

The NOVA SCOTIA MEDICAL BULLETIN

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Editorial

IT CAN HAPPEN

With the continued stockpiling of weapons, launching of nuclear submarines, and construction of ballistic missiles, the capability of the great powers to wage nuclear war must have continued to grow — perhaps it has doubled — since signing last year of the Test Ban Treaty.

Much as we all pray that this balance of horror will itself prevent a nuclear war, prayer will not absolve us of the need to plan for disaster, whether local, such as we have had in Springhill as recently as 1958, or a general attack. Indeed our state of preparedness, that is our capacity to salvage Life and Health out of the chaos has of itself a measurable part to play in discouraging an aggressor, or of preventing local incidents from getting out of hand.

Let us by all means avoid the two extremes of negative thought which say either that "it can't happen here", (it can) or that there is nothing we can do about it anyway, so (as Confucius certainly did not say) ". . . . lie down and enjoy it." Disasters tend to happen out of a clear blue sky. The worst disaster in human history was on one fine summer afternoon in 1923, when the Tokyo earthquake took 140,000 lives. Our own Halifax explosion of 1917 cast no shadow before, and any community that has a rink or stadium could be tested by a tragedy such as the Indianapolis explosion last year.

Canada has a perfectly good Federal Health Plan for Disaster, and Nova Scotia's Provincial Health Plan is one of the best in the country, but planning for disaster is essentially a community responsibility. The Community will be hurt, and it is the people living in it who must take the action, with all the aid that Province can give. It is the duty of every one of us to ensure that our Community or Municipality has a Health Plan to meet disaster, and as Doctors we have a big task within that Plan. We must be ready, knowing our job, and how to do it. The Health aspect of planning may well be decisive, especially in the recovery phase after a major emergency. Hospitals must have their disaster plans complete, both individually and in relation to other hospitals in the area. The hospital disaster plan forms the base on which all local medical health plans are made, because the hospital is where the facilities are, and emergency hospitals are likely to be set up in the same area.

In the early stage, there will probably be a surfeit of unskilled helpers in the wrong places. There will never be enough doctors in the right places unless each one of us knows just what his task is, how to do it, and where to go. We must have our own personal and family disaster plans made, within the framework of the general Plan of our own area, and we must be ready and trained to do our own part where it is most effective and when it is most needed.

It can happen here.

J.F.F.

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The President's Page

Keltic in September — Annual Meeting, 1964

Luxurious accommodation, a superb dining room, a beautiful new swimming pool, in a picturesque setting that only Cape Breton can offer — it is undoubtedly the finest site for a meeting on this continent.

What is more pertinent, however, is that it may well be a meeting vital to all of us. Government intervention in the medical insurance field is near. Maritime Medical Care, Inc., our own insuring agency is having difficulty in meeting increasing costs. Other insurance companies want pieces, especially the profitable pieces, of medical insurance. Can the people of Nova Scotia afford to prepay for complete comprehensive medical coverage — or should there be limitations? Should the patient be asked to accept part coverage or pay separately for some services? Are we satisfied to have our confrères control our destinies and sponsor only that which is doctor controlled? Do we believe that competition from non-sponsored agencies could produce a healthier state for all of us — or would we fare worse? Is the business of the Society better conducted by "council"?

These are but a few of the issues. Your Executive Committee needs advice and opinions of all members.

The Keltic meeting will be designed to welcome free and open expression of individual views. Medicine everywhere needs the collective help of doctors. We must learn each other's problems, and speak with understanding and a unified voice.

Keltic is our opportunity — it should be a good meeting.

Clarence L. Gosse.



The 4th Regular Meeting of the Executive Committee was held on Saturday, February 15, 1964. Chaired by Dr. L. C. Steeves, Chairman of the Committee, the meeting was convened at 9:30 A.M. and adjourned at 6:30 P.M.

A notable event was the presentation of a citation to the Medical Society by the Nova Scotia Branch of the Canadian Red Cross Society on the occasion of the 100th anniversary of the International Red Cross. The commemorative citation expressed the appreciation for the co-operation of the Medical Society through its members in many endeavors of the Red Cross.

The News Letter dated February, 1964 (Vol. 4 No. II) included information on the business transacted at the Executive Meeting, February 15/64.

C.J.W.B.

Medical Insurance Advisory Committee

The following is the Order in Council authorizing the formation of this Committee and includes the terms of reference.

The intent of having such a Committee was announced by the Minister of Public Health during the Annual Meeting (1963) of the Society.

The Order in Council is as follows: —

“Certified to be a true copy of an Order of His Honour the Lieutenant Governor of Nova Scotia in Council made the 10th day of December A.D. 1963.

The Governor in Council on the report and recommendation of the Minister of Public Health dated the 4th day of December, A.D. 1963 and pursuant to the provisions of Section 32 of the Public Service Act is pleased to:

1. Authorize and approve the appointment by the Minister of Public Health of a Medical Insurance Advisory Committee, of such number of persons as the Minister determines, to investigate and to advise the Minister respecting the necessity and advisability of the establishment of a plan or plans for participation by the Province in the provision of medical insurance for residents of the Province or some of them and the probable cost of such participation, and particularly

- (a) to inquire into
 - (i) the adequacy of medical services in the province;
 - (ii) the cost of medical services;
 - (iii) the need for public assistance in the provision of medical care and services;
 - (iv) the cost of privately and publicly operated prepaid medical services or medical care plans in the Province and in other jurisdictions;
 - (v) any plan proposed or recommended by the Government of Canada or by any person or agency relating to the provision of medical services or care;
 - (vi) any other matter relating to the provision of and payment for medical services and care that the Committee considers expedient or desirable to examine or that the Minister requests the Committee to examine;
- (b) to report its findings to the Minister
- (c) to give advice to the Minister respecting a plan or plans for prepaid publicly operated or publicly assisted medical insurance, with an estimate or estimates of the cost of such plans and a method or methods of operating and of financing them;

2. authorize and approve the payment by the Minister of compensation to the members of the Committee and of expenses incurred by the Committee in performing its functions;

3. authorize the Minister to engage and pay persons to assist the Committee in carrying out its work or to delegate to the Committee authority to engage such persons;

4. direct the Minister to report from time to time to the Executive Council on the activities and advice of the Committee.”

C. L. BEAZLEY,
Clerk of the Executive Council

On the Care of Young Children in Hospital

P. L. DELVA, M.D. and P. N. MURPHY, M.D., ANTIGONISH.

The care of children in hospital in the past was set in a framework of strict policies regarding nursing procedures, isolation, bed-rest, and visiting regulations. This was very understandable. Illnesses were very serious. The children remained infectious for long periods of time, and the danger of cross-infection was ever present. The staff was very busy, having little time to be concerned with their little patients' need for play, companionship, and emotional support. Nurses and doctors, almost of necessity, acquired a veneer of casual unconcern, thus suppressing the worries and frustrations of their responsibilities. Parents were avoided, because they threatened this defence, and because the staff felt poorly prepared to deal with parental anxieties revealed during visiting hours.

This has now changed. Great advances have taken place in the understanding of children and their parents. There is a better appreciation of a child's psychological needs at the various stages of growth. One now realizes that the child and his family are mutually dependent on each other. Because of this dependency, parental anxieties require as much attention as do those of the child himself. The anxiety of parents can frequently be allayed by enlisting them as members of the health team. Thus, only the child who cannot be adequately treated at home need be admitted to hospital, and this for the shortest possible time. The child is prepared for his admission, and for any upsetting experiences he may have to undergo, such as intravenous injections, operations, etc. . . . The value of play is acknowledged. Toys from home are welcome. Group play and occupational therapy is available. Wards are attractively decorated.

All schools of psychology and psychiatry emphasize the need of the young child for an intimate, warm, sustained relationship with his mother or a permanent mother substitute. Thus, visiting hours have been increased. Facilities for mothers to room in with their children have been provided. When this is not possible, the number of people involved in the care of a particular child has been cut to a minimum.

