DALHOUSIE
JUL 15 1966
MEDICAL DENTAL LIBRARY

THE NOVA SCOTIA MEDICAL BULLETIN

Editor-in-Chief
DR. J. F. FILBEE

Board
DR. W. A. CONDY
DR. G. H. HATCHER
DR. G. R. LANGLEY
DR. R. B. NICHOLS
DR. I. E. PURKIS
DR. I. D. MAXWELL

Editorial Board

Corresponding Members
Secretaries of Branch Societies

Managing Editor
DR. C. J. W. BECKWITH

Departments
Personal Interest Notes
DR. R. B. NICHOLS
Thousand Word Series
DR. G. R. LANGLEY

Medicare – Maybe

There were few surprises in MR. MACEACHEN's address to the Halifax Medical Society which is published in this issue. The Government's four points required for any plan of Medical Care Insurance to be acceptable to them are well known, and with most there is little to quarrel.

He would do well, however, to ponder two principal facts - first the large body of experience that the present carriers of physicians' services insurance have accumulated in catering to over one-third of the populace. The Annual report of Maritime Medical Care Incorporated, also published in this issue is eloquent testimony to the efficient way in which this has been done over the last year in this Region. As a corollary to this, those who are able to pay their share of any scheme, (and these will principally be those who already support MMC,) should not be underrated.

It is a brave man, and an even braver politician, who offends a man's pride, and the majority of these who can pay are proud to do so. Why, then should advantage not be taken of this built in economy in the operation of any Government scheme, to the satisfaction of all. After all, it will cost the taxpayer less that way.

The other main fact is the availability of Medical manpower. As DR. T. C. GORMAN so clearly demonstrated in a recent issue of the Bulletin there are not now sufficient medical men in our Province for our needs, and even without Medicare the shortfall will yearly become more acute despite the best efforts of Dalhousie and other Universities to expand their output of medical graduates.

How, then can we hope to come even near the needs which must be demonstrated under a prepaid, universal medical care system? Let us then hear what solution the Hon. Minister has to this conundrum.

If we are to have MEDICARE in 1967 what is there left for the politicians to offer us?

DEADICARE in 1972?

WEDICARE in 1977?

FEDICARE in 1984? And then they will own us.

J.F.F.

THE MEDICAL SOCIETY OF NOVA SCOTIA

NOVA SCOTIA DIVISION
OF
THE CANADIAN MEDICAL ASSOCIATION

MEMBERS OF EXECUTIVE COMMITTEE

OFFICERS

President	A. J. Griffiths
President-Elect	G. McK. Saunders
Immediate Past-President	T. W. Gorman
Chairman Executive Committee	S. C. Robinson
Vice-Chairman Executive	F. G. Mack
Honorary Treasurer	C. D. Vair
Executive Secretary	C. J. W. Beckwith

BRANCH SOCIETY REPRESENTATIVES

Antigonish-Guysborough	G. Silver
Cape Breton	H. J. Martin, J. A. McPhail
Colchester-East Hants	H. D. Lavers
Cumberland	H. Christie
Eastern Shore	P. B. Jardine
Halifax	H. I. MacGregor, J. A. Charman, J. K. B. Purves
Inverness-Victoria	N. J. MacLean
Lunenburg-Queens	D. C. Cantelope
Pictou County	J. B. MacDonald
Shelburne	F. Markus
Valley	J. P. McGrath
Western Counties	R. P. Belliveau

OBSERVERS

Representative to C.M.A. Executive Committee	H. J. Devereux
Chairman Public Relations Committee	I. E. Purkis
Chairman Medical Economics Committee	D. C. Brown
Editor	J. F. Filbee

CHAIRMAN OF STANDING COMMITTEES

COMMITTEE	CHAIRMAN
Aging	A. A. Macdonald
Archives	D. R. MacInnis
By-Laws	J. E. Hiltz
Cancer	Ian MacKenzie
Child Health	B. S. Morton
Civil Disaster	S. H. Kryszek
Editorial Board (Editor)	J. F. Filbee
Fees	H. C. Still
Finance (Hon. Treas.)	C. D. Vair
Hospitals	J. A. Smith
Insurance	P. B. Jardine
Legislation & Ethics	H. K. Hall
Maternal & Perinatal Health	D. F. Smith
Mediation & Discipline	President
Medical Economics	D. C. Brown
Medical Education	J. A. McDonald
Medical Legal Liaison	I. D. Maxwell
Membership	M. G. Tompkins, Jr.
Mental Health	R. J. Weil
Nutrition	C. F. Brennan
Occupational Medicine	J. C. Wickwire
Pharmacy	A. F. Pasquet
Physical Education & Recreation	J.K.B. Purves
Physicians Services Insurance	President
Public Health	W. I. Bent
Public Relations	I. E. Purkis
Rehabilitation	L. S. Allen
Resolutions	F. G. Mack
Traffic Accidents	H. H. Tucker
W. C. B. Liaison	M. DeLory

BRANCH SOCIETIES

	PRESIDENT	SECRETARY
Antigonish-Guysborough	G. R. Greening	S. B. Donigiewicz
Cape Breton	D. S. Robb	H. R. Corbett
Colchester-East Hants	D. R. MacInnis	K. B. Shephard
Cumberland	J. A. McCully	J. P. Donachie
Eastern Shore	D. MacMillan	A. C. Marshall
Halifax	J. K. B. Purves	P. C. Gordon
Inverness Victoria	C. L. MacMillan	W. MacIsaac
Lunenburg-Queens	J. H. MacLeod	W. I. Bent
Pictou County	E. B. Skinner	W. D. MacLean
Shelburne	W. H. Jeffrey	S. Robbins
Valley Medical	D. McD. Archibald	D. H. Kirkpatrick
Western Nova Scotia	V. K. Rideout	M. Churchill

SECTIONS

	CHAIRMAN	SECRETARY
Section for Anaesthesia	A. A. Drysdale	J. Feindel
Section for General Practice	D. C. Brown	N. G. Glen
Section for Internal Medicine	C. Young	S. F. Bedwell
Section for Obstetrics & Gynaecology	D. F. Smith	
Section for Ophthalmology & Otolaryngology	D. K. Murray	J. H. Quigley
Section for Paediatrics	N. B. Coward	R. S. Grant
Section for Pathology	A. MacKenzie	A. J. Lewis
Section for Psychiatry	R. P. Parkin	L. Kovacs
Section for Radiology	E. B. Grantmyre	H. B. Sabean
Section for Residents in Training	R. A. Langille	
Section for Salaried Physicians	W. A. Cochrane	S. H. Kryszek
Section for Surgery	A. L. Murphy	C. H. Graham
Section for Urology	F. G. Mack	W. A. Ernst

Authorized as Second Class Mail by the Post Office Department, Ottawa, and for Payment of Postage in Cash.

Maritime Medical Care Incorporated

The Annual Meeting of the Board of Directors, Maritime Medical Care Inc., took place on April 6, 1966. Immediately following this the first meeting of the new Board of Directors was held.

Board of Directors M.M.C. Inc., 1966-1967

Director	Branch Medical Society Represented	Appointment Expiring
Dr. H. B. Whitman	Pictou County Medical Society	1967
Dr. G. W. Sodero	Cape Breton Medical Society	1967
Dr. P. R. Little	Colchester-East Hants Medical Society	1967
Dr. R. L. Aikens	Halifax Medical Society	1967
Dr. A. M. Lawley	Inverness-Victoria Medical Society	1967
Dr. P. S. Mathur	Eastern Shore Medical Society	1967
Dr. M. F. Fitzgerald	Pictou County Medical Society	1967
Dr. T. Mears	Shelburne Medical Society	1967
Dr. R. A. Burden	Cumberland Medical Society	1968
Dr. G. W. Turner	Valley Medical Society	1968
Dr. T. B. Murphy	Antigonish-Guysborough Medical Society	1968
Dr. H. F. Sutherland	Cape Breton Medical Society	1968
Dr. B. L. Reid	Halifax Medical Society	1968
Dr. F. G. Bell	Lunenburg-Queens Medical Society	1968
Dr. C. K. Fuller	Western Counties Medical Society	1968

Lay Members

Mr. J. A. Walker, Q.C.	—	Halifax	1967
Mr. J. Noble Foster	—	Halifax	1967
Mr. Victor N. Thorpe, Q.C.	—	Kentville	1967
Mr. David Zive	—	Halifax	1968
Mr. E. L. Miller	—	Halifax	1968

The Board of Directors elected -

Dr. H. B. Whitman — Westville — President
Dr. B. L. Reid — Halifax — Vice-President

The Executive elected are the Officers and -

Dr. F. G. Bell — Liverpool
Dr. P. R. Little — Truro
Dr. G. W. Sodero — Sydney
Dr. G. W. Turner — Windsor
Mr. J. A. Walker, Q.C. — Halifax
Mr. J. Noble Foster — Halifax

Annual Report of the President

Gentlemen:

I welcome you to this Seventeenth Annual Meeting of Maritime Medical Care Incorporated. In my capacity as President, it is my pleasant duty to summarize for you the major events which have concerned you during 1965.

Our Auditors have already discussed with you the Corporation's Financial Reports, however there are certain matters which I feel would bear emphasis and I have therefore chosen to comment on them at this time. You will note from the Corporation's Comparative Statement of Income and Expenditure that subscription income rose to over 4.8 million dollars in 1965, an increase of over $400,000 when compared with last year. When the interest earned from our investment portfolio is added to subscription income we realize that another milestone has been reached in that our gross revenue exceeded $5,000,000.00 for the first time. You will also note that our cost of claims has increased by $304,000 over 1964. Our net income this year was $329,512.00, compared with $176,825.00 in 1964. However care should be taken to correctly interpret the reasons behind this increase.

A detailed examination of the experience of the various plans that go to make up our operation reveals that the most significant change occurred in the Seniors' Health Plan, which as a result of remedial action taken by the Board in March 1965, has finally reversed its trend and instead of withdrawing $59,600 from the surplus account as it did in 1964, became a major contributor this year, with a favourable operating balance of approximately $68,400, a difference of $128,000. Our Supplementary Hospital Plan and Extended Health Benefit programs continued to show strength by increasing their contributions to reserves by $19,800. Income from investments rose by a further $20,300 during the year to $136,900 and now makes the largest contribution to our reserve position.

I will not deal with the administrative expense except to note that the increase from 11.6% of revenue in 1964 to 11.7% of revenue this year, was nominal. The General Manager will deal with the major factors affecting our administrative costs in his report.

