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THE NOVA SCOTIA MEDICAL BULLETIN

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The Purpose of the Bulletin

Since its inception nearly fifty years ago, the *Nova Scotia Medical Bulletin* has tried to serve various functions. Originally it was hoped that it would unite "the Profession solidly behind all practical movements which had for their aim the physical betterment of the people of the Province". A certain amount of medical and scientific information must be provided in order that optimal medical care be given to Nova Scotians: this is one function of the *Bulletin*.

Apart from this—and there is an argument that the medical practitioner already suffers from a surfeit of scientific nourishment—a second purpose of the *Bulletin* lies in developing "a better spirit of camaraderie and professional teamwork". Information of a different kind, a more personal one, linking doctors in all parts of the province through common interests, is perhaps equally important. In its best sense of "easy, familiar writing", gossip is just as interesting to readers of the *Bulletin* as are accounts of gargantuan glossitis or even glossectomy for the treatment of the garrulous; the Personal Interest Notes once so ably compiled by the late Roberta Bond Nichols exemplifies this. News, of any kind, the more varied the better, serving to keep us aware of what is going on in all parts of the province, is therefore another interest of the *Bulletin*.

A third function of the *Bulletin* concerns the relationship of the physician to community and social problems. Certainly, when society as a whole is facing massive and complex problems in the environment, the medical profession cannot afford to remain divorced from today's vital issues. There are many ways in which the medical profession could and should help solve these problems. The misuse of drugs, the consequences of pollution, the medical aspects of poverty, and the relationship of community problems to disease (which for example the North Preston Clinic near Dartmouth has brought to light), are just a few examples of significance to readers.

If these functions are valid, the question must then be asked as to how significant material should be presented. The Editorial Board attempts to gather and select such material; but because, in the words of a former Editor, "the medical profession must realize that the *Bulletin* belongs to each and every practitioner", the *Bulletin's* readers must consider whether what is reaching them is in fact significant, interesting, enjoyable and worth the time and cost of preparing and reading the printed page. The viability of the *Bulletin* depends on both the readers and the Editorial Board.

It is in this direction that the search for the real purpose of the *Bulletin* can most fruitfully be pursued. Readers' reaction and participation is certainly invaluable: a personal view, which I hope is shared by many of my colleagues, is that any reaction is better than none, that controversy is preferable to apathy; there is some sympathy for the viewpoint expressed in a recent letter: "Just when has the *Bulletin* had an article that stirred up any controversy?" Controversy, unorthodoxy, the views of the minority, debate: these should be aired in the forum of a provincial medical journal. But controversy must be two-sided: who will help to spread the ripples, so that the different ideas and opinions which exist among the members of the Medical Society come to the surface, so the inhabitants of our own small "ecosystem" are made aware of what concerns each other? The answer is you, the reader; only then will the *Bulletin* truly serve as a medium of communication serving to bind together to some degree the doctors of Nova Scotia, in order to effect "the physical betterment of the people of the Province".

D.A.E.S.

Commentary

Pollution

Pollution—now a fashionable topic—may be looked at in several ways. In its narrowest sense, it affects our domestic lives whether it be the personal pollution of cigarette smoke or trash or excrement; in its broadest sense, it concerns the ways in which man tends to despoil the biosphere—the thin skin of air, water, and soil which we share with lesser organisms and plants. Somewhere in between comes municipal and industrial pollution, the inevitable result of modern life, dominated by the rush of man to cities and towns with their paradoxical provision of palace and prison, paradise and poverty—and pollution, to which man must ever adapt, however it affects him.

Each and everyone is in some way affected by this modern scourge, which as a United Nations report[1] recently pointed out, is the result of three characteristics of the modern world: overpopulation, urbanization, and technology. As Dubos says, "Although modern civilization subjects all human beings to endless stresses, men of all ethnic groups elect to live in a huge megalopolis, and indeed manage to function effectively in this traumatic environment. Most of them seem to develop tolerance to pollutants, intense stimuli and high population density, just as they develop immunity to many of the microbes with which they come in daily contact".[2] But we also pay a price for our choice; Commoner, another contributor to a special issue of *Science Journal* devoted to "Science for Mankind", puts it this way: "For the advantages of motor transport, we pay a price in smog induced deterioration and disease. For the powerful effects of new insecticides, we pay a price in dwindling wildlife and unstable ecological systems. For nuclear power, we risk the biological hazards of radiation. By increasing agricultural production with fertilizers, we worsen water pollution".[3] Obviously the catalogue of woe could be extended; the central illusion remains, as a tribute to man's conceit, that manipulating nature is the same as managing it.

The problem of pollution is so vast—its very universality and invisibility being well typified by the phenomena of DDT dispersal—that the ordinary citizen finds it hard to understand, let alone tackle the issues which must command our attention. Yet if we attach any significance to the fact that in the past century, as a result of our technological civilization, atmospheric carbon dioxide has increased by some 10%, and to the observation that a reduction in available oxygen has resulted from the persistence of DDT in the biosphere, we must treat pollution as a serious threat. The great question to which we must address ourselves is: What do we do about it?

Doctors in Nova Scotia, appreciative as they are of the beauty of our natural environment, are surely as cognisant of the dangers of pollution as any other group of citizens: perhaps they should even have a more urgent understanding of the situation. And because the medical profession has access to medical and scientific research and information, because it comprehends so well the long-term effects of, for example, air pollution, and because further it is an influential resource group in society, its responsibility in this area is considerable. Not only this, but as Miller remarks, "Many are now convinced that the goal of medicine should not be the prolongation of life irrespective of other considerations, and that the nature of survival is all-important. The prime function of medicine is not to set up records in the maintenance of physiological functions, but to relieve pain and distress—to improve the quality of life".[4]

The Medical Society, in adopting a recent resolution on Pollution, and in setting up a Committee to tackle some of the relevant problems, has correctly recognized the urgency of the matter. But recognition must be practical, our involvement in this social issue must be more than advice issued from an ivory tower. The Medical Society has much to offer Nova Scotians in this regard. It is essential that the members read widely and think carefully about the issues, that the Society effectively taps the resources of allied professions such as biology, chemistry, oceanography, meteorology, engineering, physics as well as the social sciences, for the effective committee work which must precede the giving of advice, that it conduct its own research into factors of importance, and that it actively contributes to those groups in the community which attempt to combat pollution. Only part of the physician's function is to cure: most is to "comfort always"; modern man demands, in another sense perhaps, comfort in his environment, and in the qualitative sense at least, the physician can, as always, act "taking the patient's side against the often indifferent and sometimes hostile forces of society".[2] In this context physicians can readily approach the issues involved, just as infectious disease was conquered in the last century. Today the urgency of pollution is as great as cholera or tuberculosis were one hundred years ago: there is no reason why today's challenges cannot be met in the same spirit as that of Koch and Pasteur. It is certainly an effort which must be made if we are genuinely interested in a wholesome quality of life for all.

D.A.E.S.

1. United Nations, Report of the Secretary-General: Problems of the Human Environment, May, 1969.
2. Dubos, R.: The Human Environment. *Science J.* 5A, 75, 1969.
3. Commoner, B.: Evaluating the Biosphere. *ibid.*, p. 66.
4. Miller, H.: Real goals for Medicine, *ibid.*, p. 90.

The Society in 1970

In this, my first contribution to the *Nova Scotia Medical Bulletin*, I wish to review with you briefly the medical-political "internship" which I have just concluded as your President-elect. I then hope to look tentatively ahead into my "residency training" period as your President. During the year 1970 I shall be responsible twenty-four hours a day for our patient—The Medical Society of Nova Scotia. You, the members of the Society, are in effect the staff man to whom I turn for mature and responsible advice in the discharge of my duties.

All of us fortunate enough to interne in an institution which also trains residents recall with gratitude how much we learned from a good resident, and how much more that resident did for the welfare of his staff man's patients than the staff man ever knew. Dr. Frank Dunsworth continued the presidential tradition of The Medical Society of Nova Scotia of serving all its members with the greatest of zeal and constancy. I, in particular, owe much to his example. From my vantage point, I saw significant progress toward a better Medical Society of Nova Scotia during the past year. The interest and involvement of every member of the Society in its affairs, stimulated by the Presidential Letters, helped us through the critical period that preceded the introduction of Medical Services Insurance. Painstakingly and patiently, the Society's officers and key committee chairmen met with their counterparts in public office, discovering that our common interest in the public good made it possible to resolve certain differences, and to live more comfortably with others. The joint support of the new Medical Act by The Medical Society of Nova Scotia and the Provincial Medical Board undoubtedly facilitated its adoption by the provincial legislature. Visits to branch medical society meetings by not only the officers of the Society but also officers of the Workmen's Compensation Board, and Maritime Medical Care, have been of benefit to members of the Society, and through them to the public in general. These are but a few examples of progress for the Society under the presidential direction of Frank Dunsworth.

The progress I have noted was based to a very significant degree upon adaptation of a long-established clinical principle: consultation with appropriate experts when indicated in the best interests of the patient. While our Executive Secretary is not an M.D., he is an experienced and astute administrator. Our legal counsel was readily available and invaluable. During 1969 the services of an economist proved necessary as we prepared to live with and learn from the data generated by M.S.I. computers. Most important of all, however, in improving the status of the Medical Society of Nova Scotia over the past year, was the immediate availability of Public Relations Counsel. This group has practiced on our behalf in the best tradition of family practice; namely preventive, diagnostic, curative, rehabilitative, and emergency public relations.

You will not be surprised that, with my bias as a medical educator, I regarded as the most important action of the Council at the time of the Annual Meeting of the Medical Society of Nova Scotia, the adoption of the recommendations of the report of the Committee on Medical Education. This committee made it quite clear that the primary concern of all doctors, namely quality medical care, is not only a personal responsibility but a responsibility of organized medicine. Its recommendations pointed up the fact that this responsibility cannot effectively be discharged either at the provincial level alone, or even additionally at the branch society level; rather, it requires organized involvement of the individual hospital medical staff. It is recognized that the hospital medical staff is related to The Medical Society only in the sense that its individual members are, or can become members, of The Medical Society. It has been suggested, however, at a recent meeting of the Presidents of Branch Societies that the individual hospital medical staff could become a section of the branch medical society, with a distinct improvement in the speed of communications concerning medical society affairs among the society's members. It is my hope that the year 1970 will see an emphasis by all members of the Society on the provision of quality medical care, recognizing that while this may increase operating costs of practice, it will at the same time increase personal professional satisfaction and improve patient care.