Unfortunately, loss of maternal care can still be disastrous. From the studies of Bowlby, Spitz and Wolf, Bakwin, and others, we see that infants that are separated from their mothers may show listlessness, emaciation, pallor, failure to gain weight although on an adequate diet. Indeed, recovery from loss of maternal care for three months or more during the first year of life is hardly ever complete. The problem in toddlers can be no less disastrous. As Bowlby points out, "the inexperienced nurse welcomes the child who regards one adult as being as good as another, and criticizes the family baby who reacts violently as having been spoilt. All evidence suggests that the violent reaction is normal, and the apathetic resignation a sign of pathological development." Following hospitalization of a toddler, Robertson describes the three phases of protest, despair, and denial. The first phase of protest may last several days. The need for his mother is persistent. He will watch

for her unceasingly, sleeping just from sheer exhaustion. He cries continually and may reject all the nurses because he wants his mother. The second phase of despair is one of increasing hopelessness, with declining activity. He becomes anorexic, listless and withdrawn. His longing for his mother is still conscious, and he still keeps a constant vigil. When his mother does come to visit him, he may reject her in retaliation. However, liberal visiting does allow suppressed feelings to come to the surface, helping to prove to the child that his mother is not abandoning him, and providing essential periods of comfort. Liberal visiting lessens the probability that the child will progress into the next stage of hospitalism, denial. This third stage is often erroneously interpreted as recovery. The toddler begins to show active interest. However, he is only defending himself against anxiety by repressing the image of, and all feelings for his mother, although, unconsciously, his longing and need are more intense than ever before.

Such children usually regress when they go home. Mothers who understand the reasons for this and who respond with extra babying and love gradually restore the child's trust. The nurse should point out to the mother that this behaviour is predictable. However, should the mother respond to the toddler's behaviour with counter-aggression, or by withdrawal from him, further loss of trust becomes a threat to his innate potential for optimal psychosocial development.

It is thus very important that nurses, physicians, and members of hospital boards understand all the problems involved. Rooming in may be impossible to arrange, but daily visiting must be encouraged. A temporary foster-parent, such as a voluntary worker or a student nurse, could surely be found to take a particular interest in a child whose parents live a long way away, and are unable or unwilling to visit regularly. Lack of space is another inadequate excuse. With liberal visiting hours, experience has shown that there are rarely more than two to four parents in an average-sized ward at the same time. And, surely, most parents are willing to help with their child's care, thus helping the nurses on duty. Furthermore, what a perfect opportunity for adult education, should the parents be inadequately prepared for bringing up children.

This short article thus forms a plea to liberalise visiting for parents of young children in hospital. It is also a plea to try and restrict hospital admissions only to those children who cannot be adequately treated at home, and to cut down as much as possible the length of their hospital stay. And lastly, it is a plea for much greater communication between those looking after the children in the hospital, and the parents at home.

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Measurement of Blood Loss in Surgery

S. B. BIRD, M.D. and J. H. MACLEOD, M.D., Liverpool, N. S.

The purpose of this presentation is to demonstrate a more accurate method of estimating blood loss **during** surgery. The measurement of blood loss in the operating room is not generally popular due to (1) lack of apparatus, space and staff and (2) the reliance that surgeons have placed upon their ability to estimate this loss. Although anaesthetists in general look upon this method with more favour than surgeons, we feel that the measurement of blood loss should be just as much the concern of the surgeon. His greater awareness of blood loss will generate greater attention to hemostasis.

Measurement of blood loss in the Operating Room is desirable for the following reasons:

1. There is no single reliable test or clinical sign of impending shock due to blood loss in anaesthetic or post anaesthetic states. By the time shock is recognized as such it is usually well established. Therefore any procedure that warns of impending shock indicates the need of preventive measures.
2. Actual blood loss is nearly always greater than that estimated by the surgeon. Many studies have borne this out. The loss during a "routine" appendectomy is not great; but the "routine" appendectomy may be prolonged due to extensive dissection and the usual insignificant blood loss may become a shock producing one, unrecognized by the surgeon who is conditioned by the procedure to expect no such complication.
3. There is no correlation between the amount of blood loss and the changes in hematocrit, hemoglobin, or concentration of plasma proteins immediately before and after operation.
4. Knowledge of the amount of blood loss enables accurate and early replacement. This early replacement in turn requires less blood than does the treatment of shock that is well established.

The body's ability to replace lost blood is limited. If this is not returned to normal after surgery the depletion of the natural defences increases the likelihood of post operative morbidity and complications.

Older patients, patients with chronic infections and patients with malignancies have a contracted blood volume, and tolerate blood loss poorly. But these same patients, especially the elderly, also tolerate overloading of the circulation poorly. So there is a decided advantage in knowing the extent of blood loss and replacing it immediately. In other words it helps to prevent both under transfusion and over transfusion.

Methods:

1. **BLOOD VOLUME MEASUREMENTS** — The Evans Blue method is cumbersome and time consuming. It is a laboratory procedure not an operating room procedure. It must be remembered that it is dependent on the peripheral hematocrit only and the pre-operative blood volume of the patient must be determined.

A refinement of this method is by means of Radio Active Isotopes which is perhaps more accurate but is again very cumbersome, time consuming and not practical at the time of operation. A further refinement of the Radio Active Isotope method is by means of the Volemetron computer which by using radio active materials allows estimation of blood volume, plasma volume or cell volume in 15 minutes and is stated to be accurate to 5%. This is feasible in the operating room.

Apart from the convenience, speed and possibly increased accuracy, it suffers from the same drawbacks as conventional Radio Active Isotope methods, i.e., it still depends on the large vessel hematocrit for the determination of blood volume. To quote Moore, "No matter how elegant the electronics, blood volume technology is still dependent on the vagaries of the biological system and the dilutional techniques".

A further drawback is the expense of the computer (\$4,000.00).

2. **WEIGHING THE PATIENT.**—This is often not feasible and certainly not an operating room procedure. This must include all body fluids, not just the whole blood loss.
3. **WASHING SPONGES.**—This involves washing all blood from syringes, instruments, sponges, etc., in distilled water and converting a measured amount of the solution to Acid Hematin by adding HCl. It is then compared colorimetrically with a standard amount of the patients pre-operative venous blood also converted to Acid Hematin. It is time consuming and not practical during operation.
4. **WEIGHING SPONGES**—This method is not new, it was introduced in 1942 by Wangenstein but has never come into common usage. We have adopted it as a routine measure over the past six months at the Queens General Hospital and have found it to be a very simple and helpful procedure.

An ordinary dietetic scale is used with a light weight metal tray fastened to the weighing platform. Blood soaked sponges are placed on it directly so that evaporation does not become an important factor. Dry sponges are customarily used. Each gram is considered as 1 cc., no correction being attempted for the very slight difference in specific gravity of blood from unity.

Each pack of new sponges is weighed as a whole before being used. The total weight of the dry sponges is subtracted from the total weight of all (blood stained and dry) sponges at the end of the operation, the difference being the total blood loss. The weights of sponges are quite consistent so that a reasonable idea of blood loss can be obtained at any time during an operation. For example — the 12 by 12 inch sponges and 8 x 36 inch packs used by us weigh respectively 16 grams and 26 grams. The number of these used is

multiplied by the respective weights and subtracted from the total weight of the blood stained sponges thus giving the total blood loss.

Although the latter is not quite as accurate as the final weighing, we have found this method enables us to estimate reasonably accurately and very quickly the blood loss at any time during operation.

If suction is used the blood in the suction bottle must be included of course. Blood lost on drapes, towels, etc., is not measured, since this is not usually a significant factor. However blood soaked towels may be weighed and the dry weight of the towels subtracted.

Some prefer to use wet sponges, in which case the volume of saline in the basin is measured and recorded. At any point during the operation that blood loss is to be measured, the amount of saline used is determined by measuring the amount left, and the former is subtracted from the total weight of the used sponges, to obtain blood loss.

