MEDICAL Newsletter

SINGAPORE MEDICAL ASSOCIATION

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COMBAT INFECTIOUS DISEASE CAMPAIGN

The need to educate

Speech by Minister for Health, Dr. Toh Chin Chye at the Official Opening of the "Combat Infectious Diseases" Campaign on Friday, 3 September 1976.

The saying that Health is Wealth is literally true as with inflation the costs of medical care for those who fall ill have risen sharply all over the world. We spent $25.55 per capita population in 1970 but this rose to $68.52 per capita in 1975 as prices of drugs, equipment increased with the phenomenal increase in the price of oil in 1973. If inflationary costs are taken into consideration the real expenditure is $45.74 per capita for 1975 using 1970 prices, or a 79 per cent increase.

When workers fall ill employers suffer a loss in working man-days and workers themselves suffer a loss in earnings. The total social costs of illness are therefore considerable so that learning how to remain healthy will benefit individuals in particular and the community in general.

We have selected tuberculosis, venereal disease, leprosy, enteric disease, malaria and dengue haemorrhagic fever for special attention as they are more easily spread from person to person directly or indirectly.

Vaccination is a good prophylaxis against catching a disease but even vaccination is not 100 per cent effective as there will be some people whose immunological response to vaccination is too weak to prevent them catching the disease. For example BCG vaccination against tuberculosis was begun among infants and schoolchildren in 1951, yet 617 cases of tuberculosis were discovered among schoolchildren in primary and secondary schools during the last five years. Although this number is only a small fraction of the total school-going population it shows that we have a reservoir of infective tuberculosis patients among the older generation who never had any BCG vaccination. In fact during 1971-1975 an annual average of 3,220 new tuberculosis cases were notified. Of these, more than 2,000 patients were admitted each year into Tan Tock Seng Hospital. Because tuberculosis is a chronic disease, the average length of stay of a tuberculosis patient in Tan Tock Seng Hospital was more than 50 days or a total of more than 100,000 bed-days are occupied annually by tuberculosis cases in the Hospital. This means that more than 20 per cent of the Hospital's bed resources are taken up by tuberculosis patients.

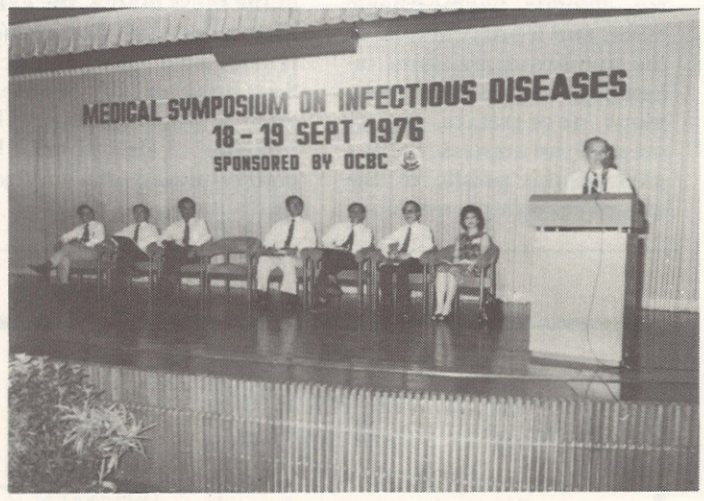
Leprosy and venereal diseases like tuberculosis are spread through personal contact. The incidence of leprosy is on the decline in Singapore. Ninety-three cases were discovered last year but only 43 of them showed positive evidence of infectivity which warranted their admission into Trafalgar Home for treatment. Venereal disease on the other hand is on the increase as shown by morbidity statistics obtained from Middle Road Hospital. The increase in V.D. is a reflection of the change in attitudes towards sexual permissiveness and plain ignorance that the joy of sex can also give rise to pain because of infection from bed-partners who are carriers of gonorrhoea and syphilis bacteria. As sex contact is associated with the consumption of narcotic drugs it is not surprising that venereal disease and drug addiction to-day constitute a social pathology. Young people talk glibly about V.D. but do not know what V.D. is all about until they catch it. There are pimps who sell under the counter antibiotic pills to their clients in red light districts and create an impression that popping a pill into the mouth before the act will serve as a prophylaxis. This is of course not true; on the contrary because of inadequate dosage or loss in potency of the drug strains of syphilis bacteria resistant to some antibiotics have appeared. The result is that treatment of venereal disease becomes more complicated and prolonged. In order to dispel ignorance of what V.D. is, films on the clinical signs of V.D. will be shown.

There is urgent need to educate the lay public into the causes and effects of diseases which can be communicated and flare up into an epidemic. This urgency is the greater as many countries including Singapore have relaxed vaccination certificate requirements for international travel in the belief that since certain diseases are so prevalent throughout the world and can be treated demanding vaccination certificates would be more a hindrance than an encouragement to travel. Among the six communicable diseases there are vaccines against tuberculosis, typhoid and cholera but there are no vaccines available for immunisation against leprosy, venereal diseases, malaria and dengue haemorrhagic fever. Singapore however needs to be vigilant nonetheless particularly when the number of visitors is expected to reach 2 million by 1980, a figure that is almost the size of Singapore's population. It is not the intention of this health campaign to generate a mass neurosis. The purpose of the campaign is to propagate the saying that "prevention is cheaper than cure."

INSIDE

Reducing the reservoir

Speech by Dr. Ho Guan Lim, Director of Medical Services, at the opening of the Medical Symposium on Sept. 18, 1976.



As you know this seminar is held as part of the campaign against infectious diseases. You may well ask what is the public health significance of holding a campaign against these diseases in this time and day. It may appear out-moded to spend time discussing infectious diseases. Have we got our priorities mixed, are we artificially creating issues of out-dated problems? Small-pox has been wiped off the face of the earth. Poliomyelitis in Singapore was stopped in its tracks by feeding our children with little tea spoonfuls of sugar water laced with vaccine, and diptheria is almost non existent. An impression has been created that these and other infectious diseases will also disappear in time.

This is perhaps the price of our successes. We have been so successful against some of these infectious diseases that it has engendered this impression that infectious diseases are no longer problems. But this is not so. We know the incidence of these diseases. The statistics have been given in the papers, and aired over radio and television forums. They are problems still with us. To use a military analogy, they represent pockets of resistence which have been by-passed in the general advance of medicine.

What are the reasons for the continued presence of these diseases in Singapore? Two general reasons may be given:-

1) That there is no simple, absolute and permanent immunity against the diseases. It is true that BCG has been largely responsible for reducing the incidence of primary tuberculosis but there is evidence that the immunity wanes by young adulthood. In the case of leprosy no vaccine, if ever one is discovered, will be available in the near future as the culture of the leprosy bacilli has yet to be successful. BCG against leprosy has proven to be a false lead. In the case of syphilis and gonorrhea the bacteriologists can explain that the peculiar morphology of the infective organisms are reasons why effective vaccines cannot be prepared against these infections.

2) the reservoir of infection is large. In the case of tuberculosis it is estimated that this infective pool, from the population-based sample survey on tuberculosis, numbers about 18,000. A noteworthy finding is that ¾ or about 15,000 of these persons are undetected and hence are

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VIEWPOINT

NATIONAL HEALTH CAMPAIGN

The choice of "Combat Infectious Diseases" as the theme for the National Health Campaign held last month was both appropriate and timely.

The continued prevalence of venereal diseases (with a 50 per cent increase in incidence over the last ten years), tuberculosis, food-borne diseases, malaria, dengue haemorrhagic fever, and leprosy in spite of the numerous measures taken in prevention and treatment necessitate an increased awareness on the part of the public of the existence, symptomatology and possibility of cure of these diseases.

Only if the public can be educated to adopt preventive measures and to recognise the signs and symptoms to facilitate early detection and treatment can the enormous social and economic costs of these diseases be reduced.

To this end, the publicity in the mass media, the exhibition at the Conference Hall, and the Medical Symposium for doctors were a huge success. The Ministry of Health must be congratulated on a good job well done.

Another important facet of the Campaign was the involvement of the Singapore Medical Association in its organisation. For the first time in many years, the national body of doctors has been invited to associate itself with such a movement, and it rightly responded with much enthusiasm and full co-operation.

This augurs well for the medical profession as a whole in Singapore, and it is hoped that last month's Campaign heralds an era of close association and union between the authorities and the Singapore Medical Association.

A Question of Conscience

There has been a spate of reports in the local press recently questioning the spirit of service and the professional competence of the medical profession in Singapore, the most recent being the write-up in the Sunday Times on Psychosomatic Disease and the diagnosis or rather the alleged unsubstantiated mis-diagnosis.

Whilst accepting the fact that there are always a few black sheep in any profession, it is relevant to point out that sensationalism in journalism tends more often than not to distort the facts so as to provide readability. For instance the Ministry of Health survey finding that the majority (48 per cent of doctors out of the total of 70 per cent who responded in the survey), left Government Service because of higher income, cannot be equated to mean that the majority of doctors in Singapore are a mercenery lot. Let us not forget that more job satisfaction, better working conditions and more freedom, account for another 37 per cent of such doctors. Moreover, a significant percentage, amounting to about 30 per cent, did not reply and, therefore, could belong to either category. In view of these facts, it is at best conjectural to suggest or imply that doctors are motivated by financial considerations alone. In any event, the contented, job-satisfied, and equitably remunerated doctor provides an infinitely better type of health care than a doctor with job dis-satisfaction and frustration (and poor remuneration) whether in the public or private sector.

It has also been reported in the Press, worthy of a leader, that hordes of local doctors have been known to have registered abroad, significantly not quoting figures. Evidently, those who have registered may have done so for valid, cogent and compelling reasons. Therefore, it does not necessarily follow that mere registration abroad indicates a net brain drain for our country. Indeed, the pertinent question is how many have actually migrated. By any standards of assessment, it cannot be more than a handful. Does this merit a call from the Press for doctors here 'to stay and fight for your country'? Has the migration of this handful of doctors reached a crisis point of actually impairing, or projectably impairing, the health care delivery system to our country? To the average John Citizen it has not! Are not other professionals "brain-draining" too? May we ask why we have been singled out for mention?

The sensationalism in the Press of reports affronting the competence of doctors based on scanty or highly improbable statements cannot be condoned. Surely the removal of the spleen and part of the liver besides three quarters of the stomach is not standard procedure for two stomach ulcers 'almost ruptured'. Moreover, does not the association of ulcers and coronary disease, as reported, in this particular executive, justify the importance of mental stress a possible causative factor, as diagnosed by the attending doctor?

Medical specialists and indeed all doctors must be urged to refrain from making disparaging remarks about the proficiency of their professional brethren, especially to patients and in front of hungry news-writers who seem to be ever ready to use the medical profession as their whipping boy.

TO ERR IS HUMAN TO FORGIVE IS DIVINE!

MV

Smoking and Heart Disease

BY DR. CHIA BOON LOCK
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Tobacco has for centuries been used all over the world as a way of increasing the enjoyment of life and also as an aid in coping with some of its problems. A new development in the twentieth century has been the increasing use of cigarettes manufactured from tobacco. In Singapore, the consumption of tobacco has increased by 31 per cent over the last 10 years.

