THE NOVA SCOTIA MEDICAL BULLETIN

Adaptation to Change – Planned or Unplanned?

Much is written today about the extent and speed of change in modern science and its effect on the individual and on society. Few fields have experienced greater change than Medicine. The physician has to cope not only with the explosion of scientific knowledge and technological development but with many of the social and psychological problems of people who are buffeted by change, insecurity, fear and "future shock".

How effectively is our profession adapting to change? Are we doing all that is desirable, or even the minimum, to ensure that the adaptation, which is obviously required, is rationally based?

The medical educator is, of necessity, concerned with this process of adaptation to change. How should the physician of the future be educated so that he may deal effectively with the extreme fluctuations in the art and science of Medicine, and with health problems related to the rapidly changing life patterns of his patients? But the medical educator should not be alone in his concern about these problems. He must work in concert with the professional organizations, licensing bodies, other health professions, government and society as a whole. Each has its own goals and philosophy – or has it? In any event, each has a voice, which must be heard, and often it is a loud one. The medical educator is, or should be, in the vanguard of a rapidly moving front. He is often baffled by the din and furor of the advance. In fact, he may sometimes wonder if it is an *advance.* At times, it is difficult to know whether his part of the front is moving forward, backward, or just jiggling up and down!

These observations – and questions – are prompted by two recent events. An opportunity to read Dr. Donald Brown's excellent description of the Dalhousie Family Medicine Centre, published in this issue, called to mind some of the discussions on the future of general practice at the first joint conference of the College of General Practice and the Association of Canadian Medical Colleges held in Toronto in November, 1962[1]. Ten years later, on September 30, 1972, many of the same issues came up for discussion at the Joint Regional Meeting of the Royal College of Physicians and Surgeons of Canada and the American College of Surgeons, in Halifax, this time under the title "The Consultant and Quality Medical Care".

It is not surprising that serious and important issues relating to the education of family physicians and specialists were reviewed at an interval of ten years. However, it was rather shocking to note that very little had been accomplished in that period to evaluate the relative merits of the various "solutions", or even to define the basic premises upon which these depend. Nevertheless, many of the "solutions" have been introduced in the past ten years through the effort and persuasiveness of their proponents. Will we, in 1982 or 2,000 A.D., still have to depend solely on opinion or on the prevalent philosophy of change purely for the sake of change? Must we always follow U.S. trends, even when they promise little more than a trip up a blind alley? Or, can we start, at last, to use a more scientific approach and measure the relative merits of various educational programs and patterns of practice?

Dr. Brown describes the research that is being done in the Dalhousie Family Medicine Centre. Some is directed to the solution of specific medical problems encountered in family practice, but other projects are wisely directed to the study of the delivery of health care by a team of physicians, nurses, social workers and other health workers. The roles and interrelations of the various disciplines are being investigated and new patterns explored. This research promises to be as valuable as the educational programs of the Centre. But some of the larger and basic issues require research on a much broader scale than is possible in a small university center. They involve the whole profession.

[1] Stewart, C. B. The Adequacy of Education for General Practice: A Medical Educator's Viewpoint. 88, 712-716. April 6, 1972.

A few of the important and even fundamental questions that still beg for an answer are:

(1) Can the quality of patient-care be measured by practical methods and can criteria be established by which the relative merits of different educational programs can be evaluated in undergraduate, postgraduate or continuing medical education?

(2) Has it been effectively demonstrated that the quality of health care is appreciably higher in the practices of family physicians who have had two, three or more years of postgraduate training in general practice or family medicine than it is in the practices of doctors who have had only one year of rotating internship?

(3) If specialized training in family practice beyond the single year of internship improves the level of patient care, does the improvement warrant the increased cost in time and money and the loss to the community of one year's professional medical service?

(4) Does it require four years of residency training to educate a specialist in all fields of medicine? What is the increment, per year of education, in the quality of patient care or the range of professional skills in each specialty?

(5) In the U.S.A., the trend seems to be for physicians with three or more years of postgraduate training in internal medicine to serve as primary contact physicians rather than as consultants. For some specialists, such as paediatricians and ophthalmologists, this is largely true in Canada as well. What is the ratio of consultant to primary contact practice by specialists in Canada? Should primary contact specialists and consultant specialists in the same field receive the same training? How does the U.S. pattern of three years in internal medicine compare with three years of family practice training in quality of patient care?

(6) How much basic data do we have to support the newer, and, as most planners imply, the better, concepts for the organization of medical, hospital and other health services? What is the level of cost-benefit or improvement in quality of service to be expected from the highly-touted community clinic or from a regionalized health and hospital service or from the addition of physician-assistants?

This list could be extended almost indefinitely. It is not intended to be complete. In fact, it serves only to pose a final question. Are we all too busy with the problems of today that we have no time to evaluate what we are doing?

This is a plea, not for the maintenance of the status quo in any area of medical education, medical practice, or the organization of health services, but for the allocation of even a small share of our effort, time and money toward research into how we may adapt more logically to change. □

C.B.S.

THE FAMILY DOCTOR

Edgar A. Guest

I've tried the high-toned specialists who doctor folks to-day;
I've heard the throat man whisper low, "Come on, now let us spray."
I've sat in fancy offices and waited long my turn.
And paid for fifteen minutes what it took a week to earn,
But while these scientific men are kindly, one and all,
I miss the good old doctor that my mother used to call.
The old-time family Doctor! Oh, I am sorry that he's gone;
He ushered us into the world and knew us every one,
He didn't have to ask a lot of questions, for he knew
Our histories from birth and all the ailments we'd been thru,
And tho as children small we feared the medicines he'd send,
The old-time family doctor grew to be our dearest friend.
No hour too late, no night too rough for him to heed our call;
He knew exactly where to hang his coat up in the hall;
He knew exactly where to go, which room upstairs to find
The patient he'd been called to see, and saying: "Never mind,
I'll run up there myself and see what's causing all the fuss."
It seems we grew to look and lean on him as one of us.
He had a big and kindly heart, a fine and tender way,
And more than once I've wished that I could call him in to-day.
The specialists are clever men and busy men, I know,
And haven't time to doctor as they did long years ago.
But some day he may come again, the friend that we can call,
The good old family doctor who will love us, one and all. □

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APPRECIATIONS

"For their work continueth, and their work continueth,
Broad and deep continueth, greater than their knowing."

Rudyard Kipling

Dr. Norman H. Gosse

With the death of Dr. Norman H. Gosse, the medical profession of Nova Scotia – the medical profession of Canada – indeed, the medical profession of the world, lost one of its most distinguished and productive members.

Norman Gosse in his living proved indubitably that a physician and a citizen of these Atlantic Provinces of Canada need not take second place to anyone in any role. In the process he advanced the cause of good medicine, the well-being of his fellow physicians and of most importance, the mental and physical health of many Canadians.

It is difficult for the writer to single out the most important things to say at this time. The events of his life are well known – born and educated in Newfoundland; a distinguished gold-medallist in his graduating class in Medicine at Dalhousie; a general practitioner in Nova Scotia; postgraduate training in surgery in New York and then his return to Nova Scotia and Dalhousie to assume leadership in the practice of surgery and its teaching. Many Nova Scotians benefited from his surgical skill. Generations of Dalhousie medical students profited from his wise counselling. Such a career was more than enough for most men, but "The Goose" – a name of affection given him by his many students, would not stop there. He had within him a driving force to improve medical practice and the lot of patients and doctors in this dominion – nay, in this world. This pushed him into medical organization where he progressively held the presidency of the Halifax Medical Society, the Nova Scotia Medical Society and finally became one of the great presidents of the Canadian Medical Association. Indeed, so great was his success that the Canadian Medical Association would not let him go and he became chairman of the executive and council – an office he held longer than any other elected representive. He won further glory and honoured Canadian Medicine by his representation of us in the councils of the World Medical Association.

As one who had the privilege of sitting for many hours in sessions he presided over, my admiration jumped from point to point in the manner of the eyes of a keen spectator at a doubles tennis match with all four players being tops. His chairmanship was masterly, as was his grasp of presenting problems and above all his lifetime desire to improve medical practice and the care of patients, through better doctors and better organization. In Nova Scotia our Medical Services Insurance Plan is a lasting memorial to him. It was modelled largely on the organization he developed as the founder of Maritime Medical Care. It has provided better care and maintained better medical standards than any other plan in Canada.

Of perhaps even greater significance and an even greater memorial is the Nova Scotia Tumor Clinic – a healing agency he brought forth through the combination of his keen brain and his indomitable will, despite the intricacies of professional resistance and government bureaucracy. Countless Nova Scotians have lived because of Norman Gosse's unselfish use of these qualities which he had in such abundance.

The list goes on and on. The Canadian Cancer Society; The Canadian Red Cross and particularly its blood transfusion service; the presidency of the St. George Society and of the Halifax Rotary Club and probably of a dozen more that I know nothing about. Finally ill-health and age demanded his retirement – God grant that we can all retire in the same fashion. Despite physical illness, there was no faltering – he retired to greater activity – his voice and his pen were ever ready to rise in support of what he regarded as good and right. The Chancellorship of Kings is

one illustration of this; his espousal of the cause of the poorly treated alcoholic in this province, another.

At the last Canadian Medical Association meeting he was much disturbed because the nitroglycerine which he was forced to take to steady his heart, he fancied caused a poor quality of his voice when he got up to address that distinguished body on an issue of principle. The rest of us wondered at the wise and clear statements that he made. Now that voice is stilled. To us who had grown accustomed to listening to that voice for direction and support, for the guidance of our thinking and action in what was generally the right course, this brings a sense of great loss and sadness – these feelings are shared by thousands of Nova Scotians who have benefited from his humanity and his skill.

To his wife, Dr. Margaret and his son, Dr. Clarence, we in Medicine extend our utmost sympathy and share your sorrow in his loss. To the non-medical members of the family, whom we do not know as well, we also extend our sympathy and assure you of the greatness of the man you have lost. We of the medical profession of Nova Scotia particularly, say to you that we are proud that he lived among us to stimulate us by word and example; to do so much for our patients, and to represent us in the medical councils of the nation and the world. □

R.O.J.

Dr. Robert Leander Aikens

The Medical profession of Nova Scotia suffered a great loss in the death of Bob Aikens.

Born in Stellarton May 12, 1914 where he received his early education, he attended Pictou Academy before entering Dalhousie. He received a B.Sc. degree in 1934 and M.D.C.M., in 1930.

During World War II he became a "Can Loan" Medical Officer with the R.A.M.C. He was posted to the Middle East and saw action in this campaign from El Alamein till the end. It was a long stretch but one can be sure that Bob took it in his stride. On his return to Canada, Bob received his postgraduate training in Montreal and obtained his F.R.C.P.(C), appointed to the Victoria General Medical Staff and the Medical School in 1948. He became a specialist with a particular interest in Diseases of the Chest. He was an excellent consultant, one of a vanishing breed – the Internist and was widely used as such, as long as his health permitted. Although modest and unassuming he was highly perceptive and possessed a droll sense of humour.

After more than a year of poor health it seemed that he had made a recovery; fate decreed otherwise. His rapid passing has saved him a prolonged period of invalidism.

Our sympathy is extended to his widow Gladys and to David, Douglas, Jeffrey and Patricia. Friends and confreres have the fondest memories of Bob Aikens. □

E.F.R.

Dr. Allan Simpson MacIntosh

The sudden death of Dr. Allan Simpson MacIntosh occurred on July 28th, 1972 at his summer retreat in Bayside, near Halifax, N.S.

He was born in Middle Musquodoboit in 1913, the son of the late Rev. Major H. MacIntosh and Mable Simpson MacIntosh, formerly of Prince Edward Island. He attended Dalhousie University, graduated in Arts and Science and finally in Medicine in 1938.

Answering the call to the colours, he served for five years in the Royal Army Medical Corps in North Africa and Europe, ending the war as captain of a Field Ambulance Unit with the First Army. He continued his interest in army medicine for many years as a member of the Canadian Medical Defence Association.

After the war he took post-graduate training in Anesthesia at the Royal Victoria Hospital in Montreal under Dr. S. Wesley Bourne and Arthur Wilkinson and was appointed to the Anesthesia Staff of that institution.

In 1950 he returned to Halifax to accept an appointment to the Anesthesia Department of the Faculty of Medicine at Dalhousie University where he eventually became an Assistant Professor. He also joined the Anesthesia Department of the Victoria General Hospital where he continued to practice the art of anesthesia until shortly before his death. Besides membership in the C.M.A., the Nova Scotia Medical Society and the Halifax Medical Society, he belonged to the Canadian Anaesthetists' Society, the American Society of Anesthesiologists and was a Fellow of the American College of Anesthetists.

As a 'son of the cloth' he was keenly interested in the work of St. Matthew's United Church and was a member of the Board of Stewards.

Allan, or 'Mac' as he was often known, always referred to his staff colleagues as 'the brethren' and as such it was a privilege to have known him and worked so closely with him over the years. His quiet, easy, unruffled manner with patients and staff alike endeared him to all. He was a man of many talents but only his close friends fully realized how well read he was in all branches of the arts, especially literature and music. He was completely dedicated to his profession, excelled in his chosen field and has left a gap most difficult to fill.

Surviving besides his wife, the former Eileen Winter, are three sons, Hugh, Malcolm and Colin; two daughters, Gillian and Clare; four brothers and one sister.