It is realized that many if not most surgeons prefer to use wet sponges, and this had always been our practice prior to instituting this procedure. However we have found that this addition to the procedure increases the chances of error considerably and renders the procedure considerably more cumbersome.

It is our experience that it has not been difficult in the least to become accustomed to using dry sponges and packs. We have found that gentleness and good surgical technique are far more important than the fact that the sponges are wet or dry.

Our experience confirmed the lack of correlation of Hemoglobin and Hematocrit with the measured blood loss.

Our series has also confirmed the fact that blood loss is invariably underestimated. With the aid of the gravimetric procedure and with practice, our estimations are becoming increasingly more accurate.

It is recognized that the gravimetric method has its shortcomings; for instance it does not take into account the fact that there is blood loss in addition to that removed from the wound, for example, into the tissues, into the surgical specimen, and immobilized in the vessels proximal to the ligatures. Neither does it take into account post operative blood loss which may be appreciable, especially after Osteotomy and extensive dissections. Nevertheless it is a simple, reasonably accurate procedure which enables blood loss to be recorded at any point during the procedure. It is especially useful in pediatric surgery. It must be stressed that the blood loss as measured by this method is an indication of the **minimum** amount of blood which needs replacement.

Conclusions:

The measurement of blood loss in surgery by weighing sponges is very useful.

1. It is not costly. No expensive apparatus nor experienced technician is required.
2. It is reasonably accurate. Studies show that the percentage accuracy approximates that of any other method.

3. It is simple. Ability to read the dietetic scale and to do simple arithmetic is all that is required. (We do suggest that the arithmetic be checked as an added precaution.)
2. and 3. above make the method of weighing sponges attractive to the smaller hospitals particularly, where lack of personnel may be more acute.
4. We have also found that it helps to prevent the unnecessary use of blood.
5. We have found that blood is replaced sooner than otherwise.
6. It gives a greater sense of security in that an approximate idea of the amount of blood loss is known at any given time.
7. We have also found that it very definitely renders the surgeon more conscious of the value of hemostasis.

Summary

Our studies have confirmed other reports that blood loss in surgery is almost invariably greater than estimated, and that there is no correlation between blood loss and changes in Hematocrit and Hemoglobin.

Procrastination on the part of the surgeon or anaesthetist in replacing blood lost during and after the operation is to be condemned, as is unnecessary "routine" use of blood.

Accurate measurement and replacement not only affords the patient optimum prevention and treatment of blood loss but leads to a better appreciation of the problem by the surgical team. Hemorrhagic shock is more easily prevented than cured.

Weighing of sponges has been found to be an extremely useful and practical procedure in the measurement of blood loss during surgery.

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Assistance to Diabetics Programme

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

On June 1, 1960 the Department of Public Health began a program of Assistance to Diabetics in the Province of Nova Scotia. The administration of this program was assigned to the Division of Maternal and Child Health and Communicable Disease Control. The program was designed to assist diabetics in the lower income groups by supplying them free of charge with insulin, approved anti-diabetic drugs and certain testing materials. This assistance was made available to all diabetics in the province whose total family income amounted to \$3,600.00 per year or less.

The cost of operating this program has increased steadily over the years:

June 1, 1960 to May 31, 1961	\$178,115.79
June 1, 1961 to May 31, 1962	\$253,409.02
June 1, 1962 to November 30, 1962	\$145,385.00

The estimated cost of the program for the year ending November 30, 1963 is \$318,940.00. The cost per patient to the Department of Public Health is \$74.17.

In October 1962, there were 4,664 names in the files of whom approximately 550 had died or become inactive for some other reason.

Of that total 1,641 were males and 3,023 females; 1,538 were controlled by insulin alone and 3,126 were taking antidiabetic medications other than insulin. Table I gives the distribution of patients by age group, and table II by county. In interpreting these tables it should be remembered that they include only those diabetics whose family incomes amount to \$3,600.00 per year or less.

The program provides all approved antidiabetic drugs, all types of insulin, clinitest tablets and acetest tablets.

At the present time the approved antidiabetic drugs are:

Mobenol
Orinase
Diabenese
D.B.I.
Dimelor

Method of Operation:

The procedure for obtaining this assistance is quite simple. Doctors and Druggists are provided with supplies of application forms. The form is divided into two parts. Part one is completed by the patient and gives information regarding the patient's age, address, family income, etc. Part two is completed by the patient's doctor and simply requires the filling in of blank spaces showing the number of vials of insulin, the number of anti-diabetic pills and the number of urine testing tablets per month. When the

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Department of Health receives the application form satisfactorily completed, the patient is sent a card, which enables him to obtain his medications and testing materials free of charge from his local drug store. The druggist is required to obtain the patient's signature for each monthly supply of materials.

The Department of Health requires each patient to renew his card once a year by submitting a new application. There are several reasons for doing this. One reason, of course, is to prevent dishonest persons from obtaining supplies for patients who are not in the province or not living. It is unfortunate we do have such persons and we have had experience with them in other programs. The second reason is to promote yearly check-ups of these patients by their doctors. It took considerable time to get this system running smoothly. We had requests from patients for just about everything from foot powder to grocery supplies. A great many letters had to be written explaining that our program of assistance included only insulin, antidiabetic drugs, clinitest tablets and acetest tablets. And then a great many did not fully complete the application form. Many were quite old and no doubt had poor vision. It is amazing that so many of these old folk seemed to have no relative or friend to help them with this small chore.

Relations with Druggists:

The druggists cooperated well in the program from the start. There were very few complaints about having trouble in getting the customers signatures. One druggist called up and wanted to know what he was going to get out of it. Presumably he expected to get something in addition to being paid for the medications.

The Physician's Part:

The principle of not interfering with the relationship between the physician and his patient is considered important, and rather than use travelling clinics staffed by government appointed doctors as has been done elsewhere, the Province prefers to retain the normal function of the family doctor. However, the Department of Health must have some authority on which to approve payment of patients' accounts and under the present setup, that authority is the attending physician. It is appreciated that doctors are busy people, and consequently the information required has been cut to a bare minimum. Regrettably so many applications have to be returned, sometimes more than once, in order to have part II properly completed.

It is not sufficient, for example, to state that the patient requires three bottles of clinitest tablets per month, since these tablets come in bottles of 24's, 36's, 100's and 500's. The approximate number of tablets per month must be stated before the accounts can be processed. Also the bald notation "insulin" without mention of the type or amount required is of no help to the department. Physicians are urged to do their best to complete the application forms. By so doing, they will eliminate the writing of several thousands of letters each year, as well as sparing their patients a great deal of anxiety.

Prior to the initiation of this program of assistance, there were many diabetics in this province who were actually forced to do without proper medications. They simply did not have sufficient money to buy them. The

program is filling a great need, as most physicians will appreciate. It is hoped, therefore, that they will do all in their power to make it a complete success.

Summary:

The Program of Assistance to Diabetics in Nova Scotia is designed to help the family physician to provide the best possible medical care to a large group of patients in poor circumstances with a costly disease. Under the terms of the program, over 4500 people, all with incomes less than \$3600.00 per annum are able to get the medications they need, and which they otherwise could not afford.

The assistance of all physicians in the Province is earnestly requested in observing the minimum requirements of the Department of Health in order for this scheme to run smoothly.

