

THE NOVA SCOTIA MEDICAL BULLETIN

Editor-in-Chief

DR. J. F. FILBEE

Managing Editor

DR. C. J. W. BECKWITH

Editorial Board

DR. W. A. CONDY

DR. G. H. HATCHER

DR. G. R. LANGLEY

DR. R. B. NICHOLS

DR. I. E. PURKIS

DR. M. G. TOMPKINS, JR.

Departments

Personal Interest Notes

DR. R. B. NICHOLS

Thousand Word Series

DR. G. R. LANGLEY

Corresponding Members

Secretaries of Branch Societies

INSTRUCTIONS TO AUTHORS

Members and others wishing to contribute to *The Bulletin* are invited to submit their material to the Offices of The Medical Society, Public Health Clinic, Halifax, N. S. In general the rules laid down for the *Canadian Medical Association Journal* and published therein under the heading "Instructions to Contributors" should be followed.

Material should preferably be typed on one side of paper 8½ x 11 inches, with wide margins. Carbon copies are not satisfactory. Any table, illustration etc. quoted from another published source must have the permission of both author and publisher.

Opinions expressed in articles appearing in *The Bulletin* do not represent the policy of The Medical Society of Nova Scotia unless specifically stated to do so.

Att: General Practitioners...R.S.V.P.

The central figure of a medical team is the General Practitioner or Family Doctor. The G.P.'s know this and now the Royal Commission on Health Services acknowledges this in their deliberations. But how many have time to delve into the lengthy reports of the Commission or the Medical Association where common problems are concerned? At the higher level some one else is always doing the thinking for us. But at the local level there should be no such need.

One always hears rumblings about this and that, but a single voice is lost in the wilderness. Complaints, such as: no beds available for patients, inadequate fee schedule for G.P.'s; etc., etc., etc., are regularly making the rounds.

These are old axes that have been ground for years. We have always heard them but eventually they seem to become less important. New graduates run into these problems and find them important, distressing and discouraging. It is useless to complain singularly but more action would be forthcoming if a common media were found.

Well there is such a media. Your own journal is available as a sounding board for all. However, be that as it may an offer was made in October, 1964, for the G.P.'s to have a special page in their own journal. Of course this wasn't the original offer but it was the most recent attempt.

AUTHORIZED AS SECOND CLASS MAIL BY THE POST OFFICE DEPARTMENT, OTTAWA, AND FOR PAYMENT OF POSTAGE IN CASH.

THE MEDICAL SOCIETY OF NOVA SCOTIA

NOVA SCOTIA DIVISION

OF

THE CANADIAN MEDICAL ASSOCIATION

MEMBERS OF EXECUTIVE COMMITTEE

OFFICERS

PRESIDENT - - - -	T. W. Gorman
PRESIDENT-ELECT - - -	A. J. M. Griffiths
IMMEDIATE PAST-PRESIDENT - - -	C. L. Gosse
CHAIRMAN EXECUTIVE COMMITTEE	S. C. Robinson
VICE-CHAIRMAN EXECUTIVE - - -	C. E. Kinley, Jr.
HONORARY TREASURER - - -	C. D. Vair
EXECUTIVE SECRETARY - - -	C. J. W. Beekwith

BRANCH SOCIETY REPRESENTATIVES

ANTIGONISH-GUYSBOROUGH - - - -	J. E. MacDonell
CAPE BRETON - - - -	H. J. Martin, A. L. Sutherland
COLCHESTER-EAST HANTS - - - -	B. D. Karrell
CUMBERLAND - - - -	G. M. Saunders
EASTERN SHORE - - - -	P. B. Jardine
HALIFAX - - - -	H. I. MacGregor, J. A. Charman, R. O. Jones
INVERNESS-VICTORIA - - - -	N. J. MacLean
LUNENBURG-QUEENS - - - -	D. C. Cantelope
PICTOU COUNTY - - - -	C. B. Smith
SHELBURNE - - - -	M. Delorey
VALLEY - - - -	J. A. Smith
WESTERN COUNTIES - - - -	R. P. Belliveau

OBSERVERS

REPRESENTATIVES TO C.M.A. EXECUTIVE COMMITTEE - - - -	H. J. Devereux
CHAIRMAN PUBLIC RELATIONS COMMITTEE - - - -	I. E. Purkis
CHAIRMAN MEDICAL ECONOMICS COMMITTEE - - - -	G. M. Saunders

CHAIRMEN OF STANDING COMMITTEES

COMMITTEE	CHAIRMAN
AGING - - - -	A. A. Macdonald
ARCHIVES - - - -	D. R. MacInnis
BY-LAWS - - - -	J. E. Hiltz
CANCER - - - -	Ian MacKenzie
CHILD HEALTH - - - -	B. S. Morton
CIVIL DISASTER - - - -	S. H. Kryszek
DISCIPLINE - - - -	R. F. Ross
EDITORIAL BOARD (Editor) - - - -	J. F. Filbee
FEES - - - -	H. C. Still
FINANCE (HOB. Treas.) - - - -	C. D. Vair
HEALTH INSURANCE - - - -	D. K. MacKenzie
INSURANCE - - - -	P. B. Jardine
LEGISLATION & ETHICS - - - -	H. K. Hall
MATERNAL & PERINATAL HEALTH - - - -	D. F. Smith
MEDICAL ECONOMICS - - - -	G. M. Saunders
MEDICAL EDUCATION - - - -	J. A. McDonald
MEMBERSHIP - - - -	J. A. Myrden
NUTRITION - - - -	K. P. Smith
PHARMACY - - - -	J. E. MacDonell
PHYSICAL EDUCATION & RECREATION - - - -	J. M. Williston
PUBLIC HEALTH - - - -	W. I. Bent
PUBLIC RELATIONS - - - -	I. E. Purkis
REHABILITATION - - - -	L. S. Allen
RESOLUTIONS - - - -	C. E. Kinley, Jr.
SPECIAL RESEARCH - - - -	F. A. Dunsworth
SPECIALIST REGISTER - - - -	F. J. Barton
TRAFFIC ACCIDENTS - - - -	H. H. Tucker
W. C. B. LIAISON - - - -	J. T. Balmanno

BRANCH SOCIETIES

	PRESIDENT	SECRETARY
ANTIGONISH-GUYSBOROUGH - - - -	Rolf Sers -	J. R. Greening
CAPE BRETON - - - -	Harvey Sutherland -	H. R. Corbet
COLCHESTER-EAST HANTS - - - -	T. C. C. Sodero -	K. B. Shephard
CUMBERLAND - - - -	R. A. Burden -	D. R. Davies
EASTERN SHORE - - - -	J. A. McPhail -	C. Murchland
HALIFAX - - - -	H. I. MacGregor -	E. B. Grantmyre
INVERNESS VICTORIA - - - -	C. L. MacMillan -	W. MacIsaac
LUNENBURG-QUEENS - - - -	A. L. Cunningham -	W. I. Bent
PICTOU COUNTY - - - -	John Gieves -	W. D. MacLean
SHELBURNE - - - -	W. H. Jeffrey -	S. Robbins
VALLEY MEDICAL - - - -	Earl Reid -	D. L. Davison
WESTERN NOVA SCOTIA - - - -	P. H. LeBlanc -	V. K. Rideout

SECTIONS

	CHAIRMAN	SECRETARY
Section for ANAESTHESIA: - - - -	C. C. Stoddard -	A. A. Drysdale
Section for GENERAL PRACTICE: - - - -	J. R. Meneil -	W. A. Hewat
Section for INTERNAL MEDICINE - - - -	S. T. Laufer -	S. F. Bedwell
Section for OPHTHALMOLOGY & OTOLARYNOGOLOGY: - - - -	D. M. MacRae -	J. H. Quigley
Section for PAEDIATRICS: - - - -	N. B. Coward -	R. S. Grant
Section for PATHOLOGY: - - - -	A. W. Gyorf -	Ian Maxwell
Section for PSYCHIATRY: - - - -	Kenneth Hall -	L. Kovaes
Section for SALARIED PHYSICIANS - - - -	J. S. Robertson -	S. H. Kryszek
Section for RESIDENTS IN TRAINING: - - - -	Peter MacGregor -	
Section for SURGERY: - - - -	E. F. Ross -	J. A. Myrden
Section for UROLOGY: - - - -	F. G. Mack -	W. A. Ernst

G.P.'s are eternally busy and generally overworked and thus no contributions were received. Personal solicitations failed and the situation was disheartening.

The presentations are usually from the specialists ranks who outnumber the G.P.'s in this area. These articles are necessary and form part of "continuing education" for those who read them. The journal is available for articles by G.P.'s in the form of research, case presentations, practical gems or just plain gripes.

This editorial is prompted by the fact that, at last, two articles are contributed by G.P.'s. One deals with one of our more important and serious problems entitled:

"Towards More and Better Family Doctors.

Some Thoughts on a Universal Problem".

This is an interesting and challenging article outlining a program for improving the situation as he has studied it. There is a great deal of sound information to be gained from this presentation.

Whether you find yourself in agreement or disagreement with the arguments put forward is unimportant; what matters is that a terribly urgent problem is discussed here in some detail and in the way it needs to be discussed.

Three cheers also for a General Practitioner's contribution.

Will more be coming? ??? R.S.V.P.
W.A.C. □

FORTY YEARS AGO

From The Nova Scotia Medical Bulletin

April, 1925

Fraternity - Phi Rho Sigma

Dalhousie University Medical College, now has a branch of the Phi Rho Sigma Fraternity, its organization being effected March 31st. The Chapter was installed with the aid of Dr. Ralph Elliott of Cleveland, Ohio; Dr. MacNeil of Philadelphia; Dr. Prescott Irwin, Shelburne, N. S. and Dr. Norman Higginbotham of Montreal. Besides sixteen student members, Doctors H. K. McDonald W. A. Curry and E. K. McLellan were initiated as honorary members. At the conclusion of the ceremonies, the entire party were dinner guests of Dr. P. Irwin on the R.M.S.P. "Chignecto". The following are the Charter Members: James W. Read, William S. Gilchrist, Chesley M. Oake, Samuel McL. Wood, Harry S. Morton, John C. Thurrott, William A. Hewat, Alex. J. McLeod, James M. Beardsley, Herbert DeMontfort Haslam, Gordon A. Winfred, Gordon M. Bruce, Hugh Fraser McKay, Kenneth M. Grant, Douglas F. McDonald J. G. Toombs.

Appreciation

Douglas W. N. Zwicker

The death of Dr. Douglas W. N. Zwicker at Chester, Nova Scotia, on January 31 brought to a close a practice in medicine and surgery of over forty years.

Born in Lunenburg he received his early education in that town and took his medical degree from Dalhousie University. Graduating in 1916 he immediately went overseas with The Army Medical Corps. In France, his resourcefulness during bombing raids and his unflinching effort to save life were recognized and laid the foundation for the principles which he followed throughout his life.

Returning to Canada Dr. Zwicker took up practice in Chester. Forty years ago the life of a

doctor in Winter along the coast was grim. The only contact with the islands was by open boat. Sea shore roads were neither ploughed nor salted. No ambulance was available to relieve responsibility by transportation to a city hospital. No matter what the difficulties, Dr. Zwicker was depended on to reach his patient.

During his years of practice Dr. Zwicker took post-graduate studies in New York and in Montreal. In the latter years he had the benefit of the modern services of The Fisherman's Memorial Hospital in Lunenburg. From its inception he was on its staff and gave to it his interest and support. His sense of duty and his reverence for life will long be remembered. E.B.W.



◇
DEXEDRINE*



In 1965, after 20 years of widespread clinical use in Canada, 'Dexedrine' remains the standard anorectic agent in the treatment of overweight.

'Dexedrine' (dextroamphetamine sulfate, SK&F) is available as 5 mg., 10 mg. and 15 mg. Spansule* capsules and as 5 mg. tablets.

*Reg. Can. T. M. Off.



Smith Kline & French • Montreal 9

DPIN556A



Dalhousie Notes

III. FACTORS DETERMINING THE SIZE OF THE MEDICAL SCHOOL

C. B. STEWART, M.D.*

In describing the plans of the Sir Charles Tupper Medical Building in the January issue, I pointed out that each preclinical department would have a teaching laboratory for 96 students. How was this figure arrived at? Is it large enough? Will it meet the needs for the foreseeable future? Why not make provision now for a class of 150 medical students?

These are questions some people have asked in recent months, and very important ones they are. The number admitted to the first year medical class is limited by two main factors. The first is accommodation in the preclinical laboratories and dissecting room. If the need arises, ten or twenty more students can be crowded into a lecture room, but it is only with difficulty that the laboratory classes can be expanded to take even two or three more, since each student must have an assigned work area. Larger laboratories are required or a sufficient number of them to allow a large class to be divided into sections. The other major controlling factor on the size of the class is the number of beds in the teaching units of the affiliated hospitals.