"Fac Eas Domine de Morte Transire ad Vitam Aeternam." □

R.A.P.F.

"Human service is the highest form of self-interest for the person who serves."

Elbert Hubbard

Dr. W. Douglas Piercey

Dr. Douglas Piercey died quietly at the Halifax Infirmary on September 23rd. Many of the present day physicians of this province were not fortunate enough to have known him. There are few, however, who have not profited from his energy and devotion to the cause of good medicine, good hospitals and good patient care. The sick and handicapped of Nova Scotia – especially Nova Scotia children – have gained even more from his efforts in this province, over the past eight years.

Doug Piercey was born in Sydney but came to Halifax at an early age. He was educated in local schools and graduated from the Dalhousie Medical School in 1934. My first recollection of him was as one of the upper classmen at fraternity parties who always went out of his way to ensure that new members had a good time and felt at home. This unselfish kindness characterized the man in all of the relationships of his life. Following graduation he interned at the Ottawa Civic Hospital and here had the sort of luck he so richly deserved. He met and married a nurse in that institution, Isobel Woods. They then proceeded to the United Kingdom, where Doug did postgraduate work in general medicine and later ophthalmology. It was during this period that I knew him again. As a lonely and unhappy Canadian in my first morning at the British Postgraduate School, my day was transformed in the cafeteria when I looked up and saw his warm smile. That was 35 years ago – since that time I have known him as a dearly beloved friend, a fine man, with wide interests and much good conversation, a loving husband, father and grandfather and a persistent worker for all that was good and helped others.

Returning to Canada in the early '40's he became the Superintendent of the Ottawa Civic Hospital and after a few years the Executive Director of the Canadian Hospital Association, a post which he held with great distinction until his retirement in 1964. He presided over this influential body during the momentous years of medical change with the introduction of hospital and medical services insurance. This transition, and reasonably satisfactory solutions that were worked out at that time are, in a good part, due to his efforts. During this time he also taught in the school of hospital administration at the University of Toronto. Many of his old students give personal testimony to his dynamic teaching. Following a series of illnesses he was forced to retire in 1964 and returned to Nova Scotia. Despite chronic ill health, he never slowed in his efforts to promote the public good. He had been active in the Rotary Club for many years and was a past president of the Ottawa club. He immediately aligned himself with the Halifax Club and, at the time of his death, was Chairman of the Child Welfare Committee. Whenever there was a job to be done, for example the transportation of crippled children to camp, Doug Piercey was always the first to volunteer. He also served on the Board of the Izaac Walton Killam Hospital and was the Chairman of the Research Fund at that institution.

A religious man, who periodically examined his beliefs, he was an active worker in church and Sunday school. His hobby was to create beauty in the world and he astounded himself and his friends when, on his first attempt a year ago at entering the local horticultural show, he won almost all the honours. Indeed, on the day which marked the onset of his last illness, he had repeated this triumph.

To Isobel, to his fine family, to his grandchildren to whom he gave so fully, the physicians of this area who knew him personally and the physicians of the province who knew him only by reputation would extend sincere sympathy. We share your grief in a small way. Doug's passing has left an aching void in the hearts of all of us who were fortunate enough to have intimate contact with him. "This was a man" – a man of great intelligence, courage, and above all, a man of love. □

R.O.J.

A Tribute to the Profession

where are they?

"Behold the unassuming bravery of the physician! He sacrifices rest and comfort. He risks his life. He asks not who the patient is; it is enough that it is a suffering fellow-being. Medical practice brings him a living, but he carries it on as a help to others. He does his utmost. In the midst of our peaceful or troubled existence a quiet heroism is at work to which hardly any one pays attention. The physician himself sees nothing remarkable at all in his courage or his efforts. It is the simplest and most natural thing in the world. Such is the true physician in Christendom."

M. F.

(Nathan Söderblom, Archbishop of Sweden.)

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Dalhousie's Family Medicine Centre

Donald C. Brown*, M.D., C.C.F.P.
Halifax, N.S.

In response to the changing needs of the new Medical Graduate going out into first contact medicine, Dalhousie has developed the Family Medicine Centre.

Setting

The Centre is located on the main floor of the Clinical Research Centre which is part of the Sir Charles Tupper Medical Building Complex. The Centre serves as the main facility for teaching of undergraduate family medicine and the postgraduate residency training in the family practice program.

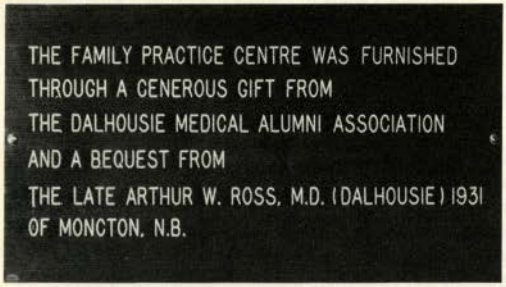

FIGURE 1

Picture of plaque at the Dalhousie Family Medicine Centre. This shows the interest and support of the Alumni of Dalhousie.

Organization and Staff

The Family Medicine Centre is in fact a group practice designed for teaching – staffed by full-time family physicians who are members of the Faculty of Medicine: Dr. Donald C. Brown, Dr. W. R. Gillis, and Dr. H. C. Still. There are also eight part-time family physician teachers, a clinic manager, three nurses, a part-time public health nurse, a part-time social worker, a medical secretary, two medical stenographers and a receptionist-clerk, who also performs billing and filing duties. Facilities include an attractive waiting and reception area, administration (patient records are listed by family), examination and consultation rooms, laboratories, multipurpose rooms, and a conference room. Thus, innovations in the teaching curriculum can be implemented in the Family Practice setting.

Goals or Objectives of the Family Medicine Centre

1. *Comprehensive and Continuing Care* – the purpose of the Family Medicine Centre (based on family group practice) is to demonstrate high quality, patient and family centered health care, utilizing all the resources of the community.
2. To demonstrate the *Team Approach,* working in full cooperation with Allied Health Professionals, as well as consultant physicians.
3. The Family Medicine Centre is designed to provide learning experiences for *Undergraduate Family Medicine* and *Postgraduate Family Practice.* It is designed in such a way as to represent as closely as possible what we feel to be the pattern of family practice of the "future".
4. To provide a stimulus to *Research in Family Practice* and to foster a spirit of continuing inquiry as to how family physicians, as a team, can best deliver the maximum effective quality of total health care to the patient.
5. Continuing *Self-Motivated Lifetime Learning.*
6. The main objective of the Residency Program is to

> *"develop a doctor possessing broad clinical excellence, instilled with the sense of responsibility for, and knowledge in, the continuing health management of the entire family. Personal efficiency and the effective use of all community and health services is the goal. The resident should develop an awareness that this is but one step in a life long learning process".*[1]

In order to fulfill these objectives, as well as to have the students and residents learn efficient administration and effective patterns of practice, all medical records are dictated by students, as well as by residents and staff. In this way, the student becomes familiar with this practice from the beginning of his training. The records, in a patient data system, are designed for eventual computer storage and retrieval, for future research in Family Practice and for immediate provision of accurate information when a patient's record is required.

Patient Population

The nucleus of registered families consists of over 80 percent of the former practice of Dr. Still, a Halifax practitioner for 20 years – which speaks well for patient acceptance of group teaching. Only new families are accepted; these are referred by other practising physicians.

Each family is classified numerically; to date over 11,060 families are registered for whom the Centre has total responsibility for continuing health care; in this way, the students and residents learn efficient administration and patterns of practice which it is hoped will be continued in private practice.

*Director, Residency Training in Family Practice, Dalhousie University.

Design is Around Function

The Centre has accommodation for three teaching practices, each with a central consultation room flanked by two examination rooms. As shown in the picture, one-way glass is installed between the consultation and examining rooms so that each teaching practice can be monitored directly by the teaching physician or by the use of a T.V. Camera. (In the picture one of us, Dr. Brown, is talking to the patient and Dr. Still is operating the T.V. Camera while describing the case to medical staff and students assembled in the studio of the Audio-Visual Department of the Sir Charles Tupper Medical Building).

FIGURE 2

The details of this are described in the text. Dr. Brown is interviewing a patient and we are looking through the one-way glass; Dr. Still is seen in the foreground operating the T.V. Camera in the dark room on this side of the glass.

Video-tape equipment is used to improve interviewing technique which is of prime importance to the family physician. Good interviewing technique has wide application, not simply in diagnosis, but also as a therapeutic tool – in the belief that one of the greatest therapeutic contributions the physician can make is a product of his own personality and ability to relate to the patient.

Functions

The Centre is now the pivot of Dalhousie's Undergraduate and Postgraduate Family Medicine Program.

(a) Undergraduate:

Since June 1, 1970, all Dalhousie fourth year students have had one month of Family Medicine Clinical Clerkship – two weeks with a preceptor in private practice somewhere in the Maritimes and two weeks in the Centre. During this two week period based in the Family Medicine Centre all the students spend every afternoon seeing patients with the family physician teachers and are involved in continuing care working with nurses in their expanded role. In the forenoons, they are involved in Seminars with six part-time family physician teachers as well as our Fellow and Residents in Family Medicine.

(b) Each third year student acts as a family physician to one family in the Comprehensive Health Care Project which is administrated in he Department of Preventive Medicine. There are four family physician medical advisors in this Program. Each student may bring any member of "his family" to the Family Medicine Centre for consultation with a resident or faculty member.

(c) This year there are four physicians in their final year of residency training for Certification in Family Medicine. All residents attend the Family Medicine Centre for at least one afternoon each week during the course of their training program, thus, partly shifting the emphasis, so common in residency training, from the care of the horizontal hospital patient – in this case to care for the ambulatory family member. In addition, there is a Fellow in Family Medicine, a pupil-teacher, who brings added experience and rounds out our Program.

Information On Dalhousie Graduates

Over 90 percent of the physicians in the last two Dalhousie graduating classes went into general practice. An average of 2/3 of the graduates from 1959 to 1969 went into general practice. Since our postgraduate training program has begun, all four residents in family practice who graduated, were successful in their Certification Examinations and all four are practising in the Atlantic Provinces. This certainly is evidence that we are achieving another of our main objectives of the Residency Training Program which reads:

> *"To create a core of specifically trained family "practitioners oriented to change in community and patient needs and best suited for practice in the Maritimes."*[2]

The Approach

The Team Approach is accentuated and there is increasing use of other health professionals, including a social worker, public health nurse, and psychologist. This model permits students and residents to learn proper efficient effective techniques of delegation, consultation and referral, and thereby develop sound patterns of practice.

The nurses in the Family Medicine Centre are enjoying an expanded clinical role, and because of their training and experience, they are able to accept more responsibility in patient care. Their job descriptions and roles are very similar to what one might call "Nurse Practitioners".

Weekly Family Medicine Conferences are held at 10:30 a.m. on Friday in the Family Medicine Centre. They are designed to bring together various members of the health care team to discuss family and patient problems that encompass the broad comprehensive approach to continuing family care. These broad topics are usually

introduced by presenting current clinical family problems at the Family Medicine Centre and all clinical clerks, residents, staff, consultants and Allied Health Professionals enter the discussions. A few topics covered in the past have been:

Enuresis
Depression
The Family with the Handicapped Child
Mental Retardation
Infant Feeding
Family Dynamics

The emphasis in these discussions is towards the practical approach and how the family physician can best deal with these problems that present in practice.

For the residents, there is a weekly learning session called "Practical Therapeutics". This consists of one of the family physician-teachers discussing how he manages common problems that present in family practice. Such topics in the past have been:

Treatment of Urinary Tract Infection
Use of Antibiotics
Counselling in Family Practice
Common Skin Problems
Patients with Headache
Physical Aspects of Family Dynamics

Research

Four research projects currently underway at the Family Medicine Centre are:

1. Angina Research Project with Lidoflazine
2. Identification of High Risk Fetus (as in many private practitioner's offices in Nova Scotia)
3. Longitudinal Study of Hypertension in Family Practice
4. Record Design and Improvement in Delivery of Health Care

One study has been completed and was reported in the January 1972 Issue of the *Canadian Family Physician* entitled "Childhood Urinary Tract Infections in Family Practice".

Other Activities of the Family Medicine Centre include electives in Family Medicine. This includes interviewing techniques and video-taping with actors and actresses. Clinical traineeships for practising physicians and Group Dynamic Sessions for residents and other members of the staff.

SUMMARY

"Thus, the Family Medicine Centre provides a framework for demonstrating continuing comprehensive health care rather than treatment of episodic disease; tenured health care of the whole family – the holistic approach to the patient in his environment – is the essence of family practice."[3]

The gift from the Dalhousie Medical Alumni has made possible the development and expansion of Dalhousie's Family Medicine Program, and therefore, of family medicine throughout the Maritimes. But money is not the only gift the Centre has received from the Alumni. We are deeply grateful for their continuing interest, encouragement, and assistance, in developing this facility whose double objective is to care for patients and to train physicians to provide exemplary medical care in Family Practice of the future. □

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"There is something better, if possible, that a man can give than his life. That is his living spirit to a service that is not easy, to resist counsels that are hard to resist, to stand against purposes that are difficult to stand against."

Woodrow Wilson.

A Coronary Care Unit in A Small Hospital

J. C. Wickwire, M.D.

Liverpool, N.S.