County	Population	Cases	Rate/1000
ANNAPOLIS CO.	23,035	159	6.9
ANTIGONISH	14,874	60	4.0
CAPE BRETON	133,917	864	6.4
COLCHESTER	34,175	264	7.7
CUMBERLAND	37,035	323	8.7
DIGBY	20,354	272	13.3
GUYSBORO	13,064	121	9.26
HALIFAX	236,835	805	3.37
HANTS	27,066	217	8.01
INVERNESS	18,912	93	4.91
KINGS	43,319	262	6.04
LUNENBURG	35,314	358	10.13
PICTOU	43,644	339	7.76
QUEENS	13,307	97	7.28
RICHMOND	11,540	72	6.23
SHELBURNE	15,450	132	8.54
VICTORIA	8,298	61	7.35
YARMOUTH	23,784	165	6.93
TOTAL CASES*	753,923	4664	6.03

Table II

INCIDENCE OF DIABETES ACCORDING TO AGE GROUPS

PROVINCE OF NOVA SCOTIA — OCTOBER 1962

(Includes diabetics whose family income is \$3600.00 or less)

AGE GROUP IN YEARS	Unknown	0 - 4	5 - 9	10 - 19	20 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80	TOTAL
TOTAL	10	10	19	107	332	470	883	1,329	1,150	357	4,664
% OF TOTAL CASES	-	0.2	0.4	2.3	7.1	10.1	18.9	28.5	24.7	7.4	100.0
POPULATIONS (age groups)	-	92,000	85,300	14,900	181,700	86,100	63,900	45,000	30,300	12,200	745,500
INCIDENCE RATE Per 1000 (age groups)	-	0.1	0.2	0.7	1.8	5.5	2.2	29.5	37.9	28.2	6.24

TABLE I

The Doctor and the V.O.N.

by

LAURA WALL*

Doctors sometimes ask which patients they can refer to the V.O.N. The answer is **any patient at home who requires only daily or occasional nursing care.** In this wide field Victorian Order patients range from infants to the aged and they live in all districts of the community. The Victorian Order nurse stays in the home only long enough to give the prescribed treatment such as dressings, compresses, irrigations or injections, in addition to general nursing care, which includes bathing the patient. Most patients referred to us are suffering from short term illnesses or are convalescing, but we have chronic cases who have been under our care for long periods.

A Victorian Order nurse, who is a registered nurse and very often has university training in public health nursing, reports to the patient's doctor even when she has been called to the case by some one else or some other agency. Visits are only continued if a doctor is in attendance.

Health Teaching:

Health teaching has always been an important part of V.O.N. work. The Victorian Order is frequently asked to teach diabetics to give insulin injections. When the diabetic cannot do this, the nurse tries to teach a responsible member of the family. In other chronic illnesses the patient must be taught a new way of life.

Instruction is particularly important in rehabilitation nursing. When the patient does not have the determination to carry out the exercises the doctor has ordered, the V.O.N. will bring encouragement by her regular visits. Members of the family are also taught to help the patient keep up the exercises.

The Victorian Order nurse encourages all her patients to the most normal living possible, and discharged mental patients can be greatly aided by this service. A regular visit from the V.O.N. often gives a feeling of security which these patients require for a time.

When visiting her patient the nurse sometimes finds that another member of the family needs medical care. By referring this person to the doctor, the nurse may prevent a more serious condition developing.

Maternity Services, Antenatal and Postnatal Care:

The V.O.N. still assists doctors when a patient is confined at home, but most of our maternity work has become prenatal supervision and caring for the mother and baby after they return from hospital.

Today's young couples are often new in the community, lonely and apprehensive about childbirth. Doctors may ask the V.O.N. to visit their prenatals and we are told that such visits help anxious patients to have a calmer approach to their condition. In some centres the V.O.N. carries on regular prenatal classes where relaxation exercises are given, with the consent of the patient's doctor.

*Regional Director, Victorian Order of Nurses for Nova Scotia and Newfoundland

The doctor may ask the nurse to visit the mother immediately after her return from hospital to show her how to bathe the baby, and how to prepare the formula when this has been advised. The nurse will continue to make a regular check of the baby for over a month at no further charge, beyond the fee for the original visit. This service is a great help to the young mother in assuring her that the baby is developing normally and gaining weight, and she usually has a number of questions ready for the nurse. If the nurse finds an abnormal situation developing she will promptly report to the doctor.

Problems of the aged and convalescence:

A V.O.N. visit for routine supervision is also a great help to the aged patient living alone. The patient is a problem to his doctor because no one takes responsibility for him, and there are more and more elderly people living alone. Their independent spirit is usually an asset to them but sometimes it is a disadvantage. They are inclined to become depressed and then neglect getting proper meals or even arranging their room to be comfortable. The Victorian Order nurse will call on such a patient on behalf of the doctor. She will assess the situation and advise the patient on the best way of carrying out his doctor's instructions under his own particular circumstances. Through her association with other community organizations the nurse is often able to make arrangements which will greatly aid in the patient's comfort. Sometimes the Victorian Order nurse is the only contact elderly people have with the outside world.

Across Canada there is an increasing trend for patients to be sent home from hospital under the care of the V.O.N. More hospitals are instituting referral programs in which the patient, the doctor, the hospital nurse and the V.O.N. confer together in hospital to arrange for a continuity of nursing care after the patient goes home. The Victoria General Hospital in Halifax now has a full time V.O.N. office in the hospital.

The patient's home is often the deciding factor as to whether the doctor will let the patient go home from hospital. When the doctor is not familiar with the patient's home he may ask the V.O.N. to call and discuss the patient's care with the family. The Victorian Order nurse has had special training to assess the factors essential for good convalescence. Many patients make a quicker and better recovery at home and hospitals are crowded. At the same time the nurse is mindful of the extra burden which will be on the mother or homemaker and she will be glad to demonstrate the easiest way of carrying out the doctor's instructions.

Doctors sometimes have patients living in suburban or rural areas who would like Victorian Order care but they assume the service does not extend beyond the municipal limits. During the last few years many V.O.N. branches have extended their boundaries to include neighbouring suburbs and adjacent rural areas. The local branch sets its own boundaries and will be glad to inform the doctor of any changes. The fourteen V.O.N. branches in Nova Scotia now serve large areas between Cape Breton and Yarmouth.

Fees:

Doctors are asked about V.O.N. fees. The fee varies from branch to branch but is uniform within the branch and covers the cost of the average visit. The fee may be scaled down to an amount within the patient's budget, and in some cases is waived. The Victorian Order of Nurses never refuses a call because of inability to pay.

More should be known about our service to patients in the middle and upper income groups. Sometimes these patients do not realize they can have V.O.N. service and they are grateful when their doctor suggests it. Some patients carry insurance which covers the V.O.N. fee but many families welcome an opportunity of paying the full fee because this means a happier situation in the home as well as skillful nursing for the patient.

The Victorian Order of Nurses has always had a close relationship with the medical profession. Each local branch has its medical advisors. Some doctors have assumed administrative posts on local boards and a few have been presidents of their branch. They have told us that their V.O.N. responsibilities have put them in closer touch with some community health problems which confront the visiting nurse before reaching the doctor. Doctor's wives, too, have been valuable members of V.O.N. boards and auxiliaries. When being thanked for her work in this connection, a doctor's wife remarked "I love my work with the V.O.N. and I'm becoming greatly interested in its national service and possibilities. But in the beginning my interests were purely local and personal. My husband was overworked and I thought that some of his calls could be taken by the V.O.N. He has found out that this is so".



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*T.M. reg'd. Canada

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Spontaneous Alveolar Rupture at Birth

Pneumothorax may occur with the first few breaths of life, presumably due to aspiration of foreign material. Although many infants recover spontaneously, some may require special measures — oxygen breathing or prompt aspiration.

Spontaneous pneumothorax is more common in the newborn period than in any other time of childhood. Since it is one of the few treatable causes of respiratory difficulty in the early days of life, the predisposing factors, clinical findings, and rationale of therapy should be understood.

Of 15 infants with the diagnosis of spontaneous pneumothorax seen in one hospital from 1955 to mid-1962, only two were less than 2.5 kilograms birth weight. Four infants had gestational ages of 42 weeks or more.

In seven of the 15 infants the signs of pneumothorax were clearly evident in the delivery room, which suggests that the collapse occurred with the first few breaths. Three of the seven were meconium stained. The remaining eight infants were symptomatic within the first 24 hours of life and two of these were meconium stained.

