

The Singapore Family Physician



ISSN 0377-5305

**The
College of General
Practitioners Singapore
Vol. IX No. 4
October/December 1983**



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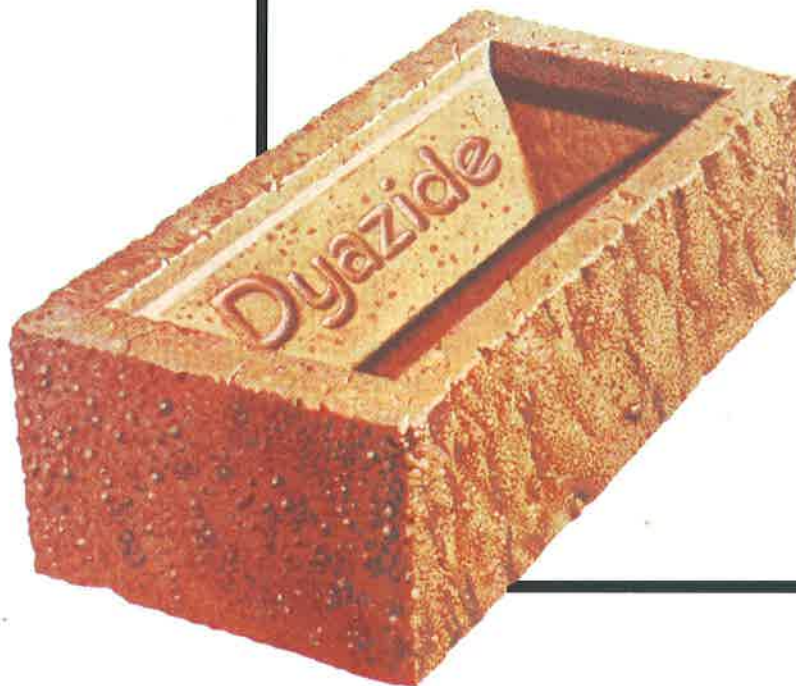
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Vol. IX, No. 4

October/December 1983

Price to Non-Members \$5.00

MC (P) 94/3/83

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Standing (from Left to Right): *Drs Moti H Vaswani, Paul Chan Swee Mong, Leong Vie Chung, Michael Loh Peng Yam, Goh Lee Gan & Henry Yeo Peng Hock.*

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6 months to 5 years		
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For detailed prescribing information please consult the packing slip or The (Roche) Vademecum.



References

- Deschamps, J. P., Gegout, G., Pierson, M.: Utilisation du «Bactrim», «suspension pédiatrique», dans 120 maladies infectieuses du nourrisson. *Ann. méd. Nancy* 12, 1167-1170 (1973).
- Data on file, F. Hoffmann-La Roche & Co. Limited Company, Basle, Switzerland.

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Editorial

Shifting into Second Gear

The first twelve years of the College have been both momentous and memorable ones. The concept of primary care has been accepted by the medical profession as a whole, and is no longer looked upon as a rather esoteric concept to dress up an old and well-worn branch of medicine, that of general practice. No one to-day disputes the place of the primary care physician in modern extra-institutional medical care. There is therefore no longer the need to continue to harp on old themes, no need to be apologetic for our existence, no further need to preach to the converted. We must move on to new ground.

This view is echoed in the observations of Dr George Beaumont in his comments on the last WONCA meeting in Singapore. He deplored all the time and effort spent during the meeting on trying to establish and decide on who we are, what we should be doing and how we should all be trained to do it. Too many GPs are ashamed of what they are, and carrying a chip on their shoulders that prevents them from holding their heads erect and getting on with the job.

There is a place in the sun for every kind of physician, irrespective of his genre or plumage. The specialist's forte is his depth of vision, the primary physician makes up for this with his breadth of vision. They both complement each other.

The time has now come for the College to shift into second gear. It has done well in establishing the need of the medical profession here in recognising primary care as an important and fast growing field of medicine. It must now establish the main *raison d'être* for the existence of the College. If it were merely to improve standards in general practice, giving general practitioners better "core" knowledge, then there would be hardly any need for the formation of a separate college for this exercise. Critics of the college have said that this could be done by in-depth or refresher course run by the University or the Post-graduate School of Medicine and they wouldn't be far wrong.

If the aim is to improve the core knowledge of our members we must ask ourselves what is this core knowledge that we hope to improve. Do we mean in-depth study of medicine, surgery, obstetrics and other allied subjects, or do we mean in-depth study into general practice?

If we mean an in-depth study into general practice, what is there to teach and learn? A

separate academic body is only justified if there is some pool of knowledge peculiar only to that discipline which its members wish to study and disseminate. Such specialised knowledge cannot be taught by those from other disciplines, only the people who have studied the problems in the discipline will be knowledgeable enough to teach others in the same vocation. If these conditions are not present, then there is no justification for the separate formation of a college. In 1845 the general practitioners then were not able to convince the rest of the medical profession that there was such a need and therefore failed to form a college of their own. In 1952 in the United Kingdom, John Hunt and Alan Rose were successful in arguing their case and the British College of General Practitioners was formed.

The task is daunting but not impossible. William Pickles was a simple country doctor, but his work on the epidemiology of scarlet fever showed him to be a giant amongst his colleagues. Many general practitioners have despaired about doing research, blaming the paucity of research facilities for their inability to do so. They should take heart from the impressive work of Dr G I Watson, another rural general practitioner. His book on epidemiology and research in general practice should serve as an inspiration to all.

There are many fields the general practitioner should be most adept in. He sees more coughs and colds than the average chest physician, deals with more cases of mumps and measles than most paediatricians, does out more family planning pills than most obstetricians, and counsels more cases of emotional disturbance than most psychiatrists. Yet he is hesitant to make his views and observations known, and we are all the poorer for this reticence.

Not all research will lead to a Nobel prize, but this does not mean that simple observations do not have their use. Time is a great teacher, and observations made over a period of time tell many things about the natural history of disease. Anyone who watches a sunset long enough will come to the conclusion that as surely as the sun sinks below the horizon, it is bound to come up again the next day. That knowledge enables us to plan for the next day, and the day after next.

We must establish our own fields of expertise. This may lie in the natural history of disease, in the spread of common ailments, in the impact of ailments on the lives and life-styles of those

who suffer from disease, in the care and management of our patients and their families. We must teach ourselves what other members of the profession cannot teach us, not because they will not but because they cannot. It is our job to probe that part of the iceberg which is below the surface of the water. We cannot expect others to do our job for us.

In a very modest way the College has in the past been conducting field studies and research programmes on its own. Every iota of information so gathered is of use and interest to general practice. The recent survey on the general practice profile puts on record facts many of us have suspected for years. A study of surgical scars seen in patients focusses attention to the problem in general practice.

We must make brave new efforts in the field of recording data and research. We must not allow ourselves to be intimidated by the magnitude of the task, nor humbled by any inability to make world shaking discoveries. Many a good cause is lost by mere default. If we believe ourselves to be unequal to the task, then we will be proven so. We must have the vision to view the problems confronting us in their correct perspective and we must have the grit and stamina to do things for ourselves and by ourselves. If we fail to stand up for ourselves then those who have said that we do not deserve a college of our own will be proven right.

And that sad state of affairs must never be allowed to come to pass merely for the want of trying.

EK

Views expressed in the Editorial are not necessarily the official views of the College.

President's Address at The Ninth Convocation & Dinner & Sixth Sreenivasan Oration

DR H S WONG MBBS, FRACGP, FCGPS

Tonight's College function with its trappings of academia is a reminder to our members and friends as to the reason for the founding of the College.

There has been a void, since the founding of the medical school, in the professional and academic upgrading of a large group of doctors who have gone into general practice. Apart for a few who attended an occasional lecture or medical meeting, conducted almost entirely by institutional doctors or specialists, the great majority of general practitioners and family physicians were left on their own to practise a form of medicine that was last taught to them when they left hospital practice. The few who sought to upgrade their knowledge and skills were not always enlightened, as institutional doctors and specialists were often not conversant with this field of practice.

There were early attempts to remedy the situation. The Society of General Practice did a commendable job in the 1960s. The Society was not an entirely academic body. It later expanded its membership to include specialists in private practice to become the Society of Private Practice, and its functions include looking after members' non-academic interests.

Twelve years ago the College was founded as an entirely academic undertaking. Its sole objective was to upgrade and maintain professional standards of general practice and family medicine, and to develop the teaching and training of this very large field of medical practice.

The medical school to date has yet to provide proper teaching and training in this field which involves no less than half of Singapore's 2200 doctors. Yet strangely enough, for an ultra-speciality like nuclear medicine which presently boasts of less than five practitioners, training is available.

The College realised that one of the reasons for the inertia in remedying this gap was the ignorance of the medical teachers of the needs in the training of the family doctor. The answers therefore had to be provided by ourselves. This is one of the reasons for the founding of the College.

There is a view recently published in a newspaper column that general practitioners and family physicians are middle-men in the delivery of health care. I cannot imagine the hard-headed leaders of Singapore would spend hundreds of thousands of dollars for the training of each doctor,

knowing full well that statistically half the medical school intake will eventually go into general practice to become so-called middle-men. The 1982 figure for the training of one medical student was \$37,600 per year, or if this is extrapolated to the full 5 years course, \$188,000. This is what the taxpayer has to pay in recurrent costs not including capital costs, and the figure rises with rising costs each year. If all that is expected of the general practitioner or family doctor is to perform the role of the middle-man referring cases to the appropriate specialties or specialists, we are wasting millions of dollars overtraining people for tasks which could have well been undertaken by the lesser trained. Experienced nurses with some training at a far lesser cost can cope in the sorting out of patients. Indeed I am told they are already doing a very good job of this nature at various government polyclinics.

A look at the health statistics should dispel the notion that general practitioners and family doctors are no more than middle-men. The Blue Paper on the National Health Plan published in February this year states that based on "A Survey of Private Practitioners and Private Medical Clinics", an estimated 14 million consultations were handled by all outpatient clinics in Singapore in 1980. The majority of these, estimated at 10 million consultations, were handled by private medical practitioners. The total government hospital admissions for 1980 were 234,500. This figure included 53,000 in the Kangkar Kerbau Maternity Hospital, the majority of admissions being normal delivery cases. In other words, of the 14 million outpatient consultations only two hundred odd thousand needed hospitalised care in all the government hospitals, a figure of less than 2% of the total consultations by both the private and the government general practitioners. If we take into consideration all possible referrals including those not hospitalised, and those who went to the private hospitals, the figure should not exceed 10%. It would therefore mean that the average family doctor or general practitioner looks after most of his cases in actual fact, more than 90% of his cases. Surely the term middle-man is a gross misnomer.

I do not doubt there are a few who do the minimum for their patients. Such a situation is by no means peculiar to general practice. It can also occur in specialist practice, and in the other professions. But one cough does not make a

cold, neither does one errant general practitioner make general practitioners middle-men.

Notwithstanding what was said the Singapore general practitioner or family physician can certainly do more if he is properly trained. There is a wide disparity in the range of work by general practitioners. Any medical doctor in Singapore can go into general practice as long as he is registered, irrespective of his subsequent training or working experience. Thus, a newly qualified doctor who just finished his compulsory internship has as much right to do general practice as another doctor who may have spent many years gaining experience in different clinical disciplines. So can a doctor who never practised clinical medicine since he was first registered. There is therefore a wide disparity of standards and range of practice. If the Singapore general practitioner is overtrained for the role of the middle-man he is at the same time undertrained for the job he is meant to do.

Thus the founding of the College. The College does not claim to provide, and is incapable of providing, all the solutions, but it can identify and highlight the deficiencies of the training of the Singapore general practitioner or family physician.

Ladies and gentlemen, what I have said above is not new. It has been said before and undoubtedly it will be said again.

Tonight we are honouring the memory of a great family physician of Singapore, and the first President of the College. We are glad the family of the late Dr. B.R. Sreenivasan is here, to hear the oration named after him. The orator, Dr. V.L. Fernandez, has served with great distinction as President of the College for the past 3 successive

terms. It is only fitting that the College invite him to deliver the Sreenivasan Oration for 1983.

The annual examination which normally precedes this function has to be postponed this year. We are however conferring the fellowship to Dr. Lim Kim Leong whom the Council and the College found eminently worthy.

This year's prestigious Albert Lim Award for outstanding services to the College is given to Dr. Tan Cheng Lim. Dr. Tan has done much for the College in his quiet way. Unassuming and modest by nature he has never failed to respond to our needs.

The other awards, no less prestigious, are given to our friends and colleagues whose contributions have helped the College to become what it is today.

I would be committing a major omission if I did not mention the magnificent work done by the previous Council in the preparation of the 10th WONCA World Conference in General Practice/Family Medicine, the first ever held in South East Asia for rather East Asia in May this year. The main credit for its outstanding success must surely go to the Organising Committee comprising Drs. Alfred Loh, Victor Fernandez, Lim Kim Leong, Fred Samuel, Paul Chan, Moti Vaswani and Goh Lee Gan.

Ladies and gentlemen once a year the College presents itself to the public. We use the occasion to thank our benefactors and helpers. We also use the occasion to tell the public our aspirations and expectations. We hope you will help us to achieve our objectives.

Thank you very much for coming.

The Sixth Sreenivasan Oration

TWENTY-FIVE YEARS IN RETROSPECT:
FROM GENERAL TO FAMILY PRACTICE

DR VICTOR L FERNANDEZ MBBS, FCGPS

I am honoured to have been invited by the College of General Practitioners Singapore to deliver this Sixth Sreenivasan Oration, and I wish to thank the Council of the College for the invitation and Dr Frederick Samuel for his very gracious introduction. It is indeed a singular honour, but I must admit that I am anxiously aware of my own inadequacies. Many may deserve it more, but no one can appreciate it more, for Dr Sreenivasan was not only my teacher but also my mentor and guide.

The life of Dr Sreenivasan, the Founder President of our College, was both remarkable and inspiring. The main principles that guided his life as a Consultant Physician and later as a General Practitioner can still guide ours to-day. His work as a Consultant Physician was very obviously different from his work as a General Practitioner and over the years he proved that the specialist and the generalist clearly complement each other in their roles and that general practitioners cannot be generalists and specialists simultaneously and vice-versa.

The early years

Twenty-five years ago this month, I entered general practice in a sub-urban area in Singapore, and I soon found myself doing a job for which I had not received any special training. My hospital training with its concentration on selected cases, its emphasis on morbid pathology, and on exhaustive investigation and intense treatment of advanced disease, largely contributed to my entering practice with a distorted view of how health and sickness is in the ordinary human family. It was difficult to unravel the physical, physiological and social origins of disease. In addition, like many of my erstwhile colleagues, I also held the view at that time that the problems which patients present to general practitioners are mostly minor ones, of which a high proportion are psychological or social. A General Practitioner was therefore nearly the same as a social worker, except that he had some medical knowledge. His main diagnostic task was to sort out what was minor from what was major and to refer the latter to specialists. There was no necessity to listen to patients, examine them, do tests or talk to them. General practice was mostly common sense. There was no need for specialist training, because common sense

cannot be taught. All that was needed was a good bedside manner and a collection of medicines of dubious quality for dispensing. All these were predominant views twenty-five years ago and are still held by some to-day, whose thinking has not kept up with the new developments in Family Practice.

I entered practice with only limited hospital experience in medicine, surgery and out-patient care, and with no formal training in such areas as family dynamics, human development, behavioral sciences or the influence of social factors on disease. In the early 1960s I saw medicine with an exclusively pathological frame-work of diseases. My notes were littered with diagnostic labels with 'itis' endings, such as tonsillitis, pharyngitis, bronchitis, urethritis and cystitis and these labels were triggers in my mind to anti-biotic treatment. I saw the disease clearly against the blurred background of the person.

In the mid-1960s, psychosomatic medicine was in vogue, and the importance of non-organic factors in medicine dawned on me. Patients began to appear to me more as people rather than vehicles of disease, and resulted in more prescriptions for tranquillizers.

By the early 1970s depression became a common diagnosis with the resultant switch from prescribing tranquillizers to anti-depressants. But by the mid-1970s 'depression' was no more a diagnosis than 'anaemia' each requiring investigation to find its cause. Treating depression with anti-depressants now seemed no more logical than treating anaemia with iron, without reference to the aetiology.

