

# The NOVA SCOTIA MEDICAL BULLETIN

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## EDITORIAL

### AND I WITH YOU COMRADE

So many times, when I have listened to a clergyman deliver a stinging attack on the nameless multitude who do not come to church I have thought 'what a pity that these words fall only on the ears of the faithful!' Thus, as I write these lines, I know that only the solid core of faithful members will in any likelihood read them and so I am inclined to pitch my music to their ears and my exhortation to their efforts.

We are wont to increase our membership to improve our strength and finances. We need these strengths to better our chances of freedom or near freedom in the new order. The enslavement of one, we cry, is the enslavement of all! But the hollow repetition of these slogans echoing only in our own ears does nothing except rally our sometimes flagging efforts to the banners of the cause. How can we carry this message with conviction to the wayward and indifferent? You, gentlemen, must be the vehicle, and your surest motive power, friendship. Call some new colleague and offer him a lift to the next meeting; solicit his help with some chore for the Society. *Once he is asked, once he is made to feel wanted and useful, he is likely to become a happy and constant member.*

Are there advantages to being a member of the Society? Only those advantages which come with fellowship and a community of interest; with the freshness and flexibility of mind developed in consideration of, and debate on, problems of medicine in the process of change throughout the world and poised to impinge for good or ill on you and me.

Every branch should be given a list of its non-members and an effort made to get them in. Often this is futile, for the non-belongers were with us when the dues were ten dollars a year, they are not likely to be brought in today, Rand formula or no. It remains for those who do belong to enjoy their membership out loud, especially in the hearing of the free-loaders, to pay the dues promptly, (it only hurts for a minute) and to go to the meetings and express your thoughts.

"Why do you belong, doctor"? Because I admire the unselfishness with which so many of my colleagues participate and work, and even pay for it!

Those acolytes who serve the common weal,  
 No solemn dignities of Office feel,  
 But shieldless, fend what baneful strokes befall,  
 And trim the lamp, whose glow illumines all.

J.W.R.

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NOVA SCOTIA DIVISION  
OF

THE CANADIAN MEDICAL ASSOCIATION

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**THE BULLY WITH THE BARGAIN !**  
(WHAT'S MORE - THOSE ARE YESTERDAY'S PAPERS HE'S SELLING)

## MEDICAL SERVICES INSURANCE—NOVA SCOTIA

(A summary of the actions of the Medical Society of Nova Scotia on this subject, to date, is provided to give a background for the invitation extended in this release, to the physicians of this Province. ED.)

At the Annual Meeting of the Medical Society of Nova Scotia (Nova Scotia Division of the Canadian Medical Association) the following resolution was passed:

**“That the Medical Society of Nova Scotia at this Annual Meeting (1960) goes on record and is in accord with a plan for medical services insurance for Nova Scotia so that the highest possible quality of medical services will be available irrespective of income; and furthermore, the Medical Society of Nova Scotia believes that this can be brought about by the united efforts and co-operation of existing agencies interested in and responsible for the health of the people of Nova Scotia”.**

A special meeting of the Executive Committee of the Society was convened on September 10th, 1960 when the name “Special Research Committee” was decided on to designate the group to be responsible for the implementation of the foregoing resolution. The Executive elected the following members to the Special Research Committee:

Dr. J. A. MacDonald, Glace Bay	Dr. C. B. Stewart, Halifax
Dr. A. A. Giffin, Kentville	Dr. R. O. Jones, Halifax
Dr. J. W. Reid, Halifax	

The Executive Secretary is also a member of the Committee.

Dr. A. A. Giffin was elected Chairman of the Committee and the Committee has held five meetings to date. The terms of reference, proposed by the Committee and endorsed by the Executive Committee (February 4, 1961), are as follows:

(1) **That the Committee formulate a plan or plans which will make available to all people of Nova Scotia an adequate medical care service of high quality.**

(2) **That the Committee carry out such studies and investigations as may be necessary in the formulation of such a plan. Such studies will include the following, but may also encompass any relevant matters necessary to fulfill the purpose stated above:**

(a) **A consideration of the present methods of financing and providing medical care in Nova Scotia.**

(b) **A study of medical and para-medical resources, present and projected.**

(c) **An estimate of the major un-met medical needs.**

(d) **An evaluation of the factors responsible for such un-met needs.**

(e) A determination of the effectiveness of existing medical insurance plans, whether voluntary non-profit, commercial or Governmental, with respect to the extent of coverage for the insured individual and the extent of coverage of the population.

(f) An evaluation of the strengths and deficiencies of voluntary pre-paid, commercial and Government-financed care plans in other areas of the world.

(g) A consideration of the effect of such plan or plans on medical education and research.

(h) A consideration of the practical means of implementing the Canadian Medical Association statement of policy.

(i) A consideration of the extent to which financial assistance from Government might be necessary in providing adequate medical care services for the population.

A letter has been sent by the Assistant Secretary of the Special Research Committee of the Medical Society of Nova Scotia, to all Branch Societies, affiliated societies and other special groups within the medical profession of this Division, requesting study and comment on the subjects described in the Terms of Reference of this Committee. The Committee is anxious to have the views of individual physicians, particularly general practitioners, on the subjects detailed in the Terms of Reference, and invites for its consideration such views from individual physicians or groups of physicians with special interests. These communications should be directed to:

Dr. John O. Godden,  
Assistant Secretary to the Special Research Committee,  
c/o The Medical Society of Nova Scotia,  
77 University Ave., Halifax, N. S.

These should arrive as early as possible, but not later than April 30, 1961.

### MEDICAL LIBRARY FOR SALE

50-75 recent medical books and monographs to be cleared by physician leaving active practice. These are offered at a substantial reduction and must be disposed of before May 1st. These are a few of the titles:

Medical Uses of Cortisone — Leukens, F. D. W.

1955. then \$8.00 now \$3.00

Diseases of the Heart and Circulation — Wood, P.

1952. then \$10.00 now \$3.00

Viral and Rickettsial Diseases in Man — Rivers, T. M.

1946. then \$11.50 now \$4.00

ALSO

Periodical library.

Annals of Internal Medicine 1955 - 1961

American Journal of Medicine 1955 - 1961

and others

A list of titles and prices on request; write

"BOOKS"

c/o N. S. Medical Bulletin

77 University Avenue,

Halifax, N. S.

or PHONE: Halifax 423-8438

## A GUIDE FOR INDIVIDUAL CONTRIBUTORS

(At a meeting of the Halifax Medical Society on Wednesday March 8 the memorandum "Medical Services Insurance—Nova Scotia" was discussed. Several members objected that the terms of reference of the Special Research Committee were too vague to be answered specifically and did not assist the individual physician who wished to contribute. A member of the Special Research Committee said that the committee was not at a stage in its studies where a series of *specific* questions could be asked. The committee is collecting information on all topics related to its terms of reference but the contributions of individual physicians are needed to supplement the statistics. The meeting asked the Special Research Committee to provide an additional statement to assist the individual physician by outlining, in a definite way, the subjects upon which his opinions were needed. Ed.)

The outline, which follows, may assist the individual physician to organize his contribution to the Special Research Committee.

(1) **As a physician providing personal medical services in Nova Scotia, what are the major un-met medical needs of the people under your care? Are there persons in your community who are getting inadequate medical care or insufficient medical services at the present time? Can you name the five most important changes that should, and could, be made to improve the quality of medical care in your community? Are there other factors operating in your community that affect the quality or availability of medical services?**

[The answer might include a brief description of the community where you practice, including a comment on its economic status. The following data is valuable as background—your professional training—additional training, if any, that you think desirable for a physician in your situation—the nature of your practice and the range of services you provide—the other medical resources in your community—the adequacy and convenience of your local or referral hospital—the availability of specialist services and non-medical personnel (nurses, nurses' aids, etc.)]

(2) **Having defined the 'un-met' medical needs in your area, what factors are responsible for such un-met needs? Is there a need for:**

- (a) **A higher income, for the majority of our citizens, to allow them to acquire more medical services.**
- (b) **A wider distribution of pre-paid medical services such as Maritime Medical Care.**
- (c) **More general practitioners.**
- (d) **A new kind of general practitioner based on an improved 'community health center'.**
- (e) **Increased public health services.**
- (f) **Easier access to laboratory and specialists services.**

(3) **Has Nova Scotia enough physicians, enough hospitals and enough Medical resources generally if the people had access to them and used them efficiently?**

The individual physician has been asked to concentrate his attentions, at this stage, on items (c) and (d) of section 2 of the Terms of Reference. However, his comments on other items are welcome. This memorandum is the first communication from the Special Research Committee to the individual physician. Others may be necessary as the study proceeds and additional information will be provided through the pages of The Nova Scotia Medical Bulletin and through the Society's forthcoming Medical Newsletter.

THE 108th ANNUAL MEETING  
THE MEDICAL SOCIETY OF NOVA SCOTIA

In thinking about the 108th annual meeting of our Nova Scotia Medical Society, I recalled these words from The Canadian Boating Song written long before our first annual meeting:—

“From the lone shieling of the misty island, Mountains divide us and the waste of seas,

Yet still the blood is strong, the heart is highland, and we, in dreams, behold the Hebrides.”

We can make the dream a reality. As the old-country Scot thought nostalgically about the Hebrides, so do we, of New Scotland, regard our Cape Breton Isle—the land of the Gaelic tongue and the pipes and the Highland hospitality—and scenic grandeur unsurpassed! Let us gather there on June 12-13-14, 1961 at beautiful Ingonish at hospitable Keltic Lodge. We are striving for a record attendance and a good program is shaping up. Dr. Walter C. MacKenzie of Edmonton will be the special speaker on a surgical subject on the opening morning and will be the moderator in a surgical panel in the afternoon. The members of the surgical panel are:

Dr. E. F. Ross, Halifax

Dr. G. Watson Sodero, Sydney

Dr. Roy G. Munro, New Glasgow

Dr. M. Thomas Casey, Halifax

Dr. James T. Balmanno, Yarmouth

There will be Medical-Surgical and Obstetrical panel discussions Tuesday morning 13 June and in the afternoon Dr. A. A. Giffin of Kentville, Chairman of the Special Research Committee will lead a discussion on Health Insurance Trends Today. The Honourable Richard A. Donahoe, Minister of Health of the Province of Nova Scotia, will address us at a luncheon meeting. Ample social and recreational facilities for members and their wives are being arranged including a beach party, the President's annual reception and banquet and, finally, the Annual Ball. Plan for it, if you will, then when June 12 rolls around make it a reality and be there.