Coronary thrombosis was described by Hammer in 1878; Osler[1] apparently recognized the condition in 1895, Obrastzow and Strasehesko in 1910, Herrick in 1912, Levine in 1916. During the next decade there evolved a rational, accepted form of treatment, which was, in essence, a variable period of rest. About ten years later the anticoagulants were introduced, first heparin, then the coumarin derivatives. Many papers have been written on the therapeutic effectiveness of these drugs in reducing the mortality associated with coronary thrombosis. Probably an equal number of reports have been prepared, backed by statistics, which would appear to discredit these conclusions. The argument still goes on!

The fact remains that, with these various forms of therapy – prolonged rest, early ambulation, anticoagulants, treatment in the home or in the hospital, the overall results were little changed until the introduction of the Intensive Care Unit. During the early critical days, with the continuous monitoring of the patient by adequately trained personnel, the first undisputed improvement in mortality figures became evident.

In 1962 Dr. B. Lown, et al[2] described a method of terminating cardiac arrhythmias by the use of synchronized direct current countershock. Various instrument companies soon built the monitor, the pacemaker, the synchronizer and the countershock apparatus in combination.

Within the past seven years many large hospitals on this Continent have established units for the care of the acute cardiac. The smaller hospitals encounter a considerable problem, due to shortage of staff, and in particular, personnel who have had adequate specialized training in the recognition and early treatment of the various arrhythmias as they may reveal themselves, clinically and on the cardiac monitor.

During the past seven years our Staff has endeavoured to develop a modified Coronary Care Unit that would be useful, practical and within the budget requirements of a 56 bed hospital. It is my desire to present a brief record of our experience covering a period of four years for the readers' critical appraisal. We feel that to be effective, the one initiating such a program must be willing and prepared to devote much time and effort in the continuing education of the Nursing Staff. As one physician has stated, "he has a wildcat by the tail".

In our hospital, though a cardiologist was usually available, we soon realized that at least some of the physicians who might be in the building should be capable of recognizing and treating emergency arrhythmias immediately. With the cooperation of the Medical Staff, a series of clinics on the interpretation of electrocardiograms and the use of the defibrillator were given.

The nurses were then approached. Their interest and enthusiasm was very gratifying when 12-14 R.N.'s regularly attended a number of lectures, given annually, on the reading of ECG's with special emphasis on the arrhythmias. Movie films were presented revealing the technique of mouth to mouth respiration, external cardiac massage and electro-cardioversion.

With the cooperation of Hewlett Packard, makers of electronic instruments, tape recordings of various dysrhythmias were shown, accompanied by demonstrations of, the indication for and the application of the defibrillator, using a manikin as subject.

We have endeavoured, with success, to interest the Floor Supervisors and those who are commonly called upon for extra nursing care. In this way we have one or two nurses on each shift who have had this specialized training.

We hope soon to have perhaps two of our nurses spending some time in a large functioning unit where a greater number of patients are under active treatment.

Requirements of the Nurse

(a) The cardiac nurse specialist must be acquainted with the normal basic rhythm on the monitor and be capable of recognizing changing events, particularly the arrhythmias.

(b) She will be experienced in the application of cardiopulmonary resuscitation – external cardiac massage and assisted pulmonary ventilation.

(c) She must have knowledge of, and experience with, the drugs and instruments that are used in cardiac emergencies.

However, though modern, sophisticated equipment does improve surveillance, it is not a substitute for vigilance and skill. Uninterrupted observation is imperative if we are to treat (successfully) the early signs of unresponsiveness, unconsciousness, convulsions, ceased respiration, absence of heart beat, that is, cardiac emergencies.

In the U.S.A. it is estimated that there are 2,500,000 cases of myocardial infarctions annually, with a mortality of 560,000. "Of these cardiac deaths, 100,000 are estimated to have so-called 'good hearts' – that is, there is no evidence at autopsy of muscle damage or occlusion of the coronary arteries.[3]" This evidence would seem to indicate that electrical failure (arrhythmias) was the most probable cause of death.

At the time of writing, the R.N. Association of this Province has not included the application of the electrical

countershock as permissive therapy that may be administered by a nurse. This is unfortunate since immediate treatment of a major arrhythmia, to be effective, is imperative. A more reasonable approach would be, that a number of nurses in hospitals should be adequately trained so that they are capable of recognizing cardiac emergencies and initiating life saving measures at once; this would include administration of I.V. medications such as Isoproterenol, Lidocaine, and the indications for, and the use of, the electrocardioverter.

"Regardless of the degree of severity, more than 75% of all patients with myocardial infarction exhibit significant arrhythmia during the course of their illness. Prompt recognition and effective therapy of benign disturbances of rhythm should prevent progression to more severe forms and avoid circulatory complications."[4] In his recently published text on cardiac arrhythmias. Dr. E. K. Chung[5] gives an even larger figure (90-95%) occurring with infarction. We should not overlook the fact that lethal arrhythmias may occur in patients who do not appear to be seriously ill.

Realizing that the majority of preventable coronary deaths occur during the first week, and particularly within the first 48 hours, our medical staff has made it the policy to request that specially trained personnel be in attendance, around the clock, for a period of two days. Occasionally in patients with further complications we find it necessary to provide this extra care for a longer period of time. This ideal has not been realized in every case, due to nursing shortage, yet every effort is made to provide this service.

When two or more "acute Coronaries" are being treated concurrently, they are located in the same hospital area; this makes it possible for one nurse to follow more than one patient.

Many fine electronic instruments for the recording of the heart beat have been constructed; some have a built-in electrocardiagraph which will be triggered off with the occurrence of arrhythmias; these usually also have a memory loop, by which one is able to write back events that may have preceded a major anomalous rhythm. In the interests of economy we have settled for the combination of monitor, pacemaker, defibrillator and synchronizer, together with an outlet for a jack where we may attach our electrocardiograph if and when desired. With this added facility, the nurse may at any time make a permanent record of arrhythmias as they may occur. The physician in charge is then able to review any deviations from the normal pattern that may have developed during his absence.

Four rooms adjacent to the charge nurse's desk have been wired to accommodate the portable monitor – defibrillator combination machine. Patients in any two of these four rooms may be connected to an eye level monitor at the nurses stand. The latter instrument serves several purposes, (1) a continuation of the teaching program, (2) improved surveillance of the patient (particularly after, extra nursing care has been discontinued), (3) the Staffs improved knowledge of and interest in the progress of the patients.

New drugs and new uses for old drugs have recently been discovered for the control of arrhythmias – potassium, atropine, procaineamide, lidocaine, dilantin sodium, propanolol, quinidine, isoproterenal, digitalis, sodium bicarbonate, calcium and others. Though the oral route is usually more desirable, for a prompt therapeutic effect, the intravenous route is usually necessary in an emergency. To have a readily available portal of entry, we have found it advisable to start an I.V. glucose and water drip soon after the patient is admitted to hospital.

With the limited space available in a small hospital we have hesitated to request that a room or rooms and its profusion of equipment be reserved for intensive care. As an alternative a mobile cart, or chest on wheels, has been made available which is stocked with drugs and equipment that we may require in cardiac emergencies.

Though we have emphasized the value of the cardiac unit in the care of the acute coronary, the personell, the monitor, the equipped mobile carriage can be used for other types of intensive care. After this cart has been in use, we do insist however, that a responsible person check each and every item, and replace any that may have been used during an emergency.

We have reviewed 165 case records of patients in our hospital who were admitted with a diagnosis of coronary artery disease. From this group we selected 98 who had well documented evidence of coronary thrombosis with infarction, during the years 1968, 1969, 1970 and 1971. Our findings are presented in the accompanying chart.

SUMMARY

A brief history of the early treatment of coronary thrombosis is mentioned. The first effective "breakthrough" was recognized with the realization that the arrhythmias were a major factor in the high mortality figures.

Drugs have been used to control anomalous rhythms with considerable success for a number of years. A safe and very effective instrument was added to our armamentarium by the discovery of an electrical defibrillator, with which was soon combined the monitor, pacemaker and synchronizer.

To use this equipment more intelligently and effectively the attending personnel require extra training in the recognition and prompt treatment of arrhythmias, mouth to mouth breathing, external cardiac massage, the use of the cardiac monitor and defibrillation unit, etc.

A mobile cart with drugs and equipment is described.

During the course of their illness, at least 75% of all patients who have suffered a myocardial infarction, develop significant arrhythmias. Early recognition and control of benign disturbances of rhythm will frequently prevent the occurrence of major arrhythmias. It is in this area that recent developments have opened a vista where we can hope and expect to witness a change in these alarming mortality figures.

YEAR	SEX		AGE						History of Angina	History of Prolonged Chest Pain	Number ECG indicated Myocardial Infarction	On MONITOR	ARRHYTHMIAS			ENZYMES (CPK, SGOT, LDE)		CHOLESTEROL	Elevated W.B.C.	Elevated Sed. Rat	On Anticoagulant		Not On Anticoagulant	
	M	F	38-57	58-67	68-77	78-87	88	Ave.					Sinus tachy-cardia only	Sinus brady-cardia only	Combination	Total Taken	One or More Elevated				No.	D.	No.	D.
1968	16	7	6	4	6	7	–	67	6	23	23	10	–	3	12	61	43	High – 360 Low – 212 Ave. – 308 9 Patients	10	15	5	–	18	6
1969	14	4	6	5	2	4	1	66	7	18	18	7	2	2	7	45	25	High) Low) 252 Ave.) 1 Patient	10	11	8	1	10	2
1970	22	5	8	6	7	6	–	66	12	24	27	9	3	2	13	50	42	High – 396 Low – 120 Ave. – 363 10 Patients	21	18	9	1	18	2
1971	17	13	6	12	7	5	–	65	7	27	30	8	2	3	16	66	63	High – 352 Low – 133 Ave. – 222 6 Patients	22	25	9	2	21	3

A statistical chart of our experience with 98 patients, with well documented evidence of coronary thrombosis with accompanying infarction, is given.

Observations

Chung[5] noted that "90-95% of all patients with acute myocardial infarction have some associated cardiac arrhythmia." From our statistics it would appear that, when The Coronary Care Unit was first in operation, many arrhythmias were not detected. With greater knowledge, and experience with the cardiac Monitor, a much higher percentage of dysrhythmias were recorded.

Friedberg[6] has stated that "history of angina pectoris has been noted in 1/3 to 2/3 of cases of acute myocardial infarction". In our records angina pectoris has been recorded in 33 out of 98 patients. It may be that some cases with angina were not recognized. □

References

1. From notes taken by the late Dr. J. W. Smith, Liverpool, during a lecture by Dr. William Osler on angina pectoris, March 5th., 1895:-
   "One or more branches of the coronary arteries may be occluded. Coronary arteries are terminal arteries. Effects of occlusion of a coronary artery: – Anaemic Necrosis".
2. **Lown, B., et al:** *Proc. Am. Soc. Clin. Invest.,* April 30, 1962.
3. Hospital Topics. p. 36, Nov. 1966.
4. Second Bethesda Conference – Dec. 11-12, 1965.
5. **Chung, Edward K.:** Principles of Cardiac Arrhythmias. Baltimore. Williams and Wilkins, p. 2, 1971.
6. **Friedberg, C. K.:** Diseases of the Heart. Philadelphia, Saunders. p. 778, 1966.

Number of Attacks			CHEST X-ray			Mortality in Total Group ( ) %	Mortality in Selected Group ( ) %	Total Arrhythmia ( ) %	Patients on Monitor			Patients Not On Monitor			Characteristic Pain	NO PAIN	ECG indicated Infarction on 1st. day %	ECG indated Infarction 2nd. day and later %
1st.	2nd.	3rd.	Cardiac Enlargement	Pulmonary Congestion	Other Pulmonary Pathology				No.	Arrhythmia detected	%	No.	Arrhythmia detected	%				
20	2	1	3	3	5	(46) 34.7%	(23) 26.1%	(15) 65.2%	10	6	60%	13	9	69%	100%	–	(20) 87%	(3) 13%
			(17 x-rays taken)															
16	2	–	4	2	7	(29) 34.4%	(18) 16.6%	(11) 61.1%	7	5	71%	11	6	55%	100%	–	(13) 72.2%	(5) 27.8%
			(16 x-rays taken)															
22	5	–	9	2	11	(39) 25.6%	(27) 11.1%	(18) 66.6%	9	9	100%	18	9	50%	88.9%	11.1%	(22) 81.5%	(5) 18.5%
			(21 x-rays taken)															
27	3	–	4	1	5	(51) 23.5%	(30) 16.7%	(21) 70%	8	7	88%	22	14	64%	90%	10%	(23) 76.7%	(7) 23.3%
			(17 x-rays taken)															

An Unusual Cause of "Surgical Acute Abdomen"

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CASE PRESENTATION

E. H., a 13 year old male, presented with peri-umbilical colicky pain and history of nausea and vomiting, preceded by a sore throat one week before admission. On admission, his temperature was 98.6°F; the white blood cell count was 11,500 per cu. mm., and there was tenderness in the peri-umbilical region and right iliac fossa. Urine examination and X-ray of the abdomen and chest were normal.