We should consider soberly the implications of the establishment in November 1968 of the Committee on Costs of Health Services by a conference of Ministers of Health in Canada. There are obvious implications in such government activity. However, the task force reports have now been published and they are a most heartening series of documents. I hope every branch society will purchase a set from the Queen's Printer, and set up a study committee. Any government document which states that: "if the full potential of the health sciences to society is to be realized, a true partnership with the public and voluntary sectors is essential", and "the medical profession must be directly involved" is throwing to the profession a challenge which we must accept.

L.C.S.

The Problem of Prolonged Labour †

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Summary: Prolonged labour is a potential hazard to both mother and baby, associated with an increase in perinatal morbidity and mortality. The factors leading to prolongation of labour are analyzed; given thoughtful and intelligent obstetric care, however, this problem need never arise. A practical program to ensure the early recognition of a potential prolonged labour situation and the steps to manage it are outlined.

The most important period in the life of a human being, to paraphrase Jeffcoate's remark that the most important journey made by man is down the birth canal, is that well-defined interval between the beginning and the end of parturition: the phenomenon known as labour. Yet in a busy practice, there is a risk that labour may be taken for granted, that simple details are overlooked, and that we may ignore the early warning signs which may mean the difference between a successful and a tragic outcome.

Even in modern specialized obstetric units, various factors which skilled practice seeks to eradicate or alleviate are found to a significant degree: excessive blood loss, puerperal infection, and increased perinatal mortality and morbidity still plague those who seek to provide the best possible management of labour for their patients. It is therefore important, from time to time, to review our approach to the problems of labour, however elementary they may appear. The obvious and the self-evident, however, assume especial importance in this respect because it is often when we overlook the obvious that our troubles begin.

Attitudes towards prolonged labour

The problem of prolonged labour is one such which merits careful examination. To this in the past, and regrettably even today, there has been a somewhat cavalier attitude, and it is perhaps of value to consider in what manner the thinking underlying such an attitude is basically faulty. There are several aspects of this.

First, there has been, and still is, among many physicians, midwives, nurses and lay people an almost mystical faith in the inherent wisdom of human parturition, so that given enough time the problem will be solved with birth taking place in the manner Nature intended. This attitude certainly was prevalent even 50 years ago because there were no alternatives: caesarean section was a dangerous operation, blood for transfusions, antibiotics and safe anesthesia were not available and the degree of technical skill and clinical judgment were below the standards of today. A conservative expectant policy then was valid because there was nothing else to do. But, today, advances in medicine have changed our approach to many diseases from a passive expectant policy to a more aggressive dynamic one. Perhaps obstetrics has failed to keep pace with its sister disciplines due to the lack of fundamental investigation into all the phenomena of human reproduction. Our concepts and our approach to clinical problems have been empirical and enriched, too often in a quaint way, by superstitition, taboos and myths carried over from previous generations; obstetrics is the one branch of medicine about which a considerable mythology still exists.

A second factor is the delay in recognition of the development of so-called hypotonic uterine inertia, probably the single most important cause of prolonged labour in Canada today, even though the diagnosis of this condition is ridiculously simple. Too often the abnormality is not recognized until 8 to 12 hours have elapsed during which time little or no progress has been made, notwithstanding the fact that the patient has become increasingly dehydrated, exhausted and depressed.

The third is the limitation of time imposed on a physician by a busy practice, creating a situation in which a patient in labour may be virtually ignored, except for occasional check-ups by telephone during the day: it may not be until late in the evening that a thorough assessment of the situation is made. By this time, both patient and physician are tired. While a good sedative given to the patient may serve the physician equally well, it may also help to push the labour over the 24-hour mark.

A fourth problem is created by the patient who enters hospital shortly after the first contraction or during the so called latent phase of labour. Although she is not properly in true labour, and the strange new surroundings often reduce what uterine activity there is, nevertheless she is too often treated as if she were in active labour with restriction of nourishment, and normal activity, so that by the time she enters the active phase of labour she feels she has already had enough.

These are some of the reasons why prolongation of labour has occurred in the past and why it still occurs

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†From a Paper delivered at the Atlantic Regional meeting of the Royal College of Physicians and Surgeons of Canada, Halifax, 1967.

today. Now, the obvious question that needs to be asked here is: "Does prolonged labour, by itself, constitute sufficient hazard to mother and baby to justify all this concern about it, all this talk?" The answer is an unequivocal "Yes".

Avoidance of Hazards of Prolonged Labour

Many authorities have demonstrated a marked increase in both perinatal mortality and morbidity following labour lasting more than 24 to 36 hours. Various factors are important in this respect. Foetal hypoxia and acidosis, physical and biochemical exhaustion in the mother, an increased frequency of operative delivery causing soft tissue damage, increased blood loss, infection, thrombo-embolic complications, as well as the psychological stresses of prolonged labour are some of these. All add up to an overwhelming argument for avoiding prolonged labour.

It may now be asked whether or not this worthy objective can be achieved safely and simply. An equally unequivocal "Yes" results from a careful analysis of some aspects of pregnancy and labour.

i. The Pre-natal Period

Strange as it may seem, it may very well be the nine months preceding labour that determine to a large extent how long and how difficult labour turns out to be. While it is perfectly true that the labour pattern of a given individual may be in part genetically determined, there can be little doubt that the attitudes developed by the patient during her pregnancy influence her labour performance to a considerable degree. In this respect, the value of a solid, satisfactory professional relationship between patient and physician cannot be overemphasized. The patient will then react much more favourably to the unknown experience of labour and delivery than will the anxious woman who has depended for her information and support on the well-meaning but often distorted advice of friends and relatives. Though this is self-evident, the fact that innumerable obstetric patients complain about not having enough opportunity to discuss their fears with their physician reflects either a lack of concern on our part or an unwillingness to plan our office time for prenatal patients more adequately. Although organized prenatal classes may help to broaden a patient's knowledge of the phenomena she will soon experience, they are not a satisfactory substitute for the close personal attention of the physician.

Preparation for labour should therefore begin in the prenatal period. Careful explanation of what a patient may expect, without any attempt to minimize or exaggerate the details, should be our aim. For example, careful instructions should be given regarding the time to go to the hospital. Too often, a patient sets out for the hospital when the contractions are still 15 to 20 minutes apart; this, however, represents the early prodromal or latent phase of labour when the cervix may have only just begun to dilate. As a result, she has many hours of labour ahead of her in unfamiliar surroundings. The resultant anxiety can lead to a complete disruption of the labour patterns, an important cause of prolongation of labour. Depending of course on the distance to the hospital, in general a primigravid patient should be instructed to remain at home and carry on as usual till her contractions are down to every 4-5 minutes. It is unusual for a well prepared patient to have serious discomfort prior to this phase and normal activity in a familiar environment during the early stages of labour usually leads to the development of a normal labour pattern which persists throughout. Not infrequently, such a patient will be found to be 4-5 centimetres dilated on arrival, well over halfway through her labour.

The time at which multiparous patients should leave home will depend on the duration of their previous labours but if these have not been unusually short and the distance involved is not great, a 5-7 minute interval is not unreasonable.

ii. The Period of Active Labour

It is now customary to divide labour into two main phases, the latent phase and the active phase. The latent phase begins with the first recognizable painful contraction and ends when the cervix reaches 3 cm. dilatation; the active phase then begins and continues to full dilatation followed by the second stage and delivery.

Probably, in discussing prolonged labour, it is the active phase only which should be considered. The reasons for this are, first, that the beginning of the latent phase is necessarily determined subjectively by the patient and is therefore subject to some error; second, the latent phase ideally should occur at home with nothing more than minor inconvenience to the patient and with no major change in her activities or nutrition, thus reducing to a minimum the hazards of exhaustion and dehydration associated with the active phase, even though the latent phase may be prolonged; and third, most difficulties arise in the active phase, so that it is then that the major decisions must be made concerning the risks of foetus and mother. It is perfectly true that when first examined if the cervix is more than 3 cm. dilated it may be impossible to define exactly the beginning of the active phase but careful extrapolation gives a reasonably close estimate.

As to the maximum limit of normal active-phase labour, 12 hours for the primigravida and 8 hours for the multiparous woman should serve as guidelines. These limits, although a far cry from the standard 24-hour limit traditionally taught, are based on careful observation of many hundreds of normal labours in our unit as well as a review of other units' experiences. If it is anticipated as a result of assessment of progress in labour, that labour duration will exceed these limits, then obviously something is wrong. It should then be possible to determine exactly what the problem is at that moment, and set about immediately to correct it. It will be the aim of the final part of this discussion to outline a simple program to achieve this goal.

Practical Management

i. The Latent Phase

The fundamental principle in managing the latent phase is this: the encouragement of the patient to carry on her routine activities in a normal manner at home. The latent phase has a variable duration and usually ends when the contractions are occurring at four to five minute intervals and are beginning to become quite uncomfortable. The only effective method of ensuring that the patient will conduct this phase of labour in this manner is prenatal indoctrination and reassurance by telephone when necessary after contractions begin. As a result, after admission to hospital, a well-effaced cervix dilated at least 3-4 cms. is seen together with effective contractions occurring every 3-5 minutes. The patient is still in command of the situation, although she is by now beginning to be uncomfortable; but she has passed well into the active phase.

ii. Active Phase, Stage I

The management now depends upon provision of analgesia, and amniotomy. My own policy regarding analgesia is to make free use of paracervical anaesthesia, 8 to 10 ml. Carbocaine being injected into each lateral fornix. Because the uterus functions more efficiently with the membranes ruptured, (the amount of total uterine activity required to produce full dilation of the cervix is thereby reduced by about one-half), amniotomy seems to be a logical way of significantly shortening labour. With timely analgesia and amniotomy at 4 to 5 cm. cervical dilation, a multiparous patient very often reaches full dilation before the nerve block wears off (roughly one and one-half hours), while the primipara often reaches 7 to 8 cm. dilation, a repeated nerve block now sufficing to carry her through the rest of labour.

From the time of admission with the cervix about 4 cm. dilated, provided the contractions are strong and efficient, the membranes are ruptured, and there is no abnormality of position or presentation nor any foeto-pelvic disproportion, and provided that judicious analgesia is given (preferably regional because pain relief is so complete) full dilatation will be reached easily within 4 to 6 hours even in the primigravida.

With this as a standard mode of management and with understanding of the normal situation, it becomes a simple matter to determine when the anticipated progress is not being made, certainly before six hours of active labour have elapsed. For example, if an amniotomy is performed in a primigravida at about 4 centimetres dilatation, it would be expected that she would be fully dilated or very nearly so in four to six hours. If she is not, then a prolonged labour situation may be developing and the cause should be determined at that point.

