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Introduction

The Staff of the Department of Psychiatry of the Dalhousie University Medical School were exceedingly pleased to be asked to take responsibility for the material contained in this issue of the Nova Scotia Medical Bulletin. It is their sincere wish to be of service to the medical practitioners of Nova Scotia and to share any special knowledge which they may have which will improve the care of the sick in this province. Having accepted this responsibility, our only problem came when we had to decide what kind of material would be most useful to our professional colleagues. The problem was the same one which we struggle with in the preparation of our undergraduate curriculum. In brief it boils down to this—should we try to discuss the psychological facts of general medical practice which are so important in the etiology and therapy of many diseases not ordinarily considered to be psychiatric or should we concentrate on the special psychiatric problems which are seen in general medicine and which are commonly dealt with to at least some extent by the general practitioner. Perhaps in a rather cowardly way we chose the latter course, and we have tried to assemble a series of articles—on the acute organic psychosis, on the neurosis, on the use of the tranquilizing drugs, and on child psychiatry—that we feel represent some of the problems in the speciality of psychiatry which are met with and frequently dealt with by the general practitioner.

In addition to these clinical matters, we feel that the practitioners of the province would be interested in the plans being formulated by our Government for improvement in the care of the mentally ill in Nova Scotia. Dr. Clyde Marshall, Director of the Division of Mental Health of the Department of Health of Nova Scotia has kindly contributed a statement on this matter for which we are very grateful. We would like to thank the editors of the Bulletin for their invitation to take on this responsibility, and we sincerely hope that this material will be of use to our colleagues.

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Acute Brain Disorders

(Delirium, Acute Toxic Psychosis)

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THE acute brain disorder or the delirious reaction is the most common major behaviour disturbance to be seen by the physician practising in any area of medicine. This type of psychotic reaction mars many a smooth post-operative recovery, converts the joy of the delivery of a new baby into tragedy, robs the old man who successfully had his cataracts removed of the benefits of the surgeon's skill—in general does great harm to the patient and is extremely troublsome to his medical attendants. Thus its etiology, prevention, and management is one of the most important subjects for all physicians to understand.

An acute brain syndrome (toxic psychosis or delirium) is a severe and acute behaviour disturbance resulting from interference with normal brain metabolism as a result of toxins either from disease processes within the body or introduced from outside. The commonness of this condition is borne out by a recent survey at the Cincinnati General Hospital which showed that of 200 randomly selected surgical patients, 86 percent had either distressing psychological symptoms, disabling patterns of behaviour or both to the extent that a psychiatric illness could be diagnosed. Of this group 35.5 percent suffered from an acute brain syndrome. Other surveys do not yield quite such a high incidence, but every experienced physician knows the frequency of this type of reaction among his physically sick patients.

Etiology:—The etiology of the acute brain disorder is the presence of a toxin acting on brain cells to produce pathology generally of a reversible sort; for example, oedema, hyperemia, etc. The source of such toxins may be (a) endogenous—coming from within the body, for example, in a puerperal infection, in uremia, in pneumonia, or any other severe illness.

(e) exogenous—introduced from outside, for example, alcohol, (the familiar D Ts), bromides, barbiturates, and many, many others. It should be emphasized here that the drugs given by physicians are frequent offenders; that is, bromides and barbiturates, etc. Whenever such a reaction is diagnosed the first step in treatment is a careful survey of the drugs the patient is taking.

In addition to the above common causes, cerebral metabolism may suffer from lack of the proper nutritional elements, for example, carbohydrates and vitamins. Occasionally this is seen in elderly people who are living alone on a completely inadequate diet of tea and toast and over the course of time become progressively a little queer-er until eventually they have a full-fledged organic psychosis.

Having said all this, it must now be pointed out that individual people react differently to the same degree of toxicity, for example, one postpartum patient has a temperature of 103 and no delirium while the lady in the next bed with the same amount of fever is severely psychotic. Like other illnesses the personality of the patient is important in determining the reaction to brain disturbance; and the personality loaded with anxiety is very likely to develop an acute brain syndrome. As will appear below, the outcome of this type of

reaction is by no means always benign—at the very best convalescence is prolonged—something not to be tolerated under Bill 320! It is thus worthwhile trying to prevent the development of this type of psychosis; and I would suggest that this can frequently be accomplished by attention to some of the following points.

Prevention: First, physicians are responsible for not a few cases of acute organic psychosis which develop as a result of the drugs prescribed. We should be ever watchful for such a development, and at the first sign of a psychotic change examine carefully the medications which we have ordered for the patient. Too frequently the psychotic development is regarded as indication that the sedative which the patient is on is being given in inadequate doses and the dosage of the bromide mixture or of the Seconal is doubled rather than being discontinued which it should have been. Secondly, the above precaution particularly applies to the brain injured. A common example of this is the aging person with early cerebral arteriosclerosis who may easily be pushed into an acute organic psychosis by small amounts of bromide or barbiturates. Thirdly, the liability to develop an acute brain syndrome varies directly with the patient's level of anxiety. Patients coming to hospital or to operation in an anxious, frightened mood are much more likely to develop this type of syndrome. Also when the operation involves an organ of personal importance, for example, an eye or the uterus the anxiety is manifestly greater. In all patients it is part of the doctor's job to relieve his patient's anxiety as much as possible—by giving the patient an opportunity to verbalize his fears and then fully explaining the procedures to be carried out with the hoped-for results. This intellectual procedure plus the building of an emotional relationship between doctor and patient of trust and confidence will certainly work against the development of this type of psychosis. Titchener et al.[2] state, "A rough correlation can be established between the development of an organic psychosis in elderly people and their loneliness, the number of visitors they have during hospitalization or the lack of close and supportive relatives and friends." This type of patient needs special support from the nursing and medical staff.

Symptomatology: The basic triad of symptoms of an acute brain syndrome are as follows. First, there is an impaired perception of the patient's environment which may vary all the way from a slight confusion to a marked disorientation in which the patient does not know where he is, who people around him are, and loses all track of time. This extreme state is easily recognized and demands immediate medical attention. The less marked stages, however, are apt to be missed. Romano[3] from E.E.G. studies has pointed out that the incidence of "clouded states" of this kind is very high. In fact, almost everyone who has had a serious operation, blood loss, drugs, etc. has a period of "clouding" of consciousness or delirium of greater or lesser extent. This is especially so in the elderly or the brain injured. Such patients are apt to show this disturbance of consciousness by forgetting the nurses' instructions, not doing what the doctor has ordered, or behaving in other ways which arouse staff hostility and gets the patient labelled "unco-operative." I know of at least one serious tragedy that resulted from failure to recognize a mild delirium with the consequent development as sketched above. Secondly, a mood of fear. By and large a patient with an acute brain syndrome is a frightened person. He feels that he will be harmed, that he is being plotted against, the medicine is poison, etc. The control of such fear with psychological support is a vital therapeutic problem. Thirdly, the presence of delusions and hallucinations which back up this fearful mood.

A person suffering from this type of reaction hears two nurses talking in the corridor and believes that they are plotting to kill him. He sees visions such as bugs crawling on the wall or rats running over the bed. (I have yet to see a patient who sees the traditional pink elephants). All these things fit into his sick beliefs *which are not subject to change by logical argument* (delusions) that he is to be tortured, killed, etc.

The upshot of all this psychopathology is the behaviour of the delirious patient—frightened, restless, agitated—trying to get out of bed and escape from the dangers which he pictures the hospital to be full of. Physicians old enough to remember Ward 16 of the old Victoria General Hospital will recall the stream of delirious old men running down Tower Road in their johnny shirts to escape torture and death. These patients are confused and mixed up, out of touch with their environment and consequently they may mistake a door for a window and in their panicky efforts to get away from their persecutors. Such a mistake may have disastrous results, (especially in a fourteen storey high hospital). One important and most constant feature of an acute organic psychosis is that the onset is "spotty," the patient being psychotic for a short time and then having a period of relative clarity. Characteristically these bad periods almost always start at night, and during the illness the patient is almost invariably worse at night. Hence, the diagnosis of an acute brain syndrome is nearly always made first by the night nurse. The physician would be well advised to pay careful attention and take seriously reports of disturbed behaviour coming from this source. With the above there are also signs of underlying physical disease, temperature, leucocytosis, etc. If the physical condition deteriorates, much of the above symptomatology fades into the background with the increase of serious physical pathology. It should be noted that the mental changes frequently *precede* demonstrable physical deterioration. Such behaviour changes should cause immediate concern regarding the patient's physical condition. This point has also been made by Titchener et al[4] who quote the case of a lonely and fearful old man who had successfully weathered a herniorrhaphy but on the second post-operative day developed slurred speech, and a choice of words which were subtly inappropriate. On the third post-operative day a delirium was plainly recognized and by nightfall the first signs of intestinal obstruction made themselves known necessitating laparotomy and resection of the gangrenous bowel. They conclude, "Thus, the early recognition of sensorial changes in the mental status examination may be of crucial importance in alerting the surgeon to the growing danger of surgical complications or relapse."

Differential Diagnosis: This is seldom difficult if the symptomatology described above is kept in mind. I would stress that while acute organic psychosis is common in the postpartum or post-operative period so are other psychoses, for example, a schizophrenic reaction. Since prognosis and treatment may be quite different in these conditions, such an error may have serious consequences. Schizophrenic reactions do not have the disturbances of consciousness shown by memory defect, disorientation, and confusion. Rarely is there the same intensity of fears as in the acute brain syndrome. Finally the signs of severe physical illness or toxicity will usually soon be apparent in the acute organic psychosis.