During the next 24 hours, his temperature increased to 101°F; the white blood cell count rose to 16,400 per cu. mm.; tenderness and guarding in he right iliac fossa increased, and was associated with tenderness on rectal examination. A diagnosis of acute appendicitis was made, and operation undertaken. At operation, the tip of the appendix was swollen and congested, with congestion and thickening of the terminal ileum. Histology of the appendix showed mucosal ulceration at the tip, with submucosal haemorrhage.

POSTOPERATIVE COURSE

First postoperative day

Colicky abdominal pain continued, and blood appeared in the stools.

Second postoperative day

Urine examination showed 17-19 white cells and 40-50 red cells per high power field, with albuminuria.

Ninth postoperative day

Blotchy macular rash on legs and arms.

Eleventh postoperative day

Small bowel series (barium x-ray) showed areas of narrowing, cobblestone appearance of mucosa and possible "skip" lesion of the jejunum.

Final Diagnosis: Henoch-Schönlein Purpura.

DISCUSSION

Could a correct pre-operative diagnosis have been made in this patient so that appendectomy could have been avoided?

To answer this, it is necessary to outline briefly the salient features of Henoch-Schönlein Purpura. It is a disease of childhood or adolescence, commoner in males, usually preceded by an upper respiratory tract infection.

Characteristic Clinical Findings are:

Rash: Initially urticarial, it soon fades and is easily missed. Later it consists of intensely purple confluent macules distributed on exterior surfaces of hands and legs, on face and buttocks but sparing the trunk.

Abdominal symptoms: Such as severe colicky pain, nausea and vomiting, diarrhea with melena or bright red blood in stool caused by exudation of blood into bowel wall.

Joint complications: Pain, swelling and restricted movement of joints usually affecting the ankles and knees. These symptoms are transient, migratory, leave no residual signs and are easily missed.

Evidence of renal involvement: Hematuria and albuminuria is present in 40% of cases: 5-10% go on to chronic nephritis. Less common clinical features are periorbital edema, pleural effusion, pericarditis, and cerebral hemorrhage.

Laboratory findings are nonspecific such as slight anemia, W.B.C. 10-20,000 cu/mm., raised E.S.R. and raised anti-streptolysin titre. In this patient, in the absence of a rash and joint symptoms, and with increasing abdominal signs, increasing temperatures and white cell count, appendectomy was fully justified.

What are the indications for operation in a patient with Henoch-Schönlein Purpura?

There are two indications: intussusception and perforation.

The diagnosis of **Intussusception** is difficult, because colicky abdominal pain and rectal bleeding may be present in the absence of intussusception. However, the diagnosis of intussusception should be made if persistent vomiting, an abdominal mass, distention or X-ray evidence of obstruction are present.

Lindenauer and Tank (1966) reviewed the world literature on Henoch-Schönlein Purpura and found 50 patients with intussusception. Of these 39 were operated on with a 13% mortality. The remainder were treated conservatively with a 55% mortality.

Perforation is very rare. Perforations are usually multiple and despite resection the mortality is 75-80%.

Course: – in 1/3 the disease lasts less than 2 weeks; – in 1/3 the disease lasts 2-4 weeks; – in 1/3 the disease lasts 4 weeks to 2 years.

(continued on page 184)

Presidential Valedictory Address, 1972

G. W. Turner, M.D.

Windsor, N.S.

Two of the duties of the President of the Medical Society of Nova Scotia are that he be actively concerned with the broad principles of the Society and that he also present an address to the Society's Annual Meeting.

One year ago I indicated that I would do my utmost to uphold the high standards of office already established by my predecessors and to adhere to and promote the objects of the Society.

These objects are worthy of review at this time, and they are:

1) The promotion of health and the prevention of disease

2) The improvement of medical services, however rendered

3) The maintenance of the integrity and honor of the medical profession

4) The performance of such other lawful things as are incidental or conducive to the welfare of the public and the medical and allied professions

5) The promotion of harmony and unity of purpose between the medical profession and the various bodies assuming economic responsibility for the care of sick or injured persons

6) Collective negotiations

7) The upholding of the ethic that no physician be denied membership in this Society on the basis of race, religion or place of origin.

These objects are all listed on our membership cards. I hope that from time to time each one of us will take time to review them personally.

What has happened in 1972? What have your officers and executive been doing?

Early in the year a meeting was held with the Branch Presidents to discuss matters of mutual concern. High priority was given to maintaining and improving communication between the Medical Society and its Branches, and between the Branch Societies and the Officers and the Executive of the Medical Society of Nova Scotia.

Throughout the year your Officers have met twice a month for a total of 23 Officers' meetings with an additional five Executive Committee meetings over the period in question.

Shortly after each meeting, the minutes of the Officers' and Executive Committee sessions were forwarded to Branch Presidents and Secretaries and the Branch Representatives on the Executive Committee. The purpose of this exercise was to inform the Branches of our deliberations and to permit them to hold executive meetings in which to discuss Medical Society business.

It is a two way street, though, and I am happy to say many Branches have submitted minutes of their meetings to the Medical Society office.

I might add that this year Society representatives to the various CMA Councils were invited to attend the officers' meetings and have made a most worthwhile contribution by updating us on CMA business and deliberations.

On top of all this, I personally visited as many Branches as the Society's business and my personal timetable would permit. When I was unavailable, representation was made by Past President Dr. Jack Woodbury, President Elect Dr. Al Myrden, the Chairman of the Executive Dr. Phil Jardine, or Executive Committee Vice Chairman Dr. Peter Jackson.

I think it is safe to say that this, along with the President's Newsletters, served the communications priorities well.

Other things have been happening too.

Early in the year the Revised 1967 Schedule of Fees was printed and made available to all members. Through the efforts of your Officers, the President's Liaison Committee and those members working at the level of the Medical Care Insurance Commission Tariff Development Committee, significant portions of the revised schedule were accepted for implementation by the Medical Care Insurance Commission. Further efforts should result in additional portions of the revised schedule being implemented on January 1, 1973. That is the anticipated date, at least.

Exhaustive studies of the Task Force Reports on the Cost of Health Services in Canada and the provincial Report on an Integrated System of Hospital Facilities and Related Services by your Officers, the Nucleus Committee of the Special Research Group and by the Branch Societies themselves resulted in a July 17 submission on health services in Nova Scotia to the provincial Health Council. The Society's submission dealt with our health delivery system's accessibility, the levels of care available in the province, professional manpower requirements, the cost escalation factor, utilization and management of the system, the use of para-medics, and physician remuneration.

Nineteen specific recommendations toward the improvement of our health and medical programs were embodied in the submission which was, in fact, a consensus of the views of Nova Scotia physicians on the earlier mentioned subjects.

I might add that the brief was submitted in a spirit of co-operation and in a sincere desire to see that Nova Scotians get the best health care possible, and it was particularly heartening to be told by Health Council Chairman Dr. C. L. Gosse that he found the brief and the ensuing discussions with your Society representatives worthwhile and helpful.

Other studies undertaken by the Society at the Health Council's request have dealt with the determination of services and facilities to produce an optimum balance between meeting the need and controlling costs. The Health Council has also requested that the Society explore methods to assist in reducing the cost of active prescription drugs to patients.

Earlier in the year, the Society made specific recommendations on proposed amendments to the Medical Act, with respect to developing improved methods of fulfilling certain functions and requirements of the Board – particularly in regard to discipline.

We have also undertaken a study on the future role of the Provincial Medical Board. I should note here that the Society largely endorsed the Provincial Medical Board's own submission to the Health Council.

At the request of the Maternal and Peri-natal Health Committee, the Society endorsed the Committee's program for the regionalization of reproductive care and has continued to support the Fetus at Risk project sponsored by the College of Family Physicians of Canada.

During the year, your Society also made further representation to the Provincial Government on the matter of the pollution of the environment and included specific recommendations to improve the relevant legislation.

I would also like to comment on the Canadian Medical Association's Annual Meeting and your Society's contribution to it.

Naturally, before this meeting, your Officers and CMA Council representatives met to study the reports to CMA and to make supportive or negative decisions on their content. I am happy to say that your Society's opinions as put forward at the CMA Council sessions were received with respect and, in fact, tended to reflect

opinion from across the country. While all Nova Scotia representatives to CMA deserve to be commended, it should be mentioned that the contributions of Past Presidents were most significant. I strongly urge that in the future this Division continue to make its views and opinions known as energetically as possible at the CMA level.

Early in 1972, the President's Liaison Committee met with the Premier and the Minister of Health to restate the Society's committment to the provision of high quality health care to the people of Nova Scotia in an efficient and effective manner.

At the time, we expressed particular concern about the proposed legalization of Chiropractic in this province. However, in spite of strong representation to individual Members of the Legislature and to the Law Amendments Committee, Chiropractic has been made legal. It is significant to note that the arguments and views expressed against this cult at the CMA level were almost identical to those we presented to the Law Amendments Committee and that the strongest and most vigorous opposition to chiropractic came from those provinces where this non-medical and thoroughly unscientific form of quackery is legal. Our provincial government has been so advised.

We have also discussed the matter of remuneration to radiologists with the Hospital Insurance Commission and the Medical Care Insurance Commission.

MCIC's Tariff Development Committee undertook a detailed study of radiologists' earnings and how they might best be remunerated in accordance with the Society's Fee Schedule. MCIC adopted the Tariff Development Committee's recommendation that payment to radiologists be made on the basis of 85 percent of the Revised 1967 Fee Schedule. In order to obtain this agreement, it was necessary for the Section of Radiology to adjust their radiology fee schedule to reduce its annual impact.

Their revision was approved by the Medical Society. The Hospital Insurance Commission will consider this recommendation with a view to remunerating Certified Radiologists in accordance with the Society's fee schedule. In addition, we have sought the Hospital Insurance Commission's co-operation in ceasing the practice of pro-rating radiologists' payments once specified levels of service during the calendar year have been reached.

In spite of efforts at MCIC's Tariff Development Committee level, we were unable to reach the same stage of progress with the Section for Pathology – due in large part to the time differential between commencement of discussion and negotiation on each project. The Tariff Development Committee, however, has recommended that the pathology project be handled in the same way as the radiology matter and the methods of study and precedent already having been set we expect an early and hopefully satisfactory conclusion to this matter.

Your Society has always been deeply concerned with the terrible loss of lives and resources resulting from traffic crashes. In addition to discussions within the Society, we have presented our concerns to the Minister of Highways and he has welcomed our intention to provide realistic and specific recommendations to reduce slaughter on the highways.

Membership of Dalhousie medical students in the Society is now a fact and your Officers and Executive have been most impressed by their interest in Society affairs and by the calibre of their representatives and the quality of their contribution.

It goes without saying that co-operation between the Society and Dalhousie University's Faculty of Medicine is essential – not only with respect to such programs as continuing medical education and other means to advance medical knowledge through education and science, but also in the provision of an adequate number of graduates to meet the medical manpower needs of Nova Scotia and – if I may be a little selfish for the moment – to become members of this Society and to advance the principles of service and integrity for which it stands.

We are, of course, all concerned that provision for acceptance of all qualified Nova Scotia applicants to the School of Medicine be a matter of high priority.

The Medical Society now has its own insurance plan geared to meet the special needs of physicians. Through an interest retention formula, this plan allows us to meet the cost of administering it ourselves, so not only are the benefits particularly suited to medical practicioners but the plan itself is truly the Society's plan. I would urge all those who have not yet decided to participate to look into it.

And now for tomorrow.

Medicine and science face tempestuous years ahead. Their autonomy and their ability to operate objectively will be increasingly threatened.

They represent tools which are too powerful to be ignored by political or other administrative interests. Advances have immeasurably improved today's doctor's ability to treat disease and injury. However, an enormous strain is being put on available medical manpower and facilities by increasing demands for periodic physical examinations as a personal preventive measure or as a condition of employment; by the problems of drug abuse, an increasing incidence of leisure time accidents, increased demands for pregnancy terminations, the surgical methods of birth control, and, of course, the very worthwhile needs of an increasing population of older citizens.

All of us know what is meant by medical care, but recently the term health care has become more popular.

Although experts in a variety of fields are trying to define the word "health", as yet no definition is available.

However, the term "care" is all encompassing. When related to health it may mean all types of services delivered, not simply from the cradle but from in-utero to the grave. Obviously, then, in order to provide this type of care others than the medical profession must become involved.

But, it is essential that the personal doctor-to-patient relationship be maintained at all times . . . even if conditions of practice change.

Before Medicare, a relatively simple situation existed. Patients were treated by physicians and for those who were able to pay, a straightforward method of remuneration existed with no dollar value loss to either party. Now, a third party – government – is on the scene. Obviously, in order to provide quality medical care effectively and efficiently government, the profession and the public must achieve a co-operative involvement in many issues facing the health care delivery system today.

Fortunately, apart from providing an insured service, government's involvement as a paying agency has now provided the system with a more efficient form of self-assessment, not only regarding remuneration but also with respect to the type, quality and volume of medical care provided. Using the tools now available to **us, we** can and must strive to provide high quality care and to provide for self-discipline through the maintenance of the independence our provincial licensing authorities need to conduct their affairs.

At the same time, we can now establish accurate patient profiles to identify utilization problems.

Being human, we cannot always live up to the expectations of those who view us as some kind of super-professionals without discernible fallibilities. But it is within our power through scientific research, medical audit programs, useful peer review systems and continuing medical education to provide the very best medical and health care possible.

