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## Our Culture Medium Our Responsibility

As medical practitioners we work in a continuously changing environment. Society alters, perhaps a little more slowly in our province than in other parts of Canada, but none the less considerable changes in outlook have occurred in the last decade.

Cancer is now a vital aspect of medical practice. Dr. Robinson, in a masterly review of the 15 year cancer detection survey, urges doctors and nurses to teach the importance of cytological examination in all susceptible women. A central cytological registry must be established and should include cases of gestational trophoblastic disease.

Even drunken driving, which is liable to produce a flock of fatalities and serious accidents over the Christmas season, can be regarded as our direct concern.

The doctors duties extend far beyond the mere diagnosis and treatment of disease. Our standards demand that we carry out a prolonged follow-up of conditions whether they are the results of the humble urine test or surveillance of patients with chorionepitheliomata.

We must always beware that remedies are not complicated by serious sequelae. Warfarin may save lives but it brings its own peculiar dangers when given with concurrent medication, and has been blamed for a serious embryopathy when given in pregnancy. Prolonged endobronchial intubation may be complicated by tracheal stenosis. Leighton and Josenhans in their careful study show how this can be largely avoided. Even when successful surgery has eradicated cancer, our duty is not complete. We should endeavor to reconstruct or circumvent any serious defect. Hence the importance of the article on vocal rehabilitation after laryngectomy by Drs. Yousuf and Novotny.

How are all these demands and endeavors to be met? There are excellent suggestions provided by our contributors. Dr. Murray sees an active collaboration between specialists, internists and general practitioners, each in their specific role of medical care and education. LeBlanc and Shultz show how public health staff and nurses can cooperate to provide a service which is an inspiration to others serving in a rural community.

We are particularly pleased to include contributions by students upon whom, after all, our society eventually depends.

This is why there is a Yuletide flavour to our *Bulletin*. The message of cooperation, goodwill and good sense in making difficult decisions and judgements, stands out strongly amidst the everchanging ingredients of our culture.

B.J.S.G.

# Uterine Cancer Detection Program The Medical Society of Nova Scotia A 15-Year Experience

S. C. Robinson,\* M.D., F.R.C.S.(C),

Halifax, N.S.

In 1960, The Medical Society of Nova Scotia approved a recommendation of its cancer committee to institute a Uterine Cancer Detection Program with the following objectives:

1. To encourage regular cytology screening for gynaecological cancer for all susceptible women in the province — essentially women over 20.
2. To collaborate with the Canadian Cancer Society, Nova Scotia Division, and other organizations including the Provincial Department of Health, to educate the public and the profession about the importance of early cancer detection.
3. To obtain statistical data on morbidity and mortality from this disease.
4. To provide a follow-up service whereby the identification of a suspicious or doubtful cytology report would trigger a follow-up mechanism to ensure that all patients with doubtful or suspicious cytology would be promptly and correctly followed or treated.

To the great credit of the members of The Medical Society of Nova Scotia, it was agreed that copies of all cytology reports would be made available to the Uterine Cancer Detection Program for scrutiny, and the physicians also agreed to receive questionnaires and reminders and provide data to the Uterine Cancer Detection Program. The cooperation of the doctors of Nova Scotia since the inception of the program 15 years ago, has been magnificent; and both the pathologists and the clinical people have with only rare exceptions provided the information requested.

Initially, the program was funded jointly by the Provincial and Federal Departments of Health, and more recently the Province alone has paid for the cost of the program. These costs have been relatively modest and involve the salary of one clerk-statistician and a small part-time commitment by the Director, together with miscellaneous stationery and other office costs.

## BASIC ASSUMPTIONS

The hypothesis, upon which a cytology screening campaign is based, states that squamous carcinoma of the cervix represents the end stage of a process lasting, on the average, about 15 years during which normal squamous cervical epithelium gradually undergoes an abnormal type of growth called dysplasia, which eventually becomes indistinguishable from cancer; but which remains for some years outside the basement membrane, that is noninvasive, before

eventually penetrating it and entering the stroma of the cervix as well as vessels, to become frank carcinoma. During the early stages of this process in many people, the changes are reversible and do indeed reverse. As the dysplastic changes become less mild, fewer are reversible and most of the severe cases inexorably develop into carcinoma. The second part of the hypothesis assumes that changes identified before becoming frankly invasive carcinoma of the cervix can be successfully treated by one means or another and invasive disease prevented.

This assumption has certainly been borne out in the Nova Scotia experience, where practically no cases of invasive carcinoma have been identified in people previously correctly treated for cervical dysplasia or carcinoma-in-situ. The experience here, as across the country and elsewhere, indicates that between five and six cases of carcinoma-in-situ of the cervix or severe dysplasia will be identified for every thousand screenings of women previously unscreened.

It has been proposed that if all women at risk were screened on a regular basis, then in a very short time there would be no new cases of invasive carcinoma of the cervix.

## OUR RESULTS

Very quickly, the number of gynaecologic cytology examinations performed in the various cytology laboratories in Nova Scotia increased. For many years now, more than 100,000 Pap smears have been read each year. There are approximately 200,000 women in Nova Scotia over the age of 20, and if there were no repeat Pap smears in any one year, one could say that half of the female population at risk was being screened.

Up to the end of 1975, 896,510 cytology examinations have been carried out; 2,303 cases of carcinoma-in-situ of the cervix were identified and treated. During these same years 1,248 cases of invasive carcinoma of the cervix were identified and treated. (Obviously, many of the latter were identified by symptoms rather than by cytology.) During these same years, the deaths from carcinoma of the cervix dropped from approximately 40 per annum to an average of 28 in the last three years. It should, however, be noted that the death rate from carcinoma of the cervix has been dropping slowly for many years; presumably due to the improved availability and quality of treatment.

The shocking situation is that the number of new cases of invasive carcinoma of the cervix identified each year in Nova Scotia has not diminished during the past 30 years. Since the establishment of the Nova Scotia Tumor Clinic in 1953, virtually all cases in Nova Scotia have been identified, and the actual number of cases each year has varied from about 70 to 100. In 1974, 95 new invasive cases and in 1975, 73 new invasive cases were identified. This is difficult to understand if one accepts the assumption that all cases of

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invasive carcinoma of the cervix have previously gone through a carcinoma-in-situ and severe dysplasia stage.

Prior to 1961, very few cases of carcinoma-in-situ were identified or treated. Since 1967, between 175 and 225 cases of carcinoma-in-situ were being identified and treated each year and during the 15 year period, 2,303 cases of carcinoma-in-situ were identified and treated. That is to say: With the removal of the 2,303 carcinoma-in-situ cases from the population during 15 years, there was no reduction in the numbers of invasive cases as the 15 years passed by — there were 1,248 invasive cases or an average of 83 cases per year — even in the last five years. If we assume that most of the 2,303 in-situ cases would have become invasive without treatment and only because of early case finding and treatment did not, it appears that there must be a growing pool of potential carcinoma of the cervix cases (the in-situ plus the invasive cases). This pool now averages about 283 cases per year! **I can only come to the unfortunate conclusion that the incidence of carcinoma of the cervix in Nova Scotia is increasing very rapidly.** Some of the possible reasons for this will be discussed later on.

#### **FAILURE OF CYTOLOGY PROGRAM TO LOCATE INVASIVE CARCINOMA OF CERVIX**

In the years 1973-1975, there were 231 new cases of invasive carcinoma of the cervix in Nova Scotia. Of these, only 51 had previously ever had Pap smears — 20 of these had had no Pap smear for many years; 13 had only had a Pap smear leading to the present diagnosis (that is a very recent Pap smear); and the rest (that is 18 cases) were rather special in that there were technical errors either in relation to the taking of the Pap smear, the interpretation of it, or the handling of the specimen or management of the case. An ongoing education program should help to eliminate this small number of mistakes.

**Almost 80 percent of the new invasive cases in 1975 had never had a Pap smear.** In talking to these women, very few were aware of the significance and purpose of Pap smears. For the most part, they come from a high risk group; mostly from the lower socioeconomic segment of society; mostly having had early sexual activity and large families; and mostly having had no consistent regular health care of any kind. A few claim to have been told by doctors that Pap smears were not necessary for them. Many others believed that cancer could not be cured even if identified; while others exhibited various denial mechanisms or could not be bothered for various reasons.

Since the disease is being virtually eliminated amongst motivated, intelligent women who have regular cytology, how can this benefit be extended to the at-risk group which it does not even touch at the present time. Some suggestions are listed below as matters for urgent discussion.

1. Doctors need to talk to patients and urge them to have cytology. They also need to talk to their relatives and husbands in order to get the message across.
2. Doctors who are too busy to do cytology themselves should not treat gynaecologic disease nor pregnancy, and should develop satisfactory and safe referral patterns. There are lots of new, young doctors well trained and eager to do this kind of work.
3. Nurses need to do more teaching. Whether in public health, hospital, or in other community service, they have

innumerable contacts with women patients and often can teach and can convince in a way which physicians cannot. The impact of a vigorous cancer education campaign by nurses I believe would be tremendous. Like physicians, I do not believe nurses do nearly as much teaching as they could or should.

4. The Canadian Cancer Society needs to promote new and imaginative ways in its education program. The local units need to be encouraged to have active education programs, even involving door-to-door canvassing.

5. Every hospital should be a cancer detection station and no susceptible patient, not previously screened, should be admitted in the in-patient or out-patient service without the opportunity of cytology screening.

6. Because the present methods have been relatively unsuccessful at reaching the high-risk population, a trial project should be instituted using mobile cancer detection units. Such an experiment could be funded jointly by the Cancer Society, the Department of Health and local hospitals. Nursing associations, and medical societies should provide maximum cooperation. Data from these mobile clinics should be collected to determine whether or not they are effective in this province.

7. A central cytology registry must be established. There will be a further discussion of this below.

#### **COSTS**

It is impossible to estimate the human cost of invasive carcinoma of the cervix. Overall, from a third to one half, the patients die. Even by those who recover, the price paid in fear, suffering and anxiety is enormous.

In terms of money, as treatment has improved and new treatment methods added, the cost of treating a case of invasive carcinoma of the cervix has skyrocketed. The old fashioned treatment, with radium and deep X-ray, has been replaced by intra-cavitary Cesium and external radiation by means of various, rather expensive sources. The investigation of each case has become much more elaborate and expensive. The treatment of recurrence with chemotherapy has become phenomenally expensive both in terms of hospital stay, drugs, and monitoring. Many cases now are treated by radical surgery with all the various expenses pertaining to this.

Efficient methods to find cases, before elaborate treatment is needed, is certain to save money and estimates of cost effectiveness of early detection are quite convincing. Money can also be saved by avoiding screening patients who do not need screening because of recent, satisfactory cytology; or because of a number of annual negative reports which allow subsequent cytology to be carried out at less frequent intervals. In order, however, for such a scheme to be safe and effective, accurate records are necessary.

#### **CENTRAL CYTOLOGY REGISTRY**

A central cytology registry, with data available on magnetic tape, would not only permit accurate quality control of all the technical work involved in a uterine cancer detection program, but also provide direction for appropriate case finding so that the high-risk population can be identified and wasteful testing will not be carried out on those who do not need it. A detailed plan for developing such a registry is

available in Nova Scotia and has been approved in principle by the Health Services Commission. Any further delay in the implementation of the registry is ridiculous, at a time when every effort should be expended to achieve the maximum cost effectiveness of all health programs. We urge those who are causing these delays to activate themselves and authorize the immediate establishment of the registry.

#### POSSIBLE REASONS FOR INCREASE IN INCIDENCE OF CARCINOMA OF THE CERVIX

All over the world, the incidence of carcinoma of the cervix has always been higher in an environment where the following are prevalent:

1. Early sexual activity.
2. Multiple sexual partners.
3. Venereal Disease, including herpes, gonorrhoea, trichomonas.
4. Inadequately used preventive health care services, ignorance, and indifference concerning personal health.

Perhaps the cultural and sexual revolution which has occurred in the last 15 or 20 years is playing a significant part in relation to this disease. Perhaps one of the freedoms to which society should address itself is freedom from preventable disease, which in this particular case may very often be self-inflicted.

#### CONCLUSION

Extremely interesting data have evolved during the past 15 years in connection with observations on carcinoma of the cervix. While the actual cause of the disease is not known, much is known about the factors associated with its incidence and also about the natural course of the disease. The disease can, to a considerable extent, be predicted, prevented, and at some stages very successfully treated. It is a magnificent prototype to observe whether a literate, cultured, and intelligent society in possession of suitable information, can collaborate and take steps to prevent predictable disaster. □

Note: Statistical information on opposite page.



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# Uterine Cancer Detection Program

## STATISTICAL INFORMATION

**TABLE 1**  
Carcinoma of the Cervix  
Nova Scotia — 1975

Year	Total CA CX	Invasive Cases	*Incidence per 100,000 Females All Ages	*Incidence per 100,000 Women 20+	Stage 0
1973	236	63	16	32	173
1974	263	95	24	48	168
1975	250	73	18	36	177

\*Refers to Invasive Cases

**TABLE II**  
Distribution of Carcinoma of the Cervix\*  
by Stage of Disease Nova Scotia — 1975

Year	% of Total					Total Number
	4	3	2	1	0	
1973	0.4	6.7	7.6	11.8	73.3	*236
1974	2	9	16	9	64	*263
1975	2	6	8	14	71	*250

Year	Cases					Total
	4	3	2	1	0	
1975	4	15	19	35	177	250

\*Includes Stage 0 Cases

**TABLE III**  
Cumulative Total since start of Cytology Program  
Nova Scotia — 1961

CA CERVIX — STAGE 0	2,303
INVASIVE	1,248

**TABLE IV**  
Principal Sites — Cancer in Females  
Nova Scotia — 1974-1975

	1974	1975
PELVIC — Stage 0 — Cervix	168	177
Invasive	95	73
Endometrium	67	42
Ovary	41	54
Vulva	11	6
Vagina	3	2
Fallopian Tube	1	—
Vag. Vault	—	—
Miscellaneous	2	2
BREAST	191	141
TOTAL PELVIC & BREAST	579	497

**TABLE V**  
Mean Age — Carcinoma of the Cervix  
Nova Scotia — 1975

	1974	1975
INVASIVE	55	52
STAGE 0	35	36

**TABLE VI**  
Carcinoma of the Cervix — Invasive Cases & Deaths  
Nova Scotia

Year	Invasive	Deaths	
		Cervix	Uterus — Other Parts
1961	72	40	18
1962	93	37	18
1963	77	41	17
1964	82	32	17
1965	101	32	16
1966	93	53	13
1967	83	40	10
1968	91	28	6
1969	99	48	17
1970	94	22	9
1971	67	29	14
1972	65	42	9
1973	63	27	8
1974	95	24	9
1975	73	34	8

(N.S. Female Population 395,700; > 20 yrs. = 200,000)

**TABLE VII**  
Female Genital Cancer Deaths  
Nova Scotia — 1975

	1974	1975
CERVIX	24	34
ENDOMETRIUM	2	—
FALL. TUBE	—	2
OVARY	23	28
PELVIS	—	1
UTERUS	7	8
VULVA	1	1

**TABLE VIII**  
Gyn. Cytology (by Laboratory)  
Nova Scotia — 1975

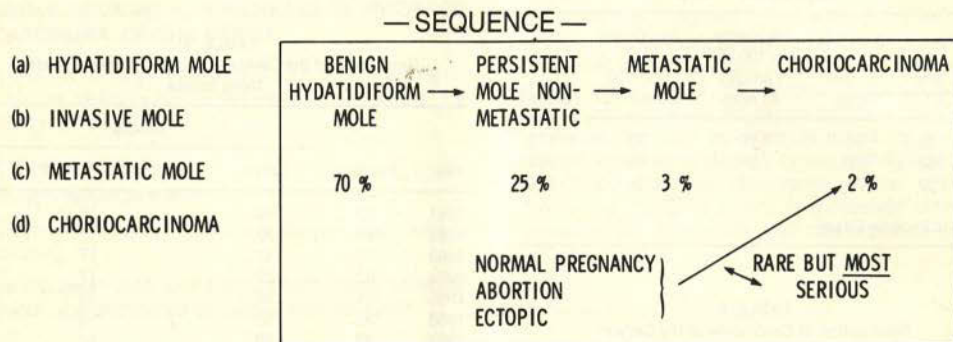
Aberdeen Hospital, New Glasgow	4,376
Blanchard Fraser Memorial, Kentville	5,683
Colchester County Hospital	2,690
Dawson Memorial Hospital, Bridgewater	6,279
Halifax Infirmary, Halifax	15,671
St. Elizabeth Hospital, North Sydney	2,153
St. Rita Hospital, Sydney	72
Yarmouth Regional Hospital, Yarmouth	2,927
	<hr/>
	39,851
Pathology Institute, Halifax	66,259
Cytology Laboratory	
	<hr/>
	106,110

# Hydatidiform Mole — “Benign” — Beware

R. C. Fraser,\* M.D., F.R.C.S.(C),

Halifax, N.S.

The term, gestational trophoblastic disease, is used to encompass the following clinical diagnosis:



Hydatidiform mole in young women is virtually always reported by pathologists as benign — “benign hydatidiform mole”. It is well documented that a pathological interpretation of a benign mole in NO way assures that malignant degeneration will not occur.

Hydatidiform mole and the other entities listed above arise from placental tissue and secrete the hormone, human chorionic gonadotrophin (HCG). It is this “marker” which enables proper follow-up to be performed and an absolute diagnosis of cure eventually made when the level of this hormone reaches zero and subsequently remains so for periods of time ranging from six to twelve months. One must remember that the non-pregnant individual normally does not have any circulating human chorionic gonadotrophin. Therefore, tests used to monitor this disease must be sensitive enough to measure values within the physiological range. For example —

1. Pregnancy tests are only of use as long as they are positive.
2. Urinary LH, while able to monitor physiological levels, the normal range has such wide variation that at low levels more specific tests are needed to ensure that no hormone remains. (HGC — cross reacts with LH)
3. Radio-immune serum LH, and radio-immune serum beta sub unit HCG are the most specific tests now available to monitor the clinical course of this disease.

Of the entities listed above as gestational trophoblastic disease, many physicians believe that the only diagnoses warranting significant clinical surveillance are those of invasive and/or metastatic mole or choriocarcinoma. The latter three occur infrequently and the great proportion of these conditions follow a “benign” molar pregnancy. Choriocarcinoma in itself, may, in addition, occur following normal full-term gestation. It is this latter circumstance which is difficult to diagnose, unless a high index of suspicion is

present and tests are ordered to determine the presence or absence of human chorionic gonadotrophin.

Survival of patients with trophoblastic disease should be 100 percent, provided that, optimal treatment is instituted early, and that proper follow-up is organized as soon as the diagnosis is obtained. Cure is achieved in most cases by the use of chemotherapy, and preservation of reproductive function is maintained in women so afflicted.

## Establishment of a Gestational Trophoblastic Disease Registry and Monitoring Facility for the Province of Nova Scotia

In our experience of 58 patients with gestational trophoblastic disease at the Trophoblastic Disease Clinic, 25 percent of the patients with “benign hydatidiform mole” subsequently had to receive chemotherapy in order to cure their disease. Nine percent required chemotherapy at the time of initial visit, either because of metastatic, invasive molar disease, or choriocarcinoma. The latter condition occurred in two patients following a normal gestation.

Over the past two years, a significant increase in the number of molar pregnancies brought to our attention, has occurred. In 1975, 17 new cases were seen and are being followed. During the first four months of 1976, eight cases have been seen and are being followed. Because of this and in conjunction with a recent recommendation of the Atlantic Society of Obstetricians and Gynaecologists, we have established a Nova Scotia Gestational Trophoblastic Disease Registry and Monitoring Facility.

Appendix One shows diagrammatically how we would envision this registry and monitoring system to function. The main importance is to have some mechanism whereby patient entry is ensured at the earliest possible time following the diagnosis. We would suggest that all patients fulfilling the criteria of gestational trophoblastic disease be brought to the attention of the Gestational Trophoblastic Clinic, situated at the Victoria General Hospital in conjunction with the Nova Scotia Tumor Clinic, and under the directorship of the Department of Obstetrics and Gynaecology of Dalhousie University.