A hunger for the Highland heart of Nova Scotia, a need for a break from the grind of medical practice, a sense of fellowship with other physicians, involvement with other active members in the medical affairs of the day, all these are good reasons for making the effort to attend the 108th Annual meeting.

There are others:

—Come and protest any actions that have been, or will be taken, in your name with which you cannot agree.

—Come and oppose the whole idea of the Special Research Committee and its implied offer of co-operation with Government in the provision of medical services, if that's your view.

—Come and complain that the Executive is loaded with specialists and other “armchair” physicians—that's your privilege.

—Come and harass the officers of your Society, heckle the Executive Secretary, lambaste the Editor of your Bulletin, clobber the Public Relations committee, barbecue the management of the Maritime Medical Care—do anything—say anything—

**BUT COME !!**

N.B.—The General Sessions start Monday, June 12 at 9:30 a.m., arrival at Keltic Lodge should be planned for Sunday, June 11th. In completing your housing application, be sure to consider this.

## THREATENED MYOCARDIAL INFARCTION\*

F. MUNROE BOURNE, M.D., F.R.C.P. (C)\*\*

\*(This paper preserves the informality of a clinical discussion presented by an internist before a small group of actively participating and experienced general practitioners. This format makes for both pleasant and informative reading. Ed.)

Three weeks ago, I sat in the doctors dining room in Montreal, discussing with one of the senior physicians the death of his father. It occurred in this neighbourhood, but I rather doubt the attending physician is present today, as it occurred in 1920. My elder colleague, then a medical undergraduate at McGill, returned home for his holiday, and as usual began to go for walks with his father. "You will have to go slower, my son," he was told, "I can't keep up with you any more; I get a tight feeling in my chest." Shortly afterwards the father died suddenly. The diagnosis of the cause of death was "Acute dilatation of the heart".

There seems no doubt to any of us now that the father died of coronary thrombosis, and that the angina-like symptoms were a prodromal phase. But before we deplore the fact that this diagnosis was not recognized in this case, we must reflect upon the state of knowledge of cardiac disease at the time. Herrick had written the classic description of, as he called it "sudden obstruction of the coronary arteries" in 1912 (1); but his description of coronary thrombosis as a disease which is not necessarily fatal was apparently not widely appreciated. The first diagnosis of coronary thrombosis was made at the Montreal General Hospital about 1924. The E.C.G. was then just coming into use, and it was even a few years later that my father, Dr. Charles R. Bourne, who was a cardiologist, toured the Maritimes explaining tracings from this comparatively new instrument.

Now, the diagnosis of coronary thrombosis is one of the commonest, and a high proportion of hospital cases suffer from this condition. Recently particular attention has been paid to earlier symptoms of the condition, like the tightness of the chest on walks suffered by the old gentleman at the beginning of the paper. Diagnoses have been coined like "impending coronary occlusion", or "impending myocardial infarction", or even such a horrible term as "pre-coronary thrombosis"; but these designations are all inaccurate as *all* such cases do not go on to occlusion or infarction. Perhaps a better term would be "threatened myocardial infarction", but from reviewing the history of some of these cases, I am almost tempted to give them the name "creeping thromboses", as they creep up on patient and even physician before either is aware of the gravity of the illness.

When I returned on September 1st to the officers' ward at Queen Mary Veterans' Hospital in Montreal from my holiday, I found four cases of this type, and I have had at least two in my own private practice in recent months, so that when I was asked to speak to you today, I thought we could review these six cases and discuss them and recent knowledge about this phase of coronary artery disease.

CASE I: The first case is that of a Chinese life insurance salesman, aged 53, who was seen briefly on May 13th, 1960. He had moved some furniture and had a slight chest pain in the 24 hours before. There was no hint of shock and physical examination and E.C.G. were quite normal. On May 15th

\*Presented in part at the Semi-Annual Meeting, New Brunswick Chapter, College of General Practice, Sussex, N. B., Oct. 15, 1960.

\*\*Department of Medicine, McGill University.



he suffered from a retrosternal tightness lasting 15 minutes, some difficulty in breathing and profuse perspiration. He was admitted to the Montreal General Hospital, but again there was no shock and physical examination was negative. B.P. was 130/85. It being a Sunday, a second E.C.G. and a chest X-ray were ordered for the next day. I presume it is possible in all hospitals for a patient to have to wait some time for his turn for an X-ray; anyway, this patient had another attack of tightness of his chest while waiting in the X-ray department, and felt very sick. On return to the ward his blood pressure slipped down in a few hours to 85/50, but immediately recovered. The E.C.G. now showed ST depression in several leads. He was put on phenylindanedione, but the anticoagulation was discontinued after two weeks as he developed an urticaria. The course was very benign; he was up in the chair in ten days, and discharged home in 16 days. The E.C.G. went on to develop T wave inversion in leads 2, 3, AVF and V6; the whole picture suggestive of posterolateral infarction.

CASE II: The second patient is an officer veteran working for the Red Cross, aged 56. On August 15th, this year, he began to suffer from retrosternal chest pains, 3-7 times a day, radiating into the left arm, lasting a few minutes only. The attacks were not necessarily associated with exertion except that they might occur while he was driving a car. About August 25th he called one of the doctors at Queen Mary Veterans' Hospital who recommended hospitalization in spite of an essentially normal E.C.G. However, as his daughter was being married on Saturday, August 27th, the patient was permitted to postpone his admission till Monday, August 29th. In the interval nitroglycerine was ordered which at first gave relief. He weathered the wedding well enough, but at 3.00 A.M. on the day of his proposed admission he had a more severe pain than before, with sweating and weakness. Blood pressure was quite well maintained, but a 5 day fever, with the electrocardiographic signs, indicated an extensive anterior infarct. On anticoagulants he did well, and was discharged to a convalescent institution October 1st: i.e. after about five weeks in hospital.

CASE III: Another case is that of a postal official, an officer veteran, aged 59, who is a mild diabetic. His cholesterol had been found elevated last spring and an attempt was made to reduce this level by treatment. In early June, he began to suffer from chest pain relieved by nitroglycerine. The first pain occurred after a half-hour walk following a meal, but subsequent pains were not necessarily associated with effort. About August 25th the frequency increased from one every 2-3 days to 2-6 a day. Dyspnoea and sweating accompanied the pains.

He was admitted to Queen Mary Veterans' Hospital on August 30th and was allowed mild activity while being investigated. Anticoagulants (phenylindanedione and heparin at first, then hydroxycoumarin) were started. The E.C.G. on August 30th showed slight ST depression in V5 and V6, consistent with coronary insufficiency. On September 5th he had quite a severe pain, and the E.C.G. of September 6th showed further changes, the T being lower in lead I and biphasic in AVL. On September 23rd T's were up again in leads I and AVL, i.e. had changed toward normal. The patient continued to have anginal pain and he probably has coronary insufficiency. However, it is reasonable to think that his infarction, if there was one, has been much smaller because of the anticoagulant.

CASE IV: The next patient is another Officer Veteran, aged 45, now a Montreal business executive. Diabetes was diagnosed in 1946, and in spite of constant control, he has developed Kimmelstiel-Wilson's disease and a B.P. of 170/100.

On August 26th 1960 he developed mid-epigastric and substernal discomfort which he described as "gas pains", followed by loose stools. On August 29th he had a mild insulin reaction and again suffered from epigastric and substernal discomfort for two hours, accompanied by weakness. The attack continued whether he rested or moved about. In retrospect he remembered a similar attack one month previous.

He reported these episodes on August 31st when he paid his regular visit to the diabetic clinic. E.C.G. showed ST depression and low T's in practically all leads. He was admitted to Queen Mary Veterans' Hospital, put to bed, and started on anticoagulants. E.C.G. on September 2nd showed a return toward normal. There was no recurrence of pain in hospital. He was discharged on September 24th to continue anticoagulants. This case is included as one in which an occlusion may have been prevented.

CASE V: Another veteran, an ex-Naval Commander, had been in good health till July 26th, 1960, when, while mowing the lawn, he had a pain between his scapulae which radiated to both shoulders, left elbow and right upper arm and left anterior chest. The pain lasted 20 minutes, and returned on several occasions. Immediate E.C.G. showed T wave inversion in chest leads. He was referred to a cardiologist who on July 29th found E.C.G. normal; an exercise test was done and tracings after exercise showed no change in ST segments or T waves. He was allowed to play golf and on August 1st the pain recurred on the course. Some E.C.G. changes of which we have no record were noted and hospitalization was advised but patient refused; he agreed to rest at home. He had a history of bleeding ulcer, so no anticoagulants were given. However pains continued to occur even at rest and he was admitted to Queen Mary Veterans' Hospital on 6th August—over ten days after the first severe pain. E.C.G. was again normal, but on 11th August showed inversion of VI, V2 and V3, and was considered indicative of an early infarct. He was put on anticoagulants (heparin and phenylindanedione) in spite of the ulcer history, but satisfactory levels were not obtained and eventually on August 17th he had the severe infarction which had obviously been developing for over three weeks. He went through a fairly serious period, but eventually recovered reasonably well and was discharged on September 17th, anticoagulation to be maintained on hydroxycoumarin. Here is a case where noble attempts were made to avert the infarction without success.

CASE VI: The final case is that of a 49 year old man, the head of a department in a large department store. In May 1957 he had an attack of upper abdominal pain. Cholecystitis was suspected but gall-bladder X-ray was negative. In February 1960 he was seen for a general medical check and admitted some tightness of his chest on shovelling snow. E.C.G. was normal except for slight T wave depressions in leads 3 and VI which were not considered significant. On September 1st, 1960 he began to suffer from more severe pain, now situated in his right chest and the right upper quadrant of the abdomen, with radiation down the right arm. His usual blood pressure is about 150 but had risen to 190/115 on September 6th when he was seen for this new pain. On examination the heart sounds and pulse suggested bigeminy. Electrocardiogram the next day showed Q waves in leads 2, AVL and

V2. The T wave was negative in V2 and biphasic in V4. He was admitted and put under observation on anticoagulants, but had only minor symptoms. The blood pressure fell to 130/70 at one point but was usually 140/90. By September 13th the T waves were mainly upright. He was discharged to continue anticoagulants and to reduce (weight 212 pounds, height 5 ft. 9 inches). The gall-bladder X-ray was repeated and was again negative.