Causes of Delay in Labour

There are only two causes of delay in progress in the active phase:

1. inadequate or ineffective uterine contractions;
2. foeto-pelvic disproportion.

Malpositions such as occiput posterior or deflexion attitudes of the head are often associated with delay in progress through either of these mechanisms, usually the first. Therefore the first step is to determine personally the frequency and quality of contractions. One must satisfy oneself that the contractions are occurring less than five minutes apart, lasting at least 40 seconds and that the uterus is non-indentable at the height of the contraction. If this can be confirmed, a careful survey of the foeto-pelvic relationship must be made, using clinical and sometimes radiological means to do this. An accurate assessment of all the mechanical factors which might influence progress in labour can then be made. This can all be confirmed radiologically, although in my experience this is seldom necessary. The essential point to remember is that *if one is completely satisfied with the adequacy of the uterine contractions, then failure to progress at the anticipated rate must be related to an abnormal foeto-pelvic relationship* and unless this can be corrected either by manipulation (and this is seldom possible before full dilatation of the cervix), or spontaneously by a further two hours of labour, then abdominal delivery is clearly indicated.

On the other hand, if there is obvious inadequacy of uterine contractions, then progress will not be made until such inertia has been corrected. Nevertheless, it is a sound obstetric principle once inertia has been diagnosed to determine whether foeto-pelvic disproportion exists. If it does exist and is very gross, no useful purpose is served in prolonging the labour any further; if it does not exist (as is usually the case) or is present in a very mild degree, correction of the inertia should be undertaken with restoration of good quality contractions.

The treatment of "hypotonic inertia" is simply amniotomy (if this has not already been done) followed by intravenous oxytocin infusion. This should be given as a dilute solution, 5 units in 1000 ml. of glucose in water, beginning at approximately 6 drops per minute; the optimum rate of infusion is the *minimum* rate necessary to produce excellent quality contractions without significant change in the foetal heart rate *between* contractions. Constant observation of the uterus is maintained, the foetal heart being monitored frequently by auscultation. More sophisticated monitoring methods, such as foetal electro-cardiography and scalp blood sampling for pH determination are useful but perhaps impractical at the present time. Only constant clinical supervision by the physician permits safe control of the infusion.

Once good labour is restored, an intelligent assessment of progress can be made; failure to progress then can only mean serious foeto-pelvic disproportion, necessitating abdominal delivery.

It is important to underline the wisdom of assessment of progress no later than six hours after the active phase of labour has begun. If the rate of progress has failed to meet our expectations then appropriate investigation and treatment can be carried out long before

the patient has become exhausted and demoralized, and long before the foetus has been exposed to the hypoxic effects of a protracted labour. There is no justification for allowing a good quality labour to continue for more than two hours after progress in dilatation has ceased. It is unnecessary and it may be dangerous for both mother and baby.

Active Phase, Stage II

Following full dilatation of the cervix a time limit should be placed on the duration of the second stage. Traditionally it has been taught that up to two hours should be allowed for a primigravida and up to one hour for a multipara; however, these time ranges seem unrealistically long. If, for example, a multiparous patient in good hard labour with the cervix fully dilated has pushed uneventfully for half an hour, then majority opinion would favour the diagnosis of obstruction, probably a persistent occiput posterior. It is then much less traumatic to both baby and mother if, under anaesthesia, the cause of delay in the second stage is determined and corrected than to allow her to continue pushing an additional thirty minutes or more. Once full dilatation is reached these patients are delivered usually in much less than 30 minutes. Therefore, 30 minutes represents a much more realistic upper limit for second stage in multiparas than one hour. Similarly, one hour represents an equally realistic upper limit in primigravidas for the same reason.

Finally, if delivery is not then imminent a decision must be made regarding the method of delivery. If the vertex is fully engaged then a trial of forceps is usually feasible, caesarean section being performed should any unusual difficulty be encountered. If, of course, the vertex is not fully engaged, if a correct forceps application cannot be obtained, if rotation or descent does not occur with reasonable traction, all thoughts of vaginal delivery should be abandoned. Acceptance of these principles by practising obstetricians should result in a more pleasant labour-delivery experience for mothers, as well as a saving of infant lives and the preservation of their intellect.

How YOU Can Help Your Society

Early and Prompt Payment of Dues

If everyone paid their dues when they are first billed, or in the next month, the Society could realize substantial savings. We are living in an inflationary period and increasing costs must be offset by increased income and increases in efficiency of operation. Your actions will help determine which course your Society will follow.

With the total income from dues of $80,000.00 in hand on or about the first month of the fiscal year, only a small portion would be kept on hand to cover running operating costs. The remainder would be invested in short term debentures paying approximately 7 to 7½% interest. Earnings last year from this source were approximately $1,200.00. With increased membership and earlier payment of dues, this could very likely be doubled this fiscal year.

Prompt payment of membership dues would also result in a reduced operating cost, since it costs something like 75¢ for each reminder notice. Over the course of the year, approximately 400 reminder notices are sent to members of the society.

I hope, where applicable, you will give this matter your consideration.

D.D.P.

Elective Induction

D. R. MacInnis, M.D.

Shubenacadie, N.S.

Summary: A personal series of 363 cases of elective induction of labour is presented. The role of the general practitioner is seen as an important one in obstetrics, and elective induction of labour permits the practitioner to be present at the time of delivery. The conditions for elective induction and the practical management are described.

There is an insidious trend today to remove the general practitioner from the obstetrical field but if family medicine is to have any meaning it must include obstetrics.

Pregnancy can be the most important period in any woman's life and if a good relationship is not established with her then, one can never truly be the family physician.

The average patient is seen about a dozen times during a pregnancy; if she has three or four children she will be seen then more than at any other time during her life. The family physician should come to know more about her than she would permit anyone else to know. She is entitled to be sure that her physician will be with her in the final stages of labour for this can be the most frightening time to the mother and the most dangerous time to the infant. The solution to being free for the final stages of labour and delivery is elective induction at times not conflicting with other work.

The cardinal rule of obstetrics for far too many of our physicians is "do nothing to interfere with nature" yet in all other fields of medicine they strive to do things better than is done by nature.

For some reason "induction" has ever been just as bad a word as "abortion" in the obstetrical mind. The average obstetrical text book may run to over 1,000 pages but it is unusual for more than two paragraphs to be given to elective induction. Similarly, elective induction techniques are either not taught or are barely mentioned in the medical school, and hospitals are ever erecting more barriers against the procedure.

I think it is high time that family physicians began to consider the possibility that they are gradually being pushed out of the obstetrical field and that their patients are being denied their rights by a lack of education about elective induction. Elective induction can and should be as safe to the patient as spontaneous labour.

Preparation for Induction

As preparation for elective induction a patient must have high-grade prenatal care. This should include a pelvic examination and time for a girl to talk on each visit. She should also know from the first that she may be delivered by induction.

Before the actual induction is done the following condition must be present: nothing less is permissible. The foetus must be at or about term, the head must be well engaged, there must be no disproportion, the general area of the placenta must be known, and the cervix must be partially effaced admitting two fingers easily.

Induction with some of these factors absent is not elective; it should only be done for medical reasons following a consultation.

Method of Induction

The best form of induction is to rupture the membranes following an enema and start a pitocin infusion of 10 units pitocin in 1,000 ml. of glucose in water at a rate of 6-12 drops a minute. (Mid-forearm or wrist veins should be used as this gives the patient more freedom of movement). If good labour is not established in two hours one should go home and try again the next night.

Trilene should be routine and started as soon as the patient desires it. Trilene is safe and does not cause depressed babies.

Trilene patients can be difficult but better a difficult patient than a depressed baby.

There is probably no completely safe narcotic or barbiturate that can be combined with trilene without depression of the baby. Even the much used librium can give adverse effects.

With induced primipara low forceps should be considered routine.

A study of the literature would indicate that children delivered by low forceps following elective induction are brighter than average. Probable reasons are that they had better prenatal care and that a physician was in attendance during their birth, and that neither elective induction nor low forceps are dangerous to baby.

Personal Experience

My own experience runs to 363 cases of elective inductions over a twenty-year period. Of these cases 89 were primipara and the remainder multipara. The patients' age range was from 14 to 41 with both the youngest and the oldest being primipara.

Clinical Drug Trials

An Appraisal of Presentations in Two Medical Journals

Arnold J. Hill, M.Sc.*

Summary: Drug trials are appraised as an objective measure of editorial policy and the quality of material contained in two medical journals. The criteria for such trials are described. A comparison between the *Canadian Medical Association Journal* and the *American Journal of Medicine* for 1968 indicates that, from this viewpoint, the *Canadian Journal* is superior.

An assessment of drug trials reported in the *Canadian Medical Association Journal* (C.M.A.J.)[1] has recently shown the Canadian publication to be as good in editorial policy as the *New England Journal of Medicine* (N.E.J.M.).

The desirability of having some objective measure of the editorial policy and quality of the material contained in various journals would serve as a guide to readers. With this in mind, as a special project for the Department of Preventive Medicine at Dalhousie Medical School, the author critically reviewed all papers concerned with drug trials which appeared in the *American Journal of Medicine* (A.J.M.) and the C.M.A.J. during the year 1968.

Methods

The criteria employed for reviewing and classifying papers dealing with drug trials in the C.M.A.J. and the A.J.M. were established before the study began.

A clinical drug trial was defined as any situation in which more than three human subjects were treated by means of a chemical compound together with an attempt to relate this treatment to patient prognosis.

Each paper was read, analyzed, and grouped according to the criteria established by Reiffenstein[1] for the appraisal of clinical drug trials (Table 1).

TABLE I

Criteria for Appraisal of Drug Trials

Group 1 — Papers having improper controls, or those without controls.

Group 2 — Valid controls, but non-random allocation of therapy.

Group 3 — Valid controls, with random allocation.

Group 4 — Valid controls, with random allocation and objective assessment, but without statistical analysis.

Group 5 — Valid trials: all requirements present.

Each paper was awarded a score of two points for each group of criteria it fulfilled. If a paper was found to be deficient in one of the above criteria, the analysis and scoring was not carried further. For example, if a paper fulfilled all criteria in Groups 1, 2 and 3, it received a score of 6. If a paper fulfilled only the criteria in Groups 1 and 2, the score was 4. Note that a score of 4 or less implies that there are basic errors in the design of the drug trial.

Reports involving fewer than four subjects were not included in these categories, but were considered to be "case reports" of toxicity or efficacy, and were recorded separately. Editorials or correspondence mentioning drugs are not included.