\*Associate Professor, Department of Obstetrics and Gynaecology. Director, Division of Gynaecologic Oncology, Dalhousie University, Halifax, N.S.

With the establishment of this registry and monitoring system, we will be able to:

1. Establish the prevalence of gestational trophoblastic disease in Nova Scotia and subsequently in the Atlantic Provinces.
2. Determine the prevalence of malignant degeneration or persistent trophoblastic disease as a result of molar pregnancy.
3. Ensure proper hormone evaluation and the earliest possible treatment for those patients with this curable malignancy.

#### RECOMMENDATIONS

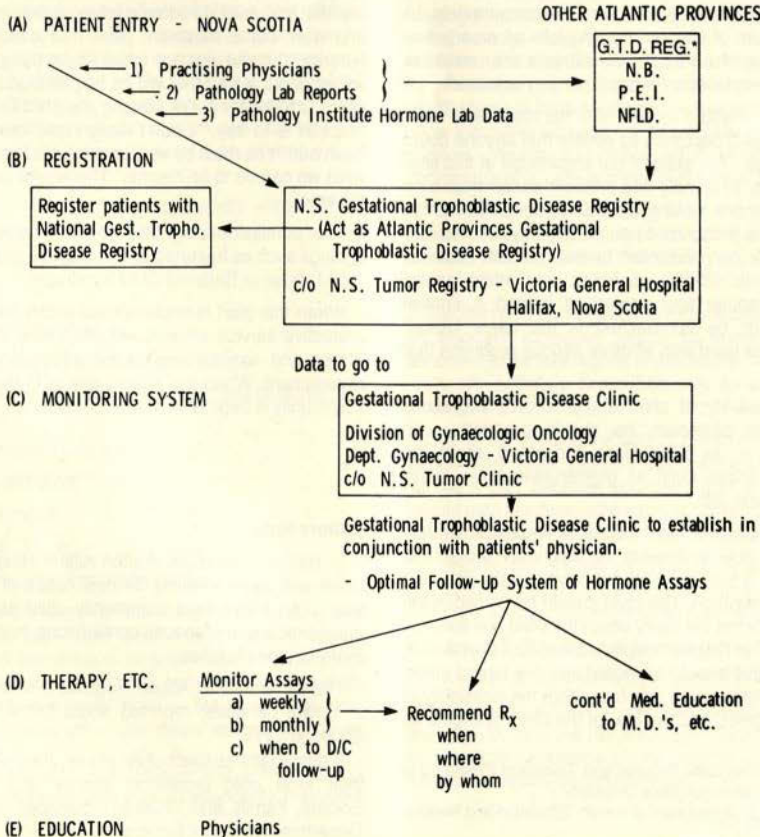
1. All patients proven to have hydatidiform mole, invasive mole, metastatic mole, or choriocarcinoma, should have copy of the clinical history and pathological findings referred immediately to the Gestational Trophoblastic Disease Registry, c/o the Nova Scotia Tumor Clinic.
2. The Trophoblastic Disease Registry will notify the Trophoblastic Disease Clinic regarding these patients, which will then contact the referring physician and establish a schedule of monitoring of hormone assays for these patients.

3. By means of these assays, recommendations will be made regarding the frequency of follow-up assays and the length of follow-up necessary. Secondly, if treatment is necessary, decisions regarding how, when, where, and by whom it will be carried out.
4. Continuing medical education of the province's physicians will be assured pertaining to this disease entity.
5. If therapy is indicated, it should be carried out in conjunction with the recommendations of the Trophoblastic Disease Clinic.

In conclusion, we would request that all physicians in the Province of Nova Scotia who see patients with these disease entities should register them as recommended, to ensure maximum patient benefit.

Additional information can be obtained by phoning or writing to the Gestational Trophoblastic Disease, Clinic, c/o Nova Scotia Tumor Clinic, Victoria General Hospital, Halifax, N.S., Division of Gynaecologic Oncology. Dr. R. C. Fraser — Director (429-7470). □

### APPENDIX: ESTABLISHING A GESTATIONAL TROPHOBLASTIC DISEASE REGISTRY\*





# How to Handle a Case of Child Abuse\*

You see a child in your office or in the emergency room who has the signs and symptoms of a disease. This disease carries a 3 to 4 percent mortality rate and a 25 to 30 percent permanent morbidity rate unless some specific treatment is initiated rather quickly. There is little question as to how one must proceed to make the diagnosis and initiate specific treatment as quickly as possible.

For some reason, however, physicians find it difficult to proceed in the accustomed manner when the problem they suspect is child abuse and/or neglect.

The fact that child abuse and/or neglect is a reportable problem does not seem to help the matter. In fact, making such a report often gives the physician the feeling that he no longer needs to be involved with either the diagnostic process or the treatment program. We physicians no longer can fail to give social service departments the assistance they need in making a definitive diagnosis of child abuse and/or neglect and the development of a treatment plan.

Many articles that deal with problems of abuse and neglect are accompanied by gruesome pictures of children who have been burned, beaten or in some way tortured. This, unfortunately, gives a very erroneous impression of the true nature of this problem. The diagnosis is not difficult when abuse reaches this level of severity. The challenge is to recognize the problem early in the pathogenesis so early treatment programs can be effective. In approximately 10 percent of all cases of children coming into an emergency room for treatment of an injury, the parents are unable to produce a logical explanation of how the injury occurred.

Physicians can ill afford to wait until the disease of child abuse and/or neglect becomes so severe that anyone could make the diagnosis. The state of our knowledge at this time gives us the ability to identify this problem earlier than ever before. In fact, we are moving toward the point where high risk families can be recognized prior to any physical insult to the child. This is not dissimilar to our present state of knowledge of cystic fibrosis, diabetes, and other familial diseases. Child abuse and neglect is indeed a familial problem and must be approached in the same logical, stepwise sequence used with all other serious problems that run in families.

When the possibility of child abuse and/or neglect is suspected by the physician, he should proceed — in identical fashion — as if he were concerned about the possibility of an illness such as glomerulonephritis, cystic fibrosis, tuberculosis, etc.

In all child abuse and most cases of neglect, it is very uncommon to be able to develop the diagnosis, protect the child, and initiate a treatment program without the use of a short-term hospitalization. The child should be placed in the hospital whether or not the injury which the child has suffered is severe enough to require hospitalization. The decision as to whether the child should be hospitalized is based solely upon the degree of concern one has about the possibility of abuse and/or neglect, and the age of the child. It should be

most unusual not to put a small child (under age 5) in the hospital for a diagnostic evaluation if the problem of child abuse and/or neglect is seriously considered.

The parents are encouraged to remain in the hospital with their child, 24 hours a day, if they can arrange their life accordingly. For those concerned about the emotional stress of hospitalization on a child the high mortality and permanent morbidity rate of this problem overrides this concern.

Most physicians will not find it difficult to convince the parents of the importance of hospitalization if they use the same technique used with any other serious illness. For example, if a child with anemia is found to have multiple bruises, many nodes and a large spleen, the child is admitted to the hospital for diagnostic workup and a treatment plan is developed. The parents are told that the child has an anemia or low blood and should be hospitalized. We do not tell the parents, "I think your child has leukemia and should be in the hospital." If on the other hand, the mother or father says, "Do you think my child has leukemia?" we should say in all honesty, "I really am not certain, and I know you're concerned. We will proceed to try to find out as quickly as possible."

If you are concerned about the possibility of child abuse and/or neglect, the same procedure works very well. Tell the parents that you truly do not know how the child got hurt and feel that you must do some studies, gather more information, and work out a treatment plan. It is critical to say to the parents, "I know you are upset about this problem, and we will work out a plan that will be helpful to you." If the parents say, "Do you think I'm beating my child?" your immediate reaction is to say, "I don't really know how your child has been hurt. You must be very upset. Let's bring him in and see what we can do to be helpful." This works over 90 percent of the time.

The admission diagnosis should describe the physical findings such as fractured arm or multiple bruises, rather than "child abuse or Battered Child Syndrome."

When this plan is implemented within the community the protective service workers will often refer cases of physical abuse and serious neglect for admission and diagnostic assessment. When this occurs one gets the feeling that the community is beginning to work together.

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## Editors Note:

In Halifax, The Izaak Walton Killam Hospital for Children deals with approximately 24 new cases of child abuse per year. The Metro area community child abuse team holds diagnostic and therapeutic conferences in an attempt to help many of these families.

The Central Child Abuse Register (Provincial Department of Social Services) reported about 65 new cases of child abuse in 1975.

If physicians suspect child abuse, they should report it to their local child protection agency: e.g., Children's Aid Society, Family and Children's Services, or local office of Department of Social Services. □

\*Extract from The Diagnostic Process and Treatment Programs by Ray E. Helfer, M.D., Michigan State University. Published by the U.S. Department of Health, Education and Welfare, Washington, D.C.

# How the Use of Alcohol and Other Drugs Influence Safety on Our Highways

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Alcohol is technically considered to be a depressant since it primarily depresses functions of the central nervous system — and for the drinking driver — those functions most affected are judgment, reasoning and memory. First alcohol is a **DRUG** — and not just a beverage — and it affects us — for better or for worse — like any other drug taken into the system.

The reactions of the alcohol are related, not necessarily, to the amount of alcohol drunk, but to its concentration in the blood. It is this concentration in the blood which leads to impaired driving which will be discussed later.

Most people have little rational basis for responsible drinking — e.g. many people believe that if they must drive after drinking, coffee will speed the sobering-up process. Unfortunately, this is not true. Coffee can help keep people awake, but it cannot improve judgment or sharpen reactions dulled by alcohol. Strenuous physical exercise and various other types of stress, can temporarily reduce the intensity of alcohol intoxication, but will do little for judgment or timing.

**There is the same amount of alcohol in a pint of beer as there is in 1½ oz. of "hard" liquor or 3 oz. of wine.** No matter what we do, over 90% of the alcohol in our system is metabolized or "burned up" by the liver, at a fixed rate — somewhere between 1/2-3/4 oz. per hour. Therefore, if you must drive after drinking, you should allow one hour for every pint of beer, 1½ oz. of "hard" liquor or 3 oz. of wine you've had to drink.

The factors that affect a person physically while drinking include:

1. how fast a person drinks;
2. their weight;
3. whether they have eaten;
4. their drinking history and body chemistry;
5. the type of alcoholic drinks, i.e. wine, beer or spirits (and mixers) used.

On the psychological side are:

1. the drinking situation;
2. the drinker's mood;
3. their attitude;
4. their previous experience with alcohol.

Many of us know some of the dangers of drinking and driving — but do you know what happens if you take a tranquillizer, drink and drive — or smoke up, drink and drive — or take a headache tablet, drink and drive? Many people know how to drink to a "safe" level — but do not know that one common, everyday pill — can make an impaired driver.

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Also many people may not recognize that they are impaired, as the cumulative effects of such combinations tend to "sneak up on you".

The safest thing to do is to never drive a car, a snowmobile, boat and probably not even a bicycle, if you have taken medications with even one drink.

Any other drug mixed with the drug alcohol can cause problems when one attempts to drive. The most serious of these problems are:

1. the potentiating effect i.e. intoxication occurs much, much faster and to a much deeper degree;
2. liver interference i.e. the effect of the drugs occurs, not only much faster, but the effect stays in our system for a longer period of time.

Until further testing is done there is no way for us to know how much our driving ability will be impaired when we take a pill and then drink alcohol.

In 1969 the Government of Canada enacted legislation making it a criminal offence to be in charge of a motor vehicle while having more than .08 grams of alcohol per 100 millilitres of blood. The .08 Breath Analysis legislation calls for measurement of blood alcohol concentration by a breathalyzer in tests conducted by peace officers. If the tests show the driver exceeds the permissible limit he is guilty of a criminal offence and liable on conviction to a fine or imprisonment or both and loss of his driver's license.

Refusal to take the test is also a criminal offence and makes you liable to the same penalties as if you had taken the test. But remember, that driving impairment is reached before .08.

Studies have shown that the relative probability of causing an accident increases rapidly at levels over .08% and becomes extremely high at levels above .15%. Levels above .04% are definitely associated with an increased accident involvement.

One of the insidious effects of drinking is that even a little alcohol can make you feel just great and superbly able to handle a car. Because you can't trust your judgment you should plan in advance how to get home from a party or other social event some distance away. You should:

1. decide that one person in your car will not drink, or at least will follow the one-for-one rule — no more than one drink an hour and no drink an hour before driving;
2. decide to take a cab or other public transportation;
3. arrange to have some other person drive you home.

Before you accept a ride with anyone who has been drinking, consider the risk involved. The chance for a serious injury or fatal accident is just as great for you, the passenger, as if you were driving after drinking.

(continued on page 190)

# The Follow-up of Routine Urinalyses\*

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This study at the Izaak Walton Killam Hospital for Children was carried out to determine first, the adequacy of the follow-up of abnormalities detected by routine urinalyses for all patients admitted to this hospital and, secondly, to consider the cost-benefit efficacy of this procedure.

## PATIENTS AND METHODS

The case records of 1124 patients, discharged from the Izaak Walton Hospital between March 5 and April 22, 1975 were obtained and the admission urinalysis reports examined. The criteria adopted for the presence of abnormal findings were: three or more red blood cells (RBCs) per high-power field (HPF); five or more white blood cells (WBCs) per HPF; 30 mg % or greater protein; and the presence of any glucose or casts. Glucose and protein concentrations were determined by chemical assays, whereas WBCs, RBCs and casts were detected by high-dry microscopic examination.

The follow-up of all positive urinalyses were noted and assessed as "adequate" or "inadequate". Unless a positive urinalysis could be related to the patient's disease or to the method of specimen collection, the minimum adequate follow-up was considered to be a repeat urinalysis with further tests as indicated (e.g. urine culture, intravenous pyelogram, etc.).

## RESULTS

Of the 1124 patients admitted during the study period, 115 had no record of an admission urinalysis. For the remaining 1009 patients, 894 (88.6%) showed no abnormalities, leaving 115 (11.4%) with a positive urinalysis according to the above criteria. Of these 115, there were 25 (20.9%) with no record of any follow-up of positive findings.

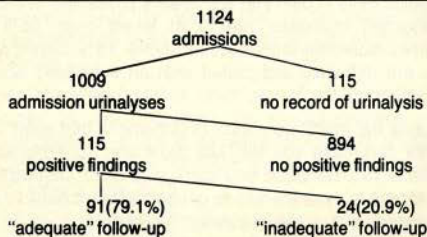


Table I shows the frequencies of the various abnormalities considered in this study population (multiple abnormalities for some patients).

Patients whose abnormal urine findings were adequately followed up are shown in Table II.

\*A Second Year Medical Student elective, under the praecceptorship of Dr. John F. Crocker, Associate Professor of Paediatrics, Dalhousie University, Halifax, N.S.

\*\*Third Year Medical Students, Dalhousie University.

**TABLE I**  
Frequency of Urine Abnormality by Sex and Finding

	WBCs	RBCs	Protein	Glucose	Casts	Sex:
Females	48	12	8	12	2	72
Males	15	4	20	8	2	43
Totals:	63	16	28	20	4	115

**TABLE II**  
Number Positive Urinalyses With "Adequate" Followup

	WBCs	RBCs	Protein	Glucose	Casts	Sex:
Females	32	10	6	11	2	53
Males	13	3	19	7	2	38
Totals:	45	13	25	18	4	91

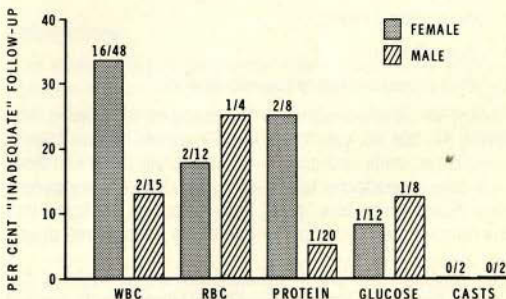
Of the 24 patients with inadequate follow-up, 19 were female and 5 were male. Their abnormal urine findings are shown in Table III:

**TABLE III**  
Number Positive Urinalyses With "Inadequate" Followup

	WBCs	RBCs	Protein	Glucose	Casts	Sex:
Females	16	2	2	1	0	19
Males	2	1	1	1	0	5
Totals:	18	3	3	2	0	24

This female preponderance of inadequate follow-up is not related to a disproportionate number of females in the study group but to a tendency to disregard urinary abnormalities more often in females than in males. This is shown by the failure to investigate urinary abnormalities in 19 out of 72 females (26%) compared with only 5 out of 43 males (12%).

PROPORTIONS OF "INADEQUATE" FOLLOW-UPS BY SEX AND ABNORMALITY



**FIGURE 1**

Using data from Tables II and III, the proportions of inadequate follow-up of urine abnormalities, by sex and finding, have been calculated and are shown in Figure 1. This figure suggests that the increased tendency toward the poor follow-up of abnormalities in females is due to the failure of the physician to react to the presence of WBCs and protein in the urine.

Examination of the case records revealed that routine admission urinalyses initiated investigations which led to the detection of unsuspected conditions in two patients. One patient admitted with multiple seizures was found to have a urinary tract infection. A diagnosis of pyelonephritis was made for another patient, who presented with pharyngitis and gastroenteritis.

## DISCUSSION

The primary goal of this study was to assess the quality of physician follow-up of one of the routine laboratory screening tests carried out on all hospital admissions. The literature abounds with numerous reports citing deficiencies in the quality of care provided in both teaching and in non-teaching hospitals<sup>1-4</sup>. Our finding of inadequate follow-up in 20.9% of positive cases is similar to other reported studies. Although there are many unanswered questions about the significance of abnormalities of the urine (e.g. 58% of urinary tract infections are not associated with pyuria), it is well established that abnormalities exceeding our criteria are definite indications for further investigation.

It is the chief expectation of routine urinalyses that unsuspected conditions will be identified. In this study, two of 91 patients whose positive urinalyses were followed up proved to have an underlying condition. That these urinalyses guided the early detection of these diseases probably did prevent their progression.

## CONCLUSION

Obviously, the small sample studied in this paper (115 patients with positive urinalyses) places certain limitations on data analysis and interpretation. However, the writers do feel that the evidence presented is indicative of certain inadequacies in the follow-up of positive urinalyses at the Izaak Walton Killam Hospital.

At a cost of approximately \$2.00 per test, and with the detection of unsuspected conditions in two patients admitted over a five-week period, this would suggest that a routine urinalysis on admission to hospital is a beneficial procedure. □

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## Letter to all Dalhousie Medical Students

From time to time, members of the Editorial Board of *The Nova Scotia Medical Bulletin* receive enquiries from medical students concerning written contributions they can make to the *Bulletin*, and I have been asked to bring a few suggestions to your attention.

Consider the following opportunities as basic sources for formal papers:

- 1) **Literature Search Electives** — these first-year electives often entail considerable time and effort, and a few will provide excellent reviews of a particular topic.
- 2) **Second, Third and Fourth-Year Electives** — always require written reports, and many can be adapted to yield interesting papers — especially those electives pursued outside our usual teaching facilities or even outside the Province.
- 3) **Summer Research Projects** — although these are becoming more rare, due to the current scarcity of research funds, we have published some excellent reports of student research projects — occasionally with a Faculty member as co-author.

For your manuscripts, editorial advice is available, and members of the Department of Preventive Medicine will provide assistance with the analysis and presentation of your data, when necessary. In addition, we can enlist the aid of the Audio-Visual Division to produce first-class diagrams and photographs.

Although we hope to produce one all-student issue annually, this may not always be possible and perhaps a more realistic goal is to include at least one student paper in every issue. Please feel free at any time to see me in my office in the Clinical Research Centre.

Aden C. Irwin, M.D.,  
Associate Editor.  
The Nova Scotia Medical Bulletin

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# Interaction with Warfarin

## A Clinical Study

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### INTRODUCTION

There has been much written in the literature about factors that change the dose of warfarin required to therapeutically anticoagulate a patient, especially when the patient is taking other drugs.<sup>1</sup> Approximately 20 drugs are believed to interact significantly with warfarin,<sup>2</sup> but many of these interactions have been studied in controlled situations that are markedly different from many of the complex clinical problems for which oral anticoagulants are used.<sup>3,4</sup> The inherent difficulty in achieving stable anticoagulation even under relatively favorable conditions<sup>5</sup> coupled with multiple drug usage, the possible presence of hepatic or renal impairment, genetic differences in drug metabolism, alterations in diet, etc., all imply that the detection of specific interactions with warfarin in a clinical in-patient situation is difficult and requires detailed study and attention.