Prognosis: For years we have been taught that this type of reaction was reversible and while with long persistence it might cause brain destruction and permanent change usually the prognosis was good. For practical purposes this is still so, but recent careful studies have indicated that the possibility

of unfortunate outcome is greater than had previously been realized. To again quote Tichener[5], "The almost everyday occurrence of delirium and its commoness as a post-operative complication does not make them less momentous as far as the patient himself is concerned. The fact that so many delirious patients—32 per cent in our series continue in chronic brain syndrome or never quite regain their former mental sharpness allows no room for nonchalance regarding the prevention and treatment of these conditions."

Treatment: Prevention and early diagnosis followed by energetic treatment are most important. With the fully developed psychosis the following represents the important steps.

(1) The protection of the patient. The most skilful treatment is not worthwhile if the patient dies. Patients with an acute brain syndrome are rarely suicidal, but with their confusion and fear they may inadvertently harm themselves, for example, as already quoted by mistaking a window on the tenth floor for a door. The best protection is a capable special nurse, and such patients should be specialed especially at night. *Every* hospital should provide a few quiet rooms with safe, quiet and non-stimulating atmosphere for patients of this kind which they are bound to have. Noise, frightening sights, etc. stimulate the patients delusions; and these should be guarded against. Like a child, however, he sees danger in the shadows of the dark and should be nursed in a room with the light on so that he can see what goes on and every procedure should be carefully explained to him. Since such illness may start suddenly and acutely all the windows of the hospital should be protected and other hazards removed.

(2) A special nurse—not afraid of the patient—is more important for another reason, mainly to reduce the patient's confusion and fear. The presence of a familiar and calm face can often do more to build security and reduce fear than the utilization of all the tranquilizers that Canada's drug companies dump on your desk in the course of a year.

(3) If the above treatment measures can be instituted, the need for physical restraint will rarely arise. The patient with an acute organic psychosis is like a frightened child—holding him increases his fears and makes him all the more restless. Physical restraint should be kept as a last resort and I feel should be looked upon as a very temporary measure if used at all.

(4) To some extent, the same can be said of chemical restraints. Since drugs are frequently the cause of this condition, they should be used with great caution and reserved if possible for the time when the patient is apt to be most disturbed; that is, *at night.* It should be the physician's responsibility to order the drugs necessary and P.R.N. orders should not be left. If it is anticipated that the patient will be disturbed, he should be given an *adequate* dose of drug early in the evening *before* the delirium occurs. If one waits until trouble starts, the patient in his psychotic state misinterprets his medication and struggles against it. Given before symptoms develop, he may go to sleep for the entire night. A frequent mistake in my observation is to give drugs in ridiculously small doses; for example, 5 c.c. of Paraldehyde.

Such inadequate doses add to the patient's confusion and contribute little of a sedative affect. What is needed is a quick acting, non-cumulative sedative which rarely causes such reactions itself. Until recently Paraldehyde best met this need, and in doses of 10 to 20 c.c. intramuscularly (or in smaller doses intravenously) was used with good effects. With the advent of the tranquilizers there has been a tendency to replace Paraldehyde and for this purpose Promazine (Sparine) has been most effective. This can be given in-

tramuscularly or intravenously in doses of 50 to 200 mgm. or until the patient is quieted and then followed up by Promazine or Chlorpromazine by mouth. Some of my colleagues have reported alarming drops in blood pressure with serious collapse with this drug. I can only say that on our psychiatric service at the Victoria General Hospital and Camp Hill Hospital we have used it extensively and have found it safe and satisfactory.

(5) Treat the underlying cause of the psychosis. This may include draining an abscess, treating pneumonia, aiding the elimination of bromide, etc. Basically the appearance of this form of psychosis means underlying toxicity which must be discovered and treated if the patient is to improve. At times there are specific treatments, for example, the use of sodium chloride in bromide intoxications but frequently there are not; and when there is not, we must rely on measures, such as, forcing fluids, keeping the bowels open, which aid the process of elimination. In the psychosis of vitamin deficiency and in that associated with alcoholism, large doses of vitamins particularly of the B group may be helpful.

(6) Allow a long period of convalescence. Acute brain syndromes are very apt to relapse if treatment is stopped and if the patient is pushed into responsibility too early. This warning is particularly important with the postpartum psychosis, and I have seen several serious tragedies in which mothers have killed their babies come about because a postpartum psychosis was returned to her home before she was capable of taking this added responsibility. The pressure to get psychotic patients out of hospital because of their disturbing influence in the hospital is an unhealthy one and is opposed to the best type of medical care.

SUMMARY

Attention is called to the frequency and seriousness of acute brain disorders. These are psychotic reactions resulting from reversible cerebral cortical changes. The etiological factors are generally toxins arising either from inside or outside the body. A frequent source of such toxicity is the medication that physicians give. The clinical picture is characteristic and diagnostic and symptoms fall into three main areas: (1) disorders in grasp of the environment. (2) a mood of fear. (3) illusions, hallucinations, and delusions which back up this mood of fear. These reactions can frequently be prevented by attention to the patient's physical and psychological condition. Since they are serious it is an important part of the physician's practice to take all possible steps to accomplish such prevention. Failing this, he should be alert to the early signs of such a development and promptly initiate treatment measures. Treatment measures consist in protection of the patient, good nursing care, the removal of cause, temporary control of the patient's behaviour by means of tranquilizing drugs and the provision of an adequate period of convalescence. The latter is essential or tragedies will result.

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Neuroses – Diagnosis and Treatment

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THE neuroses represent personality reactions which could be looked on as being midway between normal and the more severe or psychotic reactions. The symptoms of the neuroses consist of anxiety and its effects or of certain defenses against it. The anxiety is the result of stress that the personality has encountered. This stress may be associated with external or situational factors but is more commonly a result of internal conflicts of the personality. If the patient presents primarily with anxiety and its physiological effects, then we are dealing with an anxiety reaction. Such a clinical picture is well known. The patient is observed to be tense, jittery, and "nervous." His face is flushed and he is restless. The most accurate measure of anxiety is probably sleep disturbance, and particularly a difficulty falling asleep. This is frequently the first symptom to come and the last to disappear. It may be accompanied by restless or broken sleep and bad dreams or nightmares. The sufferer awakes unrefreshed. Other classical "anxiety symptoms" are expressions of an autonomic upheaval. Excessive perspiration, dilated pupils, and tremulousness of the body and extremities are frequently observed as the patient enters the office. His pulse is accelerated and his blood pressure may be elevated. He may exhibit cardiac overconcern and complain of his rapid heart action, the effects of extra systoles or precordial discomfort. Dryness of the mouth can frequently be detected by the patient's manner of speech. Gastro-intestinal symptoms include "butterflies" or "knots" in the stomach, indigestion or heartburn, anorexia, nausea, and vomiting. The patient may complain of a weight in his chest or an inability to get his breath or a difficulty swallowing. Skeletal muscular tension is common and may be the cause of headache or backache. The laboratory studies may show an increased leucocyte count or elevated blood sugar levels.

In certain instances the personality uses psychological defenses in an unconscious effort to overcome anxiety. This results in the development of other patterns of neurosis, such as hysteria, obsessive compulsive reactions, phobic reactions and psychoneurotic depressions. The hysterical symptoms are frequently "neurological" in type, the patient presenting with paralysis, tics, etc. At other times they are brought to the doctor's office with dissociative reactions such as fugue states. In the obsessive compulsive reaction the patient's anxiety is controlled by associating it with persistently repetitive thoughts and acts. The patient with a phobic reaction attempts to deal with his anxiety by displacing it to some symbolic idea, object or situation. This results in a neurotic fear that may be severely incapacitating.

We establish the diagnosis by taking a careful clinical history. While a physical examination is performed one does not diagnose neurosis by the absence of positive findings on physical examination. Rather, we look for positive evidence of neurosis in the clinical picture that the patient presents and the events that precipitate it. We also look for the presence of a personality conflict, evidence of anxiety earlier in life, evidence of maladjust-

ment in the family history and personality characteristics that are compatible with neurosis.

The clinical picture that one looks for has been briefly outlined above. In a mixed neurosis we see different types of neurotic symptoms occuring simultaneously.

A significant precipitating event can most easily be brought out by thorough history taking. If we give the patient half a chance he may shift from his symptoms to his problems on his own volition. If he does not do this, we scrutinize his life situation to see if he is under stress or is in conflict with personalities in his environment. Difficulties with his boss, wife or other people are frequently precipitating factors. Adjusting to marriage and the role of motherhood are important in the young female. A good example in this regard is the somewhat fussy, compulsive housewife who has one or more pre-school children in the home. When they cannot fit into her tidy ways she becomes upset and anxious over the feelings of anger and frustration that they provoke in her.

A physician should be very wary of diagnosing neurosis without having evidence that the patient has had pathological anxiety earlier in life. These people are predisposed in terms of their earlier life experiences. The medical history may give clues by revealing unhealthy attitudes toward health. I'll define poor health, "anemia," being "frail and never too strong" may indicate a hypochondriacal defense against the underlying anxiety. Chronic fatigue and exhaustion are commonly seen as are multiple operations. It is well to enquire into the symptoms that led up to appendectomy or other operations. On certain occasions the patient will have been "given the benefit of the doubt." Periods of insomnia and other anxiety symptoms should be searched out. When the history is being taken the patient should be encouraged to express how various life events affected him and how he felt about them. Evidences of childhood anxiety should be sought. These may have been expressed as nail biting, eneuresis, nightmares, sleep walking, destructiveness, phobias, excessive shyness, and so on.

An anxious parent may be expected to have anxious children. Consequently, it is important that we try to get some ideas as to what the parent was like as a person. In doing this we also turn up valuable information about the general emotional tenor of the home. Parental bickering, neuroses, alcoholism, or psychoses may come to light. Or we may find that the parents were overprotective or unreasonably strict. Hot tempers and inconsistency do not allow the child to know where he stands. Frequently, the patient will say he was "not too close" to one or both parents or he will (possibly as a result of reaction formation) profess them to be the best parents ever.