Chest X-Rays Taken:

The possibility of aspiration of blood or meconium as a predisposing event was clear in eight of the 15 infants, and the aspiration of mucus could not be ruled out in any infant. Infection was considered possible in two infants who had infiltrates in the lungs after reexpansion of the collapsed lobes.

Chest films were taken to aid in the diagnosis of all the infants. In only three was the diagnosis strongly suspected before the films were available. Irritability and restlessness were often present. Periodic breathing occurred with large pneumothoraces, and convulsions occurred in one infant who subsequently died.

Four of the 15 infants died, one with tricuspid atresia, one with hyaline membrane disease, and two from their pneumothoraces.

Three of the 11 infants who recovered were treated by water-seal suction applied through a catheter inserted through the chest wall. Deterioration of the infant's condition, characterized by increasing cyanosis, irritability, and periodic apnea, was the indication for aspiration of the air by sustained suction. In the survivors, immediate improvement was apparent after the application of suction. The eight infants who were only mildly ill cleared within hours or up to nine days in incubators. Antibiotics were used when there was any possibility of infection.

Inflating the Lung:

The first breath of the newborn infant poses a unique mechanical problem for two reasons: (1) the development of high transpulmonary pressures and (2) the uneven inflation of the airless lung.

Introduction of air into the airless lung requires the application of high pressures (up to 100 cm.H₂O) to overcome the viscosity of fluid in the airway and the forces of surface tension, and to stretch the lung parenchyma. As the lung expands the muscles are no longer in a position to maintain a high transpulmonary pressure.

If only one alveolus opens in the initial expansion and the rest of the lung remains atelectatic, there is no pressure difference across the unaerated portion of the lung because the pressure is transmitted through the lung tissue. However, the pressure inside the aerated alveolus is at approximately atmospheric pressure and the pressure surrounding the alveolus is below atmospheric pressure. The large pressure difference across this single alveolus is of sufficient magnitude to rupture it if prolonged for a critical period of time.

Inflation Uneven:

The normal airless lung does not inflate evenly. Groups of alveoli rapidly become fully expanded while other areas of the lung remain atelectatic. Inflation of the atelectatic lung *in vitro* clearly demonstrates this serial or sequential opening of ventilatory units.

The pertinent question is why every infant does not have a spontaneous pneumothorax with his first breath. Presumably initial expansion of the lung is rapid and smooth in the vast majority of newborns. Cinerentgenograms of the first breath show that the lungs of the normal newborn inflate promptly. Physiological observations show that a full functional residual capacity is achieved during the first minutes of life, and that the volume of a cry within the first 18 minutes of life is about 77 per cent of that on the third day of life. Once expanded, an alveolus rarely ruptures in a normal lung. This is largely because of the inability of the diaphragm and chest wall to create transpulmonary pressures high enough to rupture the lung.

If there is obstruction to portions of the atelectatic lung this might lead to a prolongation of high pressures across aerated alveoli and could lead to their rupture.

Deaths Preventable:

Deaths from pneumothorax in the absence of serious underlying disease should be preventable. Once it is known that a pneumothorax or a pneumomediastinum is present, the infant should be on special observation, with pulse and respirations recorded every 15 minutes because of the rapidity with which tension phenomena may develop. Early and frequent small feedings may be useful in preventing vigorous crying. Limited numbers of observers carrying out physical examinations may prevent the one hard cry which produces the tension phenomenon. The precaution of a No. 18 needle, syringe, and three-day stopcock by the bedside, and frequent observations seem justified for all infants with pneumothorax or pneumomediastinum.

Any sudden change in vital signs should alert the physician to the possibility of air under tension, and if there is deterioration in the clinical status, needle aspirations should be done. Continuous drainage is indicated when pleural pressure is positive.

Some babies have a pneumomediastinum or pneumothorax which is not in communication with the airway, or under pressure. However, the size of the loculated pocket of gas does interfere with respiratory exchange. In

this situation 100 per cent oxygen inhalation can be utilized to hasten the absorption of gas from the pocket. Prolonged exposure to oxygen would, of course, be contraindicated in the premature infant unless cyanosis were present. It must be remembered, too, that the use of oxygen for a prolonged period of time enhances the production of atelectasis for the same reason it enhances the rate of removal of loculated gas if the patient does not take a deep breath periodically.



FROM THE BULLETIN OF 40 YEARS AGO

The Medical Society of Nova Scotia Bulletin, April 1924.

Some Infant Mortality Statistics

The present infant mortality rate for Nova Scotia is 100.6 deaths in 1000 live births. The rate in towns and cities is 134.1 and in rural districts 72.5. There is no good reason why this rate should not be cut in half. With the present expectation of life as 55 years, if the infant mortality rate were reduced to 40 this expectancy would be raised to 64 years.

A recent survey in the United States has shown a great variation in rates. In cities with a population exceeding 250,000 the highest rate was in Buffalo being 103 per thousand births. In this group Seattle shewed the lowest rate namely 50. In cities between 50,000 and 100,000 population Charleston, S. C. gave the rate of 129, while Berkeley gave a rate of only 37. In cities of 100,000 to 250,000 of a population San Antonio gave the highest rate of 143, while Grand Rapids gave the lowest rate of 61.

A summary of causes of death in 100 births is as follows: —

46.8 due to mal-formation, premature birth, injuries or congenital mal-nutrition.

18 deaths from diarrhoea and enteritis.

13 from pneumonia and bronchitis.

9 from epidemic diseases.

14 from ordinary causes.

When one realizes the enormous number of deaths that might be prevented it hardly seems possible that any sane thinking man or woman could hamper in any way Child Welfare Work.*

*The above figures contrast sharply with the present (1960) figures for Nova Scotia which stood at 30 per thousand, with a life expectancy at birth of 70 years - far beyond the mortality rate of 40 and life expectancy of 64 which were only a hope in 1924. - Editor.



The Use of Hormones in Abnormal Menstruation

By

G. H. FLIGHT, M.D., C.M., F.R.C.S. (C)*

Attention has frequently been drawn to disorders of menstruation associated with gross and readily demonstrable pathology. Benign and malignant tumors of the reproductive organs and abnormalities of early pregnancy serve to illustrate these examples of organic bleeding. Fifty years ago Hitschmann and Adler discovered that the endometrium undergoes cyclic change. The subsequent recognition of the function of the endocrine glands concerned in the control of menstruation has so helped our understanding of the phenomenon that we can now also talk with certainty about functional disturbances.

The term functional implies a disturbance of physiological mechanisms and when referring to uterine bleeding is known by a variety of names. The commonest of these is Functional Uterine Bleeding. Others use Dysfunctional Uterine Bleeding and, at Dalhousie, Benign Uterine Bleeding has been a popular term for many years. These terms refer to a group of disturbances resulting from endocrine dysfunction, but in dealing with individual patients, it is usually desirable to seek more specific diagnoses so that treatment can be logically planned.

The presently accepted view of the hormonal control of menstruation is, that the anterior pituitary secretes follicle stimulating hormone (FSH) which causes the Graafian follicle to ripen and secrete increasing amounts of Estrogen prior to ovulation. Luteinizing hormone (LH) from the anterior pituitary causes the actual act of ovulation, while luteotropic hormone (LTH) maintains the function of the corpus luteum with its cyclic output of progesterone. Prior to ovulation then, the endometrium is influenced by Estrogens alone, while after ovulation by both Estrogen and Progesterone. A fall or imbalance in these leads to menstruation.

At one time, the disorders of menstruation were classified into simple groups. Since the menses were thought to follow the cycle of the moon and occurred every twenty-eight days, it was obvious that some disturbance was present when they appeared at shorter or longer intervals (polymenorrhoea and oligomenorrhoea), were scanty or profuse (hypomenorrhoea or menorrhagia), were absent altogether (amenorrhoea) or were unduly painful (dysmenorrhoea).