This case shows the possibility of confusion with abdominal disease. Also, it is possible that no infarction has occurred here, or if it has occurred that the damage has been minimal.

**SUMMARY OF CLINICAL MATERIAL:** No exact statistical conclusions have been drawn from these six cases. However, as they occurred in the experience of one physician in a period of a few months, and five of them in one month, they show that the phase of threatening infarction can be quite common. The histories show that these cases can run variable courses, and that there may be confusion about the diagnosis. Anticoagulant therapy was started in all six cases, and has been continued indefinitely in five of them.

#### DISCUSSION:

Prodromal signs of severe coronary disease have been described for centuries. John Hunter is reported to have said "I am at the mercy of any fool that chooses to annoy me", and sure enough, he died after a heated meeting in the Board Room of St. George's Hospital.

Herrick in 1912 (1), whom I mentioned before, Sir John Parkinson (2), and several others have mentioned the prodromal signs of coronary thrombosis. Levine (3) says—"On close questioning many will confess that during the preceding day or two they had not felt quite so well and may have had more or less mild discomfort in the chest". He goes on to indicate that one may suspect an impending thrombosis when a patient who previously suffered from controllable angina of effort begins to have longer attacks, possibly at rest, and not responding to nitroglycerine.

In 1951 Patrick Mounsey (4) from the British Post Graduate School found a history of prodromal pain in 40 of 139 cases of myocardial infarction. Various other articles have reported other proportions but the percentage is always substantial.

All authors make a distinction between the pain of angina of effort and that of acute coronary insufficiency or thrombosis. Just where in this picture do we fit the pain of threatened infarction? As we have seen from the cases quoted there is no really typical picture but we can say that where there has been some definite change in symptoms which might be due to the coronary arteries, an infarction may be in the offing. The change may be the onset of angina of effort in a patient who never suffered from it before, or an intensification of the angina in one who has suffered previously. The electrocardiogram may be of help, but frequently it is perfectly normal, and the clinician must rely on his clinical judgment for the immediate decision. Of course a series of electrocardiograms over a period of 7-10 days may tell the story, but though one attack may pass off without discovered myocardial change, the next one may lead to sudden disastrous results.

Interest in this phase of coronary disease was intensified when anticoagulants came into regular use, offering the hope that anticoagulation in the prodromal phase might avert the coronary thrombosis and reduce the incidence of death. One particularly good study of this possibility has been made in

Winnipeg by Beamish and Storrie (5), studying over the period from 1949-1959 a hundred cases with signs of impending myocardial infarction. 85 cases were treated with anticoagulants; but later this therapy was discontinued for various reasons in 29. 15 cases received no anticoagulants and served as controls. The anticoagulant used was phenylindanedione. Although he has not analyzed the cases in reference to heparin, Beamish urges the use of heparin in the initial stage because of urgency.

Of the 15 untreated "control" cases 14 infarcted and 11 died. Of these 11 fatal infarctions, the average period between diagnosis and death in 9 of them was 8 days.

Of the 85 patients who received anticoagulants, there were only 15 infarctions and nine deaths. Only two of the infarctions and none of the deaths occurred in the "acute" phase, i.e. in the first six weeks.

These figures give overwhelming evidence in favour of anticoagulant therapy in the "acute" phase.

The main complication of the series was haemorrhage. In 27 patients this was of minor degree; in 10 cases it necessitated hospitalization. In no case was haemorrhage the direct cause of death.

Of course, it must be admitted that this is one point of view. There are papers coming out from time to time challenging the value of long term anticoagulation (6). But personally I feel that this is the type of case in which the value of anticoagulation can be questioned least. One problem which always comes up when we discuss institution of anticoagulant therapy is when to stop. When we have hold of a bear's tail, when can we let it go? For most of us, a start in anticoagulant therapy means continuation indefinitely, or at least until a complication intervenes. On the other hand, some of the better controlled recent series tend to show that the first six months to two years after an infarction constitute the most important period (7) (8) and it may eventually be shown that this is also the case after a threatened infarction.

Another question which might be brought up is that of exercise tests; that is, whether they are justified to establish the diagnosis. There may be some place for step tests in insurance work in assessment of suspected angina cases, but even there a thrombosis has occurred as a result of the test. As you have seen in one of the quoted cases, a sort of exercise test was inadvertently applied when the Chinese patient was sent to the X-ray with apparently unfavourable results. I do not consider there is any place for an exercise test where there is any suspicion of impending infarction. Nor do I believe an exercise test will give any information which is not afforded by clinical judgment, leaning towards the careful side, plus serial electrocardiographs.

Treatment undertaken in an attempt to avert or abort a threatened infarction need not interfere with treatment of such underlying conditions as hypertension or hypercholesterolaemia. Treatment of hypertension with chlorothiazide or allied compounds may conveniently be carried on with anticoagulant therapy. However, *marked* hypertension may be a contraindication to anticoagulants. In the long run, something may be achieved in treating the hypercholesterolaemia with diets low in animal fat, and possibly, if their value is proven, with some drugs.

Finally it must be remembered that today we have not really considered any new condition, but have only approached an old one from a new point of view. Angina of effort, coronary insufficiency, acute myocardial infarction and threatened myocardial infarction are all phases of coronary artery

disease. But the last-mentioned phase is one which offers a hopeful possibility of prophylactic treatment.

#### SUMMARY

Six cases of coronary artery disease are presented which passed through the phase of threatening myocardial infarction. Occurring in the experience of one physician in a few months, they emphasize the fact that this stage may commonly be encountered in practice. Some of the literature is reviewed. The view is expressed that this phase offers an opportunity of preventing or minimizing the infarction by prophylactic treatment.

The author wishes to express his thanks to Dr. G. W. Halpenny, Chief of Medical Service, for permission to publish the reports of the four cases from Queen Mary Veterans' Hospital; also to Dr. Albert Lapin, D.V.A. Cardiologist, who saw these same cases in consultation, for encouragement and advice in preparation of the paper.

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TWILIGHT OF MAN. Hoota, E. A. New York, G. P. Utnam, 1939 Page 304. (Reprinted from *Circulation*: 22: August 1960).

"I ask whether medical science is prepared to accept the responsibility for the reckless deterioration of human stock which it promotes by lavishing its skill and care upon the preservation of the unfit, when it takes no measures whatsoever for beginning the study of human inheritance by which alone permanent improvement of the species can be anticipated. I call upon this profession which is actually directing the course of human evolution downward, to reflect upon the wages of biological sin.?"

L.C.S.

## SOME PROBLEMS IN BREAST SURGERY

GORDON W. BETHUNE, M.D., F.R.C.S. (C)\*

Some of these problems are met with frequently, while others occur rarely. The major difficulty in discussing them is that individual opinion plays such a large part in deciding on treatment. Consequently, all the possible answers for some of these problems cannot be given, but only recommendations for what might be considered a good method of treatment.

Let us list the specific problems as questions, and attempt to answer them and their related uncertainties.

### A.—*What is the treatment of a lump in the breast of a pregnant woman?*

A casual, but accurate answer is that the treatment should be the same as if the patient were not pregnant. If the lump is of such a nature that *immediate* biopsy is indicated, it should be done. If the lump proves to be benign, no further problem arises. However, when the biopsy shows a carcinoma, special considerations in treatment arise.

The chance of cure in such a case is small. Some clinics report that no pregnant women with breast cancer are cured. Other clinics report a five year survival rate as high as 25%, which is still poor. There are several reasons for the low cure rate. First, estrogen has a marked effect in stimulating the growth of some breast cancers. With the very high level of circulating estrogen in pregnancy, such growth stimulation may be of great importance.

Another point is the difficulty of detecting and determining the nature of a thickening in the breast during pregnancy. In the pregnant woman the duration of tumors before treatment is much longer than in the non-pregnant. This is probably due to the assumption that any thickening felt is only physiological. Consequently, the lesion may not be mentioned by the patient (or found) until late.

Now, what should be the treatment? Such patients should not be considered incurable. Each is assessed on individual examination. If the growth is operable by strict standards of operability, a radical mastectomy is done. Otherwise there is no chance of cure.

Several questions arise at this point:—

1. If the growth is operable, should the patient have an abortion done, either before or after the mastectomy?
2. If operable, should an oophorectomy be done in addition to the abortion?
3. If inoperable, should an abortion or oophorectomy be done?

Such problems become less difficult if a few facts are kept in mind. First, it must be remembered that abortion and oophorectomy are palliative only. Neither procedure will cure the patient, nor prevent a recurrence. The best that abortion or oophorectomy can do is slow the speed of the growth for a few years in 20-35% of the patients. If the patient's cancer is already cured by mastectomy, removing the sources of excess estrogen stimulation is not indicated. On the other hand, if the cancer is *not* cured by mastectomy, then abortion or oophorectomy will slow the development of metastases in perhaps a third of patients. This is a worthwhile palliation. The situation should be explained to the patient, and she should take part in the final decision,

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since this decision may be influenced by social, religious, or other personal factors.

It should be kept in mind, however, in treating the pregnant patient with an inoperable breast tumor, that if some endocrine obliterative procedure is not carried out, the carcinoma will probably grow and spread much more rapidly than when the sources of estrogen are eliminated.

B.—*Is "Prophylactic Oophorectomy" advisable?*

This term is generally taken to mean an oophorectomy (either surgical or by radiation) performed in conjunction with a mastectomy for a presumably curable breast cancer. The same reasoning may be used here as in the preceding problem. Removing *one* of the sources of estrogen, i.e. the ovaries, will have little bearing on the cure of the patient. There is no convincing evidence that this procedure will improve the cure rate, although survival rates may be somewhat lengthened.