Since the size of the graduating class is largely determined by the University when it builds its medical science laboratories, it is obviously very important that the correct decision be made concerning their number and capacity. The present Dalhousie buildings, completed in 1923, were designed for 50 medical and 10 dental students. The classes were limited to this size for twenty-five years. After World War II ten additional laboratory places were installed in order to accommodate more veteran students. Since 1956 the size of the first year medical class has been gradually increased to 72, but this was possible only through a remodeling of the Medical Sciences Building and by using

the space in the Forrest Building vacated by the Faculties of Law and Dentistry.

It may be worth noting parenthetically that the universities, not the medical profession, have always controlled the size of medical schools in Canada. "Organized medicine" has sometimes been blamed by its critics for limiting the number in the profession for ulterior motives. Even in the Province of Saskatchewan, where criticism was most vocal a few years ago, the size of the new medical school was determined by the provincial university, in other words, by the Government which finances it. In fact, the plans of almost all universities, even the so-called "private" institutions, have been influenced greatly by the budgets available to them, for the most part from governmental sources. The public, through its government and its universities, not the medical profession, bears the major responsibility for any inadequacy in the facilities for professional education.

In making recommendations to the Board of Governors of Dalhousie University, the Faculty of Medicine has considered several factors which should govern the size of the Medical School. First, it should be large enough to provide educational opportunities for the young men and women of this region who choose medicine as a career. A study of the trends in applications in recent years has provided useful guidance, although consideration also had to be given to several imponderables, such as the possibility of other medical schools being established in the Atlantic Provinces. A second major consideration was the capacity of the teaching units in the affiliated hospitals. The third major factor was the need for physicians in the four provinces. With the present well known shortage of doctors it is obvious that there is a need, but how extensive is it? How large a graduating class can be absorbed? Finally, the size of

*Dean of Medicine, Dalhousie University.

the building itself was greatly influenced by the other duties of the Medical School, in research and in teaching students of other Faculties, in dentistry, pharmacy, nursing, physiotherapy and the medical sciences. In this issue discussion will be limited to the trends in student enrolment, and the other subjects will be dealt with later.

Each year the Canadian medical schools exchange lists of their first year classes with home address. From this source it is possible to determine how many students from each of the four Atlantic Provinces are studying in Canadian medical schools. The number of Canadian students in U. S. medical schools is negligible. The exact figures are available in the annual report of the American Medical Association. It is believed that the number of Canadians in medical schools in the United Kingdom and Europe is now very small, but exact figures cannot be obtained. During the immediate post-war period a considerable number of students, many of whom could not obtain admission to Canadian medical schools, studied in Europe, but it is known that this number has fallen off in recent years.

Table 1 shows how many Atlantic Province residents enrolled each year between 1951 and 1964 at Dalhousie, at other English-Canadian medical schools and at the French-language universities.

TABLE 1
ENROLMENT OF ATLANTIC PROVINCE STUDENTS IN FIRST YEAR AT
CANADIAN MEDICAL SCHOOLS 1951 to 1964

Year	Dalhousie	Other English language schools	French- language schools	Total	Per Cent at Dalhousie
1951	58	12	0	68	82.8
1952	56	5	6	67	83.6
1953	48	8	10	66	72.0
1954	44	10	0	54	81.5
1955	54	7	1	62	87.0
1956	43	7	4	54	79.6
1957	54	5	5	64	84.3
1958	44	4	5	53	83.0
1959	38	8	2	48	79.2
1960	42	9	2	53	81.3
1961	53	7	7	67	88.3
1962	53	4	0	57	92.9
1963	58	4	4	66	93.5
1964	64	4	2	70	94.1
Total	709	94	48	849	—
Annual Average	50-51	6-7	3-4	60-61	83.5

This table shows that in the fourteen-year period 83.5 per cent of the students from the Atlantic Provinces who entered Canadian medical schools came to Dalhousie, and this proportion has increased in the last four years to 87 per cent. Considering only the English-speaking students

from this region, the proportion is higher, 88.5 per cent for the whole period and 92 per cent in recent years. Not shown in the table is the fact that the figures for the four provinces show no significant differences from each other. New Brunswick, Prince Edward Island and Newfoundland students are no more likely than Nova Scotian students to seek their medical education outside the region, except for the French-speaking students from New Brunswick who attend Laval or the University of Montreal. As an aside, it might be noted that this table gives little support for the recommendation of the Hall Commission that a French-language medical school be established at the University of Moncton. The number of Atlantic Province students enrolled in Quebec medical schools since 1951 has averaged between three and four and has not exceeded ten per year.

The table also shows that, although the number of students fluctuated somewhat erratically from year to year, the general trend was downward from 1951 to 1960 and then started upward again. The sharp fall-off in applicants was experienced by almost all Canadian and U.S. medical schools at the same time, and fortunately this downward trend reversed itself here and elsewhere. The average enrolment of Atlantic Province students in all Canadian medical schools in the first five years,

1951 to 1955, was 63 (52 at Dalhousie); between 1956 and 1960, it fell to 54 (44 at Dalhousie); in the last four years the average has arisen to 65 (57 at Dalhousie). Nevertheless, the lack of applicants for admission to Medicine explains why there was not an earlier effort to increase the size of Dalhousie

Medical School. People occasionally ask why we waited until there was an acute problem before planning to enlarge the school. In fact we did start our planning in 1959 in the expectation of an upturn in the student supply, because general university enrolment was then starting to increase and we anticipated the same would occur in Medicine. It took four years before there was sufficient money available to make it possible even to appoint an architect to design the building. This is the reason for the delay, not a lack of foresight but a lack of money. In fact, one might sardonically remark that our present good fortune is due largely to a historic accident, that the man who was chief architect of Confederation in Nova Scotia was also a physician. This gave us an opportunity to request the centennial grant for the Sir Charles Tupper Building.

Table 2 shows the trends in the number of applicants from the four Atlantic Provinces from the low point in 1959 to 1964.

This table shows the not too surprising fact that there was a large failure rate in the class of 1959 when 39 of the 43 applicants were accepted. It should be noted, however, that some of the students of low academic qualifications were successful. Academic standing, while still the best guide to the Admissions Committee, is certainly not infallible. Nevertheless, the graduating class for 1963 (which had entered in 1959) numbered only 43 and was the smallest for many years. It also had the largest proportion of non-residents. The class which will graduate in 1965, now in the internship year, is almost back to the usual level and it is expected that 52 will graduate. However, 21 of these are non-residents of the Atlantic Provinces

TABLE 2
NUMBER OF APPLICANTS AND ENROLMENT OF ATLANTIC PROVINCE
STUDENTS AT DALHOUSIE MEDICAL SCHOOL 1959-1964

Year	Applicants	Enrolled	Percent Admitted	Failures(1)
1959	43	39	90	11
1960	55	44	80	8
1961	74	53	72	7
1962	81	53	65	5
1963	89	58	65	8
1964	105	65	63	—

(1)Excluding withdrawals for non-academic reasons.

I think it will be obvious that the reduction in the number of students admitted to Medicine from the Atlantic Provinces was directly related to the shortage in the number of applicants from this region. Immediately following World War II there were hundreds of applicants for admission to Dalhousie Medical School, as to all other Canadian and American schools. Preference was given to the veterans, and a relatively few non-veterans were admitted between 1945 and 1950. Dalhousie had increased its class from 50 to 58 to take care of a larger number of veterans but many had to be rejected. After 1950 the number of applicants remained at a relatively high level until approximately 1954. There was a backlog of students with good academic records who had been unable to obtain a place in the class while veterans were being given preference but who continued their pre-medical training for a longer period than usual. Between 1951 and 1954 this surplus of well qualified students enrolled. By 1954 the total number of applicants from the four Atlantic Provinces had fallen to 90. This number continued to fall off rapidly between 1954 and 1959, reaching the pitifully low level of only 43 applicants from all four provinces in 1959. The first year class was kept to the full level of 62 students by accepting a larger number of non-residents and also by taking almost all of the Atlantic Province applicants, including some of relatively low academic standing.

as compared with the usual 5 or 6. At recent Conventions I have heard questions concerning the proportion of students in the Medical School from other countries. The explanation is quite simple. There were not a sufficient number of Atlantic Province students five or six years ago to fill the class.

It is clear from Table 2 that an 80 or 90 per cent acceptance rate is too high, if the school wishes to avoid a high washout rate. It would appear that approximately 65 to 70 per cent of those who submit a formal application in January register the following September and have a high likelihood of success. The remaining 30 to 35 per cent is made up not only of those who are rejected for academic reasons but in addition includes those who have changed their plans. For example, in 1964 there were 105 applicants from the Atlantic Provinces, of whom 65 were admitted in the total class of 72. (Seven places are kept for non-residents, in accord with the policy established in the immediate post-war period.) Of the 105, 6 decided to attend other medical schools and 4 changed to graduate studies in one of the medical sciences. Twenty failed in one or more of their premedical examinations and were rejected. Only 10 qualified but borderline students, with doubtful likelihood of success in the Medical School, were rejected.

Figure 1 shows graphically the rise in applicants from 43 to 105 between 1959 and 1964. It

also shows the estimated number of applicants if this trend continues at the same rate.

Obviously, an assumption that the rise will continue in a straight line is subject to error. In fact, the prediction based on these figures would be for 115 applicants in 1965. We already have 144. This rapid upswing is in large measure due to the Newfoundland Government's support for premedical students which was started in 1964.

Based upon this six-year experience we have estimated the trends in total applications according to a straight line extrapolation in Figure 1, and have further estimated the number likely to be admitted as 65 to 70 per cent of these applicants. Table 3 shows these estimates of the number of applicants and the proportion that will probably be suitable for admission.

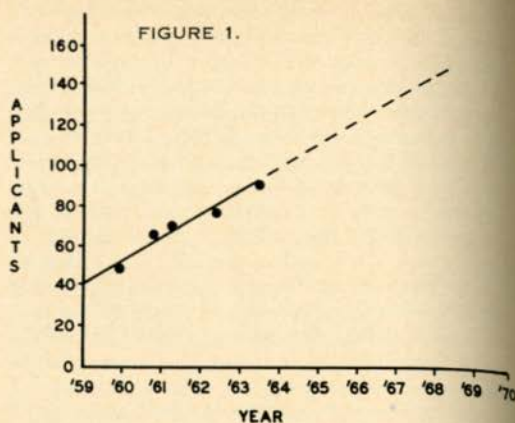


TABLE 3
ESTIMATED TOTAL NUMBER OF APPLICANTS FROM ATLANTIC PROVINCES
1965-70 AND PROBABLE NUMBER AVAILABLE AND QUALIFIED
FOR ADMISSION

Year	Estimated Applicants	Qualified		Size of Class	Rejected	
		A 70%	B 65%		A	B
1965	115	80	75	65	15	10
1966	125	87	81	65	22	16
1967	137	96	89	86 (1)	10	3
1968	148	103	96	86	17	10
1969	160	112	104	86	26	18
1970	170	119	111	86	33	25

(1) Total class increased to 96 in new Sir Charles Tupper Medical Building with 10 per cent non-residents.

If the Sir Charles Tupper Building is completed as planned by September, 1967, and a class of 96 students is admitted to first year medicine, it will be possible to fill the class with Atlantic Province residents. The policy will no doubt continue of having a few students from other provinces of Canada and from other countries. Possibly 90 may be from the Atlantic Provinces. This would probably mean that a few students of lower academic standing might have to be rejected in 1967. However, if the number of applicants continues to grow at the same rate as it did between 1959 and 1964, 25 to 33 fully qualified Atlantic Province

students might be rejected by 1970. On the other hand, if the 1965 upswing continues, the number rejected will be greater.

This would seem to argue for an increase in the basic science laboratories at Dalhousie beyond the 96 which is now projected. However, an option is to have one such laboratory for each department, rather than having two departments sharing the same facilities. This brings us to a consideration of the second important factor which should govern the size of the Medical School, namely the availability of clinical experience in the teaching hospitals. This will be discussed in a later *Bulletin*.



Towards More and Better Family Doctors.

Some Thoughts On a Universal Problem.

NORMAN G. GLEN, M.B., Ch.B., D.R.C.O.G., M.C.G.P.

Amherst, Nova Scotia

A recent Editorial in the Nova Scotia Medical Bulletin (1) asked for ideas about "medical education to meet current needs". As one of that declining breed, a practitioner of family medicine, some of the thoughts outlined below have been very much on my mind in recent months. We are experiencing at the present time the early bouts of the so-called "Crisis in Family Practice", which is causing concern to medical educators, practising doctors, some governments and the thinking public alike. Recently the President of the College of General Practice of Canada felt forced to give up private general practice for reasons of "overtime, overwork and increased specialization", and has brought his reasons and views on his own personal involvement with the "crisis" forcibly before the Canadian Public in an article in a national magazine (2).