Statement of Enrolment by Plan at December 31, 1965 with Gain or (Loss) over 1964 shown

Statement of Enrolment by Plan at December 31, 1965 with Gain or (Loss) over 1964 shown

		Gain (Loss)		Gain (Loss)
Comprehensive	49,315	940	142,556	585
Health Security	1,014	13	3,311	33
Individual	6,230	980	20,088	2,397
Seniors' Health	10,275	200	13,632	(5)
	66,834	2,133	179,587	3,010

The net increase in over-all enrolment compared with the same period in 1964 is discouraging as the above table shows a gain of only 2,133 contracts and 3,010 persons for the year. Actually this is quite misleading because during the year 1965 more new business was processed than in the previous year. Our main problem lay with the loss of our coal mining groups in Cape Breton on November 1, 1965, as well as the loss of a number of contracts in the spring of the year when the N.S.T.U. introduced a new medical plan for their members. Although we are gradually recovering our losses in the latter group it is not anticipated that we will be making any efforts to recover the former because of the nature of the agreement between the United Mine Workers and the Dominion Coal Company. The actual increase in number of families protected in 1965 can best be illustrated when our average monthly enrolment is compared with the previous year. In 1964 the average number of contracts protected each month was 62,746, in 1965 this average had risen to 66,386, an average monthly gain of 3,640 contracts.

I am pleased to report that the first quarter of 1966 has shown a further growth in enrolment.

The number of physicians supporting Maritime Medical Care through the signing of Participating Physician Agreements continues to increase each year. There are now 979 physicians enrolled compared with 944 in 1964. Relationships with our sponsor, The Medical Society of Nova Scotia, continue to show improvement.

The exchange of observers at our respective meetings, regular attendance by M.M.C. Directors and administrative personnel at Branch Society meetings, and regular Physician Relations Bulletins mailed to keep members informed of new developments, have proven helpful. An increase in the percentage of the Fee Schedule paid to our Participating Physicians, the elimination of certain fees from the negotiated list and increased Specialist benefits, have also played a part in improving our physician relations during the year. Our request for approval in principle of a Closed Participating Physician Agreement for Specialists was refused by the Medical Society for reasons already known to you. If we hope to make further additions to our range of specialist benefits it seems likely that we will have to ask our sponsors for reconsideration of this decision in the near future.

The announcement by the Provincial Medical Board that a Specialist Register was being prepared for Nova Scotia, was welcome news to Maritime Medical Care. We have felt for some time that responsibility for assessing the qualifications of specialist physicians should not be assumed by a "paying agency". In this regard you have agreed to use the new Specialist Register when published as the guide to establish the status of Participating Physicians insofar as reimbursement for services rendered to subscribers is concerned.

The disciplinary action taken by the Provincial Medical Board as the result of complaints lodged by this Corporation, was also encouraging. It is our hope that the availability of the Provincial Medical Board will help us curb abuses of our program.

The Medical Advisory Committee was formed during the year and held its first meeting. Several matters have already been referred to it by the Board for their consideration at their first meeting in 1966.

Prime Minister Pearson's announcement in July that a Medicare plan would be introduced for Canadians by July 1, 1967, was without doubt the major development in pre-paid medical care during the year. The announcement was followed by increased activity at Federal and Provincial level, both within the government and the doctor-sponsored plans. Your T.C.M.P. Commissioners were active during the year, attending special Commission meetings which prepared the important ground work for future activities.

Maritime Medical Care continued to co-operate with the Nova Scotia Medical Service Insurance Committee headed by Mr. Frank Rowe, by providing the benefit of its experience in the provision of medical care for Nova Scotians. Your Corporation also worked closely with The Medical Society of Nova Scotia during this very critical period in order that no action taken by the Plan would in any way conflict with the objectives of our sponsors. The wholehearted endorsation of M.M.C. as the fiscal agent for any program of Medicare in Nova Scotia by The Medical Society of Nova Scotia at its Annual Meeting in November, was very gratifying. The year ended with the decision to prepare a submission for the Minister of Public Health, which as you know was completed and presented to Mr. Donahoe in February. We are presently awaiting an invitation to discuss our Brief in more detail with the Minister and his Department.

Since the last Annual Meeting of the Corporation the Board of Directors have been called together on seven occasions and your Executive Committee has met four times. The Finance Committee has been active again this year as evidenced by the excellent state of our investment portfolio. This Committee held nine meetings since the last Annual Report. The Joint Study Committee has not met since the last Annual Meeting, because all matters affecting both the Plan and The Medical Society of Nova Scotia have been dealt with directly between the Board of the Corporation and the Executive Committee of the Medical Society.

Three of our Board members will be retiring this year. Dr. K. A. Fraser of Sydney Mines, who has represented Cape Breton Medical Society for the past two years, will be leaving us. He has proved most helpful to the Board in handling many of the important problems affecting doctors and subscribers in his area. I would also like to acknowledge the retirement of our immediate Past President, Dr. C. H. Young of Dartmouth, who has been a member of the Board since 1961. He has served on most committees of the Board during his terms as Director, as well as acting as our medical Commissioner for Trans-Canada Medical Plans. The Corporation's success in recent years can be attributed in no small way to his untiring efforts on our behalf and this year we have reaped the fruit of projects which originated during his two years as President.

Last but by no means least is Dr. D. F. Macdonald of Yarmouth, who has served this Board in many capacities. His name appears in M.M.C.'s Act of Incorporation and he signed the Roll as a Provisional Director at the first meeting of M.M.C. in 1948. He was a member of the original House of Delegates in 1948 and to the best of my knowledge has had the longest continuous association with the Plan of any physician in Nova Scotia. He has represented the Western Branch well and

I consider it a privilege to have been associated with him on this Board.

On your behalf I would like to express appreciation to our Management and staff for their dedicated service during the past year. We trust that this Board's approval of an Incentive Severance Program will indicate to them our sincere interest in their future welfare and our appreciation for their continuing efforts on behalf of the Corporation.

In conclusion gentlemen, may I express my personal appreciation to each of you for the cooperation, support and encouragement that I have received during the year. I have enjoyed working with you and I offer the Board my congratulations for a job well done.

Respectfully submitted,

H. B. Whitman, M.D.
President.

AUDITORS' REPORT

We have examined the balance sheet of Maritime Medical Care Incorporated as of December 31, 1965 and the statement of income and expenditure and general reserve for the year ended on that date and have obtained all the information and explanations we have required. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances, including verification of bank balances and investments.

In our opinion, and according to the best of our information and the explanations given to us and as shown by the books of the corporation, the accompanying balance sheet and statement of income and expenditure and general reserve, together with the notes thereto, are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the corporation at December 31, 1965 and the results of its operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.
Chartered Accountants

Halifax, N. S.,
March 17, 1966

Balance Sheet

December 31, 1965

(with comparative figures for 1964)

Assets	1965	1964
Cash on hand and on deposit	$ 109,892	$ 226,379
Accounts receivable	27,257	47,878
Prepaid insurance	475	356
Accrued interest on investments	38,000	32,453
Investments, at cost - quoted market value December 31, 1965 $2,629,056 December 31, 1964 $2,161,107	2,658,355	2,151,089
Investment of restricted funds	41,761	40,411
Inventory of supplies, at cost	11,429	10,230
Furniture and office equipment, at cost	76,697	74,155
Less accumulated depreciation	39,294	32,735
Net furniture and office equipment	37,403	41,420
	$2,924,572	$2,550,216

Liabilities	1965	1964
Subscribers' claims payable	$ 759,731	$ 682,646
Unpresented subscribers claims, estimated	196,735	234,630
Accounts payable	12,009	10,855
Trust funds - Province of Nova Scotia Welfare Plan	69,737	48,823
Subscriptions received in advance	154,814	107,348
Payable re railway contract, estimated (note 1)	113,499	138,000
Total liabilities	1,306,525	1,222,302
Restricted funds:		
Contingency reserve, re railway contracts	41,761	40,411
Retained by the Corporation:		
For stabilization of payments to physicians	416,275	368,812
Reserve for decline in market value of investments	30,000	15,000
Reserve for Employee Retention Plan	235,000	—
General reserve, per statement attached	895,011	903,691
Total retained	1,576,286	1,287,503
	$2,924,572	$2,550,216

Notes to Financial Statements

December 31, 1965

1. Effective January 1, 1965 the Corporation entered into a two year contract, in conjunction with similar medical service plans in Canada, to provide medical coverage for the employees of Canada's railways. The contract provides that at its termination the experience of the participating plans will be reviewed in order to determine the net gain or loss from the contract. The experience of each plan is then related to the experience of the group as a whole, and then appropriate financial adjustments are made among the plans. Based on the 1965 experience of the Corporation on this contract, it is estimated that at December 31, 1965 a refund by the Corporation to the participating plans of approximately $113,499 will be required.
2. Under the terms of the agreement between the Corporation and the participating physicians, the Corporation may, after the expiration of a twelve month period, cancel any unpaid balances outstanding on approved claims. The Board of Directors has passed the necessary resolution to cancel all such unpaid amounts to December 31, 1964. The unpaid balances of approved claims for 1965, have not been reflected in the financial statements. □

Epidemics of Tuberculosis

In a review of reports of 109 tuberculosis epidemics in 12 countries, adults were found to be the usual source of infection. None of the epidemics was caused by children with primary tuberculosis. Identification of the source case is essential to control of the epidemic

A review of 109 epidemics of tuberculosis in 12 countries, 84 (75%) of which were in schools, permits of certain generalizations about tuberculosis epidemics.

Any outbreak of tuberculosis results from a combination of circumstances. First, a large proportion of the group of individuals exposed to tuberculosis must be tuberculin negative. This state is usually associated with a lack of acquired immunity and is seen particularly in young children or in older individuals living in geographic areas where the tuberculosis rate is very low. The second factor is the presence of an individual who is a disseminator of tubercile bacilli, almost invariably an adolescent or adult with pulmonary tuberculosis.

The sputum of the disseminator usually contains many tubercle bacilli which can be detected on direct examination. Culture of the sputum yields a high colony count. In patients from whom the bacilli can be recovered only by culture, there are usually fewer colonies. Such patients are less likely to be contagious and are therefore harder to identify as the source of epidemics.

However, all patients with large numbers of living tubercle bacilli in their expectorations may not be of the same degree of contagiousness. It has been reported that the number of bacilli a patient discharges into the atmosphere depends not only on the number of bacilli in his sputum, but also on the fluidity of the sputum, the frequency and forcefulness of coughing and sneezing, and such factors as whether or not the patient covers his mouth when coughing.