Based on the knowledge of the known events in the menstrual cycle, the specific defects in most cases of functional uterine bleeding have been worked out. Most functional excesses occur from proliferative or estrogenic endometrium; that is, there is a lack of progesterone effect. It is rare to have excessive bleeding from a full-blown, normally differentiated, progestational endometrium in the absence of organic disease. For all intents and

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purposes, the only hormone being produced in most cases of functional bleeding is estrogen. When the estrogen level rises, bleeding stops; when it falls, bleeding occurs. The rise and fall of estrogen is controlled by the relationship between the graafian follicle and the output of FSH by the pituitary. There is usually a time lag of two to five days in the estrogen and bleeding relationship. An effective rise in estrogen stops bleeding within two to five days, and conversely, an effective fall in estrogen results in bleeding within two to five days.

What causes the upset in the pituitary, ovarian and endometrial functions is really not known. Perhaps one or more of the following may happen:—

1. A failure of the late menstrual rise in estrogen may result in prolongation of what would otherwise have been a normal period.
2. An extremely rapid fall in estrogens may induce excessive bleeding.
3. Prolonged bleeding may result from estrogen levels that hover at critically depressed values for prolonged periods of time.
4. Prolonged and unopposed estrogen stimulation of the endometrium may produce endometrial hyperplasia, providing longer periods of endometrial growth followed by excessive bleeding.

We do know that in most cases ovulation does not occur, and if it does, the production of progesterone is poor.

A distinction must be made between normal and abnormal menstruation. The features of abnormal menstruation are:—

1. Prolonged bleeding — lasting 8 days or more.
2. Bleeding too often — 23 days or less from the beginning of one period to the beginning of another.
3. Excessive bleeding — more than a moderate increase in a specific patient's normal amount of flow.
4. Continuous bleeding — which might be more or less daily spotting or moderate or profuse flow.

These descriptive terms are more meaningful than the words menorrhagia, metrorrhagia etc. and it is important to take an accurate history.

There are five common clinical varieties of functional bleeding that can be recognized, the first two of which account for the vast majority of cases. Briefly, they are:—

1. **Anovulatory Bleeding** — here there is a failure of ovulation and the endometrium is under the influence of estrogen alone. Frequently there is a delay in the expected period date by one or two weeks, and when it starts it lasts well beyond the normal 8 days, and may also be profuse. This type of bleeding is common in adolescents and premenopausal women but may occur after a miscarriage or full term delivery.
2. **Endometrial Hyperplasia** — the end result of anovulatory bleeding where the glandular elements as well as the stroma become overgrown from prolonged estrogen stimulation lasting several months. Clinically, the bleeding is excessive and often continues for long periods of time.
3. **Irregular Shedding of the Endometrium** — here there is ovulation, but the progesterone effect persists well into the bleeding phase of

the cycle and produces bleeding for longer than normal. Flow may be excessive but the cycle interval is not changed. A curettage done at this stage will not show the usual normal microscopic picture of sloughing endometrium.

4. **Inadequate Luteal Phase** — here again, ovulation occurs, but there is either poor production or poor utilization of progesterone resulting in prolongation of the bleeding phase. Flow is not excessive and once again the microscopic picture of the endometrium does not resemble that usual for any particular day of the cycle — it is rather poorly developed.
5. **Ovulation Bleeding** — bleeding (or spotting) on the day of ovulation is seen in at least 10% of healthy women. Its cyclic recurrence helps to confirm the diagnosis. It usually requires no treatment.

The diagnosis of uterine bleeding must be approached with caution and reservation, for the foremost duty of the clinician is to rule out malignancy as the cause. Physical examination and pelvic examination with vaginal and cervical cytology are essential, but diagnostic curettages and vaginal examinations under anesthetic are not necessary on adolescents and young unmarried women. Curettage should preferably be done in the second part of the cycle, to demonstrate whether or not ovulation has occurred. However, if irregular shedding is suspected from the history a diagnosis can only be made on the 6th or later day of bleeding.

Since functional bleeding often runs a limited course, the clinician's therapeutic objectives are to combat depleting hemorrhages, treat anemia and to restore normal cyclic bleeding. From a practical point of view, modern treatment divides itself into hormone therapy and surgery.

The clinician not orientated along the lines of glandular physiology will resort to repeated curettage and then hysterectomy. He who has used glandular therapy in a haphazard manner and found it wanting, decries its use. Others refuse to try hormones at all, asserting that their use is experimental or that they are carcinogenic.

Hormones may, however, be applied in the light of a knowledge of the physiology of menstruation, to give effective treatment of menstrual disorders, provided always that any menstrual irregularity due to nutritional, nervous and psychogenic factors is recognized and treated.

The hormones in current use for functional bleeding are **estrogens, progesterone** and the newer progestational agents, the **19 nortestosterone derivatives**.

Estrogens:

On the basis that an effective rise in estrogen will stop endometrial bleeding, they are commonly used in the management of functional bleeding at the menarche and at the menopause.

- (a) *For rapid hemostasis* — Premarin 20 mgm. intravenously every four to eight hours until bleeding is arrested, followed by Premarin 3.75 mgm orally daily, reducing gradually to 1.25 mgm. a day and continued for three weeks. Withdrawal bleeding will occur two to five (sometimes up to eight) days later.

- (b) *For less rapid hemostasis* — give Premarin orally in the dosage mentioned above, or Stilbesterol 5 - 10 mgm. at four hour intervals.

A complication of high dosage estrogen therapy is nausea. The errors that are most frequently made when employing estrogens are the use of inadequate dosages and the abrupt cessation of therapy when bleeding is arrested. Estrogens must be tapered off gradually, otherwise bleeding will always ensue. If one wishes to repeat the course in the next cycle, then start oral estrogens on the second or third day of bleeding and continue for three weeks.

Progesterone:

This is a desquamative hormone. It increases the desquamation of the endometrium and therefore enhances shedding. Progesterone induces a "medical curettage". If properly employed it is the most effective single therapeutic agent available for treatment of irregular and profuse bleeding.

It is very important to remember that adequate doses will slow down and stop uterine bleeding, but that 2 to 10 days after it is withdrawn, bleeding will invariably follow. The interval depends on the agent used.

- (a) Progesterone 10 mgm. intramuscularly daily for 5 consecutive days (or 50 mgm. given in one dose) will not stop bleeding completely and in 5 - 8 days will induce withdrawal bleeding. This method is not recommended since better doses and drugs are available.
- (b) Progesterone in Oil — 100 mgm. intramuscularly will stop bleeding in 2 - 3 days and 5 - 8 days later will induce withdrawal bleeding. This is a good way to insure that the patient gets the medication and the most suitable product is Proluton (Squibb) containing 50 mgms. Progesterone in Oil per cc. To ensure regular cyclic bleeding give 100 mgm. intramuscularly every 25 - 28 days for 3 months. Progesterone is not effective orally.

Progestational Compounds:

These compounds have all but replaced Progesterone and have proven to be quite effective.

- (a) **17 Hydroxyprogesterone caproate** (Delalutin)— this is a potent progestational agent for intramuscular use and when given in 250 mgm. doses will arrest bleeding in 24 - 48 hours. Withdrawal bleeding usually occurs 7 - 10 days later.
- (b) **19 - Nortestosterone Derivatives.**

Norethindrone (Norlutin) and Norethynodrel (Enovid) are examples of very potent progestational agents. Each tablet contains a small quantity of estrogen since it is known that estrogens enhance the effectiveness of progesterone.

In functional bleeding, for example, 30 mgm. of Enovid will arrest bleeding in almost every case within 24 hours. For women when the loss of blood is heavy, the dose may even be doubled, but once the drug is given it must be continued, otherwise withdrawal bleeding will occur in 2 - 4 days. A practical plan would be to continue on a dose of 10 - 20 mgms. a day for a month, adjusting the dose up or down to keep the patient from having breakthrough bleeding. In the meantime, appropriate iron therapy is given. If one wishes he may postpone the withdrawal bleeding (period) for 30, 40, 60 days or longer, if he wishes to give the hemoglobin a chance to approach normal.

