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The NOVA SCOTIA MEDICAL BULLETIN

Editorial

Chemotherapy and Chemopraxis of Cancer

The modern era of the chemotherapeutic approach to cancer was ushered in by the demonstration by Huggins and Hodges, in 1941, of the efficacy of stilbesterol in the treatment of prostatic carcinoma. Since that time a number of chemical agents have become available to the physician for the treatment of cancer.

The most successful of these chemotherapeutic compounds have been the alkylating agents of which eight are now in frequent use. These have been successful in affording temporary improvement in chronic leukemias and the reticulosis. Their use in the latter group of conditions however is still mainly reserved for the disseminated forms, and radiotherapy remains the treatment of choice for localized lesions.

It was when these agents were employed against carcinoma and sarcoma that their ineffectiveness became most apparent. This lack of response has led some investigators to refer to the "chemopraxis" of cancer, "since much treatment is given, but little effective therapy is achieved".[1] In the search for new and more effective agents biochemists have synthesized many compounds in an attempt to block pathways of metabolism in malignant cells. However although it is a fundamental tenet that exploitable differences between malignant and normal cell metabolism must exist, only minor differences have so far been found. Consequently chemotherapeutic agents now in use affect both malignant and normal cell metabolism. Particularly susceptible are rapidly growing normal tissues such as the mucosal cells of the gastrointestinal tract, the white blood cell and platelet precursors of the bone marrow. Therefore the dosages that can be administered are limited and the toxic effects often quite marked.

Drug resistance, as in the chemotherapy of infections, has also occured. This has been particularly striking in the treatment of acute leukemias. In the majority of children, remission with complete return to normal can be achieved with the antimetabolites now available. However within weeks or months, in spite of continued administration of these drugs, relapse occurs and at this stage resistance to the compound which produced the initial remission is apparent. A second remission can often be obtained with another

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unrelated antimetabolite until resistance to this agent also occurs. Another difficulty frequently encountered is the failure of some drugs in man, which have shown promising results in animal tumor systems. Thus both azaserine and azauridine though showing good responses in animals have been largely ineffective in man. In spite of these disappointments the search has not been without highly significant results in delineating the steps leading to the synthesis of nucleic acids, the machinery of cell reproduction.

Recently,[2] Szent-Gyorgyi has reported his findings on factors which control cell growth and which point towards a possible new approach to cancer therapy. Szent-Gyorgyi has demonstrated the presence of a growth promoting substance (promine), and a growth inhibiting substance (retine) in normal body cells. In injured tissue retine which has two unstable links may be inactivated by enzymes from disrupted cells, leaving promine in excess, thus stimulating growth and repair. In animals promine can stimulate growth of cancer, while retine can make established cancer regress. The fact that a substance capable of causing tumor regression can be found in normal cells and that these substances have no harmful effects on the hemopoietic system are very encouraging. Their further characterization and trial in tumors of man are awaited with great interest.

G.R.L.

1. Hall, T. C. New Eng. J. Med., 266: 129, 1962.
2. Szent-Gyorgi et al. Science, 140: 1391, 1963.

FROM THE BULLETIN OF 40 YEARS AGO*

Medical Society of Nova Scotia Bulletin October 1923

What is, then, the present status of surgical science, and what the probabilities of future advance? Consider the factors which have brought surgery to its present state of development, and inquire whether each is likely to progress. Omitting from consideration the underlying sciences, the three great factors have been anesthesia, the control of infection, and the development of the surgeon's armamentarium:—instruments for the control of bleeding, for the exposure of deep lying organs, special and diagnostic instruments of all sorts. It is hard for us now to realize how recently the control of hemorrhage was a cause of anxiety in almost every operation; how impossible was the execution of many now common proceedings without the special instruments recently devised. . . . . .

Looking at the present status of our art, it is possible perhaps to hazard some predictions as to future progress. It is now technically possible for the surgeon to remove any one of the organs of the body not absolutely essential to life, and where such essential organ exists as a paired viscus, one member of this pair may be sacrificed. There appears to be little hope that these vital structures may be substituted for by transplantation from animals, since the tissues of animals, or even of other human beings inevitably, with a few apparent exceptions, have undergone solution when transplanted. Possibly bio-chemistry may solve the problem of rendering our tissues receptive to homogenous or heterogenous transplantation, but it seems unlikely.

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*From an address by Dr. David Cheever, Associate Professor of Surgery in Harvard University, to The Medical Society of Nova Scotia July 4, 1923.

C.M.A. Presidential Address*

July, 1963

W. W. Wigle, M.D., C.M.

It is my intention to divide this address into three main sections. These are sections under which I believe the duties of the profession to itself and to society can be tabulated easily for purposes of discussion. They are the following:—

1. The duty to provide leadership in the field of health care;
2. The duty to maintain respect for the profession;
3. The duty to demonstrate professional responsibility and control.

Leadership in the Field of Health Care:

The original health care team consisted of a doctor and a nurse. Today these two originals are assisted by a multitude of professions and technicians, each performing his own vital part in the provision of preventative, diagnostic, therapeutic or rehabilitative services.

There has been a tendency in recent years for these new groups to develop a natural desire to exercise their own autonomy and play individual roles in the provision of a service.

The multiplicity of interests becomes very evident when we think of the variety of occupations represented in the total care provided by a large modern hospital, or when we realize that an astronaut encircling the globe at 17,000 miles per hour, 300 miles out in space, has his blood pressure pulse, and respirations recorded continually on earth. There are technicians of many types, sociologists, economists, varieties of therapists, and the most recent additions to my vocabulary: "orthotists" and "prosthetists".

We, in the medical profession, must provide the leadership and direction to co-ordinate the efforts of all these individual groups in order that the single most important objective be maintained, the achievement of high quality care of the total patient.

It is my firm conviction that each of these groups which has become interested in the provision of some portion of patient care, has done so mainly through a sincere desire to assist the professional people primarily concerned. We must recognize and accept their sincerity and convince them that if everyone on the team is to pull in the same direction, we must understand each other well. Willingness or even eagerness on the part of one group must not be misunderstood by another group. Overlapping must be controlled in the interests of economy, but overlapping must not be interpreted as if it were "stepping on toes". It must be felt as the warm foot of a friend, part of the same team, pulling in the same direction.

Probably the greatest area of need for leadership by the profession is in the provision of care for the mentally ill of our country. The care of the mentally ill must be regarded in the same fashion as the care of the physically ill.

If we had in our country today as many patients with a physical illness

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* Delivered to the Annual Meeting of the N. S. Division C. M. A. Yarmouth N. S. July 1963.

as we have mentally ill, and if those patients were only receiving a degree of care comparable to that presently received by the mentally ill, we would consider ourselves confronted with a national emergency. When faced with a national emergency, it is our instinct to provide assistance. Recently, when the people of Morocco suffered such an emergency, we assisted by sending medical personnel. The medical profession must provide the leadership in a world-wide realization of the mental health emergency.

It will take time to create a change, but this must be started at once. The so-called "break-through" in mental illness may well be accelerated by the co-operation and determination of all branches of the medical profession to see that prompt and proper treatment is expedited.

I am sure that our fellow citizens in every community would excuse and admire their local doctors if they gave up many of the community services which they presently render on school boards, service clubs, and recreational programs, in order to assist with the daily care of mental patients under the guidance of the psychiatrists.

Respect for our Profession:

It appears to me that through the years our profession has been respected for three main reasons; first, the education we have disciplined ourselves to acquire; second, our dedication to our work; and thirdly, our continual striving for the quality of excellence.

1. The acquisition of a medical education in modern times does not impress our fellow men as much as previously, due to the complications of technological and scientific education. The man who writes the instructions for a computer to calculate the timing of each step in the firing of rockets driving missiles into space, and the guidance of that missile, is not impressed by a doctor s education. Even the technician who is able to operate and maintain the complicated apparatus used in industry and locomotion here on earth, has a tendency to no longer be impressed by the learned phvsician. In fact, he often compares his knowledge and techniques to those of the physician. As higher education becomes more common, the educated individual becomes more of an integrated part of society and the aura which surrounded him disappears.

2. The social changes which are being forced upon us by virtue of an increasing standard of living and education are tending to remove any respect for dedication. The man who does more than an eight-hour stint, because he is anxious to enjoy a sense of achievement, is not appreciated by his fellow men as he was in time gone by.