The purpose of this study was to review a large number of patients on oral anticoagulants and to determine the relative importance of those factors that influence the daily warfarin requirements.

### METHODS AND MATERIALS

#### Sample Selection

All charts of patients having a primary or a secondary diagnosis of pulmonary embolus and/or thrombophlebitis during the calendar year of 1972 at the Victoria General Hospital, Halifax, Nova Scotia, Canada, were reviewed. The above diagnoses were chosen as indicator diseases for oral anticoagulant therapy.<sup>5</sup> If the patient being studied had been anticoagulated in the years between 1964 and 1972, these charts were reviewed as well and included in the survey. In all, 310 charts of some 284 patients were reviewed.

The charts were studied in their entirety, with particular emphasis being placed on the progress notes written by both the physicians and the nursing staff. The patient's one-step Quick prothrombin time (protime) chart and drug recording sheet were copied. Data were also collected on the following parameters: abnormal lab data, transfusions, the patient's age and sex, his length of stay in hospital, the number of drugs<sup>†</sup> received in total and while on warfarin, drugs taken prior to hospitalization, thyroid status and all disease diagnoses. These factors as well as diet and fundamental genetic differences in rates of drug metabolism are the most common factors influencing variability in the warfarin required to achieve stable anticoagulation.

In these charts we were able to determine three general

kinds of interactions with some degree of confidence. They were:

1. a change in a previously stable protime by a significant amount (3 seconds or greater).<sup>3</sup>
2. a 50% change in the daily warfarin dosage required to maintain a stable protime in the therapeutic range.
3. an exaggerated response to the routine induction dose of warfarin.

As heparin can influence the protime measurement, charts of patients who had protime determinations while on heparin were excluded from this study.

### RESULTS

Three hundred and ten charts were reviewed of which 119 were unsuitable as the patients did not receive warfarin, leaving 191 suitable charts to be rigorously studied.

The numbers of drugs prescribed concurrently with warfarin (Table I) (6.6) and during the rest of a patient's stay in hospital (10.5) are impressive; not surprisingly, the group believed to have experienced a drug interaction received a substantially larger number of drugs while on warfarin (9.5 drugs per patient versus 6.6.) (Table II) and they were on warfarin for a longer period of time than the other patients studied (22.3 days vs 14.2 for the whole group). Adverse reactions, specifically bleeding, were recorded in 7.3% of all charts examined, similar to figures reported by other studies.<sup>6,16</sup>

TABLE I  
Characteristics of 191 Patients Surveyed.

	Female	Male
Number of patients	85	106
Average age	52.4	53.5
Average number of drugs prescribed per patient during hospitalization		10.5
Average number of drugs prescribed while patient was on oral anticoagulant		6.6
Average number of days on anticoagulant		14.2

The two groups had similar diagnostic profiles but differed significantly in age and female preponderance. The greater risk of complications with increasing age has been pointed out by various authors,<sup>7</sup> but the apparent higher incidence of drug interactions in women rather than men is not readily explainable. Protime control was somewhat more variable in the interaction versus the whole group. Only three of 166

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†All therapeutic agents received, except NaHCO<sub>3</sub>, glucose and saline. Ethanol was noted; smoking was not noted since there is no evidence that smoking is associated with gross differences in rates of drug metabolism.<sup>17</sup>

noninteraction patient-charts recorded protimes of less than 10% and none for more than one day, whereas several interaction charts recorded protimes of less than 10% — four for two or more days. Warfarin-heparin interactions were not studied, but it appeared in some cases that the therapist did not fully realize heparin's profound effect on the protime, as the value (expressed as percent of control) tended to increase dramatically on the termination of heparin therapy with all other factors remaining constant.

**TABLE II**  
Patient Groups and Drug Utilization

	Non-Interaction	Interaction
Total number of patients	166 (87%)	25 (13%)
Males	96	10
Females	70	15
Average age	53.0	63.3
Average number of drugs prescribed during hospital stay	10.4	17.9
Average number of drugs prescribed while patient was on oral anticoagulant.	6.4	9.5*
Average number of days on oral anticoagulant	13.5	22.3
Deaths	2 (1.2%)	5 (20%)

\*One patient was on bishydroxycoumarin (Dicumarol®).

No one drug was implicated more than any other in the drug interactions that occurred (Table III), though the physician's notes indicated that A.S.A. was the drug most expected to give rise to interactions. Drugs found to have produced a measurable interaction with oral anticoagulants in this study included quinidine, phenylbutazone, phenobarbital, tetracycline, chloramphenicol, and ampicillin.

**TABLE III**

Types of Interactions:	Number of cases
Drug Interactions* —	7
Disease Interactions —	
Liver disease	16
Vitamin K deficiency —	1
Diagnosis indefinite —	1

\*Drugs believed to have interacted with warfarin

1. quinidine
2. phenylbutazone
3. phenobarbital
4. tetracycline
5. tetracycline + neomycin
6. chloramphenicol and ampicillin
7. ampicillin

The mortality rate in the interaction group (Table II) was greater than that of the non-interaction group and these deaths occurred in somewhat younger patients. All of the patients who expired while taking warfarin were substantially more susceptible to warfarin's anticoagulant effect preterminally.

## DISCUSSION

Various studies have shown that only a percentage of patients exposed to potential drug interactions with warfarin actually do have adverse interactions.<sup>8</sup> This is understandable since therapy with these interacting agents must be commenced or terminated in such a time sequence that the effect on the patient's protime will be readily apparent. For example, in order to document a readily apparent drug interaction with a barbiturate and warfarin, the same daily dose of warfarin that the patient had taken previously to achieve a therapeutic effect would have to be continued for several weeks to witness a significant difference in protime.<sup>9</sup>

Since protimes are determined daily in hospital and warfarin doses appropriately adjusted, the danger of severe complications should be less in an in-patient population than in an out-patient population that has infrequent protime determinations and often has significant changes in drug therapy upon discharge from hospital. These changes are especially important with enzyme-inducing agents such as barbiturates that are discontinued when the patient leaves hospital on a previously prescribed daily dosage of warfarin. When hepatic microsomal enzymes return to their pre-induction levels after a week or two at home, warfarin dosage now becomes excessive and hemorrhagic complications may ensue.<sup>1</sup>

All the drugs that were believed to have interacted with warfarin in this survey are those for which there is substantial evidence of significant interaction with warfarin. It is perhaps worthwhile to comment that the majority of the agents implicated in the drug interactions studied here are not the drugs of choice in the clinical situations for which they were used. There are acceptable and preferable substitutes for oral barbiturates, tetracycline, and chloramphenicol that are less likely to react with warfarin.<sup>10,11,15</sup> It is believed that wide spectrum antibiotics wipe out the bowel flora that synthesize vitamin K normally. In a patient with depressed vitamin K stores and on warfarin, this loss of vitamin K synthesis may increase a patient's response to warfarin.

It is also interesting to note that the drug interaction between warfarin and A.S.A. seems to be the best known drug interaction with warfarin, although none of the patients in this survey received a sufficient dosage of A.S.A. (2.4 grams per day)<sup>12</sup> to interact with warfarin. Four times (three times in the non-interaction group) A.S.A. was discontinued because the attending staff was concerned about a potential interaction between A.S.A. and warfarin. Liver dysfunction (twice), and liver dysfunction together with broad spectrum antibiotics, brought about changes in warfarin therapy that were anticipated by the house staff. These figures would seem to imply that not all active drug interactions are anticipated in advance and that some suspected interactions are of a doubtful nature viewed in retrospect and with access to the literature on drug interactions.

There seemed to be some lack of knowledge concerning the pharmacology of warfarin and heparin, and drug interactions with warfarin. This is somewhat unfortunate considering the useful potential and possible harm of warfarin therapy. A recent review article outlines the regimen to follow with oral anti-coagulants.<sup>13</sup>

The largest group of interactions noted with warfarin (Table III) were attributable to transient changes in liver function, particularly in congestive heart failure. Many patients with biventricular failure have abnormal protimes prior to being

anticoagulated.<sup>2</sup> Our study and others<sup>14</sup> seem to indicate that many patients in heart failure with normal protimes are variable in their response to oral anticoagulants. Various authors have pointed to a distinct correlation between a patient's serum albumin level and warfarin requirement, and it has been known for some time that patients in severe congestive heart failure are more sensitive to warfarin.<sup>2</sup> A low serum albumin should alert the clinician to the real possibility of increased sensitivity to warfarin due to the relationship between albumin and clotting factor synthesis. The clotting factors most likely to be abnormal in parenchymal liver disease are factors II, VII, IX and X,<sup>2</sup> the same vitamin K dependent factors that oral anticoagulants deplete. With these clotting factors already depressed, the routine induction dose of warfarin might very well lead to quite severe hypoprothrombinemia. The occurrence of this complication could be avoided by withholding anticoagulation until some assessment of liver function has been completed. Routine induction doses should be tailored to the individual patient's requirements.

The results of this study would seem to imply that a change in warfarin metabolism due to transient liver disease is still a more important problem in terms of achieving stable anticoagulation than are the interactions of drugs with warfarin. It is worth noting that drug interactions that did occur were overlooked by the attending staff. Only a few of the problems in warfarin dosage due to liver disease were considered prior to commencing anticoagulation. With the recent publication of review articles<sup>13, 18</sup> and books<sup>19</sup> listing potential drug interactions, it is hoped that severe complications due to drug interactions can be avoided. New drugs being added to or taken away from a patient's regime should be checked for interactions with other drugs. Possible changes in the patient's metabolism of drugs during the course of his illness(es) must also be weighed in the selection of dosage regimes for oral anticoagulants.

## SUMMARY

To determine the incidence of drug-drug interactions and drug-disease interactions with warfarin, 191 patients that were anticoagulated with warfarin during the calendar year of 1972 at the Victoria General Hospital in Halifax, Nova Scotia, were reviewed. The average number of drugs per patient was 10.5, the average patient was on warfarin for 14.2 days and received an average of 6.6 drugs while taking warfarin. Significant interactions occurred in 25 (13%) of patients. Suggestions are made for rational drug therapy with warfarin. □

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# The Prevention of Tracheal Stenosis Following Endotracheal Intubation

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## INTRODUCTION AND OBJECTIVES

The increasingly frequent use of endotracheal tubes (ET) in the mechanical ventilation of patients in respiratory failure has led to an increasing incidence of tracheal stenosis (TS). The recent introduction of more compliant large volume cuffs has reduced the frequency but has not eliminated TS — an incidence of 10-20% tracheal stenosis being not unusual.<sup>10</sup> The duration of endotracheal intubation is important since permanent damage has been observed after only 24 hr. (Normally the ET is removed within 3-4 days).

Oral, nasal and/or tracheal damage can occur from prolonged pressure or from friction of a poorly fixed tube. Endotracheal tubes cause damage at the vocal cords, or in the trachea either by friction anywhere along the whole tube length or by pressure at the cuff site. In addition to the above, tracheostomy tubes cause stoma granulations. The following paper concentrates on how to avoid pressure damage of the trachea at the cuff site.

Stenosis at the site of the cuff of the endotracheal tube is largely avoidable by proper management by those caring for patients with ETs. By paying attention to causative factors a substantial reduction in the incidence of tracheal stenosis may be expected. It is the purpose of this paper to discuss causative factors, to report some findings and to list some simple steps which can minimize tracheal damage from endotracheal tubes.

## Cuff Pressure and Volume

Strictures arising at the cuff site result from excessive cuff pressure damaging the tracheal mucosa.<sup>3,4</sup> The problem is to achieve an adequate seal between the cuff and the delicate tracheal mucosa without producing tracheal wall damage. The cuff pressure impinging on the tracheal wall must be kept below capillary perfusion pressure when mechanical ventilation is used for any length of time.

A low pressure cuff properly selected for size and properly inflated will achieve an optimum seal at the lowest possible actual tracheal pressure (ATP). A true low pressure cuff can be easily blown up by mouth and should not contain more than 10-12 ml of air. The cylindrical contour developed by the compliant cuff allows distribution of cuff pressure uniformly over a long tracheal wall length and needs much less ATP to establish the occlusion than when low volume, high pressure cuffs are used.

A cylindrical cuff conforms to the tracheal lumen and is occlusive without deforming the trachea outward at minimum occlusion volume (MOV), whereas the low compliance round cuffs require high cuff pressure that distend the trachea over a narrow luminal zone even at MOV.<sup>5</sup> The resulting ATP may

## Abbreviations:

ATP	actual tracheal pressure
ET	endotracheal tube
MOV	minimal occlusion volume
TS	Tracheal Stenosis

cause tracheal mucosal wall ischemia, the precursor of later cicatricial stenosis.<sup>5</sup> The roundness or uneven or eccentric inflation of the cuff may force the ET tip against the opposite tracheal wall thus causing ulceration and possible bleeding, a complication more frequently seen with latex tube and silastic cuffs, because of non-uniform stretch characteristics, variation in thickness and material "fatigue" at body temperature.

Most of the new compliant large volume cuff ETs (i.e. Ohio, Shiley), see figure 1B, G, are made of material (i.e. PVC) that is uniform in thickness and has uniform stretch properties over repeated inflations at 37-40°C.

## The Modern Endotracheal Tube

The ETs come in sizes usually numbered according to the internal diameter in mm. For the average female patient a size 7.5 or 8 and for the average male patient a size 8.5 or 9 will usually be suitable. The large volume high compliance cuffed ET (Fig. 1B, C, E, F, G) can still provide an effective seal when an ET of too small a size has been selected so that only 50 percent of the tracheal diameter is utilized and still provides ample diameter for suctioning. However, the most important advantage of the large volume cuff is that there is a greater margin for human error when inflation is carelessly carried beyond MOV.<sup>6,7</sup> In an ET with standard cuff (A, D, Fig. 1), the ATP rises sharply when a small increment of air is added beyond normal inflation making the cuff wall hard. With the large volume cuff there is a relatively long buffer zone in which the ATP remains near a plateau until excessive inflation volumes over 10 ml cause a rise and hardening of the cuff wall. If MOV approaches or exceeds 10 ml this should be taken as an indication that a larger size ET must be used.

## Minimum Occlusion Volume

MOV is defined as the minimum cuff inflation volume providing an effective seal between the trachea below the ET orifice and the trachea above the cuff. The MOV will be least if the pressure is distributed evenly over the circumference of the tracheal mucosa and over a long axial length.<sup>7</sup> Tracheal stenosis at the cuff site will be rare when a) an ET is used with a cuff that inflates uniformly to a cylinder over two centimeters in length, or when b) only that minimum volume of air is inflated that is required for a seal (MOV).<sup>1</sup> Once MOV is established the cuff should be left undisturbed for 6-8 hours. Such management is preferable to hourly deflation and re-inflation of the cuff by a busy nurse who may feel compelled to add one more centimeter of air every hour just to make sure there is no air leak.<sup>5</sup>

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Besides the large volume positive pressure cuffs another very original solution to keep tracheal pressure within safe limits is the Fome-Cuf Tracheal Tube (C, G in Fig. 1). Here a polyurethane sponge will expand with a small pre-determined force when the pilot port, an air tap into the cuff, is opened to atmospheric pressure. To use this type, air is withdrawn from the sponge by a syringe applied to the pilot port which is then closed, the trachea intubated and the port re-opened to atmosphere. The sponge then expands and seals the trachea, and the further the cuff expands in the trachea, the less pressure is exerted on the tracheal wall. In the following section of this paper some random measurements of cuff pressure and volume are reported that were undertaken to see how closely the instructions of the manufacturers to avoid overinflation of the cuff with the consequent risk of later tracheal stenosis are followed at the Victoria General Hospital.

The ET cuff pressures were read on inspiration and expiration. To read the actual filling volume of the cuff, the stop-cock was opened to the syringe and all of the air was removed from the cuff and the volume read from the syringe. The following two pressures and two volumes were obtained: first the actual pressure and occlusion volume present at the time of measurement and thereafter the minimum occlusion volume (MOV) necessary to provide a proper seal between trachea and cuff and its resulting pressure judged by the lack of an audible air leak. The stop-cock was then turned to the aneroid manometer and the new pressure read. Because of the limitation of the manometer available to this study, no pressure above 50 mm Hg could be read (Table I).

## DISCUSSION

The random measurements summarized in the table show that the nurses and the respiratory technicians at the Victoria General Hospital are regulating the volume and mean pressure of the ET cuffs within the safe limits near the MOV. The mean actual occlusion volume was less than 1 ml above the recommended maximal occlusion volume. Only during expiration did the mean actual cuff pressure exceed the pressure at MOV significantly.

However, the choice of tube size was not always optimal and it seemed there is a reluctance to change the tube once installed in the trachea, even though a larger tube size was indicated by the high occlusion volume needed to provide an acceptable tracheal seal. In patient #6, #7, and #16 a larger tube size would have been beneficial, reducing MOV and thus the pressure necessary for occlusion. The beneficial effect of selecting a proper size ET is illustrated by patient #13. The first measurement was made with too small a tube. If this had been corrected, the pressure could have been reduced by at least 15 mm Hg into a safe range. The full benefit of proper ET selection could not be demonstrated because the tube in position was size 10, the largest tube available at that time at the hospital.

Patient #8 was the only case where the Portex endotracheal tube was used. The cuff of the Portex is not a true low pressure, large volume cuff and consequently carries a higher risk of developing tracheal stenosis. Also, a small volume cuff is more difficult to regulate within the acceptable pressure limits since a small rise in volume leads to a larger rise in pressure, unlike a true low pressure large volume cuff: enough reason to phase out this type of ET and to convert to only one or two systems of tubes, e.g. Ohio for endotracheal tubes and Shiley for tracheostomy tubes. The resulting increased familiarity with one type could probably shorten the time needed when a quick intubation is necessary.

A Fome-Cuf Tracheal Tube was not encountered in the study. Prior experience with this type at the V.G. Hospital indicates that the cuff had a tendency to collect moisture. It usually sealed properly but occasionally proved difficult to remove it from the trachea because the cuff would not collapse enough. Sometimes small tears were found in the cuff that could have been responsible for difficulty in aspirating the air from the cuff. These rips could have developed either during intubation, while in the trachea or while removing the tube. Obviously a cuff that cannot be collapsed can cause problems when the time comes to remove the ET. This potential danger may discourage further experimentation with this type of ET in spite of its theoretical attractions.

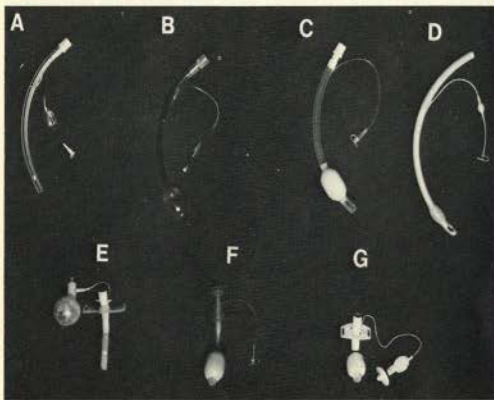


FIGURE 1

### Top row endotracheal tubes

- A Portex blue line Standard low compliance
- B Ohio, Murphy tipped, high compliance
- C Kamen-Wilkinson Fome-Cuf
- D Rusch red rubber low compliance

### Bottom row tracheostomy tubes

- E Lantz high compliance
- F Kamen-Wilkinson Fome-Cuf
- G Shiley high compliance with pressure relief valve

## MATERIALS AND METHODS

Sixteen patients with endotracheal tubes or tracheostomies were studied at the Victoria General Hospital, Halifax, Nova Scotia. A three way stop-cock was connected to the ET cuff. The other two connections lead to a syringe for cuff volume measurement and an aneroid manometer for pressure reading.

**TABLE I**  
**Showing Endotracheal Tube Cuff Pressure, and Volume During Random Sampling**

For a low pressure, high volume cuff pressure exceeding 50 mm Hg or an occlusion volume exceeding 10 ml may cause tracheal damage.

Endotracheal tube types employed: A) Ohio, B) Portex, C) Shiley (tracheostomy).