Lastly, we look for personality attributes that are commonly seen in neurotic people. They commonly lack self confidence and procrastinate. Often they are like Walter Mitty—passive, with a rich fantasy life but with little ability to get things done. They are rigid in their makeup and often very idealistic. In a sense they are almost too good to be true. The "do gooder" is an example of this. They have great difficulty accepting their inner feelings and drives and frequently deny them by overcompensating for them.

Therapy:

Although neuroses are among the commonest of illnesses and only a small percentage are treated by the psychiatrist very little has been written about their treatment by the non-psychiatrist. There are good reasons for this. The whole subject is a difficult one and there are many different therapeutic approaches. The most important part of the procedure, psychotherapy, at least partially depends on the doctor's own attitudes and feelings and is difficult to describe. However, the writers feel that even a brief account of therapy with some definite rules and suggestions might be helpful.

Many physicians, as well as laymen, are prejudiced, consciously or unconsciously against neurotic patients. They may feel that such patients are just lazy, or weak or are malingering and what they need is simply a good push. If the physician is prejudiced enough he will not be able to treat the neurotic patient successfully. Usually one's prejudices diminish as ones understanding increases and it is hoped that as knowledge of the neuroses gets more and more widespread such prejudices will gradually disappear.

The first decision to be made is who should be referred to the psychiatrist. The following is a brief outline.

1) Those patients in whom a psychosis is suspected.
2) Cases in which it is uncertain if the patient has a neurosis or an organic illness or both.
3) Patients who have not shown improvement after a reasonable attempt at therapy.
4) Patients who are so severely ill that they will require hospitalization for proper therapy.
5) Patients with incapacitating hysterical symptoms.
6) Those patients with sufficient maturation and intelligence that they are likely to benefit from intensive psychotherapy by the specialist.

Psychotherapy should be the basis of the therapeutic approach to the neurotic patient. The psychiatrist finds it convenient to distinguish between superficial and intensive psychotherapy. The latter generally involves a careful examination by the doctor and the patient of the relationship that has developed between them during interviews as well as a thorough examination of the patient's distortions toward other people. The patient is encouraged to express all his feelings during interviews and an attempt is made to get at hidden (repressed) feelings and attitudes. The goal is for the patient to gain insight, and even more important, to have a new psychological experience—a corrective emotional experience, it has been called—which will enable him to counteract the unsatisfactory experiences of his early life which have helped bring his neurosis about. This is a difficult and time-consuming task and is generally reserved for the specialist.

In superficial psychotherapy no such involved analysis is carried out. The physician, psychiatrist or otherwise, while being understanding and supportive can point out the more obvious ways that the patient gets himself into difficulties and discuss current problems with him. The patient benefits from the supportive relationship and the insights gained.

Some of the requirements of the physician who will attempt psychotherapy are an interest in, and some understanding of, the patient and his illness, a reasonably objective approach, and a willingness to spend a definite, even if short, time with the patient at regular intervals.

The technique of therapy is readily learned by some and very slowly learned by others. A definite, structured approach cannot be laid down. Some physicians are successful with one approach, some with another. However, certain general concepts about psychotherapy have evolved over the years and most psychiatrists would agree with the following rules and suggestions.

1. Try to listen and understand more and talk less. Bring out the patient's feelings as much as possible. Be reassuring only when you know just what to be reassuring about. Try to get the patient to go over areas in which he is touchy or hesitant. A patient may entirely avoid certain subjects, e.g. sex or hostility toward key figures in his life. It is vitally important for the physician to create an atmosphere in which the patient feels he can bring up any feelings without being judged or criticized. Obviously the doctor must be aware of prejudices and blind spots in himself to do this successfully. The relationship that results is often a wholly new experience for the neurotic patient and frequently brings about quick improvement in his symptoms. Repeated elaboration by the patient of his symptoms is not helpful.

2. Do not tell patients how they should handle major issues in their lives, e.g. when to get married, when to have a baby, what to study in college, etc. This often sounds puzzling to the physician who is used to being authoritative but there are good reasons for this rule. It is extremely difficult to give accurate advice about such issues and it can lead to excessive, unhealthy dependency on the physician. It should be particularly emphasized that marriage and having children are not cures for neuroses.

3. Do not get "taken in" by the patient, i.e., get so impressed by the patient's side of the story that you are no longer able to be objective. This is probably the commonest error made by medical students in their first contacts with psychiatric patients.

4. Keep in mind that malingering is rare and that symptoms of neurotic patients while not indicative of organic disease, are not "imaginary," and are felt by the patient.

5. Physical examination and necessary investigation should be done at the onset and not repeated unless clearly necessary; simply, careful explanation about the physical status and about the connection between various symptoms and emotions can be very helpful. Hasty, or involved descriptions often confuse and worry the patient and may precipitate or exacerbate a neurotic condition.

6. Beware of the onset of a psychosis or a marked increase in the severity of the illness. Neurotic illnesses may become severly incapacitating. If there is doubt, send the patient for a psychiatric consultation.

7. Patience is necessary. Keep in mind that people change their attitude only slowly and only rarely will dramatic results occur. Therapy is often helped by fortunate occurrences in the patient's life situation, and is hindered by unfortunate ones. Sometimes the patient's life circumstances are so adverse that no therapeutic approach will be helpful.

A great many sedatives and tranquillizers are now in use and there is extensive literature available. In general, the value of the drugs has been exaggerated. If properly chosen, they may be very helpful in the treatment of acute anxiety, various situational reactions, and certain chronic neurotics. In the latter, addiction or marked dependency on the drug is a danger. They can often be used along with psychotherapy to ease the patient's suf-

fering. The patient should be informed that this is a crutch for him to use temporarily and not a cure for his condition. Meprobamate appears to be the most useful of the tranquillizers for anxiety. Chlorpromazine and related drugs are best used in large doses in hospital for schizophrenic illnesses. Subcoma insulin may be useful in neurotic states in which loss of appetite and weight and marked tension are prominent.

Hypnosis and amytal interviews are best carried out by a psychiatrist. They are occasionally helpful diagnostically, more rarely therapeutically.

In a hospital setting, occupational therapy can be very helpful. Hobbies and various recreational activities may be beneficial for the neurotic patients but these should not be urged on an unwilling patient.

In summary, it may be stated that the psychotherapeutic approach can be readily learned by many physicians and that even superficial and relatively brief psychotherapy is often very helpful for many neurotic patients.

Dietary Aspects

Dr. Stare makes the point that although there are relationships between the differences in fat intake and the incidence of atherosclerosis in various racial groups, many other differences in the diet (among them the type of fat and carbohydrate, the quantity and quality of protein, vitamin and mineral content, and amount and type of activity of the subjects) may be influencing cholesterol metabolism.

Furthermore, in data from the Department of Agriculture, it is found that during the twenty-year period from 1935 to 1955, the average caloric consumption per capita per day decreased by about 70 calories. Protein intake increased from 90 to 97 g and fat from 134 to 148 g, and carbohydrate consumption decreased from 440 to 384 g. The decreased use of potatoes and cereals with an increase in milk, meat, and eggs seemed to be responsible for these changes. Since the consumption of carbohydrates decreased, the percentage of fat in the diet would show an increase even if the total fat consumed had not changed.

The author throws some doubt on the statement that there has been an increase in fat consumption by Americans in recent years. It is true, however, that the use of hydrogenated fats has increased. The increased consumption of such hydrogenated fats does not necessarily mean a decrease in the intake of essential fatty acids, because there has also been an increase of these same oils in an unhydrogenated state. Furthermore, gross measurements of changes of saturation induced by hydrogenation do not indicate necessarily the degree of change in the content of biologically-active linoleic and linolenic acids. The author then concludes that a rational therapeutic approach would be available if we knew *how* the diets should be changed.

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Child Psychiatry

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STARTING from the approach that a child showing symptoms is brought to the family physician, we first have to make an assessment of the total situation. Briefly, this means an assessment of the child's personality with its basic psychic structure, its past experiences, its family relationships and its relationships with society interacting with its present environment. It is only by this approach that we can understand the *meaning* of the child's symptoms.

It would not be helpful to give a long involved description of a basic personality structure, so for convenience we will approach the problem by briefly discussing the main factors.

All humans are separate and unique but they also have similarities. The separateness and uniqueness of the personality is one of the hardest things to grasp. Though all children are born with basic drives and energies, there seems to be a qualitative as well as quantitative difference within these drives. Some children are naturally more assertive than others; some children naturally seem to have more capacity to give and receive affection. There are different personality strengths within the child too. Some children seem to be better endowed not only intellectually but also with a capacity to deal with reality problems, to think clearly, to organize themselves better etc. On the other hand many of the factors within what we broadly refer to as personality are *characteristics*, that is, are learned patterns associated with the growing up of the child, i.e. the family and its attitudes, the health of the child, its particular age, plus past experiences.

In assessing the *present environment* we must look at the stresses and incompatabilities between the child's personality and the world about him. It is important in discussing stress to consider whether the present symptoms are acute in onset e.g. produced by the acute stress of the loss of an important member of the family, a serious accident, an operation, or a new and very upsetting school situation. Generally speaking, however, psychological problems in children take time to produce. The most important factors seem to be exposure to a neurotic mother, to inconsistent handling by the parents, the influence of a poor neighborhood or a disturbed society.

In assessing these problems in a specific child, the family physician first has to understand what the *average* child is like and what are his average reactions. This means that he must make allowances for the *sex* of the child. A boy for example at 11 is usually quite different in his attitudes than a girl of 11. The *ages* are extremely important too. For example the normal reactions of a child of seven at 14 would be considered quite abnormal. At seven, for example, many children are quite compulsive and obsessed with details whereas at 14 a boy tends to be sloppy and unconcerned with details.