The unfortunate analysis of all motivations is tending to remove any appreciation of what used to be considered devotion to duty. Even though it annoys us, we must face the fact that people are now taught there is no unselfishness — there is only enlightened selfishness.

It would appear that a developing society, reluctant to encourage devotion among its members, is increasingly unwilling to recognize it in the professions. Thus, respect for dedication and devotion to duty is being lost. Such qualities are unlikely to persist if they are subjected to derision.

3. The third quality which I mentioned above, as a reason for respect is that of striving for the quality of excellence. If we are to maintain the, position of respect in the community which our profession has enjoyed through

the years, then it must be by virtue of the fact that we strive continually for the quality of excellence.

The quality of excellence can only be maintained by a continual program of improvement through: education to gain knowledge, practice to gain experience, and constructive criticism of our methods in order to stimulate change.

In consulting with some of my friends before the beginning of this tour across Canada, I was given several admonitions about what to say, and what not to say. One friendly colleague said: "Please don't tell me to think about my patient; I have been told that so often I am tired of it".

I am not going to tell you to think about your patient; I am going to tell you to think about your doctor.

If you think about your doctor, you must think about yourself, and each and every one of your confrères. We must maintain our position above the microscope when looking into the field of health care but we must be prepared to allow our confrères to place each of us, in turn, under the microscope for careful professional scrutiny in order that we acquire the quality of excellence. Others are already threatening to take over this assessment of quality if we should ever neglect it.

> "Our medical liberty lies in the searching eyes of our medical confrères and potential medical slavery lurks in the shady consciences of our medical cowards".
>
> Anthony Rourke, M.D.

Professional Responsibility and Control:

This brings me to the third and final portion of my address, that of professional responsibility and control.

Society only grants freedom to those individuals who are responsible enough to discipline themselves. We do not grant freedoms to the irresponsible. It must be evident to us that the only way in which we can maintain professional freedom is if we demonstrate professional responsibility.

Some of our most vocal critics suggest that there is insufficient assessment of some areas of our practice. We have a professional duty to prove that we are improving the methods of maintaining the quality of excellence.

It is impossible to consider the quality of medical care and avoid the consideration of economics. We appear convinced that control of the economics means control of the quality of care. This conclusion, in my opinion, makes it imperative for the profession to retain control of the economics. Today, this means the profession must retain a prominent position in the field of prepayment. The doctors in Canada have developed a broad pattern in the provision of prepaid medical care. No one else can provide comprehensive **prepaid medical care,** only doctors can provide **care,** others only provide degrees of payment. We have demonstrated our willingness to do this where it is necessary. It has shown the way to other carriers providing for other segments of the population.

Our "professed" interest as a profession is the rendering of high quality medical care to Canadians. In my opinion, we would be contradicting this

statement if we discontinued our activities in the provision of prepaid medical care, because as I have said above, control of the economics means control of the quality.

Under this heading of Professional Responsibility, I am reminded of another term which has the same initials; i.e. P.R. — Public Relations. In my opinion, this term is more ballyhoo-ed and misunderstood every year. Our "public relations" is merely a manner of referring to our reputation with the people. Reputations are gained by actions, not by words. Professional Responsibility through Proof of Reliability is synonymous with good Public Relations.

We must remember that our public thinks of us in accordance with how they see us perform. A newspaper article about some statement by the profession in a remote city is nowhere near as damaging to our Public Relations as a waiting-room filled with patients — all an hour overdue for their appointment and with no explanation offered. Actions speak louder than words. We can act. Public Relations experts can only speak and write. "P.R." means Professional Responsibility, and proof of this will take care of Public Relations.

I am already acquainted with many doctors across Canada. My confidence in you, and your ability to maintain the standards of our profession, are increased with each new group of doctors I meet. You are the products of dedicated and respected generations. You have a great responsibility to see that these qualities are never lost. You can achieve this, and further the objects of our Association, if you look to your doctor and see how he looks to your patient.

In closing, I remind you that I spoke of three duties; one, professional leadership in the field of health care; two, the preservation of respect through the quality of excellence; and three, proof of our individual professional responsibilities will take care of our public relations.

Some of the Changing Aspects in Government Planning*

Hon. W. S. Kennedy Jones
Minister of Public Welfare,
Government of Nova Scotia

Mr. Chairman, Distinguished Guests, Ladies and Gentlemen:

My Introducer has been more generous than factual and I thank him sincerely for the kindness of his remarks. May I next thank your Society for the privilege which you have accorded to me by your invitation to be your guest speaker on this occasion.

This is an honour which I prize very highly though I must confess that I accepted the invitation to speak to you with both trepidation and misgivings.

Your Dr. Beckwith is both a skilful and a persuasive gentleman. He is skilful in that he arranges for a guest speaker many weeks in advance and, of course, when one is asked to speak at a considerable time in the future, one is inclined to accept more readily — it is much easier to say "yes" to something that is many weeks away.

Perhaps I need not say much about the persuasive nature of Dr. Beckwith — this is perhaps well known to all of you. In addition to the Doctor's genial persuasiveness he was aided and abetted in getting a commitment from me for two further reasons; First, his phone call awakened me from a deep sleep which rendered me into a state of somnolent acquiescence; and second, I had just returned from a 2½ week vacation in Virginia and I had enjoyed such a restful lazy time, I felt that I should quickly agree to doing something difficult.

Having thus accepted the honour which you thus bestowed on me by the invitation extended by your Secretary — I then began to cast about in my mind for a subject or topic on which to speak.

My first realization was that as a lawyer I was not equipped to speak on a technical subject to a gathering of doctors. The more I thought of technical subjects the greater became my alarm. Thinking back upon what may have been said by others on similar occasions gave me no guidance whatsoever.

Welfare in the federal government is associated with Health in the Department of Health and Welfare. This is not so in our Province, although there is perhaps a popular confusion of the names and functions of the two departments. Realizing that I could not speak on technical details in the field of Public Health I thought of a little story which related to technical matters and I decided that while I might speak on either one of my professions, I should at all cost avoid attempting to speak on yours.

And so I shall endeavour to avoid technical details and speak instead of certain aspects of my responsibilities in Government which I trust will be of interest to you as citizens of our Province and as leaders of your communities.

Beginning several weeks ago Dr. Beckwith gently began to press me again — this time for a title to my remarks. Not being sure what I intended to talk

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*Address given before the 110 Annual Meeting of theMedical Society of Nova Scotia, Braemar Lodge, 5th July 1963.

about, it was most difficult to give an answer to this question. I finally made a decision and advised him I proposed to speak on "Some changing aspects in Departmental Planning in Government". This is a broad topic and should give me plenty of scope. I suppose I could have picked for my title "Some of the things a lawyer may get involved in as a member of government". Though perhaps more accurate this may have been somewhat less lacking in dignity.

And so today I propose to speak to you for a time on "Some of the changing aspects in government planning". I do not propose to speak on all departments of government although I am sure that there is, today, much planning going on in all departments, particularly in the field of economic planning.

My principal responsibilities in government are as Provincial Secretary and as Minister of Public Welfare, and I shall make reference to present day programs which are either traditionally covered by these two portfolios or have been brought within them in recent years.

Politics is the art of government, and the more I see of it the more complex an art I am convinced it is. We have not yet in this country commenced to train people to be politicians although the day may not be too far off when we will have to give consideration to this type of specific education. In Europe, notably in England, there has long been a tradition of training young men to be politicians and statesman. Perhaps our American friends are growing closer to this and certainly when we look at the career of John F. Kennedy we realize that there was more in the making of this President then just coincidence or plain good luck.

In our Country the law is perhaps as useful as an avocation as any for the training of a politician. Certainly a lawyer by his training with laws has a background which may be useful in preparing legislation. In his practice he learns something of administration and of people which likewise are useful background knowledge for the politician.

Some may say that it is easier for lawyers to get into politics or that they can better afford to do so. Both these statements can, I think be successfully challenged. Some, of course, say there are too lawyers in politics but to them I would say it isn't difficult in this country to get your name on a ballot and if you have the determination to serve this is more than half the battle.

However, I am getting into the realm of political philosophy and I had better come back to the topic of my address.

It occurred to me that it might be of some interest to you to talk about some of my responsibilities in government and the changes which are becoming apparent within these portfolios.

We live today in a period of great change — this is apparent almost day to day and certainly on a week to week or month to month basis. What was a regular pattern five or ten years ago has been altered by circumstances and so, as our way of life is subject to change, even so are the governments which to a marked degree circumscribe our way of life. This has brought about the absolute necessity of planning in government in order to keep pace with changing requirements.