Patient #	Pressure Found (mm Hg)		Occlusion Volume Found (ml)	Minimum Occlusion Volume (ml)	Pressure at MOV (mm Hg)	
	Inspiration	Expiration			Inspiration	Expiration
A) 1)	20	13	6.2	3:2	20	4
2)	18	15	8.0	5.0	18	5
3)	18	10	10.0	10.0	18	10
4)	15	4	2.0	2.0	15	4
5)	15	11	10.0	10.0	15	11
*6)	25	5	11.0	11.0	25	5
*7)	35	20	12.0	12.0	35	20
$\bar{x}$	20.86	11.14	8.46	7.6	20.86	8.43
SD	7.10	5.58	3.43	4.08	7.1	5.86
B) *8)	32	30	4.0	4.0	32	30
C) 9)	10	9	7.0	7.0	10	9
10)	29	26	8.0	8.0	29	26
11)	18	15	8.0	8.0	18	15
12)	22	11	8.0	8.0	22	11
*13a)	$\geq 50$	$\geq 50$	11.5	11.5	$\geq 50$	$\geq 50$
*13b)	$\geq 50$	41	10.0	8.0	35	32
14)	24	22	7.0	7.0	24	22
15)	19	12	5.5	5.5	19	12
*16)	40	37	9.2	9.2	40	37
** $\bar{x}$	30.22	25.33	8.24	8.02	28.0	24.33
**SD	16.26	15.93	1.78	1.66	13.6	15.08

\*Pressure may possibly be harmful to the patient. #13a and #13b are 2 measurements on the same patient 1 week apart. In 13b a larger ET is in use.

\*\*For  $\geq 50$  an arbitrary value of 55 was used in calculating  $\bar{x}$  and SD.

Finally, for prevention of tracheal stenosis of intubated patients chest X-rays routinely utilized to check proper positioning should also be scanned for cuff inflation of the ET.

### SUMMARY AND CONCLUSIONS

1. Make decision early if you need tracheostomy.
2. Limit duration of intubation to three days (4 days only under exceptional circumstances).
3. Make certain that a full range of ET sizes of the large volume cuff type is available.
4. Select only ET's with a large volume cuff such as the Ohio, Shiley. Do not use small volume cuff type ET such as Portex Standard.
5. Tailor ET size to patient size. Common mistake: indiscriminate use of #8 ET which is too large for small females and too small for large males.
6. After intubation, cut tube length to reduce leverage and thus friction. This will reduce damage to cricoid site.
7. Secure ET firmly on patient's face to prevent movement between ET and tracheal mucosa. This will reduce mucosal damage and make extubation or ET advance into right main bronchus less likely.
8. Keep cuff volume close to MOV. Listen or auscultate for gurgling sound and inflate only the minimum volume necessary for a seal.

9. Once seal is established, measure MOV and check if a safe pressure of approximately 25 mm Hg is not exceeded (a regulator valve limiting the cuff pressure to 25 mm Hg is available and should be used).
10. If MOV approaches 10 ml and/or pressure at MOV is larger than 25 mm Hg, use larger ET.
11. Enter MOV and cuff pressure at MOV in patient's chart, together with time when measured.
12. Check MOV and cuff pressure t.i.d.
13. Routinely check the chest X-ray for proper positioning of tube tip and cuff inflation. □

### ACKNOWLEDGEMENT

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## How the Use of Alcohol and Other Drugs Influence Safety on Our Highways

continued from page 181.

As a host or hostess, you should shut down the bar (without fanfare) at least one hour before you expect your guests to start home. Let them spend some extra time over food and hot (non-alcoholic) drinks before they leave. Never insist that anyone have "one for the road". □

### Information for this article comes from the following:

1. Canada Safety Council Defensive Driving Program.
2. Insurance Bureau of Canada.
3. Alcohol and Alcoholism — Problems, Programs and Progress. U.S. Department of Health, Education, and Welfare.
4. N.S. Commission on Drug Dependency — article by Greg Johnstone, Pharmacologist — on Alcohol Intoxication — Sequence and Observable Changes in Behavior.

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# THE MEDICAL SOCIETY OF NOVA SCOTIA

## PROCEEDINGS OF 12th MEETING OF COUNCIL

AND

## 123rd ANNUAL MEETING

November 18-19, 1976

**INTRODUCTION:** The 12th Meeting of Council began as the Medical Society Officers accompanied by Dr. E. W. Barootes, Deputy President of The Canadian Medical Association, paraded through Council Chambers to the head table. Following call to order by Dr. J. F. Hamm, Chairman of the Executive Committee and General Council, the Officers were introduced and Dr. Barootes brought greetings from The Canadian Medical Association. Dr. Barootes wished Council well in its deliberations and indicated he would be available to participate in the Meeting as required.

Dr. Hamm welcomed the Exhibitors and recognized their contribution to the Annual Meeting. He encouraged Council members to visit the displays and discuss the products and services with the representatives. Dr. Hamm extended a particularly warm welcome to the representatives of the five Voluntary Health Agencies which participated for the first time in the exhibit portion of the Annual Meeting. Dr. Hamm extended the Medical Society's invitation to the representatives to attend the Banquet and Ball on Friday evening.

Council business began as Mr. D. D. Peacocke, Executive Secretary, read the names of Society members deceased since October 1, 1975 as follows: Dr. Malcolm P. Burley, Windsor; Dr. D. Paul Cudmore, Halifax; Dr. Alan R. Ellerker, Sydney; Dr. Charles L. Gass, Tatamagouche; Dr. Syed M. H. Hasan, Bridgewater; Dr. Edith Kovacs, Dartmouth; Dr. Charles P. Miller, New Waterford; Dr. Ian E. MacKay, Stellarton; and Dr. Earle W. Spencer, Digby. Council observed a period of silence in tribute to the memory of these members.

The Transactions of the 11th Meeting of Council and the 122nd Annual Meeting (1975) as printed in the December 1975 issue of the Nova Scotia Medical Bulletin were approved.

**BY-LAWS COMMITTEE REPORT:** — Dr. J. H. Quigley reported that following the 1975 Annual Meeting, the approved By-Laws had been edited and subsequently submitted to the Government for approval prior to printing and release to the membership. (*Executive Secretary Note:* — Approval of Amended By-Laws received on November 23, 1976).

**CANCER COMMITTEE REPORT:** — Dr. R. C. Fraser reported that establishment of the Central Cytology Registry is proceeding very, very slowly. The meeting was informed that the Medical Society continues to support the urgent need for this Registry.

A request by the Cancer Society that the Medical Society continue to endorse the establishment of computerization programs for data input and retrieval for patients with cancer was withdrawn when it became evident that Council would require information before considering the proposal. Dr. Fraser agreed to provide this information in order that it might subsequently be considered by the Executive Committee.

**CHILD HEALTH COMMITTEE:** — Dr. M. E. Churchill reported that she had represented the Medical Society on the Provincial Government Advisory Committee on Communicable Disease Control and that a number of recommendations relative to immunization had been approved by the Society during the course of the year.

Dr. Churchill stressed the need for physicians to make themselves more aware of the problem of Child Abuse and Neglect. She pointed to the need to establish a multi-disciplinary approach to this serious problem and that the Department of Social Services is looking to the Society and its members to provide the necessary medical expertise. Council approved her recommendation "THAT Nova Scotia Medical Practitioners be more vigorous in working with the Department of Social Services on Child Abuse and Neglect problems specifically, by appointing a physician in each Branch Society as a resource person."

**COMMUNITY HEALTH COMMITTEE:** — Dr. M. E. Lynk reported that her Committee had also been involved in the development of a comprehensive Provincial Immunization Policy. She expressed the view that the recommendations should be followed carefully to ensure that they are introduced. Also suggested was the development of a Central Registry relating to immunization.

Dr. Lynk's Committee also addressed its concern to the subject of Child Abuse and urged the Society to become more involved in this problem.

This Committee expressed the wish that the Medical Society should, once again, urge the Province to introduce mandatory use of seat belts. Council resolved "THAT The Medical Society of Nova Scotia endorse the legislation on mandatory use of seat belts, and that the Society's policy be forwarded to the Legislative Body of the Province of Nova Scotia."

**DISCIPLINE COMMITTEE REPORT:** — Dr. McKeough reported that this Committee had not been required to deal with any problems during the year. He noted that discipline of the profession is a matter for the Provincial Medical Board. When complaints are received by the Society indicating that disciplinary action might result, they are forwarded to the Provincial Medical Board for consideration.

**EDITORIAL BOARD REPORT:** — Dr. B. J. S. Grogono reported to Council that the Bulletin was continuing to produce a medical journal of very high standards. He expressed his appreciation to all contributors to the Bulletin and the Society staff for its support. His report included the budget for 1977. Council approved his recommendation "THAT continued support be given by the Society for costs of production of the Bulletin with plans to expand its format, content and circulation."

**ETHICS COMMITTEE REPORT:** — Dr. R. S. Murphy reported a quiet year for his Committee, noting that very few problems had come to his Committee for action. His recommendation that the Ethics Committee remain separate from the Committee on Legislation was approved.

The subject of promotion of the Halifax Infirmary Well Women's Clinic was discussed at some length. While recognizing the requirement for this type of clinic, concern was expressed that the ethics of the advertising was open to question. Reference was made to the high incidence of carcinoma of the cervix with the observation that the principal issue was encouragement of women to have pap smears taken at appropriate intervals. This issue arose later in the Meeting at which time it was approved by Council that the Medical Society study the principle and application of Well Women's Clinics in Nova Scotia and establish a policy on the matter.

**FINANCE COMMITTEE REPORT:** — Dr. G. C. Pace presented Council with a proposed budget for 1977 and the auditor's statement relative to fiscal year 1976. The proposed budget for fiscal year 1977 was approved. Council also approved a recommendation that membership dues for regular members not be increased for fiscal year 1978. Council also approved Dr. Pace's recommendation that the Officer portion of the honorarium schedule be amended to include members appointed to the Tariff Committee (Medical).

Referring to the reported surplus, Dr. M. A. Smith recommended that the Society investigate the possibility of putting some Society money into the Garnett W. Turner Memorial Trust Fund. This recommendation was referred to the Officers for consideration.

Once again referring to the surplus, Dr. J. A. George recommended that the honorarium be amended to provide for payment to those entitled from day one as opposed to day six. This recommendation was referred to the Officers for consideration in view of the financial implications.

**MEDIATION COMMITTEE REPORT:** — Dr. McKeough expressed his sincere appreciation to Society Branch Presidents for their co-operation in dealing with the difficult, time-consuming and distasteful task of mediating complaints. He reported that the volume of complaints received at the Society office continues at the same high level. The complaints take a variety of forms but for the most part can be generally categorized as doctor/patient relationship problems. He added that another category of significance and concern are those complaints relating to quality of patient care. Dr. McKeough expressed special concern regarding the side-effects these individual incidents will have, observing that the actions of a very few members reflects on the entire profession. Dr. McKeough urged all members to keep in the forefront of their thoughts the extreme importance of good doctor/patient relationships.

**MEDICAL EDUCATION COMMITTEE REPORT:** — Dr. J. D. A. Henshaw reported to Council that his Committee has been actively involved in the activities of the Division of Continuing Medical Education in providing input toward the development of the Refresher Course, Short Courses, and Community Hospital Programs.

Dr. Henshaw noted that his Committee set out the following objective as guidelines for Continuing Medical Education Programs:

1. They should be equally available to all physicians whatever their geographical location,
2. They should respond to the needs, spoken or otherwise, of the physician population,
3. They should be utilized by the majority of physicians, and,
4. They should provide an appreciable improvement in the quality of patient care.

Dr. Henshaw's report also referred to the increasing costs of C.M.E. to physicians and that this is very obviously beginning to act as a deterrent. It was proposed that Patient Care Appraisal programs be given increased emphasis in all hospitals as a means of achieving Society objectives and countering the deterrent effect of rising costs. Council approved two recommendations:

1. "THAT the Society endorse the principle of Patient Care Appraisal as a means of improving the quality of patient care within the hospitals of the Province", and
2. "THAT the Society encourage its members to utilize Patient Care Appraisal techniques within their own hospitals."

The subject of availability of funds for supporting C.M.E. programs was discussed at some length. It became clear that there is little likelihood of increased funding being available through the University. Dr. Stewart spoke to the increasing pressures in this regard. Also referred to was the difficulty of conducting viable Community Hospital Programs in smaller hospitals where the number of physicians was small. Concern was expressed over fiscal control in the C.M.E. Division with particular reference to the extreme rise in costs of programs this year from last year. It was explained to the meeting that the increase resulted from a combination of factors — e.g. decrease in University funding and increase in operating costs. Council agreed that it would be worthwhile for this subject to be dealt with in some detail at Branch Society Meetings for the purpose of explaining the costs.

It was subsequently reported by the Executive Secretary in his report to Council that the Conjoint effort of the Society and C.M.E. Division to gain increases in financial contributions for pharmaceutical houses, voluntary health agencies, specialty societies, and industry were beginning to produce results. Mr. Peacocke alluded to the difficulties involved in this process, for example — research necessary to demonstrate to a possible donor just how financial participation could in fact benefit a donor. Mr. Peacocke provided the meeting with information on results of the fund-raising campaign, indicating that in some instances a critical situation had been alleviated.

In concluding discussion of Dr. Henshaw's report, Council approved a recommendation "THAT in the light of recent developments the Society reevaluate the problem of meeting the costs of Continuing Medical Education." Council did not provide specific direction as to how this review might be conducted.

**MEMBERSHIP SERVICES COMMITTEE REPORT:** — Dr. E. G. Nurse's report was delivered by Dr. M. A. Smith. Reported was an increase in membership of 29, placing the September 30, 1976 figure at 1,059. It was noted that on October 1, 1976 119 Internes and 183 Residents joined the Medical Society. Additional to this are 378 in the Student Membership Category.

He reported that participation in the Society's Insurance Program is increasing at a satisfactory rate, although it is clear that many members are not taking advantage of the savings available through the purchase of Society plans. It was reported to the meeting that participants in the Society's plans will be receiving a premium rebate prior to Christmas.

Responding to questions regarding comparability of Society plans to non-Society plans, Mr. Schellinck pointed out that at the outset the Society's L.T.D. Program in particular was head and shoulders above all competition. As a result other plans have improved to rise to our standards. He added that Society members should bear this in mind when they purchase this insurance, observing that in the case of the Society Program there will always be improvements made whereas once a member is signed up in a non-Society program there is little or no likelihood that any attempt will be made to improve his particular situation.

Dr. Nurses' report noted that one of the most common and costly errors made in financial planning is the use of a savings type of life insurance as a registered retirement savings plan. This type of investment gives poor insurance coverage for the cost, provides a very poor yield on investment, and leaves the participant with no flexibility whatsoever. Dr. Nurse recommended obtaining professional advice before committing future security.

**OCCUPATIONAL MEDICINE COMMITTEE REPORT:** — Dr. A. Prossin's report was received for information in his absence with Council noting the activity of his Committee in relation to Occupational Medicine Programs. Dr. Prossin reported increasing interest in this area on a national basis.

**PAP SMEAR COMMITTEE REPORT:** — Dr. R. C. Fraser's report noted that the new Pap Smear Reporting Form approved at last year's meeting has now been in use for some eight months and appears to be functioning well.

Once again the issue of Well Women's Clinics was discussed. The value of the Clinics was questioned as was the status of the recommendations set out in the C.M.A. Journal article on the Cancer Screening Program Study. Dr. Fraser responded, observing that until such time as a Central Registry is established it is difficult to give a specific value level to either the Clinics or the criteria set out in the National Study reported on in the C.M.A. Journal. It was agreed that this aspect of the issue should be considered as the Society is studying the principle and application of Well Women's Clinics as previously decided upon.

**PHARMACY COMMITTEE REPORT:** — Dr. J. Barrie Ross reported on the activities of his Committee noting its involvement in a wide-range of subjects and discussions with the Nova Scotia Pharmaceutical Society. His Committee has been concerned with the subject of drug abuse in particular relation to theft and forgery. Arising out of this were recommendations to metro physicians as to how to best protect themselves.

The Medical Society Prescription Form was amended to provide more space for prescribing physicians. Its use is encouraged, it being available through the Medical Society office.

The Committee also gained endorsement of and a financial contribution to a Formulary of Topical Preparations which has been circulated to Society members in clinical practice.

Arising out of a meeting with the Pharmaceutical Society was a recommendation that 30-day prescription limits be placed on certain drugs. A dramatic fall in cases of over-dose at the Victoria General and other Nova Scotia hospitals indicated that this might be worthwhile. However, his recommendation "THAT the principle of quantity limitation of prescriptions be applied to certain appropriate classes of drugs, with such a listing to be prepared by the Medical Society" was defeated. It was the feeling of Council that the prescribing physician should be familiar enough with the patient's problems to utilize such time-limits when it appeared appropriate.

Referring to the long-time hassle to obtain equality for dispensing physicians under Pharmacare in relation to the dispensing fee paid, it was recommended "THAT The Medical Society of Nova Scotia continue to urge all dispensing physicians to dispense within the guidelines of the Medical Society of Nova Scotia and that they be remunerated for their services under the M.S.I. Pharmacare Program at the same level as for pharmacists" was approved.

Dr. Ross reported that he had attended the first meeting of the Health Services and Insurance Commission Pharmaceutical Working Party which is investigating ways and means of reducing prescription drug costs. He expressed appreciation to the Society for the direction it has provided his Committee. This reduced the difficulties in negotiations with other organizations on such subjects as Product Selection.

**PHYSICAL FITNESS COMMITTEE:** — Dr. M. G. Shaw reported on the activities of his Committee for the past year, which were principally directed toward the promotion of fitness in the medical profession, and the general public. Dr. Shaw pointed to the considerable difficulties involved in changing life styles of people including physicians. He indicated that the Committee would continue in this direction through promotion of different programs, including Orienteering. He expressed appreciation to the Medical Society for its donation of \$500.00 towards promotion of the activities of the Orienteering Association of Nova Scotia. In conclusion, Dr. Shaw encouraged Branch Societies to consider how they could sponsor and support physical activities in their own area.

**PRESIDENTS' LIAISON COMMITTEE REPORT:** — Dr. T. J. McKeough first expressed his sincere appreciation to the Society members for the support given to the President and Officers through the Branches, Sections, and Committees. He spoke briefly to the difficulties of maintaining effective on-going communication with the membership. He urged all members to maintain high interest in their Branch and Section activities.

The President's report dealt with the vexatious problem of some physicians not supporting the Medical Society through membership but enjoying the benefits which have been paid for by those physicians who do support the Society. He informed the meeting that each Branch President and member to the Executive Committee has an up-to-date list of non-members. He requested all Society members to help in reducing this problem.

Dr. McKeough referred to relations with Government, noting that there have been problems and there is every reason to expect there will be more problems in the future. However, he said we do enjoy good relations and are able to speak freely and directly with Government and its representatives.

Also considered in the President's report was a summary of the considerable difficulties encountered in achieving the Fee Schedule increase effective April 1, 1976. The situation was compounded more than somewhat by the imposition of Anti-Inflation Regulations by the Federal Government. However, he reported relationships with the Commission at working level are satisfactory and it is anticipated that this year's negotiations will move along well even though different criteria must be utilized in determination of overhead expenses. Dr. McKeough asked for co-operation by physicians when asked for personal information so necessary to the conduct of a study in this area. Dr. McKeough also reported that the Society had obtained a 10.2 percent increase in remuneration for Internes and Residents for the past year and that negotiations for the current year are in progress.

**PUBLIC RELATIONS COMMITTEE REPORT:** — Dr. D. V. Willoughby was unable to attend and his report which represented a summation of the past year's activities in public relations was received for information.

**REHABILITATION COMMITTEE REPORT:** — Dr. J. L. Sapp's report dealt exclusively with the subject of the Health Professional Licensing Report which is considered elsewhere in these Transactions.

**SALARIED PHYSICIANS COMMITTEE REPORT:** — Dr. M. A. MacAulay reported that during the past year the Society has devoted considerable time and effort to the affairs of Salaried Physicians, noting there were 28 meetings or presentations where the interests of Salaried Physicians had been pursued by one or more members of the Committee.