Presently receiving quite a bit of attention is the subject of limited licensure. Careful study which takes into strong account the quality of the medical care we seek as well as public health care needs should lead us to some useful conclusions in this area. However, it is my personal opinion that we could approach the

subject more constructively if we consider it in terms of "specific licensure", which enhances rather than detracts from the type of licence considered. This would also allow for the broadening of types of licence as future experience might deem appropriate.

With greater public demand and government's accession to the provision of health care to meet needs caused by socio-economic problems, we must face the fact that the level of general education and economic well-being may be limiting factors in our fight against disease. All those involved in the system must start educating the patient so that he can more readily help himself. We must consider not only our medical manpower potential but also the public's capacity to maintain health through a greater knowledge of personal hygiene.

The fact is, we are committing many thousands of health dollars in treating patients for diseases they would not have had if we – the physicians and the patients – had had the wisdom to prevent them in the first place. If people took more care of minor ailments – if they knew how to take better care of these ailments – we would not have the packed waiting rooms we have today. We would not be concerned with the thought that someone who urgently needs medical attention might be getting lost in the shuffle of minor ailments or that the province's health dollars are not being spent to the best possible effect.

People who are born healthy must be encouraged to maintain their health. While the profession and government have engaged in a variety of worthwhile preventative public health education measures, it is not enough. There are responsibilities which must be met at the family level. Parents must inform their children on the basics of good health maintenance.

True, we also need an increased emphasis from the profession and government on credible education programs in areas of alcohol, tobacco and other drug abuse. In addition, more stress must be laid on the health hazards civilization itself produces, such as insufficient exercise, over-eating, urban and socio-economic stress, overcrowding, and the upsurge in the needs of senior citizens.

Interestingly enough, studies have demonstrated that biological age and chronological age are not necessarily synonymous, which tends to point out the incongruity of setting a mandatory retirement age. Continuing physical and mental involvement by the aged should result in a decrease in many of the diseases of the aged, not the least of which are boredom and despair.

In all these areas, it is essential that we provide government and the public with information and answers. At the same time, the average lay person must be encouraged to take stock of his or her own position with respect to all facets of health care.

Of course, costs are important, but in certain areas legitimate cost containment can be achieved without impairing the quality of patient care. For instance, avoidance of the duplication of service, the encouragement of office and out-patient care when appropriate, improved documentation and record retrieval and transmission systems, and the increased delegation of tasks to existing allied health professionals.

An increasing demand for services puts an increasing load on the manpower available to provide them and, naturally, tends to inhibit easy access to the system by the sick and injured. We cannot blame the physician for this increased demand nor, quite frankly, can we blame the patient. Socio-economic changes and pressures have as much to do with the problem as anything else. Moves to increase the health delivery system's efficiency will not be enough.

Many of the health problems we face today have a much broader base than the effects physicians are called upon to treat. The solutions will only come about when all involved work co-operatively to eradicate the causes.

Let's look at some of the conundrums the profession itself must face. While your Society has worked hard to eliminate income disparities between the sections, there are other divisive forces at work which deserve our attention.

And they require objective, scientific study and assessment.

For instance . . .

As the growing knowledge and expertise of neo-natalogists enables life preservation ever nearer the stage at which surgical interruption of pregnancy may occur, one of the major social issues of our time – that of abortion – is beginning to take on new overtones.

Obviously, physicians must be prepared to find answers to moral and ethical problems such as this and to make them known. If we do so fearlessly, then the profession need not worry about its image or about fulfilling its responsibilities to society.

I would like to conclude with a brief note of thanks to some of the people who make your Society work.

Most of the committee chairmen here today will no doubt acknowledge that recognition of the work they and their colleagues have performed on behalf of the Society, the profession, and the people of Nova Scotia reaches its zenith only in the sprinkling of applause at the conclusion of each report delivered here.

Of course, they may have something else to say about the debate with which some of the reports are greeted.

But I would like now to commend those who have contributed, who have worked hard, who have given so generously of their time, their efforts and their expertise.

And I would like to ask those here and throughout Nova Scotia who have felt hesitant about coming forward, about introducing their skills and opinion to Society business to consider the role they can or should play in the future.

The value to the Medical Society of Nova Scotia of your Executive Secretary Mr. Douglas D. Peacocke can be most fully appreciated by one who has served as President of the Society. Your choice in his selection is most commendable. His keen perception, analytical ability, knowledge in the affairs of the Society, and resourcefulness and untiring efforts to work on your behalf is exceeded only by his support and loyalty to the President.

Your choice of Mr. Anton A. Schellinck as Manager of Economics and Membership Services was also a most wise decision. His ability in these fields is exceptional and has been most valuable.

The value of Maritime Medical Care to the Medical Society and the people of this Province became even more evident this year, when the Corporation was able to make available data and statistics without which deliberations on matters of medical economics would have been most prolonged.

I wish also to express my sincere thanks and appreciation to the other members of the Medical Society staff: Mrs. Tove Clahane, Shirley Miller, Alice Young and Marion Greenham for their co-operation during the year.

For those who query the value of your Public Relations Consultants, Mr. John Sansom and Mr. Peter O'Brien, a year as President of this Society will provide a most favorable answer. In addition to the items covered in their own report to the Medical Society, I appreciated their availability at all times on items of concern to your Society, their assistance to the President on matters most essential to communication. As resource personnel they have proved to be invaluable.

I wish also to express my sincere thanks to the Presidents, Secretaries, Executive Members of the Branches, Committee Chairmen and individual members of the Society as well as the Officers of the Society in making this year as your President most memorable.

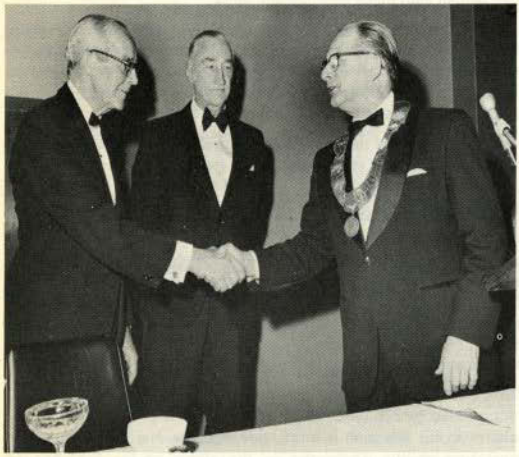
May I also thank Dr. E. Garth Vaughan who provided us with his individual art exhibit at the September 8th and 9th Executive Committee meeting at Keltic Lodge and who has helped to underline my belief in the feasibility of such exhibits at the divisional level by co-ordinating the Art Exhibit open to members and their wives at this annual meeting.

Finally, in light of my experience as President of your Society and in recognition of both the importance of the deliberations and decisions of Council and the age of the Society – formed 13 years before Confederation – I would respectfully submit that Council consider a motion that the Society acquire a mace which will reflect the dignity and importance of meetings such as these. I would be pleased to make a substantial contribution to the acquisition of such a symbol which, hopefully, would be designed by the Archives Committee with appropriate space for suitable engraving potential.

Ladies and gentlemen, your Society is indeed a Society with a tradition of service to its members and the public, one with a great deal of authority and concommitant responsibility. A symbol of this nature would help us to recognize and to live up to that responsibility in the years ahead.

Thank you.

Some Pictorial Highlights of 119th Annual Meeting



Halifax, N.S. – Retiring Medical Society of Nova Scotia President Dr. Garnett W. Turner, (right) Windsor, accords senior membership privileges in MSNS to Dr. T. B. Murphy, (left) Antigonish. Looking on is Dr. G. L. Silver, president of the society's Antigonish-Guysborough branch.

Halifax, N.S. – L. to r., Mrs. Arthur Shears, Halifax; Mrs. Clarence Campbell, Dartmouth; Mrs. James Fraser, Bedford and Mrs. D. K. Murray, Halifax, enjoy a display of unique children's toys during the society's Annual Meeting.

Halifax, N. S. – Dr. Gustave Gingras, president of the Canadian Medical Association, installs Dr. J. A. Myrden (left), Halifax, as 1973 president of the Medical Society of Nova Scotia.

Breech Delivery - Help! Is the answer!

D. W. Cudmore*, M.D.

Halifax, N.S.

"The primip breech". These words are well recognized as an alert signal for a potential obstetric disaster. The corrected perinatal mortality associated with breech deliveries is three to four times that for vertex presentations. Less well appreciated is the extremely high incidence of asphyxia neonatorum and its attendant long term sequelae. Also, the hazards of damage and death are shared equally by both primigravida and multiparous breech.

In 1968 ninety-one mothers delivered singleton breeches in the Grace Maternity Hospital. The charts of these patients were reviewed and the findings are the basis of this report.

These 91 breeches occurred in a total of 2,816 deliveries for an incidence of 3.3%. Sixty-one of these infants weighed greater than 2500 gms. However, the 30 breech infants weighing less than 2500 gms accounted for 11.2% of all infants of this weight category delivered in the Grace in 1968. (TABLE I)

GRACE MATERNITY HOSPITAL

BREECH DELIVERIES, 1968

TABLE I

Total – 91
Incidence of Breech – 91/2816 = 3.3%
Incidence of Breech (>2500 gm) = 61/2545 = 2.4%
Incidence of Breech (<2500 gm) = 30/271 = 11.2%

All but six infants were delivered vaginally, giving a cesarean section rate of 6.6% for the group.

The distribution between primigravida and multiparous mothers was approximately equal as was the incidence of small babies in each group. (TABLE II)

GRACE MATERNITY HOSPITAL

91 BREECH DELIVERIES, 1968

TABLE II

		Primigravida	Multipara
		48	43
Incidence	<2500 gm.	33.3%	34.9%
Incidence	1000 gm. - 2500 gm.	27.3%	26.3%
TOTAL:	1000 - 2500 gm.		22/82 = 26.8%

The neonatal mortality was restricted to those infants weighing less than 2500 gms, and was slightly higher in multiparous patients than primigravida patients (TABLE III). This increased neonatal mortality rate was not due to small infant size alone. The breeches weighing between 1000 and 2500 gms had a mortality rate of 22.2% compared to a mortality of 8.1% for all infants in this weight group.

NEONATAL MORTALITY

TABLE III

	Entire Group	2500 gm.	2500 gm.
Primigravida	2/43 = 4.7%	2/11 = 18.2%	0
Multipara	2/33 = 6.1%	2/7 = 28.6%	0

All cases	1.3% (12.9/1000)
Breeches	5.3%
All Cases (1000 - 2500 gm.)	8.1%
Breeches (1000 - 2500 gm.)	22.2%

*Figures exclude:
<1000 gm.
death from congenital anomalies

The incidence of asphyxia neonatorum as judged by the one minute Apgar scores was extremely high (44.6%), and many of these infants were severely asphyxiated (24.1%). If the breech infant weighed less than 2500 gms, severe asphyxia was present in 73.0% and 61.5% of multipara and primigravida patients respectively. (TABLE IV)

ASPHXIA NEONATORUM

TABLE IV

	Moderate (Apgar 4-6)	Severe (Apgar 1-3)	Total
	%	%	%
All Breeches	20.5	24.1	44.6
All Primigravida	17.7	20.0	37.7
<2500 gm.	15.4	61.5	76.9
>2500 gm.	18.6	3.1	21.7
All Multiparae	23.6	28.1	51.7
<2500 gm.	9.1	73.0	82.0
>2500 gm.	28.6	14.3	42.9
All <2500 gm.	12.5	66.6	79.2
All >2500 gm.	23.3	8.3	31.6

Discussion

What do these statistics mean? In this series neonatal mortality was extremely high, both for multiparous as well as primigravida patients. The incidence of asphyxia neonatorum for the entire series was also very high being highest in the group of babies weighing less than 2500 gms. If the well recognized association of severe asphyxia neonatorum and later neurologic sequelae holds true for these infants then even his small series has contributed to the problem of mental retardation.

*Ass't. Prof. Department of Obstetrics and Gynocology, Dalhousie University.

What can be done? The delivery of a breech requires four phases of management all of which require a great deal of expertise.

Phase one – The recognition of those patients who should not be allowed any trial of labor but should have an elective cesarean section. This requires the recognition of the breech presentation during pregnancy and an accurate assessment of fetal size and pelvic architecture. The recognition of absolute cephalopelvic disproportion may be easy but relative cephalo-pelvic disproportion due to a combination of factors such as type of breech, and so-called minor aberrations of pelvic architecture require expert judgment.

Phase two – Having decided to allow labor then, with a breech, this should be considered a "trial of labor". By this is meant she should reach pre-established landmarks during serial examinations. This requires constant observation during labor and if at any time she fails to progress, careful consideration of an operative delivery must be made. Also, careful attention to the possible emergence of uterine inertia especially towards the end of labor is of paramount importance.

Phase three – The delivery. The more premature the infant, the more difficult the delivery and the more expertise is required. The time to call for help is not when the relatively larger head has been held up by the incompletely dilated cervix and is preventing spontaneous delivery. Likewise, the presence of adequate anaesthesia is an essential requirement for any manipulative or operative procedure. Finally, a spontaneous delivery can only be expected if the uterus is working at its optimal capacity.

Phase four – Resuscitation. Because of the high frequency of this complication, immediate and effective resuscitation is required. This requires a thorough familiarity with the various causes of asphyxia and how they present. This knowledge must be complimented by the appropriate therapeutic skill to correct all types of asphyxia.