1. The Present Situation as I See It.

We are experiencing a progressive fall in the number of general practitioners and in the proportion of general practitioners to specialists. This change is a world-wide one and is well documented in the United States (3,4,5,6,7,8), Canada (9,10,11) and the United Kingdom (12,13,14), as well as in Australia (15), France (16), and Austria (17).

Contributing to this change is a diminishing supply of young graduates entering general practice and in addition many general practitioners leave this field to enter a specialty (18), or other medical employment.

In my view and that of several authorities (17,19,20,21) the need for general practitioners continues. This is well illustrated by Martin (3) who says: "Despite the increase in medical specialists. . .there can never be enough to treat every sick person, even if such were desirable. Obviously, no surgeon would be willing or able to examine all patients having an abdominal complaint in order to find the occasional surgical case. Nor will the day arrive when psychiatrists will be of sufficient numbers to probe into every nervous symptom. The very

foundation of medicine rests upon the first line of defence - the family physician."

Not only is there a continuing need for general practitioners, but this need is also increasing (22,23,24,25). However, I have seen no reference in the literature to any suggestion as to what proportion of doctors should be general practitioners and what proportion should be specialists.

In addition to continuing and increasing need there is also a desire for general practitioners on the part of both the public (10,26) and of the medical profession (26). As Cahal (26) has said: "What people want is a family doctor, one doctor who will accept total, continuing responsibility for administering, or securing and supervising, the best available care for all medical and surgical conditions"; and later: "The family doctor today stands on a pinnacle of public esteem at a time when the profession's total image is alarmingly bad".

I would agree with MacLeod (27) who states that the need, rather than for the present practitioner, is for a new breed of family doctors. As MacLeod puts it: "Society needs now, and will need in the future, a special kind of doctor who is responsible continuously for a broad level of health care that is rendered personally (in the main) to the family group. . .a physician of this sort. . .is a stable requirement of society. . ."

Much of what has been written on the above broad general problem, and the reasons for it mentioned below, gives the impression of oversimplification. Some of the conclusions reached would appear not to have taken into account all of the facts, and could well be erroneous.

2. Some Reasons for the Decline in General Practice.

This subject is well reviewed by Haggerty (18) under the title "Etiology of the Decline in General Practice". It would seem to me that the main factors operating here could be roughly classified as follows:

(a) **MEDICINE IS ATTRACTING A DECREASING PROPORTION OF UNIVERSITY STUDENTS.**

This appears to be the case, not only in North America (28), but also in the United Kingdom and in the U.S.S.R. (13, 29), and would appear to be associated with competition from other attractive careers open to students of university caliber. A factor operating here, which I have not seen mentioned in the literature, is that there has been an almost unlimited expansion of the Faculties of Arts, Sciences, and of most other Faculties in Canadian and American Universities, whereas Medical Faculties have had a fixed enrolment (118). These factors are leading to an overall shortage of doctors, which in turn accentuates the shortage of general practitioners and hinders the development of the new field of family medicine, since most of the new doctors tend to gravitate to the hospitals (30).

(b) **FEWER MEDICAL STUDENTS ARE LED TO THINK OF GENERAL PRACTICE AS THEIR GOAL.**

This may be associated with the effect of the image of the student's own family doctor upon him prior to entry into medical school (11) or with lack of a good family doctor with whom to "identify" during medical school (3,6). As the proportion of general practitioners declines, the students have less and less contact with this branch of the profession, so fewer of them think of general practice for themselves (18). As Silver (30) puts it: "The student can see the vanishing general practitioner but not the rising family specialist".

As things are at present there is little or no contact with family doctors during undergraduate medical training (3,8,14, 18,22,31,33), and what little contact exists is often under circumstances which are detrimental to the image of the general practitioner (18). Except in the community hospitals, the intern may not have contact with any family doctors, or if he does, it is often regarding a patient with a rare disease about which the family doctor knows, reasonably enough, less than the specialist. The fact of the family doctor missing the diagnosis of a rare disease is bantered about the house staff lounge as an indication of the poor level of most family doctors!

Opinion is divided as to whether medical schools do or do not have a responsibility to recruit students into the various specialties or into general practice (118).

The tendency to change in the social class of origin of medical students also contributes to this problem (8).

(c) **THE CONDITIONS OF WORK AND FRUSTRATION OF GENERAL PRACTITIONERS IN SOME COUNTRIES, NOTABLY BRITAIN UNDER THE PRESENT NATIONAL HEALTH SERVICE ARRANGEMENTS, DISCOURAGE THOUGHTS OF TAKING UP GENERAL PRACTICE.**

3. Factors Discouraging Students Who Do Consider General Practice as Their Goal.

These factors have been summed up by Silver (30) in this manner: "No sensible student wants to spend three or four years becoming a general practitioner in order to work harder, earn less, and be barred from the hospital". A further breakdown of factors behind this rather cynical observation would appear to be:

- (i) *Family medicine suffers from lack of recognition as a specialist skill* (30, 33,35,36,37), not only by the public but also by the family practitioner's confrères (30,38).
- (ii) *The general practitioner's prestige and status is diminishing* (6,12,21, 39,42). This is associated with the diminishing prestige and status of the whole profession. As Wigle (40) has it "At one time the mere acquisition of a medical education earned esteem. . .but today, the man who writes the instructions for a computer to calculate the timing of each step in the firing of rockets driving missiles into space . . . is not impressed by a doctor's education". The working conditions of the family doctor, referred to in more detail below, also contribute to this loss of prestige.
- (iii) Under the present system there is a relationship between the student's ability and the quality of the residencies obtained, in that the less bright students tend to get the rotating internships which are at the moment the main preparation for general practice (34).
- (iv) *The poor financial lot of the general practitioner, when compared with that of the hospital specialist, in many countries, is also a discouragement* (9,13). With regard to the United Kingdom an Editorial in the Canadian Medical Association Journal (59) stated: "The reward of General Practitioners is indeed paltry". Working conditions

(60) and hours of work (9) of family practitioners appear to compare unfavourably with those of specialists, and these inequalities, particularly the financial ones, make the future in a specialty more tempting to the intern whose pay is at present described as "niggardly" (31,43, 44,45). However, this factor does not operate everywhere. There are some areas in Canada, for example, where the general practitioner is making a higher income than some specialists (118).

- (v) In some medical schools the training actually appears to be motivated *against* general practice (20). As fewer and fewer of the teachers have themselves ever been general practitioners, so the students see "only half the medical world". As it is put by Scott (9); "The true proponents of general practice have little or no opportunity to convey their opinions to medical students, while the conscious and unconscious detractors of family practice are free to make their imprint on the student's malleable mind"; or again (47): "...specialist teachers tended to abuse their prerogatives by propagandizing students, a privilege which is denied to general practitioners".
- (vi) In medical schools whose curricula include preceptorships which are not kept at a high level, these *mediocre preceptorships* tend to scare students away from a future in general practice (27).
- (vii) A *major discouragement* upon graduation in many cases is the *graduate's feeling of inadequacy*. He fears that general practice may be too big a subject, or too wide a field for anyone to comprehend or do well (3,4,18), and this fear is often accentuated by his *misconceptions regarding general practice* (6). The most common subjects in which graduates feel their training has been inadequate are minor emotional disturbances and their causes (82% of students according to Clute) (48), psychotherapy (49, 50), psychiatry (46,51,52), diagnostic procedures (53,54), common conditions and minor complaints (55), practical obstetrics (56), social work (80% According to Clute) (48), and in *accepting re-*

sponsibility. The latter inadequacy would appear to be associated with the granting of too little responsibility to interns (5,58).

- (d) MOST EXISTING UNDERGRADUATE MEDICAL CURRICULA PROVIDE UNSATISFACTORY TRAINING FOR GENERAL PRACTICE (31,41, 51,53,61,62,63,106). As stated in the report of the Second Conference on Education for General Practice, held in Toronto in November, 1963, (47), medical schools have become "...fragmented, somewhat esoteric and specialty dominated, resulting in inadequate preparation of students for general practice." Further, with regard to British undergraduate training Susser (39) says "Present day medical schools in Britain do not succeed in giving an effective training for general practice, although their undergraduate courses suffer from the fact that they are designed to do so".

This feeling of dissatisfaction with their undergraduate training is confirmed by Clute's enquiries from practising general practitioners in Nova Scotia and in Ontario (55). My own personal experience, too, bears out the above observations. Although from the outset general practice was always my goal, upon completion of my undergraduate medical education, graduation and the equivalent of a rotating internship, I felt myself quite unprepared for entry into general practice. Particular weaknesses were, I felt, in the fields of obstetrics and common injuries and ailments. Weakness in psychiatry and knowledge of the organization of general practice did not become apparent to me until much later. Surgery, I felt, was an obvious additional weakness, but as I never intended to become involved in a form of general practice requiring the performance of major surgery, this did not trouble me. A few brief excursions into general practice as a locum tenens in industrial, suburban and rural areas confirmed these fears.

My own personal attempts to correct the inadequacies for general practice which I recognized in myself included the obtaining of a post as casualty officer in a busy casualty department in a large city teaching hospital. This post I found of extreme value as a preparation for general practice and I enjoyed it so much I applied for a second period as senior casualty officer in the same department. During this second period the experience of additional responsibility, which appeared to have

been lacking previously, was stimulating and of value for the future. During a subsequent period in the Air Force I learned much about administration, office procedure, filing and so on, which subjects had been absent from my previous training.

At this stage the remaining big hiatus in my preparations was in obstetrical knowledge and this was largely corrected by a period as a resident in the obstetrical professorial teaching unit of a large university hospital.

Following this a post under the Trainee-Assistantship Scheme of the British National Service became available to me, and although this scheme is subject to abuses in some places, my period of service under it was of great value and it was spent with an unusually well-organized and progressive group practice. It provided good in-service training and completed my formal training for general practice. It was only at this point, four years following graduation, that I felt some sense of confidence in my ability to cope with the many and varied problems with which the family doctor is asked to deal.

As time went on, the need for continuing Post-Graduate training became more and more obvious and my efforts in this regard have been influenced by personal interests, but also by the fact that the emotional aspects of family practice are coming more and more to the fore. My awareness of deficiencies in psychiatric training has been greatly increased and has stimulated me in attempts to improve this situation.

Review of the literature concerning possible reasons for this, evidently widespread, feeling of dissatisfaction with their undergraduate training by practising general practitioners reveals the following as some of the factors related to this problem:

- (i) It has been said that until recently medical educators have been unaware of the problems of general practice (10,65), although this may be questioned. For example, at the present time only a small handful of the specialist teachers at the Dalhousie Medical School have not themselves at some time had general practice experience (118).
- (ii) The undergraduate medical curriculum is already very crowded (30) and there are many practical difficulties hindering additions to it, especially the addition of the

more nebulous aspects of general practice (27,65).

- (iii) General practitioners are at present only occasionally represented on curriculum committees (61).
 - (iv) Most teaching hospitals are highly specialized (45) and this, together with a tendency for a greater proportion of the patients tending to be in the older age groups and suffering from chronic illness, and the falling off of attendance at out-patient departments, reduces the number of general practice-type patients available for teaching students (45).
 - (v) Most medical faculties do not include general practitioners and are specialty-orientated (4,21). Some faculty members have no experience of *any* type of medical practice, a point emphasized by Clute (66).
 - (vi) Too few medical school teachers understand the learning process - many have too been appointed primarily for their skill as researchers or specialists (67,68,69).
 - (vii) Ninety percent of clinical teachers are either unpaid or underpaid and this contributes to lowered standards of teaching (70,71). It is felt that the remuneration of clinical teachers should be made more realistic (44).
 - (viii) There is an apparent absence of specific programmes with general practitioner participation for presentation to universities and universities generally are not receptive to the idea as there have been no clear-cut statements as to what the general practitioner has to offer in undergraduate education, and he is hindered by a lack of "specialist" skills and qualifications (72).
 - (ix) In many places local general practitioners have shown a poor attitude towards teaching responsibilities and this has hindered acceptance by universities of the idea of general practitioner teachers.
- (e) **FEWER HOSPITAL PRIVILEGES FOR GENERAL PRACTITIONERS.** In many places general practitioners are restricted in their hospital privileges. In the United Kingdom this restriction is to the point of virtually complete exclusion (14,20) and the general practitioner is discriminated against in many centres in Canada (9) and the

U.S.A. (3,8,18,62), although to a much lesser extent.