There has been overwhelming evidence accumulated from many studies during the last two decades confirming the belief that cigarette smoking is one of the most important causes of ill health in the community. Cigarette smoking has been shown to play an important role in the development of coronary artery disease, lung cancer, chronic bronchitis, emphysema, cancer of the larynx, and oral cavity, and in the delay of healing of stomach ulcers. About 80 per cent of the excess deaths in cigarette smokers are due to cardiovascular diseases, (particularly coronary artery disease), cancer of the lung, chronic bronchitis and emphysema. According to the World Health Organisation Expert Committee on smoking and its effects on health in 1970, "smoking-related diseases are such important causes of disability and premature death in developed countries that the control of cigarette smoking could do more to improve health and prolong life in these countries than any other single action in the whole field of preventive medicine."

There has been a dramatic change in the main causes of deaths in Singapore over the last 25 years. In the early 1950's, infectious diseases such as tuberculosis, pneumonia, and gastroenteritis were the three main causes of deaths in this island. In the year 1950, about 1,500 deaths were due to tuberculosis, 1,350 to pneumonia, and 1,000 to both gastroenteritis and colitis. In contrast, heart diseases caused only about 550 deaths and cancer 350 deaths in that particular year. During the 25 years following 1950, deaths due to tuberculosis, pneumonia, gastroenteritis and colitis have fallen steadily but deaths due to heart diseases and cancers have increased markedly. In the last 5 years, heart diseases and cancer have competed notoriously with each other for the title of "the top killer" in our society. In 1975, heart diseases took a toll of 1,982 and cancer 2,078 cases.

There are many reasons for this interesting change in pattern of disease. Firstly, with the advent of antibiotics and the rapid rise in our living standards, infectious diseases have been conquered and adequately controlled. Secondly, as our population grow older in age, they become considerably more vulnerable to heart diseases and cancers. Lastly, the rapid rise in affluence, with a corresponding change in our way of eating, working and living has resulted in an increase in heart diseases, particularly coronary artery disease.

There has recently been considerable clarification in our understanding of the nature of coronary artery disease. For example, we now know that coronary artery disease begins early in life and takes many years, perhaps even decades, to develop before the arteries are sufficiently damaged or narrowed to give rise to either heart attack or angina (heart pain during exercise). Secondly, it has become increasingly apparent that although much progress has taken place in the hospital treatment of heart attack patients, a large proportion of all the deaths that are due to heart attacks occur outside the hospital. This is due to the fact that many of the deaths in heart attacks occur rather quickly — either immediately, the so-called "sudden death" or within the first few hours following the attack. Hence, many leading cardiologists today believe that prevention of coronary artery disease is of the utmost importance if we are to succeed in lowering significantly the total number of coronary artery deaths in the community. The prevention of coronary artery disease has today assumed major importance in Singapore, posing one of the greatest challenges in the coming years.

The ability to prevent coronary artery disease hinges on our recognition of certain "risk factors" or factors which tend to promote the development of coronary artery disease in an individual. Many risk factors for coronary artery disease have been postulated in the past. Some of these risk factors have been well proven by innumerable studies to be of overwhelming importance, whilst others are at the present moment only highly conjectural. A high blood cholesterol level, high blood pressure, cigarette smoking, diabetes, increasing age, belonging to the male sex, belonging to the Indian ethnic group, hereditary factors, lack of physical exercise, overweight, emotional stress, and a high blood uric acid level have all been shown to be risk factors for coronary artery disease. It has been shown that all these risk factors work independently, and the more risk factors a person has, the higher will be his chances of developing coronary artery disease. It is clear that some of these factors such as belonging to the male sex and the possession of certain undesirable genes are legacies which we inherit, and which we can do nothing about. On the other hand, the other risk factors are the result of either our environment or of our way of living and are eminently amenable to correction. Out of these correctable risk factors, the first three, namely a high blood cholesterol level, high blood pressure, and cigarette smoking have been found to be of major importance and have been appropriately termed "major risk factors" by many leading epidemiologists. A few workers have suggested that sugar, coffee, the degree of "softness" of the water we drink, the habit of eating few heavy meals as opposed to eating many light meals daily are also "risk factors". Suffice it be said that all these factors have not been proven to be "risk factors" or to be important for the development of coronary artery disease. Nevertheless, excessive intake of sugar is to be strongly discouraged although sugar is not a "risk factor" on its own right, because excessive sugar intake tends to increase the individual's weight. People who are overweight have a higher incidence of diabetes and high blood pressure, both of which are powerful "risk factors" for coronary artery disease.

The following facts have been well established regarding cigarette smoking and coronary artery disease. Firstly, the number of deaths from coronary artery disease is greater in cigarette smokers compared to non-cigarette smokers. Secondly, this excess number of deaths in cigarette smokers increases with increasing cigarette consumption, is greater in smokers who inhale as compared to those who do not inhale and is greater in those who started smoking earlier in life. The risk of suffering from heart attacks, particularly from "sudden deaths", is also significantly greater in cigarette smokers compared to non-cigarette smokers. For example, it has been shown that an individual smoking 20 cigarettes a day for several years will have a two-fold increase risk of suffering from heart attacks. More importantly, in cigarette smokers who have stopped smoking, the increased risk of dying from coronary artery disease decreases steadily and after about 10 years, approaches that of a non-smoker. The

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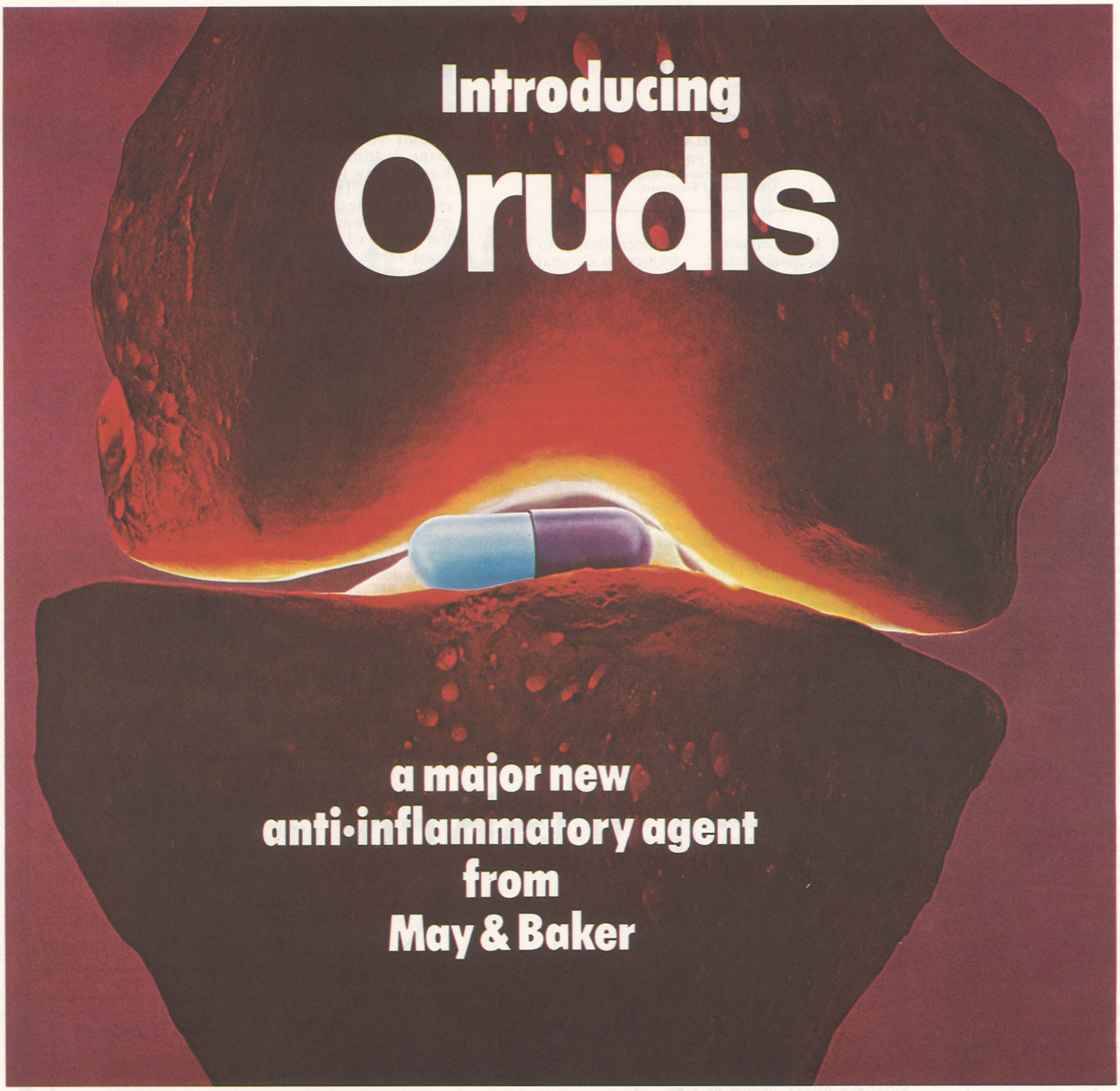

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Mystic Practices and their effects on Modern Society

— A talk at the Public Forum on "Controversial Frontiers in Medicine" on Friday, 27th August, 1976 at 8.15 p.m. at the Pathology Lecture Theatre, Singapore General Hospital, Outram Road, Singapore 3.

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INTRODUCTION

The lure of the mysterious, the fascination of the occult lores of mankind, has spread enormously in recent years.

Even to-day in this enlightened space age of ours with its modern hospitals, surgery, wonder drugs and anti-biotics in full fledge, there are still people in Singapore who place absolute faith in the practices of the mystic men. People who have problems invariably flock to them for secret consultations. Their dependence continues as an integral part of daily life. Some of these mystic people have been credited by their patients with feats which are beyond the scope of western science and medicine. How they achieved this remains one of the biggest unsolved mysteries.

Some of the results produced by the mystic men have baffled doctors and scientists who are apt to scoff at the mysterious ways of these men of mystery.

But they are not talking openly. Each mystic person guards his trade secrets jealously.

There are various types of mystic people who operate in Singapore. Chiefly, the BOMOHS (mainly Malay medicine men), Indian spiritualists and Chinese MEDIUMS. These mystic people were not trained at a University or College and hold no academic qualifications. In fact, there is no recognised course of instruction on how to be a mystic man. These men have picked up their trade from elderly men who have either died or retired of old age.

Their services were at one time mostly sought only by the rural folks or people living in the remote or far flung corners of the island.

But to-day, the city and urban dwellers predominantly seek their advice when they are confronted with a peculiar problem.

They have no fixed scale of fees. Some do not charge any fee at all whilst others, depending on the gravity of the case charge anything from ten dollars to a few thousand dollars. In fact, there is no hard and fast rule governing payments. But it cannot be said that their fees are lower than those paid to doctors or specialists.

OCCULT POWER

The mystic men work by the occult power belonging to themselves or their spirits. Without this power, they would work in vain. The general good faith of the mystic men would seem to be beyond question. Their initiatory training for the practice of their art, with its privations, tortures, and mysterious, awe-inspiring experiences, tends in many cases to produce an indelible impression on their mind. They regard themselves, henceforth, as more than a normal person, as one now really possessed of superhuman powers.