At this point we must comment on cases that may be largely endogenous in origin. Constitutional factors have been blamed in the etiology of the neuroses and conduct disorders. Even in the psychoses where there is a constitutional genetic factor we know from study and treatment that in most cases the etiology is very complicated and is NOT simply within the individual

but is a complex interaction of certain constitutional potentialities with the environment of the family, the school, society and cultural standards.

In brief nine out of ten cases of disturbed behavior in children is *reactive to disturbances about them and less than 5 percent have an appreciable constitutional factor.* The family physician must try to understand the concept of time of exposure and incorporation of an upsetting environment. Generally speaking just like taking in food, the child takes in attitudes. If this goes on long enough and consistently enough this eventually becomes built into the character. It is thus obvious that generally speaking, we can by long exposure produce the type of child that we want. The child that is exposed to consistent love and affection and consistent discipline and leadership with a sense of responsibility, with a sense of personal worth not only from the parents but from the school and from society, will grow into an extremely worthwhile citizen. On the other hand with a child that has never felt wanted, who at times has been beaten and blamed, sometimes for things that he has not even done and when sometimes his delinquent behavior is rewarded or condoned, it is obvious that we will probably produce a citizen quite anti-social in attitude. It is extremely important to remember that most of the cases requiring treatment have been exposed for a long period of time to either an extremely neurotic setting or to a rejecting, hostile environment.

In considering treatment in children with emotional difficulties we must make some diagnostic criteria. The differential diagnosis in child psychiatry is difficult, we are not dealing with a simple clinical entity. *All factors have to be assessed.* This means a good physical assessment of the child, a good intellectual assessment of the child and a good psychological assessment of the child. It also means an evaluation of the child's past experiences, the home in which he grew up, the influence of the school, the influence of the neighborhood, the influence of the gang. Secondly in treatment we must make an assessment of the length of time of exposure to the malign environment. The longer the exposure, generally speaking, the more pessimistic the prognosis. What is the present environment, what are the chances of helping if the child continues in the present setting? An example of this is that in our experience at a Juvenile Court and a Child Guidance Clinic, many of our youngsters referred because of disturbed conduct are *in* disturbed environments, many of which cannot be modified. There is thus no alternative but to recommend that these children be placed in a different environment. We would like at this point to stress the criteria for good prognosis. Generally speaking, when the parents seek help and are genuinely interested in doing all they can to help their child, the outlook is good. Unfortunately most of the problems seen show a fairly marked family disturbance. A word of warning should be added at this point, the physician should not be fooled by superficial cooperation. We have had many experiences to prove the saying of a colleague "It isn't necessary to be suspicious to treat emotional disorders—but it helps!"

We must add a word concerning the use of drugs in the treatment of child psychological problems. It must be made clear that drugs are only used to offer a temporary aid to the symptoms but it is quite obvious that treatment should not be of the symptoms but of the basic underlying pathology. In the case of children's disturbances, the pathology is almost invariably psychopathology and unless steps are taken to deal with the psychological problems affecting the child at the present time and an attempt to modify these with an aim to future mental health, all the drugs in the world will not make any basic change.

It is not proposed to cover the whole field of emotional problems of children in this presentation. It is felt that a discussion of the problems that turn up most frequently would be more valuable than an exhaustive view of all the rarer conditions. It is also to be noted that no special effort is being made to cover other related fields in child psychiatry such as problems of mental retardation, speech or reading difficulties. However an appendix of the classification of emotional problems in children is added at the end of this article for those interested in a more comprehensive coverage of this problem.

The commonest emotional problems seen in children fall into two categories. The first is the neurotic child, the second is the child who shows aggressive behavior.

The Neurotic Child—a case history. Davey, a seven year old youngster, was brought to the doctor because of nervous tension, fears, and poor eating habits. The mother, who herself is a tense woman, talked about how concerned she has been about this youngster for many years. This concern started shortly after the youngster's birth when he had feeding difficulties, no formula seemed to agree with him, he would have bouts of "colic" and did not sleep or relax. She had a lot of trouble training him; she tried to train him very early since she, herself, had been brought up by a very strict mother. Davey's mother always emphasized cleanliness and politeness so when the youngster began to show resistant behavior she became upset and started asking herself how she had failed, or what was wrong with the child? For some years now she has worried that her boy is eventually going to develop a nervous or mental condition and she remembers a relative in her family who suffered from a lot of tension and psychiatric ill health. She brought the child to the doctor at this particular point because of the recent appearance of more marked fears of the dark, of nightmares, inability to get along with other children, and the fact that she worried over his health because he will not eat.

The youngster was a tense, somewhat shy boy who was apprehensive of the doctor's presence but physically, besides being somewhat slight, was in good physical health.

The problem now facing the physician is what to do. It is at this point that many physicians feel out of their depth. The essentially negative physical examination plus the type of complaint and the personality of the mother has told them that the symptoms are unlikely to be due to physical disease. There has been a tendency on the part of many physicians to say "the child is just nervous and he'll grow out of it" but experience has shown that this is not correct. In fact, without treatment and barring a miracle the child is more likely to grow *into* it. Basically, nervousness and tension whether it be in a child or adult, is in reaction to stress that cannot be handled by the personality. With such a history as given above, the obvious conclusion is that this child has been exposed to chronic stresses. The above symptoms indicate relatively long exposure to some tension producing situation. This is in contra distinction to the somewhat rare history that is occasionally offered that the child was perfectly well up until meeting some acute recent stress.

In Davey's case there might be a tendency to consider this as a constitutional or genetic condition. All our studies have indicated that though there are variations in temperament of all individuals, and though some personalities are more reactive to various stresses, in most cases investigation indicates that these conditions are *primarily reactive to the situation about them.*

It is obvious at this point that a further history must be obtained. The term history here must be used in its broadest sense since as the physician in-

vestigates the history further, he is also doing therapy. As the mother discusses the child's background experiences, she is also exposing her own feelings and fears. This gives the physician an opportunity to first listen and let the mother talk about these fears and secondly, if he can understand her tensions and her anxieties, he can offer supportive reassurance. This latter point must be carefully handled, however. In almost all cases of neurotically tense children there is exposure to neurotically tense mothers. Thus it becomes obvious that treatment of the child is not treatment of a patient, ignoring his environment, but treatment of the mother to modify her attitude and child rearing practices.

It becomes quite obvious as the mother is given time to talk about her problems with the child, that many of her own problems have preceded the birth of this child. It is usual to hear of a mother as having had a difficult growing up herself. Very often she has been exposed to factors that made her unsure of herself. She might have put on a front of compulsive cleanliness and shown the picture of an over-organized housekeeper but when it came down to emotions she is not happy and relaxed. We usually find too that she is not well adjusted in her marriage and if she has been fortunate enough to make a good marriage, we sometimes find her very dependant on her husband. On the other hand we sometimes find that the mother was so neurotic that she made a very poor marriage and has married another neurotically disturbed person. In such cases a physician can expect to hear of all the problems that she has encountered through her married life.

It thus becomes obvious that though the initial contact seems to indicate an emotionally disturbed child, in reality the physician is encountering a disturbed constellation. This constellation includes not only the child and mother but the whole family and very often will run into all other people who directly or indirectly have anything to do with the home and family.

Thus the physician must have a good understanding of what he can contribute in such a situation. If the situation is too complicated for his training to cope with, if one or other of the parents are so psychiatrically ill that he cannot work along with them, he must consider a referral at least for consultation.

The most important aspect as far as the family physician goes is this; *in most of these conditions his greatest contribution is that of prevention.* The history of these cases goes back many years. As far as treatment goes, it takes a long time to understand and modify attitudes. With this particular youngster and his mother certain patterns have become "solidified" within the personality and these have to be altered. Prevention on the other hand can take early and simpler steps to help the mother in her child-raising techniques. It is in this regard that the home physician from a short investment of time from the earliest contact with the mother and her new child can do much to prevent later misery and unhappiness. Certainly in the case mentioned above, an ounce of prevention is worth more than a pound of cure. Once the neuotic patterns have been firmly established, treatment is long continued and expensive but prevention can be done by the home physician and done on a simple practical level. It has been known for years that we will never have enough psychiatric personnel to treat all conditions. Like typhoid fever that was primarily changed by public health methods rather than treatment of each individual case, preventable psychiatric illnesses must be prevented.

The Aggressive Child—The other common problem in child psychiatry is the aggressively acting out youngster. These cases are most frequently seen in Juvenile Courts or Child Guidance Clinics. However, it is becoming

more common for the family physician to at least hear about these cases. In the belief that he can help this difficult social problem we will illustrate history and diagnosis with the following case.

A typical complaint is "Doctor, I can't handle him." The story unfolds as follows. This boy who has not been doing well in school for some years has fallen in with "poor companions." He refuses to pay attention to any parental supervision, has been in trouble with his teachers for years, has been staying out all hours of the night, smoking, drinking, and getting into trouble with the police.

This type of story is of course somewhat extreme for the family doctor to see in practice but this is the type of case referred to a Child Guidance Clinic by the Juvenile Court for evaluation. The most important thing is to look back on the earlier history of such a case. It is obvious that by the time the above symptoms have appeared and the youngster has been involved in trouble that a pattern has been established and that treatment is going to be very difficult, if at all possible. What happens to most of these cases is that there is little to consider but referral to some institution. This is because of several factors. Usually the family is broken, either by separation or divorce, or by the more subtle but nevertheless destructive fracture from conflicting opinions and inconsistency.

Ususally the history is long standing and reveals poor handling of a more than average aggressive youngster since early childhood. But what finally makes the prognosis nearly hopeless is when we find we cannot work with the parental attitudes. Many pages could be written on this point but space does not permit. We will, therefore, categorically state that, provided that a physician or a clinic finds the parents able and willing to modify their attitudes in this type of case, improvement can be expected. Unfortunately the same attitudes that helped to produce the problem are usually still present and the parents are unable or unwilling to change. The long standing rejection becomes obvious "He's just bad and should be put away." Unfortunately in our province there is not much to offer except one of the reform institutions and at the present time despite the best efforts of the Staff at these institutions there is little basic retraining or treatment available.