- (f) INCREASING URBANIZATION, together with the tendency towards concentration of population and increasing technology, encourage the *increase of specialization in all professions*, including medicine (3).
- (g) STUDENT SELECTION. The personality and character of a student who is selected for entry into a medical school will likely be reflected in the type of medical practice he eventually takes up. At the present time faculty selection boards are comprised mainly of specialists who are likely to select most often those applicants whose attributes resemble their own (18), and are hence most likely to eventually feel most suited to practice in a specialty.
- (h) There has been a *lack (until recently) of high quality programmes of specialized training for family medicine beyond the intern level* (18). Without this provision for a high-calibre, extremely challenging course of training, *at least as challenging as existing specialty training* (6,73,74,75) we shall fail to attract to general practice its fair quota of the best brains in the profession (76). The present lack of a diploma, or fellowship, or whatever, in general practice may contribute to this factor (77).
- (i) PRESENT ROTATING INTERNSHIPS ARE INADEQUATE AND UNSATISFACTORY and they often give rise to feelings of inadequacy in medical students, as mentioned above (31). Many internships include in their duties far too much "scut-work" and unnecessary laboratory work (5), are poorly paid (45), and encompass excessively long working hours with little chance for study or rest (5,45,69). Married quarters are rarely provided (45,69) although many interns nowadays are married. Interns often complain that they need much less experience with rarities and much more instruction in common techniques and conditions (78). There also tends to be a conflict during the internship and residency periods between *education* of the intern on the one hand, and *service* to the hospital on the other. This point is emphasized by Clute (79) who also quotes Dietrick and Berson (80) who state that ". . . little progress has been made in the solution of this problem in the last twenty-five years". In North America, at least, there is generally a lack of control of the internships by the Medical Schools. At

the present time Dalhousie is the only Canadian Medical School which retains control of its internships (118).

4. Some Suggestions for Future Improvement.

The main needs would appear to be:

- (a) IMPROVED SELECTION OF STUDENTS likely to make good family doctors (28). This would be aided by the presence of general practitioners on the selection boards (81).
- (b) THE DEVELOPMENT OF UNDERGRADUATE MEDICAL EDUCATION AS BASIC TRAINING TO PRODUCE A "BASIC UNDIFFERENTIATED DOCTOR". Most countries now follow this concept (10,20,45,46,82,83). It is to be noted however that this idea does not correct the observation recorded above in Section 3 (d), that most existing undergraduate medical curricula provide unsatisfactory training for general practice. The "basic undifferentiated doctor" would be equally, or even more, incompetent for family practice, unless the basic training leaves him aware of his need for specialized post-graduate training before venturing into this (or any other) field of medical practice. Further reference is made to this need for specialized post-graduate training for family practice below.
- (c) DEVELOPMENT OF THE CONCEPT OF "FAMILY MEDICINE" AS A SPECIALIST SKILL (RATHER THAN "GENERAL PRACTICE"). In the United States this concept is mainly associated with Rardin (25,84,85), from whom the following quotations:
- "The words 'family physician' and 'family practice', old as they may be, have new significance today. It would appear that our family physicians - primarily those general practitioners conducting comprehensive family care - are about to reach new stature".
- "These can be no doubt that a new specialty discipline - family practice - is emerging in American medicine". Family practice is defined as "that aspect of medical care performed by a doctor of medicine who assumes comprehensive and continuing responsibility for the patient and his family regardless of age".

A good summary of the concept of family practice was drawn up by the University of Kentucky conference on family practice in March, 1964 (86). That this

concept of family practice as a specialty is attractive to medical students is well demonstrated by a survey of medical students on the subject by the American Medical Association (74).

The realisation of the importance of what is coming to be called 'the holistic approach' to the patient and its inclusion into medical education, particularly into that for family medicine, is vastly increasing (6,10,20,31,33,81,89). In the report of the Second Conference on Education for General Practice held in Toronto in 1963, under the section to do with the contribution of the general practitioner as a teacher, it is stated "The basis of the contribution to the teaching programme requires acceptance that medical education should be *patient/community orientated*, rather than hospital orientated. . . The general practitioner brings certain skills and knowledge to the teaching programme because in the main he is patient and community orientated". He deals with people as personalities rather than only disease processes (87). Clyne (88) gives a classical description of the holistic approach entitled "The Three Faces of Joan", which makes instructive and enjoyable reading.

The "Hall Commission" (90) recognizes the need for physicians with the holistic approach - physicians who try ". . . to evaluate the health of the individual, not only in terms of symptoms, but by taking into account the physical, biological and social forces which impinge upon the sick person, and which may affect the course of his complaint. With this perspective *the physician attempts to treat the whole man rather than a specific disease* (my italics). For example, in a particular ailment he may find it necessary to consider the effects of housing conditions, occupational and family relations as these affect the patient's health".

The importance of the inclusion of psychiatry and psychotherapy in family medicine is well brought out by Clyne (50) and the Tavistock Clinic seminars (49) as well as by other authorities (51, 64).

- (d) INCREASED ORIENTATION OF UNDERGRADUATES INTO FAMILY MEDICINE, CONTACT WITH FAMILY DOCTORS, AND EXPERIENCE OF FAMILY MEDICINE DURING BASIC TRAINING (10,14,22,31,52,83,91).

We should ". . . strive to help the young student see the interesting side of general practice, and to do this destroy the false

hierarchy which is slowly creeping into the medical profession". (16)

The student "must see disease in general practice because it is in general practice that his widest experience of disease can be obtained, disease he will never see in hospitals, disease in its early stages and in late stages with all its social implications" (92). As it is charmingly put by Leak et al, (93) "What zoologist would be content with studying wild animals in a zoo?"

The need for the early introduction of the holistic concept in undergraduate education is stressed (10,89). General practitioners should be on the curriculum committees of medical schools (61).

- (e) HIGH QUALITY SPECIALIZED POST-GRADUATE TRAINING FOR FAMILY MEDICINE. This need is well documented (18,36,76, 97) and is well expressed by Rardin (84), who says - there is a need for "recognition equal to and comparable with that given men completing other quality programmes of specialty training". As well as in the United States this trend is being developed in several other countries, including New Zealand (69), Holland (75) and especially Yugoslavia (99).

Clute (98) suggests that there should be special teaching units for postgraduate specialized family medicine training, either separate wards in hospitals or complete separate hospitals, apart from those used for post-graduate specialty training.

Tuckey of New Zealand (69) says "Our greatest challenge is to develop a training programme for the family physician that will make him professionally competent twenty years hence".

Opinions differ as to whether satisfactory completion of such training for family medicine should be recognized by a diploma or fellowship (34,39,96), and this problem is presently being considered by colleges and academies of general practice (77). In Ohio (6,73) it is suggested that family practice be made a board-certified specialty.

The provision of early orientation into, and specialized post-graduate training for, family medicine would require:-

- (f) INTEGRATION OF FAMILY DOCTORS INTO MEDICAL FACULTIES (77) both at the undergraduate (27,84,87,100) and the post-graduate (87,100) levels.

Some impediments to general practitioner participation in undergraduate education were outlined at the Second Conference in Education for General Practice

which was held in Toronto in November, 1963 (72) and may be listed as follows:

- (i) Apparent absence of specific programmes to present to universities.
- (ii) Universities generally not receptive to the idea.
- (iii) Poor attitude of local general practitioners towards teaching responsibilities.
- (iv) No clearcut statements as to what the general practitioner has to offer for education.
- (v) Time, money and local factors.
- (vi) Lack of "specialist" skills and qualifications by the general practitioner

At the same conference the following recommendations towards correcting the above difficulties were made:

- (i) The College of General Practice should clearly define the special skills and competence the general practitioner shows he could offer to undergraduate medical education.
- (ii) The College should undertake research into the past poor showing of general practitioners in undergraduate teaching programmes in British Columbia, Alberta and Manitoba.
- (iii) The College should study the best time in the curriculum and location in the community for general practitioners to teach.
- (iv) Later, when the above are established, the College should approach the medical schools with proposals.

A further way of integrating general practitioners into faculties and bringing medical students into contact with them would be as providers of the student health service.

(g) LIFE-LONG CONTINUING EDUCATION FOR FAMILY DOCTORS This need is now generally accepted and various programmes to supply this need are well underway in many parts of the world. That available in Nova Scotia through the Postgraduate Department of Dalhousie Medical School is second to none.

5. Current Programmes and Experiments in Training for General Practice.

In several parts of the world programmes in training for general practice have been started with the above needs in view, and many of these would repay handsomely detailed study with regard to their suitability for more general use or adaptation to local needs. Although some of these programmes are not enthusiastically received and are not successful in attract-

ing graduate students (38), some are very successful, in particular those in Kansas (109), Ohio (101), Jugoslavia (99) and Winchester, England (14,81,97).

The main types of programme in use or under trial would appear to be:

(i) Undergraduate Programmes for early family practice orientation

- (a) Preceptorships, may be either of the standard type such as at Dalhousie (91), or of more unusual types such as the very successful rural preceptorship scheme of the University of Kansas Medical School (25, 109), and that being used in Australia (15). In Kansas, the preceptorships are held only in rural areas, with preceptors who practise in towns of less than 2,500 population. The students spend 5½ weeks with their preceptors and accompany them on all their activities, including night calls, hospital rounds and office work. They are also given some definite responsibility for patient-care. The student also participates as completely as possible in the non-medical aspects of the physician's life with his preceptor - he is expected to accompany him when he goes hunting or fishing, or attends medical meetings, service club functions or post-graduate courses, and so on. As Rising (109) says, "The student is able to establish a much closer personal relationship with his teacher in this environment than in a larger community, and at the same time he is better able to observe the environmental effects on his patients. Problems of medical care and the relationship between the physician and his community stand out in bold relief in this setting."

In Perth, West Australia, a new type of preceptorship training is being launched. In this a fourth year student who voluntarily attaches himself to a general practitioner practice, experiences a dramatic first contact with his preceptor and a family at a

confinement. The family involved then becomes the student's study for the next three years, with the requirement that he make a report at the end of that time on the family. The student is also able to attend the chosen general practice whenever and as often as he likes during the three years.

- (b) LECTURES by family doctors (15,65).
- (c) TEAM TEACHING (82).
- (d) Participation by general practitioner in *panel programmes* (3), at which specialists, pathologists, social workers, students, etc. are all present to discuss patients referred there by the general practitioner.
- (e) A combination of formal group training plus preceptorships as is popular in Ohio (25).
- (f) Undergraduate participation in *family study programmes* (15).
- (g) General practitioners in the out-patient departments of teaching hospitals (87).
- (h) General practitioners in the *departments of general practice* in teaching hospitals (87), where their talents might best be used on ward rounds and in clinical conferences (77).

(ii) *Graduate Programmes* - include rotating internships (21,97), and graduate participation in family medicine teaching and research units (31).

(iii) *Post-Graduate Programmes*. One of the more successful of these would appear to be *Nuffield Practitioner Traineeship Programme* sponsored by the Wessex Regional Hospital Board and the Nuffield Provincial Hospitals Trust at Winchester, England (14,81,97) and a somewhat similar programme at Bristol, England (113). The Winchester scheme is an appointment of two years duration during which the young doctor is introduced to selected aspects of hospital work and active general practice consecutively, while in that at Bristol these two years are interwoven more closely. These programmes represent an improvement on the present

British "Trainee-Assistantship" scheme, in which I received some of my own general practice training.

In North America, particularly enlightened programmes include the *Fellowship Programme in Family Practice in Boston* (25,84). This is a new two year programme established by the departments of Medicine and Psychiatry at the Children's Medical Centre. Only four physicians each year participate in the programme and each must have had two years of graduate hospital training or similar experience in general medicine or general practice. The programme is designed to prepare the participants who complete it for future teaching and research assignments in medical schools wishing to establish family practice programmes.

At Burlington, Vermont (102), there is a *Family Medicine Teaching and Research Unit* with a full time faculty who give continuing primary personal preventive curative medical care to a defined population of families. As White (102) says "Just as patients with haematological problems are required for teaching haematology, and patients with neurological problems are required for teaching neurology, so families are necessary for teaching family medicine". Such a unit can provide a frame-work within which it is possible to demonstrate continuing rather than episodic personal care to students.

In Europe, advanced programmes are underway in Yugoslavia (99), Israel, and Holland. The first of these is the very forward-looking programme which has been established by the 'Andrija Stampar' School of Public Health of the Medical Faculty of the *University of Zagreb*. It consists essentially of a three year period of training which is arranged primarily on an in-service basis while the participating doctors continue to run their own practices. The training is provided in groups for three hours three times weekly for the three years, which period includes in addition a two month full time introductory course, a one month intern-

ship and three months full time at the University at the end of the course. The curriculum is very varied and detailed, and main groups of subjects covered include:

1. The organization of health protection;
2. Internal medicine;
3. Maternal and child health;
4. A miscellaneous group which includes minor surgery, the early detection of cancer, diseases of the eye, ear nose and throat, trauma, odontology, rehabilitation, 'basic syndromes and diseases', psychiatry, rheumatology, dermatology, venereology, tuberculosis (intriguingly described as 'phthisiology'), and a foreign language!