A typical changing pattern is apparent in the field of public assistance in the Department of Public Welfare. Until five years ago Assistance to needy persons in our Province was regulated by the so-called Poor Laws which were borrowed from the laws of England by our legislature 200 years ago. Those laws prescribed that this form of Assistance was a matter of local concern—

locally administered and with local funds. The quality of Assistance was far from enough in many cases and the quantity of assistance was most frequently a bare minimum. There was a definite stigma attached to 'being on the town' or 'on the county'.

Today these Poor Laws are gone and in its place under the Social Assistance program we now have "Municipal Assistance" for those in need. This is a more dignified, more generous program. It is still administered at the local level of government because we require local interest and local control. The most significant change is that 2/3 of the funds required for Municipal Assistance comes from the federal and provincial levels of government. The 1/3 contributed by Municipal government is approximately the same amount as previously provided, but the added 2/3 contribution permits the local administrators to come up to a more realistic standard of assistance for such requirements as food, clothing, shelter and other necessities.

While it is true that in some areas amounts of assistance are less than realistic, long strides have been made in the direction of providing reasonable assistance at the local level to those truly in need.

But assistance alone of the hand-out variety is not enough and hand in hand with it must go sincere efforts at rehabilitation.

Under another program of Public Welfare, contribution is made by the provincial authority towards the approved costs of a proper Municipal Welfare administration system. This provincial contribution amounts to 50% of such administrative costs. Today in Nova Scotia 65% of our population lives in Municipalities which have set up and have in operation this type of welfare administration office. In all, 20 municipal units in Nova Scotia now have trained staff administering their Municipal Assistance program. This not only ensures that those who require help receive it in an orderly manner, but also that those who can be rehabilitated receive assistance towards gainful employment or useful occupations. Many municipalities, most of them rural areas, have not yet set up Welfare offices so as to bring their administrative costs under this program. Perhaps they fear that their costs will go up or perhaps they fear red tape and bureaucracy, but we in the Department of Public Welfare feel that this is a 20th Century concept which they should take advantage of. If any of you live in communities which have not yet moved away from the welfare district kind of system you may feel it advisable, as community leaders, to advocate a change of system. I am sure that this will be appreciated by all concerned.

It is often said that the provincial government does not give enough assistance to the Municipalities. Surely in the fields of Municipal Assistance and the welfare administration system the Province is now giving a large measure of assistance to municipal government where none was given before.

Hand in hand with what has been done in improving the quality of general assistance has been the improvement made in municipal homes. Prior to 1958, some of the old poor houses were not pleasant places in which to be ill or spend the last years of life. Much remains to be done yet but the progress made has been remarkable indeed. The Department held a planning conference last year with the Department of Public Health to shape policies in respect to long term facilities for the care of the aged and chronically ill. I will not attempt at this time to enumerate all the services needed in this field or the order of priority in which they should be provided. It is sufficient to say

that our list of needs is rather lengthy, that a great deal of additional revenue will be required in order for us to meet these needs and at best they can only be filled through a long-term program of planning.

One key facility must be the municipal home program provided by the municipal level of government. Here as in general assistance, we share 2/3 of the general costs of maintenance of patients. Minimum standards in respect to fire protection, size of rooms, cleanliness, personnel qualifications, etc., have been set. We are attempting to enforce these standards through a program of consultation with the municipal authorities. The ultimate aim is to provide comfortable, humane care for elderly persons and for those who may be ill or require special care. I am sure that those of you who have visited Municipal Homes in recent years have been impressed with the improvements which have been made by the Municipal authorities.

The Social Assistance Act provides for the appointment of a Visiting Committee for each Municipal Home. All of these Committees have been active in visiting the Homes, making recommendations to the local Municipal Councils and to the Department. They have been most successful in explaining the needs of the patients to the community and in helping to raise standards of care.

The Department, with the cooperation of the Children's Aid Society of Hants County, embarked on a new program in 1961 in which we boarded out elderly persons from municipal homes, municipal hospitals and institutions. This program has been extended from the several towns and municipalities in Hants County, to the Municipality of Halifax County, the City of Halifax, the City of Dartmouth, the Municipality of the County of Antigonish, the Town of Amherst, the Town of Truro and the Municipality of the County of Cumberland. It is proving to be most successful. The responsible social worker carefully selects a suitable foster boarding home and after preparation and discussion with the patient, the placement is made. The social worker continues to visit the patient and foster home periodically to ensure that the patient is well cared for and that the arrangement is satisfactory to all concerned. The improvement in some of these patients who had been institutionalized for a long period of time has been remarkable. Only a very few have had to be returned because of failure and some who had never left the institution are up and about the community occupying themselves usefully for the first time in many years.

Turning now to the Child Welfare field, the Nova Scotia Chapter of the Canadian Association for Retarded Children is to be greatly commended for bringing the plight of the retarded forcibly to the attention of the public during the past few years. Here is a problem which has not been well understood and is only now beginning to receive the measure of public support which is necessary if advances are to be made in treatment and rehabilitative programs.

The immediate Past President of the Nova Scotia Association is Dr. Dennis Howell, a member of your Society and I wish to commend him for the outstanding job of hardworking dedicated leadership which he has provided in this important field. Because of the dedication of people like Doctor Howell the problems of the retarded are being lessened but much more remains to be done on their behalf.

You who are members of the medical profession have a particular responsibility with regard to this problem because very often it is your task to advise

the parents that their child is in fact retarded. I need not dwell on the difficulty of this task but I feel that you will be doing the parents and their child a service if you tell them that the Retarded Children's Association stands ready to help them with their problems in the years to come.

One of the problems of the Association is in finding the retarded children who need help and if you can properly assist in the matter of communication between the parents and the Association or one of its branches, this will be of very great benefit.

Progress is being made in research into the causes of retardation and in this regard I wish to commend your Doctor W. A. Cochrane for the outstanding work which he is doing at the Children's Hospital in Halifax. There are undoubtedly many dark secrets in this difficult field which may take years of research to unfold but surely the recent work of Dr. Cochrane and his associates particularly with relation to P.K.U. and associated conditions has lifted the edge of a dark curtain and let in a ray of blessed hope.

The P.K.U. test I am told is a relatively simple one and the Department of Public Health has a program to provide assistance for the necessary diet required for children suffering from this disease.

I am given to understand that the percentage of newborn babies who are tested for P.K.U. is far below what it should be. Surely here is an obvious challenge for the medical profession to ensure that parents know of the availability of this test and the great importance of having it carried out.

I perhaps should apologize for my temerity in making such a suggestion but for greater emphasis I shall not.

Continuing research into the causes of retardation is a vital matter which I am sure that your profession is very mindful of. Public support of such research must continue to be encouraged and you can play a most helpful role in encouraging and expanding such support.

My Department is now engaged in expanding the facilities at the Nova Scotia Training School to provide increased classroom accommodation and recreational facilities for the one hundred and eighty children there. It is hoped that additional facilities may eventually be provided for the more severely retarded who are now being cared for in municipal hospitals. Such a program would, if carried out fully, involve a considerable outlay in capital construction in addition to new operating costs.

We are embarking this year on a boarding out program for retarded children. This will make it possible for us to accept approximately fifty new children in the first year. These children will range in age from infancy to sixteen years and will be placed in carefully selected boarding homes. We are placing no restrictions in respect to the age or type of child to be accepted into care in this program. The main considerations will be the help the individual child is likely to receive from the placement, and whether in the opinion of the medical and educational authorities it seems desirable for the child to be placed elsewhere than in his own home.

I referred at the outset of my remarks to services and the importance of those to our people. Good services can only be ensured by a good quality of personnel and this is particularly true in the field of welfare where so much of what we do brings us into close contact with the personal lives of families and children in every part of the Province. We try to find social workers and welfare officers who are sincerely interested in the welfare of people. I have

stated that welfare is big business and in many respects it is complicated business — complicated because of its financial implications and also because its services can only be effective if the social workers understand people and have a very deep respect for them. Schools, like the Maritime School of Social Work in Halifax have provided invaluable assistance in training professional personnel to provide services and leadership in the Department. In addition, other training programs are being developed. These advances have been materially assisted during the past year by grants-in-aid from the Federal Government to provide scholarships, bursaries, and training grants for welfare purposes. For the first time in the history of the Department a summer training school is being arranged during the month of July in Halifax. This will fill a long felt need in training social welfare workers for field positions in the provincial service, municipal welfare departments, Children's Aid Societies and Family Service Agencies.