In conclusion – All breech pregnancies must be considered high risk. Acceptance of this fact and diagnosing the correct presenting part are the beginning of optimal therapy. This must then be followed by the selection of candidates for elective cesarean section versus vaginal delivery. All labors should be considered a trial of labor and failure to progress (eg. dilatation or descent) should demand re-evaluation and reconsideration of delivery by the abdominal route. The actual delivery requires skilled obstetrical knowledge and adequate anaesthesia with an uterus performing at its optimal capacity. Resuscitative procedures are frequently required and appropriate help and equipment are essential.

Failure to ensure all phases of management will place the fetus in jeopardy and continue to allow breech delivery to produce unnecessary dead or damaged babies.

Help! Is the answer! For who can provide all of these services alone. □

An Unusual Cause of "Surgical Acute Abdomen" (continued from page 178)

Prognosis: Depends on complications – chronic nephritis, – intussusception – perforation, – cerebral hemorrhage.

Treatments: In the absence of indications for operation, treatment consists of supportive therapy: analgesics, antibiotics, blood transfusion. Antihistamines are of no value. Corticosteroids are valuable for joint complications and edema but do not prevent chronic nephritis.

Etiology: Unknown.

Theories:

a.) Hypersensitivity reaction to infection, food or drugs.
b.) Experimentally, the typical clinical and vascular lesions have been produced by use of heteroimmune anti-blood-vessel serum. □

References

1. **Allen, D. M., Diamond, L. K. and Howell, D. A.:** *Am. J. Dis. Child.* **99**:833, 1960.
2. **Lindenauer, S. M. and Tank, E. S.:** *Surgery* **59**:982, 1966.

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- ☐ The Hazard of Therapeutic Non-Equivalency of Drug Products, G.H. Schneller, Drug Information Bulletin January/June 1969.
- ☐ Bioavailability, editorial, Canadian Medical Association Journal, Vol. 107, No. 3, August 5, 1972
- ☐ Bioavailability in Drug Therapy, M. Pernarowski, Canadian Pharmaceutical Association Journal, February 1971.
- ☐ Drugs, Drug Products and Prescribing Habits, D.N. Wade, Drugs, No. 2, 1971.
- ☐ The Physiological Equivalence of Drug Dosage Forms, FDD Symposium, June 26, 27, 1969.

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Osteoporosis

Samuel E. York*, M.D., F.R.C.P.(C)
Halifax, N.S.

Osteoporosis

Osteoporosis is a broad term associated with a reduced amount of mineralized bone, either in the whole skeleton or part of it. (Only generalized osteoporosis will be considered in this discussion). The remaining bone appears to be normal. Commonly the term is used to describe a loss of radiodensity. However, progressive loss of bone is a physiological event due to aging. The term osteoporosis is best reserved for those who have unusually thin bones for their age or those with thin bones and symptoms. In these patients the mass of bone is inadequate for their mechanical needs.

Etiology: The causes of osteoporosis may be classified as follows:

Generalized Osteoporosis.
- Primary (unknown cause)
  - Juvenile, adult,
  - Postmenopausal
  - Senile.
- Secondary (cause known or postulated)
  1. Hormonal
     - Hyperthyroidism
     - Cushing's syndrome
     - Hyperparathyroidism
     - Acromegaly
     - Hypogonadism
  2. Nutritional
     - Severe malnutrition
     - Malabsorption
     - Scurvy
  3. Diseases of connective tissue
     - Osteogenesis imperfecta
     - Rheumatoid arthritis
  4. Diseases of bone marrow
     - Multiple myeloma
     - Diffuse metastatic carcinoma
  5. Paralysis and total immobilization

Pathogenesis: The conventional theory is that post menopausal osteoporosis is due to a lack of estrogens, producing a decrease in osteoblastic activity (bone formation) with normal bone resorption, hence the development of thin bones. Later studies with radioactive tracers failed to show a decrease in bone formation rates, and resorption rates were frequently increased. Alternate explanations are calcium deficiency in older people, or lack of fluoride. Careful studies of bone density show that there is a progressive decline in women (and men) after the age of 40 years with no sharp change at the age of the menopause. Measurement of the thickness of the cortex of fingers and long bones has shown a progressive widening of the diameter of bone with age as well as decreased thickness of the cortex. This has led to an unorthodox view that postmenopausal osteoporosis is not a systemic disease but an effect of an underlying bone marrow tissue disorder.

Whatever the cause, we realize that decreased bone mass is part of aging. Whether patients with unusually thin bones started with less bone mass or lost it more rapidly is not settled. In general, the most susceptible person is the one with a small body frame.

Clinical: Development of osteoporosis is slow and asymptomatic. Usually the first symptom is sudden severe backache after minimal effort or trauma. The pain generally settles down in 3 to 4 weeks with healing of the fracture and the patient feels well. Usually further attacks of back pain occur without injury until the patient complains of more or less chronic back ache. The location of pain varies. Usually it is deep and well localized to the spine. When severe, pain may radiate around to the front of the trunk. The pain is made worse by movement and relieved by rest. Frank nerve root compression is uncommon. Although the spine is the commonest site of symptoms, pain in the pelvis, long bones, ribs, feet and fractures of the femoral neck may occur. A history of loss of height is often obtained.

On examination, there is frequently an exaggeration of the normal thoracic kyphosis, loss of the normal lumbar lordosis, sinking of the ribs toward (or into) the false pelvis with pain where the ribs contact the pelvic brim. A transverse crease of the anterior abdominal wall is often present. In the normal person the symphysis pubis is midway between the crown and heel, and the span equals the height. In patients with osteoporosis, the trunk may be abnormally short and the span exceeds the height. During the acute phase of pain, passive movement is painful. Between attacks, movement of the back is frequently painless and quite normal.

Diagnosis: Radiographs show decreased density of the spine with wedging and loss of vertebral body height. Long bones do not appear to be affected to the same degree. However, one must remember that between 30 to 60% of the calcium must be lost before the radiodensity changes.

*Ass't. Prof. Medicine, Dalhousie University.

In idiopathic osteoporosis, no specific biochemical abnormalities are found. Serum calcium, phosphorus and alkaline phosphatases are normal. Urine excretion of calcium is generally normal.

Osteomalacia must be differentiated from osteoporosis. Osteomalacia presents with bone pain which is generalized with aggravation by pressure or active movement, but not passive movement. Pseudofractures in pubic rami, scapula and ribs are diagnostic when present. The serum calcium is low and serum alkaline phosphatase is elevated.

Treatment:

General: In the acute phase of pain bed rest is often necessary and analgesics should be given. Heat and gentle massage of the back are frequently helpful. An orthopedic brace or corset may be helpful, but since the acute pain settles down in 3 to 4 weeks, this is generally not necessary. During the chronic phase when chronic back pain is present, hyperextension exercises to strengthen paraspinal muscles may be helpful. An orthopedic brace or corset is usually helpful at this stage. One need not worry about immobilization since there is enough movement to promote bone formation. The brace also reminds the patient to avoid movements which injure the back. One cannot emphasize too strongly that the patient must avoid heavy lifting, as well as avoid stooping or sudden movements. Bending the knees rather than the back frequently avoids painful episodes.

Specific: Treatment of secondary osteoporosis is directed toward alleviation of the cause (where possible). In the commonest type, postmenopausal, a wide variety of drugs are used. In view of our lack of understanding of the etiology, it is no wonder that the results obtained are difficult to assess. The following are frequently used:

Sex hormones. In women the use of estrogens, and in men testosterone may be used. Conjugated equine estrogen (Premarin®) 1.25 mg. daily in cyclical fashion. Testosterone cypionate (Depo-Testosterone®) 200 mg. i.m. every two weeks.

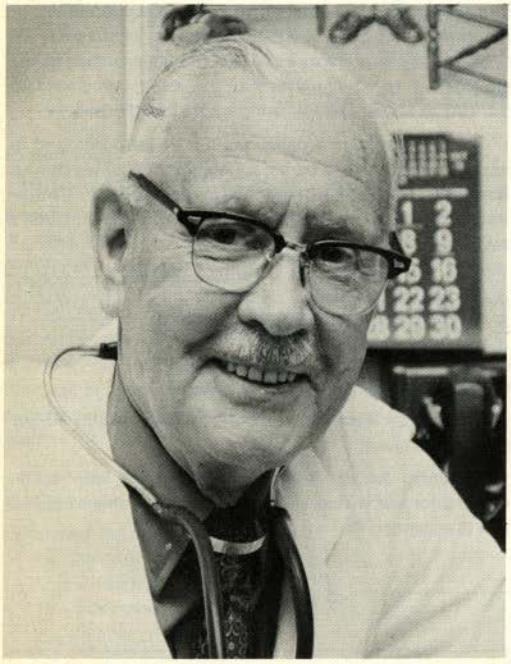
Anabolic drugs. Women tolerate testosterone poorly, therefore, anabolic drugs have been suggested. Methandrostenolone (Danabol®) 5 mg. daily is used.

Calcium supplements. Oral supplements of Calcium in a dose of 1.0 to 1.5 grams per day is used.

Vitamin D. Replacement doses of 100 to 400 IU per day may be given.

Currently under investigation but not yet recommended for use is fluoride, phosphate, intravenous calcium and thyrocalcitonin. □

Lunenburg Doctor Retires



Dr. H. A. Creighton of Lunenburg retired from general practice of medicine on October 1st.

The son of Graham and Catherine Creighton, Dr. Creighton was born in Halifax in 1895 where his father was the principal of the Morris Street School and later an Inspector of Schools. Dr. Creighton received preliminary school training at home until the age of ten, at which time he started in grade five at the Morris Street School which he attended for two years until his family moved to Musquodoboit. The Creightons returned to Halifax in time for him to complete high school in the old Halifax Academy.

Upon graduation Dr. Creighton decided to combine BA and MDCM degrees at Dalhousie University, but war broke out on August 4th, 1914, just as he had completed one year of study there. On August 6th he enlisted, and spent the next two years on Garrison duty at Halifax with the 63rd Halifax Rifles. After completing Militia training in 1916 his regiment was called for overseas duty and Lieutenant Creighton took a draft of 100 men overseas. After that he was transferred to the 5th Machine Gun Company of the Machine Gun Corps, and during his time overseas he was involved in such battles as Vimy Ridge and Paaschendale, and in 1918 was awarded the Military Cross by the late King George VI.

Dr. Creighton completed his combined courses at Dalhousie in 1924, followed by a sojourn overseas at the British Medical Centres, general medicine and surgery at London Hospital, obstetrics and gynecology at Dublin, and surgery at Edinburgh. He returned to Canada in the fall of 1927 and went west to Alberta, returning to the Maritimes soon afterwards. He practiced for a short time in Elmsdale and then moved to Lunenburg in 1928, where he replaced Dr. Cecil Kinley, who intended setting up practice in Halifax, in partnership with the late R. G. McLellan. After Dr. McLellan's death, Dr. H. A. Hewat became Dr. Creighton's partner, and later Dr. Douglas Cantelope became a third member of the partnership. When that trio dissolved partnership, Dr. Creighton had Dr. Bruce Keddy as associate from 1957 until 1964. Prior to 1957 Dr. Creighton served as port physician for 28 years and carried on surgery and treatment of mariners at the Marine Hospital and at his office. He received his Certificate as Specialist in General Surgery in 1946 from the Royal College of Physicians and Surgeons of Canada.

In 1933 he married Catherine Oxner of Lunenburg, and they have two daughters, Ruth and Ann, both of whom are members of the nursing profession, and a son Graham, now deceased, who also studied medicine at Dalhousie University. There are few general practicioners left like Dr. Creighton, who have attended to the needs of the sick by travelling on snowshoes, skis, horse and buggy or by jeep to reach patients, and it is indeed unusual to see an entire family dedicated to keeping the men, women and children of a community in good health.

In spite of his busy life, Dr. Creighton found time to serve on the Town Council, he was one of the organizers of Civil Defence in Lunenburg, and was the Commanding Officer of the Lunenburg Division of Air Cadets.

It was through the tireless efforts of Dr. Hewat and Dr. Creighton that the Fishermen's Memorial Hospital came into being, and for many years Dr. Creighton served on the staff of that hospital. Dr. Creighton is a man who has always been extremely devoted to others with not much time for his own pleasures, but he was a devotee of skating and was the first president of the Brittlebones Skating Club formed some 30 years ago, of which he is still an active member. □

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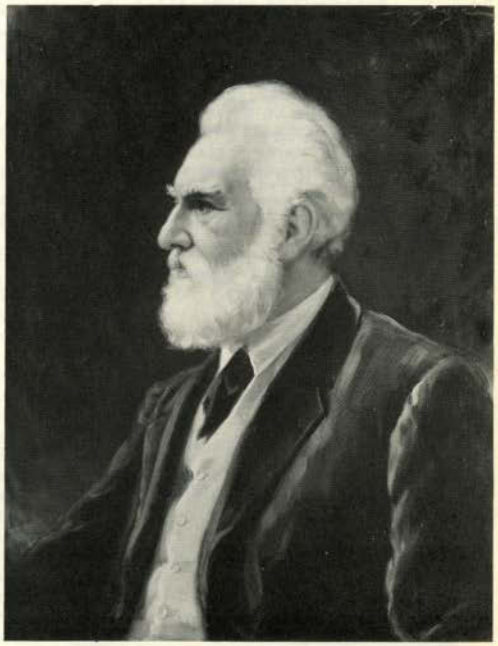
Alexander Graham Bell of Baddeck

David A. E. Shephard*, M.D.,
Rochester, Minnesota

Half a century ago, Alexander Graham Bell died in Baddeck, Nova Scotia. Following his death on August 2, 1922, he was buried on his own estate, on a hill overlooking the Bras d'Or Lakes. Best known as the inventor of the telephone, Bell explored many other aspects of Victorian science and technology. These aspects of Bell's work, however, are comparatively little known, but some are of interest to the medical profession. It is appropriate here to recognize the 50th anniversary of Bell's death in Baddeck by referring briefly to Bell's researches in medical science.