I began to realize that a large number of depressed people are experiencing unsatisfactory human relationships normally at home or at work, and they are people out of step with their own stage of development or at odds with society. These relationship problems, especially marital and parent-child emerged as dominant problems. This submerged phenomenon of anxiety-depression and the stress on the integrity of the family, pushed themselves into my consultation room more frequently than before. Suddenly psychotropic drugs seemed not only less often indicated, but were creating problems of their own, such as evasion and dependency.

To-day, in the early 1980s, my current interests

are in the surveillance of chronic diseases like asthma, epilepsy, diabetes, hypertension, arthritis, myocardial infarction, and increasingly in the possibilities of practical preventive medicine. I have several options which I usually share with my patients. These options range from taking no action to prescribing drugs, counselling, surgical intervention, referral, consulting or a combination of treatments.

Every attempt is made to institute treatment that is rational, appropriate to the patient, economic, effective and safe. In all such areas of practice, in individual or family therapy, I have realized that it is imperative that the doctor must be conscious of his own limitations. He must be willing to seek further knowledge and skill and appropriate consultative advice or referral for patient problems that he is not equipped to handle.

How many general practitioners going into practice have found themselves totally unprepared by their training for the encounter with illness outside the hospital! Their first reaction, like mine, was to ask not "What is wrong with my education?", but "What is wrong with me?" Such is the power of early training to form one's view of the world. Nevertheless, most general practitioners found, as I did, that these early views gradually changed by their experience — an experience they gained as they began to develop a continuing relationship with their patients who returned to them periodically with different complaints and illnesses. As they become increasingly familiar with individual family members that they care for, they begin to see the family as more than simply a collection of individuals. Instead they become aware of the unique interactions and dynamics within each family, and realize that the family is a living unit and the basic social group. Consequently the proper management of a patient's health problem requires the involvement and participation of his family.

As this relationship develops, the general practitioner gets to know the families on a more intimate level. Their trust and confidence gradually move beyond the usual fee-for-service episodic type of patient-doctor contact to the establishment of a continuous relationship in which the General Practitioner has an on-going responsibility for the health of the family and to preserve their physical and emotional health, and even using the illness visit as an opportunity to practise preventive medicine. This concern by the General Practitioner of the total management of the patient's and the family problems, completes his transition from general practitioner to family doctor.

The Family Doctor

Time and again, I have been asked "What is a Family Doctor?". "What is the difference between

a family doctor and a general practitioner?". To me, the family doctor is one whose primary function is to help families manage current illnesses and show them how to prevent or at least reduce the likelihood of further illness. The family doctor must accomplish this function in the framework of an increasingly complex social system characterized by rapid technological advances, taking into account the changing patterns of illness and changing expectations about health. Caring for the whole family, the family doctor not only gains in knowledge, but also enlarges his scope of action. Whenever the situation requires it, he can change his focus from individual to family and back again. In the many situations in which illness of an individual is followed by family dysfunction, he can quite readily direct his actions to the family as a whole.

The family doctor not only knows about the family — he knows them. This personal knowledge can be put to good use. He knows for example, the kind of feelings different members of the family arouse in him, and he can use this knowledge in making hypotheses about problems he encounters in the family. In this, as in all other things, he cannot have everything as we would like it. Some families will inevitably be better known to him than the others. There will always be families who prefer to divide their care, for all types of reasons. Their wishes must be accepted even though looking after part of a family gives a family doctor a feeling of dissatisfaction. By caring for the whole family he starts to gain personal knowledge that can be gained in no other way.

I am of the opinion that a doctor who has committed himself to a group of people and attained fulfilment by doing so, undergoes a gradual evolution of a sense of vocation — first as a technical expert, a dealer in crises and emergencies, then gradually beginning to perceive his role in terms of the human relations that have been established. My observation from meeting large numbers of family doctors from all over the world is that the source of their fulfilment is the experience in human relations that medicine has given them.

The Role of the General Practitioner/Family Doctor

Dr. Pereira-Gray (James McKenzie Lecture, 1977) has classified general practitioner care into six components:

1. Primary
2. Family
3. Domiciliary
4. Preventive
5. Continuous
6. Holistic

Each one can be delegated to a colleague in another caring profession or to a consultant. However, it is the unique blend of these six aspects of medical practice which comprise our job. He went further to arrange all medical activities in a hierarchy by the point at which the doctor intervenes in the disease process:

1. The prevention of disease
2. The presymptomatic detection of disease
3. The early diagnosis of disease
4. The diagnosis of established disease
5. The management of disease
6. The management of the complications of disease
7. Rehabilitation after active treatment has been completed
8. Terminal care
9. Counselling the bereaved

"The higher in this hierarchy the doctor is able to work, the better for the patient. As generalists we have a unique opportunity to operate at all nine levels of medical care, although traditionally we have primarily been concerned with the diagnosis and management of disease. Most of our patients want to be diagnosed, treated and if possible be cured. But most of all they would prefer not to be ill in the first place. If medicine is to serve society, then its single most important function must be to prevent ill health."

Providing first contact medical care means being closest to the patient. Initially it means that one is the first doctor that the patient contacts when sick. But from then on it involves the responsibility of being the personal advocate, protector, interpreter and care integrator for the patient no matter where he or she is required to be — at home, in the doctor's clinic, in a hospital or in a nursing home. When one problem is solved, the doctor must be available to help with the next one.

Continuity of care therefore is the quintessence of family medicine permeating every aspect: first contact, longitudinal responsibility, integration of care and the concept of the family as the unit of care.

As McWhinney has emphasised, the patient's relationship with the family doctor is not limited by the duration of illness. It ends either when the patient or the doctor elects to end it, when either party dies, or when the doctor ceases to practise. Otherwise care should continue to be available either directly from the doctor or from deputized colleagues.

Continuity of care has four dimensions:

- (1) Chronological
- (2) Geographical

- (3) Interdisciplinary
- (4) Interpersonal
 - (a) doctor patient relationships
 - (b) understanding of family relationships
 - (c) interprofessional relationships

Very often the family doctor applies different combinations of these dimensions at the same time. These are the dimensions of continuity which are to be found throughout the family doctor's activities. The understanding of families, the skills of anticipation and prevention, the awareness of how people decide to seek their doctor's help when they are sick, and finally the ability to discriminate clinically which patients need which services in the health care system are all part of caring for patients continuously — the family doctor's job.

The renaissance of Family Medicine

The renaissance of family medicine has been hailed by communities and supported subsequently by some governments. The upsurge of interest is seen specially in Canada, U.S.A., United Kingdom, the Netherlands, Mexico and South West Pacific. Health planners all around the world now recognize that the most satisfactory health care systems are those built on community-based care, complemented by hospitals.

As the health care becomes increasingly and fragmented, it is vital that the patient has direct access to a doctor of first contact who is continually involved in his care, and who can share with the patient the responsibility for the maintenance of his health. The most appropriate person for this role is the family doctor whom the community expects to be knowledgeable, skillful, understanding and readily available. It is this community demand that will ensure the future of family medicine.

Medical educators around the world have also acknowledged that it is just as essential for the family doctor to have comprehensive vocational training and to participate in continuing education as it is for the physician or surgeon. Without this he cannot fulfil his proper role in community health care. Indeed no doctor should engage in clinical practice unless he has had training appropriate to his responsibilities and unless he maintains and enhances his skills through regular assessment and continuing medical education.

The stimulus that formed the College of Surgeons and Physicians before the last war spread to family and general practice soon after the war. Sound principles were laid down and comprehensive programmes prepared embodying all the educational techniques as well as the most up-to-date assessment methods. Even the content of

family medicine has been defined and is now recognized as a major medical discipline.

Training of Family Medicine

What about training? The educational changes that have influenced the General Practitioner/Family Physician in developed countries during the past decade have been described as revolutionary. From a position during the sixties, when little if any, attention was paid to the specific training of the General Practitioner/Family Physician at either the undergraduate or graduate levels of medical education, training programmes in family medicine are now in the educational "limelight" — the in-thing in medical education. Great progress has been made to establish family medicine as a distinct educational discipline. Most medical schools in developed countries have University Departments of Family Medicine providing training programmes in Family Medicine with teaching responsibilities at both the undergraduate and graduate levels of medical education.

It must be understood that training in a medical specialty — as it is known to-day — cannot be applied "in toto" to the experience of being a family doctor. Learning to be a family doctor requires a change of perspective that can only take place where the perspective is dominant. It will also be apparent that attempts to produce a family doctor by putting together a conventional training in paediatrics and internal medicine — and adding some psychiatry — are doomed to failure. "The whole is different from the sum of its parts". Family doctors may emerge in this way, as I did, but they will do so by the arduous route of rising above their training from their experience.

For many years now, we in the College have talked about the establishment of a Department of Family Medicine in the National University of Singapore. Its role we have felt should not be just to expose undergraduates to general practice — then it has no right to exist at all. Its role should be to advance knowledge of general practice and to feed this into both undergraduate and postgraduate education in the discipline — and dare I say, to set standards in patient care. Its function would be involvement in patient care, at the highest possible standard, furtherance of the subject by research and teaching with the twin purposes of encouraging a spirit of enquiry amongst undergraduates and of providing for the training and postgraduate development of future academic practitioners of the subject. This is the role of academic departments in all other subjects. The time has arrived, and the College must now in all earnestness call for the formation of a Board of Studies on General Practice for the establishment of a Department of Family Medicine in the National University of Singapore.

As we design programmes suitable for the education of family doctors in Singapore, our educators must have a clear conception of the type of person they would like their students to become. The students should have deep commitment to people and obtain their greatest fulfilment from their relation to people — to believe in the primacy of the person, to use technology with skill, but to make it always subservient to the interests of persons. We want doctors who can think analytically when analysis is required but whose usual mode of thought is multi-dimensional and holistic. We want doctors to be concerned with aetiology in the broadest sense and to be ever mindful of the need to teach their patients how to attain and maintain health; doctors who know themselves and can throughout their career recognize their defects, learn from experience and continue to grow as people and as doctors.

It is particularly unfortunate that we do have some bad general practice where the general practitioner makes no effort to organise either his method of working, his premises or his staff. They work so fast and inevitably trivialize their patients' problems or restrict them solely into a single physical, psychological or social dimension. There is indeed evidence to show that a doctor working under pressure — seeing 80-100 patients per session — is more likely to prescribe unnecessarily, to ask for unnecessary investigations or refer to a specialist. Such practice not only fails to serve the patients' own interests, but also spoils the reputation of general practice. The bad practices of a small minority affects consultants and even students, in the teaching hospitals, quite out of proportion to their numbers. This has led to a breakdown of our referred system and an ever-increasing number of open-access services by specialists in the private sector. The General Practitioners are the proper co-ordinators for care of patients, and should be given opinions by those to whom they refer so that continuing and co-ordinated patient care may be useful and meaningful. If this co-ordinating function of the general practitioner is replaced by episodic, symptomatic care with a quick turnover, only minimal medical care is provided. We must have the ability in our own way to show patients that we care by providing more than minimal medical care. This cannot be done unless we give patients time and show our competence. If we do this there can be no excuse for doctor hopping as well as circular referrals among specialists. Circular referrals although profitable to specialists lead to poor co-ordination of patient care, overservicing of needs, are costly and occasionally harmful. There is therefore an urgent need and the right of patients to receive good general practice and doctors to practise it.

Primary Medical Care in Singapore

In a modern environment like Singapore, with its highrise satellite towns and industrial centres, primary medical care should evolve an advanced system of health care and bring to bear advanced technology and skills to the health problems of the community. The approach should be family-based and community-orientated — especially when the 3-tiered family is being encouraged and closer neighbourhood ties are being promoted by Government. It does not promise to be a cheap solution to safeguarding the health of a community, but it will certainly be the most cost-effective, representing the most efficient way to utilise health resources.

The great majority of people seeking treatment for health problems are seen and treated without admission into a hospital. This has given an impetus to the search for improved management of disease through early diagnosis, management and treatment, so that as far as possible the individuals under care remain economically and socially active. The understanding of the cause of disease, the identification of controllable risk factors, the development of strategies to control these factors and the great advances of modern medicine in the last three decades have made possible the ambulatory care of a great many diseases for which there has been no effective treatment even in hospitals until a few years ago. The psychotropic drugs, the newer anti-biotics, the steroids for systemic and dermatological use, beta-blockers, beta-2 stimulants, home dialysis and effective immunization are a few examples of new developments that have transformed the prospects of primary medical care.

In order to take advantage of the great new possibilities in medicine, it is necessary to train a new type of general practitioner whose training will combine therapy with the new concepts of prevention and continuity of care that have become the hallmarks of family medicine.

Primary medical care must be the central axis on which the health services of a nation revolves. In 1980, according to the Ministry of Health Survey, fourteen million consultations were carried out at the primary care level of which about 70% (approximately ten million) were conducted by the private sector. Only a very small proportion of all sick people (less than 10%) needed the expensive technology of the hospitals, a fraction that can and must diminish with effective care at the primary level. This will enable the most effective utilization of expensive hospital beds.

Our specialist colleagues in hospital also need competent generalists in the community whom they can trust, so that they are not off-loaded with unnecessary referrals. An important achieve-

ment of specialist medicine has been the shortening of hospital admission times, but early discharge depends on the consultants' ability to refer the patient back to a competent primary care doctor. Our specialists should also go deeper into their specialization, the deeper they go the better it is for the patient — for example, one-operation surgeons function better than surgeons who do that operation only occasionally. Our specialists should direct their efforts into the numerous advanced techniques that have been developed in every specialty in the light of breath-taking advances that are coming into Medicine.

The challenge to-day is to provide good clinical care on average in our discipline as the consultants do in theirs. The solution must lie, first and foremost, with education and training for our discipline at both undergraduate and graduate levels of medical education.

The Government has now a vested interest in the competence of general practitioners and primary care doctors. It is becoming increasingly aware of the cost-effectiveness of good general practice and the price being paid for bad.

Twelve years ago, this College was founded — founded at a time when general practice in Singapore was in the doldrums. Our First President, Dr Sreenivasan, had at that time enumerated the functions of a College of General Practitioners in the First College Lecture held in 1972. He even called for the establishment of a Department of General Practice as early as 1972. We have come a long way since then and some of our dreams have come true. It is our privilege now as members of the College to rise to the challenge of our founder-president, Dr Sreenivasan. I am happy and proud to have been involved in the activities of the College during the past ten years. I believe in general family practice. I believe that in the years ahead the College will continue to raise the standard of care for our patients through integrating the natural with the behavioural sciences. Our task to-day is to look ahead, and I am confident that we have now come of age and that our discipline will respond to our patients' needs.

The Sreenivasan phenomenon, the Renaissance Man of many talents, we cannot expect to see often. Instead every physician must expect to specialize, and as the hospital specialties divide into more concentrated and narrow areas of expertise, the greater will be the need for the integrative skills of the primary physician providing continuing care. We are all members of an ancient and noble profession. Our newest responsibility is to raise the standards of primary care, and I should like to think that it is a task that we all share as members of a single profession. This youngest College will need all your friendship and support to succeed in the tasks that lie ahead.

Disease patterns in a family practice

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INTRODUCTION

Variety is said to be the spice of life. This is so even in medical practice. The variety of diseases and problems a family physician meets with in the course of the day makes his working life more interesting than his specialist colleagues or laymen could imagine. Besides the "coughs and colds" he is reputed to see only and exclusively, the family physician, being the doctor of first contact, actually sees a spectrum of diseases. What makes his life more fascinating is the observation that the disease pattern of his practice can change depending on external factors, for example the change in the locality of his practice. His clientele may change from a mainly white-collar group if he works within the central business district to a mainly blue-collar group if he works in the industrial areas, or a happy mix of young and old if he works in the midst of a housing estate. Even within the course of a day, the types of patients he sees in his morning session, may differ quite a bit from those he sees at night. More exciting is the observation that often he feels the whiff of an epidemic long before the news media get wind of it through the official channels. As he sees patients in his clinic, he senses the periodic change in the pattern of disease. He realises within a short while the pattern a viral upper respiratory tract infection takes, even though he does know the actual type of virus he is dealing with. The family physician who notices and remembers gains experience.

In the course of preparing a lecture to medical students on a topic of the same name, the authors of the paper sat down and noted the diagnoses of 1,000 consecutive patients they saw in April 1983. Though they roughly knew the types of medical conditions they had been seeing, nevertheless it astonished them to see the multiplicity of the conditions when put in black and white. The age, sex and disease diagnosed were noted for each patient. In those presenting with more than one disease, the one which was deemed more important was taken as the disease diagnosed. Note was made of the number of patients attending for the first time, the number requiring further investigations, the number referred to specialists, the admissions to hospital and the number for whom house visits were made.