Another interesting aspect of planning in the field of Public Welfare is in the continuing partnership between the Department and the private agencies engaged in welfare work in our Province. These agencies include the Children's Aid Societies, the Child Caring Institutions, the Diocesan Charities and other church welfare organizations. We feel that these organizations do outstanding work and we feel that it is important that they remain active and strong. The citizen interest and support which they generate must in every way be encouraged.

Before I leave the field of Public Welfare may I make brief mention of the medical plan under which your society renders medical care to certain categories of persons who receive assistance from this Department.

This plan was inaugurated in 1949 but was altered in 1952 when the Federal Government initiated the universal Old Age Security program at which time the Old Age pensioners were dropped from the medical coverage.

The number of persons covered by the plan is, however, relatively substantial and the number of recipients of medical care benefits for which we paid your agent, Maritime Medical Care, for the month of May, 1963 was 9,392.

While recognizing that no doctor has been paid in full for the services which he has rendered, I think that it is fair to say that the plan has been one of mutual advantage. There is perhaps room for change to be made within the plan and in one regard I understand that you are now giving some consideration to an alteration of the division of the fees paid under the plan which is, of course, a matter of indoor management for you to change as you see fit. I wish to express to you on behalf of my Department and the recipients of your medical care our sincere appreciation for your devotion.

For the remainder of my remarks may I turn to certain of my duties as Provincial Secretary.

I would like first to refer to my responsibilities as Minister under the Water Act. We have had legislation governing the use of water for a good many years in this Province but this has been an asset which we have more or less taken for granted and it has only been in comparatively recent years that it has been realized that we must do more to protect the bounty which nature has given to us.

This Province is unique in that we have legislation, passed in 1919 which vests title to all of the water in our lakes, rivers and streams in the Province.

In effect this legislation confiscated or expropriated whatever rights individuals may have had in water and declared that water rights belonged to and always had belonged to the Province. As a legislator I would shudder to have the responsibility to pilot such a piece of confiscatory legislation through the House today but whatever the hue and cry it raised in 1919, it is a good thing for Nova Scotia today because it is far easier to manage what the law says you own. Traditionally for many years the Chairman of the Power Commission was the designated Minister under the Water Act, although many other Departments such as Agriculture, Lands and Forests, Public Health, Mines and Municipal Affairs all had a direct interest in our water resources. Two years ago the administration of the Act was turned over to the Provincial Secretary on the reasoning that we could provide management in cooperation with all of the other interested Departments. In each of the past two years the Water Act has been amended with the principal amendments being made in the past session of the Legislature. These amendments have not yet been proclaimed but they provide for the setting up of a three man water authority supported by an Advisory Board made up largely of representatives of interested departments of government. This procedure is patterned after the New Brunswick Water Authority and Advisory Board which were set up some years ago and which have had a large measure of success in eliminating and controlling problems of contamination and pollution of the water resources of that Province. Our legislation has also strengthened the pollution and contamination controls under our Act and I know that it will be of interest to you that these controls are to be exercised in cooperation and collaboration with the Department of Public Health.

It is my hope that it will be possible to have the new legislation proclaimed in the not too distant future and that it will be of real assistance in controlling a number of problems which happily have not gotten out of hand here as they have elsewhere in our Country.

As Provincial Secretary it is also my privilege to be the Chairman of the Province's Interdepartmental Committee on Human Rights which was established last October. This Committee which is comprised of representatives of interested departments of Government including Dr. Robertson, the Deputy Minister of Public Health, is charged with the responsibility of providing leadership within government in the important field of Human Rights. We have regarded the position of our negro citizens within our Communities as the primary problem requiring attention. A survey was started some months ago by a representative of the Department of Public Welfare of the negro communities of the Province and this should be completed within the month. This survey should give us an accurate picture of the economic, social and educational position of our negro citizens and provide a background for future planning.

We do not have the problems in our Province such as exist in the southern states. Our negro citizens long ago achieved freedom but social and economic opportunities are not readily accessible to them. For humanitarian and economic reasons we must help them and they must help themselves to progress.

For the past two years I have been the Minister in charge of the Emergency Measures Organization of Nova Scotia which is the name we now apply to

Civil Defence in order to correspond with the name of the Federal organization. Within this division of Government there has been a large measure of planning and organization in recent years. This was once regarded as a temporary organization and perhaps many people refused to take it and their personal responsibilities concerning it seriously. There has been a change in this thinking and this has been particularly apparent since the Cuban crisis. I feel that the Emergency Measures Organization has become a built in and perhaps permanent part of the Government Service which may well remain with us for the rest of our lives and certainly so long as there is a possibility that a nuclear incident or a nuclear accident may touch off an atomic war.

Under our present planning our Emergency Measures Organization has two parts;

(1) An operational wing under the Co-ordinator has several divisions including Emergency Health Services, Emergency Welfare Service, the Fire Marshal, the Communications Officer and the Training Officer.

(2) The other wing has to do with the Continuity of Government Services. It comprises a Committee of Deputy Ministers charged with the responsibility of preparing an overall plan for the continuity of all necessary Government services which are within the responsibility of the Province.

This is an important Committee which is carrying out its responsibilities with serious dedication.

We are doing all that we properly can to ensure that all of the Municipalities of the Province are organized to look after the responsibilities which would be theirs in the event of an emergency. Not all of our Municipalites are organized and if any of you live in areas where there is no Civil Defence Organization, and you can do anything to bring this responsibility home to your local officials, we will appreciate your assistance.

We must not lose sight of the fact that the planning of our organization and the preparedness of our people are extremely useful in the event of local emergencies. All of us work in the hope that our planning will never be put into effect because of a national emergency but we must all be prepared to protect and preserve all that we have.

Emergency Health Planning started on a voluntary basis in the early nineteen-fifties and is now an accepted function of government.

The full-time Emergency Health Services staff consists now of a Medical Director, a Nurse Consultant, and a Pharmacist. The objective of Emergency Health Services is to provide for continuity of all health services under conditions of local and national emergency and the best possible medical care for the victims of any disaster in the Province.

This planning was initiated by Emergency Measures Organization and enjoys full co-operation of the Department of Public Health, which accepts its share of responsibility.

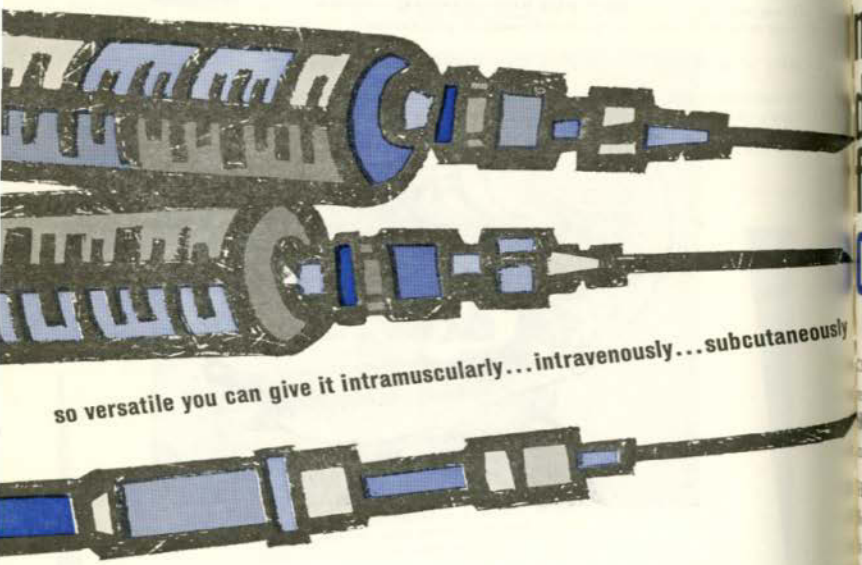
This requires a considerable amount of training with courses and conferences being held for doctors, nurses, sanitary inspectors, nutritionists, and other health personnel. Hospital Disaster Planning requires a great deal of work — six exercises were held in the Province since last October. The exercised hospitals qualified for federal disaster supplies.

It is felt that continuity of essential health administration under emergency conditions is now assured.

