

# THE NOVA SCOTIA MEDICAL BULLETIN

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## The Patient as a Person

The improvement of standards of medical care in the past few years cannot be denied. Medical science has participated almost as much as space research in the Information Explosion. Where once a young man graduating from Medical School could feel well satisfied that he had the means of a satisfying and efficient profession throughout a lifetime of practise, he must now continually refresh his knowledge and skills by reading, post-graduate courses and regular meetings if he is even to keep abreast of medical advances. Almost weekly new drugs and techniques are announced, so that the graduate of fifteen years standing finds that some 90% of the drugs he orders today were not thought of when he left Medical School, and in that period the management of almost every condition from alopecia to yaws has altered out of recognition.

Diseases are now recognized that were previously only undiagnosed causes of death, and they are commonly treatable if not curable. The concept of the Medical Team has become accepted widely to the dismay of insurance carriers, and the time required for the investigation, diagnosis, treatment and rehabilitation of these conditions is the despair of hospital administrators.

There is however one way in which yesterday's physician might still hold his head high in today's practice. That is in the degree to which he identified himself with his patient, treating not just the disease, for which he had few arms, but the whole person, worries, faults, hopes and all. Still today this whole physician is in the majority, but his numbers are dwindling. In the pace of scientific medicine there appears to be less time, and less close contact with the patient in his home surroundings, to be "physician, companion and confessor."

Inevitably this tendency is most marked in the specialists, and least so in the general practitioners. But G.P.'s are a vanishing race.

Is there a cure? Perhaps not, but the preceptorship system is a help, and we could do more by discouraging the description of that non-existent animal the "w.d. w.n. w.m." and by failing out of hand any candidate who describes his patient as being "a pneumonia."

Looking for a criterion by which to pick out the interested doctor, perhaps the best is whether his patients feel that they can talk to him. If they can they will love him with all his faults. And he will physiek them the better. □

J.F.F.

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# Prepayment and Controls

J. A. McMILLAN, M.D.<sup>1</sup>

Probably no word is more anathema to an audience such as this than "Control". We have always abhorred and feared the spectre of a controlled press, a controlled society, and a controlled university always seem to connote a political and tyrannical authority without reason, justice or benefit to the public.

Perhaps we should be more provident and speak of rules, regulations and safeguards. The idea of compulsion might thus be tempered. I personally think that the word "control" is specific and well-understood as to intent and operation. I wish therefore, to review with you this very timely and important subject in its relation to the practice of medicine.

First of all, let me state categorically that controls do not necessarily undermine liberty. The converse is equally true. Freedom does not mean lack of controls. Liberty and freedom, a subject I had the pleasure of discussing the last time I spoke before a Winnipeg audience, simply mean the ability and the right to choose what is right without compulsion. As Professor Hyack puts it, "liberty and responsibility are inseparable."

Let us examine briefly the controls to which you and I have been subjected in arriving at our present stage of medical practice. Among those we will discuss the ones directly connected with prepayment. I have divided various types of controls under four headings: Academic controls, Legal controls, Professional controls, and Controls of Practice.

Of the Academic controls, of course the most fundamental is that of the requirements of basic education. Certain basic elementary requirements must be faced by the prospective student of medicine. Similarly, the medical education controls are set up by the universities, and only those who measure up to certain standards can receive the degree of doctor of medicine. Universities control junior internship which is required before the prospective doctor is able to write his licensing requirement examinations.

Next come Legal controls. The first one is that of the requirements of licensing which, for Canadians in most places, requires citizenship and for non-residents in some provinces a period of wait-

ing. Then we have the legal controls of narcotics and the right of doctors to write prescriptions. Only recently the legal requirements for hospital staff appointments have been reviewed and in some provinces this has become a very important problem. Basically, each hospital board has the right to control its own staff appointments. More latterly we have some controls which have been initiated by Hospital Insurance Commissions and these vary, of course, from province to province.

Among the Professional controls to which we have been subjected are those particularly referring to specialist training and specialist examinations. Those controls are directly related to the requirements which medical staff organizations require in their by-laws for certain types of privileges in hospitals - the control of surgery, the control of other specialties, are very specifically spelled out in the by-laws of almost every hospital. Similarly the requirements of specialist society regulations, both for the writing of examinations and for becoming certificated or a Fellow in specialist societies, are very stringently controlled.

However, most of the controls to which we are exposed have to do with practice. In some countries there is a control of the location of practice - something that we abhor in this country, and hope never to have to face. Similarly we reject the idea of the control of type of practice, so that the doctor may be free to pick the type of practice which he feels best suited to pursue.

Control of patients - the right of the patient to choose his doctor and the reciprocal right of the doctor to choose his patient - are basic freedoms which we definitely do not wish controlled. Of late there has been much talk about the control of medication. Once again, except in such instances as in hospital wards and certain other basically agreed-to formulae, the doctor should be free to prescribe for his patient what he feels in his judgment is best. Controls of hospital privileges, which I have mentioned previously, also have a great effect on the type of practice that the doctor may pursue in any given community. The right of general practitioners to have access to hospital, for example, is a subject which of late years has been very much discussed. In a general sort of

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way, it is felt that hospital facilities should be made available to all doctors to practice medicine within their competence.

The most important controls regarding medical practice which concern us here have to do in some form or fashion with tariffs. The ideas about tariffs entertained in various medical societies seem to vary from place to place. In most cases the tariffs are guides. In some cases they are called "minimum tariffs." In no instance that I know of are they called "maximum tariffs." However, certain medical societies have made contracts with certain groups for maximum payments. In most provinces payments to be made by the Workmen's Compensation Board and payments made by many government agencies are an agreed-upon tariff, and no extra billing is to be permitted. Those of you who are familiar with the "Hall" report know that the basic recommendation for payment is one involving negotiated maximum tariff without extra billing.

Contracts which medical societies have with their sponsored medical prepayment Plans, however, generally do contain some type of schedule which is an agreed-upon basis for service benefits, with no extra-billing in most cases, and with the doctor having the right to charge over and above the basic payment in other specific instances. In no prepayment Plans that I know of is there any control of income, although there are controls of income limitations in certain specific areas of the country. The contract between the Newfoundland Medical Society, for example, and the pediatric service which is available on an in-hospital basis to all children in Newfoundland under the age of 16, is a negotiated contract for payment on a fee per service basis up to a certain basic income. The contract provides for paying approximately 80% of the provincial tariff, and when the doctor makes a certain amount of money, then drops down to 25%. This in effect is a control of income. It is rumoured that this arrangement may be discontinued.

In the practice of medicine, the introduction of tissue committees, medical audits, professional surveys of various kinds certainly have had a very marked effect in helping to keep the practice of medicine within certain standards and within certain bounds, all of which can be described as very effective control of practice. In the 30 odd years since we have been exposed to the effects of prepayment mechanisms we have seen most of those controls change a great deal. Most of these changes were independent of, and not at all related to, prepayment. In a general sort of way, only those controls which are related to tariff and the volume of services are of interest to us here this afternoon. Let us therefore be specific and examine the problem under the following headings:

1. Should there be controls? If I were to make a short answer to this first question, I would reply with an emphatic "Yes". There is no business or human endeavour in which rights and privileges of many people are involved that can be left to the laws of random and chance. There must be a rule book in any game, and there must be a referee. Man by his very nature demands law and order - right and wrong - controls over abuse and misuse. Here are some of the reasons doctors' services and payments must be controlled.

(a) First of all, as our President, Dr. Turnbull, has so eloquently admonished us, doctors, most of all, must be concerned with the total cost of all care and services based on their commands. We initiate, maintain, and terminate costs in many instances. We are free to treat our patients within the limitations of our competence, and we must assume some obligation for the costs of the services we dispense. Hospital admissions, types and quantities of drugs, paramedical services, length of stay - these and many obviously costly services are at our command and under our control. We owe it to ourselves and to our professional ethics to be honest, careful and frugal trustees of our patient's money, howsoever it be provided.

(b) Secondly, medicine as a profession has always claimed the right to set values for doctors' services. New interpretations have been offered in defining this basic professional right. We may have difficulty in retaining some vestige of this basic professional right in today's context; but as long as we do, we have the obligation to control abuse, fraud, and fraudulent-like practices. The Hall Report dictates that there be no payment for medical services beyond a negotiated maximum schedule - payment according to negotiated schedule is to be payment-in-full for services rendered without extra charges. Without debating the merits of a maximum schedule, it is obvious that controls are necessary in the administration of such a contract. Changing circumstances, concomitant services, extraordinary and unforeseen complications, all the vagaries of medical practice, demand interpretation, understanding, and ultimate control.

(c) Thirdly, for selfish and more personal reasons, the profession demands controls in self-defence against the type of doctor whose only interest is money, who will sometimes even be dishonest to obtain it, and who certainly refuses to share the responsibility of his confrères. He wants his pound of flesh and a bit more too. There is only so much money in the pot, and it must be equitably divided with justice to each and with no reward for the smart operator. We need controls indeed, if for no other reason than to protect patients and honest doctors against the few pirates who will always be with us.