In 1886 the University of Heidelberg conferred an honorary doctorate of medicine on Bell. Specifically this honor was in recognition of one of Bell's inventions, the surgical instrument known as the telephone probe. This instrument was used in the era 1881 to 1900 for the detection of metallic foreign bodies. The most famous patient was undoubtedly US President Garfield, who had been shot on July 2, 1881. Immediately after this assassination attempt, Bell set to work on a device for the detection of the bullet that was sapping Garfield's strength; characteristically, Bell extended his earlier researches on the induction balance and within 3 weeks he used the new instrument in the White House. Regrettably the telephone probe was of no value in this case; the bullet was not located, and Garfield died not long afterwards. Even so, the telephone probe was used in many other cases of bullet wounds, with a limited measure of success, until the introduction of the roentgenogram in the closing years of the century.



Alexander Graham Bell

Bell's doctorate of medicine also symbolizes his wide-ranging interest in medical science and particularly this great man's desire to ameliorate the lot of his fellowmen. Particularly is this true of Bell's work in educating the deaf, which he considered his life work. Indeed the education of the deaf was much closer to his heart than the telephone ever was (both his mother and his wife were deaf); the telephone was, in simple terms, a device Bell invented as a consequence of his great desire to help the deaf become aware of sound and speech by electrical means. Bell spent the greater part of his time, energy, and money toward the better education of the deaf, who were little understood and little cared for in the 19th century.

Bell made several other interesting contributions to medicine. Stemming directly from the telephone was the audiometer. This instrument incorporated a telephone receiver, just as the telephone probe had done. Bell himself developed one model. Bell also invented a "vacuum jacket," a device to provide a means of artificial ventilation for victims of drowning or neonatal asphyxia. This was years before the era of the iron lung. A model of this is displayed in the Alexander Graham Bell museum in Baddeck. Bell also was one of the first in Canada to use x-rays, in 1897. He helped surgeons to localize a needle embedded in a man's foot. And in 1903, he suggested the use of radium for deep-seated cancer, several years before radium was ever used for such a purpose. Among Bell's other projects were these: a device to help the blind detect obstacles, studies on provision of fresh water for miners and for shipwrecked mariners, the early diagnosis of diabetes (which disease caused Bell's death), the effects of thumbsucking, and treatment for neuralgia.

Baddeck was dear to Bell and was the scene of many triumphant moments. The flight of the Silver Dart on February 1909 over the icy expanse of the Bras d'Or Lakes was one of these; this flight was the first manned flight in the British Commonwealth and Bell took a major part behind the scenes. Bell's work on flight and his invention of the telephone certainly overshadow his medical contributions but, taken all in all, they make Alexander Graham Bell a man who is worthy of our remembrance. □

*Dept. of Biomedical Communication, Mayo Clinic and Mayo Foundation.

Verses on Diabetes Mellitus

Angus McD. Morton, M.D., C.M.

These Verses on Diabetes Mellitus by Angus McD. Morton M.D., C.M., Dalhousie 1898 were written in the summer of 1898 while Dr. Morton was serving as Medical Officer on H.M.S. Gulnan which was surveying the coast of Newfoundland. Dr. Morton was a family friend of the father of Dr. Charles Best, co-discoverer of insulin and the famous medical scientist visited at his home, 52 Quinpool Rd. when he came to Halifax.

After Dr. Morton's death, Mrs. Morton met Dr. Best in Toronto and gave him a copy. In his letter to her dated at Toronto Jan. 4, 1947 he expressed great appreciation for the poem and said: "I have taken the liberty of sending a copy to Dr. E. P. Joslin of the Deaconess Hospital, Boston and I know he will be most interested in the poem."

The poem was written in 1898. Insulin was discovered by Dr. Banting and Dr. Best in 1921.

DIABETES MELLITUS

In the list of dire diseases
Which defy the skilled physician
Few are worse than diabetes,
Few more hopeless in prognosis.
If 'tis given definition,
Speaking with the tongue of Osler:
"A disorder of nutrition".

When the blood – man's vital fluid –
Holds grape sugar in solution,
And this sweetness is excreted
Daily in the patient's urine,
While the act of micturition
Grows more frequent, and more frequent,
And the urine thus resulting
Is increased in like proportion
Till, where once the flow was normal,
In the stage of introduction,
Now the stream becomes excessive,
And the colour of this fluid
Fades and fades from day to day,
Till its paleness is a feature
Useful in the diagnosis.

Soon the bladder grows exhausted
With its calm and constant effort
To deplete the pent-up kidneys
Of this saccharine production,
While the victim's thirst and hunger
Is a constant inconvenience,
And the loss of strength and vigor
Is continuous and progressive.

Now Mellitus Diabetes,
Choosing its own field of action
In the race of struggling mortals,
Takes the man before the woman,
Leaves the child and seeks the adult;
Seizes on the pert, neurotic,
Rather than the dull, phlegmatic.
It prefers the crowded city
In the place of peaceful country;
And, 'tis said, 'tis prone to follow
Patients bound in family union;
While a predisposing factor
Is a diabetic fatness
Sometimes noticed in young children.
If with this a case commences
Very serious the prognosis.

Now an injury involving
Tissue in the nervous system
Either spinal or cerebral
Sometimes brings on diabetes
And 'tis true it finds its victim
In a very large proportion (?)
With the ancient Hebrew Nation,
While the people in the Old World
Suffer from this dread condition
More than those across the water.
But while all these facts are well known
The true nature of this illness
Or its pathogenic lesion
Baffles still the skilled physician.
It may be the Carbohydrates
In excess the patient taking
May, by reason of this excess,
Place more than the health requires
Glycogen within the liver.

Or, perhaps, the nervous function
Of this gland, this gall producer,
Suffers from some gross impairment;
And of late it has been noticed
That in fully half the cases
Of this troublesome affliction
There is met distinct disorder
In the pancreatic function.
'This within the range of reason
That this gland secretes a ferment
Which is strictly necessary
To produce in human tissue
Glycolytic distribution,
And suppression of this function
May give rise to diabetes.

When the case is not arrested
And the patient then expireth,
If with care at the post mortem
Nervous structures are examined,
Constant lesions are not met with.
But 'tis true the nervous tissue
Of the diabetic patient
In a few well-proven cases
With "new growths" has been affected.
Now the blood contains much sugar
(One half percent it sometimes reaches)
And the plasma of the life stream
Has within it fatty tissue,

While the red and white corpuscles
Still are normal, still are healthy;
But the walls of the blood channels
Soon shew changes that are lasting,
Changes that are termed sclerotic.

In the lungs the signs of phthisis
May if looked for be detected,
While the liver's size increases
Owing to a fatty wasting;
But the pancreas grows still smaller,
Atrophies and loses function;
While the change found in the kidney
Is like that within the liver.

Now, 'tis known that diabetes
Comes to man in various phases
When the doctor views his cases
They may be acute or chronic;
In one case the morbid process
May be fine and energetic.
In another one the progress
May be slow, almost inactive
And 'tis true that some physicians
When they speak of this affection
Make a very close distinction
'Tween their diabetic cases.
But by no means is it easy
For the wise diagnostician
To arrange in special classes
All his cases of this ailment.
In a case of average mildness
Symptoms come on rather slowly:
Usually the first one noticed
Is the frequent micturition,
And with this, the thirst excessive
Soon becomes quite inconvenient.
For a large amount of water
Is made use of in the system
Holding sugar in solution;
And the thirst is most annoying
To the poor afflicted patient
For a few hours after eating.
The digestion of the victim
Of this serious affection
Suffers from no gross impairment,
While the appetite increases,
As from day to day the illness
Gets beyond initial stages,

And the "case" is always hungry,
Always seems to be half famished,
For there is a constant feeling
As if there were something lacking
In the region of the stomach.
So the patient keeps on eating,
Eating, drinking, chewing, stuffing,
Never getting satisfaction
From the food that's daily taken.

Though the appetite increases
As the case gets firmly seated,
Yet the patient grows still thinner,
Loses flesh, and strength, and vigor,
Till the wasting of the body
Bears a definite proportion
To the mighty flow of urine.

If we note the tongue's appearance
It is dry and red in colour,
Due, no doubt, to scant secretion
Of the salivary fluid.
And, perchance, the diabetic
May have aphthous stomatitis,
Coming in the later stages;
And the skin is dry and roughened,
Though sometimes there may be sweating
If, as often has been noticed,
Phthisis is a complication
And the vessel wall sclerosis
Makes the pulse both hard and frequent.

The amount of urine varies,
Varies in the different cases;
Often in the early onset
No increase at all is noticed.
But, in ordinary cases,
Not less than a hundred ounces
Are excreted by the patient
Within four and twenty hours;
And some authors, writing, say that
Thirteen, fourteen, fifteen liters
Is the daily flow of urine!

It is very pale in colour,
Just appears as common water,
With a little dash of yellow,
And sweet is the taste and odor
Of this urinary fluid;
While the gravity specific
Ranges higher than the normal
So that twenty-five to fifty
Is a common observation.

Now the chemist with reagents
Testing this abnormal urine
Finds grape sugar in abundance;
In the quantity he measures,
There may only be two scruples:
Or perhaps he finds this sugar
Runs as high as two pounds daily.
And some other solid products
May be met with if they're looked for,
Such as glycogen, and with it
Sometimes he will find urea,
And that omen of nephritis,
Albumin, is often present.

Boils, carbuncles, and eczema
Often come as complications
And in diabetic women
The abnormal flow of urine
Passing over the pudendum
Has an irritative action
Which may cause intense pruritis;
While in males, the same condition
Brings about a balantis.

Of the other complications,
Phthisis is already mentioned;
And albumin in the urine
Oft is followed by cystitis;
But by far the worst condition
Which accompanies this affection
Is the diabetic coma
Which may come at any moment.
And if this befall the patient,
Then the case becomes most serious.
The convulsion which comes with it
Bears a very close resemblance
To the fits seen in uraemia,
And 'tis thought by some physicians
Acetone, or some such agent
May be present in the blood stream
Bringing on this dread condition.

And sometimes a state commences
Known as diabetic tabes,
While there may be loss of vision,
Loss of mind, or loss of reason,
And the case is sad and gloomy,
Is morose and melancholy.
Life seems scarcely worth the living,
With Mellitus Diabetes.

When 'tis found there is grape sugar
Permanently in the urine
Then the doctor may be certain
That the case is diabetes.
But it should not be forgotten
That a transient glycosuria
May exist in many persons
That is not true diabetes.

It is very very doubtful
If a cure can be effected
When the case is fairly seated;
But a strict regard to diet
May cause some amelioration
In the patient's range of symptoms,
And the progress of the ailment
In a measure be retarded;
While the fact should be remembered
The prognosis is more serious
In the child than in the adult.

If the members of one family
Have a diabetic leaning
They should use the greatest caution
In their daily dietary;
And they should be ever mindful
That their mode of living must be
Very even, very quiet,
Free from care and free from worry.

Now to feed a diabetic
In a satisfactory manner
So the patient will not tire
Of the steady unchanged diet
That experience informs us
Is a necessary factor
In well-regulated treatment,
Is a very serious problem.
Soups are given, but they must be
Thin and clear and well diluted;
Quench the thirst by giving often
Coffee, chocolate, and cocoa,
Or give tea and pure cold water;
With them, milk in moderation,
Taking care that all these fluids
Are not rendered sweet with sugar.

Of the products of the ocean
Fish of all kinds may be given,
And among these are included
Shell fish, lobsters, crabs, and oysters.
Furnish meat, both fresh and salted,
Fat and lean, withholding liver;
Game and poultry, eggs and butter,
Curds and cream and similar foodstuffs,
May appease the patient's hunger.
Bread from bran or gluten flour,
Cocoanut or almond biscuits
Must supplant in a just measure
Bread from ordinary flour.

Now, the patient may take lettuce,
Spinach, chicory and tomatoes,
Sorrel, cucumbers, and mustard;
These and various sorts of pickles.
And of fruits he may have lemons,
Plums and pears and red ripe cherries,
Oranges and sour apples,
Currants and the various berries,
Taking always great precaution
That his daily fruit allowance
Is in no way made excessive,
While of nuts it may be stated
That a few will not prove harmful.

But thick soups should not be taken
And no liver should be eaten,
While of bread the daily diet
Must be very, very sparing.
There must be distinct refusal
Of the farinacious products,
Such as rice and tapioca,
Arrowroot and vermicelli.
And potatoes must be absent
From the patient's dining table,
While with these must be excluded
Squash and turnips, beets and parsnips;
All these very pleasing viands
Must the suffering one abstain from.