There are certain fundamental and unalterable principles which govern all mystic men in Thailand, Malaysia, Singapore, Indonesia and the Philippines. The main one is constant meditation. Meditation is a basic art practised by almost every mystic man in these countries. They set aside a little time each day for daily meditation and for daily quietening of the mind. The habit of thought-control is of vital importance to them, and whose neglect leads to worry. Of course the modern world may believe it has no use for such a thing as meditation, which often is condemned as a mere abstraction. This art offers the best path to mystic men who attain spiritual self knowledge in secret.

WORK OF THE BOMOH

First of all I shall explain briefly the main works of the Bomoh:

Bomoh is a Malay word which means Medicine Man. The main task of a Bomoh is healing and divination. His familiar spirits possessing him as their medium, descend as a seance to cure sick, to propitiate evil spirits, foretell the future or to provide answers on human problems. By auto-suggestion, he falls into a trance and the spirits speak through his mouth.

The miraculous cures by spiritual power have been investigated by some medical men and they had to admit that the healing was beyond their understanding.

There are various types of Bomohs. They use various methods and implements to treat the sick patient and they have designations which are on the same category as that of western doctors being classified as surgeons, physicians, orthopaedists, and other types of specialists. Similarly, Bomohs are chiefly classified under the headings of Bomoh Puteri, Bomoh Patah, Bomoh Berbagih, Bomoh Berjin, Bomoh Mindok, Bomoh Gebioh, Bomoh Mambang, Bomoh Berlian and so on.

Bomohs are of either sex. They are generally elderly Malays but there is no reason why a Bomoh should not be of any other race; there are Chinese and Indians who are Bomohs.

The Bomoh is a master of Occult Science. He is not an accursed sorcerer. He is claimed to possess antidotes for many types of poisons. These poisons, it is believed, are being made up of products of animal and vegetable kingdom.

There are various types of Bomohs. First there is the quiet type who is usually all alone and his method of treatment is by reciting holy verses and he is paid just a few dollars for his trouble including transport charges. He leaves behind a jug of water to be taken by the sick during the period of ailment. A verbal charm called 'Jampi Jampi' is administered to the sick person through the Holy Water.

Then there is the Bomoh Puteri or Bomoh Berjin, who will have a string of followers — male and female. The implements used are many and during the performance, soft haunting music is played to appease the invisible spirits. After facing the smoke of incense or 'kemenjan', the Bomoh covers his head with a black cloth and falls into a trance. Following this, he recites words in a prose form relating to how the sick person had contacted the sickness. This, in turn, is explained to the audience by the Bomoh's interpreters.

These being invoked and pronounced by the intonation by the Bomoh the elders and relatives of the sick person after whispers of consultations and enquiry, readily admit the incidence of the disease co-ordinating with that of the Bomoh's findings. The whole procedure as above can be termed as 'diagnosis' of the disease. Having diagnosed the disease, the Bomoh now gets along to bring about a cure. Before proceeding further, the Bomoh holds a consultation in quiet as to whether it will be successful or not through the aid of pairing out the fried rice (berteh), the burning of kemenjan (incense) and the throwing of candle flame into a bowl of water immersed with a copper coin, iron nail and buah kras (a seed, the pods of which are used to make 'sambal').

When this is over, the Bomoh goes into another trance and getting up from his squatting position holds the bunch of palms tied up with the young arecanut pods (mayang) and after taking a few turns round the sick person flays the bunch of arecanut leaves up and down on the sick person's body. This act lasts for about 10 to 15 minutes accompanied by the rhythm of soft music which reaches its peak high pitch to the excitement of those people present. Then the Bomoh squats on the floor perhaps exhausted after the ordeal of flaying and swinging exercises round the sick person. There are times when the Bomoh sheds tears during a trance to signify the seriousness of the patient's condition which ultimately proves to be fatal. If a Bomoh is positive he is unable to cure the patient, he would say so frankly, and may even advise that a western doctor be consulted.

Now, coming to the next type of Bomoh, the Bomoh Patah or Bomoh Patch. Some even call him fracture doctor. He has an important role to play in the rural as well as the urban life. This Bomoh, a hereditary type, is perfect in his profession and the successes of his treatment varies from 60 to 75 per cent of the total cases handled by him, even when sometimes the patient's condition is of a very serious nature where the doctor's sentence on the patient is only "amputation" as a salvation. Whereas this 'Bomoh Patah' handles the patient carefully, calmly and resolutely to restore the broken limb to its natural state within eight to ten weeks.

Instead of the normal X'ray which is the basic test carried out in hospitals to determine the nature and extent of the fracture, the 'Bomoh Patah' goes into a trance, rubs the affected part slowly and gently during which period the damage to the bones registers in his mind like an X'ray picture. When he becomes his normal self again, he starts to treat the patient going into a trance and deep spiritual meditation periodically, to check the progress of the patient.

EXORCISING EVIL SPIRITS

The object of a trance or seance is to trace the nature and desire of the spirit possessing the patient so that it can be exorcised by the help or advice of a stronger spirit or coaxed out of the patient's body into the mystic men's own or into a receptable containing food or water.

The Bomohs, whether be Bomoh Patah, Bomoh Puteri or Bomoh Berjin, believe that sickness is brought about by their respective evil spirits. So, in treating a sick person they try to exorcise the evil spirits which they believe are inside the patient's body. To exorcise the evil spirit and placate it, the Bomohs perform a series of rites and ceremonies which normally end well past the witching hour.

After the sick person is restored to normal health again, the Bomoh performs what is known as 'Tukar Ganti' or penance. This is done as a guarantee of good faith to the spirits. In this weird ceremony, which I have witnessed on several occasions, the patient is symbolised as being a new person after recovery. In some cases, an effigy of the patient's old self, made of palm leaves is put in a small boat made from a banana tree stump. This is done with the strictest secrecy. The boat with its strange passenger is then placed on the waters of the river or sea, and allowed to drift away.

The recovered persons are also bathed in water which is blessed and charmed by the Bomoh with seven different kinds of flowers soaked in it. This is done to prevent a recurrence of the disease.

Thus ends the mythical mystery of the Bomoh and one will not find it easy to solve how the sick person recovered from his illness — believe it or not.

THE INDIAN SPIRITUALISTS

The Indian Spiritualists abundantly deal with mystic practices. They too go into deep meditation and advise their clients on particular human problems and how to combat evil influences, witchcraft or black magic. They prepare talismans usually made of gold to be worn by sick persons or those who need protection from enemies, evil spirits or obtain good fortune from business.

THE CHINESE MEDIUMS

The Chinese Mediums, like the Bomoh or Spiritualists, go into a trance and

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Smoking and Heart Disease

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message of all these facts is therefore very clear. Those who have not started smoking should never embark on this dangerous habit, and those who are already smokers should make all efforts to stop smoking.

At present, it is not entirely clear what constituents of the tobacco in the smoke are responsible for the causation of coronary artery disease and for heart attacks. For many years, the culprit has been assumed to be the nicotine in the smoke. Recently however, there is good reason to believe that the carbon monoxide in the cigarette smoke may be just as, if not more important. A point of great interest is the observation that the number of heart attacks and the number of deaths from coronary artery disease is significantly less in pipe and cigar smokers when compared to cigarette smokers, and is only slightly greater than those in non-smokers. It is believed that the main reason for this discrepancy lies in the fact that pipe and cigar smokers, unlike cigarette smokers, tend not to inhale. However, it is important to realise that pipe and cigar smokers who do inhale are certainly not immune from coronary artery disease and all the other diseases generally associated with cigarette smoking.

In a study of heart attack patients admitted to the coronary care unit of the University Department of Medicine at the Singapore General Hospital, the following observations were made. The average age of the male patients was 45 years, and that of the female patients was 55 years. Seven per cent of the patients were younger than 40 years old. The male to female ratio was 8:1, and Indians were much more likely to develop heart attacks compared to the Chinese or Malays.

About 60 per cent of the heart attack patients were found to be cigarette smokers. Ninety-two per cent of these cigarette smokers said that they inhaled the cigarette smoke. About 21 per cent of the cigarette smokers had smoked daily 40 or more sticks of cigarettes, 50 per cent, 20 or more sticks, 19 per cent, 10 or more sticks and only 10 per cent less than 10 sticks of cigarettes during the 5 years preceding their heart attack.

In the prevention of coronary artery disease, an attack on all the known "risk factors" is necessary for optimal results. Although cigarette smoking is one of the important "risk factors" for the development of coronary artery disease, a consideration of other risk factors such as a high blood cholesterol level, high blood pressure, diabetes, lack of exercise and overweight must also be taken into account.

QUIT SMOKING NOW!

Mystic Practices and their effects on Modern Society

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whisper incantations amidst the smoke of burning incense, until the spirit of whatever God, diety or "datoh" or spirit he is praying for enters into his body. Besides healing, he predicts any forthcoming disastrous events. He also picks out lucky numbers. A medium who does not speak Malay, is able to speak the language fluently when a Malay "datoh" or spirit possesses him.

USE OF CHARMS

The mystic man also prepare charms to engender love, beauty, and courage, to protect against ghostly and material harms, to counteract poison, to terrify, to cause forgetfulness, to hinder a girl from marrying a rival, to obtain good business, to prevent thievery or to shatter a rival's weapon.

A common enough sight is a charm hanging from a fruit tree to make the fruit disagree with anyone who steals it. The charms are especially interesting in regard to poisoning and disease and love. They are the special wealth of the mystic men who utter powerful incantations over the charms during their preparation.

A poisonous snake bites a man. A mystic man is summoned, who grabs the victim's leg firmly above the knee and blows his breath down the limb. The man is relieved of the acute pain and he recovers almost immediately.

The self reliance of the mystic men and their sublime belief in their calling does much towards the cure of a credulous patient.

I once witnessed an incident in which a pretty young girl had pierced her left hand while stitching a dress and the sewing needle had broken off short in the centre of the palm. Nothing could be seen or felt and she declined surgical exploration, but she was crying in pain. Her parents called a mystic man who had a great reputation for skill in extracting broken needles by charms without pain.

He first bandaged her hand with a red cloth, next drew a diagram of a human being on a piece of white paper, muttered incantations over it, then burnt the paper and threw the ashes into a bowl of water. He bade her put her hand into the water and after a short interval, removed the bandage; a piece of the broken needle was in the bowl. The girl did not complain of pain any longer, and her parents were satisfied.

A WARNING NOTE TO YOUNGSTERS

It is of particular interest to note that today many teenagers in Singapore get involved, accidentally or deliberately with mystic men. Their cases are usually associated with love problems. Usually it begins with a complaint by either party of the poor response in love quarrels or rivalry. When the mystic man agrees to put things right, the photograph of either the boy or the girl is used during the performance. From case histories I have investigated, many victims seemed to have lost their memories, as a result of such performances. It would therefore be desirable, in my view, for youngsters not to get involved in these dangerous performances on one's mind, as there would be no end to it when one embarks into the field of mystic practices. Beware of charlatans and fakes. They may be out to make a fast dollar or make mischief by sending a 'poltergeist' to annoy a family through remote mental control and upset the furniture, kitchen utensils, and the garden, by invisible force.