Though this simple exercise provides no far-reaching insight into the importance of family practice, it can if repeated at intervals of a few years for each practice, give the doctors within

the clinic an idea whether their trend of management has changed with time. Have they succumbed to a greater reliance on investigative procedure at the expense of maintaining their keen clinical skills? Have they utilised available investigative procedures prudently or have they underutilised them from ignorance? Have they been pressured into sending cases well within their scope of management to specialists to defend themselves from medico-legal implications or have they been guilty of hoarding? What doctors do or do not do within their practices usually reflects on their philosophy of medical practice. The extension of this simple research to different practices in Singapore may give a better insight into what constitutes a typical Singapore family practice, if indeed there is such existing. There may emerge several types of "typical" family practices in Singapore.

The clinic situated in a semi-urban area, serves both contract and private patients. This accounts for the fairly even mix of patients of all ages and of both sexes. The higher percentage of patients between the ages of 21 and 40 years is attributed to those working in companies contracted to the clinic for their medical care.

The morbidity pattern of the practice, as shown in Table III, is divided into groups according to diagnoses. This puts a certain amount of pressure on the authors to reach a diagnosis for each case. It is well recognised that in many cases seen within a family practice the disease may be inadequately differentiated to allow for a diagnosis. For some cases, the diagnosis was classified as its presenting symptom. This included patients presenting with headaches, giddiness and vague abdominal pains. Despite some effort, a group still remained, making up 2.4% of all patients seen, where neither doctor nor patient could decide what the problem was.

DISCUSSION

The pattern of morbidity which emerged from this study confirmed that indeed family doctors spent a great deal of their time treating "coughs and colds". Almost 3 out of 10 consulted for symptoms are referable to the respiratory system. Two-thirds of these had upper respiratory tract infections. There were others not included in this group who also complained of coughs and colds. These were the patients with allergic rhinitis, sinusitis, the prodromes of childhood exanthems and the odd case of a nasal foreign body. Living

as it were with these cases made the family physician more able to sense which were viral illnesses requiring symptomatic therapy and which were complicated by bacterial pathogens for which antibiotics were needed. The important question in the mind of the doctor was which case needed specialised care in hospital. Parents of children in particular needed more time from the doctor for explanation since a great deal of unnecessary anxiety was generated when the symptoms took a longer time than usual to settle. It helped to be told how long the illness would be expected to last and to be reassured that no permanent damage would occur. The parents of children with bronchial asthma needed more reassurance and a rapport built up between doctor and parents was of absolute necessity. This was the only way to discourage doctor-hopping.

The second most common group of complaints seen in the practice related to obstetrics and gynaecology. Ten per cent of cases attended the clinic for these reasons. By far the greater number of the women consulted for normal antenatal care and problems related to pregnancy. The presence of lady doctors in the practice possibly helped to sustain this group of patients. It was observed that women in our community were still largely conservative and preferred doctors of their sex when it came to problems relating to their private parts. This preference however was not as strong when it came to the sex of the consultant they chose to be referred to subsequently.

RESULTS

Table I — Age Group of Patients

Age (Years)	Number	%
0 — 10	146	14.6
11 — 20	128	12.8
21 — 30	322	32.2
31 — 40	179	17.9
41 — 50	91	9.1
51 — 60	71	7.1
Over 60	63	6.3
Total	1,000	100.0

Oldest patient 97 years; Youngest patient 2 days.

Table II — Sex of Patients

	Number	%
Males	579	57.9
Females	421	42.1
Total	1,000	100.0

Gastroenterological complaints, dermatological diseases, orthopaedic and general surgical conditions, and cardiovascular illnesses followed. A group who consulted for what was regarded as preventive medicine purposes formed 5.3% of cases. Many came for the usual pre-employment medical examinations, medical check-ups for driving licenses, life insurances, school and university admissions. Others, and this seemed to be an increasing trend, came for self-imposed annual or periodic check-ups. Women who attended faithfully for their Pap smears formed part of this group. There were increasing numbers of men who wished to be checked-up to see "if they

Table III — Disease Pattern

RESPIRATORY SYSTEM

Upper Respiratory Tract Infection	203)
Bronchial Asthma, Bronchitis	78)
Chronic Obstructive Airway Disease	4) 28.6%
Pulmonary Tuberculosis	1)

OBSTETRICS & GYNAECOLOGY

Antenatal Check-ups	37)
Pregnancy Testing and Contraceptive Advice	28)
Dysmenorrhoea	8)
Vulvo Vaginitis	8)
Morning Sickness	7)
Menorrhagia, Epimenorrhoea	5) 10.2%
Infertility	3)
Genital Tract Tumour	3)
Abortion	2)
Cervicitis	1)

GASTROINTESTINAL TRACT

Gastroenteritis	40)
Gastritis, Dyspepsia, Peptic Ulceration	42)
Colic	3)
Hepatitis, Cirrhosis	3)
Gall Stone	2) 9.6%
Haemorrhoids	2)
Constipation	1)
Worms	1)
Appendicitis	1)
Fissure in Ano	1)

SKIN

Dermatitis	53)
Acne Vulgaris	6)
Infection	4)
Lichen Simplex Chronicus	3)
Warts and Corns	3) 7.3%
Tinea Versicolor	1)
Herpes Zoster	1)
Psoriasis	1)
Paronychia	1)

ORTHOPAEDIC CONDITIONS

Myalgia	24)	
Arthritis	15)	
Low Backache	10)	
Joint and soft tissue injury	6)	6.2%
Tenovaginitis	4)	
Tennis Elbow	2)	
Ganglion	1)	

GENERAL SURGERY

Surgical Dressings	24)	
Minor Surgery (Incision and drainage, toilet and suture, excision, cauterisation, ear syringing, nail avulsion, IUCD insertion, foreign body removal)	17)	
Ulcers, Abrasions	9)	6.0%
Abscesses, Carbuncles	5)	
Bee Stings, Dog Bites	5)	

CARDIOVASCULAR SYSTEM

Hypertension	36)	
Congestive Heart Failure	6)	
Ischaemic Heart Disease	5)	
Varicose Veins	5)	5.6%
P.A.T.	2)	
Rheumatic Heart Disease	2)	

PREVENTIVE MEDICINE

Medical Examination (Annual, Pre-employment, and Insurance examinations)	24)	
Immunisation	14)	
PAP Smear	8)	
V.D. Screening	3)	5.3%
Counselling	3)	
Prophylactic Medicine	1)	

PSYCHOLOGICAL MEDICINE

Anxiety Neurosis	38)	
Schizophrenia	4)	
Depression	2)	4.6%
Phobia	2)	

ENDOCRINE & METABOLIC

Diabetes Mellitus	18)	
Gout	9)	
Thyrotoxicosis	4)	3.3%
Obesity	1)	
S. L. E.	1)	

EYE

Conjunctivitis & Conjunctival Irritation	16)	
Eyelid Infection	6)	2.4%
Cataract	1)	
Foreign Body	1)	

CENTRAL NERVOUS SYSTEM

Headache	12)	
Giddiness	7)	
Diabetic Neuropathy	1)	
Parkinsonism	1)	2.3%
Epilepsy	1)	
Cerebral Thrombosis	1)	

E.N.T.

Otitis Media & Eustachian Catarrh	9)	
Otitis Externa	7)	
Ear Wax	3)	2.2%
Sinusitis	2)	
Foreign Body (Nose)	1)	

ALLERGY

Vasomotor Rhinitis	4)	
Drug Reaction	3)	
Urticaria	2)	1.0%
Henoch Schonlein	1)	

UROGENITAL

Nephritis	3)	
Urinary Tract Infection	3)	0.7%
Renal Colic	1)	

SPECIFIC INFECTION

Infectious Mononucleosis	1)	
Measles	1)	
Mumps	1)	0.4%
Chicken-pox	1)	

VENEREOLGY

Gonorrhea	3)	0.3%
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NEOPLASM

Fibroadenoma Breast	1)	
Suspected Carcinoma Oesophagus	1)	0.2%

OTHERS

Pyrexia of Unknown Origin	7)	
Infant Feeding Problem	3)	1.4%
Tooth Abscess	3)	
Chronic Mastitis	1)	

NO DIAGNOSIS	24)	2.4%
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TOTAL 1,000

Table IV — Other Data

Number of patients who visited the Clinic for the first time	140
Number of Home Visits made	2
Number of patients who had urine examination (strip tests, pregnancy test, microscopic examination) done.	136
Number of patients who had blood examination (cell count, peripheral films, serum studies) done	34
Number of patients who had vaginal swabs taken for microscopic examination	12
Number of patients who were referred for X-Ray examination (straight and contrast films)	30
Number of patients referred to specialists or to hospitals	17
Number of patients who had E.C.G. examination done.	2

were healthy". It was felt that much medical education could be imparted to these patients during the consultation. Concepts of healthy living, the usefulness and limitations of medical examinations could be explained at the same time that existing ailments were being discovered.

Patients who attended the clinic for psychiatric complaints formed only 4.6% of the whole. This contrasted with the 15-30% who attended clinics in the United Kingdom. Several reasons could have contributed to this low level. The social stigma which attended psychiatric illnesses remain within our community and made it difficult for patients to seek help solely for those reasons. Most found it more acceptable to complain of body malfunction. The set-up of the clinic may have also contributed to failure to recognize these problems. Time could not be set aside to deal with psychiatric problems which by and large required longer consultations. It was realised by the authors that though 4.6% came primarily for psychiatric complaints, many more had psychiatric complaints secondary to their organic illnesses. These, including those with psychosomatic diseases, were not included in this group.

It must be noted that the types of cases seen in any one practice depended very much on the interest of the doctors within the practice. Doctors who had experience and confidence in surgery would, after a while, build up a clientele of such cases. Cases of traumatic surgery would turn

up at the clinic instead of reporting to the emergency units of hospitals if they knew that the doctors in the clinic could deal with them. Similarly, doctors with special interest in dermatology would attract more patients with these diseases. In this regard it was felt that practices with more than one doctor probably had a slight edge over solo practices. Each doctor in the group brought with him interest and training unique to himself. Cross referrals on an informal basis within the practice was found to be most helpful especially in problem cases.

The number of cases sent for specialist consultation and hospital admission was small, forming less than 2% of the cases seen. This confirmed the impression that primary health care had always been and should remain the mainstay in the health care of a community. The wider the scope of training received by the family doctor, the more competent and confident he would be in the management of patients in his practice. Admissions to hospital would be reserved for those with serious illness requiring nursing care, specialised investigations, management by specialist physicians and major surgical treatment.

Home visits continued to have a place in family practice. They were limited to patients who for various reasons were unable to be physically brought to the clinic. Most invitations for house visits were for the very ill and for the physically incapacitated. The two house visits made during this period were for an 80 year old bedridden woman with severe arthritis and for a 66 year old woman whose symptoms suggested a myocardial infarct. The first patient was treated at home, the second was sent to hospital by ambulance for myocardial infarction.

CONCLUSION

This simple study of the disease patterns in a family practice has been illuminating to the doctors in the clinic who felt that the fascinating study of disease patterns and the changes that are bound to occur over the years should not be allowed to go unnoticed. It is hoped that more practices could be studied and the weaknesses and strengths of the doctors may be brought under focus. Implications on the types of training future family physicians should have, could be looked into. The aim would be for the building up of well-rounded and well-equipped family physicians.

A study on Primary Health Care in a home for the aged

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Background

In recent years, increasing attention is being paid to the health and social problems of the aged in developing countries. Until a few years ago, such countries tended to concentrate their attention largely on the young, since life expectancy was rather short and birth-rate often exceedingly high. However, with better health care and a rise in living standards, the life expectancy in developing countries has lengthened very appreciably. Parallel with this trend has been the drop in birth-rate as a result of family planning and other factors. The net result of those trends has been a rapid increase of people of the older age groups, both in absolute terms and relative to the population as a whole. This situation applies to Singapore as well as most other developing countries in this region. According to the 1980 census, 7.2 per cent of the total population are 60 years and over. It is also estimated that by the year 2000, persons 60 years and above will constitute about 10.4% of the population.¹

Introduction

Members of our Department had previously completed a series of studies on the medico-social aspects of the older age-groups in Singapore. The medical problems and needs of the aged living in the community were assessed.^{2,3} A study was later made of the mental and social health of 449 residents in five homes for the aged in Singapore.⁴ This present paper describes the primary health care provided by medical staff of our Department to an old people's home in Singapore since early 1978. It is felt that the sharing of such experiences would make doctors and other health personnel more aware of the special medical needs of the aged, whose manifestations of disease may also be quite different from those in younger age groups.

Description of Study Framework

The old people's home studied is located in a suburban area of Singapore. There are approxi-

mately 150 residents. Some of them have been moved from other similar homes when the latter closed. Some others have been admitted directly from their own homes or from hospitals. The minimum admission age was normally 60 years. Within the home are qualified nursing personnel, assisted by nursing aides and other staff.

Primary care is provided on a honorary basis by the medical staff of our Department, who take turns to visit the home weekly. They are consulted from time to time during the rest of the week. Ambulant residents are examined in the clinic and bed-ridden ones examined on their beds. Most of the medicines are supplied free of charge upon our prescription by the government outpatient dispensary a couple of miles away.

Whenever necessary, residents are sent to specialist units in the government hospitals on an inpatient or outpatient basis.

Analysis of cases seen

An analysis was carried out of 421 recent consultations from among the residents of the home. The presenting symptom or disease of each consultation is tabulated in Appendix I. Often there were multiple complaints, but what was deemed to be the most significant complaint was listed. The list is compiled from records of our weekly visits to the Home, during each of which an average of 20 – 30 consultations were given. We have adapted the Detailed List of Symptom Associations for Lay Reporting prepared by the World Health Organization,⁵ and applied it to our analysis of the different conditions seen. We find that the list is more suitable for our requirements than the International Classification of Diseases, also published by the World Health Organization.

It is noteworthy that hypertension, itchiness of the skin, diabetes mellitus, asthma and bronchitis, digestive disorders and cough and upper tract infection accounted for more than half the total number of cases seen. Other common conditions were Parkinsonism, aches and pains of the limbs, mental disorders, malnutrition and conjunctivitis.

Hypertension

It should be pointed out that most of the cases were seen as routine check-up. It is difficult to define hypertension over the age of 65 years.⁶ As is well-known, the blood pressure rises slightly with age in Singapore and most modern communities.

Most of the cases were seen at monthly intervals, unless their blood pressure were not under control or there were other complications. The blood pressure of one case suddenly went very high, but subsided largely with bed rest. She was one of the few who had a spouse in the same home. She was probably over-concerned with him and had to be confined to her bed because of that.

Itchiness of the skin

Old people seem to have quite a high frequency of pruritus compared with younger adults.⁷

(a) Itchiness with rash

Fungal infections accounted for 11 cases, whereas scabies accounted for 8 cases. In other cases, there were eczema (8 cases) and intertrigo (3 cases).

(b) Itchiness without rash

It is difficult to be sure why so many cases complained of itch without the presence of any detectable rash. Most of these cases had only transient pruritus, and the pruritus was unlikely to have been due to a serious systemic disease. It has been claimed that the commonest cause of widespread itching in the elderly is dry skin or asteatosis, a state due to the action of several factors which combine to produce skin lacking in lipid and of increased permeability to water.⁸ Many but not all of the cases seen by us with pruritus and without a skin rash had pale, rough and dry skin.

Diabetes mellitus

Most of these cases had been diagnosed before admission into the home, the majority by hospitals in the government sector. Most of them were on oral hypoglycaemic drugs. A few required insulin injections. Dietary control proved extremely difficult in most of the residents, many of whom indulged freely from their own private hoard of biscuits and other foodstuff. The frequency of being seen by a doctor was normally once a month unless there were complications. It is well-known that diabetes increases with increasing

age. Over the age of 70 in Europe, 20 per cent of men and 30 per cent of women show an abnormal glucose tolerance.⁹

Asthma and chronic bronchitis

Control of the asthma cases was singularly difficult. Most of them still suffered from asthmatic attacks, especially at night, and many had a few rhonchi in their chest which persisted for months. Some others had very few signs in the chest except poor breath sounds. Asthma is not, as is often believed, uniquely a disease of the young. It may be present for the first time in old age.¹⁰

Digestive disorders

Flatulence led 7 cases to see us. Many of these were bed-bound residents. Epigastric pain or heartburn was the complaint of 8 cases. One patient was very emphatic that only antacid or carminative mixtures, and not tablets, would relieve her epigastric pain. Diarrhoea was the complaint of 4 patients, usually after a festive season when relatives or friends brought gifts of foodstuff. Loss of appetite was complained of by 3 residents. Only 2 patients complained of constipation, which were fewer than expected in the elderly. This small number is probably due to the fact that the complaint was usually attended to by the nursing personnel themselves. Intestinal colic occurred in only 1 resident.