Emergency field units are now being organized. It is hoped to conclude in the immediate future a Federal-Provincial Agreement which would result in release of supplies from the federal stockpile to Provincial custody and in placing of the field units in suitable locations within the Province this summer. The Director of Emergency Health Services, Dr. Kryszek who has done an outstanding job since he joined our staff last year has informed me that cooperation from the health professions has been very encouraging. Many members of the medical profession have given of their time and efforts to support this planning. Without the cooperation of the medical profession no effective Emergency Health Services Planning is possible. We are thankful for the past support but more is required and we hope that the support from the doctors of the Province will continue to grow.

Once again may I sincerely thank you for the privilege of speaking to you here today.

I hope that my remarks have not been overlong and that my comments on departmental problems and planning have been of some interest to you. I am aware that you too as a society have problems but I am confident that with careful planning you will solve them for the common good of all you serve.



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References: (1) Ross, S.; Puig, J. R., & Zaremba, E. A.: **Antibiotics Annual 5**:803, 1958. (2) McCrumb, F. R., Jr.; Snyder, M. J., & Hicken, W. J.: **ibid.**, p. 837. (3) Payne, H. M., & Hackney, R. L., Jr.: **ibid.**, p. 821.

Medical literature available on request.

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Radiation Therapy in Children

J. A. AQUINO, B.Sc., M.D.

Halifax, N. S.

More children between the ages of one and fifteen years die of cancer than from any other cause except accidents. Some cancers are present at birth, although peaks of incidence are found at the ages of eighteen months and five years. The common sites of occurrence differ between children and adults. The most common sites of tumours in children are:

1. Hematopoietic system
2. Retroperitoneal regions
3. Skin and soft tissues
4. Bones
5. Orbit
6. Intracranial cavity

In the female adult, the breast and uterus are commonly affected whereas; in the adult male, the skin, lung, prostate, stomach and oral cavity are the most common sites of tumours.

Radiation therapy has a definite role in the management of malignant neoplasms in children. Many times it is the sole form of treatment. Sometimes, it is given in conjunction with surgery. Before any radiation therapy is given, it is essential to have a histological diagnosis. If an open biopsy should be performed, the radiotherapist should be given an opportunity to see the patient beforehand for a better evaluation of the case.

Indications for radiotherapy in Children's Tumours:

1. Positive:
   - a. Radiosensitive cancers which may or may not require surgery as a preliminary or supplementary procedure.
   - b. Any malignant tumour in which surgery is deemed impracticable whether or not it appears radiosensitive by histological examinations.
   - c. Palliative measures -
     1) Relief of intractable pain in leukemias
     2) Tracheal obstructions from extreme pressure in lymphoma
2. Questionable:
   - a. Certain benign tumours - hemangioma or lymphangioma
   - b. Granulomas - reticulo - endotheliosis or histiocytosis 'X'
   - c. Certain benign conditions - keloids and lymphoid hyperplasia
3. Negative:
   - a. Most benign tumours
   - b. Melanoma
   - c. Pigmented nevi

Wilm's Tumour (Nephroblastoma or Embryoma of the kidney) - is the second most common abdominal tumour encountered in children and commonly seen below the age of five years. It is formed from mesodermal cell rests within the kidney itself, and therefore will be seen to be intrinsic to the kidney. The

From the Department of Radiotherapy, Victoria General Hospital, Halifax, N. S. - Dr. J. E. Stapleton, Head of Department.

majority of those affected are asymptomatic and the mass is noticed only by an observant parent or it is found on routine physical examinations by the astute pediatrician on well-baby visits. It is only in the late stage after metastases have occurred that weight loss, pallor, lethargy and annorexia are generally seen.

Palpation of the mass is the most important single examination in the diagnosis of Wilm's tumours. In spite of its importance, this method of examination should be done carefully and be limited to those actually involved in the active treatment of the patient. In a hospital a "No Palpation" sign should be hung immediately on the patient's crib as it is very tempting for all, particularly when there are medical students, to palpate the abdomen of such a patient. The tendency to metastasize is greatly increased following manipulation.

Radiographic examination is the next most important diagnostic procedure. Flat plate of the abdomen usually shows a soft tissue mass occupying one side of the abdomen and displacing the bowels to the other side. Intravenous pyelogram reveals distortion of the pelvocalyceal collecting system. In contrast to the findings in neuroblastoma, these tumours are intrinsic to the kidney and no calcification is seen within the mass.

These tumours are usually encapsulated. Once the tumour has broken through its capsule or the capsule broken during surgery, metastases are prone to occur. When metastases occur, the chance of survival becomes less The prognosis is generally better when seen in the first year of life.

There has not been any consistent way of treating these tumours. Some have advocated pre-operative irradiation followed by surgical extirpation. The major objection to this method is the waiting period during which time, metastases are likely to occur. A minority group have been treated with pre-operative radiation therapy followed by surgical extirpation and then post-operative irradiation. This is best in cases where the tumour is tremendously enlarged that surgical evacuation of the tumour is not possible without previous shrinkage. The majority, however, have treated them by surgical excision to be followed by immediate post-operative irradiation. The important thing is that definitive therapy is mandatory following the diagnosis of Wilm's tumours and should be urgently instituted. Radiation therapy is as urgent as surgery and should be given preferably on the same day just as the patient is waking up from the anesthesia. The latter mode of therapy has a definite advantage in that a pathological confirmation is available. There are cases where the clinical evidence showed them to be Wilm's tumours and later turned out to be cysts.

These tumours are so radiosensitive that even metastases to the lungs can be cured by radiation therapy. Most will disappear readily with relatively low dosage, but the treatment should be brought to adequate levels to prevent any recurrence. In the far advanced and recurrent cases, radiation therapy is administered with Actinomycin D. Some authorities advocate the administration of Actinomycin D during the surgical extirpation and in the immediate post-operative period to prevent any pulmonary metastases that may occur during the surgical procedure.

Neuroblastoma - is a tumour found along the sympathetic chain of ganglia from the neck down to the pelvis where neural crest tissue embryologically existed, but especially near the adrenal medulla where the concen-

tration of sympathecoblast is greatest. Unfortunately as with most abdominal masses of childhood, there are no early symptoms. Later on, however, the symptoms may include weight loss, bone pain which is often confused with "growing pain" of childhood, anemia, diarrhea and "fever of unknown origin". Nearly one half of these children present with metastases when first seen. Bone metastases are usually multiple and may be diagnosed even before it can be demonstrated roentgenographically by the presence of abnormal cells in rosette formation when a bone marrow is done. Common sites of metastases are to the bones of the extremities and skull, retro-orbital areas and to the liver.

As in Wilm's tumour, presence of a mass in the abdomen is the first sign of neuroblastoma. Radiographic examinations should be done to confirm the clinical impression. Flat plate shows a mass in one side of the abdomen displacing the bowels to the opposite side. Calcific flecks are present within the mass. Intravenous pyelograms also show displacement of the kidney and are rather extra-renal in location as compared to Wilm's tumour which is intra-renal. The pelveocalyceal system shows little or no distortion. These tumours are radiosensitive as well as radiocurable. In contrast to Wilm's tumours, surgical removal is not essential for cure. Even metastases to the liver may be cured by adequate irradiation. For the far-advanced cases, palliative irradiation offers relief of pain. Wherever there is disfigurement due to the tumefaction and bone involvement, irradiation therapy to the area improves the appearance of the patient.

Retinoblastoma - tumour of the eye exclusively seen in infants and early childhood. It is inherited as a Mendelian dominant trait. If a patient survives and subsequently gets married, the chances of his off-spring to develop the tumour is high.

The tumour presents as blindness of gradual progression. The child "often bumps into things" and later shows the typical "cat's eye" appearance. It is bilateral in about twenty-five percent of cases. Extension of the tumour may be through the sclera or along the optic nerve into the subarachnoid space. Metastases to the regional lymph nodes as well as through the blood stream to the skeletal system. Bone marrow examination shows the tumour cells.

Treatment depends upon the extent of the disease. For localized cases where the tumour is confined to one eye, enucleation of the affected eye is recommended. A careful histological examination of the cut end of the optic nerve must be performed. If there is no evidence of extension present, then no further therapy is required. On the other hand, if there is extension present, radiation therapy is given to the orbital cavity. This is carried as far back to the optic chiasm. Radiotherapy is also indicated where preservation of sight in the second eye is necessary in bilateral involvement or where there is recurrence. When surgery is contra-indicated for some general reason, radiotherapy is given even when the tumour is localized. The lens and cornea are protected as much as possible, but not to the extent that cure is compromised. Cobalt plaques or implants in the sclera overlying the tumour are often effective.