HOW MYSTIC MEN CAN HELP

The mystic men in Singapore who are experts in this field can be useful to modern society in many ways. As most of them are skilled in the art of metaphysics and parapsychology, healing, divination, telepathy and occult power, they can volunteer to serve the community to help cure drug addicts, chronic diseases and the like; help to locate criminals who may be hiding in remote places; or to help recover lost or stolen properties, or even trace missing persons.

The unknown, the unexplainable, have always presented a challenge to mankind. Some people find it hard to believe the authentic incidents of strange and mysterious occurrences, invisible antics by non-human agencies which are common and often reported in the local newspapers.

The mystic men are part and parcel of our society. They will be with us even if one does not have any faith or belief in them.

RATIONAL DRUG THERAPY

Rational Approach to Bronchodilator Therapy in Bronchial Asthma

BY DR. TEOH PEK CHUAN

Obstruction of the airways in bronchial asthma may partly be caused by mucosal thickening or retention of sputum, but it is the spasm of the bronchial smooth muscle which we generally treat with one or more of the many bronchodilator preparations. Airway caliber in asthma can be increased by drugs that prevent the bronchospasm caused by the action of chemical mediators on smooth muscle by direct antagonism (antihistamines), by increasing the beta-adrenergic receptor stimuli (beta-stimulants), by reducing cholinergic stimuli (anti-cholinergic drugs), or with the phosphodiesterase-inhibiting drugs (xanthines). Antihistamines and anti-cholinergic drugs like atropine are now rarely used for the routine treatment of bronchial asthma because of their relative inefficacy and drying up of the bronchial secretions which make the expectoration more difficult and occasionally airways obstruction worse. Bronchodilators commonly used today belong to two main groups — the beta-adrenergic receptor stimulants and the xanthine derivatives. Both these drugs increase intracellular cyclic AMP which lead to bronchial muscle relaxation. Since the method by which the cyclic AMP is increased is different, they can be used synergistically to produce a better bronchodilatation e.g. isoprenaline and aminophylline. In addition xanthine derivative like aminophylline can also be used to relieve bronchospasm which has become refractory to beta-stimulants.

Beta-Stimulants

Adrenaline and ephedrine have been used for many years in the treatment of bronchial asthma but they have the disadvantage of stimulating alpha-adrenergic receptors (which causes vasoconstriction with a rise in blood pressure and might even cause broncho-constriction) as well as beta-adrenergic receptors (which leads to bronchodilatation, vasodilatation and tachycardia). Isoprenaline acts exclusively on beta-adrenergic receptors but they stimulate both beta-1 (cardiac) and beta-2 (bronchial) receptors resulting in rapid and powerful bronchodilatation and also undesirable cardiovascular side effects like tachycardia and increased cardiac output. These effects on cardiovascular system are particularly hazardous in the presence of hypoxia which not uncommonly accompanies severe asthma as serious and even fatal cardiac arrhythmia may result. Therefore it would be desirable to have beta-stimulants which are selective in their action on beta-2 (bronchial) receptors. With the advancement of new synthetic chemical techniques, agents with more selective beta-2 receptor stimulatory effects have been developed recently. These newer preparations like orciprenaline, salbutamol, terbutaline, fenoterol, and hexoprenaline, are safer than isoprenaline or adrenaline. Not only they are equally effective bronchodilators, they also have a longer duration o action. There is probably little to choose among these beta-2 stimulants in clinical practice, though most physicians and patients have their own favourites. It must however be borne in mind that these drugs may still cause tachycardia in large doses, possibly secondary to beta-2 induced vasodilatation, and they have other side-effects such as tremor.

Aerosols

In the treatment of bronchial asthma, the choice of correct route of administration is just as important as the choice of drugs. Although all the above beta-stimulants except adrenaline can be given by mouth, the dose required to produce effective bronchodilatation is about 20 times greater than when the drug is given by inhalation, and side effects, notably tremor, are thus more common when the oral route is employed. There is also some evidence that tolerance to these drugs may follow prolonged oral administration. Another advantage of using aerosol therapy is the rapid onset of action hence it can be used to abort any acute asthmatic attacks quickly. Beta-stimulant aerosol should therefore be used for the treatment of acute wheezing attack in episodic bronchial asthma and at the same time it can be more effectively given every 3 to 4 hours to patients with chronic asthma in place of oral medication. In order to obtain maximum bronchodilatation, two metered doses should be inhaled at a time, the second five minutes later than the first. The patients should be instructed the proper way of inhalation otherwise the desired effect cannot be achieved. In some patients who cannot synchronise inhalation with aerosol activation or produce an inspiratory flow rate high enough for adequate delivery of the drugs, oral preparation should be used.

Adverse Effects of Aerosols

Dimunition in the efficacy of the bronchodilator aerosols is an early sign of worsening asthma. Unless the patients are warned that it is useless and also dangerous to exceed the prescribed doses, the asthmatics will often increase their use of bronchodilator aerosols to obtain relief. In the mid-1960 in England, there was a transient increase in the mortality rate in asthma. Investigation revealed that this increase in mortality may be due to overuse of aerosols. It is clear that misuse of any bronchodilator may conceal worsening asthma and that it would be wrong to equate the lack of cardiac stimulant activity in the newer selective beta-2 stimulant with absolute safety.

Combination Therapy

Sympathomimetics like beta-stimulants and xanthine derivatives in combination have addictive effects, and tablets like Franol and Tedral containing theophylline, ephedrine, and a barbiturate are often used by the practitioners to treat bronchial asthma. However these combination tablets suffer from the disadvantage of flexibility in the adjustment of the dosage of their component drugs. In addition, the inclusion of barbiturates may depress the respiratory centre and increase the requirement of corticosteroids as the metabolic clearance rate of corticosteroids is increased by enzymatic induction in the liver.

Therapeutic Objectives

For the rational therapy of bronchial asthma, it must be assumed that the clinical manifestations of bronchial asthma are both reversible and preventable. This is most effectively done by daily and round-the-clock administration of bronchodilators. Though 'PRN' administration of bronchodilator may be enough for the treatment of episodic asthma with infrequent acute attacks, the practice should be abandoned in patients with chronic asthma in whom round-the-clock bronchodilator therapy is absolutely essential. The therapeutic goal is to prevent further deterioration of the airway obstruction and to move the patient up the ladder i.e. to convert the disabling state of chronic asthma to episodic asthma with less and less frequent acute attacks. In addition, long term corticosteroids therapy may be required to help achieving this therapeutic goal. (Rational Drug Therapy, SMA Newsletter, May June, 1976).

Life in a gracious city

A wizened face on a skeletal frame.
Once somebody's pretty child with a name.
To keep her beloved parents alive,
She sells Mee Hoon daily from eight to five.

She then works again at the Golden Bough
Where hands and feet are rough, and lights are low.
Often she came home in the early morn
With her body bruised and her trousers torn.

Her aged parents could stand it no more
When they found their child had become a whore.
They donned their newest clothes, and held their breaths,
Hand in hand, they walked through space to their deaths.

'Life can have no more horrors left for me.
'Death can only be sweet, happy and free.'
She climbed up to the city's highest floor.
With head unbowed, she walked straight through the door.

The mangled mass oozed, heaved and cursed at me,
'You spurned my plea with 'Nothing is for free'
'Take my body and fling it to the sea.
'I now want none of your damned charity.'

H. H. Un

FOR YOUR INFORMATION

Subscription to the M.P.S. Remains at £25 —

Although the Medical Defence Union has increased its annual subscription from £20 to £40, with effect from 1st June 1976, the Medical Protection Society has decided **not** to increase the rate in view of the special conditions in Singapore. The MPS rate of subscription therefore remains at £25 per annum for the time being. Members of the SMA wishing to join (or to renew) either the MDU or the MPS can obtain application forms from the SMA Secretariat.

Singapore's MB.BS. no longer automatically registered in N.Z.

After 1st October 1976, with the amendment to the Medical Practitioners Act 1968 of New Zealand, medical graduates of the University of Singapore will no longer be eligible for automatic registration as a medical practitioner in N.Z.

In future the only type of registration for which medical graduates from Singapore could be considered is probationary registration which means that they must have a hospital appointment to come to and each application for probationary registration is considered by the Medical Council of New Zealand on its individual merits.

S.M.A. PLAQUES AND TIES

Members may wish to be informed that new batches of the above two items are now in stock with the S.M.A. Secretariat. Those interested can obtain them on a cash-with-order basis through the post or come in person to the Secretariat during the normal office hours.

Plaques at $15 each and the Ties (Maroon Red or Navy Blue) at $8 each.

Report of the National Survey of Medical Practitioners

Members of the S.M.A. wishing to obtain a copy of the Report on the National Survey of Medical Practitioners (at $3 a copy) can do so at the SMA Secretariat. If you are unable to come in person, you can place your order by telephoning the Secretariat No.981264, and a copy will be sent to you.

SMA CHINA TOUR

By popular demand the Singapore Medical Association is organising a trip to China tentatively around April 1977. The Ministry of Home Affairs is currently considering our application.

Details for the tour have not been worked out yet, but it is expected that the group will consist of 25 doctor-members of the S.M.A. The selection of the tour members will be by open ballot. The names of those ballotted will then be submitted to the Ministry for further consideration.

In the meantime, paid up members of the S.M.A. wishing to be considered for the China tour are cordially requested to submit their names to the S.M.A. Secretariat, 4A College Road, Singapore 3, as soon as possible but not later than October 29, 1976. Applications received after this date will not be considered.

(From Page 1)

the source of the spread of the disease. For the same reason leprosy continues to spread although in smaller and smaller numbers. The reason for this is that the pool of infection is still undetected and perhaps deliberately hidden. In the case of the venereal disease the pool is large and constantly being replenished by perhaps even more exotic and resistent strains and spread by the most basic of human activities — his sexual drive.

What is all this information for us?

(1) That these infectious diseases cannot be eradicated. It is unlikely that they will ever be eradicated in the same way as small-pox has been eradicated. We can try to control the spread and keep the numbers to a minimum — when this occurs. There is a new danger which we must guard against. This is that as experience of these diseases discovers we may become mind-blind or do not recognise these diseases when they occur. Further, as herd immunity wanes there is a danger of large outbreaks occurring when infection is re-introduced as happened in tuberculosis in certain countries where TB had died down.

(2) There is an obligation for us as doctors to treat and treat effectively. This requires of course basic knowledge, ability to diagnose, and use of proper regimens of treatment. A note of warning is not out of place: there is no chemo-prophylatic treatment against the venereal disease. In fact if we do so we are doing wrong to our patients by giving them a false sense of security and we may do even more harm to our patients.

(3) We have an obligation also to the community. We will have to play our part in reducing the reservoir of infection. This will require notification of diseases and an attempt to detect the sources of infection by calling up of contacts.

NOTICE OF EXAMINATIONS

Royal Australasian College of Surgeons
Part I Examination

The next F.R.A.C.S. Part I Fellowship Examination will be held on Wednesday, 2nd March, Thursday, 3rd March and Friday, 4th March 1977 at the Faculty of Medicine, University of Malaya.