Results

Results of the trials surveyed with more than three subjects are shown in Table 2. The largest number of papers reviewed in both journals fulfilled the criteria for classification into Groups 1 and 2; that is, about 54% (9/17) of the trials in the C.M.A.J. and 88% (7/8) of those in the A.J.M. had basic errors in study design.

TABLE II

Evaluation of Drug Trials

	Score	*Canadian Medical Association Journal* (1968)	*American Journal of Medicine* (1968)
Group 1	2	3 (17.6%)	1 (12.5%)
Group 2	4	6 (36.3%)	6 (75.0%)
		53.9%	87.5%
Group 3	6	2 (11.7%)	– (0.0%)
Group 4	8	1 (5.9%)	– (0.0%)
Group 5	10	5 (29.4%)	1 (12.5%)
	Total	17	8

The second largest number of papers in the C.M.A.J. fell into Group 5 (29.4%); that is, these papers fulfilled all the criteria for valid trials. By contrast, few papers in the *American Journal of Medicine* fell into Group 5 (12.5%). The same number of papers as in Group 5 in the latter journal were also present in Group 1.

Reporting the occurrence of rate toxic manifestations and reactions to drug treatment can be considered useful even if only a few cases are reported. By contrast, reports of drug efficacy involving a very small number of cases (less than four) cannot be construed as

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valuable additions to the literature[1]. The data related to "case reports" and the ratio of efficacy to toxicity reports is shown in Table 3. The ratio of efficacy to toxicity reports was 1.22 for the C.M.A.J. and 2.0 for the *American Journal of Medicine*.

TABLE III

Case Reports Involving Fewer Than Four Subjects

	Canadian Medical Association Journal (1968)	*American Journal of Medicine* (1968)
Efficacy	11	6
Toxicity	9	3
Total	20	9

Discussion

Due to the small sample size, the author considered it prudent to refrain from statistical analysis; however, by inspection the principal differences between the two journals were:—(i) the larger proportion of papers in the C.M.A.J. meeting all criteria for valid drug trials; and (ii) the greater proportion of papers in the American *Journal of Medicine* fulfilling only Group 2 criteria (valid controls, but non-random allocation of therapy).

A similar study by Reiffenstein *et al*[1] comparing the C.M.A.J. and the N.E.J.M. over a longer period (1965-1967) showed the improvement in standards of clinical drug trials to be due chiefly to the decrease in the number of uncontrolled studies published.

Comparing the present data with those in the C.M.A.J. and N.E.J.M. (1961-1967), indicates that publication of uncontrolled studies is fast disappearing. In 1968 the greatest increase was in the publication of papers fulfilling Group 2 and 5 criteria in the C.M.A.J. The present study points to non-random allocation of therapy as the greatest single offender affecting the validity of drug trials in both the C.M.A.J. and the *American Journal of Medicine*.

Reiffenstein *et al*[1] have presented statistical evidence to support the idea that the ratio of efficacy to toxicity (case reports) may be an indication of strictness of editorial policy. A low ratio (indicating a larger number of toxicity reports), suggested a tendency to refuse "efficacy" reports of doubtful usefulness and significance. These authors, therefore, concluded that the recent editorial policy of the C.M.A.J. is probably better than the N.E.J.M. Similarly, by that criterion, the C.M.A.J. is likewise superior to the *American Journal of Medicine* in the year 1968.

Reference

1. **Reiffenstein, R. J.** *et al.*: Current Standards in Reported Drug Trials. *Canad. Med. Ass. J.* **99**: 1134, 1968.

Appendix

The following bibliography contains representative examples of papers falling in the various categories of assessment employed in this study. They are listed here without scores so that readers who wish to do so may evaluate these papers independently, without previous knowledge of our assessment.

From the *Canadian Medical Association Journal*

Kardash, S., Hillman, E. S., Weny, J.: Efficacy of Ipramine in Childhood Enuresis: a Double Blind Control Study with Placebo. **6**: 263, 1968.

Joubet, L., Radouco-Thomas, C., Loiselle, J. M., Radouco-Thomas, S., Turmel-Dorion, L. and Warren, Y.: A Study in Human Pharmacology: Evaluation of Four Diuretics and a Placebo. **99**: 57, 1968.

Parkhouse, J., Wright, V.: Postoperative Analgesia with CI-572, **98**: 887, 1968.

Ledwich, J. B.: A trial of Propanolol in Myocardial Infraction, **98**: 988, 1968.

Harley, B. J. S., Davies, R. O.: Propranolol in the Office Treatment of Angina Pectoris, **99**: 527, 1968.

Schaty, D. L., Palter, H. C., Russell, C. S.: Effects of Oral Contraceptives on Pregnancy and Thyroid Function, **99**: 883, 1968.

O'Hearny, T. M.: Clinical Trial of a Broad Spectrum Antimicrobial Preparation in Vaginitis, **99**: 1311, 1968.

Klein, W., March, J. E., Mahon, W. A.: Cardiovascular Effects of Glucagon in Man, **98**: 1161, 1968.

From the *American Journal of Medicine*

Lichtenstein, C. M., Norman, P. S., Winkenwerder, W. L.: Clinical and Vitro Studies of the Role of Immunotherapy in Ragweed Hay Fever, **44**: 514, 1968.

Compendium of Pharmaceuticals and Specialties

The fifth edition of the Compendium of Pharmaceuticals and Specialties is in the process of distribution at this time. These are distributed, free of charge, to all registered physicians. I am sure you will agree that the Compendium is a valuable reference to the physician and it is of interest to note, that it is in fact edited by physicians.

Not only has the cost of production of this volume risen steadily over the past years, but in the past year alone the mailing cost has risen by several hundred percent.

If you feel that you would like to donate some sum for this volume, would you please do so to the Executive Director, Compendium of Pharmaceuticals and Specialties, 175 College Street, Toronto 2B, Ontario.

L.C.S.

Lung Cancer Detection by Chest X-Rays at Six-Month Intervals*

Summary: *In a controlled study in England, cancer of the lung was detected in a resectable stage more frequently when chest X-ray surveys of the population at risk were made at intervals of six months than when the surveys were three years apart.*

An investigation was carried out to test the hypothesis that the early detection of lung cancer by frequent routine chest roentgenograms of the population at risk might improve the prognosis of the disease.

In a three-year study, comparison was made between the lung cancer experience of two random population groups, one of which was offered more frequent roentgenographic examinations than the other. The subjects were men 40 years of age or older who were employed in industry.

Chest roentgenograms were available to the men in one group, the test group, every six months. Those in the control group had roentgenograms only at the beginning and end of the study. A total of 29,723 were enrolled in the test group, of whom 29,416 were followed up, and 25,311 in the control group, of whom 25,044 were followed up. Smoking habits in the two groups were almost identical. There were no apparent occupational hazards in the industrial firms where the subjects were employed that might be expected to have a bearing on the development of lung cancer.

On initial survey, 31 cases of lung cancer were detected in the test group. At the mass surveys at six-month intervals, 59 cases were detected; at the final survey of the group, six cases. Among the controls, 20 cases were detected at the beginning of the study and 76 during the three years.

Cancer Detected Elsewhere

At the end of the three years, 33 of the 59 patients whose cancer had been detected in the six-month surveys were alive and 26 had died. It was found that 36 patients in the test group and 59 in the control group, whose cancer had been discovered elsewhere, had died from lung cancer at some time between the first and last roentgenograms. Of the 36 in the test group, seven had died within six months of the initial chest film. The remainder had missed some or all of the six-month surveys. In the control group, three of the 59 deaths had occurred within six months of the initial examination.

When roentgenograms preceding the one which led to the diagnosis of lung cancer in the test group were reviewed, abnormalities that might have been related to the disease were noted for the first time in seven cases. Six of these were still suitable for resection.

In calculating the rate of detection of lung cancer, it was obvious that where the interval between the chest X-rays was approximately three years (the initial and final survey in the control group and the initial survey of the test group), the detection rates were almost identical.

However, where the interval was six months, as in the final survey of the test group, the rate of detection was considerably lower. This was attributed to the fact that many cases of lung cancer had already been discovered at the intermediate examinations of this group. The detection rate for the six-month surveys was remarkably constant. The mean annual incidence of lung cancer in the group was 0.9 per 1,000 examined.

Resectability

The resectability of the cancer found in the routine examinations every six months was compared with that of cases detected in the surveys at three-year intervals and with that detected by methods other than by mass X-ray surveys. Thirty-one (61 per cent) of 51 cases discovered by the initial survey of both groups were resectable as compared with 42 (65 per cent) of the 65 cases detected in those examined every six months.

Thus, the chance of resection is not materially influenced by the frequency of the X-ray examination, but since more cases will be discovered by examination at six-month intervals, the number of patients given this chance will increase. However, the rates for resectability of cancer discovered by the surveys were decidedly higher than cancer discovered by other means, 5-6 per cent compared with the test group; 18.7 per cent as compared with the controls.

The study has shown that, due to more frequent examination of the same population, 59 cases of lung cancer were discovered which would not have been found at that particular time had only three-year surveys been employed.

The rate of resection in these cases was not significantly higher than in those discovered at the initial surveys of both the test and control groups conducted on conventional lines of mass radiography. This may be because the longer mass X-ray surveys are spaced out, the greater the number of patients with lung cancer

*G. Z. BRETT: "The Value of Lung Cancer Detection by Six-Monthly Chest Radiographs," *Thorax*, July, 1968 (23:414).

Reprinted from the Abstracts of the National Tuberculosis Association, January, 1969. Printed through cooperation of the Nova Scotia Tuberculosis Association.

who will have been diagnosed by other methods. Thus, the lung cancer remaining to be detected will have a relatively short period of roentgenographic detectability, probably not substantially different from that in the cancer detected in surveys at six-month intervals. This might account for the similarity of the resection figures.

In the design of the study the comparison of death rates from lung cancer between the test and control groups was of crucial importance. The lower lung cancer mortality observed in the test group might be interpreted as an indication that early diagnosis on the basis of roentgenographic examination every six months may have some effect on the future of the disease, but the difference in mortality between the groups was too small for this interpretation.

Evaluation

The conclusion to be drawn must be based on both the positive and equivocal results of the study. If the value of the roentgenographic examinations every six months is to be measured only by a significant reduction of mortality from lung cancer in a population at risk, then no definite evidence has emerged to justify a policy of frequent large-scale surveys of this kind. However, if the merit of early diagnosis and a better chance of resection for a larger number of cancer patients is linked with even a small reduction of mortality, there is, without detracting from the importance of prevention by a change in smoking habits, reason why men in the cancer age should have chest X-rays regularly.