(d) Fourthly, we do need controls in our prepayment Plans - and I may say especially in our own prepayment Plans - because we are more exposed to criticism when we exercise the control of the administration of those Plans and at the same time are beneficiaries of the moneys dispensed. One of the newest and perhaps most insidious but vigorous attacks on physician control of prepayment Plans is now gaining momentum. This attack says, in effect, that doctors have no interest in the efficient operation of Plans, since all the monies go to them anyway. Mounting criticism of this type - originating among certain insurance executives, and labor leaders - must be met by vigorous promotion of adequate and well-publicized controls operating within the Plans.

Let us now look at the types of controls that may be exercised and let us attempt to evaluate some of them.

In the very early days of prepayment, most Plans ran a cash-register type of operation - all the money left after paying day by day expenses was paid out as far as it would go. That is still the method of operation of many welfare Plans - prorated payments across the board. Personally, I have had no experience with this type of operation, because for many years, our Plan paid fixed amounts for services rendered on a purely indemnity principle. We maintained our obligations in a fluctuating cost field, and the subscriber made up the difference if the doctor felt that his financial status warranted extra charges. Strict underwriting, concise listing of benefits and fixed payments made for efficient and always solvent operation. The introduction of the Service Plan principle, without limits in coverage, demonstrated very early the need for controls. It was one thing to define a service - it was quite another thing to determine its cost. It was easy to define a house call - it was quite another problem to find out how many would occur in any given illness, in a certain geographical location, and when made by an individual doctor. Very soon we were into the world of averages, means and deviations.

Two basic types of controls can be exercised - one directed towards patients' utilization and one specifically designed for doctors' services. It is probably a reasonable criticism that we have not used patient controls sufficiently. Some Plans have made excellent use of such devices. Let me illustrate some common practices in our Plan.

I shall not review all the underwriting principles tending to give good enrolment selection, such as adequate group participation ratio, age restrictions, waiting periods for pre-existing conditions and the like. These too are essential to sound operation, but once a subscriber is eligible for benefits, how, then, can we control his utilization?

1. The patient and his family may be contacted and excessive use may be brought to his attention. Most of our Plans do not have the right to terminate a contract on the basis of pure overutilization of benefits. However, the psychological effect of bringing it to the patient's attention sometimes is sufficient, especially if it is carried out repeatedly.

2. If the member concerned is a group subscriber, then the group may be approached. This is particularly effective in union-negotiated contracts, or in groups with employer contributions. If utilization by subscribers in a given group is high, if in fact the whole group utilization becomes exorbitant - then a contract written especially for that group must be devised. The best mechanism in such cases is of course to experience-rate the contracts. It is very efficient control when the subscriber's premiums are geared to his utilization.

3. The attending doctor may be contacted and the problem studied to make certain that the case is definitely one of over-utilization and not just one of excessive medical needs. When the doctor is an active participant in the Plan through his medical society, he is deeply concerned with the success of the Plan and the control of over-utilization. In my experience most doctors are very co-operative when approached about this problem.

4. Restrictive riders may be imposed on individual contracts, limiting the benefits in the areas of successive use. - For example, limiting the number of calls for specific diseases under specific circumstances and the like. This of course, is only effective in small areas of abuse.

Controls for overservicing by doctors can be more specific than on patients, although they may follow a similar pattern.

1. First of all, the doctor must be contacted and the pattern examined carefully. His opinion on the matter should be a private communication with the Plan. Reasonable explanations should always be accepted. Only when a pattern of practice is established should any doctor's servicing be questioned. This private contact between the Plan and the doctor usually is sufficient, especially when the doctor hasn't noticed or is not aware that his servicing may be somewhat over the average.

2. The second stage should be the explanation to the doctor that his original explanations do not hold for a whole series of cases. In one case, in our Plan we had 40 claims for upper respiratory infection from one doctor, all for four house calls and one office call, and all for exactly \$28.00 in the same time interval. It is pretty obvious that no explanation from a doctor could justify this type of billing, and it always makes the medical director or the taxing committee suspicious that

some of the calls may not even have been made. Such patterns of practice should always be subject to some type of scrutiny and ultimate control.

3. The third step in handling a pattern of practice such as we just described, is to have it passed on to some type of committee which is set up as a referee. This is a committee of doctors; it may be appointed in many fashions; it may operate differently in different areas, and in general should be used a great deal more than is now the practice. I shall have more to say about this type of committee later.

4. It may be necessary at this stage to pass it on to a further control, in the form of some type of taxing committee whose duty it would be to set up a mechanism to cut payments once the judgment is made that there is definitely over-servicing by the doctor.

5. If all efforts fail, if the patterns persist to the detriment of the whole operation and to the point where the excessive costs from one doctor may possibly influence the payments to other doctors, then it is only reasonable that his doctor be removed from the participating physicians' register and that future payments be made directly to the subscriber.

How do Plans determine a so-called "Pattern of practice?" Most Plans use a system not unlike the one used here in Manitoba. Variations of the techniques are used to meet the needs of local conditions. Doctors in any Plan area are divided into categories - depending on such factors as their specialty, the type of practice they carry on, their geographical location and the like. Their services may be studied for special items - e.g., hospital care, home or office calls, diagnostic services and the like. By manual operation, or by computers, each doctor's pattern of practice is then put into mathematical language. He is then compared with his confrères in his category or block or section. The quantity of services is compared with those of his fellows, and his deviation is calculated in services or transferred to values in dollars. Many doctors fail to realize what a relatively simple procedure this is. It is really no trick at all to divide doctors into the non-needler and the injection group, those who prescribe B12 or similar preparations for asthenia, instability, rundown conditions, nervousness and the menopausal troubles of both males and females. In my province, one doctor used to give all his weekly shots on Friday. The local people used to describe the bus that brought these people into his town as the "Liver Bus." Similarly, the following types - the doctor who makes the call, takes a good history, makes accurate diagnoses and prescribes adequately. He reassures the patient and family and instructs them to call him if progress is not as anticipated. This doctor is easily compared with

his confrère, equally prompt, careful, wise and learned, but who is more prudent and says "I will be back tomorrow." The latter will always show perhaps 1.5 or more second house calls for every first call than the former doctor. There is the doctor whose pneumonia cases are 3.5 days longer in hospital than the general average, or whose ulcer cases and diabetes always use five days more, or whose diagnostic services cost \$10 to \$20 more for the same diagnosis - these and comparable deviations are very easily determined.

Perhaps the most valid criticism of these yardsticks is that they are all designed to measure quantity only. We have as yet never developed any effective measurement to determine the quality of a practising doctor's services. Once the man is certified in surgery, or has his fellowship, we have no way whatsoever that I know of to check the quality of his work. Many studies are now underway to do this very job. Colleges of general practice and their programs for continuing education, in hospital medical assessment, reviews by tissue committees and other groups in hospital practice, all are helping to provide some qualitative studies of physicians' work, but certainly for office practice there are no demands whatsoever for high quality work.

Who should impose controls? - I am strongly of the opinion that controls should be initiated, exercised and designed by the profession itself. Only in cases of actual fraud should the licensing body of the province be involved. Medical societies should certainly make available to the prepaid Plans some well-publicized methods of control. Some combination of the following patterns have been used successfully in various parts of the country.

1. Reference Committees - usually nominated and designated by the profession, sometimes on a rotating basis, sometimes with geographical sub-committees for easy access, may be used by the Plans for studying cases. These are usually advisory only. They usually have no power, but if the Plan and its sponsoring professional body agree, then their decisions can be made binding on both parties by mutual consent.

2. Mediation Committees may be standing professional committees. These more often are available to everyone including Plans, the public and other interested parties, the insurance industry, the government paying agencies and the like. They are more general than Reference Committees which in some instances are designed purely for the use of the Plan.

3. Taxing Committees are of various types. Their duty and obligation usually is to make decisions on the payment by Plans for obscure problem cases, for multiple doctors' services, sometimes for bizarre and unusual services and the like. Some Plans have their own taxing com-

mittees, and these may be appointed by the Boards of the Plans with or without consultation with the organized profession. In some cases the arrangements are that the profession appoints the taxing committees and the Plan makes use of their services. In all instances I personally favor the practice of having all committees appointed by the profession and offered to the Plans for use. They then become more specifically professional committees, taking upon themselves greater obligation to protect the public's interests as well as the Plan's and the doctor's interests, and they are probably a little more effective in getting the co-operation of the individual practicing physician. Even after long experience as the medical director of a Plan, and with all the handling of claims, seeing every imaginable sort of gimmick used to get a few extra dollars, I am still of the opinion that most of our profession are inherently honest and very co-operative - or at least are prepared to appear so when deviations are brought to their attention. Strict professional controls, fair and applicable to all can reduce to a minimum our problems of abuse. However, if I were talking to the Plans, I would remind them that a very smart, well-trained medical claims department should be able to pick up deviations before they become abuse; should be able to determine patterns of practice that are abnormal before they become habitual, and that the claims department director, and his medical director should make early use of professional groups concerned with control.