The total course amounts to a total of about 1440 hours, and leads to a degree of Master of General Medicine, in addition to the State Diploma as Specialist in General Medicine.

This programme was established, in the words of Vuletic (115), its founder: "... in order to prevent the mass flight of G.P.s into the various specialist branches, and in order to enable the G.P.s to raise their status as compared with specialists in the various branches of medicine ... (and), ... legal provisions for specialization in general medicine have been introduced by the Yugoslav Legislature in 1960".

It is recognized that this programme is extremely strenuous, particularly as it is run on an in-service basis. Nevertheless, it is proving popular and very successful and there are at present four courses running consecutively with sixty-one general practitioners participating (99). "In 1963 the first group of fifteen trainees sat for their final theoretical and practical examinations, which lasted for two days. Out of them thirteen passed these examinations with the highest mark - ten, while the rest passed with the mark eight - in spite of the fact that in-service training has proved to be very strenuous".

The impact of this programme in Yugoslavia has been very wide. It has roused great interest amongst G.P.s and similar programmes of

training are being established in other parts of that country. The trainees were stimulated to organize a section of general practice within the framework of the Medical Association of Croatia with branches in various cities of the Republic. These sections have stimulated the establishment of post-graduate symposia in general practice held twice yearly throughout the Republic in addition to regular monthly meetings. The successful Masters of General Practice and selected students undergoing the course *participate in the training of undergraduates* at two different periods in the latter's medical course. In addition, the establishment of this course has stimulated extensive research work in general practice, which research hardly existed before.

I believe that this programme above all others is one which would repay handsomely detailed study with regard to its possible application to the Canadian scene.

In Israel (20,114), the graduate who proposes to become a family physician works as a full time trainee for two years, one of which is spent in a health centre, following which he spends another year in hospital practice and finally a year's full time study in the Department of Preventive and Social Medicine of the Medical School in Jerusalem, which department, in addition to undertaking research, provides medical care for part of the city of Jerusalem.

In Holland (75), a post-graduate programme of one year's duration is being tried, of which nine months is spent in general practice. There is some suspicion that this programme is too short and may have to be lengthened. The subjects included are sociology, developmental psychology, sexology, family medicine, therapeutics for the G.P., cooperation with medical and non-medical persons such as social workers, ministers, priests, lawyers, etc., interviewing techniques, management of practice, administration and so on. Following this theoretical training, the trainee be-

comes an assistant to a G.P. during which time he must write a brief thesis which he is expected to discuss with the course staff as well as with his G.P. trainer. Following this, an aptitude-evaluation test directed toward his aptitude for general practice is conducted and there may or may not be an examination at the end.

- (iv) Other programmes of interest include an *out-patient department based system to teach comprehensive care* to interns, residents and paramedical personnel at St. Paul, Minnesota (103), which puts over the idea of the holistic approach very well to all concerned, and compulsory externship in general practice and public health in Norway (45).

Two other training programmes which do not strictly fit in this classification at this point, but are mentioned here for the sake of completeness, are the Tavistock Clinic seminars in London, England (49), which recognize the need for training of general practitioners in psychotherapy, and the provision of general practice trainers in Australia (15). This is a scheme devised by the Australian College of General Practitioners which provides two full time G.P. trainers for each State for a period of one to two years. These experts then visit all general practitioners in their State to advise and help them with the organization of their practice, post-graduate activities and so on.

6. Summary

Some of the factors involved in the "crisis in family practice" are reviewed and the continuing and increasing need for family doctors is stressed. The need for specialists in family medicine rather than old style general practitioners is described, together with some suggestions which may help us reach towards this goal. Finally, an outline of some current programmes and experiments in training for family practice is given, with the plea that some of these, particularly that at the University of Zagreb in Yugoslavia receive study in depth as to their suitability for adaptation for use in Canada. □

References

The following is a selective list of references only. The complete reference list can be obtained from the author.

1. Editorial - N. S. Med. Bull. XLIII, 302, 1964.
2. Gendron - "Is the Family Doctor Vanishing", MacLean's, Nov. 16, 1964 p. 21.
3. Martin - "The Role of the General Practitioner in Medical Teaching" - J. Amer. Med. Assoc., 184, 769, 1963.
4. Editorial - J. Amer. Med. Assoc., 185, 208, 1964.
5. Datagrams - Vol. III, No. 9. Mar. 1962, Assoc., Amer. Med. Colleges.
6. Scott - "Undergraduate Education for Family Practice" - Can. Med. Assoc. J., 88, 769, 1964.
7. Report of Coordinating Committee on Education, Second Conference on Education for General Practice - Toronto, Nov. 1963, sponsored by Assoc. Can. Med. Colleges, and College of General Practice of Canada, Page 229.
8. Rice - "The Role of the General Practitioner in Undergraduate Medical Education" read before International Conference on General Practice, Montreal, Mar. 1964, sponsored by College of General Practice of Canada.
9. McKeown - "The Future of Medical Care Outside the Hospital" - Proc. R. Soc. Med., 57 (4), 265, 1964.
10. Jones - Address to Medical World Conference on General Practice: "Planning for the Future", Cardiff, Wales, May 24, 1964 - Brit. Med. J. 1, 1502, 1964.
11. "The Work of the Family Doctor" - Special Article, Lancet, II, 727, 1963.
12. Haggerty - "Etiology of the Decline in General Practice" - J. Amer. Med. Assoc., 185, 179, 1963.
13. Editorial - Lancet, II, 231, 1963.
14. Rorie - "General Practice in North America", Lancet, I, 97, 1963.
15. James - "The General Practitioner of the Future", New Eng. J. Med., 270, 1286, 1964.
16. "Announcement of Research Project" - N. S. Med. Bull., June, 1964.
17. Rardin - "A Reappraisal of Today's Family Physician", J. Amer. Med. Assoc., 182, 545, 1962.
18. Cahal - "The Image", J. Amer. Med. Assoc., 185, 183, 1963.
19. MacLeod - "Reaction from the Medical Schools", read before the Second Conference on General Practice, Toronto, Nov. 1963, sponsored by Assoc. Can. Med. Colleges and College of General Practice of Canada, page 223.
20. Culver - "Medical Care: Its Social and Organizational Aspects; Premedical Education and the Selection of Medical Students", New Eng. J. Med., 269, 78, 1963.
21. Hannah - "Medical Education & Practice in Europe; a Comparative Study", Can. Med. Assoc. J., 90, 856, 1964.
22. Silver - "Family Practice: Resuscitation or Reform?" J. Amer. Med. Assoc., 185, 188, 1963.
23. Lennard & Lennard - "General Practice and Medical Training in North America", Lancet, I, 40, 1963.
24. Glen - "Report of Delegate to Medical World International Conference on Organizing Family Doctor Care", N. S. Med. Bull., XLII, 197, 1963.
25. Peterson, Lyden, Geiger, & Colton - "Appraisal of Medical Students' Abilities as Related to Training and Careers after Graduation", New Eng. J. Med., 269, 1174, 1963.
26. Gass - John Stewart Memorial Lecture, N. S. Med. Bull., XLI, 188, 1962.
27. Lord Brain - In Address to House of Lords, 22nd Jan. 1964, Lancet, I, 264, 1964.
28. "Crisis in General Practice" - Leading article, Brit. Med. J. 1, 851, 1964.
29. Brief to the Royal Commission on Health Services - from the Med. Soc. of N. S., Halifax, N. S., 67, 1961.
30. Susser - "The Future of Medical Practice Outside the Hospital", Lancet I, 315, 1963.
31. "General Practice Outmoded?" - Leading article, Brit. Med. J., I, 1245, 1963.
32. "Health Charter for Canadians" - Report of Royal Commission on Health Services - Canada, I, The Queen's Printer, Ottawa 12, 1964.
33. Charron - "Health Services, Health Insurance and their Inter-Relationship" - Dept. National Health and Welfare, Ottawa, 76, 1964.
34. Report of Second Conference on Education for General Practice, Toronto, Nov. 1963, sponsored by Assoc. of Canadian Medical Colleges and College of General Practice of Canada, 213.
35. Clute - "The General Practitioner", Univ. Tor. Press, 399, 1963.
36. Symposium on "General Practice and the Tavistock Clinic Seminars" - Lancet, I, 1317, 1963.
37. Clyne - "Psychotherapy by General Practitioners", Proc. R. Soc. Med., 56, 832, 1963.
38. Brocard - "The General Practitioner and Education", read before International Conference on General Practice, Montreal, 1964, sponsored by College of General Practice of Canada.
39. Crombie - "The Defects of General Practice" - Lancet, I, 209, 1963.
40. Macasae - "Undergraduate Education in the Philippines", read before International Conference on General Practice, Montreal, March, 1964, sponsored by College of General Practice of Canada.
41. Editorial - Can. Med. Assoc. J., 90, 647, 1964.
42. Craddock - "The Good General Practitioner and the National Health Service", Brit. Med. J., II, 673, 1963.
43. Brief to the Royal Commission on Health Services by College of General Practice of Canada, Toronto, Ontario, 1962.
44. Glen - "General Practice in Canada - The Relationship Between the Canadian General Practitioner and the Hospital Services" - N. S. Med. Bull., XLII, 109, 1963.
45. Soutter - Medical Care: Its Social and Organizational Aspects: The Variable Curriculum - Continuing Changes in Medical Education", New Eng. J. Med., 269, 1963.
46. Stephenson - "Report of Co-ordinating Committee on Education of College of General Practice of Canada", Coll. Gen. Practice of Canada Jnl., 10, 21, 1964 (see also Ref. No. 10 above)
47. Stewart - "The Adequacy of Education for General Practice: A Medical Educator's Viewpoint", Can. Med. Assoc. Jnl., 88, 712, 1963.
48. Tuckey - "Internship and Residency Training for General Practice" - read before International Conference on General Practice, Montreal, 1964, sponsored by College of General Practice of Canada.
49. Royal Commission on Health Services, Canada, I, The Queen's Printer, Ottawa, 251, 1964.
50. Summary of Group Discussions - Report of Second Conference on Education for General Practice, Toronto, Nov. 1963, sponsored by Assoc. Can. Med. Colleges and College of General Practice of Canada.
51. Curwen - "General Practice and the Ladder", Brit. Med. J. II, 54, 1964.
52. Dietrick & Berson - "Medical Schools in the United States at Mid-Century", McGraw Hill, New York, 285, 1953.
53. Pinsent - "Advances in General Practice", Practitioner, 191, 523, 1963.
54. Report on Conference on Training for General Practice, Toronto, Nov. 1962, 771, College of General Practice of Canada.
55. Rardin - "Family Practice: An Emerging Specialty with An Exciting Future", The New Physician, May, 1963.
56. Rardin - "Family Practice: A Concept or Reality?" Ohio G. P. News, June, 1964, p. 5.
57. Report on University of Kentucky Conference on Family Practice, March, 1964, Ohio G.P. News, June, 1964, p. 8.
58. "The Contribution of the G.P. as a Teacher" - Report on Second Conference on Education for General Practice, Toronto, Nov. 1963, sponsored by Assoc. of Can. Med. Colleges and College of General Practice of Canada.
59. Clyne - "The Three Faces of Joan" - Lancet, I, 1270, 1964.
60. Baker - "The Holistic Concept of Medical Education", Can. Med. Assoc. Jnl., 90, 1325, 1964.
61. Royal Commission on Health Services, Canada, I, The Queen's Printer, Ottawa, pp. 100-101, 1964.
62. Editorial, quoting Platt - Lancet, I, 367, 1964.
63. Final Report of Committee on Preparation for General Practice - J. Amer. Med. Assoc., 170, 681, 1959.
64. J. Amer. Med. Assoc., 170, 1075, 1959.
65. Annotation "Training for General Practice", Lancet, I, 968, 1964.

References continued on page 104.

My First Dozen

DONALD C. BROWN, B.Sc., M.D., M.C.G.P.

Amherst, N. S.

This is a report on a five year study of what I have found to be one of the most rewarding aspects of general practice. By sharing my experience of cancer detection with you, I hope to encourage all physicians to do routine Papanicolaou tests during all pelvic examinations.

I was convinced before graduating in 1959 that the Papanicolaou smear as a routine procedure was very important, consumed very little time, and was well worth the effort. As a student and interne I remember seeing a lady dying a painful, slow, agonizing, humiliating death. I say humiliating because in her particular case during the terminal phase of the disease it was necessary to have incense burning to try and make the odor of necrotic human tissue more bearable; needless to say this lady was further humiliated and depressed to hear two passersby making wisecracks about the incense. At that time I decided to do all in my power to prevent this same situation from occurring in my practice, especially to patients coming to my office in consultation.