C.—*Is it inadvisable for post-mastectomy patients to become pregnant?*

There is no one answer to this question. In general, such patients are advised not to become pregnant until three years have passed from the time of mastectomy. This time limit of three years is given because (in women of this age group), if a metastatic lesion is going to appear, it usually does so in this time. Pregnancy before this time can stimulate the growth of metastases and markedly shorten the survival time.

D.—*What is the treatment for lumps in the male breasts?*

The answer depends on several factors:—

*First*, the age of the patient, and, *Secondly*, the certainty of your diagnosis of the lump by clinical examination.

Lumps in the male breast are commonest in two age groups:—Early adolescence, and in the elderly. (I have not included the physiological sub-areolar thickening noted in babies).

Lumps in the breast of boys around the age of fifteen are quite common. The cause is unknown, but is usually said to be a manifestation of hormone dysfunction. Nevertheless, such sub-areolar lumps are frequently painful, and a cause of worry to the patient. They usually disappear in several months, and reassurance is all that is required. If they are persistently painful, or if, by their size, cause embarrassment, they should be removed through a circumareolar incision. It is not necessary to remove the areola.

In men of the "cancer age", the problem is different and more difficult. Men of this age also may develop a sub-areolar thickening which is physiological. It usually disappears in several months. However, if there is any suspicion of malignancy, immediate biopsy is done. If carcinoma is found, immediate radical mastectomy is the treatment of choice if the lesion is operable. Even in early cases, the prognosis in male breast cancer is not good.

Benign hyperplasia (or gynaecomastia) of the male breast may, at times, be a symptom of other diseases, e.g., testicular or adrenal tumors, cirrhosis of the liver, etc. Frequently, in patients receiving stilboesterol for prostatic cancer, a marked enlargement of the breast tissue is seen.

E.—*Is a simple mastectomy ever justified for chronic mastitis?*

The term "*chronic mastitis*" is used with some trepidation, realizing that, to the pathologist, it is a vague entity. However, it covers well the condition

of the somewhat tender, poorly circumscribed lumps found in the breasts of so many women. The answer to this question rests on whether or not cancer more commonly arises in a breast showing the changes known as "*chronic mastitis*." Statistical evidence indicates that cancer is slightly more common in the breast showing "*chronic mastitis*" than in the normal. But this increased incidence is so small that simple mastectomy is not indicated. However, there are exceptions to this rule. First, simple mastectomy should be considered in the elderly woman when the pathologist reports a biopsy specimen as being a benign mastitis, but showing *marked* hyperplasia of the cells lining the ducts.

The second exception is in a woman of any age group who develops repeated, discrete lumps, which, though benign, cause repeated mental stress. A simple mastectomy (through a sub-mammary incision, leaving the areola) may be the kindest treatment.

In a young woman with painful breasts due to chronic mastitis, the question is frequently asked: "What is the best hormone to use?" In the majority of these patients, a hormone is unnecessary. While there is no evidence to show that hormones are harmful (in usual dosage), we do not know what the long-term results may be. They are powerful, physiological drugs, and until we can be sure that no harm may follow their use, it is wiser to omit them in the treatment of a harmless condition. Reassurance, and a mild analgesic taken in the pre-menstrual, painful phase, is sufficient to relieve the symptoms.

#### F.—*Is Eczema of the Nipple always Paget's Disease?*

Perhaps the best answer here is, "Yes, until proven otherwise by biopsy." To elaborate, the most important point is that the term "*Paget's Disease*" should be discarded, and replaced by "*Paget's Carcinoma*." Unfortunately, the name "*Paget's Disease*", does not carry the same alarming connotation as does "cancer", which it is. *Paget's Disease* is cancer of the breast, with essentially the same prognosis, and requiring the same treatment as any other breast malignancy.

Now, to answer the original question: "*Paget's carcinoma does present usually as an eczema of the nipple.*" It is one of the few breast malignancies that give *early* subjective and objective symptoms. Many of these patients complain of itching, irritation, etc., of the nipple for weeks or months before the eczema of the nipple epithelium appears. This nipple erosion is the characteristic finding in *Paget's carcinoma*, but frequently the diagnosis is delayed. It is difficult to realize that a small, innocuous looking erosion of the nipple is a cancer that requires radical treatment. A simple rule to remember is that, if an eczematoid eruption is confined to the nipple, (or began on the nipple), a biopsy should be done immediately, as an office procedure. Only when it is proven benign, may a simple eczema be diagnosed.

#### G.—*Are all nipple discharges of equal significance?*

The answer depends on the type of nipple discharge. A discharge of fluid that occurs spontaneously (i.e. without heavy palpation) and in the absence of inflammation or excoriation of the skin, should be considered of importance. It is often said that a bloody discharge is of serious import, while a clear discharge is innocuous. As a matter of fact, it matters little what the discharge looks like. Approximately ten per cent of patients with a *spontaneous* nipple discharge have cancer.



The procedure is obvious if there is a palpable lump in the breast or if the affected duct can be determined by gentle pressure. The involved duct is carefully dissected out for examination.

The problem cases are those with a persisting discharge and the specific site of origin indeterminate. In these, such measures as X-rays, after injection, of the ducts with radio-opaque fluids, cytology smears of the secretion, etc., rarely help. Probably the best advice is to have the patient return at fortnightly or monthly intervals for examination. If these examinations are repeated carefully, the involved area will be determined, and the excisional biopsy may be carried out accurately. A blind biopsy is unwise, since the involved duct may be missed, and a false sense of security given.

In many of these problems there are opposing views to those presented here. The answers are not to be found in present day statistics and must rise from the good judgment of the surgeon.

In conclusion, it should be emphasized that while the final method of treatment may be a matter of opinion, it is necessary to have an accurate diagnosis before any decision can be made. In other words, if the clinical diagnosis is uncertain, do a biopsy.

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PROGNOSIS AND ANTICOAGULANT PROPHYLAXIS AFTER CORONARY OCCLUSION. McMichael, J., Parry, E.: *The Lancet*, No. 7158, Pages 991-998, 5th November 1960.

The authors, critically, review the literature, totalling over 5,000 patients, from the point of view of survival and factors influencing this. They estimate that the prospect of five year survival, in cases under sixty, is approximately 66%; worsened by increasing age and complicating disease, and; improved, in addition to absence of these factors by good social circumstances and completeness of recovery before subsequent attacks. Their assessment of the literature on long-term anticoagulant prophylaxis reveals no indication of improved life expectancy. The authors attribute this lack of improvement to the state of the arterial wall itself in coronary disease, which they feel makes anticoagulant therapy less likely to be successful than in cases of venous thrombosis. In addition to reference to risks of haemorrhage from anticoagulant therapy, they also refer to articles suggesting that there is a real, and probably increased, risk of thrombosis in the period immediately after anticoagulants are stopped. This article will undoubtedly stimulate an extensive reassessment of anticoagulant therapy in coronary artery disease.

L.C.S.

# EPIDEMIOLOGICAL, PSYCHOLOGICAL, SOCIAL-ECONOMIC FACTORS AFFECTING LIFE ADJUSTMENT AND PREGNANCY COMPLICATIONS IN NEWLY MARRIED WOMEN

AN EPIDEMIOLOGICAL, PSYCHOSOMATIC, AND PSYCHOTHERAPEUTIC APPROACH

By NICHOLAS DESTOUNIS, M.D.<sup>1</sup>

## INTRODUCTION:

For the past five years a multi-disciplinary team of research workers at Dalhousie University in Halifax, supported by Federal Health Grants, has studied the causation of spontaneous and habitual abortions from as many approaches as possible.

The findings of this research project have been published 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and the important feature of these studies was that emotional factors play a role in the loss of pregnancies that is greater than we think.

These significant findings stimulated us to develop an epidemiological study to determine the complications in pregnancy from many approaches. This was accomplished in the study of 1959-1960, part of which is to be presented before the Third World Congress of Psychiatry in June of this year at Montreal. This study was designed to take part in two phases. The objectives of the first phase were:

A) To establish the incidence of the complications of pregnancy in a large sample of women who got married during the year 1954 in the Halifax area.

B) To determine the physical, psychological, social-cultural-economic factors associated with normal and abnormal pregnancies.

C) The relationship between (A) and (B).

## HYPOTHESES:

1. General: That psychological factors are associated with the complications of pregnancy (prematurity, abortion, toxemia, etc.)

2. General: That abnormal serological test findings (as developed in the Rose Waaler test which is based on the finding that the blood of patients with diseases of collagen tissue is characterized by its ability to agglutinate sheep red blood cells) are associated with complications in pregnancy.

3. General: That psychological and serological findings (Rose Waaler test) are concurrently associated with complications in pregnancy.

4. General: That psychotherapy reduces the incidence of the complications of pregnancy.

5. General: That psychotherapy reduces the degree of psychological and serological abnormal deviations during pregnancy.

The first phase of this study was to prepare, at the same time, the team for the second phase of the project. The objectives are as follows:

A) The study of approximately 300 women who got married during the year 1960 in the Halifax area.

B) We would assume that probably 60 percent of these will become pregnant in the first year. This group would be divided into two parts, both

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of whom would have the initial interview. The first group, following the initial study, would not be seen again by the psychiatrist but information as to their subsequent course would be secured from their family physician. The second group, following the initial study, would be asked by the psychiatrist (preferably through their family physician) whether they would agree to be interviewed at weekly intervals by the psychiatrist, to collect 48-hour specimens of urine weekly, and to have blood taken for serological testing. It is likely that 100 women will agree. In this way we may have approximately 35 to 40 women who will be followed according to our abortion regime, described in the next section. It is hoped that in this group complications that one normally would expect to occur would be *decreased*, as compared with those followed by the family physician only. The psychologist will do psychological testing on a limited number of subjects in the long-term study at the same time.

#### THE APPROACH, ORGANIZATION, AND PROCEDURE:

The approach was similar to that of the 1959-1960 study (medical, obstetrical history, psychiatric interview, psychological testing). The difference, however, is that this year we are going to treat by psychotherapeutic means approximately 35 to 40 pregnant women at weekly intervals throughout their pregnancy, to prevent the complications of pregnancy. The psychotherapeutic sessions are approximately one-half hour in duration and the "free association" technique is used. In addition to this, a progress report concerning each subject's understanding, feelings, etc., gives us the opportunity to evaluate our subjects more thoroughly from a psychiatric point of view. Finally, we assess their behaviour during the interview in order to have a complete picture of the psychotherapeutic session.