What sanctions should be used to make controls work? First of all, as I have just said, if there is evidence that a doctor is consistently over-servicing, then a Plan owes it to the profession to warn the doctor and in turn to report him to the profession on whatever basis is agreed upon. Nothing succeeds like a strict set of ground rules and the very presence of a smart referee. Any doctor who over-services should lose his right to participate in the Plan and should not be allowed to affect pro-rating of payments or the income of his confrères when such a pro-rating mechanism is part of the participating physician's contract. The simple laws of justice demand this basic type of sanction.

Secondly, I belong to the school that says that every doctor should have to justify his fee to his patient. Therefore I believe that Plans should not develop procedures which fail to let the patient know what is paid to the doctor on his behalf. In other words, the patient must know his bill, and must get a receipt for what he paid to the doctor. Any arguments as to cost, as to the trouble and other disadvantages of this practice leave me cold and unimpressed. No doctor should be able to send a bill to any paying agency and get money for services without the patient's knowing about

it. An employee of our Plan went to a doctor about a sore back. The doctor examined him, had his back X-rayed and found an old healed fractured vertebra of which no previous history was known. For the one office call he billed our Plan \$75.00 and got it. When the patient found out, he obviously objected to the amount of our payment for services rendered. Similarly, if a patient is seen twice, and the doctor should bill for five calls, then the best control is the patient's receipt for payments made.

Thirdly, any cases of actual fraud should be reported to the licensing body because I believe that persistent fraud, or fraud of any magnitude is reason for restricting both license and hospital privilege. In almost all provincial medical Acts, there are Sanctions for unbecoming conduct, for unprofessional performance, and other similar misdemeanors which certainly include dishonesty in billing patients and collecting from third parties. If you are following some of the work of our provincial licensing bodies, as reported in the press, you will find that it is becoming more common to consider fraudulent billing as an unethical practice jeopardizing the issuing of a license.

Should Plans and/or the profession routinely check doctors and patients for misuse and abuse? In plain words, should the Plan try to catch doctors cheating? I feel that each Plan and its sponsoring body should make a policy and set up practices to this end. Often random checking of accounts may be used - special runs can be made by machine on the accounts of suspected offenders. Letters can be sent subscribers telling them of the services rendered them and their families during a particular period and asking them to confirm that such services were rendered. Within the Plan every possible scrutiny should be used to ensure that no duplication of accounts is made. It is surprising how often accounts may be billed or sent to the Plan twice; after a sufficient interval they could get by occasionally. This is one of the reasons that the Plans are insisting that accounts be sent promptly for payment. Many of them have in their contracts the right to refuse payment after a sufficient interval, although not often is the particular clause used. Checks and cross-checks can be made on claims when time factors are involved. These would be particularly applicable to anaesthesia and assistants' fees.

It is probably unfortunate that both the profession and the Plans must be so alert to control abuses; but abuses are facts; they are fewer in Plans where adequate and well-publicized controls are continually applied. There seems to be a perversion in us that tempts us to cheat, and pre-payment should certainly not increase this temptation by making it easy to get payment that is not earned.

You and I are basically honest; but we are more honest if we are readily caught when we cheat. Strict controls and good liaison between the Plan and the profession make for sound financing, successful underwriting and adequate payments to doctors. Similarly the profession should direct its Plan not to pay for services no longer medically acceptable and for practices that are not particularly sound, that are obsolete or, in fact, completely wrong. Injections of drugs of no value and for diseases where they are not indicated should not be paid for. This advice should come directly from the profession. The profession should be willing to sit in judgment, on services not medically necessary, and should assume responsibility for advising plans on such matters.

Let me now turn to the really burning question of government and state controls. Here in Canada we have reached a stage in our economic evolution where planning is the big issue. As doctors we too often feel that this concerns other peoples' business - not ours. Big business certainly does not include us - so we reason. Gentlemen - outside of government - health care and services constitute our nation's biggest business. Moreover it involves each and every one of us. Because our business is big business medical care now is number one programme for state planning.

A few weeks ago here in Winnipeg at the 35th annual meeting of the Canadian Chamber of Commerce a three man panel discussed the subject: "Economic planning - straitjacket or catalyst?" We make a fundamental mistake of thinking we are excluded from this field - probably because traditionally medicine was a personal professional service. But with the growth of paramedical services, team and group approaches to health care, institutional doctors, clinics and groups of any and all types - health care is business. Prepayment probably added the finishing touch.

If we persist in maintaining that our business does not fall into the domain of state planning I fear we will stand alone. Whether we like it or not the practice of medicine is today considered as public service like a utility and therefore a business to be negotiated by the state for the benefit of its citizens. Just last week in the CMA Journal letters to the editor Dr. Wolfe stated this as political belief "that in a democracy no privileged group can refuse to negotiate the price of its services to the public."

All the philosophical deliberations we have developed, all the rhetoric and the ethics and the logic in our pleas for freedom of the profession and our warnings about the economic domination of the quality of medical care - all these I say have been ineffective in persuading the press, the public and the government that health care is not a proper field for state interference and for state planning.

The very same argument that demands state planning in business as we ordinarily understand it - to reorganize the economy - to prevent the glaring discrepancies in regional growth and economic achievement - this very same argument I say has successfully undermined the position of organized medicine in the field of health services. We are indeed in the phase of government planning right now. Our business is passing from what they call the private sector to the public sector. This involves a whole new context of controls. Let me attempt to project some of the changes we may have to face in the future.

Most of you have read the medical best sellers of 1964 - The Hall Commission Report and the report of the Committee on Policy. These constitute the Pro and Con of planning just like the panel I mentioned a while back. Both these reports sidestep some of the worst basic problems. These issues I feel demand solution if either private or public prepayment is to succeed - or a combination of both.

(1) First of all the most glaring weakness in a national programme of Health Care for Canadians is the very obvious lack of co-operation between Federal and Provincial governments - now more pointed than ever before. No matter what the Hall Commission recommends - be it good or bad - the efficiency of any action that will be taken will be adversely affected by poor federal and provincial acceptance of their respective roles in health care. I am not at all impressed by the arguments for provincial autonomy in health matters. As doctors perhaps we have always felt our interests were best served and protected by promoting the provincial rights issue, and our own organization is based on this interpretation of federalism; but personally I see no further use or benefit accruing from it. Our own attempts in the medical services prepayment field have floundered just as will any national programme fail without a strong well supported national policy and plan.

(2) The second problem in controls comes from the very nature of insurance. When I first became involved in prepayment we insisted on strict control on what I call the insurability of risks. With the advent of comprehensive service plans insurance principles were no longer invoked. Insuring a single office call or any small service - we used to say anything under \$10.00 - cannot be defended on economic scientific or need basis. It is just too expensive. I have never believed that all medical services can be successfully covered by prepayment, especially unlimited diagnostic services, off the street specialist services and unlimited home and office services for minor illnesses and check ups. The profession sold this idea of comprehensive service; now they tell us it was all a mistake. The real contribution the professionally sponsored plans made in this field is not the service plan



idea - as some think - but the introduction of the family as the insured unit instead of the individual worker or breadwinner. No workable administrative controls have been devised to provide all health services other than on a welfare basis -

(3) And this leads me to the third basic problem involving prepayment and controls. For all practical purposes the profession has not defined the very real difference between specialist services and services of specialists. What is the value of an office call for acute tonsillitis when carried out by a G.P., a pediatrician, an internist or an obstetrician doing prenatal care, or by a nose and throat man? Does the surgeon certified in general surgery get specialist fees for a cholecystectomy, nephrectomy, hysterectomy and T & A? I know you have some answers of a sort here in Winnipeg, but they do not solve these problems all across the country.

(4) And how about Fees? As a profession we maintain the right to charge individual fees by private contract with each patient. The Hall report bases its conclusion on a fee for service based on a negotiated maximum schedule without further charge. Herein lies the crux of the problem of controls. Most fee schedules are minimum schedules, or as they say in the preamble "to be used as guides". The special committee on the Australian plan says: "It is the Committee's opinion that the current published fee schedule of each Division must become more than a guide to the profession in billing patients." The special committee on prepaid care says the profession should "accept the profession's fee schedules as full payment of their accounts except under special agreement between the sponsoring organization and the plan."

I firmly believe that the government's sole interest in medical services insurance is financial I don't believe they are at all concerned with the philosophy - the future quality of care as we see it, or the problems involved in methods of payment, as long as they get what they figure will be politically expedient and what will not seem financially unrealistic as government expenditures

go. Institution and experience lead me to believe that a high percentage of the profession are similarly motivated and they will not argue too much over principles and methods of payment as long as working conditions, work load and remuneration are sufficiently attractive. This may be heresy to some - but the prospect of payment on a maximum negotiated schedule for all services, is a pretty bright prospect for most doctors. The spectre of controlled income does not deter when it only appears through the mists of the future.

(5) Governments only think they can control the market place in Health Care. Bootleg medicine is a nasty word I know. But I am convinced it will appear as soon as a plan such as the Hall Commission suggests is put into effect. To think that all patients will be satisfied with a common service and convenience is just unrealistic. Some will want more and will pay for it - government regulations or not. It is happening right now in comparable circumstances, and no control can stop a doctor making private contract over and above what the state provides. This is where hospital care insurance and medical services insurance no longer are comparable.