Intending candidates are advised to obtain the necessary application forms and general information in advance. Details of application and entry forms may be obtained from the Examination Secretary, Royal Australasian College of Surgeons, Spring Street, Melbourne, Victoria 3000, Australia.

Completed entry forms, etc. must be received on or prior to the closing date, Wednesday, 19th January 1977. Late entries will not be accepted.

The examination will take the form of three 2½ hour papers each of 120 multiple choice questions.

Candidates will be interviewed by a panel of two members nominated by Council, at least one of whom will be a local resident. The Interview will be designed to ascertain the progress a candidate has made in his basic training programme since graduation, but will not be concerned with syllabus content. The information gained from the Interview will be used in conjunction with the results of the examination to assess educational programmes in the various centres. It may also be used to assist the Board of Examiners in determining the candidate's examination results.

ADVANCED COURSE IN MEDICINE

A full-time four weeks Course in Medicine will be conducted from 1st November 1976 to 28th November 1976 for a limited number of candidates who have passed the Part I Examination of the Royal College of Physicians United Kingdom to help prepare them for the Final Examination in due course. The Course which includes a clinical attachment to the Department of Medicine, Faculty of Medicine, University of Malaya, will consist of case presentations, tutorials and lectures. The Course fee is M$100.00.

ADVANCED COURSE IN PAEDIATRICS

A full-time four weeks Course in Paediatrics will be conducted from Monday, 1st November 1976 to Sunday, 28th November 1976 for a limited number of candidates who have passed the Part I Examination of the Royal College of Physicians United Kingdom to help prepare them for the Final Examination in Paediatrics in due course. The Course which includes a clinical attachment to the Department of Paediatrics, Faculty of Medicine, University of Malaya, will consist of case presentations, tutorials and lectures. The Course fee is M$100.00.

Applications to enrol for the above courses should be made to the Assistant Registrar, Board on Postgraduate Medical Education, Faculty of Medicine, University of Malaya, Kuala Lumpur, not later than Saturday, 2nd October 1976.

SCHOOL OF POSTGRADUATE MEDICAL STUDIES

The next F.R.A.C.S. Part I Fellowship Examination will be held on:-

Paper 1: Wednesday, 10th November
Paper 2: Thursday, 11th November
Paper 3: Friday, 12th November
Closing Date Wednesday, 29th September

Intending candidates are advised to obtain the necessary entry form and general information in advance. Completed entry forms, etc., must be received on, or prior to, the closing date. **IT IS STRESSED THAT LATE ENTRIES WILL NOT BE ACCEPTED.**

The Examination may be taken in Melbourne, Sydney, Brisbane, Adelaide, Perth, Hobart, Auckland, Wellington, Christchurch, Dunedin, Singapore. Candidates must stipulate centre on entry form and may not change after closing date.

The Examination will take the form of **three** 2½ hour papers each of 120 multiple choice questions.

Candidates will be interviewed in all centres by a panel of two members nominated by Council, at least one of whom will be a local resident. The interview will be designed to ascertain the progress a candidate has made in his basic training programme since graduation, but will not be concerned with syllabus content. The information gained from the Interview will be used in conjunction with the results of the examination to assess educational programmes in the various centres. It may also be used to assist the Board of Examiners in determining a candidate's examination result.

Details of application and entry forms may be obtained from the Examination Secretary, Royal Australasian College of Surgeons, Spring Street, Melbourne, Victoria 3000, Australia.

FORTHCOMIN & CONFER

Local

Society for Neurology, Ne conjunction with the Dep Neurology, will continue with lecture tutorials for the month

The topics and speakers are

6 Oct. 1976: Basic Neurora Skull X-ray — Dr. K.P. Tan.

13 Oct. 1976: Cerebral Bloo

20 Oct. 1976: Rehabilitation Robert Don.

27 Oct. 1976: Contempo tomical Research Techniques

These will be held as usual surgery & Neurology Confere **TTSH at 1.15 p.m.**

The Saturday morning cas the Society will continue as us of Neurosurgery & Neurolog and at 11.30 a.m. at the Ho Woodbridge Hospital for Psyc

A **clinical discussio** held on Saturday **30th** **p.m.** in the **Conference Room & Neurology:**

Cervical Sp

Clinical Features — Dr. Mic
Neuro-radiological Aspects
Treatment — Mr. C.F. Thar

Singapore Medical Associa fic talks: "Common Psychiatr ment" by Dr. Wong Yip Chor at **8.15 pm** at the **Pathology L** Advances in Prostaglandins" day, 26th November 1976 at th talks are specially tailored to s

Dermatological Society of First Regional Conference o seases to be held from 6 to 9 English Language Centre. It is of Health and the Internation real Diseases and the are:-

Singapore Registered Gene
Singapore Registered Instit
Registrants will be entitled sions of the Conference, the B vant abstracts, brochures and registration forms are obta Secretary, Dr. V.S. Rajan, 27726.

Overseas

The World Medical Associ World Medical Assembly in S ber 25 to 29, 1976. The theme pects".

International Bureau for logical Foundation and Aus tation of Disabled are organi ciety" to be held in Adelaide 1976. For further details plea Neurology, The Queen El South Australia, 5011.

Sri Lanka Medical Associa tific Sessions will be held Colombo. Members of the S. sent short papers of scientific time allotted for a paper is read a paper should send th before 31st December 1976. per person. Registration fo Hon.Secretary, Sri Lanka Me Mawatha, Colombo 7, Ceylon

G MEETINGS
IENCES

urosurgery & Psychiatry in
artment of Neurosurgery &
the Wednesday lunch-hour
of October.
as follows:-
diology Pt 2 The Abnormal

Flow — Mr. G. Baratham.
of Traumatic Paraplegia Dr.

rary methods in Neuroana-
— Dr. Tan Choon Kim.
in the Department of Neuro-
nce Room on the **2nd Floor,**

presentation sponsored by
ual at 11.30 a.m. at the Dept.
y Conference Room, TTSH
spital Conference Room in
hiatry.
er **Spondylosis"** will be
er at **11.30 a.m. to 1.00**
of the **Dept. of Neurosurgery**

ondylosis

hael Yap
— Dr. F.C. Ng

tion is organising two scienti-
ic Problems and its Manage-
g on **Friday, 29 October 1976**
ecture Theatre, and "Recent
y Prof. Sultan Karim, on Fri-
e same time and place. These
nit General Practitioners.

Singapore is sponsoring the
n Sexually Transmitted Di-
anuary 1977, at the Regional
co-sponsored by the Ministry
al Union Against The Vene-
es. Registration Fees

al Practitioners: S$100 -
tional Doctors: S$75 -
to attend the Scientific ses-
inquet and to receive all rele-
satchels. Further details and
inable from the Organising
Middle Road Hospital, tel:

tion will be holding its 30th
ao Paulo, Brazil, from Octo-
"Pollution in its multiple as-

Epilepsy, Australian Neuro-
ralian Council for Rehabili-
ing "Epilepsy In Today's So-
from 26th to 28th November
e write to the Department of
abeth Hospital, Woodville,

on's 90th Anniversary Scien-
om 23-26th March 1977 in
I.A. have been invited to pre-
interest at the Sessions. The
) minutes. Those wishing to
abstract to reach Sri Lanka
he Registration fee is US$15
ns are obtainable from the
ical Association, 6 Wijerama

Congratulations

Success in Examination

Dr. Lim Boon Keng — Diplomate, Board of Life Insurance Medicine (USA)

Dr. Chia Yang Pong, Dr. Goh Lee Gan, Dr. Lim Cheok Pang, Dr.Suri Rajiv, Dr. Teo Nam Hui, Dr. Wong Chin Hin — Master of Medicine (Internal Medicine)

Dr. Wong Saw Yeen — Master of Medicine (Surgery)

Promotion

Associate Prof. Edward Tock Peng Chong — to Full Professor

Dr.Nalla Tan — to Associate Professor

Dr. Kamal Bose — to Associate Professor

National Day Award, 1976

Dr. Wong Kum Hoong — The Public Service Star

Dr. Chan Ah Kow — The Public Service Medal

Professor K. Shanmugaratnam — The Public Administration Medal (Gold)

Dr. S. Devi — The Public Administration Medal (Silver)

Dr. Tan Seng Huat — The Public Administration Medal (Silver)

Conferment

Professor Phoon Wai On — F.R.C.P. (London)

Assoc. Prof. Lim Pin — F.R.C.P. (London)

Dr. Chee Kim Hoe — F.R.C.P. (Edinburgh)

Dr. Albert Wee — F.R.A.C.P. (Honorary)

Dr. V.S. Rajan — F.R.C.P. (Glasgow)

Dr. Tsoi Wing Foo — F.R.C.P. (Glasgow)

Dr. Winston Oh — Elected to the Scientific Council on Cardiomyopathies. International Society of Cardiology

Dr. Wong Yip Chong — Elected Honorary Member of the Australasian College of Psychiatrists

Practolol Banned in S'pore

The toxicity of practolol ('Eraldin', ICI) has been the subject of discussion in the medical journals recently. I.C.I., the manufacturers of 'Eraldin', has drawn the attention of medical practitioners in their letter dated 22 November, 1974 of reports of psoriasiform skin rashes accompanied by occular side effects, which in rare instances involved the corneal tissues. As more reports of other side-effects of the drug were published, I.C.I., in their letter to practitioners in March, 1975, drew attention to the incidents of sclerosing peritonitis in patients on long-term treatment. Accordingly, I.C.I. amended their package leaflet to incorporate these warnings and recommended that 'Inderal' (Propranolol) be used in place of 'Eraldin' whereever possible.

The World Health Organization reported that New Zealand had banned the use of practolol as from 1.3.75 and that this was followed by other countries, such as Italy (22.3.75), France (5.5.75), Denmark (1.7.75) and Greece (30.9.75).

Practolol was included as a Part I, Schedule 3 poison since 20 December 1974 hence it was obtainable only on medical prescriptions. Though no local reports of ill effects of practolol had been forthcoming, the sale volume of this drug had been kept under observation by this Ministry. The drug was used only sparingly in Singapore. In view of the current reports of its adverse effects, and in view of alternative drugs being available, the Ministry has from 13 July, 1976 prohibited import of the drug.

Practitioners who have been using the drug on patients are advised to review their cases and change over to other beta-blocking agents as soon as possible, as steps to withdraw the drug from the market are being taken.

(From Min. of Health — Drug Information Sheet)

Metrication in Prescribing and Dispensing

The following equivalents are commonly used in dispensing and prescribing in Singapore:

1 fl. oz. = ℥ i = 28 ml.

One tablespoonful = ½ fl. oz. = ℥ ss = 14 ml.

One teaspoonful = 1 drachm = ℥ i = 3.5-4 ml.

1 grain (gr.) = 60 mg.

1 oz. = 28 gm or 30 gm.

These equivalents would be used in 'soft' conversion in metrication. However, the practice in other countries e.g. U.K., is to standardise prescribing and dispensing which is 'true' metrication. The metric system is used instead of the Imperial or Apothecary systems e.g.,

Label: 10 ml t.d.s. Send 100 ml. instead of

Sig. ℥ ii t.d.s. Mitte ℥ iv

Dosages especially for liquid medicines are then more accurate as most proprietary medicines and official preparations such as those in the B.P.C. 1973 and B.N.F. 1974—1976 have now been adjusted to the 5 ml dose or its multiples. Total quantities to be dispensed are given in convenient standard figures e.g. 50 ml, 100 ml, 200 ml, 300 ml or 500 ml.