Of significance is the right gained by the Society to participate in the Civil Service Commission Consultative Review process used for Civil Servants or Public Servants. This represents a break-through and will result in utilization by a variety of salaried groups of the services of the Medical Society. Dr. MacAulay reported that the Society has recently been acting in the interests of physicians in teaching units. Co-ordinated efforts through the Tariff Committee (Medical) continue to highlight the rationale that all physicians should press for action through their Society.

**WORKMEN'S COMPENSATION BOARD LIAISON COMMITTEE REPORT:** — Dr. G. J. H. Colwell informed Council through his report that communications with the Workmen's Compensation Board were frequent and covered a variety of problem areas. A principal one is Board/Physician communications. Council approved a recommendation "THAT the Society strive for improved communications between attending physicians and the Compensation Board by means of adequate documentation of W.C.B. cases, more frequent use of telephone contact between attending physicians and medical officers of the Board, as well as calls initiated by Board doctors to attending physicians." Dr. Colwell pointed out that the Workmen's Compensation Board will accept collect calls for these purposes.

In response to Dr. Colwell's stated willingness to deal with W.C.B. problems, Council approved his recommendations that practicing physicians inform the Medical Society and the W.C.B. Liaison Committee of any recurring problems in their dealings with the W.C.B.

**REPORT OF NOVA SCOTIA REPRESENTATIVE TO THE C.M.A. BOARD OF DIRECTORS:** — Dr. E. V. Rafuse reported on the principal activities of the C.M.A. Board during the past year. The range of subjects included malpractice suits, C.M.A. Statement on Eye Care, Deductibility of Expenses for C.M.E., Physician Manpower Requirements, and the Swine Flu Vaccination Program. His report included the six point C.M.A. Statement on Physician Manpower Requirements which has been adopted by The Medical Society of Nova Scotia.

**REPORT OF NOVA SCOTIA REPRESENTATIVE TO C.M.A. COUNCIL ON COMMUNITY HEALTH:** — Dr. M. A. Smith provided Council with a most comprehensive summation of the past year's activities of his Council, most of which he had reported upon to the Executive Committee of the Society during the course of the year. The items included first aid, emergency kits in aircraft, non-medical use of drugs, abortion, sexually transmitted diseases, child abuse, swine flu immunization to name a few. Complete detailed reports are available in the Society office should these be of interest to any member.

**REPORT OF NOVA SCOTIA REPRESENTATIVE TO C.M.A. COUNCIL ON MEDICAL ECONOMICS:** — Dr. D. M. Andrews reported that his Council under the chairmanship of Dr. G. C. Pace of Dartmouth was quite active during the year dealing with a wide-range of medical economics topics. He noted that the Subcommittee on Physician Remuneration will be looking in detail at Salaried Physicians, Patient Participation, Surveys of Hourly Gross and Net Incomes of Professionals, Economics of Group versus Solo Practice and Methods of Remuneration. His report referred to the recently held Conference on Techniques of Negotiations which was well received across the country. Scheduled for next year is a one day Conference on Professional Profile Review. Further information on the contents of Dr. Andrew's report is available in the Society office.

**REPORT OF NOVA SCOTIA REPRESENTATIVE TO C.M.A. COUNCIL ON MEDICAL EDUCATION:** — Dr. B. L. Reid reported to Council on such diverse aspects of medical education as reciprocity of C.M.E., development of regional councils relating to C.M.E., accredited C.M.E., development of a Medical Education Data Bank, and promotion of Patient Care Appraisal Programs. Dr. Reid pointed out that the recommendations set out in his report will likely be presented at General Council 1977. And that these will be discussed further by the Medical Society Executive Committee prior to General Council.

**REPORT OF NOVA SCOTIA REPRESENTATIVE TO M.D. MANAGEMENT LIMITED:** — Dr. G. A. Sapp informed Council that M.D. Management was concentrating its attention on current problems, studying methods of improving the attractiveness of programs, and assessing the usefulness of existing programs for Society members. He reported that the C.M.A.R.R.S.P. was doing quite well in comparison to other programs. He noted that in the past year 907 new C.M.A. R.S.P. accounts had been opened. Dr. Sapp referred to the audio-visual presentation on taxes, investments, and savings which had been viewed by more than 2,000 doctors across Canada during the past year.

Dr. Sapp pointed to the increase in allowable R.S.P. contributions to \$5,500.00. M.D. Management advised physicians wherever possible to take full advantage of the increased limits.

**CANADIAN CANCER SOCIETY (Nova Scotia Division) REPRESENTATIVE REPORT:** — Dr. R. C. Fraser's report dealt principally with the Cancer Society's financial position and activity in the area of research and grants for educational programs. Of particular interest to Council was his report that the Nova Scotia Division has agreed to provide financial assistance to establish xerography in conjunction with the mammography equipment at the City of Sydney Hospital. Some members expressed the belief that the equipment should have been located in Halifax in the initial instance; however, Dr. Fraser defended the situation and the freedom of the Division to make such a decision. Dr. Fraser concluded his report with the comment that in spite of increased financial resources the Division must confine itself

to the three-role program — i.e. research, public information, and service to cancer patients, and to continue to concentrate on the control of cancer within these guidelines.

**MEDICAL NURSING LIAISON JOINT COMMITTEE REPRESENTATIVE REPORT:** — Dr. Macadam Duncan reported that the Committee had undertaken a review of medical/nursing procedures relating to general and intensive care units and coronary care units. His report included the specifics of the proposals. In seeking endorsement of the proposals, Dr. Duncan noted that the guidelines were subject to approval by hospital administrators as well as medical and nursing advisory committees of the individual hospitals where the policies are established. His recommendations were referred to the Executive Committee for study and possible endorsement.

**MARITIME MEDICAL CARE INC. — REPORT OF THE PRESIDENT:** — Dr. C. D. Vair through his report provided the membership with a detailed appreciation of M.M.C.'s activities. Pointing to the operating deficit of \$32,000.00 Dr. Vair attributed this to the increase in dispensing fees authorized by the Provincial Government for M.S.I. Pharmacare and which pharmacists immediately charged to all Private Programs. The increased dispensing fee (to \$3.05) is likely to have a further unfavourable effect on the Private Side Operation.

The report included reference to plans to study how improvements might be made in the administrative procedures for M.S.I. Programs. M.M.C. will be seeking input from the Medical Society and individual physicians in the initial stages of this study.

Dr. Vair announced that the M.S.I. Branch Offices would be phased out during the next year and a half. Coincident with this would be establishment of "toll-free" numbers to be used by physicians and patients for information and assistance.

Dr. Vair concluded his report with reference to the necessity for ongoing close collaboration and co-operation between the Medical Society and M.M.C.

**MEDICAL ADVISORY COMMITTEE ON DRIVER LICENSING REPRESENTATIVE REPORT:** — Drs. C.C. Giffin and L. P. Heffernan reported an active year, noting that 637 cases had been dealt with, down from 682 last year. The report indicated that close dialogue continues between the Committee and the Commission on Drug Dependency because of the high percentage (50%) of cases having alcohol involvement.

**NOVA SCOTIA SAFETY COUNCIL REPRESENTATIVE REPORT:** — Dr. G. A. Lawrence informed Council that the Safety Council's terms of reference now include interest in highway, public, and occupational safety and the title is changed accordingly. He noted that although the Government has taken over much of the high school driver training, the Society still supplies a lecturer to the Instructors' course in Amherst each year. Dr. Lawrence encouraged Society members to support the Safety Council wherever possible.

**NOVA SCOTIA T.B. & R.D. ASSOCIATION REPRESENTATIVE REPORT:** — Dr. F. J. Misener's report expressed appreciation to the N.S. T.B. & R.D. Association for having made possible the visiting professorship in Pneumology. Also noted was the support to Dr. Dill for his research project which is attempting to identify parameters of immunological reactivity present in patients with extensive pulmonary disease.

**PHARMACY REVIEW COMMITTEE REPRESENTATIVES REPORT:** — Drs. H.I. MacGregor and L. B. Slipp reported on the activities of the Committee during the past year, a principal one being reviewing applications from nursing homes and practicing physicians for authorized provider status. Also of concern to the Committee is the development of a Provincial Drug Formulary.

**PROVINCIAL HEALTH MANPOWER CO-ORDINATING COMMITTEE REPRESENTATIVE REPORT:** — Dr. A. J. MacLeod reported on the activities of this Committee in relation to review of the Physician Manpower Requirements Report. He noted that he had attended a convention in Ottawa in early September following which The Canadian Medical Association (October 1-2) developed a position relative to the Requirements Report. Dr. MacLeod observed that the Report of the Requirements Committee is only a beginning and many shortcomings in it are readily identifiable. He supported C.M.A.'s position that considerable ongoing effort will be required to refine the data used and the study methods if realistic answers are to be gained.

**PROVINCIAL MEDICAL BOARD REPRESENTATIVE REPORT:** — Dr. H. J. Bland reported that on a nation-wide basis attempts are being made to upgrade requirements for licensing with there appearing to be general agreement that the L.M.C.C. must be the minimum qualification for registration. He also indicated that the Board would be seeking several amendments to the Medical Act in the near future; these would be relating to a new category of licensing, physician advertising, and licensing requirements. Dr. Bland reported too that Dr. M. R. Macdonald was recently named President of the Federation of Canadian Medical Licensing Authorities.

**R. H. COMMITTEE — DIRECTOR'S REPORT:** — Dr. R. S. Grant was unavailable to present his report. It was referred to the Executive Committee for consideration.

**UNEMPLOYMENT INSURANCE ADVISORY COMMITTEE REPRESENTATIVE REPORT:** — Dr. R. L. Brown reported that he has brought to the attention of the Unemployment Insurance Commission the large volume of paper-work in which physicians are involved. He noted the U.I.C. did not appear to be aware of this and the fact that physicians are entitled to render a fee for this work when he sees fit to do so.

**CLINICAL ADVISORY COMMITTEE (ORTHOPAEDICS) REPRESENTATIVE:** — Dr. R. K. Greenlaw presented a detailed report on Guidelines which are being considered for adoption in Nova Scotia. His request that the report be referred to the Executive Committee for discussion and consideration was agreed to by Council.

**REPORT OF CHAIRMAN OF SECTION FOR ANAESTHESIA:** — Dr. D. K. Rushton reported that his Section recommended the adoption of the American Heart Association Standards for C.P.R. and E.C.C. Concern was expressed by some members of Council that insufficient information had been made available for productive discussion. On the other hand, it was reported that the C.M.A. Council on Community Health had discussed these Standards and recommended that they be the Standards of C.M.A. It was resolved that the Medical Society Officers familiarize themselves with the new Canadian Standards for C.P.R. and E.C.C. and act appropriately.

**REPORT OF CHAIRMAN OF SECTION FOR GENERAL PRACTICE:** — Dr. A. H. Patterson reported that his Section had been involved to a major extent with the subject of Peer Review. His Section expressed the hope that clearer guidelines for conduct of peer review might be available in the future. He also reported that the Section had worked with the Department of Social services in the development of regulations for Homes for Special Care.

Council defeated a recommendation that the Medical Society support the concept of organized preparation of medical students for general practice through the Division of Family Practice located at Dalhousie University, principally because it carried the inference that if adopted, the Medical Society would then be in support of the two-year postgraduate prelicensing training program for family physicians. Dr. Patterson argued that this was not the intent of the resolution. It was agreed that the Section would resubmit its recommendation in more specific terms.

**REPORT OF CHAIRMAN OF SECTION FOR PAEDIATRICS:** — Dr. N. P. Kenny reported that the Section for Paediatrics had considered numerous problems over the year, in particular paediatric manpower, child abuse, immunization, and remuneration of paediatricians. Her report contained recommendations supporting the Society policy in relation to ongoing study of manpower requirements, participation of physicians in dealing with the problem of child abuse, and support of the approved immunization program for children in Nova Scotia.

**REPORT OF CHAIRMAN OF SECTION FOR PATHOLOGY:** — Dr. A. S. Wotherspoon's report dealt principally with the subject of fees, indicating the Section's dissatisfaction with results achieved to date. Discussion of this issue resulted in Council approving a resolution that the Medical Society of Nova Scotia continue to give vigorous support in achieving adequate remuneration for clinical pathology work, and that the Society reaffirm the principle of parity between radiologists and pathologists.

The Section recommended that the Health Services and Insurance Commission be persuaded to adopt unmodified Statistics Canada Units. Council requested an explanation of the specifics of the problem. This information was not readily available thus the recommendation was referred to the Executive Committee to examine the differences and determine whether Nova Scotia should adopt National Standards or vice versa. The Section recommended that RIA Assays and Rubella Screening be performed in all laboratories of adequate size and with appropriate technological ability. This resolution was approved with the notation that although such a recommendation had been made to the Commission some two years ago, the Commission had still not taken appropriate action.

Dr. Wotherspoon expressed the Section's concern regarding representation by pathologists on Commission committees dealing with laboratory problems. Lengthy debate indicated that in the minds of some the Section for Pathology was in fact well represented on the Laboratory Services Committee of the Commission. However Council accepted the principle of the point by approving a recommendation that the Medical Society support the Section for Pathology in obtaining adequate representation on committees dealing with laboratory disciplines.

**REPORT OF CHAIRMAN OF THE SECTION FOR PSYCHIATRY:** — Dr. C. E. Taylor's report dealt principally with the subjects of the shortage of psychiatric services in the Province and enactment of the proposed new Mental Health Legislation. To this end two recommendations were approved. One, that in order to ensure the adequate provision of psychiatric services throughout the Province it is proposed that the Medical Society make every effort to improve the relative earnings position of psychiatrists as a specialty and ensure reasonable working conditions for salaried psychiatrists, and two — that the Medical Society expresses concern to the new Minister of Public Health over the delay of enactment of modern mental health legislation in Nova Scotia.

**REPORT OF CHAIRMAN OF THE SECTION FOR RADIOLOGY:** — Dr. D. R. Campbell reported that the major activity of the Section during the past year was related to efforts to have private radiology recognized. His report expressed appreciation to the Society for its efforts in this regard.

**REPORT OF CHAIRMAN OF THE SECTION FOR INTERNES AND RESIDENTS:** — Dr. Claudia Resch, Vice-President of I.R.A.N.S., reported that the Internes and Residents Association of Nova Scotia is pleased to be recognized as a Section of the Society, particularly since most Internes and Residents are now members of the Society. She reported the Section is actively working with the Society on several matters including negotiations for 1977 remuneration. She acknowledged the assistance of the Medical Society in achieving the 10.2 percent increase for 1976 which brought Nova Scotia almost in line with the National average.



**REPORT OF CHAIRMAN OF THE SECTION FOR SURGERY:** — Dr. S. M. A. Naqvi expressed the principal concern of his Section was for the future of surgical progress and development. His Section felt that Government budgetary restraints and adverse publicity regarding apparent unnecessary surgery could have serious effects on services available to Nova Scotians. He noted that it must be continually stressed that surgical procedures are not necessarily carried out as life-saving measures but as an integral part of the total health system necessary for the improvement of quality of life. Council approved his recommendation that no compromise be made in the delivery of health care, including modern innovative surgery, as a result of any budgetary restraints in future.

**REPORT OF EXECUTIVE SECRETARY:** — Mr. D. D. Peacocke reported that in 1975 the Society had made provision for him to report to Council annually. He chose this opportunity to respond officially on behalf of the Medical Society staff for the many complimentary remarks by members over the past years.

Mr. Peacocke reminded Council of the Garnett W. Turner Memorial Trust Fund, reporting that the fund now totals \$2,446.00 largely due to the generous contribution of a close friend of Dr. Turner's. Mr. Peacocke encouraged participation in this worthy project.

Mr. Peacocke brought to the attention of Council the extent of the contribution to the Society made by the Editor and Associate Editor of the Nova Scotia Medical Bulletin, namely Drs. B. J. S. Grogono, and A. C. Irwin. He expressed the view that these members particularly deserved some recognition for their very special efforts on behalf of the Society and recommended that the Editor and Associate Editor of the Nova Scotia Medical Bulletin be relieved of the necessity of paying membership dues during their terms of office as such. One member expressed concern that this may be setting a precedent, thus the recommendation was referred to the Executive Committee for decision as to the extent and the manner of recognition of the two individuals involved.

**REPORT OF CHAIRMAN OF THE EXECUTIVE COMMITTEE:** — Dr. Hamm reported that during the year there were six Executive Committee Meetings, all of which had been reported upon extensively to the membership via the Minutes (which are distributed to the entire Executive Committee, Branch Presidents, Branch Secretaries, Section Chairmen, members on the Board of M.M.C., and medical members of the Health Services and Insurance Commission), visits to Branch Meetings and President's letters.

Council approved a specific resolution relating to a By-Law change this being "THAT the By-Laws be amended as follows: — Article 10.1 a — after Honorary Secretary insert 'Member-at-Large' appointed by the Officers to improve geographical representation (an Officer just completing a term shall be ineligible). Such appointment shall be ratified by the Executive Committee at the first meeting following such an appointment".

Council then approved a motion endorsing the actions of the Executive Committee during the past year, with the exception of action concerning Health Professional Licensing.

Dr. Hamm reviewed this subject in some detail, first providing the historical background and the manner in which the Society had been involved. He then explained that the Health Council Report had been reviewed extensively by a subcommittee of the Executive Committee. Arising from this was the Draft of the Society's position relative to the Report's recommendations. He explained that the Society had been asked to respond officially and depending on Council's decision, the Draft, as amended, would be this response.

The response was subjected to lengthy discussion with Dr. C. B. Stewart providing background information relative to the numbers of health disciplines which exist in the Province and how they are regulated at present. Council concurred in the necessity for co-ordination of Nova Scotia's licensing system. However, the cost factor was one which deserved careful attention. It was ultimately resolved that Council endorse in principle the Draft Response to Government Re The Health Professional Licensing Report, that the Officers take cognizance of the remarks made at Council Today, that the Draft be amended to include pertinent facts and changes, that a firm Society Position be established by the Executive Committee in December 1976, and that this Position be communicated to the Minister of Public Health immediately thereafter.

Dr. Hamm reviewed the background of the Society Mace noting that the proposal had first been brought forward by Dr. Garnett W. Turner. Considerable research was done by the Archives Committee. The original design was not approved because of the high cost involved. Dr. S. F. Bedwell then made inquiries of a local artisan to have one made of wood. Pointing to the results of these inquiries, Dr. Hamm informed Council that the cost of the Mace would be less than \$1,000.00 It was moved and duly seconded "THAT that Council of the 123rd Annual Meeting of the oldest Medical Society in Canada accept this Mace as its symbol of responsibility and dedication to the promotion of health and prevention of disease in the people of Nova Scotia." CARRIED.

**NEW BUSINESS:** — The subject of the necessity and desirability of performing routine physical examinations was debated at some length. In response to a suggestion that the Medical Society conduct a study of this matter, it was pointed out that the National Health and Welfare has struck a Working Party to study the effects of routine physical examinations. It was suggested that the Medical Society await the report of this Working Party before proceeding with the project. It was resolved that The Medical Society of Nova Scotia study the concept of Routine Physical Examinations and their benefit with the objective of providing a firm statement for consideration at next year's Annual Meeting. It was agreed that this should not be an original study but principally a review of literature on the subject.

**ANNUAL MEETING:** — On two occasions during Council the Society was called to order in session of the Annual Meeting to ratify the actions of Council and to hear the President's Valedictory Address which appears subsequent to these Transactions. Additionally, the membership heard and approved the report of the Nominating Committee which reads as follows: Appointment of Branch Representatives to the 1977 Executive Committee — Antigonish-Guysborough — Dr. J. E. Howard; Cape Breton — Drs. A. C. Walkes & P. D. Jackson; Colchester East Hants — Dr. D. G. Dewar; Cumberland — Dr. M. P. Quigley; Dartmouth — Dr. D. M. Andrews & Dr. J. F. O'Connor; Eastern Shore — Dr. A. C. Marshall; Halifax — Drs. E. V. Rafuse, A. H. Parsons, and M. G. Shaw; Inverness-Victoria — Dr. J. O. Belen; Lunenburg-Queens — Dr. W. G. Dixon; Pictou — Dr. D. R. MacLean; Shelburne — Dr. R. C. Montgomery; Valley — Drs. P. Goddard & R. D. Stuart; Western — Dr. D. M. Deveau.