An example of this was the rapid spread of tuberculosis in a military band in Great Britain. A 23-year-old clarinet player was found to have infected eight other persons connected with the band who developed active pulmonary tuberculosis.

Members of bands appear to exhale more air than the average person and with much greater force, probably keeping droplets airborne for a longer time, and producing a greater concentration of airborne bacilli.

Adults are Source of Infection

Most epidemics are traceable to adults with contagious tuberculosis. In schools the sources are usually teachers, but may be a bus driver or custodian, a cook or some other person who comes in close, even if brief, contact with the pupils. Many school epidemics also have been ascribed to older children or to adolescents with chronic pulmonary tuberculosis.

The potential contagiousness of children with primary tuberculosis has been questioned for many years. A child with recent pulmonary primary tuberculosis may be assumed to have a few tubercle bacilli in a gastric lavage. The question is whether this means that the child is contagious. Children with nonprogressive pulmonary tuberculosis rarely cough, and they do not expectorate. Therefore, they probably do not disseminate tubercle bacilli into the atmosphere. Many pediatricians have seen children with nontuberculous pulmonary disease spend months or years in hospitals with tuberculous children and not develop a reaction to tuberculin. In the present review there was not a single report of a school epidemic caused by a child with primary tuberculosis.

Another important factor in the production of epidemics is the environment in which the contact occurs. Overcrowding and lack of ventilation increase the chances of infection.

Spotting the Epidemic

The early recognition of an outbreak of tuberculosis depends on how quickly the physician or health authority thinks of tuberculosis when a number of people in a small area have fever of unknown origin. Once tuberculin tests and subsequent X-rays are positive, the presence of an epidemic becomes obvious.

Multiple cases of erythema nodosum have been of help in arousing suspicion. Although

Continued on page 178

Edith M. Lincoln, M.D. *Advances in Tuberculosis Research*; Karger, Basel/New York, 1965.
Reprinted from the Abstracts of the National Tuberculosis Association, June 1966.
Printed through cooperation Nova Scotia Tuberculosis Association.

Address to the Halifax Medical Society[1]

HONOURABLE ALLAN J. MacEACHEN

MINISTER OF NATIONAL HEALTH AND WELFARE

I am pleased to be able to accept your invitation to be with you tonight for your annual meeting. As you know, I returned only a few hours ago from Rome and some of you may diagnose a case of "jet exhaustion". I have noted news reports of research projects by a number of your colleagues which indicate that persons travelling by plane through various time zones invariably end up with their mental and physical processes a bit out of kilter. This, I am assured, is only a temporary experience and I trust you will forgive me if I perhaps appear not to have adjusted completely to the 24-hour day.

As the Nova Scotia representative in the cabinet I am, of course, doubly pleased to be here. Your invitation brings me to my home province and it also enables me to discuss some matters which involve me as Minister of National Health and Welfare and which are of vital concern to you as members of the medical profession.

This is my second public confrontation with your profession since becoming Minister and I am pleased it should be before a group which includes so many personal friends and colleagues from my university days. I have, of course, been meeting privately with members of your parent body, the Canadian Medical Association and I can tell you that they have argued the interests of your profession clearly, vigorously and sincerely. I should say too, that the Association is fortunate in having a man of Dr. Jones' calibre and competence as its president.

With Nova Scotians - in fact two Haligonians - heading both the CMA and the Canadian Dental Association (Dr. Christie), I must say that the professions are in exceedingly good hands.

Indeed, I was scheduled to meet with Dr. Jones and some of his colleagues in Ottawa yesterday but unfortunately, my duties in Rome and plane connections to Canada made it impossible for me to get back in time. However, I am looking forward to meeting them again in a month or so.

It has been said that a prophet is not without honor, except in his own country. Well, I am in my own "country" and while I will restrict my prophesying, you have already done me a great honor by inviting me to speak to you tonight.

Health Services

I am sure that your professional interests and my political and government responsibilities combine to make the subject of my speech rather obvious. One of the main and immediate concerns of my department is to ensure that all Canadians have access to the best possible health services regardless of their ability to pay. This, I am sure, is your concern as well. We have common objectives although we may disagree on the methods for achieving them.

As you know, the government of which I am a member is committed to legislation which will offer a program of prepaid medical insurance to all Canadians. We have come to the conclusion that the only practical and effective way to put health services of the highest quality within the reach of all Canadians irrespective of their financial status is through a prepaid, government-sponsored program.

The same conclusion was reached by a royal commission which spent almost three years examining Canada's health needs and seeking ways to improve and extend health services. The royal commission's recommendation for a universal, prepaid, publicly-administered system, was endorsed by all its members, including members of the medical, nursing and dental professions and a doctor who had been president of the Canadian Medical Association.

The commission, and the government, recognize the fundamental principle that health is not

[1]Delivered before the Annual Meeting, Lord Nelson Hotel, April 29, 1966.

a privilege tied to the state of one's bank account, but rather a basic right which should be open to all of us. I think we recognize, too, that while an individual's health is a highly personal affair in many respects, his or her physical and mental well-being is of direct benefit to the wider community.

These then are the fundamental points which I believe every Canadian can and does support.

The question is how best can we ensure that this goal is met. The federal government's proposal, as you may know, is to offer the provinces a sizeable sum of money to support provincial medical care insurance programs which meet certain established principles.

We have taken this approach because we recognize that, under our constitution, health is a provincial responsibility and, because of this, federal initiative in this field is limited to encouraging provincial action. This is an important point, but one which I am afraid has been lost sight of in some of the debate on this subject.

It might be much simpler and, to some, more politically attractive at least, to shunt these considerations aside and promise broad and direct federal action in this field. But, in practice, this would amount to little more than an exercise in futility, for it would mean making federal promises that are not within the federal power to keep.

Government, as has often been said, is the art of the possible. The impossible sometimes sounds better in some respects, but you are limited to just that - making sound.

I would stress, too, that our proposal is an offer to the provinces, not an order. As the Prime Minister has said on several occasions, we are not imposing anything on anyone. The final decisions rest entirely with the provinces.

I am extremely hopeful, however, that all of the provinces will see fit to accept this offer. We have made a significant amount of progress in discussing it with the provinces since the Prime Minister announced the federal offer last July. I personally have been encouraged by the course of these discussions to the point where I am confident that we will have a system of medical care insurance programs in operation by our target date of Canada's hundredth birthday in 1967.

I am not in a position to tell you this evening exactly what kind of a medical care insurance program you might have in Nova Scotia or, for that matter, in any other province. Again because of the constitutional jurisdiction, many of the features of any provincial plan have to be worked out by the provincial government concerned. What we have done in making our proposal is to set out four basic principles which, in our view, must form the foundation of any genuine medical insurance program. I am sure you are familiar with these four ground rules but perhaps I might run over them briefly and then return to the points which I feel are of particular concern to the medical profession.

Requirements of Provincial Plans

First, to be eligible for federal money, a provincial insurance plan should offer all services provided by physicians, both general practitioners and specialists, for the treatment of both physical and mental ills.

Secondly, the objective must be universal coverage.

Third, it must be a plan for which the provincial government takes full responsibility.

And finally, it must provide full transferability of benefits from one province to another.

Now, there has been some considerable debate and, at times, confusion, on the question of universal coverage. If I might, I would like to elaborate a bit on this particular point.

May I say first that the principle of universality is necessary to achieve the objective set out in the Hall Commission. Several other studies in Canada have reached the same conclusion. I think it fair to say that it also is supported by public opinion and governments in many other countries.

Some of the confusion on this point seems to rest with the relationship between universality and compulsion. The answer to this question lies, in the first instance, with the method used by any province to finance its share of its medical care insurance plan.

If this is done out of general tax revenues without a special premium - much in the same way some provinces do with hospital insurance - there is no direct compulsion on any individual. In this case, universal coverage means that the services must be available to all residents without exclusion because of age, economic circumstances or other pre-existing conditions.

If a province decides, on the other hand, to finance its share of the cost through premiums, then we would view universality in the same light as we have for hospital insurance. We have told the provinces we would consider coverage of 90 per cent as a satisfactory starting point, provided we could be assured the percentage would climb within two or three years to 95 per cent. This, in fact, was the experience in Ontario where premiums are used for hospital insurance. I might add that Ontario's hospital insurance program now covers more than 99 per cent of the population.

No Compulsion for either Doctor or Patient

"No matter what system of financing is used - and I want to stress this - there will be no interference with or compulsion in regard to the basic relationship between patient and doctor. Individuals will remain free to choose their own doctors.

they will be under no compulsion to use any particular service, *and an individual doctor will be free to operate outside the plan if, in his judgment, he can do so successfully.*"

This is one question which I know is of great concern to you as practising doctors - what impact or influence will a government-sponsored medical insurance system have on the doctor-patient relationship? There are a number of other questions which have been raised in connection with our proposals for health insurance. It is suggested, for example, that the introduction of universal medical care will cause the quality of medical practice to deteriorate, that the demand for services will place an unreasonable burden on the profession and that the rate of recruitment of doctors will decrease.

I would like to take a few minutes to deal with these questions, as straightforwardly and as objectively as possible.

As I said earlier, our proposals do not contemplate or require any interference with the basic doctor-patient relationship. This is an aspect of the program to which we have given a great deal of consideration during the planning period which led up to our proposals. In this connection, I may say that we have had many years of experience in our department during which several joint projects involving areas of medical care have been planned and developed on a cooperative basis with the provinces.

Existing Medical Care Projects

These projects - the cancer control program, for example, the home care programs - have been tried on a very large scale and have been very effective. Over the years, we have learned that in such programs - which are in every respect a form of government-sponsored health care - that the physician's freedom has not been curtailed; on the contrary, his participation as a member of the Health team has been strengthened. We have had enough experience to be able to say that whenever programs are built on sound planning procedures, the role of the physician is well identified and safeguarded, his many relations with patients are clarified in a way which benefits both the patient and the practitioner.

As well, I think, medical insurance removes an important barrier between doctor and patient; this barrier is a financial one.

I'm sure most of you, at one time or another have been aware of people who needed medical attention or advice but who refrained from seeking it because of financial considerations. And I say this without in any way reflecting on the dedication and selflessness of the medical profession. I grew up in a small town, where pennies weren't easily come by, and I know first hand of doctors who have neither asked for nor expected fees for much of their work.