The prognosis depends upon the degree of involvement. Where one half of the eye or more is involved, enucleation is the only means of cure. As much as fifty percent survive five years following surgical treatment.

Follow-up examinations are very important. About ninety-five percent of unsuccessful enucleations or orbital recurrences develop within eighteen months. When they occur, the outlook is very poor.

Central Nervous System Tumours - Radiation therapy is mainly indicated in cases of medulloblastomas. They are rapidly growing and invasive usually arising in the posterior cranial fossae. Medulloblastomas have a tendency to seed along the cerebro-spinal axis. Surgical extirpation is impossible, but they are highly radiosensitive. The whole cerebro-spinal axis is irradiated. As much as forty percent of these cases survive five years with slightly less in ten years.

Astrocytomas and other slow growing brain tumours are irradiated only following their incomplete removal.

Soft Tissue Tumours - includes fibrosarcomas and rhabdomyosarcoma. Although usually these tumours are considered radio-resistant in adults, this generalization does not seem to apply to those found in children. Wide surgical excision is the treatment of choice. When this, however, is not possible due to the size or location of the tumour, then radiation therapy may control these lesions. At times, radiation potentiators like Adtinomycin D are given in conjunction with the radiation therapy.

Hematopoietic System - Where Hodgkin's disease is localized to one or two regional nodes, radiotherapy is given and can produce long term control. In widespread disease, however, chemotherapy is preferred. Many times, they are given in conjunction with each other. Lymphosarcomas frequently spread into the marrow in children and they develop a picture of acute leukemia. Chemotherapy is the treatment of choice. Radiation therapy is only indicated in the control of large masses or troublesome skin lesions or in cerebral involvement.

BENIGN CONDITIONS:

In view of certain hazards associated with radiation therapy and some of its deleterious effects in children, treatment of benign conditions is limited. The following considerations should be answered before embarking on radiation therapy:

1. Does it really require any therapy?
2. If left alone, will it spontaneously regress?
3. Have other more conservative measures been tried and rejected because they failed?
4. How fast is the tumour growing?
5. Does it interfere with vital functions?

Some benign conditions treated with radiation therapy are:

A... **Hemangioma** - Radiotherapy is effective only in the strawberry nevus and cavernous type of hemangioma. Often times, watchful waiting is the best treatment. The complications resulting from an over anxious treatment of these lesions is worse than the lesions themselves. Radiation therapy must be reserved for:

1) ulcerating and bleeding lesions
2) invasive and rapidly growing hemangiomas
3) unsightly lesions such as in those in the face
4) those located in areas which are exposed to trauma
5) those located near the vital structures as in the upper respiratory tract where it may produce respiratory obstruction.

Radiation therapy is given in low dosages and long intervals between treatments. The fields should be carefully demarcated with lead shields. The main aim is to prevent further growth and to encourage their natural tendency to heal. Treatment should be discontinued as soon as the hemangioma becomes paler and even with the skin surface. Hemangiomata can be treated with superficial roentgen therapy or by interstitial radiation with the use of radium implants.

B. **Keloids** - Radiation therapy is used in those cases where they are not only ugly but also bothersome. The itching, burning and pain associated with the keloids can be controlled with radiotherapy. Often, radiation therapy is used in conjunction with plastic surgery where, following excision of a keloid, radiation therapy is given to prevent subsequent formation of unsightly scars.

C. **Lymphoid Hyperplasia** - Many times a pediatrician or family physician encounters in practice cases of persistent or stubborn recurrences of adenoid hyperplasia. Patients keep going back to their offices with persistent aural discharge and even hearing loss. Repeated adenoidectomy does not seem to control them. Ionizing irradiation is administered to the nasopharynx. Not only do comparative audiograms taken before and after radiation therapy usually show remarkable improvement in the hearing of these children, but also the ear stops to discharge.

CONCLUSIONS:

In spite of the hazards attendant to the administration of ionizing radiation in children, it has a very definite role in the management of malignant neoplasms as well as in selected benign conditions. For certain cases, it may be the only hope of cure. In others, it is used in conjunction with surgery and occasionally with chemotherapy. A close rapport between the radiotherapist, the surgeon, and the pediatrician should be established as only by close cooperation among them can the mortality rate from cancer in childhood be reduced. The proper managment of malignant diseases no longer depends upon one man, but on a team effort.

BOOK REVIEWS

Textbook of Otolaryngology. By DeWeese and Saunders. 455 pp. Price $8.75

This textbook would appear to have the brevity required for medical students with sufficient comprehensiveness, especially in diagnosis and treatment, for the general practitioner. The material is well arranged and presented under the headings of regions and symptoms. A feature of the book is the profusion and excellence of the photographs and drawings used for demonstration. The first chapter deals in detail with the proper methods of examination of the ears, nose and throat, so important for both student and general practitioner. This is followed by a discussion of lesions of the mouth, a region often ignored, but one that should be carefully examined before proceeding to the throat. Each region is introduced with a review of the pertinent anatomy and physiology, with diseases of each being considered mainly in the light of diagnosis and treatment. Considerable space is devoted to the problem of deafness. Anatomy and physiology along with pathological findings are correlated with the diagnosis and treatment of the different forms of deafness. Surgical treatment is outlined so the reader should know in many cases whether surgery would be beneficial. Patients who cannot be helped by surgery are dealt with in a chapter on rehabilitation of persons with hearing loss. There is a list of selected reading at the end of each chapter for those seeking additional information.

This book can well be recommended as a textbook of Otolaryngology.

D. M. MacR.

Phibbs, Brendan: "The Cardiac Arrhythmias. The C. V. Mosby Company, St. Louis, 1961. 128 pp. Price $7.50.

In his preface to this volume, Dr. Phibbs states that it was written to teach physicians who are not Cardiologists to diagnose and treat cardiac arrhythmias. The result is a compact, 122 page outline of the basic principles of diagnosis and management of these disorders.

Following a short review of the pertinent anatomy and physiology of the conduction system, the various arrhythmias are discussed with reference to the electrocardiographic diagnosis and therapy. The bedside diagnosis is then dismissed in less than three pages. No references are included.

The author states that clinical diagnosis is often difficult or impossible. This opinion is certainly reflected in the brief discussion on physical signs. In the entire volume there is no reference to the jugular venous pulse. As there is no other method of accurately evaluating atrial activity without an electrocardiograph, this omission is difficult to understand.

This book will probably be useful to those for whom it was written in the interpretation of electrocardiograms and as a quick reference for proper therapy. It contains no irrevelant material. However, in this reviewer's opinion, it is unfortunate that clinical diagnosis received so little attention.

R.N.A.

Reminiscences of a Sabbatical Year Abroad

Wm. I. Morse, M.D., F.R.C.S.

Halifax, N.S.

The author and his family have just completed a year of Sabbatical leave from Dalhousie University most of which was spent in Edinburgh, Scotland. The experience was pleasant, interesting and profitable, and I would like to share a few of my impressions of this delightful year abroad with my medical colleagues.

We flew from Halifax to Prestwick, Scotland in July, 1962. Many of you will have had the experience that followed: one's first look at the Old World. The frequent old stone buildings, some of them older than the discovery of America, were a sight which delighted us. Without exception the countryside looked clean and cared for and we were impressed with the flower gardens in front of so many of the houses but behind the endless stone walls. Of course it started to rain before we reached Edinburgh. The Scots allowed they hadn't seen such summer weather for years (apparently they say this almost every year).

Almost every person we met in Scotland was courteous and obliging. For the most part they are happy people — although not above complaining— relatively unhurried and almost without exception strictly honest and frank. In some instances the broad Scots accent made communication for us just barely possible but an equally vivid impression was the richness of vocabulary and skilful choice of words employed by our many friends and acquaintances in Edinburgh. It became obvious to us that that beautiful old city housed more than its share of intelligent broadly educated people with a lively interest in world affairs.

We made the most of my wife's Scottish ancestry and soon had two of our children attired in the Macdonald of Clanranald kilt. That well known phenomenon both at home and abroad called Scottish Nationalism burned most brightly when we arrived at Culloden Moor and spied the same pattern on the kilt of the Custodian of the relics of this old battle field. After a lively

half hour in which Scottish history and possible ancestral ties were discussed we departed, it having been agreed by all present that in the eighteenth century or the twentieth Bonnie Prince Charlie deserved the allegiance of all true Scots.