The 1976 Nominating Committee approved is as follows: — Antigonish-Guysborough — Dr. J. A. George; Cape Breton — Dr. G. S. Marsh, Dr. P. D. Jackson; Colchester East Hants — Dr. A. C. H. Crowe; Cumberland — Dr. J. A. Y. McCully; Dartmouth — (to be named at December 11, 1976 Executive Committee Meeting); Eastern Shore — Dr. P. B. Jardine; Halifax — Dr. E. V. Rafuse, Dr. A. H. Parsons, and Dr. M. G. Shaw; Inverness-Victoria — Dr. N. J. MacLean; Lunenburg-Queens — Dr. D. W. Morse; Pictou — Dr. D. Grant Kirk; Valley — Dr. A. E. Bent; and Dr. D. L. Davison; Shelburne — Dr. J. U. MacWilliam; Western — Dr. D. M. Deveau.

The following nominations were approved: President-Elect — Dr. J. F. Hamm; Chairman, Executive Committee — Dr. B. J. Steele; Vice-Chairman, Executive Committee — Dr. George C. Jollymore, Treasurer — Dr. P. D. Jackson; Honorary Secretary — Dr. A. J. MacLeod.

The 123rd Annual Meeting of the Medical Society of Nova Scotia adjourned at 4:00 p.m., November 19, 1976.

## ANNUAL MEETING EXHIBITS

The Medical Society wishes to express its sincere appreciation to those firms which exhibited at our Annual Meeting in November 1976 at the Lord Nelson Hotel.

### LIST OF EXHIBITORS

Anca Laboratories (Wander) Ltd.  
Astra Chemicals Ltd.  
Boehringer Ingelheim (Canada) Ltd.  
Burroughs Wellcome Limited  
W. Carsen Company, Ltd.  
Dept. of Highways  
Endo Laboratories  
ICN Canada Limited  
Maritime Medical Care Inc.  
McNeil Laboratories (Canada) Ltd.  
Merck Sharp & Dohme Canada Ltd.

Mowatt & Moore Limited  
Pennwalt of Canada Limited  
Pfizer Pharmaceutical Division  
Poulenc Limited  
A. H. Robins Company of Canada Ltd.  
Wm. H. Rorer (Canada) Limited  
Roussel (Canada) Limited  
Schering Corporation Limited  
Syntex Limited  
Warner Chilcott Laboratories Co., Ltd.

### Voluntary Health Agencies

Canadian Arthritis & Rheumatism Society  
Canadian Cancer Society  
Nova Scotia Heart Foundation  
Kidney Foundation of Canada  
Nova Scotia T.B. & R.D. Association

Medical Society members appreciate the extensive financial contributions that exhibitors make toward defraying the costs of conducting an Annual Meeting. As well, the additional expense of preparing exhibits and arranging for the displays are also recognized. Most important, however, is the opportunity the exhibitors have given to members of the profession to meet with representatives of the various firms for discussion of new products and services available to them.

Members of the Society are encouraged to convey their gratitude by giving the exhibitors' representatives an extra expression of appreciation on the occasion of their next encounter.

D.D.P



# Presidential Valedictory Address, 1976

T. J. McKeogh, M.D.

*Sydney Mines, N.S.*

Mr. Chairman, distinguished guests, ladies and gentlemen. As I stand here as the President of The Medical Society of Nova Scotia for the last time I face you with a wide mixture of feelings . . . feelings of relief, of satisfaction, of pride in the medical profession, of concern and of appreciation to each of you for your support during the past year.

My feelings of relief are not heightened by the fact that my term of office is coming to a close, but rather by the fact that this year is concluding without any major problems or obstacles having been placed in our way by the Provincial Government. Yesterday we heard from the President of The Canadian Medical Association about the apparent changes in direction of Federal health officials which should give us all reason for concern. In Nova Scotia however we have maintained good relationships with our Government and the frankness and openness of communication with the ministers of the Government continues to underline our collective dedication to health care.

My feelings of satisfaction come from the fact that your society continues to grow more effective and efficient under the direction of your officers and your executive.

They have worked hard on your behalf together with your executive secretary Doug Peacocke, Anton Schellinck and the balance of the society staff. I wish to express my appreciation to each of them for their untiring effort.

My contact with physicians across the province during the past year has left me with a feeling of pride in the medical profession. During my visits to each of the society branches I have met many physicians who have impressed me with their dedication and commitment to medicine and to the health of the residents of this province. As well I have been impressed by their fiscal responsibility in their dealings with hospitals and with their individual patients.

As you are aware the first responsibility of The Medical Society of Nova Scotia, as spelled out in provincial legislation, is the maintenance of the health of the people of Nova Scotia. Your concerns as expressed to me at branch meetings have emphasized that this is still your number one priority.

Uppermost in my mind however is a feeling of concern for the future of the medical profession. Yesterday you heard the Deputy President of the Canadian Medical Association point out to us the apparent direction of the federal government in their relations to health care and his comments concern me. However I would like to examine the climate that has created a somewhat less than positive attitude on the part of Ottawa and some provincial governments toward medicine. My year as president would have been a completely enjoyable one if it had not been for the difficult, time consuming and even distasteful task of dealing with patient complaints. While in absolute terms the number of complaints examined and mediated was not high there were more than sufficient complaints to make this a significant part of my duties as your President.

Almost invariably these complaints can be classified as a breakdown in doctor/patient relationships and to a slightly lesser extent to quality of care problems. The number of instances was small but the effect of each individual incident has been far reaching and touches each and every one of us in one way or another.

I do not have to remind you that the very nature of our profession leaves us particularly vulnerable to public scrutiny and criticism. I urge you to keep this in mind to ensure that you maintain sound relationships with your patients.

Despite the emergence of government participation in health care and the use of computers in many fields medicine is still an art which is best practiced within a climate of good will and trust between the doctor and his patient. □

# Vocal Rehabilitation Following Total Laryngectomy

## Experience in Nova Scotia

Mohammad Yousof,\* M.D., F.R.C.S.(C) and  
George M. Novotny,\*\* CD, M.D., F.R.C.S.(C), F.A.C.S.,  
Halifax, N.S.

### SYNOPSIS

*Loss of speech following total laryngectomy constitutes a severe functional and social handicap. Until such time when an ideal surgical speech rehabilitation procedure can be designed, esophageal speech will remain the goal for majority of laryngectomees even with its limitations. A review of total laryngectomy cases in Nova Scotia carried out between 1959 and 1975, revealed that 40% of our patients succeeded in acquiring adequate esophageal speech, in contrast to the generally accepted figure of 60%. Males were more successful than females, in spite of their age handicaps, possibly because of better motivation. Bilateral radical neck dissection with total laryngectomy and also the addition of radiotherapy had adverse effects on the rehabilitation process. Artificial external devices appeared to produce satisfactory speech if esophageal speech failed. A brief mention of our experience with surgical rehabilitation of speech was made to emphasize the associated, potential grave complications.*

Speech loss following total laryngectomy constitutes a severe social impairment that is not easily overcome. Although radiotherapy and partial laryngeal surgery are more often employed now to avoid loss of speech, quite frequently a decision for the total removal of the larynx has to be made. Alaryngeal speech is almost always inferior to normal laryngeal speech but it is better than no speech at all. The various rehabilitation procedures employed to help the laryngectomee overcome his functional and social handicap have been summarized in the accompanying Table I.

### NON-SURGICAL SPEECH REHABILITATION PROCEDURES

1. Spontaneous speech — This appears to be the ideal goal following total laryngectomy. Buccal speech involves the use of air retained in the buccal area to produce a breathy voice, which is generally of a poor quality. Esophageal speech is the most common form of substituted speech which involves the ingestion or inhalation of air into the esophagus that is subsequently regurgitated through the reconstructed cricopharyngeus muscle. The cricopharyngeus serves as a pseudoglottis producing sound which is articulated into alaryngeal speech. The drawbacks of esophageal speech are a narrow pitch range, frequent pauses to ingest air and prolonged practice often utilizing guidance of a professional teacher.

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Reprint requests to Doctor Novotny

TABLE I

Speech rehabilitation procedures following total laryngectomy.

- 
- |     |   |
|-----|---|
| A.  | Non Surgical Procedures:  |
| 1)  | Spontaneous speech:   |
| (a) | Buccal Speech   |
| (b) | Esophageal Speech   |
| 2)  | External artificial larynges:   |
| (a) | Pneumatic devices<br>e.g. Japanese reed   |
| (b) | Electric devices<br>e.g. Western Electric<br>Aurex<br>Cooper Rand                       |
| B.  | Surgical Procedures:  |
| 1)  | Tracheo-Esophageal or Hypopharyngeal Shunt<br>e.g. Asai Procedure and its modifications |
| 2)  | T. -E. Shunt utilizing air bypass devices   |
| (a) | Reed fistula method   |
| (b) | North Western laryngeal voice prosthesis  |
| (c) | La Barge — "voice bak" prosthesis   |
- 

In spite of esophageal speech being the ideal goal, only about 60% of laryngectomees succeed in mastering this technique satisfactorily and 10% of them eventually become excellent esophageal speakers.<sup>1</sup> Good results appear to be related to the age of the patient, his motivation and desire for independent speech, the extent of operative resection and preoperative radiotherapy, and the availability of a good speech therapist for proper guidance.

2. Externally applied artificial larynges — A variety of these devices has been introduced which are designed to produce sound transmitted to the oral cavity, either directly or transcutaneously, where it can be modified into alaryngeal speech. They are generally cumbersome and visibly apparent, producing a monotonous sound, and are usually tried after the patient failed to learn esophageal speech satisfactorily. More than half of such patients, after continuous practice, do learn to produce socially acceptable speech, using such devices. Artificial larynges are principally of two basic types: The pneumatic devices producing a more natural sound and placing the voice under respiratory control and the electric devices which produce monotonous mechanical sound.

### SURGICAL SPEECH REHABILITATION PROCEDURES

1. Tracheo-Esophageal or Hypopharyngeal Shunt — This operates essentially on the same principle as esophageal speech, where an attempt is made to provide a vibrating column of air through some form of surgically created tracheo-esophageal or hypopharyngeal connection. The reconstructed crico-

pharyngeus, or the hypopharyngeal wall functions as the pseudoglottis for the sound production.

Guttman<sup>2</sup> in 1935 created a tracheo-hypopharyngeal fistula with a diathermy needle. Asai described his well known technique of using an external skin-lined tube to shunt air from the trachea to the hypopharynx. Multistaging of the procedure, stenosis of the shunt and aspiration are common though often correctible problems.<sup>3</sup> Montgomery with Toohill<sup>4</sup>, and Conley<sup>5</sup> described fistula techniques using mucosal lined tubes. Kormorn<sup>6</sup> with others reported on the use of esophageal flap at the time of laryngectomy for the creation of tracheo-esophageal fistula. McGrail and Oldfield<sup>7</sup> used one stage procedure for creation of tracheo-hypopharyngeal shunt using deltopectoral flap.

The speech produced by these steps is generally described to be superior to the average spontaneous esophageal speech, but the surgical complication rate and prolonged hospitalization limits the use of such procedures to patients who fail the non-surgical vocal rehabilitation.

2. Tracheo-Esophageal Shunt utilizing air bypass devices — This operates essentially on the same principle as described in the preceding paragraphs, with the basic difference that an artificial device is utilized to bypass air from the trachea to the esophagus or hypopharynx. The basic design of such a device is that of a modified laryngectomy tube with a side arm for insertion into a surgically created esophageal fistula to function as a mechanical shunt when the external opening of the laryngectomy tube is occluded. In high surgical fistula, the hypopharyngeal wall functions as pseudoglottis (North Western prosthesis)<sup>8</sup>, while in low surgical fistula the tissues below the cricopharyngeus provide the vibrating mechanism for sound production (La Barge — "voice bak" prosthesis)<sup>9</sup>. The main problem with the former method is the high incidence of salivary leakage around the tube and poor patient tolerance, while the latter procedure carries the potential risk of carotid blow-out.

In patients who have inadequate vibrating tissues due to the extent of their surgery, a reed mechanism can be incorporated in these devices for sound production.<sup>10</sup> However, speech produced by reed fistula method is monotonous and often of inferior quality.

## EXPERIENCE IN NOVA SCOTIA

A total of 71 hospital charts from the Nova Scotia Tumour Clinic were reviewed for patients who had undergone total laryngectomy for malignancy between 1959 and 1975. Of these, 17 contained no information about the mode of speech used by the patients post operatively. The remaining 54 pertinent charts were further analysed regarding the type and quality of the speech rehabilitation and its relationship to various patient and therapeutic variables. (Table II) Of the 54 patients, 21 (40%) developed adequate esophageal speech, 6 of them being excellent speakers. The criteria for grading speech from satisfactory to excellent were not defined, and were purely subjective dependent upon the judgement of the surgeon following the patient post operatively. All excellent speakers were males. The number of female patients was small (7) and only two of them developed adequate esophageal speech. (Table II).

**TABLE II**

Summary of speech rehabilitation of 54 patients studied, covering the period between 1959-1975.

Type of Speech Rehabilitation	Total Number Of Patients (54)	Males (47)	Females (7)
Excellent esophageal speech.	6	6	0
Satisfactory or good esophageal speech.	15	13	2
Poor or no esophageal speech.	33	28	5
8 External artificial larynges.			8
Satisfactory speech.			6
Poor speech.			2
— Surgical speech rehabilitation			0

The youngest patient with excellent esophageal speech was 37 years old, while the oldest was in his eighth decade. The average age of the patient in various groups did not appear to have any bearing on the adequacy of esophageal speech. In this series, females in general were younger than their male counter-parts but few of them developed adequate speech. (Table III).

**TABLE III**

Effect of age on esophageal speech rehabilitation.

Quality of speech	Males		Females	
	Age Group	Average Age	Age Group	Average Age
Excellent speech	37-86	62		
Satisfactory or good speech	48-71	59	40-48	44
Poor or no speech	49-79	64	35-65	51

44 patients received cobalt therapy (2500 to 6000 rads) either before or after surgery, and 36% of them developed adequate oesophageal speech. In contrast, half (5 of 10) the patients receiving no radiation therapy at all developed adequate esophageal speech. (Table IV).

**TABLE IV**

Effect of radiotherapy on esophageal speech rehabilitation.

	Surgery and Radiotherapy	Surgery alone
Total number of cases.	44	10
Excellent speech	5	1
Satisfactory or good speech	11	4
Poor or no speech.	28	5

The addition of unilateral radical neck dissection to total laryngectomy did not appear to change the outcome of acquiring esophageal speech but bilateral radical neck dissection did affect the process adversely. (Table V).

**TABLE V**

Effect of the extent of the surgical procedure on esophageal speech rehabilitation.

(staged)	Total Laryngectomy alone	Total Laryngectomy and Unilateral radical neck dissection	Total Laryngectomy and Bilateral radical neck dissection
Total number of patients	29	23	2
Excellent speech	2	4	
Satisfactory or good speech	9	6	
Poor or no speech	18	13	2

Eight of the 33 patients who failed to learn adequate esophageal speech were rehabilitated with artificial external speech devices; six patients had a satisfactory voice (three of them using Japanese Reed, and three Electric larynges). Two of the patients were using their Electric larynges rather poorly. None of the patients studied had undergone a surgical speech rehabilitation procedure following total laryngectomy, yet we did attempt to use a La Barge "Voice Bak" device in a young patient with a completely afunctional larynx, retained in situ following severe laryngeal trauma.

Before the effectiveness of the prosthesis could be proved, the patient developed carotid blow-out, from pressure of the fistula tube, necessitating ligation of the vessels and closure of the fistula. It left him with a hemiplegia. This patient is not included in the preceding tables, but is mentioned here only to emphasize the catastrophic complications that may occur with surgical speech rehabilitation procedures. □

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# Family Medicine and Internal Medicine\*

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Family practice divisions have developed in virtually all Canadian, American and British medical schools in recent years. The increasing impact of these new divisions has been bewildering to Internal Medicine departments who see their role and traditional responsibilities being altered. The trend is obvious in Dalhousie, and I would like to raise a few questions about the increasing impact of the Family Practice Division in areas that have traditionally been the responsibility of our department, the Department of Medicine. I do not propose to answer all of the questions, and I do not propose to state whether the changes and trends are good or bad — I merely raise some questions and make some points in order to stress the necessity for our department to think about this change in medical education, and to see where our responsibility lies, to make sure that any such changes do, in fact, provide a better educational experience for the students.

The teaching of "medicine" (as opposed to obstetrics, surgery, anaesthesia, radiology, etc.) has in the last 25 years been the realm of the Internal Medicine specialist and in particular, the Internal Medicine subspecialist. While the Department of Medicine grew, the experts took over the hospital care of patients more and more, the clinical training of students, and the hospital based experience for interns. As the family practitioner disappeared from the hospital, he also disappeared from the view of medical students.

The medical specialist and subspecialist became central in the university based clinical teaching program, and they have felt that this was their rightful place because of their expertise in the understanding of medical diseases and processes, their commitment to teaching, and their additional responsibilities and influence in areas of research.

There has often been mutual misunderstanding of the university role of internists and that of family practitioners. Often the Internal Medicine Department thinks that it is doing everything that the Family Practice Division can do — and this is wrong. There may also be a feeling on the other hand that the Family Practice Division can do everything in relation to teaching that we can do — and that is just as incorrect.

I would suggest strongly that *we should not be competing but that we are complementary*, and that we provide quite different aspects of the training of medical students and internes.

The medical specialist's attitude, despite what he may say, is to train a better doctor by providing him ever increasing information and skills for the diagnosis and management of disease. However, with a new sense of his role in medicine, the family practitioner is now returning to teach medical students the principles and skills and information that he feels the student must have to be an exemplary family practitioner. These are principles and skills and information that to a great extent the medical specialist was *not* teaching.<sup>1</sup>

\*Presented to the Department of Medicine, Dalhousie University, September 1975.

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The family practitioner now wants to have a central role in the clinical teaching of students and interns and is gaining increasing power in most medical schools to achieve this position. He sees his function quite differently from the specialist. The family practitioner is acknowledged as an expert in family medicine, and in the continuing care of patients, *despite* what their diseases may be. The family practitioner is the entry point of patients into all aspects of the health system, and he feels that he is well trained to recognize and manage the common, correctable and serious diseases that present to the primary physician often in the early stages of the illness. He feels he is particularly well suited to managing the psychological and social problems that are so common in family practice and feels that he serves a special role in the *continuing* care of patients within a family and community context, regardless of what their individual problem might be, and whether it is acute, long-term, or terminal.

The family practitioner sees his role primarily in the community and in an ambulatory care setting.<sup>2</sup> A smaller part of his responsibilities lie within the hospital. The departments of medicine, in contrast, function to a great extent in, and in relation to, hospitals. It would thus seem to me that a clear and cooperative relationship could be developed in the teaching of medical students which would involve the best use of both groups to train a better physician.

It is not too difficult to define the role of the family practitioner or of the internal medicine specialist in terms of health care, but it is difficult to define definite roles in relationship to the medical students who will ultimately be practicing physicians. The roles overlap to some extent, and we then vie with family practitioners over who should direct the training and learning processes of the student in many areas. The specialist often feels that he should teach the students medical diseases and their management with the experience, expertise and enthusiasm that only the expert can muster. But the family practitioner feels that he should be involved more in the clinical training of students because of his expertise in delivering "people" centered medical care which manages a person through any and all problems, utilizing other specialized personnel and facilities as necessary, and carrying out this long-term management in the context of family and community.<sup>3</sup>

As we currently watch the resurgence of family practice, we see an upswing in the number of graduates going out into family practice, and a decreasing number coming back. The graduates express a growing sense of their role as family practitioners and a feeling that the family practitioner is again assuming a central point in health care. At the same time, we are seeing the prospect of a long and uncertain residency becoming less attractive, with less definite rewards at the end in terms of prestige, financial gain and intellectual satisfaction.