But, by the same token, I also know, as I'm sure you do, of people who have put off seeking needed medical attention because they just didn't have the money to pay for it. This is a matter of individual dignity and personal pride, rather than any unwillingness on the part of the medical profession to treat people who they know can never afford to pay for the services.

Universal prepaid medical insurance will, I believe, remove this barrier to adequate medical care for a substantial segment of our population. And I am confident this can and will be done without in any way impairing the doctor-patient relationship. To ensure that this is so, it is important that the physicians be brought into the picture early, during the administrative planning stages. If this is done, as I am confident it will be, your profession will have every opportunity to defend itself and its role.

Also, if the scheme is well planned, the freedom of patients should be extended rather than hampered. Once financial barriers are removed completely, patients will be in a much better position to choose their physicians according to their specific needs.

Quality of Practice

What of the quality of practice under a comprehensive, universal medical care system? Will it deteriorate or be diluted, as some suggest? I do not think that the introduction of medical care, by itself, will either impair or improve the quality of medical practice. It has been stated, again and again, that the standards of service achieved by this - or any - program depend directly upon the human and material resources available, upon their organization for service, and upon the efficiency of their utilization ; a poorly designed or badly operated program can and would render the provision of good health services impossible.

On the other hand, the very nature of a nationwide plan - and this holds true for Canada - provides an unparalleled opportunity for the development of services which can satisfy the highest criteria of good medical care.

The objective of a well-planned and properly-executed medical care program should include the promotion of health, the prevention of disease and disability, the cure or mitigation of illness and the rehabilitation of the patient.

In countries where medical care programs are established on a universal basis and are supported by a strong service organization, the quality of care has usually proven to be very high.

One of the most serious obstacles in the way of adequate care for everyone is the inequitable distribution of professional personnel and hospital accommodation. I think you will agree that the

use of sound methods of remuneration for physicians providing medical care has already served to reduce the trend towards the concentration of professional personnel and hospital facilities in centres of population and wealth.

There are communities in Canada that could benefit greatly from a contributory medical insurance program. Some of them are in this province. I'm sure you can think of some.

I know of one community, not too far from here, which recently lost two doctors because they couldn't earn an adequate income. The community needed a doctor, there was no lack of patients and both doctors liked the area and its people and wanted very much to stay. But not enough of their patients could afford to pay for their services and the doctors moved to a larger urban centre. A universal, prepaid medical insurance scheme will, I feel, enable doctors to move into smaller, low income communities and still be assured of a steady, reasonable income. Also, it is possible in a public program to provide special incentives which will encourage doctors to practise in areas which may not have the attractions and security of large, thickly populated urban centres.

By the same token, a properly administered program of medical insurance should encourage young men and women to enter the medical profession. Proper working conditions, coupled with realistic remuneration, should attract new recruits.

As you know, the federal government has proposed a $500 million Health Resources Fund to help ensure that Canada has the facilities and personnel needed to provide adequate medical care. This fund, we hope, will over the next fifteen years, substantially increase the facilities available for training medical and para-medical personnel.

There is no question but that a comprehensive system of medical care will increase the demand for medical services; a great variety of training programs will be needed to meet these new circumstances and, through the Health Resources Fund, federal grants will be available for the construction, renovation and basic equipment of research establishments; teaching hospitals, medical and dental schools, and training facilities for other personnel.

Another point which has been of some considerable concern to your profession is that any program qualifying for federal financial support must be one for which the provincial government takes full responsibility. In other words, a federal contribution can properly be made available only to a plan which is publicly administered, either directly by the provincial government or by a provincial government agency.

The important points in determining whether a plan is publicly administered either by the provincial government or by a provincial agency, are, I would say:

. . . appointment by the provincial government and responsibility to the provincial legislature

. . . operation of the plan on a non-profit basis

. . . adequate provincial audit.

Now, you may ask, why cannot it be left to private carriers, free enterprise, if you like to provide this coverage or at least a portion of it?

I would point out first of all, that the criteria which we have put forward do not rule out the possibility of a province developing a two-tier system in which a doctor-operated plan acted in certain respects as the agent of a provincial department or commission.

This, of course, would still involve an elment of public administration and it is difficult to see how public involvement can be bypassed in a system which proposes to use such a substantial amount of money collected from federal taxpayers.

This money runs into several hundred million dollars and it is essential that there be a definition, by the federal government, of the purposes for which the money may be spent. And it is equally important to assure a satisfactory level of public accountability and responsibility for the administration and disbursement of the public funds involved in such a program.

A second reason for public administration and accountability is the desire to provide universal coverage under uniform terms and conditions. This implies that there must either be standard premium levels for families and individuals or graduated premium levels, based on income status.

I am sure you would agree that any system which allows varying premium levels - levels which would be based on the health risk or age status of the groups or individuals involved - would not be in keeping with the principle of uniform terms and conditions. This would not be true health insurance, since bad health risks would have to pay more than low risk groups.

Another important consideration is the administrative inefficiency and high costs of a system involving multiple carriers. As the Berry Study for the Hall Royal Commission pointed out, the administrative costs of the voluntary carriers range up to twenty-seven percent of total premium payments. In public programs - the Saskatchewan medical care insurance plan, for example - administrative costs are about six percent of total expenses. And, of course, the need for close regulation of the operations of the voluntary carriers by provincial authorities would further increase administrative costs.

These and other considerations, then, make it apparent that some form of public or quasi-public agency must exercise responsibility for the administration of the program; the relationship of this agency to a provincial government should preserve the principle of ministerial responsibility for the expenditure of public money.

Bearing this in mind, I think it is possible to work out a system of medical insurance programs which will be both equitable and acceptable to the medical profession, the provinces and the public generally.

There will be problems and difficulties, no doubt, but with the mutual understanding and co-operation of both levels of government and your profession there should be no bar to the achievement of our common goal - which is to ensure that all Canadians can obtain health services of high quality according to their needs for such services and irrespective of their ability to pay.

I thank you for your courtesy and kind attention and I look forward to further contacts with you and other branches of your association. It is always a rewarding and refreshing experience for me to meet and talk with professional groups and I only hope I can offer something of the same in return. □

Correspondence

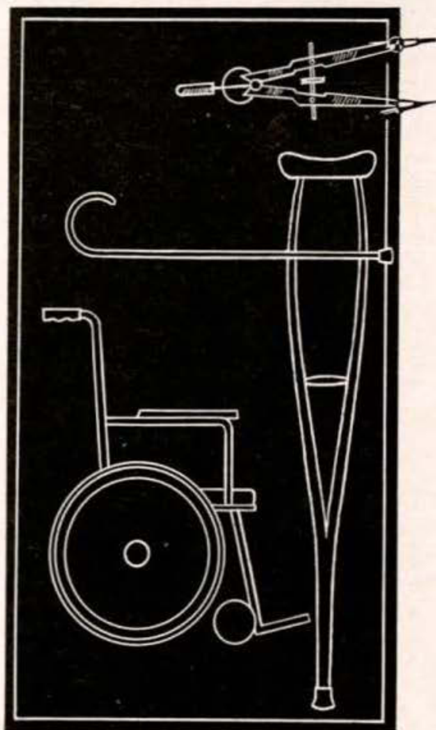
The Editor
Nova Scotia Medical Bulletin

Dear Sir

The Liaison Committee of the Workmen's Compensation Board would be interested in hearing from members of The Nova Scotia Medical Society who may desire to put before the committee any problems they have with the treatment and payment under the Workmen's Compensation Act.

Yours truly,

M. E. DeLory, M.D., Chairman
Liaison Committee
WORKMEN'S COMPENSATION BOARD □



designed for long-term, high-dosage salicylate therapy without gastric irritation

"ENTROPHEN" BRAND

The special "Polymer 37"* coating of "Entrophen" prevents the release of the acetylsalicylic acid in the stomach.

DOSAGE: One to four tablets every four hours.

Each "Polymer 37"-coated tablet contains 5 gr. of acetylsalicylic acid.

Bottles of 100 and 500 tablets.

**Patented 1959*

Epidemic of Tuberculosis

Continued from page 172

relatively rare today, erythema nodosum is still a valuable guide to an epidemic of tuberculosis. Often epidemics are suspected as a result of finding a sudden increase in the number of tuberculin reactors in a community.

Most recognized epidemics develop in an incredibly short time. In one Norwegian village, an itinerant juggler caused 54 infections within a month. In such instances, it is clear that the exposed population has little or no acquired immunity and that the individual who is the source of infection has numerous bacilli in his sputum.

The first concern of the physician faced with an epidemic of tuberculosis should be to identify the source case. In schools this should not be difficult if all the personnel and older students are surveyed by tuberculin tests and by chest X-rays of all reactors. If the source is not found, the search must be continued outside the immediate classroom.

An adult or adolescent with active chronic pulmonary tuberculosis should be sent to a hospital or sanatorium for adequate therapy. An adolescent with pulmonary tuberculosis should not return to school until his disease is stabilized and cultures of sputum have been negative for three to six months.

Caring for the Child

A child with symptomatic primary tuberculosis should be treated at home or in a sanatorium according to his medical needs and the ability of his family to give him adequate care at home. Students with asymptomatic primary tuberculosis should be allowed to stay in school provided they remain under medical supervision and take isoniazid daily for at least a year. The addition of PAS is a matter of opinion. Isoniazd is given primarily to prevent complications since no drug therapy is known to eliminate all tubercle bacilli from the body. Thus, following an epidemic all tuberculin reactors should have chest X-rays at yearly intervals for an indefinite period. Home contacts should also be examined.

The tuberculin test is the most valuable tool for tuberculosis control. It permits the classification of those who are unifected and hence susceptible to infection and those who have been previously infected with tubercle bacilli. As the rate of infection decreases, tuberculin surveys, with chest X-rays only of reactors, may become the method of case finding in adults as well as in children. It is essential to follow all the individuals known to react to tuberculin, particularly in countries with a low incidence of tuberculosis. Only in this way can pulmonary tuberculosis be found early, when it is most amenable to treatment.

EXECUTIVE AND SECRETARIAL DESKS

TYPEWRITERS, PHOTOCOPY AND DICTATING MACHINES

OFFICE AND RECEPTION SEATING

FILING EQUIPMENT

BURGLARY AND FIRE RESISTANT EQUIPMENT

CARPETS, DRAPERIES, LAMPS

We Service what we Sell.
May we help you?