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## RECENT ADVANCES IN THE EPIDEMIOLOGY OF POLIOMYELITIS

H. B. COLFORD, M.D.\*

There is paleopathological evidence to indicate that this disease existed in ancient Egypt as long ago as 3700 B.C. In the 18th and 19th centuries in the British Isles and elsewhere, cases of paralysis were recorded in which there was muscular wasting, and in 1836 Badham in England described illnesses in young children which were very suggestive of poliomyelitis as we know it today. Heine published a book on the subject in 1840 in which he gave a classical description of the disease. Medin in 1891 described a large outbreak of the disease in Sweden, but it was from the early 20th century onward that epidemics of the disease became common. The disease was suspected then of being an infective condition and was proven to be so by Landsteiner and Popper in 1909 when they succeeded in infecting a monkey with human material.

The disease is commonly known as infantile paralysis, a name which implies that the disease only attacks infants. This was true many years ago and is still true in countries which are underdeveloped and have poor sanitation. However, in these countries, it is a rather rare and non-epidemic disease. In the more developed countries, the disease is now epidemic and attacks all age groups. This change of habit is due in part to improved sanitary conditions, although the contribution of improved sanitation is difficult to evaluate when many other aspects of life have also changed.

One of the most revealing studies in recent years is that reported by Paul and his associates in 1952. They showed that most infants in Cairo, Egypt, had acquired a significant level of antibodies to all three types of poliomyelitis virus by the time they had reached the age of two years. In a city of similar size and on a similar latitude in the United States, only a very small percentage of children had developed such antibodies at this age. They showed that poliomyelitis virus was widespread in sewage and the stools of many persons not ill with the disease and that natural infection in Egypt and other countries with poor sanitation took place by the oral route without producing much disease. It caused the development of permanent immunity in almost all young children.

If infection is so widespread, why do not more cases of infantile paralytic poliomyelitis occur in countries such as Egypt? One explanation is that the central nervous system of infants and very young children is less likely to be attacked than that of adults so that they become permanently immunized by natural infection without manifesting the disease. Another explanation is that the natural immunity of the mother can be passed to the fetus through the placenta. The new born infant has a passive immunity which protects him during the time he is acquiring active immunity by the ingestion of potent virus.

In brief, our present knowledge of the epidemiology of poliomyelitis may be summarized as follows: The virus is widespread throughout the world and many people are infected. In countries with poor sanitation, most of the inhabitants are infected very early in life, but paralytic disease occurs only rarely. The natural spread of the virus is through the fecal-oral route. In

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underdeveloped countries, infants are infected in the early months of life when they are still protected by passive immunity from their mothers; hence the disease occurs only sporadically in these countries. The disease has become epidemic only in the more civilized countries in the last fifty years. Most epidemics have occurred in late summer and early fall, and we have no adequate explanation for this seasonal incidence. The worst epidemics have occurred in the United States, Sweden and Australia, although epidemics are now being reported from almost every country, those in tropical countries being less severe. The virus is excreted in the stools of infected persons for various periods up to months, and is also excreted from the upper respiratory tract during the short febrile period of the disease. In the temperate zones where the disease is epidemic, the fecal route of spread may not be the most important one. Man is the only known host capable of supporting the viral agent.

I shall not dwell here on a description of the different manifestations of the disease, e.g., the abortive type, the prodromal stage, and the paralytic stage. I shall confine my remarks to newer aspects of poliomyelitis as a disease entity distinct from similar diseases. There are at least two groups of viral agents that can cause disease whose clinical picture resembles poliomyelitis so closely that it is impossible to distinguish between them. Non-paralytic poliomyelitis may mimic a host of other disease entities, such as influenza and even the common cold. Certain types of the recently discovered Cocksackie virus are now known to cause aseptic meningitis which is indistinguishable clinically from non-paralytic poliomyelitis. Cocksackie viruses have been recovered repeatedly from patients with a clinical picture of paralytic poliomyelitis. Cocksackie and poliomyelitis viruses have been found together in the feces of patients with or without paralysis.

The ECHO or enteric cytopathogenic human orphan group of viruses, also recently discovered, cause disease entities indistinguishable clinically from poliomyelitis. In the 1954 Boston outbreak, an orthopedic evaluation of thirty-seven patients, from whom only ECHO 6 virus was isolated, classified twenty-two of them as being paralytic. In a few of these cases, there may have been concomitant infection with polio virus, but there were at least three in whom no neutralizing antibodies for any of the three types of poliomyelitis could be demonstrated. The occurrence of ECHO 9 virus in patients with a mild transitory paralysis (in whom concomitant infection with poliomyelitis virus was excluded by serologic tests) was mentioned in a report from Switzerland in 1957. Infectious polyneuritis (Guillain-Barre's disease) often resembles paralytic poliomyelitis clinically. It has been diagnosed as poliomyelitis several times in recent years here in Nova Scotia.

Since poliomyelitis can resemble these and other diseases, it cannot be diagnosed clinically, at least the non-paralytic form of the disease. The classic picture of fever, headache, stiff back, clear sensorium plus the appearance of paralysis is not pathognomonic of poliomyelitis. The finding of the virus by tissue culture techniques from the stools of persons with acute disease, is highly suggestive of poliomyelitis, but by no means confirms the diagnosis. There is a widespread distribution of virus in people without disease, especially in epidemic times or in seasons of the year when epidemics are usual. This year in Nova Scotia the five children of a mother with severe paralytic poliomyelitis were found to be excreting poliomyelitis virus, and all were perfectly well at the time. Of the eight brothers and sisters of a second case, five were excreting the virus, according to the laboratory reports so far received. The

first family had all received three doses of the Salk vaccine, except the mother. Only two of the second family had received vaccine and only a single injection each. One cannot help but wonder how many of the remainder of our population are excreting poliomyelitis virus.

The five cases of poliomyelitis in Nova Scotia this year were almost as widely distributed as it was possible for them to be. However, in sera taken from the patient during the acute stage of the disease and again during the convalescent stage, i.e., several weeks after the acute illness, the findings of an increase in antibodies to the specific type of virus, constitutes a firm diagnosis of poliomyelitis.

There have been no recent advances in the treatment of poliomyelitis. Once the virus has entered the nerve cells, there is still no means to halt the invasive force. There is, however, some evidence that rest in the pre-paralytic and even in the early paralytic stage is important in minimizing the effects of the virus on the central nervous system. During the acute stage of the disease, the patient is put at rest and treated symptomatically in the hope that the disease will cease to progress before paralysis or death ensues. After the virus has ceased to destroy the nervous tissue, physiotherapy and other measures are often helpful. Under such treatment many severely paralyzed patients have shown considerable improvement.

**CONTROL**—In 1909 Landsteiner and Popper showed that a bacteria-free emulsion from the spinal cord of a victim of paralytic poliomyelitis caused paralysis in monkeys seven to fourteen days after it was injected into their brains. The infective agent was shown to be a virus, but it was not until 1949 that the differentiation of three immunologic types of poliomyelitis virus was clearly established. It is now known that poliomyelitis is a disease of very high infectivity, but extremely low pathogenicity, epidemiological characteristics which make it extremely difficult to control by the traditional methods, i.e., isolation, quarantine, etc. The virus grows in the intestinal tract sometimes spilling over into the blood stream and only very rarely invading the central nervous system so that paralytic cases are extremely rare in relation to the number of persons in the population infected. The principal mode of spread is fecal, though it is well recognized that pharyngeal secretions are also important especially in the acute stage of the disease. It is obvious that infected persons without clinical recognizable disease are the most frequent sources of infection. The virus persists in the feces about three to six weeks, but in rare instances for almost three months.

Before the advent of poliomyelitis vaccine, then, there were no measures of any real practical value for the control of this disease. Gamma Globulin was used to some extent to give passive immunity, but it is not now considered to be of any practical value, since its protective capacity is questionable and the conditions for its use undefined. About ten years ago, poliomyelitis was by far the most important of the communicable diseases in this country from the point of view of fatality and its permanent crippling effects. Also epidemics of the disease appeared to be more and more common and severe. The only hope in controlling the disease appeared to be in active immunization.

On the basis of known immunologic principles and experience at that time, there were two possibilities to consider; one was an orally administered attenuated virus which would induce infection simulating the natural immunizing process, and the second was a non-infectious agent which would induce the formation of circulating antibodies and also render the immunologic mechanism hyper-reactive to subsequent later stimulation.

Dr. Jonas Salk followed the second approach and gave us the Salk vaccine which is so widely used today. Others, Koprowski and Sabin have succeeded in producing a live attenuated oral virus vaccine which has been widely used in Africa, Russia and other countries. Millions of people have received this vaccine, apparently with no ill effects and there is every reason to believe its immunologic effects are permanent. I do not intend here to attempt to defend the arguments for live virus vaccine as against the killed vaccine of Salk. Koprowski has proposed that the feeding of attenuated viruses might ultimately exclude virulent poliomyelitis virus from circulation. Others, including Dr. Salk, argue that this theory is difficult to accept since the basis for the relationship between virulent and avirulent forms of virus in nature is not known. Also they argue that it is difficult to understand how the eradication of poliomyelitis virus infection could be accomplished by a live virus when this has not occurred in areas of poor hygiene with high infection rate, but low paralytic rate. As for the effectiveness of the live virus as an immunizing agent, there seems to be no reason to question this. Experience has shown that live virus vaccines, now in use such as smallpox and yellow fever vaccines, are highly effective in producing a high level of antibodies, and that these effects are long lasting. On the other hand, experience with killed vaccines indicates that they do not confer such long lasting effects.