Cough and upper respiratory infections

As could be expected, cough and upper respiratory infections were common complaints. We suspect that sometimes the old people complained of cough merely to attract attention because of their loneliness.

Parkinsonism

Probably most of these cases were due to Parkinson's disease. The condition was manifest by very characteristic "pill-rolling" of the fingers in a few cases. In others akinesia appeared more often than tremors. Many of the old people were reluctant to walk because of their conditions and required considerable persuasion to get them out of bed. As is well-known, the prognosis of Parkinsonism in old age is poor. Twenty five per cent of cases will be severely disabled or dead within 5 years of first consulting a doctor and over 60 per cent within 10 years.¹¹

Pains of the limbs

Vague aches and pains were quite common, "wind" as they are called in some local languages. The Western-type of "rheumatic" medicines or linaments did not appear to be very effective compared with the local remedies.

Mental disorders

Although the number of patients was small, their disruptive effect was quite severe. Senile dementia accounted for 9 cases, and schizophrenia and depressive disorder for 4 each. Sometimes a demented patient would keep on shouting throughout the night and disturb the other residents. One case appeared to be a maladjustment problem. She was transferred recently from another home which closed down.

Malnutrition

The diet in the home was a well-balanced one. The staff were very conscientious in making sure that the residents take their meals. Tube-feeding was given whenever necessary. The 13 malnutrition cases seen by us were those who already had that condition before their admission into the home. Most of them suffered from protein-calorie deficiency. Few of them had frank signs of avitaminosis. Many of them had anaemia of the iron-deficiency variety.

Skin ulcers

Ulcers of the skin were due in 4 cases to Burger's disease of the affected limb, 2 cases to leprosy and 1 to syphilis (Charcot's joint). The other 4 were probably due to poor circulation of the skin.

Otitis media

Some of the cases of otitis media were very intractable, despite referral to the appropriate specialist units.

Comments on some of the other presenting complaints

Rheumatoid arthritis was less common than expected. There were many more cases of cataract than that one seen. However, most of them were already either diagnosed, operated upon or awaiting operation.

All of 3 trauma cases fell on the way to or in the bathroom or toilet. The injuries were not serious.

The single case of travel sickness occurred after a rare drive out by a friend. The patient was probably not used to going out or travelling at such speed.

Discussion on observations

It is not possible to extrapolate the findings quantitatively to the aged population in Singapore as a whole. The subjects studied were not necessarily representative of that population. All we could derive from the study is that, in a group of such old people in Singapore, certain diseases or complaints seemed to have occurred with greater frequency or severity than others.

One of the problems which continually confronted us was when to treat and to what extent we would step up drug treatment for various chronic conditions, such as Parkinsonism and hypertension. A common difficulty is due to the fact that many normal values of laboratory investigations in the elderly are identical to those recognized for the young. If an abnormal value is mistakenly considered to be normal "for the patient's age", the opportunity for correct diagnosis and active treatment will be missed. On the contrary, some normal values differ in the elderly from those accepted as normal for the young. Information on both aspects is not easy to find in the medical literature. Whatever is available may, moreover, not be necessary valid for the elderly in Singapore.¹²

It is also worthy of record that there seemed to be very few hypochondriacs or malingerers. Most of the subjects, including those in their late eighties or nineties, were rational and matter-of-fact about their illnesses. This is testimony, perhaps, to the good care given to them by the nursing and other staff in the home. Nursing assumes a key role in the care of old people.¹³

There is also the question of loneliness among some of the old people, since many of them could speak only in their native dialects or languages and therefore might not be able to communicate with many of the other residents of other dialect or language groups. This sometime led the residents to await the visit of doctors who could converse with them without interpretation in preference to other doctors who could not. A few were insistent on going back to their former practitioners for treatment, but most accepted our services readily.

In addition to the cases described, there were others who would request to be examined for no apparent reason or beg for vitamins (despite the fact that the residents were routinely given vitamin tablets) or other "strength-giving medicines". It is our practice to examine all residents from time to time even if there is nothing obviously wrong with them, but this would be done on a roster system.

Conclusion

As expected, "degenerative diseases", such as hypertension and Parkinsonism featured prominently in the health problems of the residents. Skin conditions were also frequent, including pruritus without any obvious cause. Mental disorders, though infrequent, were very disruptive to the life in the home.

Acknowledgements

Our warmest thanks are due to the administration and staff of the home, as well as to the residents, about whom this study is made; and also to Ms Roma Soh, who typed this paper.

Appendix I

Complaints or diseases seen

	No. of Cases	(%)	Total	(%)
Hypertension	69	16.4	69	16.3
Skin lesions			108	25.4
Itchiness of the skin (with a rash)	66	15.6		
Itchiness of the skin (without a rash)	24	5.7		
Skin ulcers	9	2.1		
Sores and boils	4	0.9		
Cellulitis	4	0.9		
Infective warts	1	0.2		
Other abdominal problems			26	6.2
Digestive complaints	24	5.7		
Ascites	2	0.5		
Cough & upper respiratory tract infections	23	5.5	23	5.5
Other chest problems			33	7.8
Asthma/bronchitis	27	6.4		
Congestive heart failure	3	0.7		
Pneumonia	2	0.5		
Pleural effusion	1	0.2		
Urogenital manifestations			43	10.2
Diabetes mellitus	40	9.5		
Dysuria/cystitis	3	0.7		
Eye manifestations			13	3.0
Conjunctivitis	11	2.6		
Cataract	1	0.2		
Presbyopia	1	0.2		
Other head & neck manifestations			12	2.7
Otitis media	9	2.1		
Buccal ulcer	1	0.2		
Toothache	1	0.2		
Deafness	1	0.2		
Neurological manifestations			40	9.5
Parkinsonism	17	4.0		
Mental disorders	15	3.6		
Epilepsy	7	1.7		
Headache	1	0.2		
Miscellaneous			54	12.6
Aches & pains of limbs	17	4.0		
Malnutrition	13	3.1		
Fever	6	1.4		
Rheumatoid arthritis	5	1.2		
Dizziness	4	0.9		
Trauma	3	0.7		
Postural oedema	3	0.7		
Piles	1	0.2		
Travel sickness	1	0.2		
Adjustment problem	1	0.2		

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The Hepatitis B Vaccine

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NATIONAL AUTHORITIES AND WORLD HEALTH ORGANISATION REAFFIRMS SAFETY OF PLASMA HEPATITIS B VACCINE

Introduction

Viral Hepatitis B, known also as serum hepatitis, transfusion hepatitis, acute infectious hepatitis, is now confirmed as a major public health problem in the Asian Pacific region¹ and globally by the World Health Organisation².

It is responsible for acute viral hepatitis, chronic hepatitis, cirrhosis, primary liver cancer and the rejection of 5-20% of the adult blood donors because their blood containing the hepatitis B virus cannot be used for urgently needed blood transfusion.

Primary liver cancer is recognised as the second major cancer in the world today. In China, Taiwan and many countries in the Asian Pacific region, it is the leading cause of cancer.

An expert scientific group³, consisting of scientists, cancer specialists and epidemiologists met in February 1983 at the World Health Organisation in Geneva to discuss the prevention of liver cancer. They concluded that there was conclusive evidence that up to 80% of the world's liver cancer was caused by the hepatitis B virus. Infection of this virus leads to the permanent integration of the viral DNA into the DNA of the liver. This integration by similar hepatitis virus has also been seen in animals such as the Peking domestic duck, woodchuck and prairie dog. All these animals also suffer the consequences of hepatitis B infection and liver cancer. The risk of a carrier developing liver cancer is 200-300 times higher than a non-carrier. A child born today to a carrier mother stands a more than 30% chance of dying of liver disease and liver cancer in his lifetime. The risk is very high in liver cancer carrier, considering that the risk of lung cancer in a smoker is only 20 times.

Safety of Vaccine from AIDS

The expert scientific group also found that the current hepatitis B vaccines were safe for large scale hepatitis B vaccinations in countries where hepatitis B was endemic. However they emphasised that complete viral inactivation of the plasma-derived vaccine was essential.

Two vaccines have been licensed by their countries, the Pasteur and the MSD vaccines.

The outbreak of AIDS in 1979, has created doubts regarding the safety of this hepatitis B vaccine, since most of the source plasma has been obtained from carriers who may be homosexuals. Homosexuals are a group that have high risk of developing AIDS — a disease where sufferers may develop fungal and parasitic infections, and Kaposi Sarcoma — a blood vessel cancer. The data relating to the possibility of transmission of AIDS have been considered by many national authorities and by the World Health Organisation. All are agreed, that "there is no evidence to suggest that immunisation with the vaccines carry an increased rate" in developing AIDS.

The MSD vaccine has been the most intensively and extensively investigated by several independent inter-governmental agencies of the United States on at least three occasions over the last six months. They have unanimously concluded that there is no causative link between AIDS and the MSD vaccine. This is further endorsed by an official publication of the Morbidity and Mortality Weekly Report and the American Journal of Medicine recently. The Food and Drugs Administration (FDA) which licensed the MSD vaccine have further reiterated the recommendations of the American Advisory Committee on Immunisation — "all persons at high risk should receive the hepatitis B vaccine."

Both vaccines have been in use for the last eight years. No cases of AIDS have been linked with either vaccine.

Urgent Need of a Vaccination Programme Globally

Hepatitis B is a serious global problem in public health control². A conservative estimate shows that there are 200 million carriers globally and 170 million carriers are in the Asian Pacific region.

An urgent programme to prevent a major cancer and a serious infectious disease is now possible with the hepatitis B vaccine. This vaccine has been proven to be safe in over a million vaccinated persons (newborn children, high risk adults, including pregnant women) throughout the world.

It may be the first cancer vaccine which would also prevent a major infectious disease.

While it is an understandable attitude that some health care workers in developed countries who are at low risk of infection and have a lower risk

of developing the serious sequelae of hepatitis B infection, have elected to wait for second and third generation hepatitis B vaccines, this is not an acceptable attitude in developing countries where the disease is endemic.

This is because second and third generations have only reached a laboratory level of production. Scaling-up to industrial manufacture and commercial availability of such products will take several years once these newer vaccines can first prove human safety and efficacy. Since these newer vaccines are slightly biochemically and structurally dissimilar to the natural vaccine, safety and efficacy must be proven in man before it can be generally accepted.

Data accumulated today show that of the thousands of children being born every minute, many are destined to die from the long term sequelae of hepatitis B infection.

Therefore, to delay the introduction of large scale immunisation in susceptibles in endemic regions on the basis of a hypothetical unproven risk, is (in the opinion of several expert advisors and consultants to WHO) unthinkable!

The World Health Organisation has recognised the magnitude of the hepatitis B problem and is submitting a proposal to the World Health Assembly in January 1984 for a global hepatitis control programme.

THE VACCINE FOR THE SINGAPORE PROGRAMME

The MSD vaccine which is being used in Singapore to implement the recommendations of the National Immunisation Committee has been highly recommended by a panel of external advisers and consultants to the World Health Organisation. This panel has reviewed all the data relating to side effects and the question of acquired immunodeficiency syndrome and they have unanimously concurred that (i) there is no causative link for increased risk of vaccines developing AIDs (ii) side effects are minor and minimal and this vaccine is safe and effective for our immunisation programme.

The MSD vaccine is currently approved for use by the Health authorities in the United States, Canada, United Kingdom, Italy, Holland, Germany, Belgium, Greece, Switzerland, South Africa, EEC countries, Middle East, the Far East (including Korea, Taiwan, Hong Kong, Thailand, Malaysia and other South East Asian countries).

Singapore's Immunisation Programme

Until large quantities of vaccine become available and at a lower cost than presently available, the vaccine is now only offered to those at high risk. These are neonates born to Hepatitis B carrier mothers, hospital staff (all grades) who

are in contact with blood products or patients, servicemen and family contacts of acute and chronic hepatitis B carriers.

It is envisaged that by 1986, vaccine produced from the Singapore plant will be locally available to extend the immunisation coverage to other persons. Meanwhile, bulk vaccine manufactured by MSD, and licensed by FDA will be packaged in Singapore. Such multidose vials would be available in mid 1984 to further implement the recommendations of our Immunisation Committee.

The dose used is 10ug given at 0, 1 month and 6 months has been shown in other studies to be as effective as the 20ug and 40ug for adults and children. Locally, the 10ug dose is being evaluated in adult population in the hospital at-risk group. In children born to carrier mothers, it is important to know the 'e' Ag status of the mother. Children born to such mothers become carriers and follow up of such children (including liver biopsies) have shown changes of chronic persistent hepatitis⁵. Some children have also shown spider naevi and isolated case reports of primary hepatocellular carcinoma have been documented in childhood carriers⁶, (though this disease is rare in this age group even in endemic countries).

Present Regime

(a) Neonates born to 'e' Ag positive mothers:—

HBIG	MSD vaccine
(0.06ml per kg bw)	(10ug)
i.m. at birth (one limb)	(other limb)
Subsequently 10 ug at 1 month and 6 months	

(b) Neonates born to 'e' Ag negative mothers:—
MSD Vaccine — 10 ug i.m. at birth, then 1 month and 6 months.

A vaccination register (which in the interim period is in the Department of Medicine I, Singapore General Hospital) would eventually be transferred to the Epidemiology Department of the Ministry of the Environment, once computerisation has taken place.

A monitor is being kept too of side effects related to any of the vaccines. Any adverse effect requiring hospitalisation or absence from work for at least 48 hours should be documented and reported to the Coordinating Centre for the Hepatitis B Vaccine Programme, Department of Medicine I, Singapore General Hospital. These cases will be investigated to determine whether the adverse reaction event was genuinely related to the vaccination.

Screening Before Vaccination

Since 80% of young adults aged 20 and below have not been exposed it is important to identify those who need vaccine.

It is hoped that in the near future a centralised screening laboratory could be set, with trained technicians to tackle the load of large population screening programmes. The two routine screening tests done now are HBsAg and anti-HBs. Only those who are negative for both require the vaccine.

Outcome of Singapore's Programme

The outcome of our national programme to bring Hepatitis B under control requires not only the availability of low cost vaccines and reagents but also the assistance of health care workers and general practitioners who are in the forefront in advising patients on the risk of hepatitis and the safety of today's vaccine.

Since the monitoring programme is aimed to evaluate the short term (first 5 years), intermediate (5 to 10 years) and long term (after 10 years) outcome of the immunisation programme, the results would be followed with interest by many countries as well as the World Health Organisation.

All practitioners participating in any way in this programme, are contributing to an exciting period of mankind's history — the start of a global programme to eradicate Hepatitis B and a

major cancer of the world (for which Singapore would almost certainly be a show case model).

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Genital Herpes: Questions and Answers

(A Health Education Pamphlet)

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History of Herpes

Herpes — a name derived from the Greek word for 'to creep', is a chronic, recurring and often very painful disease caused by the herpes simplex virus.

By 1899, genital herpes was described as a sexually transmitted disease in Berlin.

In 1936, Dr Jean Aztruc recorded the earliest account of genital herpes.

In May 1960, epidemiologists, separated the two types of herpes. As doctors educated their patients on genital herpes, so did the news media, till herpes was a household word.

It has led to incorrect and over diagnosis of herpes. In Singapore, the report of 305 cases of herpes in 1982 (from 131 cases 1981) is probably due to doctors diagnosing the cases more often, or more likely treating recurrences rather than new cases. There is no increase of herpes in Singapore.

Psychological Stress to the Patient

Newspapers and magazines often sensationalise the disease, especially on its incurable nature. For doctors who are willing to listen and answer their patients' doubts, it is really incredible to discover how genital herpes has destroyed their lives mentally.

The following questions and answers may be incorporated in a health education pamphlet to be given to affected patients by general practitioners who are unable to find adequate time to counsel their patients.