Let me sum up briefly:

1. The profession should study and implement controls now.
2. The profession should develop sanctions against its members who deliberately over service and collect monies they do not merit.
3. The profession should define clearly when specialist fees should apply - where a differential tariff exists.
4. The profession should develop a standard national approach to tariffs, even though dollar values may vary.
5. The profession should institute now the types of professional contracts necessary in any form of state subsidized medical service program otherwise someone else will.
6. The profession can't logically demand from the public unlimited control of fees if they do not assume some responsibility for the total cost of medical services as well. □

## HORSES ARE NOBLE AND WISE

And so, of course, are doctors which may explain why so many doctors own horses. There appears to be a mutual fascination and we are quite convinced it cannot be an attraction between opposites. Anyway, even the most sober horse is a hazard to the most dignified doctor because he (the horse) is excluded by the usual liability insurance on him (the doctor). To doctors who match wits with horses, may we prescribe the *proper* insurance.

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# Schedule "F" Drugs

*We have been asked by the Nova Scotia Pharmaceutical Society to publish recent amendments to the Food and Drug Regulations. Through the years, pharmacists have had a close and satisfactory relationship with physicians in the distribution of prescription drugs. The recent amendments are of just as much importance to the physicians prescribing the drugs as to the pharmacists who dispense them. We realize that occasionally some slight laxity develops in the observance of regulations and a periodical reminder may not be out of place.*

## Recent (April 14, 1965) Amendments to the Food and Drug Regulations concerning the sale of Schedule "F" drugs.

C.01.041. (1) Subject to sections C.01.043, C.01.046 and C.01.061, no person shall sell a drug listed or described in Schedule F to the Regulations, hereinafter referred to as a Schedule F drug, unless he has received a prescription therefor, either written or verbal.

(2) Where the prescription for a Schedule F drug is written the person selling the drug shall retain the prescription for at least two years from the date of filling.

(3) Where the prescription for a Schedule F drug is verbal, the person to whom the prescription is communicated by the practitioner shall forthwith reduce the prescription to writing and the person selling the drug shall retain that written prescription for a period of at least two years from the date of filling.

(4) The person reducing a verbal prescription to writing shall indicate on the written prescription

- (a) the date and number of the prescription;
- (b) the name and address of the person for whose benefit the prescription is given;
- (c) the name and quantity of the drug specified therein;
- (d) his name and the name of the practitioner who

issued the prescription; and

- (e) the directions for use given with the prescription, including whether or not the practitioner authorized the refilling of the prescription and, if the prescription is to be refilled, the number of times it may be refilled.

C.01.042. (1) No person shall refill a prescription for a Schedule F Drug unless the practitioner so directs and no person shall refill such a prescription more times than the number of times prescribed by the practitioner.

(2) The person refilling a prescription for a Schedule F drug shall record on the original prescription therefor the following information respecting each refill:

- (a) the date of refill;
- (b) the quantity of drug dispensed; and
- (c) his name.

Most prescriptions for these drugs do not indicate a refill at all and when a refill is requested by the patient, the pharmacist is obliged to contact the practitioner concerned as per C.01.042. Please note that the practitioner must specify or prescribe the number of times it may be refilled. Therefore, such terms as "Repeat PRN" or "ad lib" are not legally acceptable. □

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## FORTY YEARS AGO

From *The Nova Scotia Medical Bulletin*  
September 1925

## FIFTY YEARS IN PRACTICE

Robinson Cox of Upper Stewiacke received his M.D., C.M. from Dalhousie University in 1875, and last spring completed his fiftieth year of practice in his native village. Having served his community with exceptional acceptance it was not surprising to learn that his many friends on August 27th, 1925, gave tangible expression to their appreciation of his services. A meeting was held which filled the village hall to overflowing. Frank Reynolds, Municipal Councillor, was Chairman,

and the programme consisted of addresses and presentations to Dr. and Mrs. Cox, speeches, music and refreshments. The presentation consisted of a Sterling Silver Console Set, the bowl suitably engraved being presented to the Doctor and the Candlesticks to Mrs. Cox. Doctor Cox was so overcome by emotion over this evidence of esteem, it was some time before he could give expression to his appreciation. □

# Conization of the Cervix

B. J. EPSTEIN, M.D.<sup>1</sup>

S. C. ROBINSON, M.D.<sup>1</sup>

Halifax, N. S.

Until recent years, the diseased cervix was generally treated by cauterization. This would involve the use of chemicals (Silver Nitrate), a hot electric tip, or various electrode units - such as the "Hyfrecator". These treatments, if carefully carried out in radial fashion often cure the mild cases of SUPERFICIAL Cervicitis.

With the advent of Papanicolaou smears and knowledge about pre-invasive cancer, no one today would cauterize a cervix without first ruling out malignancy. To do this, a "Pap" smear is carefully performed, obtaining cells scraped from the cervix and also cells contained in the pool of fluid in the posterior fornix. These are carefully smeared out onto one slide, or better still onto two separately labelled slides which are fixed immediately. Many times the diagnosis of "atypia", "dysplasia", "possible carcinoma *in situ*", etc. will call for tissue examination. In these cases, (and in the absence of obvious invasive malignant disease) conization of the cervix is indicated.

Too often the pathologists have to advise the clinician that the tissue submitted as a cone specimen was nothing more than a few scraps cut from the cervix. This is not a cone specimen and the pathologist cannot make the diagnosis of carcinoma *in situ* from inadequate tissue.

## Method of Coning the Cervix

The patient must be in hospital and usually she will require a general anaesthetic. One assist-

ant is essential. After preparation of the vagina and cervix with iodine, one can see, very often, the abnormal area of epithelium which does not stain. The cervix is grasped on the edge, usually front and back (FIG. 1) with two tenacula. At this point, it is wise to dilate the cervix and curette first the

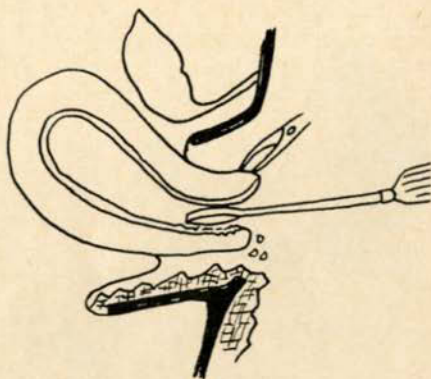


FIGURE 2.

upper canal, then the endometrial cavity, collecting the specimens on gauze and preserving them separately (FIG. 2 & 3). Disease inside the cervix or corpus uteri can be found this way.

It is now appropriate to cone the cervix. Often it is an awkward shape or size. For this reason, it is a good idea to distend this organ by injecting 10 to 20 cc. of 1% xylocaine with epinephrine 1:100,000. This is done by injecting the

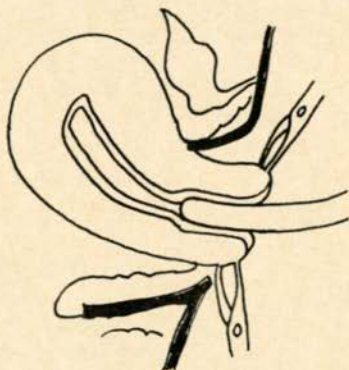


FIGURE 1.

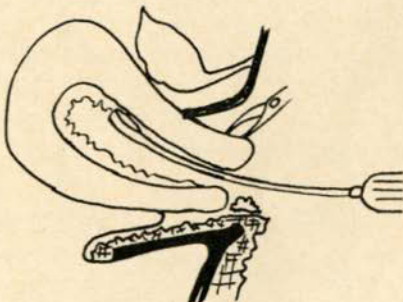


FIGURE 3.

<sup>1</sup>From the Department of Gynecology, Victoria General Hospital.

cervix from the circumference using a 10 cc. luer-lock syringe with metal grip and a 20 gauge needle (FIG. 4). This injection in addition to blowing up the cervix making it easier to work with, almost eliminates bleeding and it is rarely necessary to use sutures or cautery. By leaving a dilator in the canal (Hegar No. 5 or No. 6) one has a guide. A pointed knife blade is then inserted near the circumference at 3 o'clock (to avoid obscuring the field with any oozing) and using a saw action a full, complete circle is made which produces a true and complete cone (FIG. 5 - 8). One should not go as high as the internal os of the cervix. The specimen is submitted in formalin. It is desirable to orient the specimen by identifying the front with a

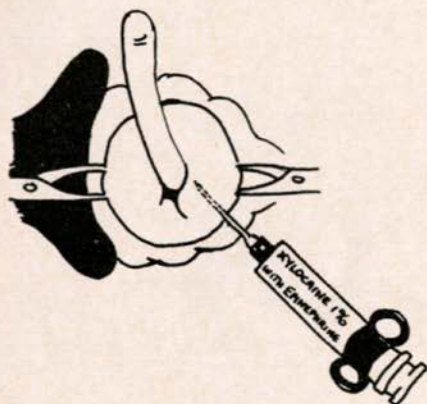


FIGURE 4.

pin. The pathologist can now make blocks and cut serial sections and give a precise, reliable interpretation. No area of potential disease will be overlooked. We use no packing but some may choose to do so. In any case, the patient should be retained in hospital for 2 or 3 days in case secondary bleeding ensues. If this occurs, packing or suturing will be necessary.