If the family practitioner is now going to teach the medical management of patients from a different tack, and take time from the curriculum to do it, the traditional role of the Department of Medicine will change and diminish. But at the

present time, the family practitioners are directing that change, and our response tends to be periodic dismay or even anger over each inroad into our domain; or we smugly deride the family practitioner for being too ill-trained or unskilled at the serious business of teaching medical students; or we just ignore what is happening. To ignore the increasing impact of the Family Practice Division, is to invite an altered role for the Department of Medicine in a way that we cannot control, and to allow changes in the training of physicians over which we have little input. And to some extent that is our present situation.

We watch in bewilderment as the third and fourth year students spend more and more time under the wing of the Family Practice Division, we see the interne electives being steered to the family practice area, and we see more and more of the internships being classified as family practice internships. More and more internes are coming within the control of the Family Practice Division, rather than the Department of Medicine and former medical electives will tend to become family practice electives.

I don't mean to suggest that the family practice impact is necessarily a conflict situation for the Department of Medicine. I don't mean to suggest what aspects are right and which are wrong in the changes that have occurred in the recent years. I merely wish to state that the rise of family practice divisions in universities has been a general and important phenomena and must be recognized by departments of medicine, who must then redefine their roles in relationship to these divisions. This demands dialogue, not only among ourselves, but with family practitioners and with the Family Practice Division, to see clearly, and have them see clearly, what we can do best and what they can do best, and what our place must be in the overall education process of medical students. If we don't, we will be relegated further back in the educational process, with our function and rules determined to a great extent by the family practice group.

Essentially I feel we should provide leadership in the teaching of medical problems and diseases, clinical skills and clinical experience in hospital ward and intensive care situations. The Family Practice should provide leadership in teaching principles of community medicine, family medicine, patterns of practice and experience in ambulatory settings. The family practitioner may quarrel with this designated role, and you may quarrel with the one I outlined for the internist, but some clarification is needed or we will continue to try and do the same things, conflicting as we go. If we can more rationally define what we both can do best, we can begin to better cooperate in our efforts, supplementing our individual strengths, to ultimately provide a better training and experience for developing physicians.

We must look at the clinical training of medical students with a new viewpoint, or the family practitioners will continue to make the changes without us. □

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# Co-ordinated Public Health Nursing and Physician Services in Nova Scotia — It Works

Francine LeBlanc,\* R.N., P.H.N., and Anne Schultz,\*\* B.A., B.Ed.,

Halifax, N.S.

## BACKGROUND

Before 1973, the 4,500 citizens of the Pubnico area (Glenwood, Yarmouth County to Shag Harbour, Shelburne County) shared the full time service of a physician in Pubnico, and the part time service of a Public Health Nurse working out of the Yarmouth office. There was little contact between these two.

Dr. V. K. Rideout, Medical Director and Miss I. Stafford, Nursing Supervisor, Western Health Unit, and Doctor A. M. Clark, the practising physician at Pubnico Head, recognized the need for a co-operative, co-ordinated health service and full time Public Health Nursing Staff to carry this out.

The opportunity was taken to transfer a Public Health Nurse to Pubnico for full time employment; the nurse's area was adjusted to correspond to the medical practice area; and the nursing office was established in the Pubnico Medical Centre. The process of co-ordination and improved health service was facilitated by Doctor Clark's desire to work closely with Public Health personnel and the Health Unit's desire to work closely with the area physician and to provide the best Public Health Nursing service possible to the communities within its jurisdiction.

## WORKING MODEL

There was little difficulty or conflict in setting up a program of co-ordinated health services and in making it effective and efficient. The idea of a co-ordinated service suits the area well, and the program provides a high quality of care experienced by few communities in the province. In the three years that the program has been operating, the services have expanded considerably and now include three physicians, Doctors A. M. Clark, P. Loveridge and N. Mattinson, as well as Francine LeBlanc, the Public Health Nurse, and Carolyn d'Eon, a Certified Nursing Assistant. Both nursing personnel are bilingual, making it easier to serve both the French and English communities in the area.

With the location of the nursing office next to the physician's, there is a continual referral and exchange of information. This provides for immediate feedback on patients between doctor, Public Health Nurse, and Nursing Assistant. In addition to regular Public Health Nursing duties, the Public Health Nurse has taken over some of the health care previously provided by the doctor, such as: physical assessment at well baby clinics, general immunizations, selected home visits and individual family counselling. A physician however, is always available for consultation and referral.

The physicians at the centre have found that a greater amount of time can be allocated to more serious medical

matters, with the Public Health Nurse counselling patients on less serious problems. The Public Health Nurse has more time to listen to patients, and this is a definite benefit from a mental health viewpoint.

Being located permanently in the medical centre has increased public acceptance of the Public Health Nurse and Certified Nursing Assistant, and has led to a greater demand for service from public, communities, and schools. Health problems patients may feel the doctors are too busy to be bothered with, can now be discussed with the Public Health Nurse and referred and discussed with doctors as necessary.

The Public Health Nurse, because she is community oriented, visits many people in the community whom the doctor would never see. The Public Health Nurse and Certified Nursing Assistant are also the major co-ordinators with outside agencies. Too often physicians do not realize the wealth of knowledge and contacts the Public Health Nursing staff have. Through the Public Health Nurse and Certified Nursing Assistant, the doctors in this centre are more aware of the community and get a much better outlook on the patient as a member of a family.

A plus to the success of this concept is the community health background the physicians in the centre obtained while in England, where community and Public Health training is an integral part of a physician's training. This background has provided a greater insight into co-ordinated community care programs. This type of training is often lacking in Canada, and makes it more difficult to organize and co-ordinate service programs.

The communication within the centre is excellent and in Francine LeBlanc's mind, the set-up is "one of the best she has experienced across Canada". All health staff share mutual files and equipment within the centre. In the exchange of information and professional knowledge, the physician and staff can obtain a total family outlook rather than just individualized facts on their patients.

Although there is an increase in nursing care, the education aspects of Public Health Nursing are not diminished. With increased office and home visits, there is as much and more opportunity to discuss prevention and educational aspects.

## NUTRITION SERVICES

The services of Beverly Dagley, the Public Health Nutritionist from Yarmouth, have been incorporated into the centre, along with the Public Health Nurse and Certified Nursing Assistant. The Nutritionist visits the centre twice a month for counselling of patients referred by the doctors or Public Health Nurse, as well as handling normal requests for information and counselling.

The fact that a Nutritionist is available for counselling is a tremendous advantage, and the doctors welcome her

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professional knowledge and service as part of the team. With a Nutritionist at the centre, there seems to be an increased awareness of prevention, and there is a definite demand for even more nutritional services in the area.

## CONCLUSION

The morale and support in a situation such as this does not filter up, it filters down. Through the imagination, dedication, and progressiveness of people such as Doctor Rideout, Miss Stafford and Doctor Clark, this has been accomplished.

The physicians and the Public Health staff are here to serve the public. To those physicians who would like to become involved in providing better health services to their community and public, the advice of Doctor Clark and Doctor Rideout is clear and concise:

- a) Get to know your local Health Unit Director, Supervisor of Public Health Nurses, and all Public Health staff.
- b) See what they can do for you and what you, in turn, can offer them.
- c) Regard the Public Health Nursing staff as professionals because that is what they are.
- d) Start slowly and work it out together step by step.
- e) Don't expect immediate results.

The Pubnico organization is encouragement to all those who are skeptical about Public Health staff and physicians working side by side. Both are professionals of a high calibre, and being such, are concerned that the public receive the best health care possible. With planning, imagination, hard work, and commitment by all, it will work.

## SUMMARY

Public Health Nursing services in the Pubnico area of Nova Scotia have been incorporated into the local medical centre with great success. Besides regular Public Health duties, the Public Health Nurse has taken over some of the doctors' duties, including physical assessment at well baby clinics and immunization.

The co-operation and professionalism of all involved has led to a greater demand for Public Health Nursing services and acceptance of Public Health staff as part of the community.

Through the Public Health Nurse and Certified Nursing Assistant, the physicians in the centre have obtained an overall view of their patients as family members, and insight into the community organizations available to assist them in their practice. □

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# An Appreciation

## Dr. Edith Kovacs



On August 11, 1976, Dr. Edith Kovacs passed away following an extended illness. Dr. Kovacs received her early medical education at the University of Budapest graduating with distinction from medical school. She and her husband, Dr. L. L. Kovacs, came to Canada following the 1956 Revolution and she then entered Dalhousie University receiving her M.D. degree in 1962. She then worked as a General Practitioner at the Nova Scotia Hospital where she maintained her position as senior physician until her untimely death.

Dr. Kovacs' husband is a psychiatrist associated with the Faculty of Medicine at Dalhousie University. He was, at one time, associated with the Department of Medicine at the Nova Scotia Hospital and later took part of his psychiatric training at that Institution.

Those of us who, like myself, had the opportunity of knowing and working with Edith came to appreciate her outstanding qualities as a compassionate physician and a most humane and warm person. Her unflinching good humour and warmth will be missed not only by her family and close relatives, but by all of her colleagues in Nova Scotia. We share this sense of loss and tragedy with her family and extend our deepest sympathies to them. □

D.L.S.

## The doctor and his leisure

### “A Car For All Seasons”

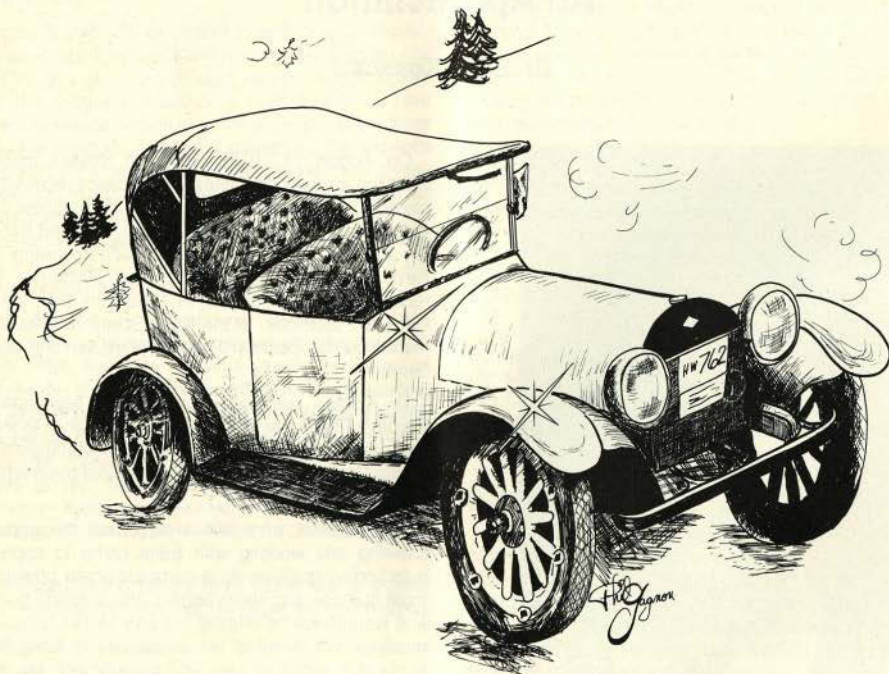
B. J. S. Grogono,\* M.B.,  
Halifax, N. S.

She'll carry you through  
The stormy days  
When the roads are rough  
And the winds are blowing  
And the prairie skies are open  
And sowing  
Sweet scent upon your brow.

She'll carry you through  
The balmy hours  
When the roads are smooth  
And the world's an oven  
And the heavens are panting  
And glowing  
Strong breath upon your flesh.

She'll carry you through  
The torpid years  
When the roads seem doomed  
And the ways all groaning  
And the ocean mists are mellow  
And sighing  
Sad songs upon your mind.

She'll carry you through  
Till your days are gone  
And the roads are full  
And memories flowing  
And she rests  
Proud, silent, still  
Loving the  
Long tales of yesterday



\*Atlantic Antique Car Club

She lay outside the police station in a neat pile, one hundred and one pieces or more. The major portion had blue with red spots where an anti-rust potion had been applied. This was the square framework and body of a fifty year old vehicle. Wheels, axles, beams, sundry carburetors were tidily stacked together in two boxes.

"The sergeant says they've got to go" my burly policeman explained. I peered into the mass of antique material trying to make a guess at what the total assembly might resemble if finally constructed. I could recognise no familiar shape or name. "She's one of Canadas originals — a McLaughlin. I've started to restore her but the Sergeant can't stand having all this junk around."

It was a cold Manitoba day. There was no time for a long discussion. Two hundred dollars seemed a lot for a collection of deadwood and old iron and I motored my 60 miles back to Winnipeg, wondering — wondering . . .

"Can you get her on a truck?"

"No trouble, I'll arrange delivery."

A few days later, a gigantic pantechnicon arrived and I guided her to the back-lanes until she stood proud against our garden fence. My astonished family greeted the arrival with a mixture of emotions. Our wall was soon moved and the ancient vehicle was trundled down a pair of tracks some twenty feet long and heaved into the yard. All the neighbours came to glare. The older ones all remembered cars "like that" when they were young. The kids played happily with gear levers, wheels, and loose panels and jumped into the empty compartments that once contained two elegant seats. There were no running boards or tires, but the doors were still attached. It was an ideal toy for children of all ages. There she lay in the middle of our lawn until the next spring. We covered her with a tarpaulin and the snow gathered between her sides guarding her from the fiendish cold.

The next five years were a mixture of research and dogged work. The main entrails were dissected free. Engine, carburetor, big ends, little ends, valves, generator, motor, electric wires, were disentangled. An interesting birds nest was dislodged from the manifold and there were certain mechanical problems. All the wheels had to be reassembled and mounted with 33 $\frac{1}{2}$  inch tires. The woodwork had to be replaced and the top remanufactured.

I had a number of invaluable guides — First, Father Brown — A distinguished garage proprietor who had grown up with Buicks and McLaughlins when they took over from steam engines. He had an inexhaustible knowledge and skill and was called into numerous consultations. Usually we chose a suitable Saturday or Sunday afternoon for important events: The unlocking of the value-in-the-head mechanism, the removal of pistons, the replacement of big ends, and the final grand assembly.

Second, an antique textbook — Here fate took an exceptionally apposite turn. I had no exact information about McLaughlins. I needed anatomical details — wiring diagrams, electrical circuits, and engine information. One day, my family and I were exploring some woods near Lake Winnipeg and came across a deserted log cabin. There were a few remnants left by the late inhabitant, an old log stove, a few tools that had been used on a car long since disintegrated. In a corner cupboard was an old book — "Dykes Automobile Manual". It was in good condition and

although the mice had eaten some of the cover, there in great detail was all the information needed — wiring diagrams, valves, generator, carburetor — an answer to a maniac's prayer.

Finally, an Irishman who was a skilled cabinet maker turned up in the Rehabilitation Hospital. What better to do then to help rehabilitate my old car on Saturdays? So, now we had a team, and work gradually progressed. Each summer, a little progress was made whilst each winter the snow and ice allowed the old lady to hibernate.

It was thanksgiving day, some twelve years ago, when my boys and I at last stood ready to crank her over. The timing had been corrected, the generator sparked, the starter clicked, and the carburetor dripped merrily. "Turn her on!" There were one or two fearful lunges and then a heave. "Off she goes." A wild roar rocked across the praries as she fired for the first time in twenty years. We ate our thanksgiving dinner in peace and drove her around the yard to a place, to rest for another winter. When the family finally decided to move east to Halifax, drastic measures were required. She had to be driven under her own steam onto the train, bound down tight in a special compartment, and driven off again 2000 miles later.

The four new "no skid tires" cost over 100 dollars each but looked authentic with 80 pounds of pressure. The wheels were a little eccentric. The top was completed at the last moment. On the road, she could go well for about one half of a mile and then grind to a halt whilst a crowd gathered around. We then refilled the vaccum tank and proceeded for another half mile.

So that is how we arrived at the station and together with a good many "ain't she quaints", "how old is shes", "they don't make 'em like that any mores", we tucked her up for a great journey east. She took the journey without damage and it wasn't long before we decorated her with new paint and upholstery. The paint turned out to be more purple than blue but reveled in the maritime sunshine.

You would think that once you completely overhauled a body, nothing could go wrong. Not so. Just as the human frame behaves with tantalizing mischief on occasions, so does an old car. In response to a forty mile trip, serious disorders broke out. The clutch slipped, the driving pinion failed, and the generator burst. Here again, the expert knowledge and skill of senior engineers proved invaluable. The generator was sent off to Berwick where Mr. Champion completely rewired the hefty mechanism. He has an incredible electrical factory attached to his house which would put Heath Robinson to shame.

My chief advisor, however, has been a man of great courage and unbelievable skill. Eric Davidson, blinded by the Halifax Explosion, has been working for 40 years as an engineer to the City. He is a Rolls Royce engineer and knows more about old cars than anyone that I have met. One day, I just couldn't get the car to go so we brought him to my home. He stood there for a few minutes smoking his pipe and getting his bearings. Then he started the case history and physical examination. "Would she turn over? Was there a spark? Was there any gas in the tank?" He took the coil leads and listened to the spark. There was a feeble click. "She needs a condenser". We put one on. The spark made a

(continued on page 207.)

# Correspondence

## To the Editor:

In the August 1976 edition of the *Bulletin*, Dr. Naqvi and workers have published an article entitled "Hyperalimentation in a Regional Hospital." As a practicing hospital pharmacist actively involved in the preparation of total parenteral nutrition (T.P.N.) solutions and the monitoring of patients, I feel obligated to make a few comments about this article and to question some of the statements made. I realize that the situation at the Sydney City Hospital is different from that in the teaching hospitals in Halifax. However, I feel that the following comments are still applicable.

Of particular concern to me is Dr. Naqvi's statement "There are no major requirements for the preparation of hyperalimentation solution". Many authorities in the field, by their publications, would not support this statement. According to Jeejeebhoy,<sup>1</sup> Fleming<sup>2</sup> and others,<sup>3</sup> all T.P.N. solutions should be prepared in a laminar flow hood by properly trained pharmacy personnel with aseptic precautions. Suitable quality control procedures should be employed. These include particulate matter inspection, stability testing and microbiological monitoring. At Camp Hill Hospital, a sample is withdrawn from one bag of each lot of T.P.N. solution prepared and sent to Microbiology for culturing. This serves as a useful check on the effectiveness and reliability of the sterile procedure followed and, in some cases, aids in the early identification of an organism in the case of an infection.

Once the TPN solution leaves the pharmacy, it should never be entered except with the intravenous tubing apparatus. Hypertonic glucose solution is an excellent growth medium for bacteria and fungi and any interruption in aseptic technique increases the likelihood of introducing organisms.<sup>2</sup>

I realize that a laminar flow hood is a costly purchase for any hospital. However, the cost is marginal considering the high cost of the T.P.N. solutions and the critical requirement for the maintenance of sterility. As well, the laminar flow hood has a wide number of applications in sterile compounding.

Other comments should be made regarding the T.P.N. line. No drug additives should be administered via this line, nor should any solutions be "piggy-backed" onto it. Also, no central venous pressure monitoring devices should be attached to the T.P.N. fluid system, and blood or blood products should not be administered or drawn through the system.<sup>1 2 3</sup>

Fleming and workers<sup>2</sup> have emphasized another point. Besides being responsible for the preparation of the T.P.N. solution, they state that "The pharmacist's role also includes surveillance of orders in order to avoid or minimize incompatibilities . . .".

There is controversy regarding the use of in-line filters in T.P.N. systems. However, a system using a 0.45 micron disposable Millipore filter has the advantage of blocking the passage of most particulate matter and some microorganisms. Filters of size 0.22 microns may also be used. It should be noted that Jeejeebhoy,<sup>1</sup> Fleming<sup>2</sup> and others<sup>3 4</sup> all use filters in the T.P.N. systems.

In conclusion, one cannot over-emphasize the importance of aseptic technique in the preparation of T.P.N. solutions, the insertion of the subclavian catheter and in the dressing changes at the catheter site.

M. Isobel MacLeod, B.Sc. (Pharm.),  
Staff Pharmacist,  
Camp Hill Hospital.  
Halifax, N.S. □

## References

1. **Jeejeebhoy, K. N. et al:** "Total Parenteral Nutrition: Nutrient Needs and Technical Tips. Part II", *Modern Medicine* **29**: 944-948 (October) 1974.
2. **Fleming, C. R. et al:** "Subject Review Total Parenteral Nutrition", *Mayo Clin. Proc.* **51**: 187-199 (March) 1976.
3. **Kaminski, M. V. and M. H. Stolar:** "Parenteral Hyperalimentation — A Quality of Care Survey and Review", *Amer. J. Hosp. Pharm.* **31**: 228-235 (March) 1974.
4. **Serlick, S. E. et al:** "Nutritional Intravenous Feeding", *Bulletin of the Parenteral Drug Association* **23**: 166-173 (July-August) 1969.