We are very fortunate in Nova Scotia to have at our disposal the means to make terminal stages of cancer of the cervix very rare. If every practitioner makes an all out effort to encourage female patients to have a check up, pelvic exam., and Papanicolaou smear, we can prevent a lot of suffering and early maternal death and decrease the number of young motherless children in our practices and in our Province.

METHOD:

I would like to impress on you the facility of this test, the very small amount of time needed, and to show that it is quite practical in general practice. The technique for doing "pap" smears is extremely simple and the equipment is inexpensive. The equipment required is as follows: vaginal speculum; tongue depressor; ordinary glass microscope slides; glycerin; isopropyl alcohol; requisition form for cytology examination; mailing container and wooden blocks.

Insert a dry vaginal speculum. Inspect the cervix. Rotate the end of a tongue depressor against the external os of the cervix and then spread this evenly and thinly on a clean dry slide, immediately drop it in a jar of isopropyl alcohol. I then use the other end of the tongue depressor to

pick up some material from the posterior fornix and spread it on another slide. Some people put both specimens on one slide. Allow at least 30 minutes or overnight for the alcohol to act, then remove, place a drop of glycerin on the smear surface and put the two slides from the same patient together in a grooved block of wood, wrap in a completed requisition form and mail them in an addressed envelope to the Pathology Institute. I use a small jar with a screw top for the isopropyl alcohol to soak the Papanicolaou smears. I mark the end of each patient's slide with different shaped adhesive tape if I have a number of slides in the jar at the same time. Some days I do as many as six "paps". I fill in the requisition form while I am doing the patient's history and mark the top of the form with the designated mark on the patient's slide in the jar. Another alternative is to mark the slide with paper clips. This whole procedure takes less than two minutes and if you have your receptionist marking the slides and mailing them, it takes less than one minute.

I think this is really filling "the unforgiving minute with sixty seconds' worth of distance run," At first I used the ether and alcohol mixture but found that this evaporated too quickly. When I find a lot of sediment and material in the solution I throw out the old isopropyl alcohol.

CASES:

One: Mrs. L. R., age 29, first seen in October 1959, stiff neck and chest pain. No change in menstruation. Routine pelvic examination and Papanicolaou smear was done. Cervical erosion present which bled to stick test. Pathology report; suspicious of cancer. Repeat Papanicolaou report was positive. Referred to the Tumour Clinic. Vaginal hysterectomy was done in October and reported as cancer in situ. June 1964, patient doing well. I remember in 1959 how pleased I was to have diagnosed my first case of carcinoma in situ of the cervix. At that time I remember thinking that if I did a 1000 more Papanicolaous and did not find another case of carcinoma in situ that my labors would be well worth while.

Two: Mrs. M. H., age 45, five living children. July 19/60, Papanicolaou - reported as abnormal cytology but as most epithelial cells showed dried out appearance the specimen was unsuitable for

accurate cyto diagnosis. There was a mild cervical erosion clinically. Papanicolaou was repeated August 30/60 and reported as suspicious. Erosion was still present on the cervix and on the endocervix. Papanicolaou repeated on Sept. 13/60 showed epithelial cells present which were slightly atypical but not malignant. The cervix was enlarged, seemed hard. The erosion was treated and Papanicolaou was repeated in December 1960 and reported as "estrogen" effect slightly increased, atypical findings and no definite evidence of malignancy. Papanicolaou was repeated on Feb. 11/61, reported as; "estrogen seems to be increased, cytology very strongly suggestive of malignancy". The cervix at this time looked entirely normal. It was felt that conization was now indicated. The patient was referred to the Victoria General Hospital with a diagnosis of carcinoma in situ of the cervix. On March 6/61 she had a conization and D & C which showed cancer in situ. She had a vaginal hysterectomy on March 10/61 which showed no evidence of residual carcinoma in situ. The patient has had regular follow ups in my office and at the Tumour Clinic. On May 16/64, she was examined at the Tumour Clinic, "patient feels well, appetite is good, energy pretty good, no rectal or bladder symptoms, on examination the pelvis is free of growth, good result. Papanicolaou smear is class 1, no malignant cells found."

Three: Mrs. S. W., age 41, was first seen Nov. 1/61, complaining of a lump in her throat of two months duration. Functional inquiry revealed that her periods were slightly heavier during the last year, lasting four to five days regular every 28 days. States she has a nonirritating discharge. Examination reveals cervical erosion. Routine Papanicolaou was done and reported as atypical squamous metaplasia or in situ carcinoma of the uterine cervix, an inflammatory picture, trichomonas vaginalis. Dec. 5th. a D. & C. and cold knife cone biopsy of the cervix was done. Pathology report was carcinoma in situ of the cervix and normal endometrium. On Dec. 28th. an abdominal hysterectomy and bilateral salpingo-oophorectomy was done. Pathological report: hysterectomy specimen showing residual foci carcinoma in situ changes in the cervix, uterine leiomyomata. Check up in March 1964, normal pelvis. Papanicolaou reported as normal. Patient doing well.

Four: Mrs. D. B., age 45, seen in November 1960 a note was sent down by one of the children asking for some tablets that a previous doctor had given her for her nerves. Patient was told to get into the office for a check up. Despite repeated requests, it was September 1961, before the patient was admitted to hospital for investigation of hemoptysis. While in hospital, a routine Papanicolaou was done showing questionable changes in cytology. October 5th Papanicolaou reported "a few atypical cells seen, "repeat as soon as possible". October

31st, Papanicolaou report "marked inflammatory picture, trichomonas vaginalis two plus, cytology suggestive of malignancy". Pelvic examination revealed mild prolapse and a very small cervical erosion on the posterior lip. Jan 9th a D. & C. and a cold knife cone biopsy of the cervix was done. Pathology report: "intraepithelial carcinoma of the cervix. Jan. 16th a total hysterectomy was done. Pathology report: "No residual tumor in hysterectomy". As expected follow up was difficult. Patient was finally examined in June 1964 by present physician where she lives and reported all clear, patient doing well. Cytology report: "No malignant cells".

Five: Mrs. N. S., age 39, three children. Patient was seen in March 1962 complaining of low backache and premenstrual dysuria, complaining of an irritating discharge before the periods, which were heavier for the past six months. Pelvic examination revealed a cervical erosion and vaginitis. Routine Papanicolaou was done and patient was treated with triple sulfa tablets and vaginal cream. Papanicolaou reported: "dyskeratotic cells suggestive of early malignancy, biopsy recommended". April 10th, D. & C. and cold knife biopsy of the cervix was done. Pathology report: "carcinoma in situ of the cervix. April 18th an abdominal hysterectomy and an appendectomy was done. Pathology report: "no residual tumor present." Follow up was unsatisfactory. The patient did not answer letters; finally was examined for the first time by the physician in her area on April 1964. The vault was clear. Papanicolaou report: "class ii, negative for malignant cells".

Six: Mrs. D. C., age 35, three children. Patient was first seen on September 7th, 1962 complaining of a rash on the abdomen and pubic region for two weeks. It was explained to the patient it was necessary to do a pelvic exam; she very timidly consented. Examination revealed a mild cervical erosion. Routine Papanicolaou was done and reported as: "suggestive of dysplastic lesions of the endocervix associated with focal ca-in-situ". October 9th, a cold knife cone biopsy of the cervix and a D. & C. was done. Pathology report: "carcinoma in situ of the cervix". October 16th an abdominal hysterectomy was done. Pathology report: "no evidence of residual carcinoma in situ". Follow up was good, last examination revealed the vault to be clear and Papanicolaou report: "no malignant cells," March 1964, patient doing well.

Seven: Mrs. I. B., age 25, five children. Patient was first seen on April 4, 1963, giving a history of abdominal pain of one day, irregular periods lasting from five to thirty days occurring every 28 days and a white irritating discharge. Pelvic examination revealed a mild cervical erosion, retroversion and P.I.D. Routine Papanicolaou was done and reported as: "class deferred, cytology suggestive of a florid dysplasia of the endocervix,

however, the possibility of focal ca-in-situ cannot be completely ruled out, repeat in two or three months is highly recommended". Patient continued to bleed heavily so on April 23rd a D. & C. and a cold knife cone biopsy of the cervix was done. Pathology report: "proliferative endometrium and carcinoma in situ of the cervix". On April 30th an abdominal hysterectomy was done, pathology report: "uterus and denuded cervix containing no residual carcinoma". Follow up was good, last check up in April 1964, vault is clear and Papanicolaou report "no malignant cells". Patient is doing well.

Eight: Mrs. F. T., age 33, gravida nine, para six. She gave a history of heavy period and post coital bleeding of one month. Papanicolaou was done. Examination revealed a suspicious looking cervical erosion on the anterior and posterior lip of cervix which bled to the stick test. Reported as "class IV, fairly conclusive evidence of malignancy, cytologic findings consistent with ca-in-situ associated with a florid dysplastic lesion, an early invasive squamous cell carcinoma cannot be completely excluded". On Nov. 19th a D. & C. and conization of the cervix was done. Pathology report: "proliferative endometrium and preinvasive carcinoma of the cervix". Nov. 26th/62, a hysterectomy was done, pathology report: "no residual evidence of carcinoma". Follow up examination in June 1964, patient feels well, the vault is clear and clean. Papanicolaou report: "class I no malignant cells found". The only complaint is loss of sexual desire.

Nine: Mrs. V. S., age 39, six children. Was first seen on April 30, 1963, complaining of feeling tired and draggy for six weeks. Since the last regular menstrual period April 5th she has had spotting p.v. Pelvic examination revealed: "previous uterine suspension, cervix looked good, adenexa was clear, uterus was anterior and normal size. Papanicolaou was done and reported as "class III, cytology suggestive of a florid dysplasia of the endocervix associated with ca-in-situ". On May 14th a fractional D. & C. and a cold knife cone biopsy of the cervix was done. Pathology report: proliferative endometrium and carcinoma in situ of the cervix". On May 18th an abdominal hysterectomy was done, pathology report: "there is one small focus of veritable carcinoma in situ, there is no invasive carcinoma. Diagnosis: uterus showing residual carcinoma in situ of the cervix". Follow up, the patient was seen March 1964 complaining of nervousness, weight gain, and dyspareunia. Pelvic examination, the vault is clear, some inflammation of mucosa. Papanicolaou reported: "class II, mild inflammatory reaction. The patient doing well.

Ten: Mrs. M. B., age 36, two children. Patient was first seen on April 8, 1963 complaining of tiredness and a yellow vaginal discharge premenstrually. Pelvic examination revealed erosion of the cervix

which bled easily to touch, my impression was chronic cervicitis and vaginitis. Papanicolaou was reported: "class deferred, cytology was suggestive of atypical squamous metaplasia of the endocervix associated with possible ca-in-situ. A repeat in two months is recommended". July, pelvic examination revealed cervical erosion which bled easily and looked suspicious. Repeat Papanicolaou report: "class deferred and marked cellular atypia associated with some dyskariosis is noted, cytology findings are suggestive of a florid dysplasia of the endocervix, a focal carcinoma in situ cannot be ruled out, a close follow up study is recommended in two or three months." Because of this suspicious looking cervix a D. & C. and a cold knife cone biopsy was done on August 6, 1963. Pathology report: "secretory endometrium, chronic cervicitis with atypical squamous metaplasia and foci of ca-in-situ". August 19th an abdominal hysterectomy was done. Pathology report: "class II, foci of some slightly atypical squamous epithelium, but no residual foci of in situ changes and no residual evidence of malignancy". Follow up was good in April 1964, vault was clear, Papanicolaou report "no malignant cells". The interesting thing is her sister also had carcinoma in situ of the cervix., both sisters doing well.

Eleven: Mrs. W. P., age 49, was seen on April 10th, 1963 complaining of hot flashes, periods heavier, lasting nine to ten days, occurring every 14 to 19 days, has been wearing a pad for nine months for an irritating discharge. Pelvic examination revealed trichomonas, cervical erosion which bled easily, treated with Milibus suppositories. Papanicolaou report: "class deferred, a few ambiguous cells which may arouse some suspicions of an early malignant change of the cervix." Repeat was requested in one or two months following treatment of trichomonas. August 1963 pelvic examination revealed cervical erosion, looks suspicious. Papanicolaou report: "class III, occasional suspicious cells are noted in the smears containing a few marked atypical cells. Cytologic findings are suggestive of focal ca-in-situ associated with florid dysplasia of the cervix." August 27th a D. & C. and cold knife cone biopsy was done, pathology report: "a squamous cell carcinoma in situ of the cervix and chronic cervicitis and atypical hyperplasia of the endometrium". September 9th a total abdominal hysterectomy was done. Pathology report: "no residual malignant changes." Follow up treatment, last seen June 1964 complaining of hot flashes and cramps in the legs. Pelvic examination, Papanicolaou report: "class I, no malignant cells," was normal. Patient is doing well.