Now of liquids, prompt refusal
Must be made by every patient
When a glass of beer is offered;
And he also should remember
Sparkling wines must not be taken,
While the temperate patients notice
Bad results will follow drinking
Sweet and aerated waters.

Many drugs have been made use of
By the hopeful, kind physician,
With the earnest expectation
That at length might be discovered
Some infusion, some decoction
Some medicinal preparation
That when given to the patient
Would result in marked improvement
But experience has taught us
That in treating diabetes
Medicines have little value.
Now, as far as present knowledge

Will direct the patient doctor,
Opium is the only agent
That will cause decided limit
In the march of this disorder;
And, with treatment fairly started,
Soon there's noted special tolerance
Towards large doses of codeia.
This, an alkaloid of opium,
Is the favourite preparation
Used to combat Diabetes.

But employment of this agent
Is found of no use whatever
Unless taken by the patient
Hand in hand with guarded diet.
"This a rule laid down by Pavy
Give at first a half grain daily.

And increase until there's taken
Six or eight grains by the victim
Within four and twenty hours.
When the sugar is diminished
In the daily flow of urine
Then perhaps 'tis well to lessen
In amount this drug – codeia.

Lately it has been attempted
To arrest the dreaded symptoms
Rising in this grave affection
With an extract from the pancreas;
But as yet this preparation
Has not given satisfaction.

When this dreaded complication –
That is, diabetic coma

Makes its shocking first appearance
Instantly heroic efforts
Must be made to save the patient:
Oxygen by inhalation,
An injection intravenous,
Or at once a diuretic
Sending off the toxic products.
Any other useful measure
That the doctor may make use of
Should at once be put in practice.

If a surgeon be consulted
By a diabetic patient
He should take the greatest caution
That he does no operation
Does not give an anaesthetic
For a case in this condition. □

Physician Self-Assessment

Lea C. Steeves, M.D.
Halifax, N.S.

The following questions have been submitted by the Division of Continuing Medical Education, Dalhousie University, and are reprinted from the American College of Physicians **Medical Knowledge Self-Assessment Test No. 1** with the permission of Dr. E. C. Rosenow, Executive Vice-President.

It is our hope that stimulated by these small samplings of self-assessment presented you will wish to purchase a full programme.

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the ONE that is BEST in each case.

240. The largest expiration possible from the position of full inspiration is called

(A) functional residual capacity
(B) tidal volume
(C) vital capacity
(D) inspiratory reserve volume
(E) expiratory reserve volume

243. In a patient with bronchogenic carcinoma, which of the following most strongly suggests inoperability?

(A) Brachial neuritis
(B) Hypertrophic pulmonary osteroarthropathy
(C) Hypercalcemia
(D) Horner's syndrome
(E) Cushing's syndrome

330. A 29-year-old woman has a positive VDRL and a Kolmer-Wasserman reaction that is positive in a dilution of 1:4. She has received sporadic penicillin therapy for minor respiratory infections. Nothing in the history or physical examination suggests syphilis.

Which of the following is most likely to be correct?

(A) Sero-resistant, adequately treated, latent syphilis is the most likely diagnosis
(B) The cerebrospinal fluid should be examined and treatment for late latent syphilis should be initiated with penicillin
(C) Further testing should be performed to determined if the serologic tests for syphilis are stable or changing and to determine if she has antibody that is specific for spirochetal antigen
(D) The absence of any history of genital lesion or skin eruption suggets that the patient most probably has a biologic false-positive reaction
(E) In the absence of positive neurologic findings, it is not necessary to examine the cerebrospinal fluid. Treatment for latent syphilis should be initiated with penicillin. □

(Please turn to page 196 for answers)

CAMP DOCTOR

On first thinking about it, the idea of spending six weeks with two hundred and seventy children, is a bit staggering. Unlikely though it may seem, it is really a delightful way to spend the summer.

It has been my pleasure to spend all or part of the past four summers at a children's camp as Camp Doctor. The campers are of both sexes, aged from seven to sixteen. The staff are little older, with counsellors seventeen to twenty. The last director was all of 22.

We all live in very bare, rustic cabins with inside facilities though no hot water. The Infirmary is well laid out with a four-bed ward for each sex, a bedroom for a nurse, a large consulting room and a temperamental hot water boiler.

The program is an excellent one. There is a strong Red Cross swimming instruction set-up, an arts & crafts building with instructors, athletic directors covering all sports including water skiing, and a Scouting director.

The doctor is kept quite busy medically, but is occupied even more acting in loco parentis. It is really fascinating to listen to a group of young teenagers discussing their problems with life in general and with their parents in particular. It is a sort of experience that makes the position of camp doctor so rewarding.

As the weeks go on, the children seem to think of the doctor as almost one of their own and the confidence increases. The stories one hears and the incidents that one is witness to, makes the job that much more interesting.

The day begins for the Doctor with very loud wake-up music at 7 a.m., just as it does for every other camper. Cabin clean-up then proceeds until 8 a.m., when the camp sits down to breakfast in the dining hall. After breakfast, the doctor proceeds to the Infirmary for the first sick-parade of the day. There is one "office" held after each meal plus any emergency that may turn up (and does, regularly) through the day.

During the first few days the most common complaints are upset stomach, headaches and sore limbs. The most common diagnosis, however, is "acute separation anxiety". With a lot of TLC and a few Placebos, almost everyone makes a complete recovery. As the weeks go on, of course, one sees a variety of conditions just as one does in his office. There are a few more cases of URI and otitis because of the swimming, and the running with wet heads. Once in a while there is an epidemic of mumps or measles, which makes for a hectic few weeks.

When the children go on overnight hikes, there are sure to be several casualities e.g. multiple insect bites, sprains, dislocations, and the ever-popular "upset tummy".

Unfortunately, of course, major conditions also occur. Over the years, we had severe fracture-dislocations, acute psychiatric conditions, and anaphylactic reactions, to name but a few. The neighbouring town has a hospital which very kindly gives me temporary staff privileges while I am in the area.

Having a doctor full time in a children's camp is, without question, of great benefit to the children and a relief to the parents. It is also very good for the doctor. Though one is practising medicine, it is like doing so on another planet. Weeks can go by when you don't leave the camp, don't see another adult, and, throughout the camp season, no "idiotbox". The only contact with the outside world is the radio, usually after midnight. If a real vacation means a complete change from ones' usual modus vivendi, then spending a summer as a camp doctor is a true vacation. I can heartily recommend it not only to my fellow GPs but to specialists as well. For the latter particularly, it could be a stimulating and rewarding experience. □

M. E. B.

Personal Interest Notes

Dr. C. B. Stewart, Vice-President Health Sciences of Dalhousie University was invested as an officer of the Order of Canada by Governor General Roland Michener at a ceremony in Ottawa recently. Dr. Stewart was honored for his contributions to medical education and research in planning of national and provincial health and hospital services.

Dr. C. B. Stewart being presented with his Order of Canada Award by Gov. Gen. Roland Michener.

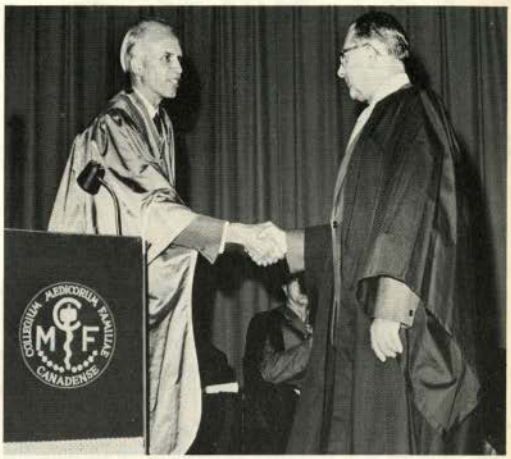
* * * *

At Acadia University's fall convocation an honorary degree of Doctor of Science was received by Dr. Joseph P. McGrath, Kentville. Widely known throughout the Annapolis Valley, he is a Senior member of The Medical Society of Nova Scotia.

* * * *

A news release in October from the Department of Health and Welfare, Ottawa, announces that National Health grants totalling $63,100 have been approved by Health and Welfare Minister John Munro to assist Dalhousie University develop a research unit in health care. The unit will be established in Dalhousie's Department of Epidemiology.

Dr. Garnett W. Turner of Windsor was elected to Fellowship in the College of Family Physicians of Canada during the college's annual convocation exercises in Toronto. Dr. Turner is past president of The Medical Society of Nova Scotia.



Dr. Garnett W. Turner (right), Windsor, N.S., receives his Fellowship in the College of Family Physicians of Canada from College president, Dr. B. Halliday, Tavistock, Ont. Dr. Turner is president of the Medical Society of Nova Scotia.

Obituaries

Dr. Robert L. Aikens, 59, of Halifax died September 20, 1972. Born in Stellarton, educated in Nova Scotia he received his degree in medicine from Dalhousie University in 1939. Resident physician at Victoria General Hospital, Dr. Aikens also conducted a private practice in Halifax for many years. Our sympathy is extended to Mrs. Aikens, his sons and daughter.

Dr. Robert T. Annand, 57, of Bridgetown died July 27, 1972. Born in the United States he practiced medicine in Bridgetown, after graduating from Dalhousie Medical School in 1951. Sincere sympathy from the Society to his widow and family.

Dr. Maurice F. Fitzgerald, 54, of New Glasgow died July 10, 1972. Born in Sydney, he graduated from Saint Francis Xavier University and studied medicine at McGill University. He set up general practice in New Glasgow following his service with the Army. Sincere sympathy is extended to his family.

Dr. Norman H. Gosse, 80, of Halifax died September 30, 1972. Dr. Gosse was born in Newfoundland, graduating in medicine from Dalhousie University in 1922. After post graduate work in the United States he returned to Halifax in 1928 when he was appointed to the teaching staff of Dalhousie University and the surgical staff of the Victoria General Hospital, where he remained for over 30 years. Our sympathy is extended to his widow, Dr. Margaret Gosse and family.

Dr. Allan S. MacIntosh, 60, of Halifax died July 28, 1972. Dr. MacIntosh graduated from Dalhousie Medical School in 1941. Until shortly before his death Dr. MacIntosh was Assistant Professor to the Anesthesia Department Dalhousie University. Sincere sympathy to Mrs. MacIntosh and family.

Dr. John R. Greening, 40, of Antigonish died October 25, 1972. Dr. Greening opened his practice in Antigonish in 1962 after receiving his degree in medicine from McGill University. He was head of the department of obstetrics and gynecology at St. Martha's Hospital, Antigonish. Sincere sympathy from the Society is extended to Mrs. Greening and family.

Dr. Oscar R. Stone, 84, of Bridgetown died May 28, 1972. Born in Halifax, he graduated from Dalhousie Medical School in 1922 followed by post graduate work in New York, London and Vienna. He practiced medicine in Bridgetown for 46 years retiring in 1971. Our sympathy is extended to his widow and son. □

Brief Note

DRUG SUBSTITUTION, PRODUCT SELECTION, THERAPEUTIC EQUIVALENTS, GENERICS . . .

A Drug By Any Other Name . .

In the light of spiraling prices, the consumer is looking for lower drug costs but Product Selection is not a workable means of achieving that end. Product Selection by the Pharmacist may compromise the Physician in the treatment of a patient.

What is meant by compromise? Most physicians will agree that in a doctor-patient relationship there is a high degree of trust both in the giving and receiving of advice and the medication prescribed. Most Physicians prescribe with the same concern as if we ourselves, or members of our families were being given a drug. As well, the physician prescribes from a knowledge of not only the illness and the patient, but the drug of choice.

In choosing a brand name rather than permitting substitution the physician is stating his confidence in the reliability of a name and product. He is sure that in the event of difficulty the product is known and has the good name of the manufacturer. Product selection ignores the fact that there is a great deal of complexity in so-called therapeutic equivalency. To say that all ampicillins are the same is ludicrous, not only on the basis of a recent article in the C.M.A.J. but also in the light of common sense. Someone or something is always better either by fate or usually by effort.

The effort as far as the drug manufacturing companies is concerned lies in the total assessment of the product from the raw material to the finished product including the so-called inert ingredients. In many tablets and capsules the binders and diluents constitute 90 to 95 percent of the finished product. Should these inert ingredients be anything but inert they might seriously affect the bio-availability of a product. As well, taste or even smell is important to a product. It might be the greatest drug in the world with a spectrum from hemorrhoids to ulcers, but if it is unpalatable, forget it; especially where children are concerned.

Aside from trust in a Product there is a question of who is then legally responsible for the patient if adverse reaction to a drug should develop. In the June 8, 1970 issue of Medical Economics, physicians were advised that if they prescribe by brand name then they would be held responsible only for the knowledge of the side effects that the manufacturer has found. But if one writes generically, they may be held responsible for knowing everything that is written about the drug. It is enough concern that all in medicine is not cut and dried without adding another unknown.

J. F. Cox, M.D. □

Physician Self-Assessment
ANSWERS

Question No.	Correct Answer
240	C
243	D
330	C

ADVERTISERS' INDEX

GENERAL INDEX

VOLUME 51, 1972

ABBREVIATIONS:

Corr. – Correspondence; DL. – The doctor and his leisure;
AWT. – Around the Willow Tree; 1000 – Thousand Word Series;
E – Editorial; BN – Brief Note.

□