Let us consider briefly our experience to date with the killed poliomyelitis vaccine. We first began using it on a Province-wide scale in 1955. Incidence of paralytic poliomyelitis over the years in Nova Scotia is as follows: 1951-205; 1952-16; 1953-33; 1954-86; 1955-45; 1956-10; 1957-2; 1958-0; 1959—to date-5. Can we attribute our almost complete freedom from poliomyelitis in the last four years to our vaccination program? I do not think this question can be answered with any degree of certainty at the present time. Let us consider for a moment the 1959 figures for Canada and the United States. According to a survey carried out this year, approximately half the population in the twenty to forty age group in Canada or about 6,000,000 people in that group had received three doses of vaccine at the onset of the poliomyelitis season. According to the last reports received, October 3, four provinces of Canada have had 999 paralytic cases of poliomyelitis—5% in the triply vaccinated and 95% in those persons with incomplete or no vaccination. Certainly the incidence of the paralytic form of the disease has been significantly lower in the vaccinated than in the unvaccinated. In 1958, 7.5% of the 253 cases of paralytic poliomyelitis in the whole of Canada occurred in the triply vaccinated group. In Nova Scotia to date this year none of the five cases of paralytic poliomyelitis reported had received any vaccine. In the United States reports received up to October 16 showed that of 3,616 cases of paralytic poliomyelitis reported on poliomyelitis surveillance reports, 16% were triply vaccinated. The evidence so far available then seems to indicate that the killed poliomyelitis vaccine of Salk is indeed effective in preventing paralytic poliomyelitis, although it is evident that it is not the complete answer to the problem. After complete immunization, antibody can be expected to persist for several years. Only the passage of time will tell us the full length of such persistence.

Large scale trials have been carried out in different parts of the world using the monovalent types of live oral vaccine. Results so far have been encouraging and there have been no ill effects from its use. Field trials with the polyvalent live virus vaccine are now being carried out in Canada and the United States as well as in other countries, and it is the opinion of many that

this live attenuated poliomyelitis virus vaccine will provide the final answer to the poliomyelitis problem.

I shall close by quoting from a report of the World Health Organization giving the results of the study of the reactogenic and immunogenic properties of live anti-poliomyelitis vaccine, November 27, 1958: "This more difficult and fundamental task of poliomyelitis prevention can be solved only through the use of a living virus vaccine, since the injection of the Salk inactivated vaccine does not increase the resistance of the intestinal canal, does not protect inoculated children against the development of slight and symptomless forms of poliomyelitis, has no effect on the circulation of the virus in the human community and apparently confers only a short-term immunity. According to the data obtained by Koprowski and Sabin, who developed the first low pathogenicity strains for active immunization against poliomyelitis, enteral administration of the live virus vaccines leads to the development of a local intestinal infection which reproduces a symptomless form of poliomyelitis and encourages the development of an intense humoral immunity. So far, however, the main problems of the safety of the live vaccines both for the vaccinated themselves, and, especially, for persons coming into contact with them, remain unsolved."

#### REFERENCES

1. VAN ROOYEN and RHODES. "Virus Diseases of Man".
2. RIVERS and HORSFALL. "Viral and Rickettsial Infections of Man".
3. KARZON et al. 1956.
4. BAUMAN et al.

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DARENTHIN: A NEW ANTI-HYPERTENSIVE DRUG. PRELIMINARY REPORT. Soloff, L. A., Am. J. Med. Sci. 239:612, (May) 1960.

This preliminary study confirms earlier reports that Darenthin is a potent anti-hypertensive drug which produces few side effects other than those due to the lowered blood pressure. Its effect can be potentiated by saluretic agents. It is superior therefore to the ganglion-blocking drugs. Like the latter, however, it is not an ideal anti-hypertensive agent *because the supine and sitting blood pressures may be affected but slightly. The occasionally wide and almost instantaneous swings in pressure with change in position may possibly be dangerous to the vascular system.*

For these reasons, it is suggested that Darenthin should be used as an adjunct in the therapy of the hypertensive state. It should be used when the basic low salt, low saturated fatty acid diet with saluretic agents and with or without sedation is ineffective and when the clinical status requires immediate or rapid relief. These combinations are more effective and may diminish the wide swings in blood pressure with change in body position which may occur when Darenthin is used alone.

S. J. S.





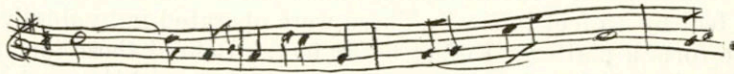
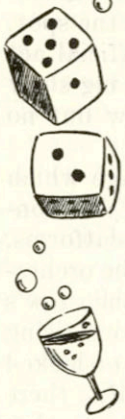
# Hay For Hobby Horses

## SIX HOURS IN BAGDAD

(In the January issue, we left Brother Timothy accepting the aid of a Texas oilman in getting a reservation for the world-famous Lido of Paris show at Las Vegas. He continues

his account. Ed.)

I left John Koch ordering another bourbon and soda and hurried out to get a cab. My early sense of elation at finding myself in the midst of the wonders of Bagdad was ebbing away. I was without an "open sesame" to the choice attractions and had no idea where to look or whom to ask. I had but six hours left and they were running out fast. It was dark outside. Overhead the desert night was clear but the Strip was a seething, exploding maelstrom of neon lights, noise and crowds. I drove towards the Stardust hoping fervently that the Texan who appeared to be doing me a great kindness, was as good as his word.



The Stardust seemed to be twice the size of the Desert Inn and already a long line of ermines and tuxedos curved out, between the north bar and an acre of dice tables, almost to the lobby. After asking for him in various parts of the Casino, I found Leonardo. He was a bland, dark-complexioned man much like a well-fed George Raft. He nodded as he listened to my introduction and, to my intense relief, shook my hand murmuring "Will you wait for just a moment?" He was marking dice with a stylus, for only those cubes that passed through his hands could reach the tables. After a few minutes, he signalled another to take his place at the Pit and, without a word, led the way to the showroom. As in a dream, I followed him, shrinking under the stares of the wealthy patrons who stood in the line, waiting. We by-passed the velvet cord and the formidable headwaiter and suddenly, we were in the Cafe Continental. I held my breath as we moved through the enormous domed room, closer and closer to the circular stage. (If Leonardo had put me behind a pillar in the farthest extremity of the room I would have sat down without a murmur.) Our effortless course had taken us down the side of a shallow amphitheatre, in among the densely-packed tables, to within a few

yards of the stage. He motioned to a waiter, pointed to a small table next, but one, to the rim of the stage and said, "This man will sit *there*." As he moved past me I thanked him and said "Do I owe you anything?" He smiled faintly and disappeared.

As I sat down, my neighbour looked up from his breast of pheasant and, half-rising, thrust out his hand. "I'm Bob Durkee. Have a drink?" He was a slender, athletic man in his mid 30's with a face and scalp that were pink from repeated libations of rye and water. He leaned across the tiny table and, in a husky conspiratorial whisper, said "Friend—how much did it cost you to get this table?" "Nothing" I said and regretted it immediately for his face fell. "The hell you say! I paid the cab-driver \$10. for a reservation and the waiter another \$4. to get from that table (he pointed to one 30 yards away) up to this one."

Bob had been sent out to Los Angeles from Philadelphia for a sales conference and his boss had given him an extra \$200. to see Las Vegas in style. He had come up on the Champagne Flight and estimated that he had to spend about \$25. an hour to keep faith with his indulgent employer. Bob was delighted to have company and appointed me his personal physician on the spot, with instructions to pour him onto the plane at 4 a.m. My first official act was to advise my new patient to taper off if he expected to see the big show from above the table. I ordered dinner while waiting for the show but no meal in history got less attention than that filet.

Our table was left of center, at the rim of the huge circular stage which encroached on the larger circumference of the amphitheatre of the Cafe Continental. At the sides of the stage there were two drum-shaped platforms, suspended between the floor and the ceiling; that on the left carried the orchestra, that on the right (above and behind me) carried special units of the show's cast, the vocalists etc. In the upstage area there was a bank of four rising stages,  $7\frac{1}{2}$  feet by 15 feet in size. These were operated individually or locked together to form a platform 15 feet by 30 feet. Behind these four lifts, there was a swimming pool measuring 11 feet by 30 feet and, beyond, two other elevators each 15 feet square. Thus, during the show, the bowels of the stage seemed to deliver up, (among other things) a jungle pool with nymphs, a cascading waterfall, a great fluorescent fountain, a sheet of ice, a Swiss Chalet, The Imperial Palace of Katherine the Great with battlements which later disgorged the entire court, complete with charging cossacks. The vaulted ceiling opened and a score of gilded cages were lowered, containing unclad members of the cast. They did not sing but no one seemed to mind.

The showgirls were divided into two platoons. The first was a corps of superbly-trained, sumptuously-costumed dancers (the equal of the famous Rockettes) who with a dozen or more lithe, confident male dancers, carried the show. The second platoon cannot make an appearance in a family magazine like the Bulletin. But, for your edification, here is an account that was given in Life (December 22, 1958):

IN LAS VEGAS, PARIS IMPORTS

WHO SEE NOTHING NOVEL IN \_\_\_\_\_

(MULIEBRITY UNADORNED)

Out in Las Vegas, amid the desert sands, there is a very special group of girls. They come from all over England, France, Germany, Holland and the U.S. Some of them speak no English at all. But in the show girl

trade, words are just a nuisance and these girls are attracting an audience of 1,400 a night. They are members of the celebrated Lido show, imported from Paris by Las Vegas Stardust Hotel, and they are professional nudes. Their costumes are about the most lavishly feathered and jeweled in the business, but they wear them mainly on their heads. The Lido girls got to Las Vegas in time for a great public argument over whether bosoms should be covered or not. To them, this seemed silly. "It's ridiculous," says Sheila Shepherd of England. "If people don't want to see undraped bodies, they should go where the bodies are draped."

At Bob's insistence, we went up the road to the Sands to see my wife's maiden aunt, Martha Undercutt (nee Lily St. Cyr) do an artistic little tableau in association with Mr. Minsky's old-time vaudeville act. The younger readers may not remember Martha Undercutt when she began her career in Montreal early in World War II as a cacydist. Martha is getting on, but is still a great trouper.

We arrived at the Sands at 10:30 and using Leonardo's name, got reservations to the midnight show. We had an hour to put in before we queued up, like the ordinary rich visitors, in the reserved line. The lounge at the Sands was done up like the Casbah, with domes and minarets, behind the bar. The waiters were got up in fezzes, vests and pantaloons. We stayed at the bar and listened to a first-class Dixieland outfit lead by a Burl Ives-type giant named Al Birt. I fell into conversation with the bass player's wife and nodded politely through an account of the band's history, "Al has 6 children and three grandchildren, etc." Bob Durkee ignored my instructions and, with his engine room flooded and decks awash, sank without a trace in the 'men's' about 30 minutes after the show began but not before he had put us at an excellent table, by euphoric persistence and the judicious use of several pounds of silver dollars.