No after-care is necessary. The patient may bathe, but **must not** douche as the nozzle might cause bleeding. Coitus must be forbidden until healing takes place.

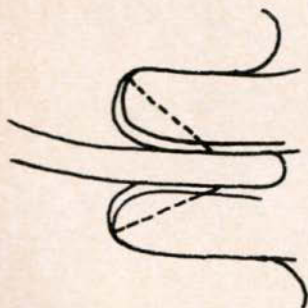


FIGURE 6.

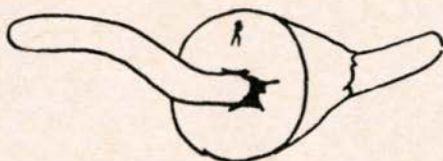


FIGURE 7.

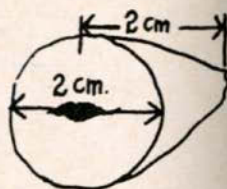


FIGURE 8.

One should inspect the cervix in 6 weeks and generally it will be completely healed.

If carcinoma *in situ* is found, a wide-cuff hysterectomy should be done - preferably through the vagina. Because of this possibility, we use antibiotics where suspicion of malignancy exists. This helps to make the operation two or three days after conization reasonably safe. If invasive foci are detected, the patient should have radium.

In cases without malignancy, where the cervix is large, bulky, often soft and cystic, the patient may have considerable mucus discharge - never itchy of itself, but annoying because of the amount. Such cases respond extremely well to conization of the cervix. The diseased areas are extirpated in a manner not possibly by simple cautery.

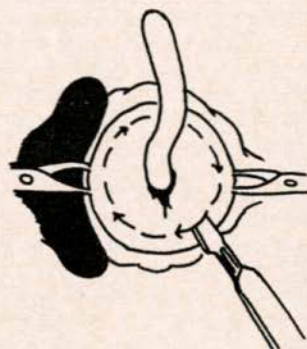


FIGURE 5.

If a "Pap" smear is positive during pregnancy, the cone biopsy must be kept shallow but must be suitably inclusive of the external cervix. By using the xylocaine-epinephrine technique, the soft cervix is not likely to bleed significantly.

#### Summary:

The indications for, and a method of coning the cervix are described. A plea is made to ensure that the pathologist receives a satisfactory specimen for examination. This procedure is not particularly simple and should be done under good operating conditions. □

# The Treatment of Cardiac Arrhythmias

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Halifax, N. S.

## Introduction

For the purposes of this paper, the commoner arrhythmias will be discussed. It should be emphasized at the beginning that a vital part of the treatment of the arrhythmias is accurate diagnosis, utilizing a complete history, physical examination and electrocardiographic investigation. Underlining the importance of an accurate diagnosis prior to therapy is the fact that certain arrhythmias may be aggravated by certain commonly used drugs. The following are a few important reasons for reviewing this subject at this time:

- (a) The presently existing widespread use of oral diuretics with attendant risk of hypokalemia, and digitalis intoxication.
- (b) The ever-present risk of sudden death, conversion to more serious arrhythmias, and emboli which may complicate the course of an apparently benign arrhythmia (acute or chronic).
- (c) The prognostic importance of a changing rhythm in acute myocardial infarction.
- (d) The availability of synchronized direct current electrical discharge (cardioversion) as a relatively safe method for the reversion of certain arrhythmias.<sup>4</sup>
- (e) The availability of reliable temporary and permanent cardiac pacemakers.<sup>3</sup>
- (f) The increasing awareness of the hazards of quinidine therapy.
- (g) The increasingly apparent importance of atrial contraction in cardiac function.<sup>5</sup>

## Atrial Arrhythmias

### Atrial Fibrillation

The presence of chronic atrial fibrillation in any patient deserves careful consideration of the factors for and against reversion to sinus rhythm. This is of particular importance in view of the development of cardioversion as a safe, practical method of reversion which is destined to replace quinidine almost completely, although the latter remains the mainstay of maintenance therapy.

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Reversion must be carried out in hospital under close observation. Anticoagulant therapy is definitely recommended when reverting patients with mitral stenosis. However, the value of anticoagulants in other patients undergoing reversion awaits further study. Digitalis is withheld for 2 - 3 days before cardioversion is attempted, and quinidine sulphate, 200 mgm. every 6 hrs is given for 2 days and maintained after reversion. Light sodium thiopental anaesthesia is recommended to induce transient amnesia, and forestall any unpleasant sensations.

Cardioversion is indicated in the following conditions: (4)

- (a) Symptomatic isolated atrial fibrillation.
- (b) In patients with uncontrollable ventricular rate, or refractory failure.
- (c) After successful valve surgery.

Cardioversion is not indicated in:

- (a) Patients with uncorrected mitral valve disease who have had atrial fibrillation for longer than a year, or with a "giant" left atrium.
- (b) Patients previously reverted with quinidine who develop recurrence on adequate maintenance therapy.
- (c) Patients sensitive to quinidine.

If the patient fails to revert, or if reversion is not attempted, the ventricular rate should be controlled with digitalis when necessary, and anticoagulant therapy considered, particularly if there is a history of emboli. Unless there are definite contraindications, anticoagulants should be used in patients with mitral stenosis, pure or dominant.

### Paroxysmal Atrial Tachycardia

Both atrial and nodal tachycardia require similar forms of treatment. Mechanical maneuvers to produce vagal stimulation are often successful. Treatment should always be coupled with reassurance and sedation where required. In these arrhythmias, such things as the Valsalva maneuver, carotid sinus massage, eyeball pressure, etc., either have no effect at all or produce sudden cessation of the tachycardia. Vagal stimulation in sinus tachycardia produces a gradual slowing with gradual return to the initial fast rate, and in

atrial flutter the rate slows in a stepwise fashion and then rapidly returns to the original rate, also in a stepwise fashion. If these measures fail, digoxin is the drug of choice. This may be given orally or parenterally, depending on the urgency of the clinical situation, and maintenance therapy for at least a week is recommended. If digoxin does not produce slowing it should be reinforced by repeating the mechanical maneuvers. Quinidine is the drug of second choice. Cardioversion may be used if drugs fail or if the situation is critical. In children under the age of 2 years the tachycardia is more serious and should be treated immediately with digitalis, with maintenance therapy continued at least until the age of 2 years.<sup>1</sup>

### Paroxysmal Atrial Tachycardia with Block

This arrhythmia is usually due to digitalis intoxication. The latter can occur even after long periods on proper maintenance dosage and in the presence of normal serum potassium levels. Treatment depends on the clinical state. If there is no emergency, withdrawal of digitalis with supplemental oral potassium may be all that is required. If there is significant hemodynamic disturbance, withdrawal of digitalis plus intravenous potassium chloride with continuous electrocardiographic monitoring is essential (KCl, 40 mEq. in 250 ml. of 5% dextrose in water given over 1-2 hr or until reversion, and repeated once if necessary).<sup>2</sup> Following reversion these patients should receive continuous potassium supplements, particularly if diuretics are being used. Enteric coated potassium preparations have been implicated as a cause of distal small bowel ulceration, and therefore are not recommended at present.<sup>7</sup> However, in the presence of hypochloremia, chloride must be administered along with potassium.<sup>8</sup> In those cases where digitalis intoxication has DEFINITELY been ruled out, then digitalis administration is the treatment. However, it is worth repeating that digitalis could be fatal if given in the presence of digitalis intoxication.

### Atrial Flutter

Initial treatment is digitalis, with the dosage and route of administration dependent on the seriousness of the clinical state. This is usually followed by conversion to atrial fibrillation with a controlled ventricular rate. At this point management is as outlined previously. Quinidine is never used prior to digitalis therapy in atrial flutter because of the danger of producing 1:1 A-V conduction.

### Ventricular Arrhythmias

It is of value to think of these arrhythmias composing a spectrum, varying in degree from occasional ectopic beats to ventricular fibrillation, as follows:

- (a) Occasional ventricular ectopic beats.
- (b) Ectopic beats occurring oftener than every 6 to 8 beats.
- (c) Ectopic beats occurring every 3 (trigeminal) or every 2 (bigeminal) beats.
- (d) Runs of ventricular ectopic beats (ventricular tachycardia).
- (e) Ventricular tachycardia.
- (f) Ventricular flutter.
- (g) Ventricular fibrillation.

Any abnormal ventricular rhythm deserves a careful search for the underlying cause. Digitalis intoxication should always be ruled out. Acute myocardial infarction is a common cause of these arrhythmias, and if any of these abnormal rhythms should complicate the course of acute myocardial infarction, (even occasional ectopic beats), they require treatment as soon as possible. Occasional ectopic beats are not uncommonly a forerunner of fatal ventricular tachycardia or fibrillation in this situation.