In the adoption of a standard procedure for metric dispensing, a number of considerations have to be kept in mind e.g. what happens when prescribing is done in systems other than the metric. Adjustments would have to be made such that the final dosage for the patient would be in metric. Thus ' q.i.d. Mitte 3 fl. oz.' will mean the pharmacist will dilute the medicine prescribed with a suitable diluent to give the same quantity of active ingredients as prescribed per 5-ml spoonful of diluted medicine and then supply a suitable nearest equivalent number of doses i.e. 100 ml (20 doses). Thus no matter how the prescription is written, the result will be dispensing in terms of 5-ml doses. Of course, this should only apply if the physician means exactly what he writes i.e. ℥ i or one teaspoonful (the 'common household' teaspoonful, if such a thing exists) to mean 3.5 ml or 4 ml even if he is prescribing a proprietary preparation whose recommended dosage is stated in terms of 5 ml. A situation could occur in which the prescriber actually means two 5-ml spoonfuls and not 7 ml when he writes ℥ ii.

Similarly, he may or may not intend the patient to take a 14 ml dose when he writes ℥ ss for a B.P.C. 1973 mixture, e.g. Potassium Citrate Mixture B.P.C. the dose of which is 10 ml. Confusion may also arise where older official preparations with tablespoonful doses are prescribed by physicians using the metric 10 ml dose.

At the moment pharmacists are using their common sense when interpreting prescriptions written in a mixture of systems e.g." ℥ i q.d.s. Mitte 60 ml." for antibiotic suspensions with strengths stated per 5 ml. This will continue until a standard procedure can be agreed upon by the prescriber and the pharmacist.

Two problems which it is hoped will soon be overcome are the insufficient number of 5 ml spoons in circulation and the lack of medicine bottles and jars in suitable metric sizes.

With close liaison between members of the health care team total metrication in prescribing and dispensing would be achieved in the near future to provide a safe and efficient service to the public.

Metrication Sub-Committee
Pharmaceutical Society of Singapore.

MEDIK AWAS

is a medical alert scheme organised for the benefit of all in Singapore

Please advise your patients to register and encourage them to carry these identification devices at all times.

Registration forms and further information are available from the SMA Secretariat. Tel: 981264.

CONTRACT PRACTICE

A REPORT ON THE SOCIETY OF PRIVATE PRACTICE SURVEY

The Society of Private Practice recently circulated a questionnaire requesting members to indicate appropriate fees for fee-per-item-of-service contract. From the returns, a Report on Contract Practice has been formulated, and recommendations made on fees chargeable for each service, as a guide to members.

Types of Contract Practice

1. Retainer. This functions on a per capita fee on the number of persons covered by the Contract, irrespective of the number of persons attending. It serves as a screening for fitness or sickness and provides minimal medical care.

2. Fixed All-Inclusive Fee for consultation, investigation, treatment plus medication. In this form is present the tendency to limit the extent of medical care in investigation and treatment within the fee allowed.

3. Fee-for-each-item-of-Service This contract follows the normal procedures in private practice with the exception that the bills are paid by the employer.

4. Sessional Sessions in clinics sited in the factory or in the neighbourhood for a fixed fee, on a monthly basis.

Other types of contracts are a combination of one or more of the basic forms, e.g. a retainer and a fixed all-inclusive fee per attendance, etc.

Economics in Contract Practice

When entering into a Contract, the Consultation Fee is the only negotiable item, investigation and treatment by medication being based on commercial prices.

In addition to a professional fee which is personal to the doctor, many other factors enter in computing a consultation fee in contract practice. These would include his overhead expenses in rent, maintenance, the establishment of assistants, depreciation, etc.; and would be higher in an urban practice especially in the Central Business District with the additional parking and CBD entry fee.

Disadvantages of Contract Practice

1. The Contract is between employer and Doctor, leaving the employee who is the patient no choice in his medical consultant.

2. When an employer changes his employment, he automatically changes his doctor; the latter would be ignorant of his previous medical history, sensitivities, etc.

3. An employer may forbid his employee to see any other Doctor, or refuse to recognise any certificate issued by him unless countersigned by the nominated G.P., notwithstanding the legal and ethical considerations thereof.

4. Stringent terms of the contract may restrict investigation and treatment.

5. Contract Practice functions on credit terms, which carries the liability of delayed or non-payment.

6. The concept of family and community medicine becomes impracticable if contract practice is universally adopted, members of the same family receiving medical attention from different Doctors.

Ethics in Contract Practice

1. In whatever form of Contract Practice undertaken, the doctor-patient relationship is to be maintained. The patient's interest is the foremost responsibility of the doctor, and interference of a third party must be resisted and discouraged.

2. Medical records are the property of the doctor and are confidential and may not be disclosed or given over to the employer at the termination of the contract. An abstract of a medical history may be given to the patient at his request. Exceptions are the examinations for fitness for employment or for insurance.

3. Medical treatment should be given by the doctor or under his immediate supervision, except in an emergency, when management may be conducted on his directions.

4. A contract should not deny the right of an employee to seek medical advice of a consultant of his own choosing, either in the government or private sector.

5. The attending doctor should not be prevented from seeking a second opinion in cases of doubt.

6. Every doctor involved in any aspect of enquiring and or seeking a contract should make a purposeful and definite attempt to ascertain the existence of any previous contract, and solemnly undertake not to undercut in costs and or services. The emphasis should be a positive one to provide for a better professional service and patient care. Soliciting for a contract in any form whatsoever is unethical.

The Sub-Committee's Recommendations

Pre-Employment Examination — Minimum fee of $10 - with additional charges for investigations and special tests

Consultation fee — Minimum fee of $4 -

Follow-up Repeats — Minimum fee of $4 -

Investigations done at Clinic

(a) Routine Urine — Basic fee of $3 -

(b) Urine for pregnancy — Basic fee of $10 -

(c) Blood Routine — At Commercial laboratory rates

(d) E.C.G. — $15 -

(e) Chest X-ray (large film) — $15 -

Injection in addition to consultation — Basic charge of $3 - plus cost of medicine injected. Parenteral treatment carries with it the responsibility of sensitivity, nerve damage, anaphylactic shock, etc.

Home Visits (Clinic Hours) — Minimum charge of $20 - increasing with mileage and time spent in making the visit. Additional charge would be applicable in urban practice in C.B.D. to compensate for the increased parking fees and Restricted Zone entry fees.

Home Visits (Out-of-Hours) — Minimum charge of $30 - increasing with the factors mentioned above.

Hospital Visits — $20 - minimum allowing increases with mileage and time spent.

Sessions — $30 - per session hour basic fee for the Doctor's services only. The question of staff emoluments, equipment and supplies of medicine would be a matter for negotiation.

Other Recommendations

1. The sub-committee recommends that the fee-per-item-of service be adopted as the basic form of contract, and the scale of fees should be appropriate to the services rendered.

2. In the retainer and sessional forms of contract practice, provision be made to include coverage for persons requiring special investigation and treatment.

3. Provision be made in contracts to seek second or specialist opinion and institutional care where necessary, at the expense of the employer.

4. To delete the powers of discretion by an employer to reject a medical certificate or recommendation issued by a registered medical practitioner, who is not

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LETTER TO THE EDITOR

Proud Professionals with Human Compassion?

Dear Editor,

I note with concern the unfortunate publicity given to an authoritative opinion that the spirit of service is hardly visible in the medical profession in Singapore (New Nation, August 5th, 1976) followed soon after by the findings from the Health Ministry's national survey that the majority of private doctors in Singapore who had previously been in institutional practice quit for the private sector because of the higher income possible.

I feel that this should not be ignored, for if left unanswered too long, could further corrode what remains of the public's confidence in us and lends further impetus for more of our colleagues to pack up and go. It is hazardous to decry what may be a worrisome situation without giving positive suggestions to correct it, for the inevitable sensationalization of the problem in the papers often aggravates the situation.

May I state the problem in its proper perspective?

Firstly, it should be emphasized that the doctors have shown themselves to be a truthful lot in not being afraid to state that when they made the decision to leave institutional practice for the private sector, they chose to do so because of the higher income possible...but what was not asked was WHY they chose this option AT THAT POINT in time? It is my contention that it is only Natural and LOGICAL for most doctors to go into the private sector EVENTUALLY after they have reached their goals in career development in institutional practice. What should concern us is that the results of the survey probably reflects that many left for the private sector PREMATURELY, for reasons which I would expect includes the economic pressures of having to bring up a family at a reasonable standard of living, coupled with the disenchantment with what institutional practice has to offer in Singapore at present. Some of these include those who were the stalwarts of institutional practice, who could have been able to improve its present limitations but finally decided to give up their struggle upstream.

Secondly, I would like to make the point that in the past, when many diseases remained a mystery, a doctor was looked up to as the only known salvation from pain and suffering, thus giving our profession a god-like aura. Presently, when the public is better educated and discriminating, and medicine has progressed to such a point that doctors are often viewed as specialized technocrats who are expected to do their jobs well, that god-like aura has, and should, fade away. Combined with the materialism that appears more boldly in Singapore today, small wonder that the 'spirit of service' should lie emaciated in our doctors!.... It is NOT LIKELY that it can be called forth in its original form despite any blowing of trumpets or rattling of sabres.

I suggest that the answer is, not just to nourish this emaciated, dormant spirit, but to encourage it to bloom in a different form in our doctors and undergraduates who have not yet become hardened and disillusioned, by pricking their egos in challenging them to prove their worth, by exhorting them to be PROUD of their work. They should be encouraged to take pleasure out of being able to work well, i.e. we should foster their professional pride... and cultivate the quality of human compassion which is necessary and inevitably develops from the pain and suffering we see daily. A major step in the right direction would be to improve the facilities to enhance job satisfaction in institutional practice, which is especially important now that the survey has shown that institutional practice in Singapore is the SPAWNING GROUND of our private practitioners.

I think Singapore has come of age to project the image of a PROUD Singaporean, and I feel strongly that our profession is particularly suited to lead and give balance to this by projecting the image of Proud Professionals with Human Compassion.

Yours sincerely,

DR MICHAEL H L YAP

CONTRACT PRACTICE

(From Page 10)

nominated by the employer, in any acts of law.

5. Provision be made in the Contract to review the terms periodically.

Comments Received

Some of the more note-worthy comments received were:

1. Patients must be encouraged to call at the doctor's office. Home visiting is very economical at any cost.

2. Industrial dispute. This does not often happen, but when it does in the form of a descent of almost the entire work force on the doctor, with whom they have no personal dispute, but are trying to "take something out on the management", it must be regarded as purely and simply "doctor abuse". It should be clearly stated that such behaviour will not be tolerated.

3. Vetting an outside doctor's leave chit. This is another difficult one. I would watch any employee who does this too often, especially those who use Government O.P. Clinics to get leave frequently.

4. Since in contract practice, we doctors are offering our services ON CREDIT TERMS and treat the same as any of our other patients, I feel and am charging any contract patient the same or higher than my normal patient (who pays cash).