A course of 2 - 3 months on 5 - 10 mgms. a day from the 5th to the 24th day of the cycle will give a regular cycle of 27 - 28 days.

Another way these agents may be used is to give 5 or 10 mgms. daily from day 17 in the cycle for one week to encourage development of a well differentiated endometrium and more effective shedding of the endometrium, especially in inadequate luteal phase and hyperplasia.

It is important to explain to the patient that she should expect withdrawal bleeding, otherwise she will feel the treatment has failed.

In the use of hormones in the control of functional bleeding, the arrest of bleeding is only a stop gap mechanism without assurance against recurrence. However, in girls and young women especially, cyclic treatment will often bring about cyclic menstruation with ovulation (or it may occur spontaneously) and one needs to go no further with treatment.

Summary: Hormone therapy for functional uterine bleeding can only be effective if it is used on physiological principles. The haphazard use of hormones due to lack of understanding of the underlying mechanism of menstruation can only lead to disappointment, repeated curettage and possibly hysterectomy. Such measures as hysterectomy should be reserved for women who are nearing their menopause or are past their reproductive period.



NOTICE

Back issues of the Medical Register of Nova Scotia for the year 1953 and any preceding years, are required to complete files.

It would be appreciated if anyone who has any of these issues would send same to

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Registrar
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The Emergency Call System

WHEN AN EMERGENCY, real or imaginary, strikes, people want a doctor immediately. Inability to locate one is frequently regarded as evidence that local medical care is inadequate, or it may give rise to charges that doctors are unwilling to accept emergency calls which come at inconvenient times. Either attitude is bad for public relations.

The solution is the emergency call system — a plan worked out by the medical society to assure the public that a doctor's services are available at any time of the day or night. Of course, such a system should only dispatch a physician when the family doctor can't be reached — or when there is no family doctor.

There are several types of emergency call systems; the one set up should be governed by local conditions and need. They range from the formal, which utilizes switchboard service to handle emergency calls, to the informal, which relies upon the arrangements made among doctors and clearly announced to the public by the medical society.

The formal systems use a physician roster. Doctors who allow their names to be placed on the roster agree to accept emergency calls, either on a rotation basis as calls come in or over a definite period of time, ranging from a day to a week or more.

The question of whether or not specialists should participate in the society's emergency call program occasionally arises. In some societies specialists agree to serve since they are doctors first and specialists second.

Unless a reasonable percentage of society members participate in the emergency call program it cannot succeed. Members must understand the importance of and the need for the emergency service. It cannot be considered a "cover" for doctors who do not wish to handle their own emergency calls. The plan must be well defined, understood and accepted by physicians as well as the public.

How do the plans function? Some service must be selected for receiving emergency calls and locating a doctor for the patient or providing the patient with the doctor's name and telephone number. Most emergency plans actually locate a doctor for the patient since this system is most efficient, saves valuable time which might be lost by having the patient try to contact the doctor, and creates more good will for the medical profession.

1. **Hospital Plans** - A local hospital often can serve as a contact centre for an emergency call program. Emergency calls come into the hospital switchboard and the operator locates a doctor or gives the patient the name and

*The following material appeared in the Canadian Medical Association Journal in 1956 under the caption "Public Relations Forum" — it has been edited to coincide with present day PR problems.

phone number of an available one. The medical society sets up a roster of physicians who serve on tours of duty ranging from periods of a week or even a month. The doctor on call leaves word with the hospital switchboard as to where he can be located, or if he will not be available, leaves the name and telephone number of his alternate.

2. **Telephone Answering Services** - Many emergency call plans are operated through telephone answering services. These call answering services may be owned and operated by the medical society or by a private concern, or a combination of the two.

COMMERCIAL ANSWERING SERVICES -

Commercial exchanges which routinely handle physicians calls often will agree to handle emergency calls for the medical society. The commercial exchange usually has a special emergency number listed in the telephone directory.

MEDICAL SOCIETY-OPERATED ANSWERING SERVICES -

Many medical societies set up their own telephone answering services to provide round-the-clock emergency coverage. Although expensive, this type of exchange provides the best method for handling emergency calls. A medical society answering service is easier to administer and supervise and there is no doubt in the public's mind that local physicians are providing for its emergency medical needs.

TELEPHONE LOCATOR SERVICES -

In some small communities private individuals operate telephone-message services for doctors and also will assume responsibility for accepting and relaying emergency calls to doctors as they call in for messages. Or, already existing 24-hour telephone services, such as those operated by the police and fire departments, the telephone company, taxi companies or other agencies, can serve as message centres for emergency calls.

COMBINATION PLANS -

In some areas, the medical society handles emergency calls during the day, either through its own emergency switchboard or through the usual society telephone, and turns the program over to a commercial call answering service or some other agency when the society office is closed.

3. **Other Medical Society Plans** - In some areas the informal plan is adequate. A roster of physicians in the area, their telephone numbers, and the hours during which they are available, is drawn up and printed in the local newspaper. This information is also circulated among local authorities to help ensure emergency call coverage.

Emergency call plans must not only be approved by the society, but should be sponsored, supported and supervised by the society. Supervision is necessary to ensure efficiency of operation and to make certain the public knows the society is providing emergency service.

The value of an emergency call plan is diminished unless doctors actively inform residents about it. There are many possible ways for telling the public about the medical society's program. These include: advertisements

and features in newspapers, advertisements in telephone books, leaflets, spot announcements on radio and television stations, signs in hotels, motels, drug stores, hospitals, police and fire departments, welcome-wagon leaflets for newcomers in the area, and through the Speakers Bureau.

A logical companion project for the medical society's emergency call system is an educational program discussing the importance of a family doctor for every family. Newcomers to a community as well as many long-time residents do not select a family physician until emergency strikes. There are at least two good reasons for urging people to arrange for a doctor while they are well. First, such a program reduces the number of emergency calls which come through the society's system; such calls are then rightfully handled by the individual's own doctor. Second, the family doctor is restored to his rightful place in the doctor-patient relationship. Too often patients by-pass the general practitioner diagnosing their own ills to the extent that they go immediately to the specialist for care.

Promotion of the family doctor concept can be accomplished through the society's Speakers Bureau, through the newspaper, radio and television, as well as through special literature. Since, as we have said, the newcomer is frequently without a family doctor, a leaflet prepared for distribution via the welcome-wagon is an excellent medium by which to reach this individual.

What intramuscular iron!

- is absorbed directly into the blood stream as well as the lymph?
- did not cause precancerous tumors?
- causes few and fast fading stains?

Answer: Jectofer

- From Astra Research, the originators of Xylocaine, now another product with an internationally proven record of effectiveness and safety.



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Personal Interest Notes

March was RED CROSS month in Canada. Through press releases we were again reminded how many people are helped in how many ways and by how many people in and through this organization.

The Medical Society of Nova Scotia was saluted during the month for many years of devoted service to the "alleviation of human misery". In a brief ceremony, Dr. Lea C. Steeves, chairman of the executive of the society was presented a citation from the Canadian Red Cross. The presentation was made by Mr. G. R. Matheson, president of the N.S. Division of the Canadian Red Cross and Mrs. G. R. Smith, chairman of the blood donor committee. It reads as follows:

"1863-1963" - On the occasion of the centenary of the International Red Cross, the Canadian Red Cross Society salutes The Medical Society of Nova Scotia in deep appreciation for years of collaboration in mutual humanitarian task for the alleviation of human suffering and the greater understanding of men of all nations".

The most significant area of the society's collaboration has been in the blood donor service. The Red Cross provides the collection, laboratory and distribution services and the physicians administer the blood and blood products free of charge.