### Ventricular Ectopic Beats

When these are present, a specific etiology should be excluded. If there are no associated symptoms, and the ectopics are not oftener than every 6-8 beats, no specific drug therapy is required. Even if symptoms are present, reassurance is often the only treatment necessary. If they occur often than every 6-8 beats, drug therapy should be instituted. The steps taken in management are dependent on the response to any individual form of therapy and are as follows:

1. Reassurance
2. Sedation
3. Procaine amide
4. Quinidine sulphate

The safest drug is procaine amide (Pronestyl) 250 to 500 mgm. is given orally every 6 hr. Quinidine sulphate, 200 mgm. every 6 hr. can be given but is more hazardous and is rarely indicated. The patient should be observed closely after the first dose for signs of toxicity. These dosages should not be exceeded on an out-patient basis. If this treatment is successful, gradual withdrawal after 2 or 3 months can be carried out in hopes of discontinuing therapy if possible. If treatment is not successful, hospitalization for more intensive treatment and observation is indicated.

### Ventricular Tachycardia

This arrhythmia constitutes an emergency situation. Careful differentiation from supraventricular tachycardia is mandatory though often difficult. This differentiation is sometimes easier at clinical examination than from the ECG. Digitalis should never be used. If there is doubt about diagnosis, cardioversion is indicated. Procaine amide is the drug of choice in the treatment of this

arrhythmia, 1.0 gm in 100 ml. of saline is given intravenously at a rate not exceeding 50 mgm in 2 min.<sup>2</sup> An intravenous drip of metaraminol (Aramine) or levarterenol (Levophed) should be in place to combat any serious hypotension. The infusion is stopped if reversion occurs or if the QRS widens or decreases in amplitude, or if significant hypotension develops. If the above routine fails, or if the situation is critical, cardioversion should be used.

If cardioversion is not possible, the above routine using procaine amide may be repeated, even several times if necessary. If ventricular tachycardia is due to digitalis intoxication, cardioversion will not be effective and therapy should be as outlined under paroxysmal atrial tachycardia with block. Ventricular flutter and fibrillation are treated by attaining adequate ventilation and instituting closed chest cardiac resuscitation until cardioversion can be carried out. The associated severe acidosis must also be treated, using intravenous sodium bicarbonate. In the presence of acidosis or hypoxia defibrillation and restoration of sinus rhythm are usually impossible to attain.

#### Atrio-Ventricular Conduction Disturbances

Discussion of this group of disorders will be limited to complete heart block. The idioventricular rate is usually 30 - 50 beats per minute. If the patient is asymptomatic, as judged by a thorough functional enquiry, then oral medication should be used in an attempt to maintain the ventricular rate over 40 beats per minute. Sublingual isoproterenol HCl (Isuprel) 5 to 20 mgm. every 2 - 6 hr. is the drug of choice, but if this fails, oral ephedrine sulphate, 25 mgm. every 4 - 6 hr should be tried. If there are any symptoms associated (eg. dizziness, syncope, convulsions), or if there is heart failure, then oral therapy as above should be coupled with preparations for the insertion of a permanent implantable pacemaker. If the patient presents with continuing symptoms or in critical condition, an intravenous catheter pacemaker should be inserted to immediately con-

trol the ventricular rate. Results are often dramatic and potentially fatal ventricular asystole or fibrillation are often prevented.

#### Acute Myocardial Infarction and Arrhythmias

Sudden death in acute myocardial infarction is usually due to either ventricular fibrillation or atrio-ventricular conduction disturbance with ventricular asystole. In hospital it is often possible to prevent these arrhythmias by careful observation and prompt therapy, as they are often preceded by the less serious arrhythmias. Even occasional ventricular ectopic beats should be treated with procaine amide. Complete heart block usually requires prompt intravenous catheter pacing of the heart, but drug therapy may be effective, and should always be used if a catheter pacemaker is not available. Intravenous isoproterenol HCl, or even adrenalin can be used if necessary. It is important to remember that the heart block associated with acute myocardial infarction is usually transient. All of these patients should be observed with continuous cardiac monitoring equipment when available, with facilities for cardiac resuscitation close at hand. □

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# Genetics and the Physician

P. L. DELVA, M.D.

Antigonish, N. S.

## PART II

### Mitosis and Meiosis

During mitosis, chromosomes line up as in Fig. 1, 'replicate', and 'disjoin', each of a pair of identical chromosomes then migrating to a new cell. Mitosis occurs continuously in most tissues, and the 46 new chromosomes of each new cell are identical with those of the parent cell. In meiosis, ova and spermatozoa are formed containing only 23 chromosomes; more important, these new chromosomes are not identical with those of either of the parents. There are two main differences between mitosis and meiosis:

- in mitosis, chromosomes line up in a haphazard fashion before replicating, whereas in meiosis pairing of homologous chromosomes occurs. This is shown in Fig. 2.
- in meiosis a physical exchange of genetic material (crossing-over) then takes place between the pair of homologous chromosomes. Disjunction then occurs without replication.

In meiosis, the two new cells have only 23 chromosomes, and these are different from those of the original parent cell. Mitosis follows immediately, the original cell with 46 chromosomes giving rise either to four spermatozoa, or to one ovum with a lot of cytoplasm and three discarded polar bodies, each with 23 chromosomes. Fertilization will then result in a zygote with the normal 23 pairs of chromosomes.

### Non-disjunction Syndromes

This includes syndromes caused by failure of chromosomes to disjoin during meiosis or mitosis.

A. **Meiotic non-disjunction commonly involves an autosome.** Mongolism, also known as the trisomy G or trisomy 21 syndrome, is the most commonly occurring syndrome in this group. It is caused by the presence in every cell of the body of three chromosomes number 21, two chromosomes having migrated together in the ovum during meiosis. The only important factor we know to contribute to the occurrence of non-disjunction is increasing maternal age. Thus, where-

as at the age of 20 the chances of this happening to chromosome number 21 is about 1:2500, at 45 it is about 1:60. Australian workers have recently suggested there may be a seasonal variation in the occurrence of mongolism: if this is confirmed, a viral infection may be involved. Trisomy D and trisomy E syndromes also occur, but affected infants rarely survive for more than a few months.

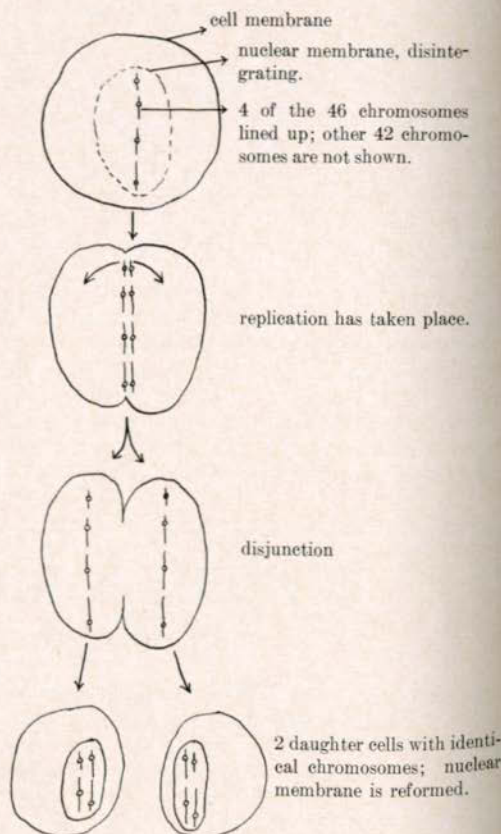


Figure I: Mitosis



**B. Meiotic non-disjunction may affect the X sex chromosome.**

This may result in an ovum with 22 chromosomes (without a sex chromosome), or in an ovum with 24 chromosomes (with two sex chromosomes). Turner's syndrome can be caused by fertilization of an ovum without a sex chromosome by a sperm carrying an X sex chromosome; the genetic constitution of such a zygote is thus XO. Patients with this condition are females and usually have gonadal aplasia; in addition, they may show a wide assortment of congenital abnormalities including webbing of the neck, peripheral edema, coarctation of the aorta, brachydactyly, and mental retardation. Similarly, fertilization of an ovum with two sex chromosomes results in a patient with Klinefelter's syndrome (XXY) or in a metafemale (XXX) depending upon whether the fertilizing sperm carries the male or female sex chromosome. Klinefelter's syndrome occurs in 1:400 males. It may be characterised by the presence of small testes, sterility, gynaecomastia, eunuchoidism, and mental retardation. Metafemales occur more rarely, and can be characterised by a normal appearance with various degrees of mental retardation. One may well wonder why a deficiency of a sex chromosome, or the presence of an extra one, may result in so little change in the phenotype, whereas in mongolism, although only a small chromosome is present in excess of the normal complement, the disability is extreme. The Lyons hypothesis attempts to explain this, and there is no valid reason why it is not correct: in humans, only one X chromosome is active in any cell, the other becoming inactive, pyknotic, and visible with an ordinary light microscope as a darkly staining dot in the nucleus. This dot is known as the Barr body, or sex chromatin body. There are as many Barr bodies present in each cell nucleus as there are X sex chromosomes minus one. Looking for Barr bodies is thus a very easy way of diagnosing sex chromosome anomalies. All one has to do is to scrape the buccal mucosa with a tongue depressor and to make a smear on a slide, using the same technique to fix and stain it as is used for Pap smear. Thus normal males have no Barr bodies, and females have one. A patient with Klinefelter's syndrome will be a male whose cells contain one sex chromatin body, with Turner's syndrome a female without one; a metafemale will possess two Barr bodies.