The reason for the previous pessimistic picture is to illustrate what finally can happen unless steps are taken when the physician encounters earlier symptoms.

It is very unfortunate that rarely are early conduct disorders, as these cases are called, seen by the physician because the basic precipitating factor in these cases has to do with lack of interest from the home. At times it is an inconsistency within the home but all too often such youngsters are products of broken homes. As such we find little interest on the part of the parents to what happens to the children. They often have their own problems or they are not the least bit interested in their children. Thus these children are thrown out on their own without any consistent training. In a small town they quickly make a reputation for themselves and once having made the reputation they almost invariably gravitate towards other youngsters who also have obtained reputations and probably came from the same home background.

Again as mentioned above, it is unfortunate that the physician does not see these cases. Rarely is he consulted. The contrast with the neurotic parent is usually quite marked. The neurotic parent is frequently calling a doctor for very minor difficulties. Most often the parents of these aggressively disturbed children don't call the physician enough. We have learned a fair amount about these children in recent years. Many of them seem to be physi-

cally and emotionally more assertive than the average, thus they seem to carry more primary aggression into life. It is thus obvious that such youngsters are going to be difficult to handle even in the best of circumstances but put them in poor circumstances and it can be almost guaranteed that the frustrations and the lack of attention and poor handling will be sufficient to produce delinquent behavior. The unfortunate thing in these cases is that they rarely stop at juvenile delinquency and many of them go on to become adult criminal types.

Most of our experience in this type of case comes from the Child Guidance Clinic. A high proportion of cases referred to us are problems of aggressive behavior. Many of these referrals come to attention through problems of schooling and fortunately now, at least in the Halifax area, the school authorities are aware that when a youngster acts up and misbehaves, the logical thing is to find out "why" rather than just "punish." We have found that many of these cases can be helped from treatment *provided there is parental interest.* In the cases where there is no parental interest we attempt to recommend that this youngster be placed in a different environment.

What basically is wrong with these children? It is my impression, as mentioned above, that many of them seem to be more assertive than the average individual. This means that these youngsters have a happy faculty of antagonizing people and testing them to see what they can get away with. A very good parent can make allowances for their overactive, overly-assertive child, and though they try to help them with average problems of life they try not to overly frustrate them and bring in too many petty rules and regulations. At the same time the good parent knows that these youngsters have to learn certain controls within themselves, otherwise they will never get along with society. These are the things usually missing in these youngsters that go on to more serious difficulties.

In some cases we have found that these youngsters with marked conduct disorders have come from "the best homes in town." It can be categorically stated, with very rare exceptions, that what looks like one of the best homes in town cannot be because of the way the youngster turns out! What the physician, and particularly the child psychiatrist once he gets into treatment with these cases finds, is that though on the surface these homes seem "good" and the parents are "pillars of the community," we find that there are either marked inconsistencies *between* the parents or marked inconsistencies *within* the parents. What is wrong with these children is this—they have not developed a set of standards and controls. We know that standards and controls are learned patterns taken in by the child throughout his life from a consistent example and reinforced by love and acceptance. In other words if the child is not wanted, if the child is not shown love and affection, there is little reason for him to give up the basic demandingness of all human beings. If the child is loved and accepted and at the same time shown a consistent set of standards, the child will grow up with the idea that one conforms because it is the accepted thing to do and he will be loved even more. This mechanism is called incorporation. Just as food is taken in for the good of the body and the body's growth, so is love and consistent example, with the use of necessary disciplinary measures when required, needed for growth of personality.

Two typical cases of emotional disturbance have been illustrated. It is obvious that the family physician can do a great deal to prevent these two common deviations. There are many other agencies that can be brought in to help in this struggle for child-rearing in the present day. The physician should

not hesitate to get the cooperation of the school and he should not hesitate to get the cooperation of the family's minister, but especially he should learn as much as he can about the early preventive measures that can be taken to produce happy, healthy, stable personalities in later life.

CLASSIFICATION OF DISTURBANCES IN CHILDREN OF PSYCHIATRIC SIGNIFICANCE

I. **Disturbances in Infancy**
   - (a) Emotional Deprivation (Anaclitic Depression and Hospitalism).
   - (b) Feeding Problems (colic and marasmus)
   - (c) Toilet Training

II. **Disturbances in Childhood**

A. Primary (Reactive) Behaviour Disorders.

(a) Habit Disturbances: Nail biting, Thumb sucking, Eneuresis, Masturbation, Temper Tantrums, Childish Behaviour

(b) Conduct Disturbances:

1. **Aggressive vs. Family**: Disobedience, Fighting, Lying, Stealing, Destructiveness
2. **Aggressive vs. School**: Truancy, Lying, Disciplinary Problems, etc.
3. **Aggressive vs. Society**: Stealing, Alcohol, Arson, Drugs, Cruelty, Sex Offences

(c) Neurotic Traits: Shyness, Night terrors, tics, Habit spasms, Somnabulism, Stammering, Overactivity, Phobias, Generalized Nervousness, Somatization

B. Neurosis: Obsessive Compulsive, Hysteria, Anxiety States

C. Psychosis: Schizophrenia, Early infantile autism, Manic-depressive

D. Organic Disorders: (emotional disturbances secondary to usual recognized organic syndromes)—post encephalitic, post traumatic, luetic, etc.

III. **Disturbances in Adolescence**
   - (a) Adolescent Rebellion (excessive)
   - (b) Juvenile Delinquency
   - (c) Autistic Trends (not truly schizophrenic)
   - (d) Schizophrenia
   - (e) Adolescent Hypochondriasis

IV. **Special Categories**
   - (a) Intelligence Deviations: Superior, Inferior, Special Talents, Pseudo feeblemindedness
   - (b) Developmental Abnormalities: Eneuresis, Speech, Reading, writing, spelling and arithmetic disabilities

The Tranquilizers: A Clinical Review

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IN the last few years the medical and psychiatric journals have been flooded with enthusiastic reports about a succession of new drugs which have come to be known as tranquilizers. This term was intended to distinguish them from the old-fashioned sedatives which indeed also produced a measure of tranquility but at the cost of varying degrees of drowsiness. At the start it must be said that although the so-called tranquilizers frequently do not induce sleepiness many patients nevertheless do complain of extreme drowsiness. Furthermore, although the term "tranquilizer" does describe in part the action of all of these drugs, yet when it is applied to a medication like Chlorpromazine one is impressed by the pallidness of this word to describe the impressive changes it may bring about.

Using a rather simple-minded way of measuring the increasing volume of this flood of new drug, I glanced through the advertising pages of the American Journal of Psychiatry for October 1955, 1956, and 1957 and counted the various tranquilizers in the advertisements carefully disregarding ordinary sedatives and energizers. I felt that the zeal of the pharmaceutical houses would permit me to form a rough estimate of this sort. I discovered that in October 1955 only three tranquilizers were advertised: Reserpine (in three pharmaceutical preparations), Chlorpromazine and Meprobamate. The following year only Promazine (Sparine) was added to this list although Reserpine was now being offered in seven forms. However, by October 1957, one year later, eleven different tranquilizing drugs were being enthusiastically advertised. The newcomers, to refer to them by their more familiar trade names were Frenquil, Vesprin, Trilafon, Compazine, Atarax, Nostyn, and Pacatal.

In view of this spate of new tranquilizers, each with its wide range of advertised effectiveness, what is the inundated physician—who aspires to prescribe the most beneficial drugs to his patients—to do? He has several alternatives at his command. He may irritably declare "a plague on all your houses" and continue resolutely to prescribe phenobarbital. He may be swayed by the most persuasive of the ads or the detail men and prescribe the medications whose potency is attested to by the most imaginative of the colored advertisements. He may assiduously follow the voluminous literature on the subject and try to sort out the conflicting claims for himself with due regard to proper controls, etc. Or he may turn for advice to his psychiatric colleague with his concentrated experience with these drugs and his wide exposure to this literature.

Chlorpromazine and Reserpine were first used on this continent for the treatment of psychiatric patients around 1953 when it was brought to the attention of the medical profession that these drugs had hitherto unequalled powers of bringing about unmistakable improvement in severely psychotic patients. However, it was noted that in addition to their undeniable potency these drugs occasionally had rather undesirable side-effects which somewhat tempered the enthusiasm of their advocates. It was hoped that the very enterprising pharmaceutical industry would soon develop drugs of even great-

er potency and range accompanied by a comfortable reduction of undesirable complications. It is in the pursuit of this goal that the present flood of new tranquilizers is upon us.

I will say first of all that I as well as my psychiatric colleagues in Nova Scotia have as yet had a very scanty experience with any but the oldest of these drugs. Although from time to time the enthusiasm of one report or another has induced us to try a new drug, we have invariably fallen back on the first developed of these tranquilizers. Usually the literature has later confirmed our own impressions about the drugs that we have discarded but the literature has not actually caught up with some of the latest of the drugs that are now being offered.

I will consider the use of tranquilizers not one by one but rather according to the clincial conditions which provide the indications for their use:

1. **Gross Psychiatric Illness:** To begin with, no tranquilizer has proven effective in any of the various psychotic depressive reactions. (Since this was written, Marsilid is being advertised as effective in the treatment of psychotic depressive reactions. It is too soon, however, to decide about its effectiveness.) Occasionally an agitated depressive's restlessness may be reduced but his underlying depression is not touched. To give a depressed patient a tranquilizer merely serves the purpose of giving the physician a false sense of accomplishment and exposes the patient to needless risk.