Are We Missing Dislocations of the Hip at Birth

ANTONI TRIAS, M.D., F.R.C.S. (C)

Halifax, N. S.

An estimated 40 babies of dislocations and subluxations of the hip are born in Nova Scotia each year.

How Many will be Diagnosed at Birth?

The importance of early diagnosis in congenital dislocation of the hip (C.D.H.) has been established for many years. Treatment in new born cases yields almost 100% excellent results. However, when the treatment is started after two years of age, a completely normal hip is seldom obtained even after prolonged and difficult procedures.

The concepts on etiology, diagnosis and treatment of C.D.H. have greatly changed in the last few years.

It is now accepted that the "hip dysplasia" with changes of the acetabulum and upper end of the femur are secondary to an instability of the hip joint produced by hyperlaxity of the ligaments at birth in certain individuals. The effect of estrogens on the ligamentous structures of the fetus would explain the high predominance of female patients?

For early detection the classical signs are often unreliable or too late in appearance.

The asymmetry of gluteal folds may not be present, shortening of the femur or telescoping does not occur in subluxations and, when the Trendelenburg type of gait is observed, it is already too late for the ideal conservative treatment. Because of the delayed appearance of secondary nuclei of ossifications, X-rays are difficult or impossible to interpret at birth.

The diagnosis of C.D.H. rests on two simple and short tests conducted *at birth*; the Ortolani or clicking sign and the abduction test.

In countries, such as Scandinavia, where these tests are performed in *all* newborn babies, no C.D.H. has appeared in the older age group.

The Ortolani Test

The Ortolani test is the most important and should be carried out as described by Barlow[1] in *all newborn babies.*

"The test is made in two parts.

(1) The baby is placed on its back with the legs pointing towards the examiner. The hips are flexed to a right angle and the knees are fully flexed. The middle finger of each hand is placed over the greater trochanter (Fig. 1) and the thumb of each hand is applied to the inner side of the thigh opposite the position of the lesser trochanter (Fig. 2). The thighs are carried into mid-abduction, and forward pressure behind the greater trochanter is exerted by the middle finger of each hand in turn while the other hand holds the opposite femur and pelvis steady. If the femoral head slips forward into the acetabulum, the hip has been dislocated. If there is no movement of the femoral head, the hip is not dislocated. This completes the first part of the test.

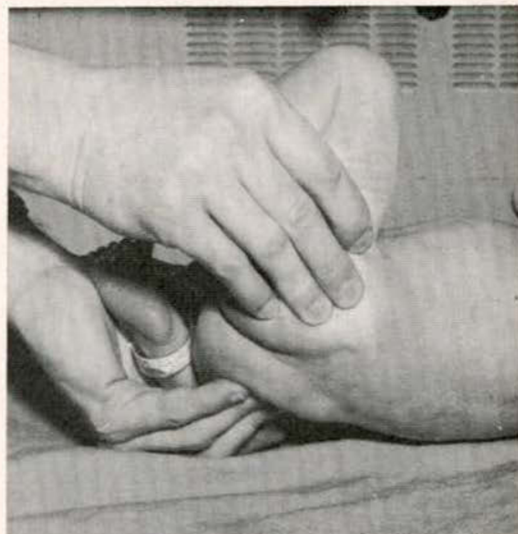


Fig. 1

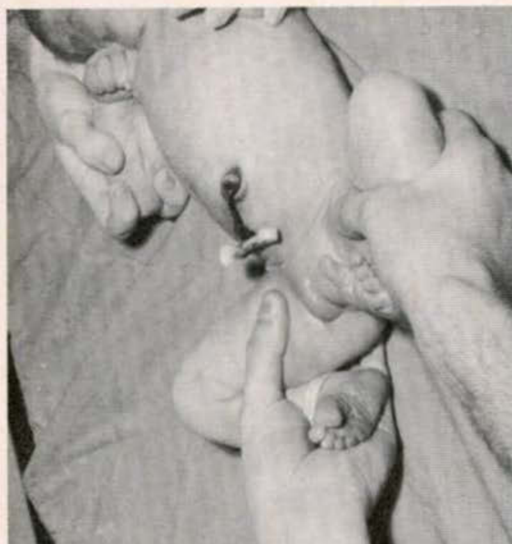


Fig. 2

(2) The second part of the test consists in applying pressure backwards and outwards with the thumb on the inner side of the thigh. If the femoral head slips out over the posterior lip of the acetabulum and back again immediately the pressure is released, the hip is "unstable" - that is to say the hip is not dislocated but is dislocatable.

In a doubtful case the stability of each joint can be further tested with the pelvis firmly held between a thumb on the pubis and fingers under the sacrum (Fig. 3).

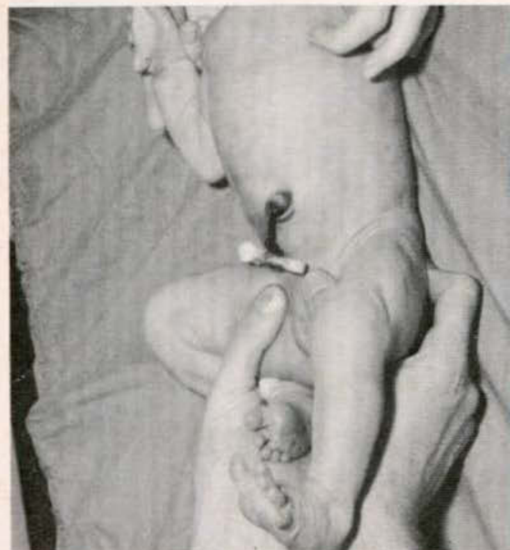


Fig. 3

This test is very reliable and can be used up to the age of six months. By that time the femora have become so long that it is difficult to reach the greater trochanters with the tips of the middle fingers."

Treatment

All "clicking hips" should be treated by keeping the legs in the position of abduction and lateral rotation.

This position is maintained by a spinal splint made from thin malleable strips of aluminum (Figs. 4 and 5).

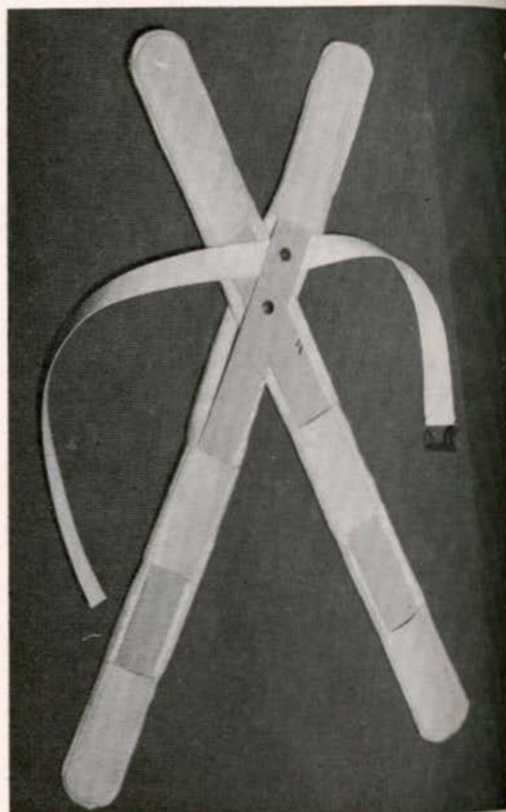


Fig. 4

The child can be tended by the mother and washed without being taken out of the splint. The splint is only kept on two to three months and no further treatment is necessary.

There are other splints available, such as the Van Rosen[2], which are as effective, simple and economical. The main advantage over the Frejka pollow is that they are not removed when diapers are changed.

Limitation of the abduction of the flexed thighs is the next most useful sign of C.D.H. It is easy to perform but not as accurate as the Ortolani or clicking sign.

Fig. 5

All suspected hip dysplasias should be X-rayed.

The problem of treating congenital dislocation of the hip is best solved by early diagnosis. If routine examination of the hips in *every newborn* infant can be established, the problems of congenital dislocation of the hip which have plagued us in times past can be almost completely abolished. □

References

1. Barlow, T. G., "Early Diagnosis and Treatment of Congenital Dislocations of the Hip." *J. Bone & Joint Surg.*, **44B**: 292, 1962.
2. Van Rosen, S., "Diagnosis and Treatment of Congenital Dislocations of Hip Joints in the Newborn." *Ibid*: 284.

WHEN YOUR OBS. PATIENT HAS ANTIBODIES

The Committee on Fetal - Maternal Incompatibility suggests the following outline of management:

1. Please submit blood from the husband to determine his genotype.
2. Blood from the mother should be submitted at monthly intervals until the 7th month, and every two weeks until the 8th month, and then weekly until delivery.
3. Amniocentesis should be considered at the 30th week - or before if the history is bad or the blood antibody titre is high at an early stage of pregnancy.
4. You are invited to contact the Committee on Fetal - Maternal Incompatibility,

5821 University Avenue,
Halifax, N. S.

Phone (collect) Halifax 422-6501 - at any time - and ask for the Obstetrical Resident on duty.

This Consultative Service is **free** and the Committee is most anxious to help in any way possible. The Committee meets every Thursday and if you wish to phone at about 12:15 noon on that day you can have direct advice from the Committee. □

DOCTORS WHO COUNT . . . . . .

(Their assets, we mean) and who refuse to be diverted from this pleasant task are generally the ones who also make sure that these assets are going to be present the next time they look. And how? Well, not by a single insurance policy but by the next best - a simple telephone call to

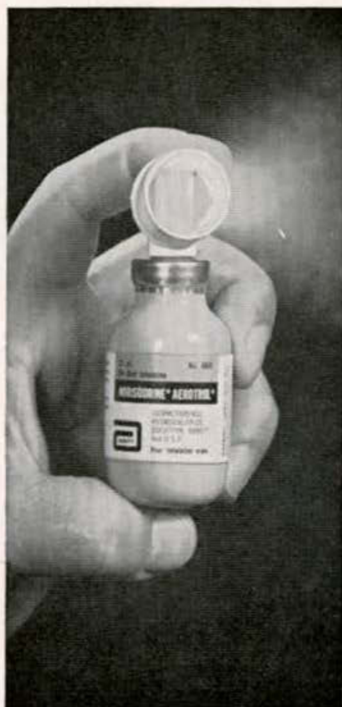
ALFRED J. BELL & GRANT, LIMITED

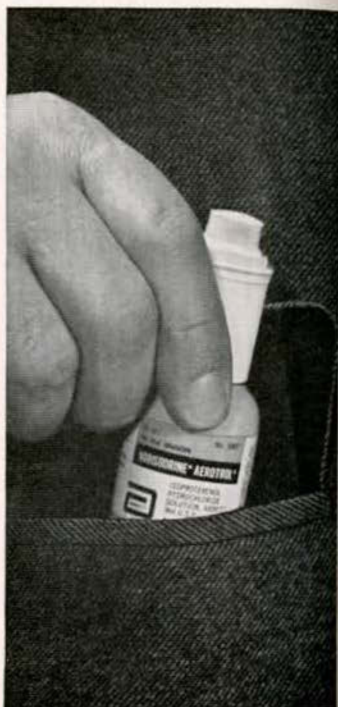
One Sackville Place, Halifax, N. S.

