally open only to candidates who are fellows of the RCS. What should be done more, to promote medical excellence is to have structured courses in various disciplines to which foreign doctors from the region can be invited. Here I would like to mention that for the last 10 years the Academy of Medicine has been offering fellowships in Orthopaedic Surgery for surgeons in the Asian region, particularly from Asean. To date 35 young surgeons have spent six months each in Singapore gaining further experience in orthopaedic surgery under the Lee Foundation and Shaw Foundation Fellowships. In October 1975 the Academy of Medicine with the support of the Ministry of Health and the University of Singapore sponsored the 2nd International Symposium on Orthopaedic Training in Developing Countries as a result of which a new organisation called World Orthopaedic Concern was formed for the promotion of orthopaedic education and care in the developing countries. World Orthopaedic Concern is registered in Singapore as a charity. Though there are world wide activities going on in this organisation the Singapore contribution is the provision of postgraduate orthopaedic education for the surgeons in training at the Hasanuddin University in Ujung Pandang, East Indonesia. This project is funded by the Lee Foundation. From this year the Lee Foundation will be offering further fellowships in orthopaedic surgery, through WOC, in addition to those offered through the Academy of Medicine. The impact of this close contact with young professionals from the region will have an influence on medical progress in Singapore. I note with great interest and quote the relevant part of the subcommittee report of the "Singapore Economy" namely "to establish Singapore as a specialist training centre to which doctors in the region will be invited or attracted for seminars, workshops and training courses. In future they will look to their Alma Mater to refer patients for second opinions or more complicated treatments." The Academy of Medicine has done this for the last 10 years in one discipline. What is needed is public funding for projects such as this and private efforts by institutions such as the Academy of Medicine. This private enterprise of a non-remunerative nature will enhance our stature as a centre for medical excellence.

GREATER ROLE FOR THE ACADEMY OF MEDICINE

This institution founded in 1957 played a key role in instituting postgraduate degrees in medicine and is linked with the School of Postgraduate Medical Studies of the National University of Singapore. Nearly all specialists from the private and public sectors who have attained the required maturity and experience have sought admission to membership of the Academy. There are now 581 ordinary local members in the 7 chapters of the Academy. The Academy is moving soon with the College of the General Practitioners into the old Faculty of Medicine Building in College Road. The Academy has played a major role in postgraduate and continuing education and can do much more if the membership will rise to the challenge. The Academy has established a roll of specialists in various disciplines of Medicine. Today in Singapore anyone who is registered by the Medical Council can call himself/herself anything he/she pleases and practise his/her specialty and all kinds of abbreviations can be appended to one's name, some reputable, some not so reputable. Only when something goes wrong and the patient sues the doctor or when a colleague who is concerned about medical ethics will report a case of negligence or malpractice can action be taken against the offending doctor. There is nothing better than peer review and it is time the role of the Academy as the best peer review group for specialists be accepted widely. The public may demand of someone calling himself a specialist in something or other to produce a certificate to that effect from his peers in Singapore, in this case the Academy of Medicine. One private hospital has asked the doctors using its facilities to set up a Medical Advisory Board and various committees such as a Credentials Committee, Quality Assurance Committee, Continuing Education Committee, and a Tissue Committee have been formed. Doctors seeking privileges in this hospital will first have to pass a peer review. This is a step towards excellence in medicine in the private sector.

IMPORT OF EXCELLENCE

Much as we would like to welcome top men to practice in Singapore one would not like all and sundry to walk into Singapore and claim expertise in various fields. Short term appointments of top specialists to teach local doctors only works to our advantage. What is needed is the development of our own excellence. Bright young doctors seeking to specialise say that they are not being given the full encouragement they deserve. There should be established a manpower training committee directly under the Minister for Health with representation from the Ministry of Health, the National University of Singapore, the Academy of Medicine and the College of General Practitioners.

FUTURE RESEARCH

While it might be thought that it is the University that is the seat of learning it must be admitted that many research projects can be undertaken even by those in the private sector to more be encouraged given to all bright young doctors to produce a thesis leading to a Doctorate in Medicine or a Ph D in Medicine. In my own discipline of 3 local theses have been produced and it is hoped that many more will be forthcoming. Many excellent papers have been written from Singapore and new techniques have been
developed. Even new medical conditions have been described from Singapore. This shows that local talent is not lacking and we should work harder at giving the best opportunity for our own flowers to bloom. Now and then we read about our countrymen/women making brilliant contributions overseas. We would like them to return home and continue with their work there. The Medical Services Sub-Committee Report recommended the setting up of a Medical Research Department. This should be a Foundation with representation from the NUS, the Academy of Medicine, the College of General Practitioners and the Ministry of Health. Doctors too have a vested interest in the development of medicine and all doctors should contribute generously to this Foundation. Perhaps a professional skills development levy can be introduced when the time is right and the money utilised for the furtherance of medical research in Singapore. Now that the Medical Faculty has been sited at Kent Ridge the already developing cross fertilisation between various disciplines will progress further. The proximity of the Science Park to the NUS and NUH and its aim of attracting academic participation in industrial and scientific development should have a beneficial influence on medical progress.

THE DEVELOPMENT OF NURSING AND ANCILLARY SERVICES

Because of a short period of muddled thinking in the recent past when it was insisted that before one is allowed into the SRN programme the nurse-in-training must get an assistant nurses certificate, Singapore is suffering an acute shortage of nurses, especially now when new hospitals are opening up. However hard the School of Nursing may try, it is going to take a while to set this right. Perhaps the time has come to start thinking of a degree in nursing in the National University Hospital. There was resistance in the past to the setting up of a School of Physiotherapy and again we have a shortage of physiotherapists. In fact if our standards are high and the training is good we can attract good candidates from neighbouring countries and not be afraid of over producing physiotherapists or nurses. Better nursing and ancillary services are important elements in the excellence of medical care.

CONCLUSION

In conclusion I must stress that we must however resist the concept that medicine is merely an industry, that doctors are providers of services (products) and that patients are consumers and that we should resort fully to business practices of competition, marketing and advertising. Finally as I grow older and approach the 6th decade of my life I begin to appreciate that just as pediatrics was earlier developed as an important discipline when our population was relatively young, now we have to push to have geriatrics as an important discipline, to be developed rapidly. The senior citizens, which many of us have become, will need adequate and efficient care if we are not to burden our young with sickness and ill health. Just as we have "well-baby clinics" we could have "fitness clinics" with regular medical advice on how to remain holistically well with sound minds in sound bodies not senile minds in decrepit bodies.

It is obvious that excellence in medicine is not a quantifiable entity. It is a multi-faceted problem from the provision of sophisticated hospitals fully supplied with high-tech equipment and personnel able to use the machines and yet retaining the human touch. We are not too far behind in most things and want to be in the forefront, the cutting edge of advancement. We must learn that team work is the essence to good care in many situations. The ability to work in groups with the sharing of experience and expertise is important. Ours is not a profession in which we can reap rich financial rewards nor should this be our aim. Yet in our search for excellence the tangibles and intangibles come into play but ultimately the performance of the profession as a whole will determine the progress medicine will make in the next few decades.