Twelve: Mrs. D. C., age 38, two children. Was first seen on November 11, 1963, Last normal menstrual period October 10th, spotted daily for one month. The last menstrual period was Nov.

1st. Pelvic examination revealed cervical erosion, treated with Milibus suppositories. Papanicolaou report: "class III, only a few suspicious cells noted, cytologic findings suggestive of focal carcinoma in situ associated with dysplasia of cervix". November 22nd a D. & C. and cold knife cone biopsy of the cervix was done. Pathology report "secretory endometrium and carcinoma in situ of the cervix". On December 5/63 an abdominal hysterectomy was done. Pathology report: "no residual in situ changes." Follow up is good, the last check up was in May 1964. The pelvic exam and the Papanicolaou smear were normal.

METHOD OF FOLLOW UP:

I have developed a method of recall and follow up which I find satisfactory and works quite well in rural practice. The results of all Papanicolaou smears of course are entered on the patient's record. If the report is normal it is filed away. However, if it is advisable to repeat the Papanicolaou in two or three months the report is filed away in a special folder: "FUTURE PAP APPOINTMENTS". When the time arrives for a repeat Papanicolaou smear, the patient is called or a short note is sent with an appointment. My receptionist looks after this phase of the follow up, we find it works very satisfactorily.

During the pelvic examination I explain what the test is, and a bit about the processing of the slide. I stress the importance of having one done annually. I also tell her how much simpler and effective the treatment is when the case is picked up while the cancer has not spread.

I have found this particular aspect quite fruitful as these ladies very often talk about their test to their friends and neighbours who frequently come in for examinations or go to their own family doctors requesting Papanicolaous. Of course you really get the results of education when you finally make a diagnosis of cancer in situ. I find these patients tell their friends freely about their operation and their good fortune about having "caught it early".

You may wonder how many Papanicolaous I have done to diagnose twelve carcinomas in situ of the cervix. I sent 36 slides in 1959; 27 slides in 1960, (this is an eight month period); 546 slides in 1961, 1962 and 1963; 175 slides to the end of May 1964. So you see I haven't even finished my first thousand yet and I have one dozen cases since the first one in 1959.

I will just briefly mention the other cases of cancer of the cervix which have appeared in my practice.

Case "A": Mrs. S. B., age 54, cancer of the cervix, stage one, diagnosed October 1962. March 1964, doing well.

Case "B": Mrs. P. C., age 44, cancer of the cervix, stage one, diagnosed De-

ember 1962. March 1964, doing well.

Case "C": Mrs. A. G., age 31, cancer of the cervix, stage two, diagnosed April 1963. March 1964, doing well.

DISCUSSION

12 cases of carcinoma in situ of the cervix have been presented with a brief outline of each case. Three cases of invasive carcinoma of the cervix are briefly mentioned; two of these cases, A. & C. were diagnosed clinically. Case B. was diagnosed after biopsy of a suspicious looking lesion on the cervix. These 15 cases are the total number of carcinoma of the cervix that were present in my practice and diagnosed by myself in my first five years of medical practice.

Fortunately I did not have any cancers of the cervix in stage three or four, this may have been an accident or maybe I have just not practiced medicine long enough. However, I think by doing routine Papanicolaou smears during the course of pelvic examinations the likelihood of having one of these advanced lesions can be greatly reduced. One thing that is quite evident from this series is **the very high percentage of cancers-in-situ of the cervix as compared to the invasive cancers of the cervix in a series of a physician who does routine Papanicolaou smears.** If one looks at the figures of the Province of Nova Scotia, we see that in 1943 there were no cancers of the cervix diagnosed at stage O. In 1953 the percentage had risen to 5.1, 1962 to 38.4, in 1963 53% of all cancers of the cervix were carcinoma-in-situ or stage O. We should aim high and try to have 75% of our cancers of the cervix diagnosed in stage O in five years time. I plan to diagnose more than 15 carcinomas-in-situ in the second five years of practice and I am convinced that this can be done. Our task is not to attempt what lies dimly in the distant but to do what lies clearly at hand.

Having read this far you may wonder why I am relating my experience to you in this field and what I hope to gain from the time and space taken in *the Bulletin*. Well what really prompted me to action was the annual report of the uterine cancer detection program of The Medical Society of Nova Scotia for the year 1963. I think it was really the first numbered paragraph in this report which reads: "The number of cytologic examinations has increased but the rate of growth has not been as rapid as in the previous years. While we can only estimate the number of doctors using cytology in their practice, it does not appear to have increased. From various sources it is obvious that certain doctors simply do not do Papanicolaou smears on their female patients. We hope that doctors who have had satisfactory results from cytology will influence their colleagues. There is nothing so convincing as satisfactory personal experience."

This is my effort to try and share my experience with you with respect to doing routine Papanicolaou smears. I hope those reading this article will make a greater effort to cultivate the habit of doing routine Papanicolaou smears during the course of pelvic examinations and encourage their patients to have pelvic examinations.

When we look at the annual report for the year 1963, we see that almost a quarter of the appropriate group has now been tested at least once. But we also see that the percentage of practising doctors using cytology is still under 70%. The number of cytology cases tested doubled from 60 to 61 and from 61 to 62 but this trend has dropped off in 1963 with less than a third increase in the number of cases tested. There are still too many people in Nova Scotia who begin treatment with well advanced disease, there are still over four thousand unsuspected cases of actual or incipient uterine cancer.

This has been a five year study of the results of doing routine Papanicolaou smears in my general practice from June 1, 1959 to June 1, 1964. I wish to emphasize that I have found this a very worthwhile and most rewarding aspect of my medical practice. Especially important is the fact that this is not a time consuming procedure. I think that Dr. Wilder Penfield has put very well what I want to say, "To gather knowledge and to find out new knowledge is the noblest occupation of the physician. To apply that knowledge with sym-

pathy born of understanding, to the relief of human suffering, is his loveliest occupation."

SUMMARY

Twelve cases of carcinoma-in-situ of the cervix are presented with two cases of stage one and one case of stage two invasive carcinoma of the cervix. The diagnosis of these cases is made possible by the routine use of the Papanicolaou smear. The equipment needed is listed and the method briefly presented. A satisfactory method of recall and follow up is suggested. The importance of doing Papanicolaou smears is stressed. The chief aim of this paper is to encourage all physicians to do routine Papanicolaou smears when they are doing pelvic examinations.

I wish to express my thanks to Dr. N. G. Glen, Amherst, Nova Scotia for his kind assistance in the preparation of this paper. □

Editor's Note:

Since this paper was submitted, the author reports that he has found a further four cases of carcinoma in situ of the cervix.

Bibliography

1. Annual report of the uterine detection program, Medical Society of Nova Scotia, 1963; S. C. Robinson, M.D., Director.
2. Wilder Penfield, *The Second Career*; Little, Brown and Company, Boston, Mass., and Toronto, Ontario, 1963, P-166.

PRACTICE AVAILABLE

Excellent opportunity for physician to take over well-organized general practice in small Nova Scotia community. Office conveniently located in Hospital. Adequate income assured. Attractive eight room house with basement garage for sale. Terms negotiable. Owner leaving June 1st, 1965.

Apply to Box 100, Nova Scotia Medical Bulletin.

F. GORDON ROBERTSON, C.L.U.

NORTH AMERICAN LIFE ASSURANCE COMPANY

ESTATE PLANNING — DEFERRED AND IMMEDIATE ANNUITIES

Representative for Medical Society Group Life Plan

Bank of Canada Bldg.
123 Hollis St., Halifax

Phone: Office 423-7144
Residence 423-2198

Our clinical experience confirms the findings of a growing body of workers in the United States and Europe who have used this substance over a period of time approaching three and a half years . . . This new preparation appears to be a safe and clinically effective therapeutic agent in situations in which parenteral iron is indicated.—Dorothy C. H. Ley, M.D., B.Sc.(Med.), F.R.C.P.(C) Toronto and S. C. Robinson, M.D., Halifax, N.S., Canadian Medical Association Journal, August 8, 1964.
 — reprints of complete article and full Jectofer disclosure available on request.

JECTOFER

(Iron Sorbitol)

**New Intramuscular Therapy
 Reverses Iron Deficiency
 EARLY IN PREGNANCY
 LATE IN PREGNANCY
 AFTER DELIVERY**

ASTRA Pharmaceuticals (Canada) Ltd.,
 COOKSVILLE ONTARIO

654

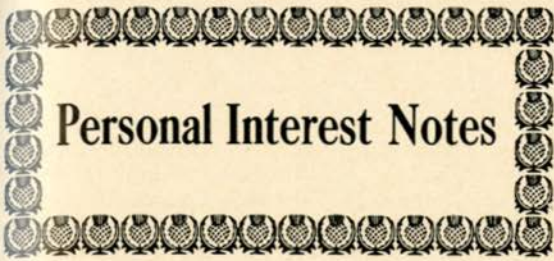
STENORETTE



IT IS THE EASIEST TO USE DICTATING MACHINE YOU CAN OWN TODAY. A FULLY EQUIPPED PRECISION-BUILT ELECTRIC MARVEL, EMPLOYING MAGNETIC TAPE AND INCORPORATING MANY FEATURES TO SAVE YOU VALUABLE TIME.

FOR A FREE TRIAL
 CALL US TODAY





Personal Interest Notes

A sign of spring even more reliable than the proverbial groundhog, is the opening of the Legislative Assembly for the province of Nova Scotia in February of each year. Six medical doctors and one dentist are in attendance at this session. Dr. M. A. Laffin called for the assistance of the government in seeing that an early start was made in the construction of the provincial trades training and technical centre in Cape Breton and also for aid to New Waterford for its new high school because of local conditions. Dr. Laffin's address in reply to the Speech from the Throne was said to be his finest effort since his election to the House. He was informed that a branch of the Workmen's Compensation Board will open in Sydney shortly. Dr. Tom MacKeough, MLA from Cape Breton North, introduced a private bill early in March that would permit municipal officials to do business with their own municipal units up to \$1000.00. It is interesting to note that in Britain's Parliament at the present time there are ten doctors, four of them newcomers which hold seats representing Oxford, Glasgow, London and Birmingham. One of them, Dr. Shirley Summerskill is the daughter of a former woman M.P.

ANTIGONISH-GUYSBOROUGH

Dr. and Mrs. J. J. Carroll have lately been in Florida for a short vacation. Dr. and Mrs. J. J. MacDonald attended the annual meeting and banquet held in Truro of the Truro Philatelic

Society of which Dr. MacDonald is vice-president.

NORTHUMBERLAND HEALTH UNIT

Dr. Stuart D. Dunn, a native of Pietou and Director of the Northumberland Unit is at present a member of the committee which is setting up a Mental Health Clinic for Pietou. He graduated from Dalhousie at the age of 23 and practised in Stellarton for a short time and then took postgraduate work at the Montreal General Hospital in Surgery. After 15 years of private practice in Pietou he took a Public Health course in Toronto, and is now in charge of this unit guarding the health of 72,000 with a staff of eleven nurses, two inspectors, etc.

CAPE BRETON

The Cape Breton Health Centre was officially opened in its new location at the Shopping Plaza at Sydney River on February 10th. There are seven offices in addition to a playroom for children. Dr. Mian, a native of Pakistan, who received his training in the U.S.A., has joined the staff as Psychiatrist, as an addition to Dr. Cornelius Donovan and Dr. Eily McDonagh. More than 4400 patients were served by the clinic last year, not including patients seen in hospitals or prisons.

Dr. J. S. Robertson, Deputy-Minister of Health for Nova Scotia was the guest speaker at the opening.

Dr. Lila Aquino of Montreal has assumed her duties as Radiologist in the City of Sydney Hos-

pital. Dr. Aquino received her postgraduate training in the Bellevue and Mt. Sinai Hospitals, New York City and for the past year has been in the Montreal Children's Hospital and the Royal Victoria Hospital, Montreal.

Besides gaining a daughter (see below), Dr. Albert Prossin has now associated with him in practice Dr. Peter Jackson who has recently come from England.

Dr. R. Ellecker has recently returned from a trip to England.

Dr. Malcolm MacAulay is welcomed back to Sydney. For the past few years he has been in Halifax.

Dr. Nicola Boffa, now practising medicine at Louisdale has opened an office in the rooms formerly occupied by Dr. C. A. Herbin in Arichat, C.B.