We were particularly pleased with the schooling received by our five children. I am indebted to George Watson's College for their willingness to accept our three oldest boys and for the quality of the programme to which they were exposed.

Except for a discerning few, our speech regularly labelled us as Americans, and we gradually came to realise that our way of living is in so many respects similar to that in the U.S.A. that the average Scot or Englishman is not impressed by our claim to be different.

I spent ten profitable and pleasant months working at the Clinical Endocrinology Research Unit (Medical Research Council), a small part of this time being devoted to visits to other University of Edinburgh institutions and hospitals. In my fortunate circumstances this ten month appointment provided the sheltered environment, laboratory facilities and expert supervision which I needed in order to master the technical aspects of urine oestrogen analysis required by my research programme at Dalhousie University. I was received most cordially at the Clinical Endocrinology Research Unit by Dr. J. A. Loraine and his staff. Their friendliness and co-operation throughout the period of my stay is something I shall not soon forget. I received a great deal of help and advice from Dr. J. B. Brown, an internationally recognised authority on oestrogen-metabolism in health and disease, prior to his departure for Melbourne in September. I also had numerous helpful contacts with the five other senior scientists employed by the Unit, their graduate students and the technical staff. The publications from and present activities of the Research Unit certainly validated the reputation it enjoys in the clinical hormone assay field.

It appeared to me that the National Health Service has not interfered with the high calibre of clinical research for which Britain is well known. There are several Government supported Medical Research Council Units and certainly those with which I had contact are making valuable contributions to medical knowledge. The consultant physicians I talked with also seemed reasonably well satisfied with the National Health Service. Apparently the internist's income from the Government approximates that received by the surgeon from this source. The general practitioner, frozen out of the better hospitals and lacking adequate income by our standards, seems to have the worst of the deal, although I encountered not one of this group who would advocate throwing over the nationalized scheme altogether. It was agreed by all that the deterrent charge recently placed on prescriptions was a good thing, and I would like to add that every physician (and layman) I canvassed regarding a deterrent fee to be paid by the patient for each service rendered, conceded that the proposal had some merit. Our acquaintances from outside our profession seemed to like the Health Service almost without exception. The possibility that there was a need for changes in the scheme was never denied (some lacked sufficient knowledge to comment) and in a few instances the tax burden of the Service was considered part and parcel of the overall economic problem of the Nation. The services rendered to my family by

specialists and general practitioners while we were in Edinburgh were certainly very satisfactory.

While abroad, we also travelled in England, Continental Europe and the Middle East for about ten weeks. During this period we saw with our own eyes some of the World's best known wonders and a great many others that are less well known. The great pyramids of Egypt and the pre-Renaissance cathedrals of Europe speak louder than any words I could write of the creative possibilities within the human spirit when strongly motivated. The art and architecture of the Italian Renaissance is equally breathtaking. However, a visit to the new Coventry Cathedral will make it clear that modern man is also capable of remarkable and original contributions in this area as well as in science, technology, etc.

On the other hand, many will agree with us that Europe is overcrowded. For this and other reasons — not forgetting the beauty of our native land and the opportunities awaiting there — we were glad to be back when we returned to Nova Scotia in July, 1963.

Dr. James Robert Corston

Dr. J. R. Corston died at his home in Halifax on August 17, 1963.

He was born in Halifax on March 12, 1879, the son of James F. and Nancy McLellan Corston, and spent his entire life in his native city.

After attending the Halifax Academy he entered Dalhousie from which he graduated in Arts in 1898 and in Medicine in 1902. While at Dalhousie he was a noted athlete and a football star.

When he began his practice on Brunswick Street it was in a sense the Harley Street of Halifax. His medical confreres were independent individualists and many of them temperamental to a degree. That he succeeded in winning their regard and friendship was a tribute not only to his professional ability but to his honesty, diplomacy, and a keen and unfailing sense of humor. He soon developed a large general practice but his interests were mainly in the field of internal medicine.

Once established he began a long career of teaching in the Medical School, first as a lecturer in therapeutics and renal diseases, and after joining the medical staff of the Victoria General Hospital, in Clinical Medicine. At the time of retirement he was Associate Professor of Medicine and Clinical Medicine.

Dr. Corston belonged to a group of graduates of Dalhousie and the Halifax Medical College that was beginning to feel the strength of a worthy tradition. Up to the turn of the century medical education in Halifax had suffered a stormy passage. It was only after 1887 that teaching was placed on a sufficiently firm basis to give students faith in its adequacy. In consequence the graduates of sixty years ago felt a degree of loyalty to their school and to one another which contributed greatly to the success of both.

In addition to his many years of teaching Dr. Corston was for long a member of the Board of Governors of Dalhousie where his wisdom, diplomacy, and innate sense of what was right and good were a source of real strength to his associates. He had a deep and abiding love for his alma mater which was manifest in deeds rather than in words.

A Fellow of the Royal College of Physicians and Surgeons of Canada, he was also admitted to Senior Membership in the Canadian Medical Association. He was also a member of The Halifax Medical Society and of The Medical Society of Nova Scotia.

Although advancing years limited his activity he never regarded himself as wholly retired from practice, and "kept his hand in" as Medical Examiner for United States Immigration at Halifax.

The Bulletin extends its sincere sympathy to Mrs. Corston, an honored member of the nursing profession, to Dr. James McD. Corston of Halifax and to the remaining members of the family.

H.L.S.

THE LAST OF THE OLD BRIGADE

The death of Jimmy Corston removes the last of that devoted band who taught in the old Halifax Medical School — and the last of my teachers there. The fact that it is impossible to think of him by any other name than "Jimmy," the name he was universally called, gives an indication of the affection with which he was regarded not only by his old students but by everyone. He was also the last of that group of young Halifax doctors brought along and encouraged by Murdoch Chisholm and the Campbells that played so prominent a part in Halifax medicine and included Vincent Hogan, Kenneth MacKenzie, and H. K. MacDonald.

When I sat under him he was one of a dwindling band of medical heroes who saw the Halifax Medical School through its last and lowest days. It was due to his devotion — and that of Murdoch Chisholm and W. H. H. Lindsay — that the school survived at all in the face of the indifference and disdain of several of the local leaders of the profession. When Dalhousie took it over — and made being a member of its faculty fashionable — he continued to give it his teaching services. It is an indication of his unselfishness and modesty that when he did retire it was to make clear the road for younger men, to give up a prize his long service had earned for what he felt was the greater good. And to do that without bitterness.

He had the most cheerful personality of any member of the faculty. That chuckle, which bent his whole body over and brought his hand up at the end to only faintly suppress it, was never long absent and gave everyone a lift. I never heard him say an unkind or nasty thing about anyone: whatever he felt about the rest of us he refused to unburden himself in unkind criticism. There was great resistance to my appointment as head of a department. I am sure he felt, as did all the others, that it was unwise to entrust so much to one so young and untried. That did not prevent him from stopping his car on the street the first time he caught sight of me after the appointment to wish me well — something no other colleague did. He was not only a Christian, but worked at it.

Probably his greatest contribution to Dalhousie was as a member of the Board of Governors, on which he served for many years and to whose very inner circle he belonged. Because of his self-denying propensities, neither this nor any other of his important public efforts — including the long service he gave to the executive of the C.M.A. — ever got the credit it deserved. If he had a horn, he never blew on it, and I doubt if we will ever know the whole of what he did for us — for the profession, for the university, and in particular the medical school. For modesty brings no rewards in this, our highly competitive life. Nevertheless, it is fitting that we pause for just a moment to pay tribute to this self-effacing man — who was so **good** a man.

H.B.A.

Chronic Bronchitis: A Five-Year Follow Up*

When the fate of chronic bronchitic patients was traced five years after first diagnosis, it was found that the number of deaths was twice that expected. The excess mortality was due primarily to respiratory diseases. Deaths due to circulatory conditions were also excessive.

Many aspects of the natural history of chronic bronchitis have been subjected to scrutiny, but little attention has been paid to prognosis in terms of life expectancy. From the clinical standpoint, a knowledge of the likely outcome for individual patients is most desirable and, as in other potentially fatal maladies, this may conveniently be expressed in terms of five-year survival.

In this study the fate of a group of bronchitic patients of different ages and with varying severity of symptoms was sought after a lapse of five years. Their clinical state was assessed at the beginning and end of the period, and the number of fatalities and causes of death were determined as far as possible.