DOCTORS IN NEWS

ANTIGONISH

Dr. and Mrs. J. J. Carroll have been vacationing in Florida.
Dr. and Mrs. Tom Gorman were skiing in Stowe, Vermont.

DIGBY COUNTY

DR. NORMAN BELLIVEAU, a native of Belliveau Cove Digby Co., has been elected president of the Province of Quebec Medical Association. He has been the honorary secretary of the association for the past four years. He is a well-known surgeon in the Montreal area.

DR. AND MRS LINUS F. DOIRON of Digby N. S. have announced the engagement of their eldest daughter, Louise, to Marlin Lloyd Moore, son of Mr. and Mrs. Stanley Moore of Grande Prairie, Alberta. Marriage to take place on March 30.

COLCHESTER EAST HANTS MEDICAL SOCIETY

On Saturday, February 15th this Society held a Valentine Supper Dance at the Truro Golf Club. 55 members and guests were present. This was the first venture of its kind sponsored by the group in recent years - its success encourages them to hope that it will become an annual event.

NOVA SCOTIAN AMONG LEADING UROLOGISTS was the lead on an article in the Halifax Chronicle-Herald for March 23. It went on to tell of Dr. Kenneth Mackinnon, a native of Antigonish, and graduate of Dalhousie Medical School and St. Francis Xavier, who began his medical career at the age of 3 or 4 years when he literally followed his father's (Dr. W. J. MacKinnon, Antigonish) footsteps around the wards of St. Martha's hospital, on Sunday mornings. He is married to the daughter of Dr. L. R. Meech, a surgeon of North Sydney. He is at present chief urologist at the Royal Victoria Hospital, Montreal and has had marked success in kidney transplantation, first, between identical twins in 1959, and later, with the transplant of a kidney obtained after death to a patient who, four months later, reports that he is "feeling fine".

Various meetings, - from County Council, - which was told about the need of a new gaol by Dr. Kevin Smith, and Kiwanis, - which was told about the need of a careful watch on glaucoma by Dr. Claude F. Keyes, to the Chest Conference which was addressed by Dr. C. M. Jones, Halifax, - have been part of the activities of medical men this last month. So also was a panel at the annual meeting of the Canadian Arthritis and Rheumatism society on "Joints that Jell", in which Doctors A. R. Hansen and H. O. Nason and Dr. J. F. L. Woodbury took part.

CONGRATULATIONS

To Dr. C. B. Stewart and Mrs. Stewart and to their daughter Joan on winning the Malcolm Honor Award, the highest honor the student body of Dalhousie can give a graduating student. Given in memory of James Malcolm who drowned in his graduating year 1903 while trying to rescue a fellow student, the award is given to the student with the "high qualities of character who has made the most significant contribution to campus life during his or her years at the university".

UNIVERSITY NEWS

Dr. C. Edwin Kinley, son of Dr. Cecil Kinley, and recently appointed assistant professor of surgery, has been awarded a Markle Scholarship. Dr. Kinley is the second Markle scholar on the Dalhousie Faculty. Dr. Ross Langley received the award last year. "The grants were first made in 1948 to relieve the faculty shortage in medical schools by giving support to young teachers and investigators early in their careers. Each appointment provides a \$30,000 grant to the medical school where the scholar will teach and do research, paid at the rate of \$6000 a year to assist in his development as teacher, investigator and administrator".

PROMOTIONS

To be Assistant Professors of Medicine, effective Jan 1, 1964: - Drs. A. J. MacLeod, G. R. Langley, R. N. Anderson, and J. J. Sidorov. To be assistant professor of Surgery: - Dr. F. G. Dolan. To be assistant professor of pre-

ventive medicine: - Dr. R. L. Ozere. Dr. C. H. Young has been appointed lecturer in Medicine.

The following new appointments have been made. As Instructors, Dr. H. B. Sabeau (Radiology), Dr. J. G. V. Bisset, (Ophthalmology), and Dr. Jose A. Aquino (Radiology).

In the Department of Psychiatry, Dr. D. H. Spark, a graduate of Durham has been appointed lecturer, and Dr. J. H. Brown has been named assistant professor. He has been made the director of the new clinic at the Victoria General Hospital, adding another half-day's service to the outpatients department. This was made possible by the grant of \$1000 by the Halifax branch of the Canadian Mental Health Association.

Readers of this month's Editorial will not be surprised to learn that our Editor has just returned from a course in Emergency Health Organization at Aenprior. Five others from Nova Scotia were there including Dr. L. A. Skinner, North Sydney, Dr. G. M. Smith, Windsor, and Dr. L. R. Hirtle, Halifax.

BIRTHS

To Dr. and Mrs. William Adams (Alice Mitchell), a daughter, at the Halifax Infirmary on March 2, 1964.

To Dr. and Mrs. Jerome Collins, (née Monique Desaulniers) a son, Paul, at the Grace Maternity Hospital on March 11, 1964.

To Dr. and Mrs. Robert Fraser, (née Margaret Nason), a daughter, Wendi Jane, at the Grace Maternity Hospital on March 7, 1964.

To Dr. and Mrs. Leslie Balazs (née Eva Rado), a son, Thomas Peter, at the Halifax Infirmary on March 27, 1964.

To Dr. and Mrs. John A. McPhail (Irene Hatt), of Sheet Harbour, N. S., a son, John Alexander, at the Grace Maternity Hospital on March 22, 1964.

To Dr. and Mrs. R. E. Munro (Noreen Keyes), of Middleton, N. S., a son, Robert Michael, at the Halifax Infirmary on March 20, 1964.

To Dr. and Mrs. T. J. Murray (née Janet Pottie), a daughter, Suellen Janet, at the Victoria Public Hospital, Fredericton, N. B., on February 24, 1964.

To Dr. and Mrs. Byron Reid (née Irene Hickman), a son, Peter Douglas, at the Grace Maternity Hospital on March 24, 1964.

To Dr. and Mrs. John K. Sanghi (née Yvonne Smith), a daughter, Geetanjali Marie, at the Halifax Infirmary on March 19, 1964.

To Dr. and Mrs. Albert Sinclair (née Audrey Lougheed), a son, Craig Andrew, at the Grace Maternity Hospital on March 16, 1964.

OBITUARY

Dr. Ralph E. Price - Age 57, a prominent doctor in Amherst died March 26 in the Victoria General Hospital in Halifax following five weeks of serious illness. He took his pre-medical studies at Acadia University and graduated in Medicine from McGill in 1934. He was engaged in general practice in

Amherst prior to taking up his specialty, Radiology. He was very active in sports, and held Executive positions in various Medical Societies in Nova Scotia. He was a member of the Amherst Rotary Club and Chairman of its Crippled Children's Committee. He is survived by his wife and three children.

The death occurred at his home, Stanwood, Mount Kisco, N.Y. of Dr. W. Hall Hawkins, on February 27 at the age of 78 years. Surviving is his wife, the former Merle Mitchell of Chester where they were frequent visitors until recently. He was a veteran of World War I and was buried in Arlington National Cemetery.

Dr. Letitia (Douglas) Adams aged 86, a native of Kempt, Nova Scotia died recently at Rockport, Mass. Dr. Adams was a graduate of Tufts Medical School in 1907. She was associated with the New England Hospital, Mass., throughout most of her Medical career and was a former chief of staff of that Institution.

Many doctors throughout the province will read with interest, the announcement that Frank W. Horner Ltd. of Montreal is again sponsoring **The Physician's Art Salon** at the annual meeting of the Canadian Medical Association to be held in the Hotel Vancouver in Vancouver from June 23 to 26. **To obtain entry forms:** Any physician or medical undergraduate may obtain an entry form and complete details from Frank W. Horner, P.O. Box 959, Montreal, 3, P.Q. A note or postcard will bring the form along with complete instructions on how to prepare and ship entries. No charge, all costs paid - including transportation.



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