Dr. L. A. Skinner, North Sydney Medical Examiner, has recently been advised by Dr. S. H. Kryszek, Director of Emergency Health Services that a Zone advanced Treatment and Casualty Collecting Unit will shortly be set up at Kelly's Beach in a building formerly used by both army and R.C.A.F.

SYDNEY now has its own Medical Arts Building with offices for approximately ten medical practitioners.

Dr. M. B. Shaih was married recently to Miss Hermine McGee of Sydney Mines by Judge George Morrison in a County Court ceremony. We extend our felicitations.

HALIFAX

The massive migration of the Halifax Medical Community to the smooth slopes of Wentworth Valley on most week ends is reminiscent of the march of the lemmings to the sea. Dr. Gordon Hatcher has been training the Safety Patrol in his capacity as medical adviser. All skiers have been impressed by the efficiency of the patrol this year. Drs. Ernst, Casey and Starratt are ardent followers of this rapidly growing winter sport. The paediatric community is well represented

with Drs. Henry Ross, Rudy Ozere, Ken Scott and Ulrich Weste all being seen on the slopes from time to time.

Dr. and Mrs. W. A. Cochrane have recently returned from Florida where Dr. Cochrane was visiting professor at the University of Miami. Dr. Tony Trias has recently become a Diplomate of the American Board of Orthopaedic Surgery. Dr. Trias wishes to state emphatically that the rumors that he was married during his European vacation have been somewhat exaggerated.

Dr. and Mrs. Ralph Smith have recently left for a winter holiday in the Canary Islands.

Dr. and Mrs. R. S. Murphy recently returned from a winter holiday in Florida.

Dr. and Mrs. Luther MacKenzie of Bedford were in New York recently. Dr. MacKenzie dedicated a bronze tablet commemorating the establishment of the new Medical Centre at New York University.

Dr. Nicholas I. E. Nemethy spoke to the Halifax branch of the Canadian Diabetic Society at their March meeting, on the care of the skin as it affects diabetics. Dr. Nemethy is associate professor of Anatomy at Dalhousie, a Fellow of the Royal Society of Canada and a member of the International Society of Tropical Dermatology and the American Academy of Dermatology.

Dr. Ethel Periera was one of the speakers to the V. G. H. Alumni Nurses Association recently on the problems in India where ignorance, disease, poverty and lack of education hinder both doctors and nurses so terribly.

Not only Antigonish doctors go south for vacations in early spring. Drs. Murray Davis and James Purvis and their wives went to Jamaica or Antigua for a short break.

VALLEY

Dr. Percy McGrath, Kentville's well known physician, past president and member of Rotary since 1928 had the honour of

cutting the birthday cake honouring the 60th year of Rotary International.

Dr. Eldon Lewis Eagles, native of New Brunswick, graduate of Dalhousie Medical school, and for 15 years a member of Nova Scotia Public Health department in various positions, at present associate research professor of maternal and child health at the University of Pittsburgh School of Public Health, has been appointed to the newly established position of assistant director of the U.S. National Institute of Neurological Diseases and Blindness as of August next. Dr. Eagles is a member of three public health service advisory committees for hearing problems, and of various professional organizations especially dealing with hearing loss on which he has also written several articles.

CUMBERLAND:

The Annual Meeting of the Cumberland Medical Society was held in Amherst during February, presided over by Dr. Arnold Burden of Springhill. This was followed by a dinner for the members and their wives.

Special guests included Dr. T. Gorman, Antigonish, provincial president and Dr. C. J. W. Beckwith, executive secretary of The Medical Society of Nova Scotia and Dr. A. W. Titus, medical director of Maritime Medical Care who was the guest speaker at the dinner.

LUNENBURG-QUEENS:

A two-day Staff Conference on Public Health was held recently in Bridgewater for the local health unit. A contributing speaker was Dr. Douglas Longden of the South Shore Mental Health Unit. Dr. Stanton was in attendance. A buffet supper was held at the home of Dr. and Mrs. W. I. Bent. Dr. Bent, along with Drs. E. M. Fogo, H. B. Colford and Dr. G. M. Smith recently attended the eighth annual refresher course of the Toronto School of Hygiene.

The ANNUAL MEETING of the Lunenburg-Queens Medical Society was held on February 10th at the Fairview Hotel, Bridgewater. Guests were Dr. Thomas Gorman, Dr. C. J. W. Beckwith and Dr. A. W. Titus.

Dr. A. L. Cunningham was installed in office as President by Dr. Gorman, Dr. E. K. Woodroffe was elected Vice-President and Dr. W. I. Bent as Secretary-Treasurer.

CANCER SOCIETY:

Year after year as the various units of the Canadian Cancer Society hold their annual meeting there appear the names of doctors who give willingly of their time and talent to aid this worthy cause.

In the CLARE UNIT which raised over a thousand dollars last year and provided free transportation for 17 patients, for instance, the following doctors hold office of various sort. The Medical advisers are Drs. Erjavec, and Felix Doucet of Weymouth, Dr. H. J. Pothier, MLA, Beaver River, Dr. Robert Belliveau, Meteghan and Dr. Philip LeBlanc of Little Brook.

In Halifax, **Dr. Margaret E. B. Gosse** is the immediate past president and **Dr. C. M. Harlow** the incoming vice-president.

CONGRATULATIONS:

To Dr. Gordon R. Hennigar, Jr., who graduated from Dalhousie Medical School in 1944 and held residencies at the Victoria General Hospital and Union Memorial Hospital in Baltimore, who has just been appointed chairman of the pathological department of the Medical College of South Carolina. Since 1957, Dr. Hennigar has been with the pathological department of the Medical School of New York State University and supervisor of pathologists at King's County Hospital, N.Y. After an instructorship at Johns Hopkins, he was from 1950-57 an associate professor of Pathology at the Medical College of Virginia.

To Dr. D. F. Sutherland, St. John, N. B. who was recently installed as Fellow of the American College of Obstetrics and Gynaecology. He graduated from Dalhousie in 1943.

To Dr. Emerson Moffitt, Dalhousie 1951, who has been advanced from Lecturer to that of Assistant Professor in the Department of Anaesthesiology at the Mayo Graduate School of Medicine, University of Minnesota, Rochester, Minn.

BIRTHS:

To Dr. and Mrs. Bernard Bradley, Inverness, a son, Andrew David, at City of Sydney Hospital, Sydney, N. S. on February 23, 1965.

To Dr. and Mrs. Carl Dubicki, (née Peggy Carroll), a son, at the Toronto General Hospital on February 25, 1965.

To Dr. and Mrs. Albro MacKeen (née Marilyn Oiler), a son, William Harris, at the Grace Maternity Hospital on February 19, 1965.

To Dr. and Mrs. Albert Prosin (née Andrea Mombourquette), at St. Rita's Hospital, Sydney, C. B., a daughter, Anne Liese, on February 9, 1965.

OBITUARIES:

Dr. S. H. Keshen, 65, died suddenly at his home in Halifax on February 20th, 1965. Dr. Keshen graduated from Dalhousie Medical School in 1920 and took post-graduate study in New York

and Budapest. He was for many years medical examiner for the Halifax Athletic Commission, and at the time of his death, was the vice-president and provincial surgeon of the Nova Scotia Council Order of St. John. We extend our sympathy to his wife.

Dr. J. Edward Knowlton, 75, former chief Surgeon of Quincy City Hospital, Quincy, Mass., died at his home in Stratford, N.H., after a two year illness. He was born in Advocate Harbour and graduated in Arts from Dalhousie and in Medicine from Boston University. He began practice in Quincy in 1917, and was head surgeon at the old Victory Plant at Squantum during World War I.

C. M. A. Convention Halifax, June 14-18, 1965

This year our Convention is being held with the four Atlantic Provinces as hosts, the Nova Scotia Division of the C.M.A. taking the main responsibility for the arrangements.

A varied and interesting scientific program has been organized that should appeal to all physicians. Some of the presentations will be sponsored in co-operation with affiliated societies. The Obstetrical and Gynecological Group will arrange the Tuesday afternoon (June 15) program, the Neurological Society the Tuesday morning and the Psychiatric Association the Thursday afternoon programs.

The ever popular closed circuit T.V. program will run for three days this year and will include local and guest teachers and demonstrations from teaching material at one Halifax Hospital.

Friday afternoon (June 18, 1965) will be the usual "Economics Day" and will highlight panels and discussions of the rapid changes facing Canadian Medi-

cine in the field of Medical Economics.

The Convention will also have its lighter side! With the host societies being the Atlantic Provinces entertainment at the dinner to the General Council and at the Atlantic Lobster Carnival will feature local talent with all the flavour of this area.

Your Entertainment Committee is working hard to make this a memorable meeting and are ably assisted by the Committee on golfing arrangements and a very active Ladies Committee.

Plans are being completed to have the Bluenose II chartered for cruises if enough members signify their interest.

The Ladies Committee is arranging tours - hospitality in various historical and scenic sites in the Halifax area.

A large number of Canadian doctors is expected to attend so we urge you to make your reservations early.

Since most of the Nova Scotian doctors will travel to Halifax by

car we strongly recommend you apply for housing (through Dr. Art Titus, c/o M.M. Care, Halifax, N.S.) to stay at some of the excellent modern motels in the area. Please use the reservation forms as presented in the Canadian Medical Association Journal.

TELEPHONE MESSAGE
CENTER Area Code 902
422-4454

This telephone number is made available for all incoming calls received for our members during the convention (24 hour service). Leave this number with your office or home in case a call is necessary.

This message center is located opposite the registration desk in the Foyer of the Nova Scotian Hotel.

These services are being made possible with the compliments of the Maritime Telegraph & Telephone Company, Ltd., and the Telephone Answering Service Ltd., Halifax.

Family Doctors

References continued from page 94.

99. Vuletic and Jabsic - "Three Years Experience in Training General Practitioners for a Master's Degree in General Medicine", read before International Conference on General Practice, Montreal, March, 1964, sponsored by College of General Practice of Canada. (see also Report on Medical World International Conference on Organizing Family Doctor Care, Medical World, London, 96, 1963; also Jnl. College of General Practice of Canada, 11, 17, 1964)
101. Scott - "Advances in General Practice", Practitioner, 187, 557, 1961.
102. White - "Family Medicine, Academic Medicine, and the University's Responsibility", J. Amer. Med. Assoc., 185, 192, 1963.
103. White - "The Medical Schools' Responsibility for Teaching Family Medicine", read before 'Medical World' International Conference, London, 1962.

105. Clute - "The General Practitioner", Tor. Univ. Press, 1963.
107. Miller - "A System for Comprehensive Medical Care", J. Amer. Med. Assoc., 189, I, 1964.
108. Greenhill and Atkinson - College of General Practice of Canada Jnl., Jan. 1962, p. 22.
109. Rising - "The Rural Preceptorship", J. Kansas Med. Soc., 63, 81-84, 88, 1962.
110. "A Family Practice Residency Program", Ohio G.P. News, June, 1964, p. 15 et seq.
111. Garlan - "Coping with Evolution", read before International Conference on General Practice, Montreal, March, 1964, sponsored by College of General Practice of Canada.
112. "Why An American Board of Family Practice and Family Physicians?" - Ohio Acad. Gen. Pract., Jan., 1963.
114. Yeshurun-Berman, Medical Director, Health Insurance Institute, Kupat Holim, Israel, Personal Communication, Oct. 1962.
117. Scott - J. Med. Educ., 31, 621-634, Sept. 1956.
118. Stewart, Dean of Medicine, Dalhousie University, Halifax, N. S. - Personal Communication, Aug. 1964.

MALPRACTICE !

This word would seem to mean a failure of intent or perhaps a deliberate mistake. In Canada, virtually impossible! As insurance brokers we look at it another way; and regard it as a real or alleged error on the part of a busy man who can be desperately tired through overwork. Malpractice? No indeed, but mistakes can be made and the commercial liability market will guard you utterly. The price? Modest. The worth? Priceless.

ALFRED J. BELL & GRANT, LIMITED

One Sackville Place, Halifax, N. S.

423-9177

Telephone after Jan. 1/65, 429-4150

422-8405

ADVERTISER'S INDEX

Alfred J. Bell & Grant Limited.....	104
Ames Company of Canada Limited.....	I
Arlington Funk.....	IFC
Astra Pharmaceuticals (Canada) Limited.....	100
Connaught Laboratories.....	IBC
North American Life Assurance Company.....	99
Pitman-Moore, Division of Dow Chemical of Canada Limited.....	OBC
Sandoz Pharmaceuticals.....	IV
Seaman-Cross Limited.....	100
Searle and Company (Canada) Limited, G.D.....	III
Smith, Kline & French Inter-American Corporation.....	80
Warner Chilcott Limited.....	II