Missed Abortion, Rupture of the Uterus and Retroperitoneal Haemorrhage†

Maternal Mortality Studies*

Summary: A maternal mortality was reviewed by the Provincial Committee on Maternal Welfare. The pathological cause of death was a ruptured uterus with retroperitoneal hemorrhage. The preventable factors are discussed.

A 26-year-old married white woman was admitted to hospital on September 17, 1960, with an admission diagnosis of missed abortion. She had five previous uneventful full-term pregnancies. The current pregnancy had been normal until the third month, when the patient had slight vaginal bleeding. Three months later the patient again had some vaginal bleeding and the diagnosis of missed abortion was made.

On admission to hospital the patient's condition was satisfactory; the hemoglobin (Hb.) was 12 g. per cent and the uterus was enlarged to twice the normal size. The cervix was long and closed and a fetal heart sound could not be heard. On the day following hospital admission, cervical dilatation and uterine curettage was performed using Hegar dilators and uterine curettes under general anesthesia with thiopental sodium (Pentothal Sodium), nitrous oxide and succinylcholine chloride (Anectine). During the procedure, the patient went into shock but responded rapidly to a blood transfusion. The procedure was continued and the uterus was evacuated. The uterus was explored with the index finger and it was considered intact. A gauze pack was inserted into the uterus and the patient was transferred to the recovery room.

In the recovery room the patient again went into shock and the blood transfusion was continued. She was seen by a consultant, who inserted a large-bore needle into the peritoneal cavity to exclude intraperitoneal hemorrhage. No intraperitoneal hemorrhage was demonstrated by this procedure and the patient was treated with further transfusions. However, the blood pressure could not be maintained and she died two hours after the completion of the cervical dilatation and uterine curettage.

A complete autopsy was performed. The cause of death was rupture of the uterus with massive retroperitoneal hemorrhage.

Decision of Committee on Maternal Welfare

The conclusions subsequently reached by the Provincial Committee on Maternal Welfare after a review of the case were as follows: "This is a preventable direct maternal death. The preventable professional factors are as follows: A physician factor was the evacuation of the uterus in an early missed abortion. A second physician factor was that the physician did not immediately do a laparotomy once shock developed which could not be explained by the external blood loss. This maternal mortality is considered to be ideally 'preventable' under the terms of reference of the Provincial Maternal Welfare Committee and there is no implication of any negligence."

Discussion

The diagnosis of early missed abortion is made by bimanual examination at one-month intervals. The uterus becomes smaller and harder; there is a history of secondary amenorrhea of several months' duration; slight atypical vaginal bleeding may have occurred and the secondary signs of pregnancy have disappeared. Pregnancy tests will often remain positive until all chorionic activity has ceased. In early missed abortion it is best to wait at least two months before missed abortion is diagnosed with certainty because on occasion the uterus does not enlarge regularly.[1] Generally, beyond 18 weeks' gestation, the earlier that intrauterine death occurs the longer is the interval between the death and the spontaneous expulsion of the products of conception.

Because of the well-known association between serious hemorrhage due to hypofibrinogenemia and the uterine retention of dead products of conception longer than five weeks, there is reason for concern if the abortion is not completed by that time. Kinch[2] found coagulation defects in less than 1% of 109 unselected intrauterine fetal deaths. However, there should be no anxiety unless the pregnancy has progressed beyond 16 weeks. Tricomi and Kohl[3] described 165 instances of intrauterine fetal death and found that in 93% the products of conception were expelled within 21 days of such death.

The present case report demonstrates the hazard of operative cervical dilatation in an early missed abortion. The cervix was long and fibrotic, and had assumed its non-pregnant state. During the dilatation of the cervix the tissue in the vicinity of the internal os and lower uterine segment was torn with Hegar dilators, and fatal extraperitoneal hemorrhage occurred. It should

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†Reprinted by permission of C.M.A. Committee on Maternal Welfare, and reproduced here at the request of the Committee on Maternal and Perinatal Health, Medical Society of Nova Scotia.

*From C.M.A.J. **93**: 758, 1965, by kind permission, Editor, *Canadian Medical Journal*.

be emphasized that when shock occurs following cervical dilatation and uterine curettage, which cannot be explained by external vaginal blood loss or intraperitoneal hemorrhage, extraperitoneal hemorrhage must be seriously considered and immediate laparotomy performed. Spraitz, Welch and Wilson[4] recommend that when missed abortion is unequivocally diagnosed, stimulation of labour by high-concentration oxytocin drip should be started as soon as practicable, and, if this fails, surgical evacuation should be considered.

As early as 1935, Boreo[5] advocated the transabdominal intra-amniotic injection of a hypertonic solution in order to interrupt pregnancy before the time of fetal viability. Several authors have reported successful series of evacuation of the uterus in the presence of intrauterine death beyond five months using transabdominal intra-amniotic aspiration and injection of 50% glucose solution or 20% saline solution. The onset of labour after such injection is due to a fall in the production of progesterone by the placenta.

Six per cent of intrauterine deaths will result in retention of the dead fetus for more than five weeks—the danger period for hypofibrinogenemia. As a general rule, there should be no anxiety unless the pregnancy has progressed beyond 16 to 18 weeks' gestation and very rarely then is the dead fetus retained beyond term; therefore the dangerous period is from 20 to 32 weeks' gestation. When intrauterine death occurs during this period and after the dead fetus has been retained beyond five weeks, there is a higher incidence of hypofibrinogenemia and the uterus should be evacuated.[2] Kinch[2] recommends the following management of intrauterine death following 20 to 32 weeks' gestation. The diagnosis of intrauterine death should be positively established. Three weeks after intra-uterine death, the patient is warned to report any bleeding or unexplained bruising. Fibrinogen determinations and/or studies of clot formation should be done weekly. No active interference should be undertaken until five weeks after intrauterine death. At this time the patient is admitted to hospital and radiographic examination is carried out to determine the position of the fetus. After 6 g. of fibrinogen and 1500 c.c. of whole blood are made available, an intravenous oxytocin (Syntocinon) drip is begun. This is maintained for eight hours and is repeated daily for three days with increasing dosage until active contractions occur. After evacuation of the uterus, a precautionary intravenous oxytocin infusion is continued for eight hours.

Early missed abortion, prior to 16 to 18 weeks' gestation, is not dangerous to the mother; however, it does cause obvious psychological stress in the majority of women. Conservative expectant management in this group appears justified. Intrauterine death from 20 to 32 weeks is potentially dangerous, and if labour does not occur by the fifth week after intrauterine death or if hypofibrinogenemia develops, the program of Kinch, as outlined above, or the transabdominal intra-amniotic aspiration of 150 to 200 c.c. of amniotic fluid and the injection of an equal amount of 20% sodium chloride solution or 50% glucose solution, is recommended. The hazard of water intoxication is encountered when large does of oxytocin are used. This is due to the antidiuretic principle in the oxytocin and can be avoided by restricting the intake of fluids during oxytocin induction.[6]

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4. **Spraitz, A. F. Jr., Welch, J. S. and Wilson, R. B.**: *Ibid.*, **87**: 877, 1963.
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Book Review

Canadian Cancer Conference: Proceedings of the 8th Canadian Cancer Research Conference, Honey Harbour, Ontario. Ed.: J. F. Morgan. Pergamon Press, 1969, $21.00.

This conference is remarkable in that four out of the twenty-four papers reported had total or partial Canadian authorship. The remainder were done under United States grants or otherwise outside of Canada.

The standard of writing is somewhat higher than usual in research papers. This may be attributed to Doctor Morgan's editing. With the best will in the world it is impossible to avoid a liberal sprinkling of polysyllabic jargon. The incredible complexity of cancer research renders the frontier areas intelligible only to the very few.

The overall standard of presentation was good, references in many cases exhaustive, but I was surprised at the lack of an index.

This book, covering as it does the latest trends in fields of regulation and differentiation, viruses, and immunology, all as applied to research into cancer causation, deserves a place in every medical research library. The generalist will benefit from reading the first section.

J.F.F.

"Objects we ardently pursue bring little happiness when gained; most of our pleasures come from unexpected sources."

—Herbert Spencer

MEDICAL-LEGAL ENQUIRIES

Ian Maxwell, M.B., Ch.B.

Q.: What is the legal position of a doctor if, in the absence of clear medical indication, he accedes to the request of a patient for voluntary sterilization?

A.: The Canadian Medical Protective Association has recently provided tentative guidelines on this matter.

The thinking about the problem of sexual sterilization is, at the moment, in a state of flux. The C.M.P.A. has been seeking advice from time to time for a number of years to keep its opinion current, and recently there has been a change in emphasis in this advice.

It should first be appreciated clearly that there is no statute law specifically dealing with the question of so-called voluntary sterilization, that is, sexual sterilization for reasons that are not medical. No action against a doctor has been brought to court and decided, so that there are no precedents as guides in Canada. There can only be opinion and, of course, events may prove opinions wrong.

Voluntary sexual sterilization is one of many things under British and Canadian law which are not specifically said to be legal or illegal. For many years it was suggested that the operation might perhaps be thought self-mutilation, and if so, being illegal, consent would be invalid. In matters which are not stated to be either legal or illegal, however, both British and Canadian law recognize another modifying principle, namely custom. Voluntary sexual sterilization is becoming so customarily common it is increasingly improbable that a charge will be laid against the doctor for carrying it out. If that be true, there is reason for the opinion that probably a doctor may perform the operation with little fear of legal action, provided that he is not guilty of professional malpractice or negligence in carrying out the operation.

The thinking of the Canadian Medical Protective Association has reached the point where it now feels that the problem should be left for decision by the individual doctor faced with the patient requesting the operation. The Association suggests that the doctor should decide in these cases just as he would about any other request for nonessential treatment. One should start by realizing that under these particular circumstances there is no medical indication for the operation, so doctors should weigh their patient's reasons for wishing the operation, rather than look for a specious medical indication which does not exist.

In the final analysis, it is up to each doctor to decide whether or not he feels that the reasons advanced are valid. If he decides that he can agree with the reasons for the surgery, he should review those reasons to be sure that they are such that he could expect agreement about them, or at worst not disagreement, by a majority of his confreres were they asked later in court for their opinion about his judgement. If other doctors would support his reasoning, then it is unlikely that the Court would disagree. If he could not expect agreement, then evidence might persuade a Court that the doctor under scrutiny probably was wrong or lax.

In reaching his decision the doctor should have two or three things in mind. He should remember, first, that these are not medical indications. Furthermore, it is not the doctor who is recommending the surgery; it is the patient or the marital partners who are requesting it. The doctor should make sure that the partners to the marriage realize that other methods of contraception are likely to be as effective, to have no higher failure rate, and that patients who wish no further pregnancies should be willing to do their own part to avoid them, rather than thrust the whole responsibility for avoiding them onto the shoulders of a doctor.