**C. Mitotic non-disjunction may also occur.** Instead of every cell in the body being affected, only a certain family (or clone) of cells is affected, all descending from the original non-disjoined cell. Should non-disjunction have occurred at an early stage of embryological development, the population of abnormal cells will be much larger than that resulting from non-disjunction at a later stage. Mongol mosaics have been

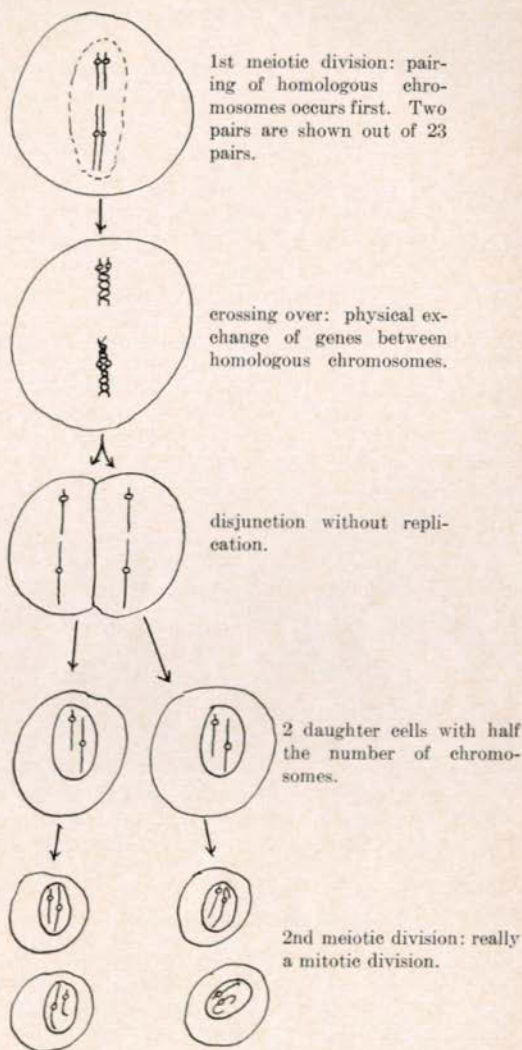


Figure II: Meiosis.

described, some cells of the body containing 47 chromosomes. Similarly XX/XO females and XY/XXY males are found, as well as many other more complex varieties. In theory, any tissue could be selectively trisomic, for instance just an ovary or a testis. And, should mitotic non-disjunction have occurred at the first cellular division, all the cells in the body could, exceptionally, be involved.

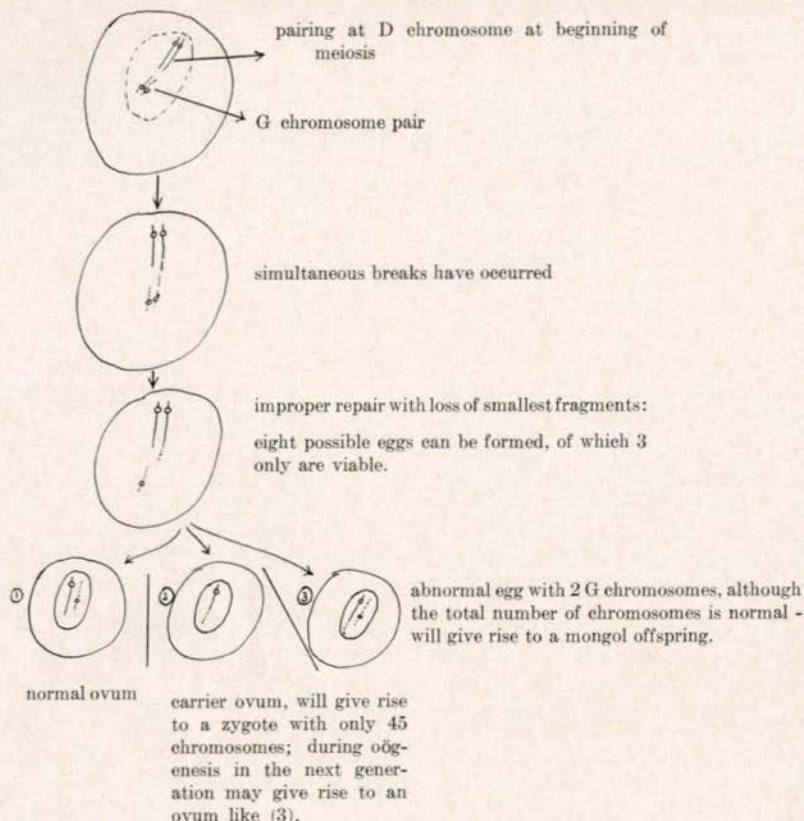


Figure III: D/G Translocation.

### Translocation Syndromes

Pairing during meiosis may occasionally be complicated by chromosomal breakages; a break in two close non-homologous chromosomes with error in union of the fragments may occur as in Fig. 3. Thus it is possible for one egg to be carrying in effect two number 21 chromosomes, although the total number of chromosomes in the ovum will be normal. Fertilization with a normal sperm will result in a mongol offspring. It is important to pick up mothers that may be carriers of a translocation because such a carrier has a chance of 1:3 of producing respectively a normal offspring, a carrier or a mongol. Young mothers of mongol children, particularly if there is a family history of mongolism, must be karyotyped, that is have their chromosomes examined, to rule out this abnormality. Other translocations can occur, usually affecting acrocentric chromosomes.

### Deficiency Syndromes

By this term we mean syndromes associated with a microscopically visible chromosomal loss, as opposed to gene deficiencies that may not be seen with a microscope. A chromosome break can occur as described in the section above and the small fragment is usually lost. Until recently, Turner's syndrome was the only anomaly known to be associated with a deficiency, and in this syndrome, absence of a whole chromosome occurs as described previously. However, the 'crit de chat' syndrome, recently described, is associated with loss of part of the short arm of chromosome number 5. This syndrome has so far been seen only in children under five, and is characterised by the presence of mental retardation, an odd facial appearance, and a weak kittenish cry. □

# Driver Licensing

Being a Report from the Medical Advisory Committee to the Registrar of Motor Vehicles<sup>1</sup>

J. W. REID, M.D.

Halifax, N. S.

Some weeks before the last Federal election, one of the splinter parties, in line with the general trend to broaden the franchise, promised that if they gained power they would give the vote to the automobile. So dull and unresponsive have people become to election promises that this one passed almost unnoticed by the Press, except for an allusion to it in one of the comic strips. But to Motor Vehicle Departments it caused great consternation because they know all too well how dreadfully close the automobile has already come to taking over the country, restricted as it now is. Enfranchised it would soon command our lives and completely enslave the human race.

Having for the time being escaped this dire threat and still confronted with the dreadful toll of life and limb taken annually in this and other countries by highway accidents, the sobering thought came to interested authorities that in almost all of these accidents involving the automobile each had at least one driver, sometimes two.

There had been a noticeable tendency to blame accidents on defective cars, bad roads, bees, wasps, blowouts and poor visibility at the time. Speed, inattention, recklessness and alcohol were rarely admitted (by the drivers) as possible factors.

It was at this point that the spotlight began to focus directly on the driver, and his bad influence on the machine. Here was a noticeable impingement on Medicine, since real or fancied conditions of health came more frequently to be blamed. The routine excuse offered for criminal or careless behaviour endangering life and property cannot be usefully applied to motor vehicle cases because it carries its own penalty. It would seem today that a man may go afoot, get in a fight, disfigure, deform or beat to death an innocent passerby and when brought to trial excuse his action by declaring that it wasn't really his fault as he happened to be drunk at the time! He does this boldly because he knows that alcohol and Ottawa (both poisonous and degrading) are our chief source of revenue. The Court, instead of adding a year for drunkenness to a sentence for brutal behaviour, fines him a few dollars and tells him not to be a bad boy. This, at least, is how it often appears to readers of Press reports. In fact our local Press has recently carried editorial comment on this matter.