Telephone 429-4150

(We will help you count)

Norisodrine* in the new Aerotrol* sprays the full prescribed dose — instantly





...for effective bronchodilation.

No wasted dosage; the superior design of Aerotrol spray head prevents accidental discharge.

Active ingredient is provided as a true solution—permits Aerotrol to nebulize a controlled dose of 0.125 mg. for each inhalation. Absorption is fast; relief usually comes in a few seconds—often faster than with injected epinephrine.

Upright-use position makes the Aerotrol easy to conceal in public and delivers **all** of the 300 doses with precision.

Aerotrol can be assembled in 5 seconds, reducing patient's anxiety caused by fear of attack.

"Fastness" not seen with Norisodrine—makes it well suited for repeated therapy even in "epinephrine-fast" patients.

Precautions: Overdose may result in dizziness, palpitations, nervousness and tachycardia. These symptoms can be minimized by adjusting dosage for each individual patient. Administer with caution to patients with hypertension or other cardiovascular disease.

Also available: Norisodrine Suppositories and Syrup

*Norisodrine — Isoproterenol, Abbott *Aerotrol — Controlled-dose nebulizer, Abbott *Trademarks registered **Medical literature available on request.**

ABBOTT LABORATORIES LIMITED HALIFAX • MONTREAL • TORONTO • WINNIPEG • VANCOUVER

421Y-66

Mercy! Merci![1]

J. E. Hiltz, M.D.

Kentville, N. S.

It is good to be here today with you who are so interested in the prevention and treatment of tuberculosis as shown by your willingness to give up a goodly portion of a week-end in order to concentrate your thoughts upon the problems that this disease creates.

May I assure you that this meeting of the Nova Scotia Tuberculosis Association is not merely a carryover, by force of habit, of previous meetings held each year since the formation of the Association in 1947 and the Nova Scotia Tuberculosis Commission which preceded it in 1926.

Indeed no! We are not here only because it has been customary to hold a meeting each year but most especially because the needs of the tuberculous and the potentially tuberculous people are just as great in Canada and especially in Nova Scotia today as they were ten or fifteen years ago. In truth, they may even be greater as we seem now to be in the trough of a vigorous up-surging wave of tuberculosis in our Province.

One does not relish being a purveyor of gloom, a pessimist, a spreader of bad rather than glad tidings, because, for one thing, one could be wrong.

For the past number of years, reports of fewer new cases of tuberculosis and a declining death rate across the country have been engendering over-optimistic attitudes regarding the state of control of tuberculosis. Even the newspapers were beginning to suggest that tuberculosis was beaten and that soon it would be seen no more. Much worse, even some members of the medical profession were beginning to echo such ideas. A few of us, I am afraid, found ourselves crying in a wilderness with nobody listening when we pointed out that tuberculosis is a treacherous disease, it is a relapsing disease, it is a subtle disease which may not cause illness until twenty years or more after infection has taken place, and it is a disease which may now be caused by germs that no longer respond to our anti-tuberculosis drugs. It is just the type of disease that would make the most of a lull in antituberculosis activities caused by a complacent and somewhat heedless population composed of some patients indifferent to their active tuberculosis, complacent associates who could not bring themselves to believe that such infectious cases still existed, complacent health workers who sought other and presumably more challenging outlets for their energies, and even, I fear, on occasions complacent medical personnel who could not bring themselves to believe that patients would not always follow treatment as conscientiously or as long as prescribed.

What is the result today?

In Canada in 1965 there was a definite increase in the number of active cases requiring treatment as compared to 1964.

In Nova Scotia in 1965 we discovered 201 new active cases of tuberculosis compared to 168 in 1964. There were also 56 persons with healed tuberculosis in whom their disease became active once again.

Twenty-six Nova Scotians died of tuberculosis in 1965. Even the so-called "wonder drugs" could not return every known case to health or even arrest the disease.

In 1964, the death rate from tuberculosis in Nova Scotia was exceeded only by the provinces of Newfoundland and Quebec. Only Queens and Victoria Counties in our Province have not had a tuberculosis death in either 1964 or 1965. Only half our tuberculous deaths in Nova Scotia occurred in our tuberculosis hospitals. The remainder occurred at home or in general hospitals - a danger to home and hospital associates in many cases. There was only one tuberculous death in a person under forty years of age. One third of the deaths were among persons 50-59 years of age. Another third occurred in those patients who were over 70 years old.

In Nova Scotia, last year, 44 per cent - almost half - of our newly found cases of tuberculosis were 50 years of age or older when their disease was first discovered. Twelve per cent were under fourteen years of age. Tuberculosis, therefore, is both an old person's and a young person's disease.

[1] Report to Annual Meeting - Nova Scotia Tuberculosis Association - May 7/66.

On New Year's Eve, 1965, our tuberculosis case registers in Nova Scotia contained the names of 13,099 persons with tuberculosis, either healed or unhealed. In 573 cases, the disease was classified as active or at least had not definitely reached an inactive state.

Of the over 12,000 persons with healed disease, about five persons of each 1000 reactivate their tuberculosis each year - many becoming contagious once more and all requiring treatment again. This means that all 13,099 persons have to be assessed at least each year for the rest of their lives in order to detect any reactivation of disease as soon as possible before the disease becomes advanced once more and before the patient's associates are infected.

In Nova Scotia, 1.7 per cent of our population has or has had active tuberculosis. This varies from one per cent in some areas to two and a half percent in others.

Over 200,000 Nova Scotians have been infected by the germs of tuberculosis at some time in their lives as evidenced by a positive tuberculin reaction. Out of this group of about 1/5 of a million Nova Scotians will come three quarters of the new cases of tuberculosis which we shall have to treat each year. The other quarter of the cases will be new persons infected by them.

The Sanatorium in 1966 is smaller than it was ten years ago. It now provides only 192 beds. We thought that this would be a sufficient number. Of late we have had to put up extra beds for men and we have even put some men in the women's section of the hospital. During the past month there have been admitted to the Sanatorium a greater number of extremely far advanced cases of tuberculosis than have been seen for years. There have been children and young men admitted and also a man, aged 94, all with active tuberculosis.

My friends, I rejoice that you and your co-workers in our tuberculosis associations are still with us in strength. I fear that our tuberculosis situation is like an iceberg in that a large part of the problem is below the surface. Indeed, perhaps it is now in the process of turning upside down so that we may see that which has been hidden from many eyes.

On behalf of the official agency, the Department of Public Health, I wish to say a sincere thank you to the Nova Scotia Tuberculosis Association and all its branches and the wonderful people who make up these organizations. Without your continued interest, enthusiasm, and efforts in raising funds for case finding, for health education, for rehabilitation, and for research, we would be in a very sorry state indeed in this fair Province of ours. I assure you that we, in the official agency, could not and would not wish to go it alone. □

FORTY YEARS AGO

From the Nova Scotia Medical *Bulletin* July 1926

(From the report of the Annual Meeting held in Halifax, July 7th - 8th, 1926).

The biggest piece of new business was the Society's resolution to raise fifty thousand dollars to endow a chair of surgery at Dalhousie University to be known as the John Stewart Chair of Surgery. Dr. Stewart himself is to be the first occupant. We hope to have the pleasure of writing more fully on this most laudable project later on when the plans to raise the required amount are matured, and success is in sight. Surely no more fitting monument than a Chair of Surgery, and none more worthy of the purest and best sentiment of our profession than this grand old man, who strove throughout his more active life to make Surgery a sacred name, and who now in the mellow evening of his days holds in a plenary degree, among them that practise the healing art, that benign power that makes for righteousness and efficiency. □

BOOK REVIEW

A Primer of Water, Electrolyte and Acid Base Syndromes. 3rd Edition Goldberger Lee and Febiger 1965. The MacMillan Company of Canada Limited. $7.00.

This is a sound and comprehensive little book. Basic scientific principles are explained clearly and without excessive technical complexity. Practical clinical situations are not overlooked as in some more highly technical monographs. The sections on acid base balance are well handled and readable. Chapters are well organized and present an acceptable degree of detail in pathophysiological mechanisms. The author has managed to give the continual impression that a patient is close at hand and this is a fine asset in medical writing. It is further enhanced by practical suggestions as to the use of fluids, electrolytes, dietary factors, and other allied therapeutic agents. Controversial matters are stated as such with brief explanations of opposing views. Some clinical scientists might quarrel with therapy by instructional tabulation but there were no dangerous errors noted in this regard. One must conclude that the author speaks with both wide experience and authority.

A. J. McL. □

Carrying the Patient on Steroids Through Surgery

WILLIAM I. MORSE, M.D., F.R.C.P. (C)[1]

Halifax, N. S.

MAKING CHANGES IN STEROID DOSAGE

An adequate response to the stress of major surgery requires a marked increased in hydrocortisone secretion by the adrenal cortices. Failure of this adrenal response is likely to result in a stormy operative and post-operative course. A fatal outcome is not uncommon.

Before discussing the effect of steroid therapy on this important response it will be helpful to recall the normal servo (or feed back) mechanism by which the plasma hydrocortisone level controls adrenal cortical secretory activity. A *low* plasma hydrocortisone level signals the hypothalamus to secrete an ACTH-releasing material which is transported to the pituitary by a special portal circulation. The hypothalamic material stimulates ACTH release from the anterior lobe of the pituitary and this, in turn, causes hydrocortisone secretion by the adrenals. A *high* hydrocortisone level causes the opposite response and consequently cessation of adrenal secretory activity. The latter mechanism can be initiated by the oral or parenteral administration of hydrocortisone and the same result follows the use of cortisone or a variety of related synthetic steroids.

When carrying the patient on high-dosage, long-term steroid therapy through surgery, three important phenomena form a basis for management.