If, nevertheless, the reasons advanced by patients still seem valid, before agreeing to carry out the operation, the Canadian Medical Protective Association advises doctors to take other precautions. The doctor should assure himself that neither marital partner has any objection and that the patients realize that the effects of the operation are likely to be permanent and irreversible. The C.M.P.A. believes the British trend should be followed here. There should be at least one interview, better two, with both marital partners. The doctor should assure himself that both agree, and he should at least defer the operation if either partner has doubts. He should refuse to do the surgery if either partner frankly objects. The doctor should refuse to be cast into the role of a technician who does sterilization on request or demand without bringing medical judgement to bear.

The operative consent form should name the operation to be done. It should state that the operation is not only consented to, but requested by the patient; that the patient has been informed he or she will no longer be able to procreate; that the results of the operation may be permanent and irreversible; and that having this knowledge, he or she persisted in the request.

APPRECIATIONS

Dr. Duncan MacMillan

"Come forth into the light of things,
Let nature be your teacher."

William Wordsworth.

The death of Dr. Duncan MacMillan removed from our midst one who was not only a distinguished practitioner, but also one who was of such high character and integrity that he stood for all that is best in our profession. His balanced judgement, conciliatory manner and good nature gained the confidence, trust and affection of everyone who had the privilege of knowing him.

Dr. MacMillan was born at Lake Ainslie, Cape Breton, one of the family of eight children of the late Hugh and Margaret MacMillan. He received his early education at Truro Academy, and entered Dalhousie University in 1920, graduating in 1928. Dr. MacMillan then settled in Sheet Harbour, Nova Scotia, where he practiced for forty-one years—on call to people in all walks of life, night or day, in all kinds of weather and under every hardship. At times he was the only doctor between Dartmouth and Ecum Secum, a distance of over one hundred miles.

His greatest interest was to serve his community: The Eastern Shore Memorial Hospital stands as a monument to his efforts and his concern for his fellow men, since it was largely through his enthusiasm and dogged persistence, and a large personal donation, that the hospital was built. Despite a heavy workload, he still found time to serve as a member of the local School Board, and was a member of the Municipal Council for three years. In addition, he represented the Eastern Shore Constituency in the Provincial Legislature from 1963 to 1965, and from 1967 until his death. In a fitting tribute to his efforts on behalf of the community, his fellow citizens named the High School after him in 1962.

Doctor MacMillan was a tolerant man, quick to understand another's problem, but his concern went much deeper than mere understanding. Countless numbers of people from all walks of life, from the richest to the humblest, called on him at his office or home; few went away without some practical expression of his interest, being given new hope for health, employment or financial assistance, wherever he thought the need was greatest. To many he was a father-confessor to whom they could unburden their hearts and be sure of a listening ear.

His generosity and interest in community activities, the church, youth groups and the family was always evident. It was a great pleasure to dine or to spend an evening with the MacMillans in their gracious home in Sheet Harbour.

The sympathy of hundreds of his friends goes out to his family. This man and his contributions will be remembered for a long time: it was good to have known him. C.H.G.

Dr. Fraser Young

Pictou County was shocked to learn of the sudden accidental death of Dr. Fraser Young, of Pictou, N.S., on October 19th, 1969, and his many friends and acquaintances mourn his untimely passing. In his work of medical and community service, he was unfailing and without thought of self; thoughtful of others and always willing to give assistance whenever requested he was well-liked. He was affectionately known as "Gump"—a nickname that he acquired as a boy.

Fraser Young was born in Pictou, N.S., where he attended Grammar School and later Pictou Academy' graduating gold medallist in his class. He then went to Mount Allison University, where he earned his B.A., and completed his premedical studies. Studying medicine at Dalhousie University he was a scholastic leader and graduated in 1936, as gold medallist of his class.

He married Kathleen Pope and the union was blessed with three boys and a girl.

He was an outstanding athlete, excelling in tennis, softball, baseball and golf.

In community life, he was a former member of Rotary, and a valued member of the Pictou United Church which he served faithfully. He was chairman of the fund-raising team that brought to his town an artificial ice rink and served on many other community betterment committees.

He was past president of the Pictou County Medical Society and of the Sutherland Memorial Hospital, a member of the Nova Scotia Medical Society and of the Canadian Medical Association.

Fraser Young's talents will be sorely missed. His ready wit, so often enjoyed, will be forever cherished and remembered.

To the family of Doctor Fraser Young we extend our sympathy and our appreciation of this dedicated servant. C.G.H.

Dr. Thomas Krzyski

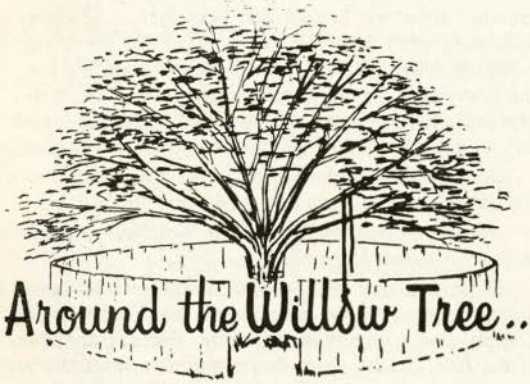
Dr. Thomas Krzyski, 81, of Advocate Harbour, N.S., died December 6, 1969. Born in Poland, Dr. Krzyski graduated at Jagiellonian University, Krakow, Poland. Following graduation he served in Polish Army in World War I; for his services he was awarded a number of Polish decorations, including *Virtuti Militari*, the highest award for bravery. After World War I he remained in the Polish Army as a career officer. He soon became interested in the development of physical fitness; he formed the Department of Physical Fitness in Warsaw and became its deputy director. He later achieved the rank of full Colonel of the Polish Army and was appointed Regional Surgeon.

At the outbreak of World War II Dr. Krzyski became Chief Surgeon of the Polish Army, South. After the

Polish Campaign he served with the Polish Forces in France and then in Great Britain; later, he served with the British Army in India.

Following World War II Dr. Krzyski returned to medical practice in various centres in England. In 1957 he arrived in Canada and practiced medicine in Guysborough, Canso, St. Peters and finally in Advocate Harbour, N.S.

T.K.K.

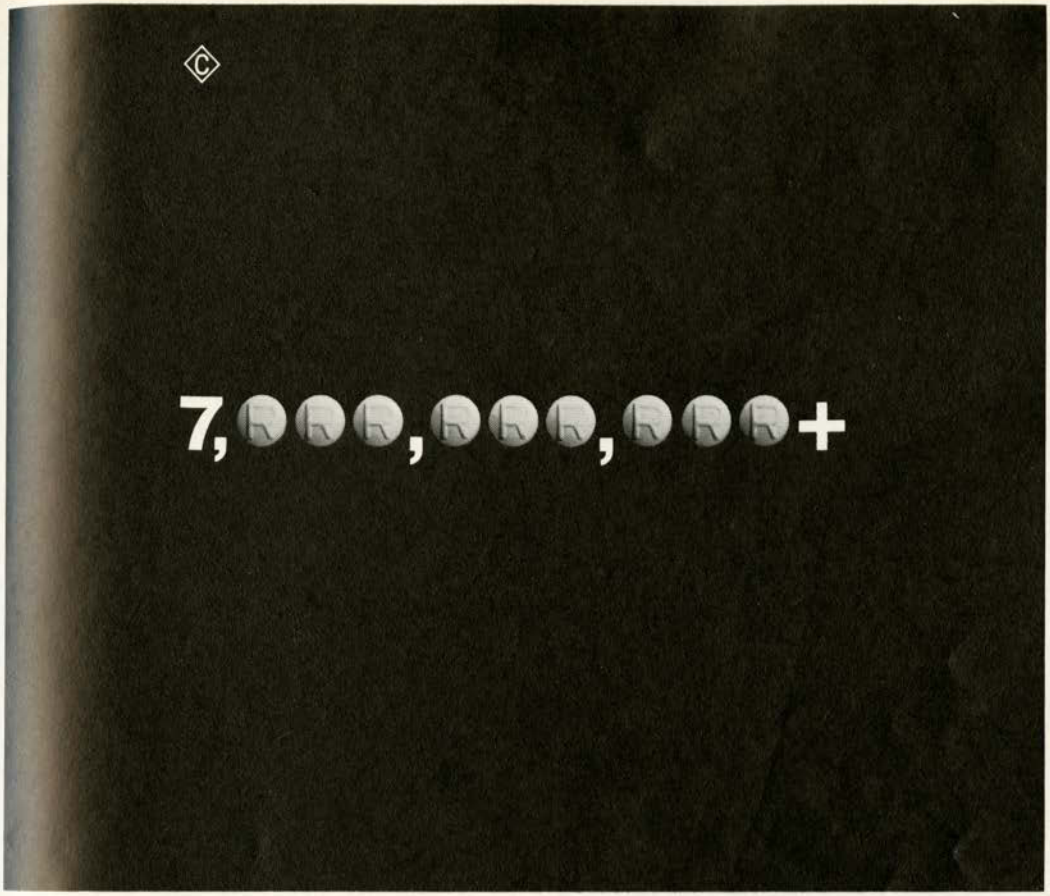


STATISTICS NEVER LIE . . .

Once upon a time there was a statistician who in the course of his duties travelled extensively and who worried about the possibility of being in a 'plane which contained a bomb. He collected data from all over the world and spent many hours computing the risk, and was much disturbed to find that this was rather high. From then on he never travelled in a 'plane.

One day, much to his surprise, one of the statistician's colleagues met him at the ticket desk of an airline company. For the first time in many months he looked happy and rested, and his colleague enquired why he had changed his habits. The statistician confided that, to while away the many hours he had spent travelling by slower means of transport, he had computed the risk of travelling by sea, rail, or road. Collectively, these risks also were high. Therefore, in desperation he had computed the risk of travelling in an aeroplane in which there were two bombs. Apparently this risk was virtually nil, and so now the statistician flew around the world very happily, always carrying a bomb in his suitcase.

Professor X. Pert, of Nirvana, the celebrated mystic, unfolded the mystery of the meteoric rise of the modern-day specialist in his address entitled: "If Ignorance is bliss, then Apathy is divine".



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0.1037 mg.	hyoscyamine sulfate	0.3111 mg.
0.0194 mg.	atropine sulfate	0.0582 mg.
0.0065 mg.	hyoscine hydrobromide	0.0195 mg.
16.2 mg. (¼ gr.)	phenobarbital	(¾ gr.) 48.6 mg.