So, that's the story of Bagdad in the Desert. The editor was brought up on the Family Herald and Weekly Star and may not even pass this version.

Yours, for an early return to Vegas,

BROTHER TIMOTHY.

P.S.—Please excuse Parti-Pax's outburst. Medical editors get fretful, from time to time, because nobody pays any attention to them. T.F.

## LETTERS TO THE EDITOR

Paul Masson Vineyards,  
San Francisco, Calif.  
February 17, 1961.

To the Editor:

Thank you for sending us the two copies of the December issue of the Nova Scotia Medical Bulletin. The report of Brother Timothy's visit to our Champagne Cellars is delightful and, we feel sure, will be enjoyed by our readers.

We hope in the future to have the opportunity of providing a similar tour and tasting for many of your members and their families and friends.

Sincerely,

Ernest G. Mittelberger,  
Director of Marketing.

(Interested parties line up outside 77 University Ave. for tickets. Ed.)

Halifax, N. S.  
March 1, 1961

To the Editor:

We read your Bulletin in the hospital library. The doctors may not care but we would like to have the next instalment of Brother Timothy's adventures. Why doesn't somebody tell this Dr. Parti-Pax off?

Yours truly,

Bella Cossity, R.N.  
Oliva Sudden, R.N.

Sydney, N. S.  
Feb. 15, 1961.

To the Editor:

I hope you have already told Parti-Pax 'where to go' in the bluntest of language. We enjoy Tim's wide-eyed wanderings, so let him ramble on. We enclose a cheque for \$25.00 so that he can try the slot machines on his next trip away from home.

Fraternally yours,

A. L. Fredericks  
Alfred E. Ricks  
J. Harvey Sutherland

## PERSONAL INTEREST NOTES

January 17, 1961—The results of the February 1960 questionnaire distributed by the Canadian Medical Association to all physicians in Canada was announced by the Executive of the Canadian Medical Association to the press. Of some 20,000 questionnaires distributed some 10,000 doctors replied, of whom 95% stated they were in favour of the C.M.A. negotiating "an acceptable plan." Some 83% of the doctors considered a tax-supported medical program either probable, inevitable or imminent and the remainder saw it as unlikely in the foreseeable future. The survey, carried out by a committee headed by Dr. J. A. McMillan of Charlottetown, also reported that 6 of 7 doctors were opposed to being put on salary under an insurance plan. They want their payments to be on a fee-for-service basis. About 85% want the plan to be administered by the profession itself, with additional government representatives to a board, if a tax supported program is introduced. The doctors were willing to accept reduced fees for service to the aged, chronically ill, and other "bad risk" categories.

A letter to the editor in the January 24, 1961 issue of the Halifax Herald, signed by Dr. D. B. Keddy of Lunenburg, pointed out several objections to the above. The statement "doctors in Nova Scotia demonstrated their early support of such schemes" as medical insurance services, etc., taken from the Liverpool meeting in June 1960, was called into question. There were fewer than 20 doctors out of the total 570 Nova Scotian doctors present for a vote on this question. Dr. Keddy continued "It makes many of us unhappy to see a minority of medical men promoting what could easily become a tax-supported medical service. Doubtless there are many cases of unhappy relationships between the public and the doctors. Political parties are presently exploiting these difficulties. The medical profession both provincially and nationally, has perhaps permitted this exploitation by not correcting the injustices within. However, it is not too late for the public to choose between two alternatives. The public can ask for forced governmental medicine, which cannot unfortunately force love or the willingness to serve; or the public can ask for responsible freedom for its medical servants within the present medical society structure."

### CAPE BRETON MEDICAL SOCIETY

Dr. H. R. Corbett, Sydney, attended the mid-winter meeting of the Canadian Association of Radiologists held in the Admiral Beatty Hotel, St. John, N. B. during the week of January 22, 1961.

The regular January meeting of the Cape Breton Medical Society was held in St. Rita Hospital, Sydney on January 26, 1961. Dr. C. J. W. Beckwith, Executive Secretary, was in attendance.

### HALIFAX MEDICAL SOCIETY

January 25, 1961—The monthly meeting was held at Camp Hill Hospital, at which time the structure of the Medical Society of Nova Scotia was reviewed, and a report of the Executive Meeting of the Nova Scotia Medical Society was heard.

February 8, 1961—The monthly meeting was held at the Children's Hospital to hear a report on the Executive Meeting of the Medical Society of Nova Scotia.

A four day school for pastors of all faiths aimed at making their ministry more effective will be held in Halifax, April 10-14, 1961. The school, organized by the Nova Scotia Institute for Pastoral Training, was announced by Canon H. L. Puxley, and will include on its planning committee, Dr. J. O. Godden, Associate Professor of Preventive Medicine at Dalhousie University and Rev. R. J. R. Stokoe, Associate Professor of Clinical Pastoral Training at University of Kings College, Halifax, N. S.

The Dartmouth Town Council has been asked to press for the construction of a hospital in the Harbour Town, by the Woodside Ratepayers Association. They also asked that the two groups of Trustees who are entrusted with funds for such a hospital, amalgamate in the interest of such a project. One fund was established more than 20 years ago.

January 19, 1961—The annual meeting of the Halifax Infirmary was held in the basement classroom. Of 12,720 in-patients treated in 1960, some 42.2% were from Halifax City, 14.7% from Dartmouth, 37.8% from Halifax County, and 5.3% from elsewhere. A total of 25,139 out-patients were seen during the year. Dr. A. W. Titus retired as the president of the medical staff and was replaced by Dr. M. G. Tompkins. The Chair was actually taken by Dr. F. G. Mack, Vice-President. Dr. Tompkins was in London, England, with Sister Catherine Gerard, Superintendent of the Halifax Infirmary and Dr. C. M. Bethune, Superintendent Victoria General Hospital viewing closed circuit color television that is being considered for installation in the new hospital building programs.

#### WESTERN MEDICAL SOCIETY

Dr. B. J. d'Eon and family of London, England spent the Christmas season with relatives in Yarmouth. Dr. d'Eon who once practiced here, is now attached to the Canadian Immigration Department in London.

Dr. Oliver Hunter, South Ohio, has given up practice to undertake post-graduate training in radiology at the Victoria General Hospital, Halifax. He was feted at a stag party recently by his colleagues.

Dr. D. F. Macdonald, Yarmouth, took a "post-graduate course" in sunburn in the West Indies during February.

#### NOVA SCOTIA ASSOCIATION OF PATHOLOGISTS

The opening of the addition to the Pathology Institute, Halifax, is expected soon, possibly before March 1961; a few finishing touches are still required. Those who have looked inside are impressed by the clean, efficient appearance.

Dr. C. D. Chipman, Halifax attended the annual meeting of the Royal College of Physicians and Surgeons of Canada held at Ottawa in January.

#### DEFENSE MEDICAL ASSOCIATION OF CANADA

The annual mess dinner is being arranged for late April or early May under Army auspices. Details will be sent to members at a later date. At a meeting in Ottawa it was decided that copies of the Medical Services Journal of Canada would be distributed to paid-up members of the Association who do not already receive the Journal. Membership for 1959-60 was 364 (for Canada) which is about the average over the last 10 years. The local executive includes President Lt. Col. J. L. Fairweather, 1st Vice-President: Sqn. Leader C. A. Gordon, 2nd Vice-President; Surgeon Lt. Cdr. C. D. Vair, Past President; Surgeon Lt. F. G. Mack, Secretary-Treasurer; Col. J. E. H. Miller.

## UNIVERSITY

January 19-21, 1961—At the annual meeting of the Royal College of Physicians and Surgeons of Canada held in Ottawa, Dalhousie was well represented. Dr. Donald W. Thompson of Bathurst, N. B. is the president. The annual lecture in surgery was presented by Dean Walter C. MacKenzie of the Faculty of Medicine, University of Alberta (Dalhousie '33). Papers were presented by Dr. J. E. Bethune and Dr. P. L. Landrigan on the subject "Fabry's Disease" and by Drs. A.D. MacKeen, P. L. Landrigan, and Robert C. Dickson on "The Early Diagnosis of Acute Pulmonary Embolism"; and sessions were chaired by Drs. R. C. Dickson and E. Paul Nonamaker.

A strong plea that the Royal College of Physicians and Surgeons stay clear of the proposed health insurance plans and any public investigations into their merits came from Dr. Donald A. Thompson, the President. "Most of us have felt that this was a function of the Canadian Medical Association and, perhaps more particularly at provincial levels," he said. "I believe that much of the strength of the College stems from its freedom from this disenchanting field and I would hope that the College would continue to be primarily concerned with the fields of post-graduate education and with the advancement of the science and art of medicine."

The danger of radioactive fallout has been over-dramatized and is causing unnecessary anxiety. This was the conclusion of a panel of four Canadian experts on radiation at the annual meeting of the Royal College of Physician and Surgeons of Canada. The panelists were: Dr. Douglas H. Copp, Head of the Department of Physiology at the University of British Columbia; Dr. R. M. Taylor, Executive Director of the Canadian Cancer Society of Toronto; Dr. F. Clarke Fraser, Professor of Genetics at Montreal's McGill University; and Dr. C. Gordon Stewart, Director of the Medical Division of Atomic Energy of Canada, Ltd., Chalk River, Ont. Dr. Copp said fallout from nuclear tests makes only a small contribution to the annual radiation exposure. The current annual dose from this source now is less than five per cent of natural radiation background, mainly from cosmic rays, and is declining. The present annual dose was less than that received in a routine chest X-ray examination for tuberculosis.

On February 7, 1961—The Nova Scotia Cardiovascular Society and the post-graduate division, Faculty of Medicine, Dalhousie University presented a panel discussion on anticoagulant therapy. It was chaired by Professor R. C. Dickson, and included Dr. S. M. Groch Director, Cerebral Vascular Disease Study, Second (Cornell) Medical Division, Bellevue Hospital, N. Y. Local members of the panel included Drs. H. C. Read, W. A. Murray, and H. N. A. MacDonald. The discussion was held in the auditorium of the Victoria General Hospital, Halifax.