GENITAL HERPES

These days, everyone seems to be worried about herpes. Publicity over the press has created alarm and led to a world-wide sensationalisation of this disease. In Singapore, this STD is not on the rise, but the higher statistics are likely to be due to more patients seeking medical help from an increased awareness.

The list below are the most frequently asked questions and the answers will aid in understanding the problem.

1. Q. Is genital herpes a venereal disease?

A. Yes, genital herpes is spread by sexual intercourse, and is a chronic recurring, often very painful disease caused by the herpes simplex virus (HSV)

2. Q. Is "Cold Sore" around the mouth due to genital herpes?

A. There are 2 types of Herpes Virus: Herpes Simplex Virus Type 1 and Herpes Simplex Virus Type 2. HSV Type 1 is linked to cold sores and infections of the eye and face; and HSV Type 2 commonly to genital herpes. However, sometimes, they can spread both ways.

3. Q. Can I get herpes from oral sex?

A. Yes, it occurs with an infected person. It can appear on the lips, mouth and throat as blisters. It can also spread by hand to mouth transmission.

4. Q. How would I know I have genital herpes after sex with a girl?

A. After 2 to 20 days (average 6 days) after sex with an infected person, you may develop an acute attack and have small groups of blisters on the prepuce, glans penis, scrotum or pubis which continue to appear for a few days. These break down in 1-2 days and form shallow painful irritating ulcers, with a reddish edge and a yellow crust. Your lymph nodes at the groin can enlarge and become painful. There may be fever and tiredness.

5. Q. My wife have herpes and was admitted to hospital, while I feel alright. What happened to her?

A. Women mainly, at times, develop extensive herpes of the genitals. Blisters appear on the labia, clitoris, vagina and cervix. The genitals are swollen and numerous painful ulcers form when the blisters burst. There may be nerve root pain and inability to pass urine, and this is very distressing. She may remain infective up to 2 to 8 weeks. There may be fever and malaise.

6. Q. Why does my genital herpes recur again?

A. Unfortunately in genital herpes, after the

first infection, the virus continues to infect and stay in the nerve root quietly. The virus may flare up causing recurrences which are quite a problem. These occur within weeks, months or years, even without further sex exposure. However, most people only have one episode. In recurrences, the severity and frequency fade. By 2-3 years, there is usually no recurrence.

7. Q. Will the blisters and ulcers always be the same?

A. The lesions tend to become smaller and less severe. The site which they occur may also change, but along a nerve root area.

8. Q. Can I predict another attack?

A. Some factors which bring on the recurring attack are alcoholism, stress, lowered body resistance, fever, other infections, emotional stress, strenuous exercise and menstruation-hormonal changes. You should eat well and exercise to stay healthy, and solve your psychological stress effectively.

9. Q. When am I infectious?

A. You are infectious when you have symptoms associated with the beginning of an episode, or whenever you have blisters or ulcers.

10. Q. How long after the ulcer, can I have sex?

A. As soon as the "scabs" on the ulcer drop and the ulcer is healed.

11. Q. How can I get relief from the pain of these ulcers?

A. Use Panadol or other safe pain killers, antiviral creams like Stoxil and Virumerz. These creams are helpful in shortening the period of the lesions, but must be used very early, a few hours of the early symptoms or blister. It is useless after 3 or 4 days.

12. Q. I have heard of Acyclovir, the latest drug. What about this?

A. Acyclovir is very expensive. It is taken by mouth or given in the vein for 5 days. It shortens the disease by preventing the virus from multiplying. Thus less virus is shed and further blisters do not form. It does not prevent a recurrence. It is claimed that recurrence may be less.

13. Q. I want a blood test for herpes, how accurate in this?

A. The most useful test is to culture the herpes virus from the blister. The blood test is only useful in the first attack when a rise in titre of the herpes antibody is seen. Otherwise it is not useful as facial herpes also gives the same result.

14. Q. Will I get cervical cancer?

A. Early research indicated there was some associated risk of cervical cancer. Genital herpes and cancer of the cervix can occur in the same person but herpes does not cause cancer. In some people with herpes, this may indicate an increased risk in cancer in later years. You are advised to get a Papanicolaou smear once a year. The smear can show early cancer cells.

15. Q. Will my baby be born with brain damage?

A. Nearing delivery of the baby, if the woman has active herpes, a caesarian section is performed. If it is not active, there is no problem. 66% of babies born through the birth canal when the herpes is active, are severely affected or die. The gynaecologist will check you and do the herpes culture. The doctor will also check the birth canal for blisters or sores and determine if it is herpes.

16. Q. Why me?

A. The reasons may be one or many. Some people get sores when they are run down or their immune system is not operating effectively. Every person is different.

17. Q. What shall I wear?

A. Excessive rubbing creates a break in the skin and allow infection to spread. Use loose clothing. Avoid tight pants in the active stage.

18. Q. Am I 'dirty'?

A. Herpes virus can infect anyone sexually. It is not due to hygiene.

19. Q. Am I 'loose' morally?

A. Sexuality is a natural healthy aspect of living. Genital herpes just happens to be a disease transmitted this way. One is not 'loose' just because of this.

20. Q. Do I tell my partner I am infectious?

A. Most definitely yes. It is very important to reduce the spread of genital herpes and the only way is to be honest. A partner worth having will wait until you are not infectious. Some however will end their relationships with you.

21. Q. Is herpes 'dirty'?

A. Genital herpes is not dirty. If you are not ashamed and are not hiding any disease, and is not too anxious, your partner is less likely to be.

22. Q. Can I infect my family with herpes from my towels, toilet seat etc.

A. The virus can only live for a short time outside of a warm environment. If you anticipate someone will use these things immediately after you have used them. If not, don't worry.

23. Q. Can I have sex with herpes?

A. It is safe to have sex as long as the warning symptoms and ulcers are not apparent. Even for a healing sore, it is wise to avoid sex till completely healed.

24. Q. How can I live with herpes?

A. Your first attack may be your last. If you have recurrences and these are bothersome, try to discover the trigger factor (stress, excessive sex, infection menstruation, emo-

tional and psychological stress) and develop a plan to change it. Try to accept you have the problem and learn to live with it as normally as you can, or else see a trained psychiatrist. Remember, the less you worry, you may have less chance of recurrence. Improve your life physically and mentally. Some people can mentally suppress the herpes and successfully keep the virus at bay.

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Elderly Primigravida — How big is the problem?

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An elderly primigravida is traditionally defined as a woman who is 35 years old or over and pregnant for the first time. The age 35 was recommended by the Council of the International Federation of Obstetrics and Gynaecology and by Macdonald and MacLennan⁽¹⁾.

A significant increase in maternal and fetal complications associated with increased perinatal mortality and morbidity were the key factors which led to this group of expectant mothers being included in a special category. But very little information regarding this special group is available in the 80's. Most of the literature available on the subject are more than a decade old. On the other hand, in the last decade or so, there has been clear shift in the obstetric philosophy and belief. Also available nowadays are more sophisticated technology particularly in the field of perinatal medicine. Over and above, women are now in better health and better informed than previously. One could easily imagine the impact of these favourable factors on today's elderly primigravidae.

This is why we are often impressed by the apparent normalcy of pregnancy and labour in the large number of women in this group. In fact, this has been noticed as early as 1964 by Booth and Williams⁽²⁾.

It would be worthwhile to examine the risks which have been alleged to complicate the pregnancy and labour in the elderly primigravida in the light of the facilities and expertise available in contemporary obstetrics.

Complications in Pregnancy

The elderly primigravida is more prone to suffer from a miscarriage, hyperemesis gravidarum, pre-eclampsia, gestational diabetes and premature labour than her younger sisters in their 20's. There is a definite and higher risk of the birth of congenitally abnormal child, particularly a mongol baby or Down's syndrome. Essential hypertension consequent upon the relative senility and rigidity of arterioles is commoner in this group of expectant mothers. The problem is aggravated when it is superimposed by pre-eclampsia. Similarly, a small, innocent uterine fibroid would have had

a chance to grow to a substantial size over the period of many years and may be found to complicate pregnancy and labour in an elderly primigravida.

While all these complications are encountered amongst today's population of elderly primigravidae, most obstetricians will perhaps share the view that they are less frequently seen than in the past. And also these are diagnosed early and treated more efficiently than in the past, giving better results.

Midtrimester amniocentesis and genetic counselling is now widely practised in many countries, a procedure which was restricted only in the hands of research enthusiasts in the past. Diagnostic accuracy of Down's syndrome by prenatal diagnostic amniocentesis around 16 weeks of pregnancy and culture of the cells obtained from the amniotic fluid is extremely high. Midtrimester abortions in these cases have been made much safer with the use of prostaglandins than a decade ago. This would reduce the incidence of babies born with chromosomal abnormalities.

Safer and more efficient tocolytic agents are now available to deal with the cases of premature labour. Many such labours can be arrested while drugs are available, which when given to the mother, may accelerate the development of pulmonary surfactants and therefore, the maturity of the lungs. These steps, along with the better technology and expertise in paediatric medicine available today, are expected to make the prognosis of these tiny babies more hopeful than years ago.

In many countries, women regularly attend "well-woman's clinic", family planning clinic etc, where fibroids may have been diagnosed during routine pelvic examination. If necessary, these could now be dealt with much earlier, before it has the chance of complicating the pregnancy and labour in an elderly primigravida.

Complications of Labour

Maternal distress and prolonged labour are more common in elderly primigravidae than in younger women. Of the many factors that may cause these problems, heightened apprehension and occipito-

posterior position in this group of patients are important. Stewart (1954) attributed difficult labour in these cases to the rigidity of the pelvis and less reserve power of the uterus⁽³⁾. Today's women are more educated and better informed than in the past. Her knowledge about the state of affairs during labour will help to alleviate undue apprehension. This, together with the use of epidural analgesia, which is freely available nowadays in many countries, has surely made a significant contribution towards the reduction in the incidence of prolonged labour.

The problem of the first stage and second stage of labour may affect the third stage. Retained placenta has been noted to occur more frequently in this group of cases particularly if there have been coexistent fibroids⁽⁴⁾. The operative delivery rate is also higher in elderly primigravidae. Many of these operative deliveries are performed for "fetal distress", which itself lacks unanimous diagnostic criteria. The faintest sign of fetal distress evokes disproportionate response in the obstetrician and the willingness to intervene is consistently observed.

Complications in Puerperium

Notwithstanding the complications in pregnancy and labour, the puerperium in the elderly primigravida is essentially normal. Breastfeeding, however, is less satisfactory.

Maternal Mortality and Morbidity

The maternal mortality and morbidity are perhaps slightly higher as a result of the complications that may affect the pregnancy and labour in such women. But this problem has been almost reduced to insignificance in modern obstetric practice.

Perinatal Mortality and Morbidity

Young (1963) quoted high perinatal mortality in the elderly primigravida⁽¹⁵⁾. Baird et al (1958) also stressed that age per se is an important factor in still birth figures⁽⁶⁾. The perinatal mortality and morbidity is still somewhat higher in this group of patients. But there has been steady improvement in the perinatal mortality and morbidity figures in general, over the period of years. This is mainly due to the relatively recent recognition of the colossal risks to the fetus of difficult vaginal operative deliveries and almost total abandonment of such procedures as high forceps, mid forceps, internal podalic version and breech extraction. They have been justly replaced by more liberal use of Caesarean section, bringing forth a decline in the maternal and perinatal mortality and morbidity. Many new generation obstetricians would choose for routine abdominal delivery in the event of a breech presentation in an elderly

primigravida. This may have a significant impact on the perinatal mortality and morbidity.

Undoubtedly, the complications in pregnancy and labour are more common in elderly primigravidae than in their younger sisters. Perinatal mortality and morbidity is perhaps still somewhat higher in this group. But the gross shift in obstetric philosophy and belief from what they were decades ago and the availability of new and efficient technology in contemporary obstetrics have significantly improved the outcome of such pregnancies.

With the obvious changes in the social pattern and the way of life, more and more women seek careers and are married late and when pregnant, they may reach the traditional age of 35 or over to be recognised as an elderly primigravida. Fortunately, there has been concomitant and immense advancement in the field of perinatal medicine. This is why one is often amazed to see that the vast majority of these women, properly supervised, go through a completely uneventful pregnancy and labour, contrary to the usual teaching of the past. Nonetheless, even the most confident would agree that a variable percentage of such cases do develop alarming complications. The literature, however, is not replete with the outcome of such pregnancies in the eighties.

Though decidedly more hopeful than in the past, the magnitude of the problem associated with elderly primigravidae is not well defined in today's obstetrics. A prospective, well controlled trial would be worth its time and trouble. This will help us gain fresh insight into this old problem and reassure the increasing population of this obstetrically special category of expectant mother unborn child on whom she has set a high premium, because of her dwindling chances of a the somewhat older first-time mother-to-be and her unborn child on whom she has set a high premium because of her dwindling chances of a further successful pregnancy.

Acknowledgement

We wish to express our thanks to Miss Sharon Leong for the time and trouble she took in typing the manuscript.

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Dispensing — The doctor's perspective:

DR C B SOH MBBS, MCGP(S)

Early this year there was a bit of controversy aired in our local newspapers between the pharmacists and the doctors with regard to who should be dispensing — the pharmacist or the doctor. The dust has now settled and we are still dispensing because most of our patients still prefer their doctors to dispense their medicine at the same premises. During the controversy, the pharmacists did bring up certain views which warrant a closer look at ourselves and our dispensers with the view to raising the standard of dispensing in our practices. I will like to share my limited experience in dispensing with you and discuss the problems faced by doctors who have to attend to patients as well as supervise their dispensers.

I will like to discuss the problems under the following headings:

- a) Preparing Prescriptions
- b) Dispensing Prescriptions
- c) Ordering of Drugs
- d) Keeping Stocks
- e) Drug labelling

A) PREPARING PRESCRIPTIONS:

1) Errors on doctor's prescriptions:

When large numbers of prescriptions are written, human error may lead to mistakes. Unreadable prescriptions are perfectly safe because they cannot be dispensed without contacting the prescriber. A more worrying hazard is the confusion of similar names such as 'Inderal' and 'Indocid', chlorpheniramine and chlorpropamide. The inappropriate consumption of a beta-blocking drug (Inderal) by an elderly patient on the verge of heart failure in place of an antirheumatic drug (Indocid) could easily have serious consequences.

When more than one tablet size is available the appropriate dose may frequently be omitted such as Ventolin 2mg or 4mg, Valium 2mg or 5mg. This could lead to error in dosage being dispensed. To avoid errors, doctors have to ensure that their handwriting is legible and their dispensers should be instructed to contact the prescriber if any doubt arises or if there is any omission.

2) Labelling of large bottles of tablets or mixtures:

It is possible for some dispensers to inadvertently leave some bottles of tablets or mixtures unlabelled or when they are labelled the strength of the medicines may not be stated. This could result in preparation of wrong prescriptions.

3) Medicine containers:

It is unwise of general practitioners to instruct their dispensers to put in several types of tablets or capsules in the same envelopes in order to cut

cost. This practice is hazardous in that the various types of drugs may have different instructions or the drugs may closely resemble each other in colour or shape resulting in the patient being confused. Paper envelopes are still being used in some of our clinics. Their disadvantages are the tablets may be easily crushed and they do not preserve the properties of drugs like thyroxine and sugar-coated tablets.

Preparations for external use like calamine lotion should not be dispensed in ordinary containers. They should be put in external use containers with tactile markings to prevent accidental ingestion of poison by patients.

B) DISPENSING PRESCRIPTIONS:

1) Language problem:

In a multi-racial society with our four main languages as well as numerous dialects, communication problems arise if our dispensers are not multi-lingual. This is further compounded by the large influx of tourists and foreign workers from non-traditional sources like Thailand, Bangladesh and Korea.

2) Poor verbal instructions:

Instruction on the taking of dispensed medication is often left to the dispenser. A disinterested dispenser will usually rattle out the instruction like a parrot without making certain that the patient comprehends the instruction given. The doctor who repeatedly receives a phone call from his patient seeking instruction on medication soon after he or she has just left the clinic, should realise that there is a communication breakdown between his dispenser and his patients.

3) Right prescription for the wrong patient:

In a busy noisy waiting room, it is possible for the dispenser to dispense the right prescription to the wrong patient who is usually uneducated and most likely to respond to names with closely similar pronunciation. This has happened in my practice before and the patient had to return to pick up her correct prescription.