1 The dormant hypothalamic-pituitary ACTH-secreting mechanism tends to be unresponsive to the need for more hydrocortisone (and therefore, the need for ACTH to stimulate the adrenals) during surgery.

2 The dormant adrenals are less responsive than normal to ACTH although hydrocortisone secretion will often reach the desired level within a few days if the patient receives large daily doses of ACTH.

3 There is some evidence that the patient is less than normally responsive to hydrocortisone when his tissues have been exposed to high steroid levels over a long period. From this, one infers that more hydrocortisone (or related steroid) is required to protect the patient during surgery, the size of the required dosage increment depending on the amount of steroid administered during previous weeks.

These considerations made it imperative that the patient on a high-dosage steroid regimen be given even higher doses while being carried through surgery. Several specific situations deserve further comment.

High-Dosage, Long-Term Steroid Therapy

The Table below gives two examples of the way I usually handle this situation.

Cortisone dosage prior to surgery	150 mg/day	100 mg/day
Day of operation	400* " "	300* " "
1st post-op. day	300 " "	225 " "
2nd - 3rd " " "	250 " "	175 " "
4th - 5th " " "	200 " "	150 " "
6th - 7th " " "	175 " "	125 " "
Then resume	150 " "	100 " "

* Solucortef[R] dosage is shown.

Both patients were taking cortisone, the first in a dosage of 150 mg/day and the second 100 mg/day. I use hydrocortisone hemi-succinate (Solucortef[R]) parenterally on the day of operation. The 400 mg. received by the first patient was divided as follows. One hundred mg. was added to 500 c.c. of 5% dextrose in water and given as a slow intravenous drip during the operative procedure. The patient also received Solucortef[R] 100 mg. intramuscularly q8h starting 2 hours pre-op. If unexplained hypotension occurs - hemorrhage, arrhythmia, hypoxia, etc., having been excluded - I give an additional 100 mg. Solucortef[R] intravenously stat. (The same result can be achieved with intravenous and intramuscular dexamethasone

[1]From the Department of Medicine, Dalhousie University, Halifax, N. S.

phosphate and prednisolone acetate.) As soon as the patient can take oral medication, I shift to cortisone (or one of the synthetic steroids in comparable dosage). A q6h or q8h schedule is used. After eight days the patient is back to the baseline dose of cortisone (150 mg/day).

The second patient's management during surgery (see Table I) was generally similar except for the fact that lower doses of cortisone were used throughout. To generalize, I give approximately 3 times the previous steroid dosage on the day of operation and then gradually lower the dose to the original level during the following week.

Low-Dosage, Long-Term Therapy

T. S. Danowski and associates have carried a large number of patients on continuous, long-term, low-dosage steroid therapy (the equivalent of 25 mg. cortisone daily) through surgery and have found that it was unnecessary to increase the steroid dosage during the operative period[1]. My own experience with a small number of patients receiving low doses of prednisone suggests the same conclusion. Apparently the pituitary-adrenal axis remains fully responsive to the stress of surgery under these conditions, but - with our present knowledge - it is not safe to assume that continuous, intermediate dosage (e.g. cortisone 50-75 mg/day) is equally innocuous.

Intermittent High-Dosage, Long-Term Therapy

This group includes the patient receiving a single large dose of steroid every second day[2] and the patient on treatment for 3 to 5 consecutive days (followed by a 2 to 4 day break) each week[1]. There is evidence that these high-dosage, intermittent regimens are as efficacious as those which call for daily dosage[2]. Furthermore, it appears that both forms of intermittent therapy are unlikely to be associated with pituitary-adrenal hypofunction. Perhaps it is too soon to say that these individuals will cope with the stress of surgery without any increase in steroid dosage but this is a distinct possibility. For the present I would suggest doubling the previous dosage on the day of operation followed by a fairly rapid return to the original programme of treatment.

Following Cessation of Steroid Therapy

The best course of action in this situation is not yet clear. Graber and associates have published evidence that pituitary ACTH secretion recovers approximately two months after cessation of continuous high-dosage, long-term steroid therapy[3] However, in their experience the complete recovery of adrenal function required five to nine months. It is likely that this latter interval can be greatly shortened by the frequent intramuscular injection of ACTH gel for several weeks after discontinuing the steroid[4]. Where the ACTH gel programme has been used during the "weaning" period, it is reasonable to expect that most patients will evoke a normal response to surgical stress two months after stopping ACTH injections. Unfortunately, in a few exceptional patients, the pituitary-adrenal recovery period following the cessation of this type of steroid therapy is much longer. One should, therefore, be prepared to use Solu-cortef[R] if hypotension occurs during or following surgery whenever the individual gives a history of continuous, high-dosage, long-term steroid therapy within the past 12 months. If the patient reports symptoms suggestive of the "steroid withdrawal syndrome" (fever, anorexia, nausea, lethargy, arthralgia, fine desquamation, weakness and weight loss[5]) I would favor pre-operative testing of pituitary and adrenal function. Steroids would be used during surgery regardless of the time which had elapsed since cessation of steroid therapy if the functional reserve of either of these organs was inadequate. But if the urgency of the problem or other circumstances make it impractical to carry out pituitary-adrenal function tests, I would give steroids "prophylactically" during surgery to the patient manifesting possible steroid withdrawal symptoms.

Comparative Dosage of Steroids

The following is the equivalent milligram dosage of the widely used corticosteroids:

Cortisone	25 mgm.
Hydrocortisone	20 "
Prednisone	5 "
Prednisolone	5 "
Methylprednisolone	4 "
Triamcinolone	4 "
Dexamethasone	0.75
Betamethasone	0.75

There is no convincing evidence of a significant *qualitative* difference in the so-called "anti-inflammatory action" of any of the commercially available corticosteroid preparations[4]. For practical purposes the salt retaining activity of the different preparations is inversely proportional to their glucogenic (and anti-inflammatory) potency.

OTHER ASPECTS OF POST-OPERATIVE MANAGEMENT

Infection The unfavourable effect of steroid therapy on the host-parasite balance has special relevance in the post-operative period since many patients are prone to infection at this time. Unfortunately steroid administration also minimizes the objective signs and evidence of an inflammatory response. I recall one steroid treated patient who developed generalized peritonitis without manifesting either fever or localizing signs. The physician must be particularly careful to search for and treat masked post-operative infection in these individuals.

Impaired Wound Healing is another special cause for concern in the patient receiving large doses of steroids during the post-operative period.

Aggravation of Diabetes Mellitus The use of steroids may unmask latent diabetes as well as aggravate pre-existing diabetes. The patient is particularly prone to this complication following surgery and is more likely to require insulin at this time.

Potassium Depleting - Sodium Retaining Effect of Steroids It is wise to restrict sodium intake but to encourage the ingestion of high potassium foods (or solutions) during continuous high-dosage steroid therapy. The tendency to potassium depletion and sodium retention is likely to be greater during the post-operative period. A daily record of the types and quantities of fluids administered and lost from the body following surgery along with frequent measurements of serum sodium and potassium assist greatly in assessing the magnitude of these electrolyte problems.

SUMMARY

Desirable increases in steroid dosage while carrying the steroid-treated patient through surgery are discussed. The physiological basis for these recommendations is outlined. A dosage increment is imperative for the patient on long-term, high-dosage therapy but unnecessary when low-dosage (e.g. 25 mg. cortisone daily) has been used. In our present state of knowledge there is uncertainty regarding steroid dosage during surgery for the patient on intermittent, high-dosage therapy and the individual who has recently stopped taking steroids. For the present, some increase during the period of surgical stress is suggested for these two groups.

Attention is drawn to other aspects of post-operative management peculiar to patients on steroids.

References

1. Danowski, T. S., Bonessi, J. V., Sabeh, G., Sutton, R. D., Webster, M. W. and Sarver, M. E. Probabilities of pituitary-adrenal responsiveness after steroid therapy. *Ann. Int. Med.* **61**: 11, 1964.
2. Harter, J. G., Reddy, W. J. and Thorn, G. W. Studies on an intermittent corticosteroid dosage regimen. *New Eng. J. Med.* **269**: 591, 1963.
3. Graber, A. L., Ney, R. L., Nicholson, W. E., Island, D. P. and Liddle, G. W. Natural history of pituitary-adrenal recovery following long-term suppression with corticosteroids. *Trans. Assoc. American Phys.* **77**: 296, 1964.
4. Thorn, G. W. Clinical considerations in the use of corticosteroids. *New Eng. J. Med.* **274**: 775, 1966.
5. Amatruda, T. T., Jr., Hollingsworth, D. R., D'Esopo, N. D., Upton, G. V. and Bondy, P. K. Study of the mechanism of the steroid withdrawal syndrome. *J. Clin. Endocrin.* **20**: 339, 1960.

the product nobody needs... except

patients on restricted diets □ those who have faulty absorption □ convalescents □ the chronically ill □ any other patients whose condition predisposes to low vitamin intake or to increased vitamin requirements □

Each sugar-coated tablet contains:

Brewer's yeast concentrate	75 mg
Thiamine mononitrate	5 mg
Riboflavin	3 mg
Niacinamide	12.5 mg
Pyridoxine hydrochloride	1 mg
Vitamin B_{12}	1.5 mcg
Ascorbic acid	100 mg
Vitamin D	500 IU

DOSAGE: For prophylaxis: one or two tablets daily. For therapeutic use: one or two tablets three times daily.

Bottles of 30 and 100 tablets.

BEFORTE®

VITAMINS B WITH C AND D **TABLETS**

to prevent or correct nutritional deficiencies

® Registered trade mark

Personal Interest Notes

"DOCTOR RUSHED TO SEA TO ASSIST INJURED MAN"

Such was a press headline last month. It went on to tell that an 18-year-old lad had been struck by one of the large grab hooks which held the scallop drag, on his ship, a dragger off Georges Bank. A call was put in for assistance and a helicopter from Cape Negro flew to Barrington, picked up a doctor, took him to Shelburne, and the doctor then went out on a coast guard vessel to the scallop dragger whence the injured chap was taken to Shelburne hospital. 'Tis just another incident in the saga of medical practice in Nova Scotia.