## BIRTHS

To Dr. and Mrs. John Barteaux, a son, Wallace Leland, at the Grace Maternity Hospital, Halifax on January 24, 1961.

To Dr. and Mrs. M. R. Clark (nee Maria MacKenzie, RN) a son, William Keir, Grace Maternity Hospital on January 16, 1961.

To Dr. and Mrs. W. J. Dalton, a son, James Edward, Halifax Infirmary on January 27, 1961.

To Dr. and Mrs. J. M. Edgecombe (nee Helene Scott) a daughter, Wendy Jane, St. John's, Newfoundland on February 1, 1961.

To Dr. and Mrs. D. B. Fraser, a son, James David, Grace Maternity Hospital, Halifax, January 22, 1961.

To Dr. and Mrs. A. E. C. MacRae, a son, James Andrew, Grace Maternity Hospital, Halifax on January 20, 1961.

To Dr. and Mrs. E. S. Morrison, a daughter, Joan Kelley, Halifax Infirmary on January 31, 1961.

To Mr. and Mrs. William G. Oakley, (Dr. Margery Morris) a daughter, Jo-Ann Margery, Grace Maternity Hospital, on January 31, 1961.

To Dr. and Mrs. Karl Sorger, a son, Peter Karl, Grace Maternity Hospital, on February 13, 1961.

To Dr. and Mrs. W. A. Turner, (nee Avis Hartling) a daughter, Sally Louise, Moncton City Hospital, on January 31, 1961.

#### COMING EVENTS

June 12-14, 1961—108th Annual Meeting Medical Society of Nova Scotia, at Keltie Lodge, Ingonish, Cape Breton. Hosts: Pictou County Medical Society.

June 19-23, 1961—Canadian Medical Association 94th Annual Meeting, Montreal, Quebec.

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#### OBITUARY

Dr. Peter Smyth Campbell, 79, a former deputy minister of health and leader in the fight against tuberculosis in this province died at Wolfville, February 4, 1961. Dr. Campbell was born in Port Hood, Cape Breton, August 25, 1881, and was educated at Port Hood Academy, St. Francis Xavier, and McGill Universities (Class of 1916). He was a resident physician at Montreal General Hospital for two years after leaving McGill and took up private practice at Port Hood in 1918. He became divisional health officer in 1923, rose to chief health officer in 1933—a title which was changed to deputy minister in 1944. He retired from the office of deputy minister of health and welfare in 1951. Among honors he received were: an OBE during World War II, an honorary LL.D. (St. Mary's University, Halifax, 1952), senior member of the Canadian Medical Association (1957), honorary life member of the Canadian Public Health Association, honorary life member of the Canadian Tuberculosis Society, 50 year pin, Knights of Columbus (1960). He is survived by his wife, two daughters and five sons, one of whom is Dr. John E. Campbell of Halifax.

Dr. Herbert J. Melanson, 63, died recently at his home in Weymouth, Digby County. He was born in Corberrie, Digby County, educated at St. Anne's, Church Point, and Dalhousie University (Class of 1925). He is survived by his wife, one daughter, one son, two brothers, and two sisters.

#### SYMPATHY

The Editors of The Nova Scotia Medical Bulletin extend sympathy to Dr. W. S. Cole, Westphal on the recent death of his father in the United Kingdom.



# Housing Application Form

108th Annual Meeting

The Medical Society of Nova Scotia

Keltic Lodge, Ingonish, N. S.

Monday, Tuesday, Wednesday, June 12, 13, 14, 1961

Dr. C. J. W. Beckwith,  
Medical Society of Nova Scotia,  
77 University Avenue,  
Halifax, N. S.

Please reserve for me the following:—

**A. Main Lodge**

( ) Double room with bath—twin beds—including meals \$14.50 per person per day.

**B. In Cottage**

( ) Cottage with sitting room and two twin bedded bedrooms—including meals \$14.50 per person per day.

I WILL EXPECT TO ARRIVE JUNE ..... A.M. .... P.M. ....

I WILL EXPECT TO DEPART .....

Names of persons who will occupy above accommodations:

Name .....

Address .....

In view of the attendance expected, no single rooms will be available at the Keltic Lodge, unless cancellations permit. If coming alone please check here.....if you are willing to share a room. If you have a preference for some party to share a double room with (or couple(s) to share cottage with) please insert name(s) below:

I would prefer to share accommodation with

Name .....

Address .....

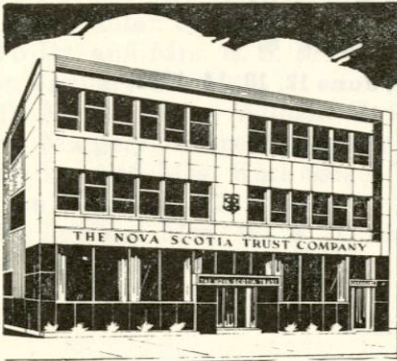
Name .....

Address .....

Signed.....

Date.....

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Branches: Sydney, Yarmouth, Truro,  
Kentville

### NOTICE

I shall be available to fill a locum tenens from May 15, 1961, to June 30, 1961.

C. L. Lake, M.D., (Dal. '61)  
St. John's General Hospital,  
St. John's, Newfoundland.

### SPRING REGIONAL COURSES

THE POST-GRADUATE DIVISION, FACULTY OF MEDICINE,  
DALHOUSIE UNIVERSITY

A series of Post-Graduate meetings are being held in:

Antigonish, N. S.—2nd Wednesday each month, January to May, inclusive.

Kentville, N. S.—each Tuesday evening from March 7th to April 11th, inclusive.

Yarmouth, N. S.—each Thursday from March 9th to April 13th, inclusive.

Windsor, N. S.—3rd Saturday of March, April and May.

A series of six clinical meetings in your local hospital can be arranged on request (priority basis).

### SHORT COURSES IN HALIFAX

The Post-Graduate Division, Faculty of Medicine, Dalhousie University.

Obstetrics and Paediatrics — Late April, 1961.

**INFECTIOUS DISEASES—NOVA SCOTIA**  
**Reported Summary for the Month of December, 1960**

Diseases	NOVA SCOTIA				CANADA	
	1960		1959		1960	1959
	C	D	C	D	C	C
Brucellosis (Undulant fever) (044)	0	0	1	0	7	6
Diarrhoea of newborn, epidemic (764)	0	0	0	0	1	5
Diphtheria (055)	0	0	0	0	11	8
Dysentery:						
(a) Amoebic (046)	0	0	0	0	0	0
(b) Bacillary (045)	0	0	0	0	111	71
(c) Unspecified (048)	0	0	0	0	42	3
Encephalitis, infectious (082.0)	0	0	0	0	1	1
Food Poisoning:						
(a) Staphylococcus intoxication (049.0)	0	0	0	0	0	0
(b) Salmonella infections (042.1)	0	0	0	0	58	0
(c) Unspecified (049.2)	0	0	1	0	7	23
Hepatitis, infectious (including serum hepatitis) (092, N998.5)	108	0	101	0	718	379
Meningitis, viral or aseptic (080.2, 082.1)						
(a) due to polio virus	0	0	0	0	0	0
(b) due to Coxsackie virus	0	0	0	0	0	0
(c) due to ECHO virus	0	0	0	0	0	0
(d) other and unspecified	0	0	0	0	57	22
Meningococcal infections (057)	0	0	0	0	7	9
Pemphigus neonatorum (impetigo of the newborn) (766)	0	0	0	0	0	1
Pertussis (Whooping Cough) (056)	0	0	15	1	576	537
Poliomyelitis, paralytic (080.0, 080.1)	0	0	0	0	53	58
Scarlet Fever & Streptococcal Sore Throat (050, 051)	147	0	89	0	1519	2105
Tuberculosis						
(a) Pulmonary (001, 002)	0	4	28	2	423	337
(b) Other and unspecified (003-019)	0	0	2	1	48	82
Typhoid and Paratyphoid Fever (040, 041)	0	0	0	0	45	13
Veneral diseases						
(a) Gonorrhoea —						
Ophthalmia neonatorum (033)	0	0	0	0	0	0
All other forms (030-032, 034)	32	0	33	0	1188	887
(b) Syphilis —						
Acquired—primary (021.0, 021.1)	0	0	0	0	0	0
— secondary (021.2, 021.3)	0	0	2	0	0	0
— latent (028)	0	0	1	0	0	0
— tertiary — cardiovascular (023)	0	0	1	1	0	0
— „ — neurosyphilis (024, 026)	0	0	1	0	0	0
— „ — other (027)	0	0	0	0	0	0
Prenatal—congenital (020)	0	0	0	0	0	0
Other and unspecified (029)	0	0	0	0	175	149*
(c) Chancroid (036)	0	0	0	0	0	0
(d) Granuloma inguinale (038)	0	0	0	0	0	0
(e) Lymphogranuloma venereum (037)	0	0	0	0	0	0
Rare Diseases:						
Anthrax (062)	0	0	0	0	0	0
Botulism (049.1)	0	0	0	0	0	0
Cholera (043)	0	0	0	0	0	0
Leprosy (060)	0	0	0	0	0	0
Malaria (110-117)	0	0	0	0	0	0
Plague (058)	0	0	0	0	0	0
Psittacosis & ornithosis (096.2)	0	0	0	0	0	0
Rabies in Man (094)	0	0	0	0	0	0
Relapsing fever, louse-borne (071.0)	0	0	0	0	0	0
Rickettsial infections:						
(a) Typhus, louse-borne (100)	0	0	0	0	0	0
(b) Rocky Mountain spotted fever (104 part)	0	0	0	0	0	0
(c) Q-Fever (108 part)	0	0	0	0	0	0
(d) Other & unspecified (101-108)	0	0	0	0	0	0
Smallpox (084)	0	0	0	0	0	0
Tetanus (061)	0	0	0	0	1	0
Trichinosis (128)	0	0	0	0	2	0
Tularaemia (059)	0	0	0	0	3	0
Yellow Fever (091)	0	0	0	0	0	0

C — Cases    D — Deaths

\*Not broken down