C) ORDERING OF DRUGS:

1) Poison order:

It is a common practice for pharmaceutical sales representatives to call on doctors to distribute drug samples or to take orders. In my experience the quantity is always written in numbers instead of words on the poison order. This could lead to unauthorised additions of numerals and possible acquisition of poison drugs by unauthorised people. The problem is further aggravated by drug

firms with pre-printed list of drugs for the sales representative to enter numerically the quantity ordered. I would advise that in order to avoid any unauthorised additions and possible legal complication, all doctors should not affix their signature on the poison order which is not written both in numbers and in words. Furthermore they should ensure that all available blank spaces should be obliterated and the number of items recorded in words at the bottom of the form to deter any unauthorised additions to be inserted later.

2) Relationship with the pharmaceutical sales representatives:

As a result of the proliferation of drug firms more and more sales representatives have been calling at our premises to promote and sell to us their drugs. It is in the doctor's interest to see them in order to keep up with the latest advance in drug therapy but the presence of several sales representatives from different firms waiting to see the exhausted doctor towards the end of his busy session is probably undesired. Furthermore it is definitely unproductive for them to wait for hours for the doctor to finish seeing his last patient. One possible solution would be to have an appointment system for the doctor to see two sales representatives per day during his free time.

D) KEEPING OF STOCKS:

1) Limited shelf life:

It must be remembered that certain medicines like antibiotics and vitamins have a limited shelf life. It is a common practice for drug firms to give promotional offers to doctors. Unfortunately these offers were at times not genuine in that the drug firms were trying to unload drugs with a short shelf life on unsuspecting doctors and their dispensers.

Therefore it is important for us to be careful with so-called promotional offers especially those offers that are unrealistically cheap.

2) Turnover of drugs:

To ensure good quality control the doctor should instruct and implement drug stock rotation by labelling the date of purchase. For those medicine with a low turnover it is better for the doctor not to be tempted by promotional offers or bonuses and order excessively resulting in overstocking and stale stock. Furthermore sugar coated tablets do not keep well in our hot humid climate resulting in high wastage. Therefore it is preferable to order the smaller pack if available even though the unit price might be higher than the larger pack.

E) DRUG LABELLING:

The trend towards labelling of medicines is growing. The Ministry of Health has started labelling of medicines since 1980 at all Government hospitals and polyclinics. The Pharmaceutical Society of Singapore fully support the M.O.H.

action. 77% of doctors who participated in a survey by the Society of Private Practice are in favour of partial or full labelling. However labelling has not been implemented as widely in private general practice. The reasons could be due to the logistic problem of getting labels for the 300-400 drugs that the average clinic carries and the high cost of printing the large numbers of labels. The pharmaceutical firms should be strongly encouraged to provide adequate labels bearing the brand names, generic names and company logo at the time of purchase, for example 50 ampicillin labels for every tin containing 1000 capsules. The extra cost to the drug firm can be reduced by bulk printing and the advantage to the drug firm is substantial from the advertising point of view.

F) RECOMMENDATIONS:

In order to improve the standard of dispensing in general practice I would like to put forward the following recommendations:

1) Staff Selection:

The proper selection of clinic dispensers based on the following job requirements:

- a) Minimum secondary 3 education,
- b) Ability to speak English, Mandarin, Malay and Chinese as well as dialects like Hokkien and Cantonese,

2) Training Course:

In the Government sector, a newly appointed dispensing assistant is put on a 3 years' probation with departmental training and annual examination. In the private sector our dispensers are given on the job training by ourselves in an unorganised way. A training course for all private clinic dispensers incorporated into a structured training course for all clinic assistants is essential in upgrading the standard of dispensing in general practice.

The training course for our dispensers could include the following topics:

a) Basic Pharmacology:

- 1. Drug Classification
- 2. Drug action
- 3. Common use
- 4. Side effects of drugs
- 5. Routes of administration

b) Preparing and Dispensing Prescriptions

- 1. How to read prescriptions
- 2. Common abbreviations

c) Keeping stock of drugs

d) Assisting in quality control of drugs

e) Assisting in observing the laws relating to the practice of dispensing like the Poisons Act and the Misuse of Drug Act.

Practice Management

DR L G GOH MBBS, M Med (Int Med)

Seminar on Drug Dispensing and the Doctor A Brief Report

The first seminar organised by the Practice Management Committee of the College of General Practitioners, Singapore was held on the afternoon of Sunday, 23rd October, 1983 at the Academy of Medicine Lecture Theatre. A total of 62 doctors attended. The talks were informative and this was followed by an active question time.

After a brief introduction by the Chairman of the Practice Management Committee on the objectives and goals of the Committee, the meeting started with Dr Soh's talk on the Doctor's Perspective in Drug Dispensing.

DOCTOR'S PERSPECTIVE

Dr Soh made many pertinent observations on the shortcomings and pitfalls that are commonly encountered in the medical clinic.

Bad Dispensing Habits

Among the bad dispensing habits of some doctors are (1) putting 3 or 4 types of medications into 1 envelope, and (2) not stating clearly the dosage strength of drugs in their prescriptions. Dispensers were often noted to have the following shortcomings: (1) reciting dosage quantities and times without paying attention whether the patient has comprehended what instructions were given, (2) giving the right medicine to the wrong patient because there are some patients who answered when someone else was called. Vigilance on the part of dispensers is therefore an important preventive measure. During discussion time, Dr Wong agreed that there are always some patients who respond when somebody's name was called. One other suggestion was made, namely, to take down the patient's telephone so that if such errors are detected, the patient can be recalled over the telephone.

Stocking of Medicines

On stocking of medicines, Dr Soh made an important observation that a common pitfall is to succumb to promotional offers, resulting in over-stocking of medicines. Doctors must also be vigilant that promotional offers are not attempts to unload drugs nearing the end of their shelf-life. Quantity of drugs to be ordered should be related to turnover and temptation to quantity orders strongly resisted even if unit price may be larger.

Drug Labelling

On drug labelling, he suggested that drug companies should look into the supply of labels together with their medicines. The label should contain the generic name, dosage strength and the brand name in brackets if there is a brand name, in parenthesis.

A Dispensers' Course

Correct drug dispensing hinges on proper staff selection and adequate on the job training on basic pharmacology, familiarity with commonly used abbreviations in prescribing, ability to spot drugs that obviously have deteriorated in quality as well as some working knowledge of the law as this apply to clinic dispensing. He suggested that the College look into the feasibility of organising a short course for clinic dispensers as part of in-house training for them. This suggestion was opened to the floor during discussion time and of the doctors who voted 23 were for, 3 against and 2 abstained.

Dr Soh's talk is reproduced in full on page 191.

DRUG DISPENSING LAWS

Mr Peter Lau, an industrial pharmacist, was given the task of giving a bird's-eye view of Drug Dispensing Laws in Singapore. He highlighted the important aspects of the legislature that are applicable to doctors. Whilst it is probably unnecessary for the doctor to know the details, yet the practising doctor must be conversant with the important areas of the law, especially those areas dealing with record of drugs prescribed, what a prescription must contain, the keeping of controlled drug registers and the treatment of drug addicts.

Basically the laws relating to Drug Dispensing in Singapore are embodied in 4 pieces of legislature, namely:

- * The Poisons Act
- * The Poison Rules
- * The Misuse of Drugs Act, and
- * The Misuse of Drugs Regulations.

Poisons

Poisons are listed in the Poisons List in the Schedule of the Poisons Act under Section 21. The poisons in this List are also classified in the Poison Rules into First, Second, Third, Fourth,

Fifth, Sixth, and Seventh Schedules.

The Schedules that are of interest to the practising doctor are the First to Fifth Schedules. All Scheduled poisons may be supplied by the doctor to his patients provided he writes out a prescription in accordance with details specified under the Poisons Rules and records relevant details in a dispensing book.

Controlled Drugs

The other area of interest to doctors in dispensing are the controlled drugs. A controlled drug is one that is specified in Parts I, II or III of the First Schedule of the Misuse of Drugs Act. The drugs specified in the Parts I, II, III of the First Schedule of this Act are respectively known as "Class A Drugs", "Class B Drugs", and "Class C Drugs". Such a classification is for the purposes of imposing penalties for offences committed under the Act.

The controlled drugs specified in the Misuse of Drugs Act are also classified under First, Second, Third and Fourth Schedules of the Misuse of Drugs Regulations. Controlled Drugs in the First Schedule of the Misuse of Drugs Regulations are exempted from control under the Act though they are still Poisons subject to control under the Poisons Act. Controlled drugs from the other three Schedules are subject to the requirements of regulations of prescription (Regulations 11 & 12), labelling (Regulation 13), keeping and proper entry of registers (Regulations 14 & 15) and destruction (Regulation 28).

The Treatment of Drug Addicts is covered in Regulation 19 of the Misuse of Drugs Regulations.

DISCREPANCIES ON DRUG DISPENSING

We were fortunate to have Miss Amy Lim, Head, Inspectorate Section to talk on discrepancies on Drug Dispensing as seen by the Inspectorate. She remarked that the objective of the Inspectorate is not to impose penalties on errant doctors but rather to see that the relevant legislations on dispensing are complied with for the protection of all parties concerned. The following are commonly noted discrepancies.

Poison Signed Orders

Doctors should not issue blank signed orders to sales representatives. Such a practice has probably arisen out of convenience but potentially it opens the loophole to illegal orders unauthorised by the doctor.

It must also be remembered that a signed order prescription for controlled drugs must have the quantities of controlled drugs ordered both in figures and in words.

All orders delivered to the clinic should be

personally checked by the doctor to ensure that no unauthorised orders are made on the doctor's behalf by the clinic staff.

Forged prescriptions

Doctors were reminded that they should keep their prescription pads such that they cannot be stolen. The Inspectorate encountered several instances of prescriptions written on stolen prescription pads by unauthorised persons.

Dispensing of Medicines by the doctor

A legal point that many doctors are not aware is that doctors can dispense drugs for his patients only. Hence, it is an offence to dispense another doctor's prescription.

The Doctor is responsible

A clinic nurse dispenses under the direct supervision of the doctor. Thus, the doctor is responsible for any mishaps and not the nurse. When the doctor is away, the nurse cannot dispense.

Dispensing Controlled Drugs

Controlled drugs must be kept under lock and key and the key is to be kept by the doctor. It is not advisable to let dispensers have access to the poison cupboard. Doctors should handle the required items personally. Such a practice will prevent any unauthorised removal of controlled drugs.

Dispensing Records

Dispensing Records were often found by the Inspectorate to be incomplete. All poison items must be entered in the Daily Dispensary Book (also called the Day Book).

Miss Lim pointed out that it may be difficult to comprehend the Poisons Act and the Misuse of Drugs Act in view of legal jargon. It will be administratively easier to instruct the nurse to record all drugs containing poisons dispensed in the Daily Dispensing Book (Day Book).

In addition, where controlled drugs are used (that is those drugs specified under the Part I of the Schedule found in Misuse of Drugs Act), a controlled drug register must be kept and updated within twenty four hours after dispensing. One often forgets to enter those controlled drugs used during housecalls, resulting in an unbalanced stock. Such discrepancy must be rectified.

Receipts of controlled drugs must be entered in red ink. Also, each product must be allocated a separate page in the Register so that one can keep a stock balance.

Destruction of Controlled Drugs

Breakages of controlled drugs either as broken ampoules or crushed tablets must be saved for inspection by an inspector from the Inspectorate.

The doctor is not allowed to throw them away without the inspector's endorsement who would then witness the destruction. When instances of breakages of controlled drugs occur, the doctor should contact the Inspectorate to send an officer to be a witness before discarding the broken items.

Treatment of Drug Addicts

It should be noted that a doctor who treats a

person known to be a drug addict or a person who can be reasonably suspected to be one, has to report that person even though the treatment may be unrelated to the addiction problem. A question was later raised what if the addict did not disclose himself. But where the doctor has a reasonable suspicion that the patient he is treating is an addict, the medical treatment should be reported.

Question Time

During question time many questions were put to the speakers. Among those asked were the following:

** What are the controls that a doctor can exercise in a patient from say Indonesia, requesting a repeat prescription? The possibility of the patient stocking up medicines cannot be excluded in a patient who ask for repeats. The only control is on the part of the doctor determining whether the quantity and frequency of the repeats are reasonable or are excessive.

** Is it correct that doctors who are company

doctors sign for scheduled medicines that are used in the factory in his absence?

Drugs that are in the Poisons schedules or in the Controlled Drug schedules can only be dispensed by the doctor or under his direct supervision. If the doctor is not at the factory in person he should not sign for such drugs.

** Can a doctor supply medicines to ships or factories? The doctor does not have a licence to supply medicines. He is exempted however, from having to have a licence where the medicines supplied is for the purposes of treatment of his patients.

Notes on Drug Dispensing Laws

1. POISONS CLASSIFICATIONS

Medicinal Poisons are classified in the Poisons List Part I of the Poisons Act (Cap 164) and also in the Poisons Rules First, Third and Fifth Schedules.

1.1 *Poisons List Part I

Lists the medicinal poisons. Retail sales are restricted to Pharmacists holding a Form 'B' licence. Doctors are exempted from requiring a licence, provided the medicines are used for the purposes of the treatment of his patients. A doctor is not allowed to dispense another doctor's prescription. The Poisons List Part I is located at the end of the Poisons Act.

1.2 *Poisons List Part II

This lists Industrial, Agricultural or Horticultural Poisons which are not of interest to the doctor. Retail sales of these are permitted for shopkeepers holding a Form 'D' licence.

1.3 *Poisons Rules First Schedule

Retail sale of drugs under this Schedule requires the customer's signature.

1.4 *Poisons Rules Third Schedule

Drugs under this Schedule are supplied to the public on a doctor's prescription only.

1.5 *Poisons Rules Fifth Schedule

Retail sale of drugs under this Schedule is restricted to licenced Pharmacists. Cautionary labellings are required.

2. CONTROLLED DRUGS CLASSIFICATION

Some medicinal poisons are controlled under the Misuse of Drugs Act and its Regulations. Such drugs are known as Controlled Drugs (previously termed Dangerous Drugs). Drugs affected by this legislation are classified into 4 schedules in the Misuse of Drugs Regulations, namely First, Second, Third and Fourth Schedules.

2.1 *First Schedule Controlled Drugs

The First Schedule consists of preparations containing low concentrations of certain controlled drugs. They are as follows:—

- (a) Preparations, other than injections, containing any of the following drugs in **less than 100 mg. per unit dose** (i.e. in tablets, capsules, etc.,) and **less than 2.5% in undivided preparations** (i.e. mixtures, syrups, emulsions, etc.):—
Acetyldihydrocodeine

Codeine

Dihydrocodeine

Ethylmorphine

Nicocodine

Norcodeine

Pholcodine

(Injections containing the above in any concentration are regarded as Second Schedule drugs);

- (b) Preparations containing less than 0.1% cocaine;
(c) Preparations containing less than 0.2% morphine;
(d) Preparations containing less than 2.5 mg. diphenoxylate only if combined with atropine sulphate of at least 1% of the dose of diphenoxylate (e.g. **Lomotil**);
(e) Ipecac and Opium powder (Dover's powder) containing 10% each of ipecacuanha and morphine.

Examples:

- 1 Aspirin and Dover's Power Compound Tablets, BPC;
- 2 Aspirin, Phenacetin and Codeine Tablets, BP;
- 3 Aspirin with Ipecacuanha and Opium Tablets, BNF;
- 4 Chlorodyne, BPC and BP '85.
- 5 Chloroform and Morphine Tincture, BPC;
- 6 Cocaine Eye Drops, BPC, if diluted below the equivalent of 0.1% cocaine or 1.11 mg. of cocaine hydrochloride per ml.;
- 7 Codeine Compound Tablets, BP;
- 8 Codeine Linctus, BPC;
- 9 Codeine Linctus, Strong, BNF 1963;
- 10 Codeine Phosphate Syrup, BPC;
- 11 Codeine Syrup, BPC;
- 12 Codeine Tablets Compound, BP;
- 13 Codis;
- 14 Dover's Powder and Aspirin Compound Tablets, BPC;
- 15 Morphine and Kaolin Mixture, BPC;
- 16 Opium Camphorated Tincture, BP;
- 17 Paregoric;
- 18 Pholcodine Linctus, BPC;
- 19 Veganin.

Preparations containing more than the specified concentrations will be regarded as Second Schedule Drugs.