## To the Editor:

It was with a great deal of interest I read your recent *Bulletin* which contained several articles on Sport Medicine. Your society is to be congratulated for showing such leadership as doctors playing an integral part in the development of sport in our Province.

As you are probably aware, our Department has asked for submissions from the people of Nova Scotia concerning a fitness plan for our Province. It is our hope that your society would become involved and assist us in the development of such a program by presenting your views on the development of fitness for all Nova Scotians.

Again, my personal congratulations for an excellent *Bulletin*.

Sincerely,

A. Garnet Brown, Minister,  
Department of Recreation,  
Province of Nova Scotia.

## Editors Note:

*This request has been referred to the Physical Fitness Committee. If you have any suggestions to offer please contact Dr. Merv Shaw.*

## To the Editor:

Congratulations on the excellent October issue of *The Nova Scotia Medical Bulletin* on various aspects of sports medicine.

I have never had the pleasure of scuba diving, but would like to commend Dr. Michael W. Cook on the fine article describing the recognition and early treatment of diving injuries. May I, however, add a word of warning to practitioners.

(continued on page 201.)

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**Side Effects** — Hydergine is usually well tolerated even in larger doses. Side effects are few and very slight. In addition to nasal stuffiness, there may be nausea, gastric pressure, anorexia, and headache, especially in patients with autonomic lability. In such cases, it is advisable to reduce the dose or administer it during or after meals.

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Full prescribing information is available upon request.

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### Correspondence. (Continued from page 200.)

Dr. Cook rightly emphasizes the importance of speed in treating someone suspected of decompression sickness by recompression in a high-pressure chamber. However, ascent in a non-pressurized aircraft will increase the damage caused by nitrogen bubbles. Small aircraft are non-pressurized, and most commercial planes are pressurized only to an altitude of 5,000 to 7,000 ft. An ascent of even a few thousand feet may be critical to a patient with decompression sickness. Unless an aircraft can be pressurized to ground-level pressure, there are occasions in which it would be wise to have the patient transported by ambulance to the nearest high-pressure chamber, rather than by aeroplane. This may be a very difficult decision.

I was engaged for five years on research with the R.C.A.F., most of it devoted to decompression sickness. The effect of ascent to 18,000 ft. or one-half an atmosphere, is equivalent to the diver's ascent from two atmospheres to the surface. The crew of a commercial airline flying in a cabin pressurized at 7,000 ft., all developed "bends" on a flight made shortly after they had been scuba diving. Ordinarily no one would ever develop decompression sickness below 18,000 ft. and very few below 30,000 ft. It is obvious that "silent bubbles", may increase in size to a dangerous point under such circumstances. It is even more obvious that a patient already suffering from the "bends" will be in a worse state under low-pressure.

I had personal experience with a number of cases of decompression sickness in divers flown to Halifax in the immediate post-war period. The results were not good and the flight had obviously aggravated the damage.

Yours very truly,

C. B. Stewart, M.D.  
Vice-President (Health Sciences)  
Dalhousie University  
Halifax, N.S.

#### To the Editor:

I am currently engaged in research on the Munchausen (Hospital Addiction) Syndrome and its variants. I would like to correspond with any other physicians who have had personal contact with such patients. To this end I would appreciate it if you would print this letter in your Correspondence section. Please forward all responses to me at my address below.

S. E. Hyler  
5620 Netherland Avenue  
Riverdale, New York, 10471  
U.S.A.

#### Dept of Public Health

##### Policy Change in Respect to Small Pox Vaccination

Whereas, it is recognized that the danger of morbidity and mortality in the use of Small Pox vaccine far outweighs the risk of Small Pox; and,

Whereas, the Department of Public Health recognizes the success of the World Health Program to eradicate Small Pox,

The Department of Public Health will withdraw from the program of Small Pox vaccination as a routine program.

Concomitant with this, will be the withdrawal from stocking Small Pox vaccine and the free distribution of same.



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FREE CONSULTATIONS

# Some Pictorial Highlights of the 123rd. Annual Meeting



The 123rd Annual Meeting of The Medical Society of Nova Scotia was not all work. Here Dr. A. M. Marshall, Halifax, his wife chat with Mrs. C. A. Gordon (centre) during the mid week reception at the Chateau Halifax.



His Honour Dr. C. L. Gosse, Lieutenant Governor of Nova Scotia, shows his strong continuing interest in the affairs of Medicine by attendance at the 123rd Annual Meeting of The Medical Society of Nova Scotia. Also in attendance were Dr. R. G. Wilson, Secretary General of The Canadian Medical Association (centre), Dr. N. P. DaSylva of C.M.A. Staff, and Dr. R. O. Jones, Halifax.



Halifax Radiologist, Dr. W. F. Mason is installed as President of The Medical Society of Nova Scotia by Deputy President Dr. E. W. Barootes of The Canadian Medical Association.



Marie-Paule, wife of Dr. T. J. McKeough receives an "Irish" token of appreciation from Past President Dr. Brian O'Brien.



Newly installed President, Dr. W. F. Mason's first task was the presentation of the Past President's pin to Dr. T. J. McKeough the outgoing President of The Medical Society of Nova Scotia.



Stellarton Physician, Dr. John Hamm, President-Elect of The Medical Society of Nova Scotia expresses his appreciation to the delegates and guests at the annual banquet of The Medical Society of Nova Scotia.



## Personal Interest Notes

### SENIOR MEMBERSHIP CITATIONS THE MEDICAL SOCIETY OF NOVA SCOTIA

#### *Dr. Norman Barrie Coward*

Dr. Norman Barrie Coward was born in the Island of St. Thomas, the son of Rev. and Mrs. F. W. Barrie Coward, his father having come from England as a missionary.



Honorary Membership in The Medical Society of Nova Scotia is presented to Dr. N. B. Coward, Halifax by Dr. T. J. McKeough, Immediate Past President as Dr. E. V. Rafuse, Centre, looks on.

After a childhood spent in the West Indies, he arrived in Canada in 1918. He attended Colchester County Academy and then entered the Dalhousie Medical School graduating in 1928. Following graduation, he spent five years in post-graduate studies of which three years were at the Hospital for Sick Children, Toronto, one year as Chief Resident in Paediatrics at Bellevue Medical Centre, New York and one year attending clinics in Edinburgh, The Royal Infirmary, Glasgow, Birmingham and the Great Drumond St. Hospital, London.

In 1933, Dr. Coward returned to Halifax as the first physician in Nova Scotia to confine his practice to Paediatrics. He was appointed in that year to the staff of the Children's Hospital and in 1958 became professor and Head of the Department, Physician-in-Chief of the Children's

Hospital, Paediatrician-in-Chief at the Grace Maternity Hospital and acting chief of Paediatrics at the Halifax Infirmary.

In 1963, he became Senior physician at the Children's Hospital while continuing as Paediatrician-in-Chief at the Grace Maternity and Halifax Infirmary until his retirement from the Dalhousie Medical School in 1971.

Dr. Coward has worked with the Canadian Council for the Rehabilitation of the Disabled since that Society started its travelling clinics for children in the early fifties.

It was during these early years that he became interested in the problems of very young children throughout the province who had a hearing disability often unrecognized.

At that time there were no training facilities for these young children — the age for admittance to the School for the Deaf being seven years. There were also no clinics for diagnosis.

As a result, Dr. Coward with the help of other interested persons established a modern programme for pre-school nursery classes for the hard-of-hearing which functioned until 1967 when the Nova Scotia Government assumed the task.

At the same time, the need for diagnostic facilities for hearing and speech problems was recognized as being urgent. As a result, Dr. Coward founded what is now known as the Nova Scotia Hearing and Speech Clinic of which he is still the Medical Director.

Dr. Coward continues to be active in the practice of his speciality in Halifax.

E. V. Rafuse, M.D.

#### *Dr. Srul Tul Laufer*



A long time Medical career in Halifax was recognized by elevation to senior membership in The Medical Society of Nova Scotia for Dr. S. T. Laufer. Past President Dr. T. J. McKeough makes the presentation.

Dr. Laufer, the son of a farmer, was born in a province of Austria which subsequently became part of Rumania. He obtained his Medical Education at the University of Naples, graduating in 1930 and subsequently did Post-Graduate work in Vienna at the Heart Station and Pathology Institute under Professor Sternberg. In 1936 he was appointed Chief of the Cardiological Department, University of Naples; a post he held until 1938.

In 1936 Dr. and Mrs. Laufer were married and they subsequently had three talented children, a musician, a physicist, and an artist. The Laufers came to Canada in 1939 and the following year Dr. Laufer became associated with the Halifax Infirmary. He was the first internist in Halifax to confine his practice to Cardiology. In 1961 he became Chief of Medicine of the Halifax Infirmary and a Professor in the Department of Medicine at Dalhousie University. He retired from these positions in 1969. He has been a member of the Medical Society of Nova Scotia since 1940. He is a Fellow of the Royal College of Physicians and Surgeons of Canada, a Fellow of the Clinical Council of the American Heart Association, a Member of the American and a Charter-Member of the Canadian Heart Association. He is Past President of the Nova Scotia Society of Internal Medicine and Past President of the Nova Scotia Heart Association. He is the Author of over forty Scientific Publications in Cardiology.

Over the years Dr. Laufer has had many extra-curricular interests, mainly in the field of the Arts. I am told that he was largely instrumental in the founding of the Halifax Symphony Society. He has been the Chairman of the Board and a Director of the Nova Scotia College of Art. He is still a Director of the Neptune Theatre Foundation and is the current Treasurer of the Bonny Lee Farm. Dr. Laufer has also found time to be a Director of the Provincial Boy Scouts Association. He is now largely retired from practicing Medicine although he still finds time to see the occasional patient whom he has followed for many years.

Mr. President, I am pleased to present Dr. S. T. Laufer to you for the Senior Membership in the Medical Society of Nova Scotia

E. V. Rafuse, M.D.

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#### SENIOR MEMBERSHIP CITATION THE CANADIAN MEDICAL ASSOCIATION

#### *Dr. Harold Joseph Devereux*

Doctor Harold Joseph Devereux is a native of Prince Edward Island where he was born in 1910 and where he obtained part of his secondary schooling at St. Dunstan's University. He completed his general education at Tufts College in Medford, Massachusetts and then entered Dalhousie University in Halifax for his medical training. He was awarded the M.D. degree in 1936. To further his career in general practice he sought postgraduate instruction in cardiology at the Royal Victoria Hospital in Montreal and in obstetrics at the Boston Lying-in Hospital.

Doctor Devereux has spent his professional life in Sydney, Nova Scotia, where he has been associated with the Sydney City and St. Rita Hospitals. His contribution has been recognized by his appointment at different times as president of the medical staff and chief of staff to both these institutions. His influence has been felt also in the wider sphere of professional organizations: he is a past president of the Cape Breton Medical Association and of the Nova Scotia Medical Association. He has represented his provincial association on the Executive Committee and the Medical Economics Committee of the Canadian Medical Association. For seven years he served on the Nova Scotia Hospital Insurance Commission and he has been a director of the provincial Blue Cross and Blue Shield. He can claim that over a period of thirty years he has not missed an annual meeting of the CMA.



Noted Cape Breton Physician, Dr. H. J. Devereux, Sydney, is installed as a senior member of The Canadian Medical Association during the 123rd Annual Meeting of The Medical Society of Nova Scotia by C.M.A. Deputy President Dr. E. W. Barootes.

Not content with serving his community as a physician, Dr. Devereux has been active in municipal, provincial and federal politics, in home-and-school affairs and in the United Appeal. Nevertheless he has been able to find time in his busy life for the tranquilizing hobbies of gardening and reading and for travel when the opportunity presents.

R. G. Wilson, M.D.

**Dr. Chester B. Stewart**, Dean of Medicine 1954-1971 and Vice-President, Health Sciences 1971 to 1976, has agreed to serve as special consultant to President Hicks and to the University Planning and Forecasting Service. His major task will be to examine in detail the costing of programs relating to Health Science areas.

**Dr. Aden C. Irwin** of the Department of Preventive Medicine has been appointed to the selection board of the Medical Council of Canada. He will be one of the five who select the Preventive Medicine questions on the Medical Council exams. This will probably not affect the standing of his students — they have been tops in Canada for several years.

**Drs. Winston Parkhill, Al Buhr** and their resident physicians, **Drs. H. Hollis** and **M. Forsyth** recently put in a ten hour session in the O.R. to re-implant an arm severed in a car accident. This was reported in a very full article in the Halifax Mail Star of 19 November 1976. Although there have been re-implantations of fingers and thumbs, this is the first of its kind in Eastern Canada. The Bulletin wishes them and their patient success in this endeavour.

The Bulletin congratulates **Dr. Robert O. Jones** who has been named as Canada's representative on the executive of the World Psychiatric Association.

Recent visitors to the Department of Psychiatry, Dalhousie, were **Professor Gerald Russell** and **Dr. Anthony Wakeling** of the Royal Free School of Medicine, London, England. While here they participated in conferences which included topics on resident training and learning disabilities. They conducted a symposium on anorexia nervosa, a subject in which they both have wide experience. From here they proceeded to a conference on anorexia nervosa in Washington, D.C.

#### ACTIVITIES OF THE DALHOUSIE DEPARTMENT OF ANAESTHESIA

**Dr. Donald Knox** has joined the Department as an Assistant Professor, to work at the Halifax Infirmary. Dr. Knox is a graduate of Queens University in Belfast, and for the past five years has been a consultant in Ballymena, Northern Ireland.

**Dr. John Glenn** has joined the Department as a Lecturer, to work at the Victoria General Hospital. Dr. Glenn is a graduate of St. Andrews University in Scotland, who took his residency at McGill. For the past year he has been a Fellow in cardiovascular anaesthesia at Mayo Clinic.

Four members of the staff have been promoted to the rank of Assistant Professor: **Drs. Carmen Kelly** and **Isaac Uy** of the Saint John General Hospital, **Dr. Thomas Anderson** of the I. W. Killam Hospital for Children, and **Dr. Yusuf Patel** of the Victoria General Hospital.

The total staff of the Department now is 38 plus one fellow. The Victoria General Department, which also covers Camp Hill and the Grace Maternity Hospitals, numbers 16 plus a Fellow. There are seven staff anaesthetists at the Halifax Infirmary, six at I. W. Killam Hospital for Children and nine at the Saint John General. Twenty staff anaesthetists have joined the Department since September 1972, while two left to practice elsewhere.

**Dr. John Feindel** was installed in June as president of the Canadian Anaesthetists' Society, at the annual meeting in Montreal. **Drs. Fairhurst, Purkis** and **Moffitt** also attended with Dr. Moffitt presenting a paper there.

The World Congress of Anesthesiology in Mexico City in April was attended by **Drs. Stewart Wenning, Stanley Donigiewicz** and **Charles Murchland**.

The Association of University Anaesthetists annual meeting in Philadelphia in April was attended by **Drs. James Morrison** and **Emerson Moffitt**. **Dr. Douglas Blenkarn** recently became a member of that honor society.

**Dr. Emerson Moffitt** is currently Vice-chairman of the Board of Trustees of the International Anesthesia Research Society. At the annual meeting in Phoenix in March, he moderated a panel discussion on "Anesthesia for Patients with Cardiac Disease".

**Dr. Douglas Blenkarn** has changed from part-time to a geographic full-time appointment, to take a larger part in teaching and intensive care, with the rank of Associate Professor.

**Dr. Ian Purkis** was recently appointed a Director of the Acupuncture Foundation of Canada in Toronto. He also presented a paper in February on "Acupuncture in Chronic Pain Problems" at the Academy of Anesthesiology meeting in Boca Raton, Florida. **Dr. Emerson Moffitt** was programme chairman of that meeting.

**Dr. Christopher Allen**, who will complete his residency this year, has been accepted for a year of training in intensive care at the University of Manitoba. Following this he will join the Department to work at the Victoria General Hospital.

**Dr. James Morrison** is co-author of a textbook "Anaesthesia for Ear, Eye, Nose and Throat Surgery" published in Edinburgh.

**Dr. K. Patel** of Bridgetown recently completed six months of additional training in anaesthesia at the Victoria General Hospital. He is the first practicing anaesthetist in Nova Scotia to take this opportunity for further training that is offered by the Department.

Ten new residents began their training in the Department on July 1st, five of whom are Canadian graduates, with four from Dalhousie. In total, 21 residents are in training in Halifax and Saint John. □

#### ATTENTION

Copies of the pamphlet attached is available from the Nova Scotia Department of Highways for distribution in your waiting room.

## "A Car For All Seasons"

continued from page 199.

healthy blue flame. "That's better". His investigation continued: feeling, smelling the carburetor, the plugs, and exhaust. Still she wouldn't go. "Must be the timing." He put his hands over the valves like a piano tuner. He then adjusted the timing. "It should go now!" Sure enough, a few more cranks and off she roared. "A little rough, should be smooth!" Back his hands go on the valves. "Need to adjust that" he says. He took out a feeler gauge. "Can you feel to a 1000th of an inch." "Not really, but I know my gauges." So with a confident smile, and a puff of his pipe, he strutted firmly out of the garage. No matter who has an old car or what's wrong with it, Eric will always be there to help. I swear he could have been just as good a human surgeon as an automobile physician.

So now, the time has come for a leisurely interlude. The old car wanted company and I needed space. Last weekend, we towed her on a giant trailer to the "Roaring Twenties"

Museum" in Lunenburg. Four strong men from the Antique Car Club helped her final escapade.

Blockhouse is really Joudrey land. Nathan's forefathers came from Luxemburg and were skilled craftsmen. They built ox carts, wagons, and many farm implements. He himself built beautiful oars and paddles which were sent all over the world. He combines artistry with expert mechanical skill and he appreciates the beauty of old things.

His museum is cleaner than most operating rooms. The floor is pristine white cement. A fine selection of antique vehicles shine forth. An old fire engine, an ox wagon, a grey Dort, a deep blue Essex, and a bright blue model T Ford, and a van. There is a nice Chevrolet, a magnificent 1927 Cadillac, and a Dodge. At the end of the array, there was a collection of church harmonia and a family Bible, the one his family brought over in 1790.

Yes, my old car was proud to take her place beside this elegant cluster — a well earned rest. I do, however, hope someday to take her out once again for an airing, or to operate on some of her ever entrancing ailments. □

## NEW MEMBERS

The Physicians listed below have joined the Medical Society of Nova Scotia between October 1, 1976 and November 30, 1976. A most cordial welcome is extended by the Society.

*Dr. J. Patricia Beresford	Montreal, Que.
Dr. James T. Burrows	Yarmouth, N.S.
Dr. P. Kent Cadegan	Glace Bay, N.S.
Dr. James A. Collins	Windsor, N.S.
Dr. Harris G. Crooks	Shad Bay, Halifax Co., N.S.
Dr. George R. Davis	Chester, N.S.
*Dr. Charles R. Dean	London, England
*Dr. Zachery R. Fraser	Victoria, B.C.
Dr. Gordon W. Horner	Halifax, N.S.
Dr. Mary E. Hutchison	North Sydney, N.S.
Dr. Willem O. Kwant	Halifax, N.S.
Dr. Kenneth R. Langille	Berwick N.S.
Dr. Mark W. Miller	New Glasgow, N.S.
Dr. Philip D. Muirhead	Musquodoboit Harbour, N.S.
*Dr. Ronald E. McAllister	Toronto, Ont.
Dr. Alan T. J. McDonald	Halifax, N.S.
Dr. B. Ross MacKenzie	Halifax, N.S.
Dr. Kathleen E. McPherson	East Bay, Cape Breton Co., N.S.
Dr. Blair A. Nichols	Wolfville, N.S.
*Dr. Beverly A. Pace	Calgary, Alberta
Dr. James H. Pope	Halifax, N.S.
Dr. Mahendra Prasad	Sheet Harbour, N.S.
Dr. Gregory L. Roy	Halifax, N.S.
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