5. It would be unfortunate where a doctor is willing to accept a very low fee in order to get a contract. It is not difficult to visualise the harmful effects to the medical profession, the factory workers and the proprietors themselves on this.

6. It is not uncommon that the firm manager does express or imply that doctors should not be too liberal in giving sick leave. Unfortunately some doctors do comply with this, fearing the loss of the contract.

7. Perhaps you may like to take the following into account in your deliberations:

(a) Practice where more time is being given in consultation against Practice which takes in as many patients as the doctor can see in the shortest possible time.

(b) Practice which runs a 24-hour service with doctors on call against that which closes at 5 p.m. and has no obligation to attend to patients after office hours.

8. It should be stressed to the young doctors that some managers are unscrupulous and play off one doctor against another, to the detriment of the latter. Doctors should be warned.

WHITHER SURGERY

by
Mr. J.E. Choo,
Senior Surgeon, SGH.

Surgery has changed more in this century than in all the previous fifty centuries since the Edwin Smith and Ebers Papyri were written, not only in techniques but in knowledge. Have all these changes been advances or have we in fact in some instances retrogressed? With the imminent completion of the new developments in the Singapore General Hospital incorporating much of the latest equipment and design, it is time to sit back and ponder where we are going and where we think we are going.

Let us examine a few examples. More than a century ago, John Brown described what was literally an amputation of the breast for cancer. Then Halsted described his method of radical mastectomy at the end of the nineteenth century, and in the fifth decade of the twentieth century extended, ultra — and super — radical mastectomy were described. In this the eighth decade, more and more surgeons are doing simple mastectomies and even "lumpectomies". The circle is almost complete. Were any of the radical operations advances? One wonders, as the results appear to be no better. What we do know is that the morbidity is much higher. Today, we are not even sure whether we should complement surgery with radiotherapy, and if we do, whether it should be given before or after the operation.

Radiotherapy and chemotherapy carry their own morbidity. Let us keep this primary principle of medicine each in the forefront 'Primum non nocere" i.e. First of all do not harm.

Another example is that of wounds. Ambroise Pare in the seventeenth century first enunciated the principle of conservative treatment when he said "I dressed the wounds, God healed them". Wound treatment has gone through the phases of cauterisation with hot tar, bland dressings, excision and suture, excision and bland dressings, debridement and medicated dressings, and debridement with bland dressings. Although the processes of wound healing and bacterial invasion appear to be better understood, every war has had its harvest of deaths and amputated limbs from sepsis because wounds have been closed up tight and antibiotics administered to prevent sepsis! Pare's dictum has had to be re-learnt every time. Have we advanced?

To take a last example. Pasteur first discovered that sepsis was caused by micro-organisms. Lister applied this knowledge to surgery and used carbolic acid not only to sterilise his instruments and his wounds, but the operation room as well and thus initiated antiseptic surgery, i.e. destruction of sepsis. This went on to aseptic surgery, i.e. exclusion of sepsis. All this occurred in the nineteenth century. Today, laminar air flow, positive pressure air-conditioning and even special suits for the operating team have reduced wound sepsis to under 1 per cent. Yet in one hospital, the same degree of reduction of wound sepsis was attained by simply locking the door of the operating room once the patient was draped, and keeping it locked till the final dressing was applied. Are all those expensive techniques advances? Or have they become necessary because we have forgotten what was learnt a century ago?

Surgery has enlarged in scope to the extent that no part of the body is now exempt from surgical invasion, and even the dead are made to surrender their organs. Diagnostic techniques have advanced so that diagnosis is possible in 99 per cent of cases — but at what a price! Diagnosis is possible in 95 per cent of cases with a good history, a thorough physical examination and a few basic investigations. All the sophisticated diagnostic techniques have added 4 per cent and of this 4 per cent the vast majority are untreatable anyway. These techniques cost many hundreds of times more than simple clinical examination. Let us not forget that patients come to us primarily to get cured. Very few are really interested in what is actually wrong, especially if what is wrong cannot be corrected. Even those who do want to know may not be prepared to pay the price. Do we really need all these expensive techniques for routine management of patients?

Many complicated procedures and operations have been devised from plastic surgical procedures like rhytidectomies and lipectomies to limb replantation, heart valve replacements, cerebrectomies and organ transplantation. Have we forgotten how to grow old gracefully and accept facial wrinkles? Have we forgotten that the best and most lasting way of losing weight (and fat) is to eat less? Do we not have superbly designed prostheses, the early fitting of which will allow the patients to go back to active work in a matter of months, that we have to rejoin limbs which after years are still not half as useful? Do we really want to wait like vultures for patients to die to harvest their organs or, even worse, deliberately injure healthy persons so that we can keep alive patients with incurable disease?

In many centres today, anencephalic children and children with myelomeningocele are being left alone instead of having shunts, ileal bladders, tenotomies etc. Should Karen Quinlan be kept alive?

The delivery of medical care has become so expensive today that we should re-examine critically every single one of our techniques, procedures and equipment to assess whether they are adding as much to diagnostic accuracy, therapeutic efficacy and, most important, the quality of life, as they profess to. Even with the less elaborate procedures, do we want to add the troubles of a colostomy to a patient with completely unresectable carcinoma of the rectum and multiple secondaries? Do we want to know the complete enzyme profile of a patient with multiple massive palpable tumours of the liver? Is it necessary to do a liver scan on such a patient? Do we want to add to the mental and spiritual agony of the relatives watching the patient suffer by prolonging his existence and his pain? Would it not be better just to put him on Hoyle's cocktail? Let us not strive officiously to keep alive.

I have posed many questions but have given no answers or at best only partial answers. The message I have tried to put across is that we should not order investigations because it is possible to carry out these investigations or carry out operations because these operations are feasible but should carefully consider every patient on his own merits after performing a thorough clinical examination including a comprehensive history and then decide what investigations and treatment are really necessary to cure his disease or to relieve his symptoms if cure is not thought possible without damaging the quality of life. Diagnosis of the disease while in many instances will help is not always necessary. Today it is not the quantity of life that is important, it is the quality of life.

Finally where are we going? Do we carry on developing more and more sophisticated investigations, more and more elaborate apparatus for monitoring in order to save that extra one or two tenths of one per cent, more and more elaborate operative procedures and more and more complicated prostheses? Do we go in for more fundamental research into the final causes of disease so that we can prevent it? Or do we call a halt and instead try to simplify investigations and monitoring and operative procedures. I think the second alternative offers the best prospects, but at the same time, the third alternative should be looked into. The first alternative, in today's context is unacceptable.

(This article first appeared in the Newsletter, Singapore General Hospital, Vol. 12 No. 6, September 1976).

CHLOROFORM CARCINOGENIC?

The Department of National Health & Welfare, Government of Canada, has informed the World Health Organization about an Information Letter sent out to manufacturers of drugs or cosmetics on 8 July 1976, on the subject of proposed restrictions on the use of chloroform (trichloromethane). The letter states:

"New information from a recent study carried out by the National Cancer Institute in the United States suggests that chloroform may be carcinogenic in rats and mice when administered in high doses over prolonged periods. Although there is no direct evidence that chloroform as used in drugs and cosmetics, has caused injury to the health of humans, the new finding raises doubts about the long-term safety of this ingredient.

"As a result of this new information the Health Protection Branch has reviewed the need for chloroform in products subject to the provisions of the Food and Drugs Act and Regulations. The Branch is aware that chloroform has a long history of use in drugs and cosmetics. Presently available information indicates that current usage of chloroform in drug products in Canada is for its antitussive and carminative properties in products taken orally, for its counter-irritant property in liniments, as a preservative, as a flavouring, and as a solvent during the manufacturing process. In cosmetics it is used as a flavouring agent. For each of these applications, it would appear that alternative ingredients are available which currently are not open to suspicion. Therefore, it seems reasonable to discontinue the use of chloroform as an ingredient in drugs and cosmetics so that there will be no possibility of a hazard to the

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Adverse Reactions of Beta-Adrenergic Receptor Blockers

The recent reports of psoriasiform skin rashes and occular side effects have occurred in patients undergoing long term treatment with practolol have led to the banning of the use of practolol in many countries including Singapore. The psoriasiform rash is characterised by hyperkeratosis of palms and soles, plaques over the knees and gyrate lesions elsewhere. Some patients with the rash also developed dry eyes from impaired lacrimation with occular irritation and redness. Sometimes this may progress to conjunctival scarring and corneal involvement. The development of these severe adverse reactions to practolol has created fear that similar adverse reactions may occur with the long term use of other beta-adrenergic receptor blockers. However such fear is not substantiated by the present day knowledge. Therefore the clinicians should not be afraid to use any member of this very useful class of compound.

The efficacy of beta-blockers in the treatment of mild to moderate hypertension, angina pectoria, certain type of cardiac arrhythmia, and as an adjunct in the therapy of hyperthyroidism has been firmly established for many years now. Those beta-blockers already marketed in Singapore include propranolol, sotalol, alprenolol, prindolol, timilol, acebutolol and metoprolol. They are pretty safe to use if one understands their pharmacological properties and the possible adverse reactions. Essentially this group of drugs can be divided into selective and non-selective depending whether it preferentially blocks the receptors in the heart or it blocks indiscriminately the receptors both in the heart and the lung. The presence or absence of intrinsic sympathomimetic activity makes no great difference to our choice of beta-blockers in clinical practice except it is good to realise that its presence may theorectically confer some protection on the function of the heart.

The major side effects of therapy with beta-blockers are related to the beta-adrenergic receptor blockade per se. Though serious cardiac depression is uncommon and rare with oral administration, cardiac failure may occur in patients whose hearts are diseased or compromised by other drugs. Therefore beta-blockers must be given with care in patients who had pre-existing myocardial disease, however many experts believe that mild cardiac decompensation is not an absolute contraindication to the use or continued use of beta-blockers orally as the myocardium can be strengthened by concomitant use of digitalis whose inotropic action on the myocardium is not prevented by beta-blockers. Theorectically beta-blockers with intrinsic sympathomimetic activity like alprenolol, oxprenolol and prindolol will be preferred under such circumstances.

Another serious side effect arising out of beta-adrenergic receptor blockade per se is an increase in airway resistance which can be quite alarming in asthmatics or chronic bronchitics. Therefore asthma and chronic bronchitis are the contraindications to the use of beta-blockers except those which are selective like acebutolol, metoprolol and atenolol. Inspite of the many reassurances given by the manufacturers regarding the safety of these selective beta-blockers in asthmatics and bronchitics, they should not be used in patients with severe airway obstruction as even a slight decrease in the airway calibre caused by the drugs will seriously affect their ventilation. It must be realised that their selectivity is not absolute. Beta-adrenergic blockade augments the hypoglycaemic action by blocking the glycogenolytic action of adrenaline on liver. Therefore they should be used with great caution in diabetic patients who are also treated with hypoglycaemic agents especially insulin. This is because the beta-blockers often mask the important signs of hypoglycaemia like tachycardia and profuse sweating. The interaction between the hypoglycaemics and the beta-blockers may therefore prevent the early diagnosis of hypoglycaemia and delay the therapeutic measures which may be life saving.