A CENTURY IN CANADIAN MEDICINE

Nova Scotia is to be highlighted in a 30-minute color film commissioned by the Canadian Medical Association as a Centennial project. The film is being produced to show opportunities for medical students and help stimulate recruitment in the profession. To be called "A Century in Canadian Medicine", the film explores the advances in the medical field which have taken place in Canada since 1867 with special emphasis on the general practitioner. Mr. R. Barclay of Chetwynd Films with a camera crew visited the province May 30th to June 2nd. During that time a film was taken of the developing Sir Charles Tupper Building and the Eastern Shore Branch Society held a Branch Society meeting at the home of Dr. P. B. Jardine, which was recorded by the camera. The purpose was to contrast a small "grass roots" rural Branch Society with the General Council of the Canadian Medical Association thereby indicating the essential of communication within organized medicine. We shall be looking forward with interest to viewing "The Century of Medicine" as developed by the Canadian Medical Association through Chetwynd Films.

A five man Medical Care Insurance Commission was appointed recently by the government under the chairmanship of Mr. R. MacD. Black, Q.C. to report to the Health Minister not later than December 31 of this year. **Dr. T. C. Gorman** of Antigonish, immediate past president of The Medical Society of Nova Scotia, and **Dr. John D. Wickwire,** Liverpool are the doctor members of the Commission whose function is "to enquire into and investigate matters relating to the establishment, operation and scope of medical care insurance plans".

CAPE BRETON

Dr. D. S. Robb, was elected president of the Cape Breton Medical Society at the recent annual meeting at the City of Sydney Hospital. Other officers for 1966 include **Dr. N. F. MacNeill,** vice president. **Dr. H. R. Corbett,** secretary and **Dr. Gordon Simpson,** treasurer. Medicare, collective bargaining, and other matters pertaining to medical economics, and the proposed formation of a Nova Scotia College of Physicians and Surgeons were discussed. The President and Secretary were appointed to represent the Society at a meeting early in June to discuss the position of the Sydney steel industry.

Guests in attendance included **Dr. Tony Griffiths, Dr. C. J. W. Beckwith** and **Dr. John Williston** of New Glasgow, along with Mr. S. P. Brannen, general manager of Maritime Medical Care, Inc.

The Annual meeting and council session of the provincial society will be held in Sydney in November 1967.

Members to the Provincial Executive are **Dr. Douglas MacKenzie,** Sydney, **Dr. H. J. Martin,** Sydney Mines, with **Dr. N. K. MacLennan,** Sydney as alternate. Cape Breton Executive members are, **Dr. A. Green,** Glace Bay, **Dr. P. J. Guthro,** Sydney, **Dr. J. A. Roach,** New Waterford, and **Dr. P. S. Gardner,** North side. **Dr. A. L. Sutherland** - chairman of Public Relations. **Dr. A. Gaum** and **Dr. Frank Kelly,** Mediation Committee. **Dr. J. R. MacNeil,** alternate **Dr. J. A. MacDonald,** nominating committee to NSMS. **Dr. Watson Sodero** and **Dr. Harvey Sutherland,** delegated to MMC. **Dr. Beverley Trask,** chairman of the local postgraduate committee: **Dr. Kenneth Fraser,** and **Dr. John MacPhail,** General Practitioner members to Council of NSMS, while **Dr. J. A. MacDonald,** chairman **Dr. A. A. Macdonald** and **Dr. Donald MacKenzie** were appointed Committee for Medical Education.

LUNENBURG-QUEENS

Dr. Otto H. Horrelt is shortly commencing a post-graduate course in anaesthesia at the Victoria General Hospital. **Dr. Thomas H. Scantlebury** is taking over his office to commence practice in Bridgewater as a general practitioner.

CONGRATULATIONS

We extend congratulations to **Dr. Jean Cormier**, Sydney, who was one of ten Canadians of Acadian descent who were honoured by the State of Louisiana at a banquet in Moncton on June 4. Louisiana Senator, Dudley LeMcKeithon presented honorary certificates to the recipients Dr. Cormier and Prof. Alphonse Comey, Church Point were the only Nova Scotian residents.

Dr. **William Cochrane** received the $1000 Borden Co. Foundation award for research in nutrition.

Dr. **Donald O. Hebb,** a native of Chester, and a Dalhousie graduate has been elected a Fellow of the Royal Society of England, the only Canadian to receive the honour this year. He is at present professor of Psychology at McGill. He has attained international recognition as a result of his research, and his book "Organization of Behavior" has had a great influence on experimental research in Psychology.

Dr. **H. I. MacGregor,** Halifax, has been awarded an Upjohn Postgraduate Study Award for 1966 for $500.00.

Dr. **J. A. MacDonald,** Bay Medical Group, Glace Bay has been awarded a Schering Postgraduate Study Award for a similar amount. These awards provide for postgraduate study at acceptable teaching centres in Canada and U.S.A.

Dr. **Clyde Marshall,** administrator of the Mental Health services division of Nova Scotia's department of Public Health gave an address to the Canadian Mental Health Association at its recent meeting in Vancouver, B.C. He was presented with a CMHA national recognition award for outstanding public service in the field of mental illness.

Dr. **Arthur L. Murphy,** Halifax surgeon has won a special Canadian playwriting contest sponsored by the Hamilton (Ontario) Player's Guild. His three-act drama "Thy Sons Command", won the $500.00 award over 38 other entries, and will be produced by the Guild next season, and be the Hamilton entry in the Western Ontario League Festival. The play takes place in French Canada and describes the conflict between two cousins who run a common farm. One cousin is French, the other English.

Dr. Murphy has long been active in this field as well as in surgery. He is a past president of The Medical Society of Nova Scotia and was the recipient of the Canadian Drama Award in 1963. A three-character comedy by him, "The Sleeping Bag" will be premiered in July at the Neptune Theatre. He is one of five Canadian authors at work on a Centennial play which will be presented through Canada next year.

MEDICAL WOMEN'S INTERNATIONAL ASSOCIATION

Diagnosing causes of, and prescribing remedies for, the Free World shortage of medical personnel will receive priority attention of women doctors meeting in Rochester, N. Y., July 9-15, 1966, for the tenth Congress of the Medical Women's International Association.

An expected 1,000 physicians from 33 countries will hear reports on the status of women physicians now being made by national affiliates of MWIA and consider the implications of statistics forecasting a severe shortage of doctors by 1975 in a United States handicapped by one of the world's lowest ratios of women physicians, traditionally about 8 percent.

Speakers at the Congress will include Dr. Leona Baumgartner, former U.S. public health executive and advisor to foreign governments; Dr. Henrietta Banting, of Toronto, Canada, widow of the discoverer of Insulin; and others from five continents and Oceania.

Following registration on July 9, the Congress will travel a short sentimental distance from Rochester for its formal opening at Hobart and William Smith Colleges in Geneva, New York, the city where in 1849, Elizabeth Blackwell, an English immigrant girl, became the first woman to be graduated from an American medical school. Its concluding session on July 15 will be held in Niagara Falls, Ontario, Canada.

The Medical Women's International Association is believed to be the oldest of all international medical associations. It was founded in New York, October 21, 1919, at a dinner attended by 140 women doctors from 16 nations in honor of women physicians and surgeons who had served in France in World War I.

As early as the 1920's it concerned itself with such matters as tuberculosis and pregnancy, sex instruction and birth control. It has inspired and worked with its national affiliates in setting up hospitals and clinics for pediatrics and cancer detection in some less developed areas. In more recent years it has taken up problems of the aging and parent education.

Its current concern for helping close the demand-supply gap in medical personnel is related in statements by organization leaders to the existence of a large untapped reserve of interested and able young women who fail to achieve their ambitions for medical training.

Hostesses for the tenth Congress are the American Medical Women's Association and The Federation of Medical Women of Canada. Dr. Claire F. Ryder, of Washington, D. C. is general chairman. Dr. Fe del Mundo, of Quezon City, The Philippines, is president of the MWIA, and will preside at the opening scientific session, and at the Council and General Assembly meetings.

Births

To **Dr. and Mrs. John Curtis,** (née Dorothy Fornier), a son, John Andrew, at the Toronto General Hospital, on April 15, 1966.

To **Dr. and Mrs. Clair MacLeod,** (née Nola Clarke), a daughter, at the Grace Maternity Hospital on June 7, 1966.

To **Dr. and Mrs. T. Jock Murray,** (née Janet Pottie), a son, Brian Jeremy, at the Halifax Infirmary on Mary 31, 1966.

Obituaries

Dr. Thomas J. Khattar, 60, Glace Bay Medical Health Officer for 23 years died in St. Joseph's Hospital, Glace Bay on June 10th after a lengthy illness. He was a native of Sydney. He attended Sydney Academy, St. Francis Xavier University and the University of Edinburgh.

Dr. Wilfred MacNicoll, Lunenburg, died in Camp Hill Hospital after a long illness. He was born in Ontario in 1897, graduated from the School of Medicine, University of Toronto in 1929, after having served with the Artillery in the First World War. In World War II he served with the RCN. He took postgraduate training in Boston and practised in Hamilton, St. John's and St. Mary's, Newfoundland, and Goldboro, Nova Scotia, and for a few months in northern Ontario.

Dr. Elizabeth Balcom Davis, (Mrs. F. R. Davis), widow of the late Hon. Dr. F. R. Davis, Minister of Health and Welfare for Nova Scotia, died recently at the age of 80 in the Colchester Hospital, Truro. Dr. Davis graduated in Medicine from Dalhousie in 1911 and lived most of her life in Bridgewater where she practised as a general practitioner and Anaesthetist. Her father was the late Dr. P. H. Balcom of Aylesford. She is survived by two sons. □

General Practitioner Wanted

"General Practitioner wanted in the Town of Port Hawkesbury, Cape Breton, N. S. A good opening for a third G.P. in a growing town and large surrounding area, Interested party may write c/o P.O. Box 339 or 399 Port Hawkesbury, N. S."

General Practice Opening

Excellent future for energetic young general practitioner as associate in rapidly expanding general practice. Share overhead in newly equipped office. Equal time off to enjoy nearby accessible beauty, fishing, skiing and other recreational opportunities.

Apply to Box 105, The Nova Scotia Medical Bulletin.

ADVERTISER'S INDEX

Abbott Laboratories Limited 182
Ames Company of Canada Limited .... I.F.C.
Bell, Alfred J. & Grant Limited 181
British Drug Houses, The (Canada) Limited II
Frosst, Charles E. & Company 177, 187
Pitman-Moore, Division of Dow Chemical of Canada Limited .... O.B.C.
Poulenc Limited V
Robins, A. H. & Co. of Canada Limited III
Sandoz Pharmaceuticals VI
Seaman-Cross Limited 178
Searle, G. E. & Company (Canada) Limited IV
Warner Chilcott Laboratories Limited I