The series consists of 312 civil servants, mostly clerical workers, messengers, attendants, and industrial workers, who attended the Bronchitis Clinic of Bromptom Hospital during the period from March, 1951, to September, 1953.

The initial selection was based upon sickness records, which showed either three absences from work during one year with a diagnosis of bronchitis, or two such absences, each lasting more than two weeks.

Cough and sputum

The criteria for acceptance were cough and sputum for at least a year, though not necessarily continuous, which could not be attributed to any other important or precipitating disease of the respiratory, cardiovascular, or other systems. Disability from either breathlessness or recurrent infections was the rule, the method of selection being such that patients were called for interview as soon as they were observed to be having repeated sickness absences from bronchitis.

Altogether, 398 such patients were referred to the clinic. A full questionnaire, including history, physical examination, and roentgenograms of the chest, was completed in 312. At the end of five years, the survivors were recalled for a second clinical and roentgenographic examination.

Seven of the patients were untraced. Of the remaining 305, 96 had died at the end of five years, the certified cause of death being known in 92. The cause used in the analysis was the underlying cause which started the chain of events leading to death rather than the ultimate mode of dying. The greatest number of deaths was due to respiratory causes, a total of 57. The underlying cause of death in each of the 57 appeared to be bronchitis and/or emphysema. Cor pulmonale was listed in seven.

Cancer was responsible for seven deaths and diseases of the circulatory system for 18. The other deaths of known cause were due to cerebral vascular accidents (three) and motor accidents and a variety of other conditions.

Two hundred and eighty of the patients were men and 25 were women; 77 per cent of the men were between the ages of 45 and 64.

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*Reprinted from the Abstracts of the National Tuberculosis Association, October 1962.

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Degree of breathlessness

The clinical assessment at five years was compared with the degree of breathlessness at the patient's first interview.

Degrees of breathlessness were defined as *mild*, meaning no breathlessness or only at heavy work; *moderate*, meaning capable of light work, breathless on walking quickly or hurrying, able to climb 12 stairs without undue distress; *severe*, meaning capable of sedentary work, breathless on walking at moderate speed on the flat or climbing 12 stairs, or greater degrees of breathlessness.

The assessment of "same, better, or worse" was based on breathlessness only. Of the 305 patients followed for five years, 136 had mild, 95 had moderate, and 74 had severe breathlessness.

The proportion of patients in whom breathlessness was the same or improved was directly related to age and to severity of symptoms at the first interview, except in the age group 60 to 74, in which the moderately breathless fared rather better than the mildly breathless.

The gradient of mortality is steepest in the younger patients, becoming progressively less steep in the two older groups (50 to 59 and 60 to 74). The serious prognostic significance of severe breathlessness in young patients clearly is seen when their mortality is compared with that of older patients with milder degrees of breathlessness.

Ratio of observed-expected deaths

The ratio of observed to expected deaths in this survey was 4:2 in men, 3:3 in women. The respiratory and circulatory deaths together account for the excess mortality. The excessive number of circulatory deaths must be accepted as significant.

The ratios of observed to expected deaths fell with increasing age, a fact not easily explained. They suggest that bronchitis of sufficient severity to cause sickness absences runs a more rapidly progressive course in young adults than it does in later life, and the five-year death rate of 38 per cent for severely breathless bronchitics under the age of 50 is ominous.

The general pattern of clinical status after five years is to be anticipated. The proportion of patients in whom breathlessness was the same or better declined with advancing years and the death rates increased. A moderately breathless bronchitic in the fifties was found to have a roughly equal chance of being the same or better, worse or dead, after five years. These figures may then be taken in conjunction with the causes of death which suggest that, should he die, he has roughly an 80 per cent probability of dying from a respiratory or circulatory cause.

Personal Interest Notes

Misplaced Persons

In a recent issue our "layout" placed a note on change of residence to Ottawa of someone who certainly has never given his friends and confreres any indication of being moribund, in juxtaposition with the obituaries. Our attention was drawn to it in a letter from another "moved" person, commenting that though some people in Ottawa were often thought to be more dead than alive, the mere fact of having moved there should not actually qualify them as being deceased. Our apologies.

Lunenburg-Queens Medical Society

Dr. Thomas B. Hall has opened an office in Broad Cove, providing this area with a doctor for the first time in more than a year. A native of Bridgetown and Halifax, Dr. Hall graduated from Dalhousie in 1958. Following graduation he served as naval surgeon with the Royal Canadian Navy for five years one of them being spent at sea. Dr. Hall is married and has three children.

The last quarterly meeting of this Society was held at Kedge Lodge, Kedgemakooge, on Sept. 4th, Dr. L. C. Steeves represented the Executive Committee. Following the business meeting, a very interesting talk on the early inhabitants was given by Dr. Harry Smith. The members showed keen interest in Dr. Smith's display of local Indian relics.

Western Nova Scotia Medical Society

Our congratulations to Dr. R. P. Belliveau of Meteghan who has succeeded in landing two tuna fish this summer at Cape St. Mary's.

Our congratulations to Dr. J. T. Balmanno of Yarmouth who has been named first Commodore of the Yarmouth Yacht Club.

Our congratulations to Dr. F. Melanson of Yarmouth who was married recently. To him and his wife go our best wishes for a most happy life together.

We are glad to welcome Dr. A. J. Murchison as a member of our Society. He has taken up practice in Pubnico. Prior to this, the practice was looked after by Dr. A. M. Siddall who is now residing in Yarmouth.

We are also pleased to welcome to Yarmouth, Dr. George Burton who has returned from Montreal. He has opened an office for the practice of Obstetrics and Gynaecology.

Dr. R. B. Auld of South Ohio is certainly going all out in his practice of Medicine. He will see anybody even if it means going out by plane. The "Flying Doctor" certainly had nothing on him. He will look after "Rich or Poor"—Poacher or not.

(Ed. Note. Thank you South Shore correspondents.)

Doctors in the News

The Closing Banquet of the N. S. Branch of Canadian Public Health Association was held during September in Kentville. At this function, **Dr. Allan R. Morton,** until recently Commissioner of Health for the City of Halifax, was presented with a Membership Emeritus Certificate of the Association. The presentation was made by the President, Miss Caroline MacDougall of Port Hood, and the citation given by Miss Gwen Hopkins, Halifax.

Dr. W. H. Frost, who received his degree from Dalhousie in 1939, in Medicine and graduated later from Toronto, School of Hygiene, has been appointed chairman of the Northwest Territories Hospital Insurance Board. After some time at Camp Hill Hospital, and having been with the Department of Health and Welfare from the date of its formation, he was appointed assistant and finally Chief of the division of quarantine, immigration medical and sick mariners services at Ottawa.

Dr. J. G. Aldous, assisted by Mr. Fabian Harney, third year dental student has assembled an apparatus that uses chemistry and electronics to test and record acidity of urine drawn directly from the bladder by means of a catheter. Dr. Aldous stresses "This is not an invention. It is purely existing technology, applied to known medical problems. But we do expect it will make the treatment of metabolic disorders more effective."

Health Minister, Mr. R. A. Donahoe has announced that **Dr. L. D. MacCormick,** Sydney has assumed the position of director of the Cape Breton North Health Unit with offices in Sydney. Dr. MacCormick received a Diploma in Public Health from the School of Hygiene, University of Toronto, last June.

Marriages

Our best wishes to Dr. and Mrs. Ronald Sai-Cheong Pun who were married recently in St. David's Church, Halifax. Mrs. Pun is the former Miss Doris Lynn Bushell, daughter of Mr. and Mrs. S. A. Bushell, Halifax. Dr. Pun, a recent graduate of Dalhousie, is the son of Mr. and Mrs. Ping Kong Pun, Hong Kong.

Announcement of Meetings

Dalhousie Postgraduate Division Intra-Mural Courses:

Short Course in Psychiatry — February 3rd to 5th 1964.

Short Course in Surgery — March 2nd to March 6th 1964.

NEXT INTERNATIONAL SCIENTIFIC CONGRESS ON MENTAL HEALTH RETARDATION WILL BE HELD IN COPENHAGEN—AUGUST 7th - 14th 1964.

Stop Press: A very successful Short Course in Anaesthesia has just finished (Sept. 27th) 15 doctors were registered, 6 from Newfoundland, and the others from New Brunswick and P.E.I. as well as from all parts of Nova Scotia.

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