2.2 *Second Schedule Controlled Drugs

Drugs in the Second Schedule consist of:—

- (a) Preparations of drugs included in the First Schedule in higher concentrations than those permitted in that Schedule;

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- (b) Injections containing drugs listed in paragraph (a) of the First Schedule;
 (c) Drugs and preparations which were previously controlled under the Dangerous Drugs Act, such as:—

Cocaine
 Codeine
 Dextromoramide (Palfium)
 Diethylthiambutene (Themalon)
 Dipipanone (Diconal, Pipadone)
 Etorphine
 Fentanyl
 Methadone (**Physeptone**)
 Morphine
 Opium (Opium tincture)
 Pethidine (Meperidine, Pamergan, Pethilofan)

Pholcodine

- (d) CNS stimulants and anorectics, such as:—
Amphetamine
 Dexamphetamine (Appetrol, Dexamed, Dexedrine, Dextan, Dexobarb, Drinamyl, **Durophet**, Obolip, Steladex)
 Methamphetamine (Methedrine)
 Methylphenidate (Ritalin)

- Phenmetrazine (Preludin)
 (e) Hypnotic and Sedative:—
 Methaqualone (Mandrax, Melsedin, Methadramine)

2.3 * Third Schedule Controlled Drugs

Drugs in the Third Schedule consist of CNS stimulants and anorectics, such as:—
 Benzphetamine (Didrex)
 Chlorphentermine (**Lucorfen**)
 Mephentermine (Mephine)
 Phendimetrazine
 Pipradrol

2.4 * Fourth Schedule Controlled Drugs

Drugs in the Fourth Schedule consist of hallucinogens, such as:—
 Bufotenine
 Cannabinol
 Lysergide (LSD)
 Mescaline,
 etc., etc.,

- 2.5** A summary of the controls for the different Controlled Drug Schedules is given in Table 1.

TABLE 1 SUMMARY OF CONTROLS

	First Schedule	Second Schedule	Third Schedule	Fourth Schedule
Possession	No restriction	Practitioners pharmacists, nurses acting on instructions of doctor or dentist. Other authorised persons	As for Second Schedule	Only by special licence under Regulation 4
Supply	Veterinary surgeon, doctor, dentist, nurse in charge of a hospital ward acting on instructions of doctor or dentist; pharmacist (poisons licence)	As for First Schedule	As for First Schedule	As above
Administration	No restriction	To a patient by a doctor or dentist, or a nurse in charge of a hospital ward acting on instructions of a doctor or dentist	As for Second Schedule	As above

Production	Practitioners pharmacists	As for First Schedule	As for First Schedule	As above
Prescription requirements		Yes	Yes	Yes
Keeping of records	Not required, but documents e.g. signed orders, invoices to be kept for 3 years	Yes	No	Yes
Requisition before supply	No	Yes	Yes	Yes
Labelling requirements	No, except as poisons rules	Yes	Yes	Yes
Storage under lock and key	No	Yes	Yes	Yes
Destruction in presence of inspectors	No	Yes	No	Yes

3. PRESCRIBING AND RECORDING REQUIREMENTS

Medicinal Poisons

These are set out in Sections 7 (2), 7 (3), (a), 7 (3) (b), 7 (3) (c), 7 (3) (d) and 7 (4) of the Poisons Act (Cap 164). These sections are reproduced below for the benefit of the reader.

3.1 On labelling

"(2) The medicine must be distinctly labelled with the name and address of the firm or person by whom it is supplied or dispensed and with a serial or other identification number or mark."

3.2 On recording

"(3) On the day on which the medicine is supplied or dispensed or, if that is not reasonably practicable, on the day next following that day, there must be entered in a book which is kept and used regularly for the purpose of this provision but which need not be used exclusively for that purpose the following particulars:—

- (a) the date on which the medicine was supplied or dispensed and the serial or other identification number or mark relating to such medicine;*
- (b) the ingredients of the medicine or if the medicine is a proprietary medicine, the name of the medicine; and the quantity thereof supplied;*

(c) if the medicine was dispensed by a licensed pharmacist, the name or initials and, it is known, the address of the person by whom the prescription was signed, and the name and address of the person to whom, and the date on which, the prescription was given;

(d) if the medicine was not so dispensed, the name and address of the person to whom it was supplied."

3.3 On personal supervision

"(4) In the case of a medicine which is supplied or dispensed by a pharmacist or medical practitioner the medicine must have been compounded by or under the direct and personal supervision of such pharmacist or medical practitioner."

4. PRESCRIBING AND RECORDING REQUIREMENTS (cont'd)

Controlled Drugs

These are set out in the Misuse of Drugs Regulations. They are also described in the Ministry of Health pamphlet "A Guide for Medicine Practitioners, Dentists and Pharmacists on the Misuse of Drugs Act 1973 and the Misuse of Drugs Regulations, 1973". The relevant paragraphs in this pamphlet are reproduced below:

4.1 * Form of Prescription

"Except for First Schedule drugs, all con-

trolled drugs may be supplied on prescriptions. Prescriptions should be in ink and written in the prescriber's own handwriting and should contain the following particulars:—

- (a) name and address of patient;
- (b) dosage to be taken and total quantity to be supplied with the total quantity to be written in words and figures;
- (c) in the case of a dental prescription or a veterinary prescription to have the words "For Dental Treatment only" or "For Animal Treatment only" as the case may be,
- (d) usual signature of prescriber;
- (e) name and address of the prescriber;
- (f) date.

If the quantity is to be supplied in instalments, directions as to the quantity per instalment and interval between instalments should be specified. Note that there is no provision allowing the total amount of a prescription to be dispensed a second or third time (as was allowed previously under Regulation 12(3) of the revoked Dangerous Drugs Regulations, 1951). Only in the case of hospitals may prescriptions be written on patient's bed card or case sheet."

4.2 * Supplying on prescriptions

"Any person (pharmacist or practitioner) supplying a Second, Third or Fourth Schedule drug on prescription shall not supply the drug:—

- (a) unless he is satisfied that the conditions stated above (see also Regulation 11) are complied with;
- (b) unless the prescriber's address given on the prescription is a Singapore address;
- (c) unless he is sure that the signature of the prescriber is genuine;
- (d) before the date specified in the prescription;
- (e) later than thirty days after the date specified in the prescription;
- (f) unless, in the case of a Fourth Schedule drug, the person prescribing or supplying the drug is specially licensed under Regulation 4.

After dispensing the prescription, the supplier must mark on it the date on which it was dispensed and retain the prescription on the premises for three years."

4.3 * Records on Receipts and Supplies of Controlled Drugs

4.3.1 Controlled Drug Register

"All receipts and supplies of Second and Fourth Schedule drugs (whether by way of administration or otherwise) should be recorded in accordance with the Form set out in the Fifth Schedule to the Regulations (reproduced below). Part I of the Register is a record of receipts of supplies and Part II a record of drugs supplied.

Note that a "balance of stock" is required in Part II of the Register. The Forms for recording are:—

PART I ENTRIES TO BE MADE IN CASE OF OBTAINING

Date on which supply received	NAME	ADDRESS	Amount obtained	Form in which obtained
	of person or firm from whom obtained			

Since stock balances are required it will be necessary to keep separate parts of the Register for separate controlled drugs and separate pages in each part for different strengths or preparations of the same drug. The name of the drug or preparation and its strength should be stated at the head of each page."

4.3.2 Correction of Entries

"Entries in the Register should be made within 24 hours and there shall be no cancellation, obliteration or alteration of any entry. Corrections should be made only by way of marginal or foot-notes which should specify the date on which the correction is made. Entries and corrections

PART II
ENTRIES TO BE MADE IN CASE OF SUPPLY

Date on which the transaction was effected	NAME	ADDRESS	Particulars as to licence or authority of person or firm supplied to be in possession	Amount supplied	Form in which supplied	Stock balance (receipts to be added in red ink)
	of person or firm supplied					

should be made in ink. The Register shall not be used for any other purpose."

4.3.3 Separate Registers

A separate Register should be kept for each premises. This Register may be sub-divided into several sub-registers for separate classes of drugs. However, in a multi-department store, separate registers may be kept for each department only with the approval of the Minister.

4.3.4 Preservation of Records

"All registers, receipts, invoices, books, etc relating to purchases and supplies of drugs must be kept in the premises for three years."

"Records of receipts, supply and use must

be kept in bound books."

5. DESTRUCTION OF CONTROLLED DRUGS

19 All stocks of Second and Fourth Schedule Controlled drugs can only be destroyed in the presence of and in accordance with the directions given by an inspector who shall endorse such destruction in the Controller Drug Register.

6. STORAGE OF CONTROLLED DRUGS

All controlled drugs must be kept in a locked compartment the key to which must at all times be in the personal possession of the pharmacist, medical practitioner, or nurse in charge of a hospital ward, or other person authorised to supply controlled drugs.

The Ninth Convocation & Dinner and Sixth Sreenivasan Oration

held at the Hyatt Regency, Singapore on
6th Nov 1983

Each year around November the College holds its main event of the year and that is the annual dinner and Sreenivasan oration to commemorate the memory of our founder president. During this time the College honours those who have helped in the work of the College and those who have been successful in the M.C.G.P. exams. This year however the exams had been postponed so there were no graduands but many people were honoured and a well deserved fellowship went to Dr Lim Kim Leong.

The Albert Lim Award went to Dr Tan Cheng Lim the Senior government paediatrician who has supported many of the College activities in the past, and Certificates of appreciation were also given to Prof James Eric Aiyathurai, Mr N S Bhagat, Dr Gabriel P K Chiong, Dr Frederick Samuel and Mr Tan Kiat Khoo for their help and valuable work with the College.

The occasion was an impressive affair in the Sir Stamford Raffles' room of the Hyatt Hotel and was well attended by both our members and colleagues from the other medical disciplines. We were pleased to see Mr Yahya Cohen and his charming wife Nina there, also present was Dr Chew Chin Hin the Deputy Director of the Medical Services and his wife Anna, and Dr N K Yong and Dr Chow Khuen Wai came to represent the Singapore Medical Association and the Academy of Medicine. Amongst our senior members of the College present were our old stalwarts Dr Colin Marcus and Dr Foo Chee Guan. It was pleasing to note that the younger generation of general practitioners was also out in full force, this is an event that needs the support of everyone who has the welfare of the College at heart.

The President of the College Dr Wong Heck Sing gave a speech that is likely to remain for a long time in the minds of those who listened to him. Dr Wong is someone who is noted for his composure and quiet ways but what he said on the unfortunate use of the term "middleman" in reference to general practitioners was something which marked him as a leader of a section of the profession who have been much misunderstood in the past. The full text of his speech is reproduced elsewhere in this issue.

This year's Sreenivasan oration was given by Dr V L Fernandez our immediate Past President.

He spoke on his twenty five years of experience and his transition from general practitioner to family physician. Most of us who know Victor cannot but be impressed by the sincerity of the message. He made a plea for the setting up of a department of general practice in the University of Singapore. In this he re-inforced Dr Wong's message. Hopefully it will not fall on deaf ears. To say funds are not available for this is to give, quite frankly, a very lame excuse, if funds are not available then they must be found. Surely it is important to see that the fifty per cent or more of the graduates of our medical school who eventually become general practitioners should be adequately and competently trained for the task. The College can help in training the undergraduates as it does at the moment, but a department in the university can do much more in seeing that a correct perspective is given to all medical graduates who may have in the future to do their job outside the hospital and other institutions. In his inimitable style Dr Fernandez went on to trace the danger of patients doing the rounds of the specialists in Singapore, and the use of slides to highlight his talk was a good way of making his audience see his point of view.

A regular feature of the occasion was the presentation of prizes to those medical students who did well at the test set for them by the College. This year the winners were

1st prize	Mr Warren Lee Wei Rhen
2nd prize	Mr Simon Ng Pau Ling
3rd prize	Miss Chua Tsei Meng

After the formal part of the evening's formal ceremonies were over, the people present retired to the Crystal ballroom to enjoy a sumptuous eight course Chinese dinner. As everyone in Singapore knows, eating is a national pastime with our people here, and it is good that this was not interrupted by speeches from the floor. It was a most successful evening and a note of appreciation is due to Dr Alfred Loh and his hard working committee. The menu was well balanced, there was food for thought and food for the stomach also.

EK

The Sri Lankan Family Physician

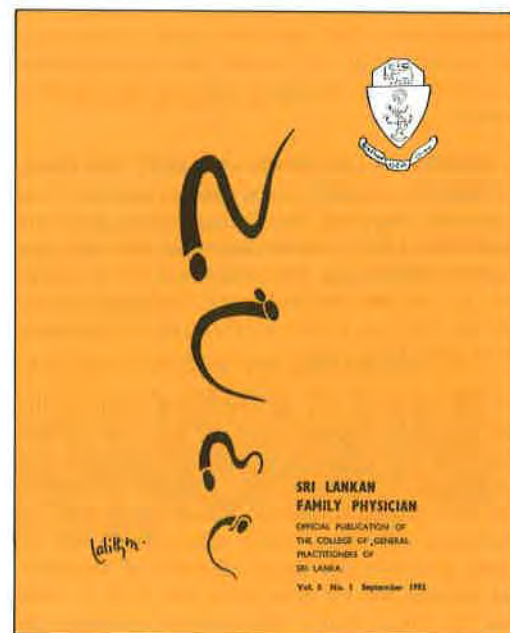
The Sri Lankan Family Physician is the official publication of the College of General Practitioners of Sri Lanka.

The first issue appeared in 1979 and it has been an annual from that date. Plans are being made to make it a bi-annual from 1984, with a view to making it a quarterly publication at a future date. Its founding and present Editor is Dr. Dennis J. Aloysius.

The Journal serves as a forum for publication of original articles by Family Physicians and other members of the medical profession. Articles of interest to the General Practitioners are published regularly. It is also a Journal of record of the College activities.

The College of General Practitioners of Sri Lanka was established by an Act of Parliament in 1974. The Independent Medical Practitioners Association of Sri Lanka, which is the oldest national organization of General Practitioners in the whole world, sponsored and created the College. The main object of the College has been to establish and maintain the highest standards of excellence in General Practice and to ensure post graduate and continuing medical education for Family Physicians. It is the only College in the whole world that has founded an undergraduate medical college — The North Colombo Medical College (NCMC) which is the theme of the cover depicted here.

The cover designs of the Sri Lankan Family Physician have changed with every issue. They are the work of Dr. Lalith Mendis, a parasitologist who has produced over 100 cover designs for medical journals in Sri Lanka. The constant theme



has been the family — father, mother, son and daughter — depicted in modern art. The emblem of the college, which appears on every cover, has the Sri Lankan Lion above a shield, which depicts the oriental lamp of learning, entwined by the snake of Aesculapius — the symbol of the medical profession around the world.

The motto "Arogya Parama Lābha" — is in Pali and means "health is precious".

In the short space of 5 years, the Sri Lankan Family Physician has established itself as an exchange journal of quality.

The information on the Sri Lankan Family Physician has very kindly been provided by the Editor, Dr. Dennis J. Aloysius, 147, Galle Road, Dehiwela, Sri Lanka.

Book Review: 1

Epidemiology and Research in a General Practice
G I Watson

Publishers: Royal College of General Practitioners
Price: £ 10.50

If someone else were to write a review on this book he would give a totally different view-point from the comments I am about to make, and that is as it should be, a good book must present different facets to different people but each person should hold on to his own views in the way the book has affected him.

Ian Watson's book brought a little mist into my eyes, not only because he said so well all that I believe in, but because it brought back also memories of the man; tall, quiet and unpretentious yet such a giant amongst men.

I still remember the morning in Peaslake where he had his practice. He was there at the railway station waiting for my wife and me like he said he would. He drove us to his home in his mini car where his wife Carol was waiting. We spent the entire day with the Watsons, it was a rural practice set in the lovely Surrey countryside and we talked about many things, from problems in general practice to the works of Sir James Mackenzie whom he very much respected.

He was no stranger to the part of the world where I come from. He had spent his happy boyhood days in Klang where his father the veritable Malcolm Watson so successfully battled against the anopheles mosquito. The senior Watson fired the imagination of his son who followed in his father's footsteps and became an expert on epidemiology as well as being a successful General Practitioner. Ian Watson had a brilliant career in medicine. He was awarded the Sir Charles Hastings prize twice, received the Mackenzie Medal of the Royal College of Physicians of Edinburgh and was also awarded the James Mackenzie prize of the Royal College of General Practitioners.