It is the treatment of acutely ill or disturbed and excited schizophrenics or manic patients that the tranquilizers have played their major role. The drugs most commonly used in the hospital treatment of such patients are Chlorpromazine and Reserpine. The former is by now almost universally considered to be the more potent and the faster of the two although there are some patients who have responded to Reserpine after a failure with Chlorpromazine. There are as yet no clear-cut indications to guide one in choosing one or the other of these drugs in the treatment of any particular patient. The rule is, however, to try Chlorpromazine first.

In the hospital treatment of disturbed patients the dosage of Chlorpromazine is gradually raised over a period of about two weeks from around 50 mgm. q.i.d. to 200 to 300 mgm. q.i.d. and this level of dosage is maintained usually for two to three months before giving up. When successful one may attempt to reduce the dosage a little earlier. Similarly Reserpine may be started at a dosage of 1 mgm. b.i.d. and may be raised to a level of as much as 18 mgm. daily. These doses for Reserpine are much higher than those usually prescribed in hypertension, and I will comment on this startling difference later.

There is a great variability of responsiveness to these two medications. The dose is a highly individual affair. I have seen very psychotic patients respond to 25 mgm. q.i.d. for a few days but most such patients require much higher doses over a long period of time. When one uses drugs in such high doses over such long periods of time it is obvious that hospitalization is required because the patient may not get well for a long time and because he has to be observed frequently to guard against complications.

Promazine (Sparine) has been found unhappily to be but a weak equivalent of Chlorpromazine in the sense that much higher doses are required to obtain the same effects. In times of emergency, however, the intravenous administration of this drug has been found very effective in doses of 50 to 100 mgm. Frenquil and Pacatal have been very disappointing in the treatment of gross psychiatric disturbances. (Trilafon on the other hand

has been reputed to hold considerable promise in this respect, but it is still too early to tell how effective this drug is).

In the hospital treatment of chronic schizophrenia, Chlorpromazine and Reserpine have also considerable but limited usefulness. Although there is the odd patient who is enabled to leave the hospital, the most that can usually be accomplished is that the patient is made to suffer less and to behave somewhat more appropriately and quietly.

In addition to its usefulness in the treatment of schizophrenics, Chlorpromazine is also very useful in relieving the effects of alcoholic withdrawal and in treating acute alcoholic psychoses. For the ordinary case of alcoholic jitters Chlorpromazine 50 mgm. q.i.d. for a few days is quite effective. However, these drugs appear to be of little use in drug withdrawal.

Also the agitation and restlessness of the arteriosclerotic or senile patient or for that matter of any patient with an acute or chronic brain syndrome may be appreciably reduced by Chlorpromazine. A word of caution is necessary here, however, since because of its mildly hypotensive effects it is usually somewhat safer when treating elderly patients to start off with no more than 12½ mgm. of Chlorpromazine q.i.d.

It is my feeling that neither Chlorpromazine or Reserpine should under ordinary circumstances be prescribed outside a hospital setting. The chief indications for the use of these drugs in psychiatry are primarily gross disturbances involving manic, catatonic, or organic excitement or agitation, delusional or hallucinatory experiences or confusional states. Although there are circumstances when it is correct to prescribe these drugs to out-patients the physician is always forced to choose between the twin dangers of underdosage or complications. I feel that if a patient is found to be disturbed enough to require Chlorpromazine or Reserpine he is usually sick enough to be referred to a psychiatrist for consultation.

2. **The Less Severe Psychiatric Illnesses:** By this designation I refer primarily to those psychiatric conditions in which the outstanding features are anxiety or tension and in which there is no break with reality nor loss of the sense of the appropriate. Actually a wide variety of disturbances fall into this category including transient "upsets" and tensions associated with passing stressful life situations, chronic anxiety states, and various psychophysiological reactions.

Generally speaking the more potent tranquilizers such as Chlorpromazine and Reserpine are of little use in these conditions. Although they may be occasionally effective they are much more liable to produce extremely undesirable side-effects. The non-psychotic patient who takes even small doses of Chlorpromazine is very apt to feel peculiarly and unpleasantly and sometimes intolerably uncomfortable. In a number of cases he may complain of feelings of depersonalization. Paradoxically, some patients complain of intolerable tension. Reserpine is also liable to produce unwanted effects in non-psychotic patients, the most publicized of which is depression.

Meprobamate is generally much more useful than these medications in the treatment of simple anxiety. It is perhaps most helpful in the treatment of tension states. Tension headaches, for example, may sometimes be dramatically relieved by 400-800 mgm. q.i.d. of this drug. While on the subject of anxiety a word might be said for the continued value of the old-fashioned sedatives. Barbital gr. 2½ t.i.d. or q.i.d., for example, may sometimes relieve anxiety when Meprobamate fails and is in addition less expensive.

There is some current debate whether Meprobamate is indeed a more potent medication then, say, phenobarbital. The current consensus does grant Meprobamate the higher efficiency. The time is still premature to compare Meprobamate with the newer tranquilizers in the treatment of the minor psychiatric disorders. The situation may be considerably clarified in another year or two. In the meantime it is only fair to say that this drug has proved in my opinion to be a very useful addition to our pharmaceutical armamentarium.

Complications: In medicine it is the rare drug that does not carry its quota of complications and undersirable side-effects. The tranquilizers are no exceptions. I will here refer only to the complications occasionally accompanying the administration of the main drugs mentioned above.

As far as Chlorpromazine is concerned, Parkinsonism is by far the commonest complication. With high dosages the patient very frequently begins to assume the familiar configuration of Parkinsonism although the severity of this disability varies from patient to patient. In general, however, this particular side-effect is not considered to be so very serious since it is so readily reversible by lowering the dosage. There is a symptom, however, which seems to have some resemblance to Parkinsonism which we do consider serious enough to warrant immediate and drastic reduction of the dosage. Several patients at the Nova Scotia Hospital have experienced swallowing difficulties with the complaint that their food was going the wrong way. One elderly chronic schizophrenic patient died for reasons, that with wisdom gained after the event, were considered to be associated with this trouble in swallowing. The literature refers to tonic spasms of the pharynx as a side-effect occasionally accompanying Chlorpromazine medication. This may very well be the phenomenon that we have observed.

Chlorpromazine is most famous—or infamous—for producing jaundice. This is somewhat more serious than Parkinsonism but does not occur in clinically recognizable form in more than three to five per cent of patients irrespective of dosage, a fact which suggests that it is a sensitization phenomenon. It nearly always clears up in ten to fourteen days after stopping the drug but several deaths have been reported. Moreover, subclinical forms of liver trouble undoubtedly occur more frequently. Liver biopsies have allegedly shown a distinctive picture marked by mild reversible centrilobular cell injury with biliary stasis in the central biliary canalicular.

Agranulocytosis is said to occur about once in a thousand cases and appears to be a sensitization phenomenon. About a third of such cases have proven to be fatal.

Among less important side-effects may be mentioned the dryness of the mouth and the constipation that appear to be the results of the acholinergic action of this drug. Also some patients complain paradoxically of extreme restlessness and of bizarre dreams after starting on this drug.

There are two fairly serious complications that sometimes accompany the use of Reserpine. In patients who are given this drug for hypertension usually in fairly low doses, depression appears to be a not infrequent complication. Sometimes this is severe enough to require electric shock treatments. Why this should be so is not clear since psychiatric patients are given this drug in much higher dosages without this particular side-effect occuring to any noticeable extent.

Reserpine also has the effect of increasing the volume and the acidity of gastric secretions and is therefore definitely contra-indicated in patients

with a history of peptic ulcer. Even in other patients there are sometimes complaints of gastric distress which may usually be controlled with the use of alkalis and anticholinergic drugs. The discrepancy in dosage in the use of this drug in general medicine and in psychiatry is really remarkable. The dosage in psychiatry may occasionally be as much as 25 to 30 or more times the dosage used in general medicine without usually eliciting much in the way of complaints from the patients—not even of gastric distress. Sometimes because of the cholinergic action of this drug, however, vomiting or diarrhea may occur.

In view of the occasional occurrence of jaundice, agranulocytosis, peptic ulcer, etc. and the more common development of Parkinsonism, I feel that these drugs should not be prescribed indiscriminately. I think that the advantages outweigh the risks in patients with gross psychiatric disturbances, but I do feel that patients who present simply with anxiety or tension should be spared the danger of being given these particular medications.

With Meprobamate, side effects are comparatively rare. However, occasionally one encounters a dermatological allergic reaction which may be fairly marked. In a few cases overdosages for suicidal purposes produced a marked flaccidity and hypotension and almost death.

Maintenance: As I have indicated, the major use of Chlorpromazine and Reserpine is in the hospital. And yet practising physicians may be confronted with patients discharged to their home communities from the psychiatric hospital who have been prescribed these drugs on a maintenance dosage. Since these medications are primarily symptomatic in action it is not strange that although a patient may show remarkable improvement on these drugs he may quickly or slowly relapse once they have been discontinued. It is for this reason that many patients are sent out of hospital with a maintenance dosage which, however, is usually considered less than the original treatment dose. This maintenance dose is usually in the range of 100-200 mgm. of Chlorpromazine daily or 1-4 mgm. of Reserpine daily. Patients on these maintenance dosages may be fairly compared to epileptics or diabetics who will require dilatin or insulin for indefinite periods.

I feel that if a patient reports back to his physician with such a maintenance regime that it is the duty of the physician to observe him at periodic intervals, perhaps monthly, for evidence of toxicity including agranulocytosis and for evidence indicating the necessity of a revision upwards of the dosage. I should think that anything but the most careful reduction of dosage despite the seeming well-being of the patient would be most unwise without psychiatric consultation.

Summary: An attempt has been made to bring some order into the confusing variety of new tranquilizers that have come to our attention in the last few years. Their uses, indications, and dangers have been reviewed and attention has been directed to the necessity of prescribing some of them on a maintenance basis.