Some beta-blockers sometimes develop adverse reactions which are not related to the desired pharmacological action i.e. beta-adrenergic blockade. These include nausea, vomiting, mild diarrhoea, constipation, insomnia, bad dreams, nightmares, hallucination, lassitude and depression. Fortunately they are usually not serious and disappear during continued administration. However allergic reactions like rash and purpura, though rare, may require the discontinuation of the drugs.

PCT

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Occupational Medicine and Related Laws Governing Industrial Medical Practice

(Based on a Seminar on The Role of the Doctor in the Industrial Expansion Programme in Singapore, organised by the SMA on 25th June 1976)

by Dr. Chew Pin Kee,
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Many doctors with an industrial medical practice may not be very familiar with the laws affecting certain important aspects of their practice. Managements and workers often expect these doctors to be able to advise them on the medical obligations under the laws. However, not having been acquainted with these laws, they often find it difficult to discharge their legal responsibilities fully. "Ignorance of the law is no defence", as the saying goes, is very apt in the context of present day industrial medical practice.

This article attempts to give the salient features of the more important sections of various laws affecting practice with industrial workers.

The following is a list of legislation which are relevant:-

1. Factories Act 1973;
2. The Factories (Abrasive Blasting) Regulations 1974;
3. The Workmen's Compensation Act 1975;
4. The Employment Act — Cap 122 (1970) and The Employment (Amendment) Act 1975;
5. The Sand and Granite Quarries Regulation, 1974;
6. The Radiation Protection Act 1973 and Regulations 1974;
7. The Poisons Act — Cap 164 (1970); and
8. The Poisons (Benzene) Rules 1974.

(1) FACTORIES ACT 1973

This is the main piece of legislation governing industrial safety and health in factories. It would do well to have a copy of this Act at hand for easy reference. The important sections concerning medical practice are as follows:-

(a) Notification of Industrial Diseases (Section 60)

There is a list of 22 notifiable industrial diseases under the Sixth Schedule. (Please see Appendix 1). Doctors should study this list. The important diseases currently prevalent include Silicosis, Noise Induced Deafness, Industrial Dermatitis and some of the poisonings. The onus of notification is on the medical practitioner (and **not** the factory owner). When he attends to a patient whom he believes to be suffering from any of the listed diseases, the doctor must send a notification **forthwith** to the Chief Inspector of Factories. He is then entitled to a fee of $10 - payable from public funds. However, failure to notify constitutes an offence and shall be liable on conviction to a fine not exceeding $500 -.

(b) Medical Supervision of Persons Exposed to Risks

Where there may be a risk of injury to the health of persons employed in specified occupations as listed in the Seventh Schedule of the Act, there is a need of constant medical supervision and medical examination of the persons. Doctors do well to be familiar with the types of occupations in the Seventh Schedule as shown in Appendix 2.

The Factories Act also have a number of sections which involve environmental control of dust, fumes, vapours, etc which constitute a hazard to workers.

(2) THE FACTORIES (ABRASIVE BLASTING) REGULATIONS 1974

These regulations are specifically directed to the control of silicosis in workers involved in blasting operations. An annual full chest x-ray examination for the early detection of silicosis cases is a mandatory requirement. (Section 14).

(3) THE WORKMEN'S COMPENSATION ACT 1975

The basis of this Act is that in any employment (whether in a factory or otherwise), personal injury by accident **arising out of and in the course of an employment** is caused to a workman, his employer is liable to pay compensation. (Section 3) At the same time, any workman employed in any occupation listed in the Second Schedule who contracts a disease shown in the Schedule to be related to that occupation, then compensation shall be payable as if this disease was a personal injury by accident arising out of and in the course of that employment. (Section 4)

It is therefore important to know what are the listed compensable diseases in the Second Schedule. (Please see Appendix 3) It will be observed that certain diseases like silicosis and asbestosis are in both lists, ie in the list of notifiable industrial diseases under the Factories Act and also in the list of compensable diseases under the Workmen's Compensation Act. However, the two lists are not completely identical.

Claims for compensation can only be made on a

(See Page 15)

NOTIFIABLE INDUSTRIAL DISEASES

1. Aniline Poisoning
2. Anthrax
3. Arsenical Poisoning
4. Asbestosis
5. Beryllium Poisoning
6. Byssinosis
7. Cadmium Poisoning
8. Carbon Bisulphide Poisoning
9. Chrome Ulceration
10. Chronic Benzene Poisoning
11. Compressed Air Illness
12. Epitheliomatous Ulceration
13. **Industrial Dermatitis — 1975**
14. Lead Poisoning
15. Manganese Poisoning
16. Mercurial Poisoning
17. Mesothelioma
18. **Noise Induced Deafness — 1975**
19. Phosphorous Poisoning
20. Silicosis
21. Toxic Anaemia
22. Toxic Jaundice

OCCUPATIONS INVOLVING SPECIAL RISKS TO HEALTH

1. Any Occupation Involving Use Or Exposure To Fumes, Dust Or Vapour Of:
a) Silica
b) Asbestos
c) Raw cotton dust
d) Lead
e) Mercury
f) Arsenic
g) Phosphorous
h) Carbon Bisulphide
i) Benzene
j) Organic-Phosphate
k) Nitrous fumes
l) Cadmium
m) Beryllium

2 Any Occupation Involving Use Of Exposure To:
a) Tar
b) Pitch
c) Bitumen
d) Mineral Oil (including paraffin)
e) Chromate Acid
f) Chromate or Biochromate of Ammonium
g) Potassium
h) Zinc
i) Sodium

3 Any Occupation Involving Exposure To:
a) X-Rays
b) Ionizing particles
c) Radium or other radio-active substances or other form of radiant energy

(4) Any Occupation Or Process Carried On In Compressed Air

OCCUPATIONAL MEDICINE...

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medical report of the doctor. After making a medical examination, the doctor comes to a diagnosis and then writes out a medical certification of the disease. This report forms the basis upon which the worker will make a claim with the Workmen's Compensation Section of the Ministry of Labour.

After the medical diagnosis, the doctor will have to make an assessment of disability and indicate the percentage of residual disability the patient has got. It is with this percentage that the Workmen's Compensation Officer will use to compute the cash value of the compensation payable.

In case of disagreement over the medical diagnosis or the percentage of disability, the law allows medical referees to be appointed by the Minister for Labour for the purpose of determining whether the diagnosis is correct and also whether the percentage of residual disability is in order. The report of the medical referees will be acted upon by the Workmen's Compensation Officer. (Section 4 (7) (8))

In the case of a traumatic accident, the employer shall offer the workman a free medical examination by a medical practitioner and also the cost of any medical treatment that the medical practitioner considers necessary. Medical reports are required in such cases and the fees will be paid by the employer (Section 13).

Where the medical practitioner considers that hospitalisation is necessary after an accident, treatment shall be made only in an approved hospital. Again, all hospital charges and fees including cost for medicines and artificial limbs and surgical appliances shall be paid by the employer (Section 14).

(4) THE EMPLOYMENT ACT – CAP 122 (1970), THE EMPLOYMENT (AMENDMENT) ACT 1975

This Act is largely concerned with the conditions of service of employment, such as, wages, benefits, etc. However, there are certain sections which have got a medical aspect. They are:-

(a) Hours of Work and Overtime Work (Section 38(2))

Quite often, especially in heavy industries, workers are asked by the employers to do overtime work for more than a stretch of 8 hours in a 24-hour cycle. Doctors are then consulted on whether this prolonged period of work will affect their health or subject them to accidents as a result of fatigue. This is not an easy problem, it will depend on the nature of the case and advice have to be given accordingly.

(b) Sick Leave (Section 43)

The question of sick leave of course is an irksome one between the medical practitioner and the employee. A worker is entitled to a certain number of days each year for sick leave on pay. This has to be certified by a medical officer. Without a medical certificate, the worker cannot claim sick leave under this Section of the law. There are different areas of possible friction with regard to the medical certification of sick leave.

(c) Certification of Work Suited to Capacity of Any Child (Section 67)

A child completing his 12th year of life may be employed in certain light work suited to his capacity and this has to be certified by a medical officer.

(d) Advice on the Determination of Age and Fitness of the Applicant for Work (Section 81)

Sometimes certain employees may appear older than their age and the medical officer is asked to determine the age of the applicant and his fitness for the work he wishes to undertake.

(e) Assessment of Weekly Sanitary Inspection of Labourers' Quarters (Section 116)

In olden days when coolie lines were common, the employers have to make weekly sanitary inspections. However, the law requires that the medical officer assesses these weekly sanitary inspections to see whether they are properly done.

(5) THE SAND AND GRANITE QUARRIES REGULATIONS 1974

These regulations are specifically for the control of the occurrence of silicosis in the granite quarries. Dust control in the environment should be instituted and workers are subjected to annual full chest x-ray examination for those employed in granite and once in two years for those employed in the sand quarries. (Section 32) Again, the purpose is for early detection of silicosis.

(6) THE RADIATION PROTECTION ACT 1973 AND REGULATIONS 1974

The main purpose of this Act is to protect workers exposed to ionizing radiation.

Details of the medical and radiological supervisions are contained in Sections 12 and 14 of the Regulations.

(a) Radiation workers with excessive exposure are subjected to medical examination including full blood examination. Results have to be recorded and given to the Radiation Protection Officer in the Department of Scientific Services, Ministry of Science and Technology. Workers are also subjected to periodical examination.

(b) Medical practices with x-ray diagnostic installations are subjected to certain requirements under Section 30 and 31 of the Regulations. Patients and personnel exposed to the radiation must be protected.

(7) THE POISONS ACT – CAP 164 (1970)

There are certain inorganic chemicals which are classified as poisons under the Act and many of these are used as raw materials in the manufacturing processes. General rules of storage, labelling and handling must be observed.

(8) THE POISONS (BENZENE) RULES 1974

These regulations specifically control workers which are exposed to benzene (C_6H_6) during the course of their work. These include:-

(a) Pre-employment examination including a blood test (Section 10 (2));

(b) An annual medical examination including a blood test (Section 10(3))

(c) A Certificate of Fitness by the medical practitioner and this is shown in the prescribed form contained in the Second Schedule. They include:-

(i) haemoglobin, and

(ii) full blood count – RBC, WBC, platelets.

CONCLUSION

It is important for medical practitioners contracted to industrial establishments to realize their responsibilities and obligations under the present laws governing industrial medical practice. Recently, criticism had been levelled at medical practitioners which imply that they have not fully or competently discharged their duties towards workers. Familiarization with the different laws will assist in the improvement of one's practice.

CHLOROFORM CARCINOGENIC

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health of Canadian consumers.

"It is my intention to recommend the implementation of regulations respecting drugs and cosmetics for human use that will prohibit the sale, by manufacturers or distributors, of products containing chloroform as an ingredient. It will be recommended that these regulations take effect on September 1, 1977. It is considered that there is no immediate hazard from the drugs and cosmetics currently marketed in Canada. Therefore, manufacturers and distributors of these products would be permitted to continue sale of these products up to that date in order to provide for an orderly conversion to reformulated products."

Signed by
A.B. Morrison, Ph.D.
Assistant Deputy Minister
World Health Organisation

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