His book *Epidemiology and Research in a General Practice* has been published posthumously. It was not published during his life time because he was still at work on his studies when it was untimely terminated. He was a perfectionist and would not rush into print until he had carefully read through what he wrote. I still have with me typewritten drafts of his on which he had penned, "I was not allowed to correct this."

In his book the section on the clinical epidemiology of influenza and mycoplasma pneumoniae in general practice should inspire all our general practitioners who feel that it is not possible to do good research work in general practice. His observations on the changing pattern of infectious disease in family practice are significant and well documented. This passage from the chapter tells of the changes seen, "Let anyone who

cannot yet visualize how the scene of battle has changed since we took over our fathers' practices, read Osler's description of erysipelas in 1918. I quote: "Erysipelas is a simple inflammation. In its uncomplicated forms there is seen, post mortem, little else than inflammatory oedema" His last sentence in a long paragraph on treatment is as follows: "Perhaps as good an application as any is cold water which was highly recommended by Hippocrates." That indeed would still be "prescribable on EC 10" and may explain why even uncomplicated cases of erysipelas sometimes died before the advent of sulphonamides."

There is no doubt that antibiotics have changed the outlook of many cases seen and treated by the general practitioner in recent years. Yet there are those who believe that all general practitioners are far too trigger happy with the use of antibiotics in their daily practice. I am glad that on this topic I have the support of people like Ian Watson who says in the book, "Although the causal pathogen is generally a virus, secondary bacterial infection of the larynx is the rule rather than the exception which can sometimes cause a rapid deterioration in the child's condition. For this reason a suitable antibiotic should be given orally or parenterally at the first attendance."

A few years ago this kind of statement would have sounded sacrilegious to the purists in hospital practice. To-day we have many general practitioners who go on record as saying that they do not always wait to see the white of the eyes of the enemy before opening fire. Ian Watson goes on to say "In general practice we cannot usually wait for the results of specialist tests before starting treatment. Every new prescription ... is in reality a mini-therapeutic trial. By the time a firm diagnosis has been made ... our management of the patient's illness will already have started and a provisional prognosis will have been given."

There are sections in the book devoted to diverse subjects like sinusitis, measles vaccination, earache and croup but I will not pre-empt the pleasure you will derive from reading the book by giving you lengthy accounts of the content. This is a book for the thinking man and one that no doctor who is really interested in what general practice is all about, can do without. For my part it will serve as a constant reminder as to what I should really aspire to even though I know full well that this will be quite impossible no matter how hard I try. Not many people can be great figures in medicine but everyone should at least try to be good doctors in their practice.

EK
203

Book Review: 2

Present State & Future Needs in General Practice (6th Edition): John Fry
Publisher: MTP Press Ltd for The Royal College of
General Practitioners. Price: £5.50

This is the 6th Edition of a small book in size but big in contents. Its 86 pages divided into 15 chapters contain a wealth of information. Each chapter presents an important facet of General Practice in the UK in the form of statistical data. The first impression is that it is a mine or compendium of essential data on GPs and their work in the UK. Confirmation comes from the painstakingly prepared Index which occupies more than 5 pages of the book.

Statistical data can be very boring but not when given life and meaning by Dr. John Fry, an internationally known author who is closely connected with The Royal College of General Practitioners.

There are gems in every chapter and a description of each of them will defeat the purpose of the review which is to stimulate without fully satisfying. I can't resist quoting the first gem glittering on the first paragraph of the first chapter entitled "The place of general practice (primary health care)"

"General practice, the oldest form of medical care, has been rediscovered and renamed by medicopolitical administrators and planners. It is now 'primary health care', and it is recognized as so important that on it is based the hopes of 'Health Care for ALL: 2000' — the World Health Organization's (WHO) objective for the twenty-first century."

The reader does not need to plough laboriously through the rest of the book with elaborate detecting tools other than with his eyes to discover more gems.

Chapters 2 to 7 describe General Practitioners, demography of general practice, their numbers, their evolution into the primary health care team and the tendency to group practices.

Education & Training are discussed in Chapter 8. It is indeed encouraging to note that "all medical schools apart from Bristol have departments of general practice." Another morale lifting piece of information was the statement "Since 1982 a 3-year approved training for general practice principals has become mandatory."

Chapters 9 & 10 discuss the work volume of general practitioners and their prescribing habits with 3 important questions posed as the tailpiece.

"How many prescriptions are really necessary?"

"Need they be so expensive?"

"How can better prescribing be achieved?"

These questions are equally relevant in the UK as well as in Singapore.

Chapters 11 & 12 highlight the referral patterns of GPs and the relationship of the GP with the hospital. The costs of health care is covered by chapter 13. Chapter 14 is devoted to a brief discussion of The Royal College of General Practitioners in terms of numbers, membership by examination, the MRCGP examination and the age statistics of college members.

The last chapter offers a discussion of future needs of general practice under 3 headings:— general trends, specific needs and needs for the future. It is heartwarming to read this under General Trends, "General practice has progressed from a soft option for the less successful and less ambitious medical graduate to the first career choice of the brightest medical students." Although his prescriptions for Specific Needs and Needs for the Future are for Britain there is so much we in Singapore can benefit from his suggestions. What exactly are these? Our readers are strongly urged to buy a copy to find out. It is a book worth reading and worth keeping.

VC

FAMILY PRACTICE

An international journal "Family Practice" will be making its debut from the Oxford University Press in association with the Royal College of General Practitioners and WONCA. The journal is edited by John GR Howie, Professor of General Practice, University of Edinburgh, supported by an international editorial board.

All GPs in Singapore who are interested to contribute articles to Family Practice are invited to send their papers to Prof. Howie, Department of General Practice, University of Edinburgh, Levinson House, 20 West Richmond Street, Edinburgh EH8 9DX. Authors may apply to The Secretariat, College of GPs Singapore for "Notes for Contributors" — guidelines for the submission of papers.

GPs interested in taking out a subscription may write to Journals Subscription Department, Oxford University Press, Walton Street, Oxford, OX2 6DP, England enclosing the annual subscription of £35 for which they are entitled to 4 issues. The first is earmarked to be published in the spring of 1984.

NEWS FROM THE COUNCIL

1) The Sixth Sreenivasan Oration and Ninth College Convocation & Dinner

The Sixth Sreenivasan Oration and Ninth College Convocation and Dinner were held at the Hyatt Regency, Singapore on Sunday, 6 November 1983.

The Sreenivasan Oration was delivered by Dr Victor L Fernandez, Immediate Past President of the College of General Practitioners Singapore, at Sir Stamford Room. The title of the oration was "Twenty-five years in retrospect: from General to Family Practice." The oration was well received by the large number of members and guests present.

At the Convocation

a) **The Fellowship of the College** was conferred on Dr Lim Kim Leong by the President of the College, Dr Wong Heck Sing.

b) **The Albert Lim Award** was presented to Dr Tan Cheng Lim, Head, Paediatric Unit, Singapore General Hospital.

c) **Certificates of Appreciation** were awarded to
 Prof James Eric Aiyathurai
 Mr N S Bhagat
 Dr Gabriel P K Chiong
 Dr Frederick Samuel
 Mr Tan Kiat Khoo

d) **Book Prizes** to the three Top Medical Students at the General Practice Examination were presented to

Mr Warren Lee Wei Rhen	1st prize
Mr Simon Ng Pau Ling	2nd prize
Miss Chua Tsei Meng	3rd prize

The College Dinner was held at the Crystal Ballroom and was attended by 320 members and guests.

2) Seminar on "Drug Dispensing and the Doctor"

A Seminar on Drug Dispensing and the Doctor, organised by the Practice Management Committee of the College, was held at the Academy Lecture Theatre, on Sunday, 23 October 1983, under the Chairmanship of Dr Goh Lee Gan. The following were the speakers:

Dr Soh Cheow Beng
 Mr Peter Lau Guan Kim
 Miss Amy Lim

The Seminar was well attended by over 75 doctors.

3) Dr Gordon Oliver Horne

The Council records with deep regret the sudden demise of Dr Gordon Oliver Horne, the first Hon Editor, a long standing Member and Fellow of the College, on 17 November 1983.

4) New Members

The following have been accepted by Council into membership of the College from October/December 1983:

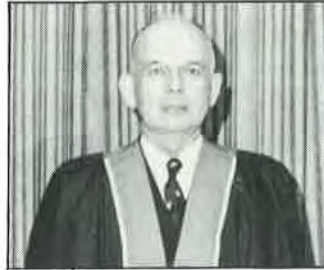
Dr Huan Meng Wah	Associate Member
Dr Lee Kok Wah	— do —
Dr Loh Ban Chye	— do —
Dr Ong Siew Kiat	— do —
Dr Tan Heng Kwang	— do —
Dr Tan Kiaw Kuang	— do —
Dr Tan Kok Kheng	— do —
Dr Yeow Mong Oon	— do —
Dr Lai Kuen Fong	Overseas Member

We welcome them to the College and hope they will participate fully in all activities of the College.

5) The Home Study Section

The Home Study Section has been held over for the next issue.

OBITUARY



**DR GORDON OLIVER HORNE FRCP(Edin), FCGP(S), PH D(Edin),
LRFPS(Glas), LDS, RCS(Edin), LRAM(Lond).
2 OCTOBER 1914 – 17 NOVEMBER 1983**

Gordon O. Horne studied in the University of Edinburgh, graduating not only as a doctor, but as a dentist at the same time. A few years later he became a Fellow of the Royal College of Physicians, Edinburgh, clinical tutor to Sir Derrick Dunlop and a lecturer in the University of Edinburgh. In the field of arts he excelled in piano and in fact ranked in the class of a concert accompanist. He even took up the playing of the cello when he was much older. The choice between a career in music and medicine must have been a difficult one for him.

He came to our garden city in 1958. Quietly he practised his skill in the curing and caring of people and witnessed our struggle towards independence with vivid interest. After some time he fell in love with our people and our country, and as soon as he became eligible he applied for citizenship. This, he obtained after a patient wait of nearly ten years. Singapore has since then been his country and to the end he remained a loyal and concerned citizen. His contributions to medicine in general to undergraduate studies and to the College of General Practitioners Singapore need no elaboration. He also served the National University of Singapore as an external examiner in Pharmacology for a number of years.

Gordon belonged to the "old school of physicians" — alas, a rare breed. His belief in maintaining high ethical standards in the practice of the art of medicine has been exemplary which made him one of the most respected general practitioner. He was honest and humble, never for once referring himself, nor allowing others to refer to him, as a physician. This, in spite of honour he received from the Academy of Medicine Singapore when this august body invited him to be a member.

To his many patients Gordon was a model doctor, kind and concerned, using his every skill and knowledge in the curing of diseases and the relief of pain and suffering, both real and unreal. In the end this dedication became overwhelming and he retired from practice in 1979.

He was a shy man, not given to talking about himself, preferring instead to satisfy his curiosity in learning about people, the arts, nature and things of unusual interest.

In life and in death Gordon remained a very private person. We who have been privileged to have been his colleagues and friends, sadly mourn his loss.

"Why didn't thou leave the trodden paths of men? Too soon?" — Shelley.

**Philbert Chin, Chee Cheng Day,
Yeo Khian Kiat & Tan Tian Cho.**

Mamex Infant Formula

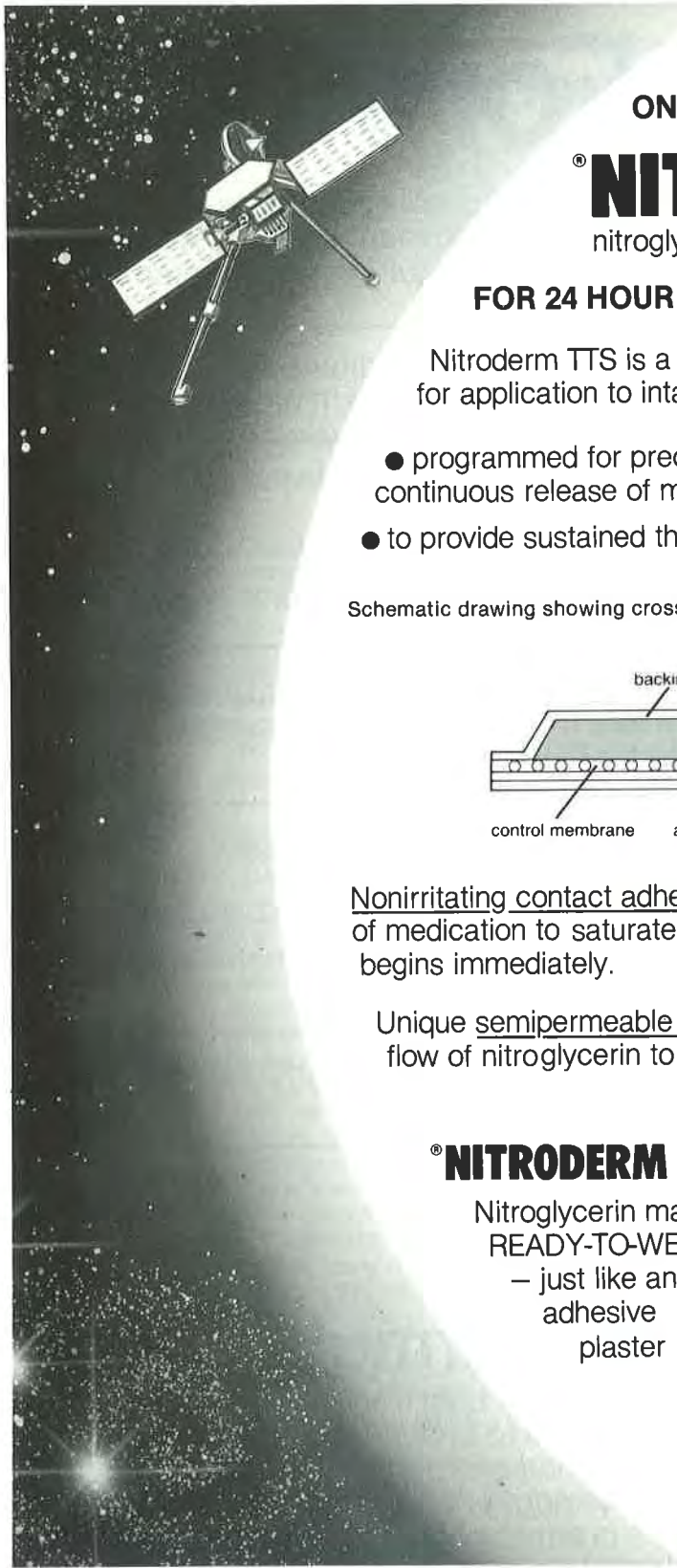
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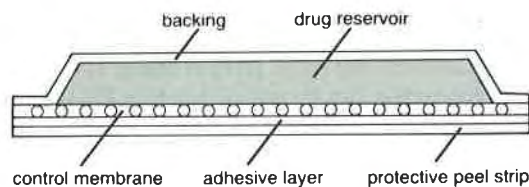
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Schematic drawing showing cross section of Nitroderm TTS

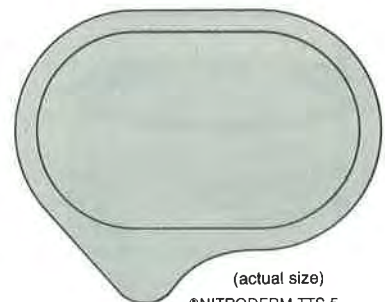


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- Generally well tolerated — may produce transient inflammation at injection site
- Consists of inactivated viral subunits — extensive purification and triple inactivation processes help assure purity, destruction of pathogens and the highest degree of safety attainable

References: 1. Szmuness, W. *et al.*: Sociodemographic aspects of the epidemiology of hepatitis B, in "Viral Hepatitis," G. N. Vyas, S. N. Cohen, R. Schmid (eds.), Philadelphia, The Franklin Institute Press, 1978, pp. 297-320. 2. Szmuness, W. *et al.*: A controlled clinical trial of the efficacy of the hepatitis B vaccine (Heptavax B): a final report, *Hepatology* 1:377-385, 1981. 3. Szmuness, W. *et al.*: The immune response of healthy adults to a reduced dose of hepatitis B vaccine, *Journal of Medical Virology* 8:123-129, 1981. 4. Data on file, Merck Sharp & Dohme Research Laboratories.

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