The Mental Health Program In Nova Scotia

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AS part of this special issue of The Bulletin devoted to psychiatric topics, I have been asked to outline the present status of and the future plans for the mental health services in Nova Scotia.

Let me start out by noting first the size of the mental health problem.

If we count simply patients who are so mentally ill that they require care in a mental hospital, the number in Nova Scotia last year was 2,820. These are the patients in the Nova Scotia Hospital, the Nova Scotia Training School, and those in the County Hospitals. Stated in different terms, the number so hospitalized is 405 per 100,000 of population.

How does this compare with the rest of Canada? The all-Canada average is 409. But there are striking differences between the different Provinces. Newfoundland has the lowest number with 224; Saskatchewan the highest with 522.

Similar differences are noted if one counts the number of patients admitted to a mental hospital each year. Last year, in Nova Scotia, it was 1362, which was 171 for every 100,000 population. The all-Canada average is 207. The lowest was Newfoundland with 62; the highest, British Columbia with 441.

Why these striking differences? It is unlikely that they represent any real difference in susceptibility in mental illness. A more likely explanation is that where services are well-developed, more people use them. Nova Scotia, as you have seen, is fairly close to the Canadian average. The figures, however, give food for thought of what the eventual hospital totals might have to be.

And these figures cover only those patients needing mental hospital care. They do not indicate the numbers that might benefit from psychiatric services in a general hospital or needing care at home. I will not attempt to guess the numbers here but recent studies suggest that they are quite large. Interestingly enough, such evidence as there is indicates that the amount of this type of illness in a rural area such as Nova Scotia is no greater and no less than in New York City.

Nova Scotia deals with its mental health problem, in so far as Government is concerned, on two levels—Provincial and Municipal. Some of its mental hospitals are operated by the Provincial Government; others by the Municipalities. In this respect it is unique among the Provinces of Canada, for nowhere else do the municipalities have the responsibility for mental hospital care. But in some provinces, municipal authorities take more responsibility for community mental care than we do.

Let us examine the Provincial services first, and let us start with the institutions providing mental care,—the Nova Scotia Hospital, the Psychiatric Services of the Victoria General Hospital, and the Nova Scotia Training School.

The Nova Scotia Hospital has a bed capacity of approximately 450 patients and last year admitted 1,068 patients. This high rate of turn-over, while common in general hospitals, is unique among mental hospitals. Most

such institutions in Canada have a large population and an admission rate which is only a fraction of the bed capacity. The Nova Scotia Hospital, on the contrary, is primarily an active treatment institution, although it does house some chronic patients who are too difficult to be transferred to a municipal institution.

The cost of operating the Nova Scotia Hospital last year was $6.81 per patient per day. This is low compared with general hospitals but high compared with most mental institutions. It might be useful to know that the average cost of mental hospital care in Canada for the year 1955-56 was $2.97, that for general hospitals during the same year was $11.61. The explanation for the high cost of the Nova Scotia Hospital as compared with other mental institutions is largely due to the absence of a significant chronic population, but the excellent type of treatment and care provided plays a role also.

The Nova Scotia Hospital is without doubt a good institution of its type. Its case load is increasing at an enormous rate. Last year, as I said, it admitted 1,068 patients. This is 176 more than were admitted the year preceding, and that year there were 70 more than the year before that.

The number of its staff compares very favourably with other public mental hospitals. The American Psychiatric Association some years ago laid down minimal standards. According to these standards, the number of physicians required for a hospital of the size and type of the Nova Scotia Hospital was 10.6. To-day, we have 13.5. Of the 13.5 physicians, 9.2 have special training in psychiatry; 4.3 are physicians or medical and surgical specialists. The specialists regularly attending include Dr. Kinley in Surgery, Dr. Holland in Medicine, Dr. Leslie in Neurology, Dr. Stoddard in Anaesthesiology, etc. The need for most of these specialists will be readily apparent to you, but some may perhaps wonder why we have an Anaesthetist two half days a week. The answer is that he is employed to give the anaesthetic Anectine, which considerably reduces the hazards in giving shock therapy to the debilitated and infirm.

In addition to this psychiatric and medical program, the hospital has a very active staff of volunteers from the community who assist the hospital in many ways and serve as public relation agents.

Much that is new is being planned for the future. A new active treatment unit to house around 230 patients is now nearing completion and will be opened some time in 1958. It is being built upon the most modern lines and will look and function as much like a general hospital as is possible. It has excellent facilities for the segregation of the different grades of the mentally ill, so that those having only mild disorders need not come into contact with those who are more severely disturbed. Extensive occupational activities are planned.

The Nova Scotia Hospital has never had an out-patient service in the past, and many patients needing out-patient care went to the Victoria General. The new institution will, however, have its own out-patient department before very long. Another new feature will be a centre for the day care of patients who do not need to sleep in the institution at night. In addition, some of the wards will be kept open.

When one stops to think, it is curious how hospitals, like many other institutions, get bound by tradition. Since some mental patients are disturbed and dangerous, mental hospitals in the past have always had the wards locked. But most mental patients are not dangerous. They are simply sick. It is humilating and disturbing to many sick people to be locked in a ward;

yet this has been the custom for years and years. The English have shown us that many mental hospital wards can be left open as in general hospitals, and to the great benefit of the patient. The Nova Scotia Hospital is planning its future program with this in mind.

Along with this new type of hospital care, we hope to see an increase in voluntary admissions. Most mentally ill patients should be able to go to a mental hospital to get treatment with the same freedom that exists when one goes to a general hospital. Commitment procedures should be used only when absolutely necessary.

The Psychiatric In-Patient and Out-Patient Services at the Victoria General Hospital are well known to all of you, and it is unnecessary for me to elaborate on them here. It might be of interest, however, to some who think that the idea of a psychiatric unit attached to a general hospital is new, to report that a Psychiatric Pavilion attached to the Victoria General Hospital was considered in 1925 by the government of the day. It was set aside, however, and the Nova Scotia Training School was built instead. Thirty years later, the Psychiatric In-Patient Unit at the Victoria General Hospital was finally opened.

The Nova Scotia Training School is at Truro and is operated by the Department of Welfare. It cares for the upper and middle grades of mentally defective children. The lowest grades are cared for in the County Hospitals. The Nova Scotia Training School has a resident psychologist, and two psychiatrists from the Mental Health Clinic at Wolfville provide consultation services monthly.

Turning now from the hospitals, let us look at the community services provided by the Provinces.

Three mental health clinics are now in operation, and it is expected that a fourth will be opened before long. In existence at the present time are the Halifax Mental Health Clinic for Children, the Fundy Mental Health Centre located in Wolfville, and the Psychiatric Clinic for Western Nova Scotia with its headquarters in Digby. Most of the cost of these clinics is borne by the Province but a small proportion is raised locally. The control of each clinic is in the hands of a local Board, so that the units may function in the best interest of the community where they were located. This type of operation is difficult from that existing in most other Provinces, where the management is in the hands of the Provincial Divisions of Mental Health.

It is expected that a new clinic will be opened in Sydney before long. Two psychiatrists have accepted positions there, and a local board of management is being organized in the community.

When this clinic is in operation, there will be six well-qualified psychiatrists supported by the Division of Mental Health operating outside the Halifax area. This number compares very favourably as far as I can determine with other Provinces in Canada. It represents the determined effort on the part of the Division to provide preventive and early treatment services in the community as far as seems reasonable.

A number of other psychiatric clinics are desirable. Considerable interest in such services has been expressed in Antigonish, in Truro, and along the South Shore. It is our hope that these can be provided as rapidly as financial resources and trained personnel become available. It is expected that these community clinics will provide not only treatment for new patients, but that they will assist in the follow-up care of patients discharged from mental hospitals, and that they may be able to give consultation services to the local

County Hospitals. The clinics now in existence are making periodic psychiatric examinations of patients in the County Hospitals and Homes.

The clinics, too, are working in close co-operation with the general practitioners in the vicinity, and the psychiatrists that run them are attached to the general hospitals in the area in which they are found. The programs for these clinics have been discussed with the local doctors and the local Medical Societies to the satisfaction, I believe, of all. Local physicians are on the Boards of Management of all clinics, and they have a strong voice in the formulation of policy.

Certain community services are provided by Departments other than Health. Thus the Department of Welfare of the Provincial Government has three psychologists on its staff who deal mainly with problems affecting children. The Department of Education now has two psychologists,—one in the central office and one at the Normal College.

To operate all these provincial services it was necessary to obtain properly qualified staff, and this has not been easy. To get them, we had to arrange for specialized training. Graduate programs in psychiatry and clinical psychology were set up at Dalhousie University; and in psychiatric social work at the Maritime School of Social Work in Halifax. They are financed by the four Atlantic Provinces on a co-operative basis. Nova Scotia's share this year is a little over $24,000.

To attract students to these courses, bursaries are given to qualified candidates who will agree to work for the Province for a specified time. This year the Province will be paying a little over $33,000 for such bursaries. Today we have in training three psychiatrists, 6 psychologists and 5 psychiatric social workers.

The Department also is financing a program of psychiatric research. A study in social psychiatry was supported in Digby under the direction of Dr. A. Leighton of Cornell University, and a study of a hyperglycaemic agent in the urine of certain mental patients was supported under the direction of Dr. Frank Moya in Halifax.

This, in brief outline, covers the main features of the Provincial Mental Health Program. Let us now turn our attention to what the Municipalities are doing.

The Municipalities own and operate two types of institutions—County Hospitals and County Homes. The County Hospitals care for the so-called "harmless insane," while the County Home take care of the "paupers." This, at least, is the theory. Actually, however, it is becoming evident from the psychiatric examinations now being carried out that perhaps two-thirds or three-quarters of the so-called "pauper" patients are in truth either mentally defective or mentally ill. In this report I will discuss the County Hospitals only.