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Personal Interest Notes

Dr. R. H. Stoddard, Halifax, (right) receives his Senior Membership scroll from the outgoing Medical Society of Nova Scotia 1969 President F A Dunsworth, M.D., at the concluding dinner of the Society's annual meeting in Halifax.

The 116th Annual Meeting of the Medical Society was held in Halifax on November 17, 18, 1969. This year's meeting will be remembered in various ways, whether it be the dubious dinner, critical comments on council . . . and personal tributes to senior members. Dr. F. F. P. Malcolm of Dartmouth was installed as a Senior Member of the C.M.A. by visiting C.M.A. President R. M. Mathews, and Drs. R. H. Stoddard and A. C. Gouthro received citations of senior membership in the Medical Society of Nova Scotia. Dr. C. J. W. Beckwith also received honorary life membership, and Dr. Ian Purkis, former editor-in-chief of the *Nova Scotia Medical Bulletin*, received a plaque from the Medical Society as a tribute to his hard work in the editorial chair.

Two citations, awarded to senior members of th Medical Society, will be of interest. The outgoin President of the Society, Dr. F. A. Dunsworth, paid thi tribute to Dr. A. C. (Alex) Gouthro, of Bras D'Or, Cap Breton:

"I wish to present to you Dr. A. C. Alex Gouthro Bras D'Or, Cape Breton."

"He is a General Practitioner who is still in active practice, although he tells me that he has greatly limited his surgery and obstetrics.

Alex was born in Bras D'Or a few years ago! He was educated in Bras D'Or, Sydney Mines, and St. F.X. University. He entered medicine at Dalhousie in 1920 and graduated in 1925.

He returned to Bras D'Or and has practised there ever since, except for his time off to do post graduate studies. Alex has practised most of the time under the "check off" system so that the over demand and over-utilization of M.S.I. is not new to him.

Alex married the former Emma Vaughan in 1928—originally from Musquodoboit—but she showed good sense in marrying a Cape Bretoner and taking up residence there!

Alex is a past president of the Cape Breton Medical Society, has been Chief of Staff of Harbour View Hospital, Sydney Mines, and Chief of Surgery and Obstetrics of St. Elizabeth Hospital, North Sydney. He has delivered over 3,000 babies in the past 44 years! He has also been Health Officer for C.B. North for the past 40 years.

He was appointed a Serving Brother of the St. John's Ambulance in 1955 by the Governor-General.

He has always been an ardent sportsman, curling being his foremost love. He is also a charter member of the Seaview Golf and Country Club, and was very active in promoting baseball and hockey. He is a real hot bridge player—or at least so I'm told—but at poker he has to take a back seat to his wife.

Ladies and Gentlemen, I present to you Dr. Alex Gouthro from Bras D'Or—our latest addition to a long line of honored senior physicians of the Medical Society of Nova Scotia."

A tribute to Dr. R. H. (Bob) Stoddart was paid at the same recent Annual Meeting of the Medical Society. The tribute reads:

"It is a great pleasure, and indeed a great honour, to have been asked to present a scroll to Dr. R. H. (Bob) Stoddard, M.D., C.M., C.R.C.S., F.A.C.S., on the occasion of his elevation to senior membership in the Medical Society of Nova Scotia."

Dr. Stoddard was native born and received his elementary education at Jeddore and the Halifax County Academy. He then entered Arts at Dalhousie University, followed by Medicine, graduating in 1916.

He thereafter proceeded overseas serving with the Royal Army Medical Corps in France, Mesopotamia, India and Siberia.

Returned home in 1921 and proceeded with post-graduate training in Eye, Ear, Nose and Throat at the Manhatten Eye, Ear, Nose and Throat Hospital. He practiced this specialty in Halifax from 1928-1959 when he retired after thirty seven years of excellent service to his fellow Nova Scotians.

He was Associate Professor of Ophthalmology and Otolaryngology at Dalhousie University for many years and Head of the Department at Camp Hill Hospital from 1936-1959.

His hobbies are fishing and boating. He is a past member of Kiwanis Club and at present is the fourth oldest member of the Royal Nova Scotia Yacht Squadron. Masonically he is a past master of his Lodge, a member of the Ancient and Accepted Scottish Rite and Shriners.

He was predeceased by his wife fourteen years ago. His daughter Joan, who graces our table this evening, is performing in a very significant position with the City Department of Education.

This scroll is presented to a kind and excellent teacher, a renowned Ophthalmologist and Otolaryngologist and, above all, a gentleman. It reads as follows:

"This is to certify that Dr. R. H. Stoddard, having fulfilled the requirements for and having been nominated by the Halifax Branch for Senior Membership, the Medical Society of Nova Scotia hereby confers upon him the Rank of Senior Member. Dated Nov. 18 / 69.

Signed by Dr. F. A. Dunsworth, President
D. D. Peacocke,
Executive Secretary"

Dr. F. F. P. Malcolm, Dartmouth, is installed as a Senior Member, the Canadian Medical Association, by CMA president R. M. Matthews, M.D., during final annual meeting sessions of the Medical Society of Nova Scotia in Halifax.

Receiving his Medical Society of Nova Scotia Senior Membership scroll from outgoing 1969 President F. A. Dunsworth, M.D., during wind-up session of the Society's annual meeting in Halifax is Dr. A. C. Guthro, Bras d'Or. With the scroll goes a congratulatory handshake from Cape Breton Branch president Dr. H. J. Devereux (right) of Sydney.

1970 Medical Society President Lea Steeves, M.D., (right) is officially installed by out-going President Frank A. Dunsworth, M.D. at the Society's annual meeting in Halifax.

Newly installed Medical Society president Lea Steeves, M.D., presents an honorary life membership scroll to Dr. C. Beckwith, Halifax, the Society's former executive secretary at the Society's annual meeting.

Dawson Memorial Hospital, Bridgewater, was recently granted full accreditation by the Canadian Council of Hospital Accreditation. Two other south shore hospitals, the Roseway in Shelburne and the Liverpool had previously received this recognition. It's good to learn of the high standards of hospitals throughout the province: we hope to learn more of Nova Scotia hospitals through in-depth studies in the future.

We hear that Dr. A. J. M. Griffiths may be leaving Nova Scotia for New Brunswick in the near future. If this is true, his loss will be sorely felt.

Recent arrivals in the Halifax area include Drs. Dennis Guest, of Bedford, lately of Digby Neck; Dr. St. John Brown, to the Izaak Walton Killam Hospital for Children; and Dr. Robert Reid. A move from Halifax Infirmary to Izaak Walton Killam Hospital for Children was that of Dr. David Shephard, to fill a vacancy left by Dr. William McJannett, who recently left for Victoria, B.C. Another migration was that of Dr. J. G. Thomson, who joined the staff of the Anaesthesia Department at Halifax Infirmary, coming from Manitoba.

We admire the patience and tolerance of all who care for sick children at the Izaak Walton Killam Hospital in Halifax. Despite possible postponements in the near future, the new hospital should be opened by May 1970, a proud moment for all Nova Scotians.

Dr. J. F. Ross recently attended a meeting of the British Association of Plastic Surgeons in the United Kingdom. One wonders about collective nouns for such gatherings: a pedicle of plasticians, or even a mass of mammary manipulators.

Dr. Lea C. Steeves, Associate Dean of Faculty of Medicine, Dalhousie University, received an Honorary Degree from Mount Allison University on Founders Day, October 23, 1969.

The late Dr. Earl Hiltz of Kentville was remembered by the institution of Alumni Scholarships on Founders Day, October 18, 1969. Dr. Hiltz's devotion to tubercular patients and study of chest disease will thus not be forgotten.

A recent Symposium on Drug Abuse, sponsored by Dalhousie University. Participants were: Dr. E. G. Belzer (Physical Education), Dr. C. A. Brown (Paediatrics), Mr. M. Burke (Social Work), Mr. G. Cooper (Barrister), Mr. G. L. Donovan (Commissioner of Youth), Dr. P. Flynn (Psychiatry), Dr. R. B. Goldbloom (Professor of Paediatrics), Dr. P. A. Gordon (Preventive Medicine), Rev. D. R. Hartry, Dr. A. W. Kushny (Psychiatry), Staff Sergeant E. A. Marshall and Sergeant Detective K. Paul (Police), Mr. A. Watt (Youth Worker) and Dr. P. C. Whitehead (Sociology and Anthropology). Surely more interdisciplinary courses will follow.

Drs. D. L. Roy and D. A. Gillis attended a recent Symposium on "The Natural History of Congenital Heart Disease", held in Toronto.

Thinking intensively at the recent conference arranged by the Liberal Party at Harrison Hot Springs, B.C., was Dr. A. M. Sinclair. An interestingly named locale: hope springs eternal . . ., while hot air must have been abundant. And what is the appropriate collective noun for such a gathering: a party, or a procrastination, or even a prevarication of politicians?

Our deepest sympathy is extended to Dr. Douglas Waugh, Head of Department of Pathology, Dalhousie University, on the recent loss of his wife, the former Catherine van der Schroeff.

INSTRUCTIONS TO AUTHORS

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

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

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

THE W. K. KELLOGG HEALTH SCIENCES LIBRARY'S REGIONAL LIBRARY SERVICE

A NOTE ON THE SERVICES AVAILABLE

The following information has been prepared by Miss Doreen E. Fraser, Health Sciences Librarian, Dalhousie University.

PRIVILEGES: every registered physician in Nova Scotia and the other Atlantic Provinces. Mail service to Nova Scotia doctors increased 116% during 1968/1969—a marked increase over previous years.

MAIL SERVICE: Right to your home—or to your office—or to your Hospital Library. Reusable wrappings and return labels are supplied. Post Office permits special rate for library books.

BUT TO AVOID POSTAL PROBLEMS AND DELAY, PLEASE NOTE THAT:

- Mail delivery to the Library is in late afternoon: requests frequently have to be processed the next day;
- At least one additional half day is added because the Post Office will not deliver mail directly to the Library;
- When request reaches Library on Fridays, it is not mailed until Monday. There is no delivery in or out on Saturday.

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CONTACT:

Address letter:

Regional Library Service,
W. K. Kellogg Health Sciences Library,
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MATERIAL:

- Printed material is mailed whenever possible. By means of donations from interested patrons we are gradually building a duplicate collection of heavily-used journals for regional purposes. Our collection of library books is current, and is steadily increasing in volume.
- Photocopy processed by Kellogg Library is supplied at campus rate when journals cannot be sent. We prefer that payment be made by purchase of coupons (valued at $2.00, $5.00 or $25.00). Coupons are held by the Library and billing statement is enclosed with material which has been processed.
- Audio-Digest Tapes and others are also available. The collection of C-60 Cassette tapes covers anaesthesia, general practice, internal medicine, obstetrics and gynaecology, ophthalmology, oto-rhinolaryngology, paediatrics and surgery. Orthpaedic tapes are being added shortly. For C-60 cassettes, the following recorders are recommended:
  Sony TC 100 — C60
  Phillips EL 3312 (stereo) and EL 3310 (mono). Others are available. Tape speed in 1-7/8 i.p.s. (3¼" reel).