The number of patients in residence at these institutions at the end of the last fiscal year was 2032. During that year there were only 119 direct admissions, and most of these were cases of mental disorder due to senility, or were cases of mental defect. Since all admissions must be sent to me for approval, I have required all other cases to be sent to the Nova Scotia Hospital for study.

All the patients now in these institutions are undergoing psychiatric examination by competent personnel, either from the Nova Scotia Hospital or from one of the Psychiatric Clinics. The results so far show that very few are improperly placed. All the patients will be re-examined yearly.

The medical care given in the different institutions varies. In some, the patients are seen regularly by a physician; in others, only when the superin-

tendent thinks that the hospital doctor should be called. A routine medical examination on admission is not the regular rule. The law requires that there shall be a daily medical visit by a physician in all institutions housing over 100 patients. This law is frequently broken. Also, according to the law, the Inspector of Humane Institutions shall see to it that things are in good order, but the law provides no means by which the Inspector can enforce essential reforms.

The cost of care in these institutions averaged last year, according to the figures submitted, around $1.45 per patient per day. This is not really an accurate figure since the methods of cost accounting are often inadequate. Some of the institutions, for example, put a value on the food grown on the premises, while others do not. The real per diem cost, therefore, is probably somewhat higher than the figure just given.

Apart from the above, two of the most disturbing features are (1) the fact that many of the buildings are fire-traps, and (2) that there is all too frequently a complete lack of anything for the patients to do. It is a demoralizing experience to have to go day after day without anything to occupy the hands or the mind.

Many previous reports, including my own, have suggested that most of the existing institutions should be abandoned, and should be replaced by a smaller number of regional mental hospitals strategically located. Most such reports have urged that the Province take over the responsibility for operating the regional mental hospitals, as is the practice elsewhere in Canada and in most of the United States.

Why has this not been done?

One of the major reasons for delay has been concern about the matter of expense. Let us therefore try to estimate the costs of such a program.

To do this it will be necessary to calculate separately (1) Costs of maintenance and (2) Capital Costs for new construction.

The maintenance cost of the County Hospitals to the Municipalities is to-day approximately $1,000,000 a year, and this gives each patient care to the value of $1.45 per day. Now most people believe that this figure is indecently low. If one feels that a daily standard of $2.25 is adequate, the total maintenance cost would be around $1,500,000. If $3,00 a day is to be the minimum, the total yearly cost will be appromimately $2,000,000.

The capital costs needed for new construction will depend on how many institutions you are prepared to say should be condemned. Many of the existing County Hospitals are serious fire-traps. If you insist that mental patients should be housed in fire-resistant hospitals, you may well declare that perhaps 1400 to 1800 beds should be considered obsolete. The cost per bed for mental hospital construction of the type recently erected at Cole Harbour and Sydney River is around $7,000. If it were necessary to provide 1400 to 1800 new beds of this type, the total capital construction costs would be from $9,000,000 to $12,000,000. If some cheaper form of construction was considered satisfactory, the costs would, of course, be lower.

This completes the summary of our mental health program—provincial and municipal. I have outlined how far we have progressed to date, what has been planned for the future, and what remains undecided or not done.

As you can readily see the establishment of a complete program is a complex and expensive matter. Much has been accomplished already, but much remains to be done.

May I take this opportunity to thank the members of the medical profession for their support to date. And may I express the hope that all of you will continue to exert your influence for the better care of the mentally ill.

INFECTIOUS DISEASES — NOVA SCOTIA
Reported Summary for the month of April, 1958

Diseases	NOVA SCOTIA 1958 Cases	NOVA SCOTIA 1958 Deaths	NOVA SCOTIA 1957 Cases	NOVA SCOTIA 1957 Deaths	CANADA 1958 Cases	CANADA 1957 Cases
Brucellosis	0	0	0	0	0	0
Diarrhoea of Newborn	0	0	0	0	0	0
Diphtheria	0	0	0	0	0	0
Encephalomyelitis Infectious	0	0	0	0	1	3
Food Poisoning	0	0	0	0	0	0
Gastroenteritis (1) Infectious	31	1	14	1	21	72
Hepatitis—Infectious Including Serum Hepatitis	25	1	18	0	0	0
Impetigo of Newborn	0	0	0	0	0	0
Influenza (if unusual number of cases)	254	5	123	1	547	366
Meningococcal Meningitis and Meningococcimia	1	1	0	0	30	28
Pertussis	19	0	12	0	358	297
Poliomyelitis (paralytic) non-paralytic)	0 0	0 0	0 0	0 0	2 0	6 3
Scarlet Fever and Streptococcal Sore Throat	125	0	92	0	694	774
Tuberculosis (pulmonary) (non-pulmonary)	3 0	1 0	7 1	0 0	424 41	567 41
Typhoid and Paratyphoid Fever	0	0	0	0	24	25
Venereal Disease (syphillis) (gonorrhoea)	1 16	0 0	4 31	1 0	170 1005	165 1028
Anthrax	0	0	0	0	0	0
Cholera	0	0	0	0	0	0
Psittacosis	0	0	0	0	0	0
Rabies	0	0	0	0	0	0
Smallpox	0	0	0	0	0	0
Tetanus	0	0	0	0	0	0
Trichinosis	0	0	0	0	0	0
Tularemia	0	0	0	0	0	0
Other rare diseases	0	0	0	0	0	0
Other (if unusual number of cases)	0	0	0	0	0	0

(1) amobic and bacillary dysentery and salmonellosis

During the month, there was reported an epidemic of infectious hepatitis in the Town of Yarmouth. Some 50 cases were known to exist at one time and there is little doubt that there were many more clinical and subclinical cases. The disease was most prevalent in the 5 to 19 age group in the south part of the town. A few cases have been reported in adults.

Steps were immediately taken to improve sanitary conditions in the area and immune serum globulin was administered to the school children. These measures appear to have been effective since few cases have been subsequently reported. No deaths were reported during the month.

There was one death attributed to Chickenpox during the month. This is the first death from this cause reported in the Province for several years.

Secretary's Page

MEETING OF THE EXECUTIVE COMMITTEE

A meeting of the Executive Committee of The Medical Society of Nova Scotia was held on June 8th, 1958. Two Branch Societies did not have representatives present. The meeting was called primarily to study the "Reports to General Council of The Canadian Medical Association." Seven of the nine representatives to General Council from this Division are members of the Executive Committee. Doctor R. O. Jones and Doctor C. B. Stewart, the other two representatives, were invited to attend this study period. Doctor R. O. Jones is the nominee to the Executive Committee (1958-1959) of The Canadian Medical Association from this Division.

The Executive Committee also considered several items of business including interim reports from the Advisory Committee on Health Insurance (Doctor D. M. MacRae), the Committee on Legislation (Doctor J. McD. Corston) and the new office space for the Society still in the Dalhousie Public Health Clinic. A meeting with the Executive of the Provincial Medical Board took place during the meeting.

The Secretary expects to have a resumé of the minutes available for the July issue.

Group Life Insurance

The following "tentative proposal" was reviewed by the Executive Committee on June 8th. It was agreed that "participating members" would be circularized and it is to be noted that "**75 per cent of the existing participating members" must apply to make the proposed schedule applicable.**" When members receive this communication, please regard it as a matter for early decision and prompt reply. In the meantime, the information is published for your advance consideration.

"A new increased schedule of protection has been tentatively proposed by the North American Life which would double the present basic amount of insurance at reduced rates.

Participating members now have a basic amount of $5,000 insurance with a bonus of $2,000 for a total of $7,000.

If 75% of the existing participating members apply for the new proposed schedule, the new plan would provide for a basic amount of $10,000 (up to age 65) with an immediate bonus of $1,000, a total coverage of $11,000. No evidence of insurability would be required from the existing participating members for the increased schedule of protection, nor would evidence of health be required from new applicants not already members under the existing plan providing they are not over 60½ years. Evidence of health, however, would be required from **all** applicants who apply **after** the proposed plan went into effect.

The present rates and schedule of insurance is given below together with the proposed plan.

Present Plan		Proposed Plan	
Basic Protection.....	$5,000	Basic Protection.....	$10,000
Present Bonus.....	$2,000	**Initial Bonus**.....	$ 1,000

Admitted Ages	Annual Premiums	Annual Premiums
21 - 30	$ 22.85	$ 32.00
31 - 40	28.10	42.00
41 - 50	47.85	70.00
51 - 55	82.00	124.00
56 - 60	120.60	188.00
61 - 72	180.15	286.00

Waiver of Premium

In the event of total disability prior to age 60, premiums will be waived and the insurance continued as long as the total disability continues.

Conversion Privilege

The conversion privilege will be allowed up to age 65, which means that a member may convert his group policy to an individual life insurance policy for the same basic amount on any regular whole life or endowment plan issued by the Company. No evidence of health is required to convert.

Schedule of Protection

A uniform amount of $10,000 Group Insurance will be available to each eligible member. The protection continues at the $10,000 level until July 1st, nearest your 65th birthday. Then there will be a schedule reduction of $1,000 and a like amount each year thereafter until it expires on the policy anniversary nearest age 75."

Hospitalization Plan

The report of the Hospital Services Planning Commission, which was presented to the Legislature during the 1958 session, has been distributed to the members of the Advisory Committee on Health Insurance. A copy has been sent to the Secretary of each Branch Society. The Hospital Services Planning Commission (P.O. Box 488, Halifax) has a limited supply of these reports. Any Society member, who wishes a copy, may request it from the Commission.

Bill 93 entitled "An act to provide for certain Hospital Services and Insurance" and Bill 94 "An act relating to Public Hospitals and to repeal Chapter 161 of the Revised Statutes, 1954, the Local Hospital Act" will also be available through the Hospital Services Planning Commission. Both Bills were passed at the 1958 sessions of the Legislature.