ALSO SUPPLIED UPON REQUEST

- Forms by which you can make requests for material and information.
- Service instruction sheets for your guidance, e.g., policy and regulations.
- Monthly List of Recent Acquisitions (arranged by subject) will be mailed to Hospital Library or Library Committee Chairman—about 40 are distributed throughout the Atlantic Region. It provides subject access to the book collection and information about new journals and new tapes.

SAFETY AND PROTECTION OF MATERIALS:

When returning material, please use the boxes or jiffy bags in which items were mailed to you to prevent damage by postal service or weather. Please follow instructions when asked to register or insure items.

SELECTION OF REFERENCES:

Although there are necessary restrictions about searching for references, an effort is made to supply one or two current references when emergencies occur and there is urgent need for assistance. We hope to extend this type of service at some future date as soon as staffing permits.

WHEN YOU VISIT HALIFAX—DO VISIT THE KELLOGG LIBRARY

The number of out-of-town physicians using the Library in person is increasing. You can borrow material yourself and then mail it back. Please inquire about the procedure. Closed study carrells are available on short-term basis for those who are visiting Halifax and wish to read while there.

[To Members of the Medical Society of Nova Scotia : In view of the advantages of a strong professional organization, kindly make this page available to a non-member associate.]

THE MEDICAL SOCIETY OF NOVA SCOTIA
APPLICATION FOR MEMBERSHIP

NAME .....
Surname Given names

ADDRESS .....

TELEPHONE NUMBER ..... DATE OF BIRTH .....

MEDICAL SCHOOL ..... DATE OF GRADUATION .....

LICENSURE PROVINCE ..... DATE ISSUED .....

OTHER DEGREES .....

POST GRADUATE TRAINING .....

.....

PRESENT TYPE OF PRACTICE .....

SECTIONS: Membership in the Society entitles you to make application for membership in the Section(s) of your choice. Please mark Section(s) you may be interested in.

- ☐ Anaesthesia
- ☐ General Practice
- ☐ Internal Medicine
- ☐ Ophthalmology and Otolaryngology
- ☐ Paediatrics
- ☐ Pathology
- ☐ Psychiatry
- ☐ Residents in Training
- ☐ Radiology
- ☐ Salaried physicians
- ☐ Surgery
- ☐ Urology
- ☐ Obs and Gyn.

ARE YOU A MEMBER OF A BRANCH SOCIETY? ..... WHICH BRANCH SOCIETY? .....

NAMES OF TWO SPONSORING MEMBERS OF THE MEDICAL SOCIETY OF NOVA SCOTIA .....

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REMITTANCE ENCLOSED (See over for details of membership) $.....

DATE ..... SIGNATURE .....

P.T.O.

MEMBERSHIP DUES

(Medical Society Fiscal and Membership year is October 1 — September 30)

	C.M.A.	*M.S. of N.S.*	*P.G. Levy*	*To*
1st Year Practice	$ 18.00	$ 25.00	$ 10.00	$ 53.(
Ordinary	55.00	120.00	10.00	185.(
Post-Grad. Trainee	14.00	25.00	2.50	41.5
Post-Grad. Trainee (outside Canada)	36.00	25.00	——	61.(
Retired	5.00	10.00	——	15.(
Non-Res. inside Canada	——	20.00	——	20.(
Non-Res. outside Canada	36.00	25.00	——	61.(
Senior	——	——	——	——
Husband / Wife : First Year	30.00	40.00	20.00	90.(
Ordinary	83.00	200.00	20.00	303.(
Post-Grad.	21.00	35.00	5.00	61.(

Members are entitled to the following :

(a) Members receive the following :

Schedule of Fees (N.S.)
By-Laws (N.S.)
C.M.A. *Journal*
N.S. *Medical Bulletin*
Code of Ethics (C.M.A.)
C.M.A. Information Booklets

(b) Members are entitled to make application for :

North American Life Group Insurance
Mutual of Omaha Group Accident and Sickness Insurance
Mutual of Omaha Group Overhead Insurance
C.M.A. Retirement Savings Plan
C.M.A. Medical Equity Fund
Canadian Medical Protective Association

Information relative to items in (b) are forwarded to each new member.

CORRESPONDENCE

To the Editor,

At the Department of Physiology, Dalhousie University, we have developed a method for the measurement of the diaphragmatic contribution to breathing. The patient simply breathes through a mouthpiece; then we measure the linear momentum of breathing and the centre of gravity of the abdominal bulge are then measured. This involves no needles or drugs, no inconveniences or dangers for the subject. So far we have found that in healthy supine subjects more than two-thirds of a tidal volume is contributed by the diaphragm, making this the most important breathing muscle.

We are anxious to study subjects with diaphragmatic afflictions such as hernia, obese or pregnant persons, and those who have muscular dystrophy, myasthenia gravis, pulmonary emphysema, spinal cord injury or peripheral neuropathy, a history of abdominal or chest operation, or any other disease in which you suspect an imbalance of costal—abdominal breathing.

We should greatly appreciate your help in referring any of your patients. No cost is involved and we shall be happy to report our findings to you.

W. T. Josenhans, M.D. (Professor)
Department of Physiology,
Tupper Medical Building,
Room 4-N-1,
Telephone No. 424-3423

To the Editor,

"Recent meetings with athletes and interested observers at International Meets in which Canadian teams have been competing, made it abundantly clear that there is considerable room for improvement in the medical support offered to Canadian Athletes on the National Teams. There seems no point in reviewing this situation to attach blame or cast reproach, but, it is equally obvious that the prestige of Canadian Athletes and of Canadian Medicine demand that drastic improvement occur immediately".

The foregoing was in the report by the Task Force on the Physical Fitness of Canadian Athletes set up by the Hon. John Munro, Minister of Health and Welfare. Although the Canadian Association of Sports Sciences (CASS) (mainly in the Western provinces) has been concerned with amateur sports and medical research into fitness, a new organization, primarily interested in providing medical services to competitive Canadian athletes at home and abroad, was considered mandatory. So, last August a group of Canadian doctors were called together under the auspices of the Canadian Medical Association.

This group, known as the Steering Committee, decided that there should be formed a Canadian Academy of Sports Medicine (CASM) with the following aims and objectives:

1. to provide medical services to competitive Canadian Athletes at home and abroad;
2. to maintain a register of physicians available and qualified to advise and treat persons engaged in athletic activities;
3. to advance the art and science of sports medicine in all its phases;
4. to provide university undergraduate and post-graduate study and training in sports medicine, and regional and national symposia;
5. to gather and disseminate pertinent information by means such as the publication of periodicals;
6. to encourage affiliation with related organizations including CASS and Federation Internationale de Medicines Sportif.

Physicians interested in Sports Medicine are requested to consider completing the questionnaire on p. 30.

J. F. Cantwell, M.D.

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Return to:
The Nova Scotia Medical Bulletin

DATE EFFECTIVE: .....

To: Canadian Academy of Sports Medicine
c/o The Medical Society of Nova Scotia
Sir Charles Tupper Medical Building
Halifax, Nova Scotia

(1) I am interested in sports medicine Yes ☐ No ☐

(If yes, indicate type of sports and experience)

.....

.....

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.....

(2) I would like more information on sports medicine

Bulletin Articles ☐ Conferences ☐ Clinics ☐ Symposia ☐

(3) I would attend meetings on sports medicine Yes ☐ No ☐

(4) I would volunteer my medical services for sports events:

(a) in local area ☐ (b) in Canada ☐

(c) outside of Canada ☐

(5) I would join a Nova Scotia Chapter of the Canadian Academy of Sports Medicine
Yes ☐ No ☐

Other Remarks:

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Name

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Address

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City Prov.

GENERAL INDEX

VOLUME 48, 1969

COPY CLIPPERS

SOFTER FOOD FACILITATE EATING

To facilitate eating for the older person, semi-solid foods can be used and the fibre of fruits and vegetables softened by cooking. Solid foods, such as meats, may be chopped, if necessary, says the federal health department publication, "Healthful Eating".

When chewing is difficult through loss of teeth, food must be adapted to meet this condition. The older person should eat basically the same foods as he ate when younger, but it is the form in which the food is served that must be adapted to his particular needs. Meals should only include foods the older person knows from experience to be easily digested by him.

By 2000 A.D., the secretary's main job may be human and public relations. Sophisticated office machinery will do much of her work, so she'll be more of an executive assistant than a clerical worker. She'll also probably work only 4 days a week and be paid twice as much as she is today.

Female Inheritance Strong: Girls are more likely to inherit their parents' pronounced features than are boys says University of Pittsburgh scientist Viken Sassouni.

Contraceptives Blamed: National Retail Merchants' Association is blaming oral contraceptives for 19% drop in maternity clothes sales during 1967.

Hospital Bans Smoking: Windham Community Memorial Hospital, Willmantic, Conn., becomes eighth state hospital to ban cigaret sales because of evidence linking cigarets with disease.

FEAR OF THE DARK

Many children at some time or other experienc fear of the dark. The child may feel just plain "scared and not be able to fall asleep. Other times, the child fears may take the shape of a ghost, a burglar, a snak or some other "scary" character recently seen on tele vision or read about.

If your child is afraid of the dark, do not ridicule hi fears or be strict with him. When a child is afraid to b alone in the dark, with his feelings, he shows how badl he needs comfort, love and reassurance, not just a night but during the day too. His self-confidence i suffering a set-back. If you have been reprimandin him for trivial misbehaviour or battling over such matters as toilet training and eating, it is desirable yo ease up on the disciplining and demands, and reassure him of your love and approval of him.

ADDITIONAL DANGERS

The Ontario Safety League points out that in addition to the health hazards of cigarette smoking, cigarettes can trigger other dangerous situations. Fire is the main danger, and there are many deaths from fires started by smokers. Smoking is the leading cause of home fires in North America.

Smoking can add dangers in cars, too. If carbon monoxide leaks into the car, it injects its poison faster in a smokeladen atmosphere. And smoke builds up a layer of deposit inside windshields and windows that, unnoticed by day, cuts down visibility at night and adds to glare from approaching headlights.

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