Where automobiles are concerned the word alcohol is never mentioned or admitted by the accused and the terms of blackout, momentary loss of consciousness or medication make their appearance. At this point the medical aspects of driver control become significant. Organized medicine, through its traffic accident committees and the Motor Vehicle Branch of the Department of Highways have long been in consultation on these matters, and a Resolution from the Traffic Accident Committee of The Medical Society to the Honorable Minister of Highways led to the appointment of a Medical Advisory Committee to the Registrar of Motor Vehicles. This Committee is presently composed of a physician, a psychiatrist, a psychologist, the Director of Highway Safety, and the Registrar of Motor Vehicles. The Medical Society in endorsing the recommendation of its Traffic Accident Committee passed the following resolutions:

Whereas the interest of The Medical Society of Nova Scotia extends not only to treating the ills of our people but to the prevention of them as well and

Whereas the third greatest cause of death in our country today, in every year from age 5 to 25 is the traffic accident, and

Whereas Nova Scotia has a most efficient Motor Vehicle Department, advanced in its thinking and prepared to work with any group qualified toward a reduction of the highway accident toll and

Whereas the greatest single factor in the production of traffic accidents lies not in highway construction, highway legislation, law enforcement or automotive construction, but in the motor vehicle driver himself, and

Whereas this accident producing factor can often be attributed to some impairment of mental or physical health in the driver,

Be it resolved that The Medical Society of Nova Scotia assume its just responsibility in the problem of the traffic accident -

The Society therefore endorses the recommendations of its Traffic Accident Committee as appended, and for presentation to the Honorable Minister of Highways for Nova Scotia.

The Society believes that all deliberations on this grave problem should be prefaced by the

<sup>1</sup>Read before the Canadian Highway Safety Council Meeting, Halifax, N. S.

understanding that while the operation of a motor vehicle in this province is the privilege of a citizen, it is not his unquestioned right (The recommendations to the Minister follow).

The magnitude of the problem in Public Health thinking was outlined by Dr. L. G. Norman medical adviser to the London Transport Authority in a presentation to the World Health Organization, in which he intimated that there were over 100,000 deaths a year due to highway accidents, and that in some countries the traffic accident deaths outnumbered those from tuberculosis, typhoid, diphtheria, diabetes and polio combined. He also outlined a program of research needed to throw more light on these accidents, such research to be directed at the Road, the Vehicle and the driver. The Motor Vehicle Department of Nova Scotia publishes each month a remarkably complete summary of the previous month's accidents relating to fatalities and property damage and detailed according to day of week, time of day, visibility, age of drivers, years of experience, weather, road conditions, type and condition of vehicle and other particulars. One feels that study of these reports over a number of years will eventually establish certain common denominators in the accident problem. Even a superficial study serves to disabuse the individual who examines those tables with preconceived notions.

Our Medical Advisory Board or Committee is located in Halifax and has regional representatives in each of the Branches of The Medical Society in the Province.

The Board examines the records and reports of operators or applicants at request of:

- (a) The operator or applicant himself
- (b) A licensed physician
- (c) The Registrar of Motor Vehicles

The Board does not examine the individual personally but may request the opinion of special examiners at its discretion.

The Regional representatives examine cases referred to them in their area by:

- (a) The Registrar of Motor Vehicles
- (b) The Board
- (c) A private physician

The Regional representatives report to the Board and may refer to the Board at their discretion.

The Board has at its disposal a guide for determining fitness to drive a motor vehicle drawn up by the Canadian Medical Association, British Columbia Division in conjunction with the Motor Vehicle Department, British Columbia.

The Board is aware that only a fraction of the total number of possibly defective drivers come under its review at present. We are currently considering ways of bringing more of these individuals under scrutiny - through appeals to the Medical profession, etc.

When you deeply consider the medical aspect of safe driving, the many defects which can occur briefly even in healthy drivers make one marvel that there are enough of us left alive to get to this meeting.

We are forced to the conclusion that we are kept alive mainly by an inborn instinct for survival, which fortunately, at any given moment on the road, is ascendant and in control of the majority of drivers.

Next to Instinct come Intelligence, Caution, Goodwill and Good Health. As a medical man, conscious of all the frailties of the human body and mind, and observing the mad rush of traffic in our major cities and on our highways, I am aware that only the Hand of God guides these machines so many million miles in such comparative safety. □

## Itinerant Surgery<sup>1</sup>

"WHEREAS the Council of the Royal College believes that the operative procedure is only one part of total surgical care which includes making or confirming the diagnosis, pre-operative preparation, the operation, post-operative care and the rehabilitation of the patient, and,

Whereas, this Council considers that itinerant surgery does not conform to these standards,

THEREFORE BE IT RESOLVED that this Council condemns itinerant surgery as being detrimental to the best interests of the patient.

Rare exceptions to this policy are certain cases of unusual emergency or where movement of the patient to another hospital would jeopardize his recovery. In view of the foregoing it becomes evident that any attempt on the part of practitioners or prepaid medical plans to divide the regular surgical fee between the participating surgeon and the practitioner in this situation is not ethical or in the best interests of the patient."

<sup>1</sup>This is the text of the revised Resolution and Statement pertaining to Itinerant Surgery issued in January 1965 by the Royal College of Physicians and Surgeons of Canada, it is published for the attention of all members of the Medical Society.

# How Do We Reach the Mother

ELIZABETH LAMBIE,<sup>1</sup> P.Dt., M.P.H.

The Canadian Public Health Association's 55th Annual Meeting in Moncton, June 1964, held one combined section meeting of Maternal and Child Health, Health Education and Nutrition under the Chairmanship of Dr. Jean Webb. The Symposium presented by an obstetrician, public health nurse, health educator and nutritionist, tried to answer the question facing everyone in prenatal education, "How do we reach the mothers?" The following are the summarized remarks of the nutritionist.

In the last 20 years, a definite relationship between diet and the health of the mother and condition of the baby at birth has been established. Pregnancy makes many demands on the prospective mother and "nutrition" is only one of them - but it is ONE. "There is probably no single factor in maternity care of greater importance than the nutrition of the expectant and nursing mother."<sup>1</sup> All of us, at one time or another, have probably read this statement but do we believe it sufficiently so to teach it with the enthusiasm that comes only from the belief in its truth. Do we as professional people believe in the power of proper diet sufficiently so at any time to personally follow Canada's Food Guide.

Who do we teach? . . . at the present time the people who are taught are those going to private physicians, who offer some dietary guidance or refer their patients to a series of classes presented by public health people and approved by the Medical Association, those going to clinics for prenatal care and those visited in the home by public health nurses. Who we should teach will of course cover many women who are never reached at this time.

In the Dalhousie Pre-Natal Clinic, the methods of teaching for those numbers who do come for care before the eighth month, include the following. Clinic classes of six to seven mothers-to-be are scheduled in their earliest visits. It is important to have a little nutrition running throughout all the pre-natal care and teaching. It is not just the one class. The V.O.N. nurse gives a prepared sheet "Food for parents-to-be" on the first visit and briefly reviews a good meal pattern to attempt to prevent future diagnosis that will include a therapeutic diet as part of the treatment.

There are two types of clinic classes. One is a simple discussion on the importance of food. The word "nutrition" is not used nor the phrase "because it is good for you". There are many excellent demonstration materials available for such a class. Discussions evolve on methods of cooking (particularly organ meats,) on budgets, on good buys of the week, on skim milk powder or what have you. The second type of class is an actual cooking demonstration. The foods utilized are simple, inexpensive, high in protein and iron and hopefully enjoyable and digestible to the mother-to-be. The importance of good meals during pregnancy is often highly sensed in these sessions.

It is so easy and common for us in the field of health to sit back and ridicule people whose culture is completely foreign to our own. By culture we mean the values, attitudes, habits and customs that are acquired by learning. The fact that culture is learned means that it is subject to change and this is the most optimistic fact about human behaviour. Certain aspects of culture such as basic values and beliefs (including food habits) change very slowly and with great difficulty. The present food habits of a pre-natal woman must be accepted and new ones can then be added to them; and, if lucky, a few old ones can be taken away especially the 'high calorie ideas' in pregnancy.

Who do we teach? . . . our clinic also operates a series of four classes for patients who go to their own physician and obstetricians. One of these is on nutrition. Should we bother with this income bracket? Do they need this? Proof of the sad truth that money and formal education does not add common sense is all around us. Public Health people must constantly remember this. There are night classes for parents-to-be, open to all those interested, where the resident, the clinic nurses and the nutritionist share the teaching. It is here husbands often ask what can they do to be helpful. The answer is to encourage their wives to eat oatmeal, liver and salads without fuss on their part and not to demand too many chocolate cream pies when his wife cannot afford to be tempted by high calorie foods.

What is being taught? . . . no matter who teaches, the most important thing to remember is that the material taught be the same and factual.

<sup>1</sup>Nutrition Consultant, City of Halifax, Dept. of Public Health & Welfare.

Conflicting advice is dangerous. Generally, Canada's Food Guide with the recommended changes for pregnancy is taught. Changes are four cups of milk (32 oz), one egg a day, liver or other organ meat once a week, plus other foods high in iron such as deep green vegetables, dried fruits, red meats and whole grain cereals.

Many times this is not enough especially if the mother-to-be is a teenager or among the increasing numbers of unmarried mothers. In this diet, we are presuming the original diet was good and this is not too often true. The original diet should always be analyzed following the taking of a diet history, brought up to par and then the slight additions for pregnancy should be added.

The unmarried mother-to-be is seldom seen early in pregnancy and indeed presents a complicated nutrition problem. The incomes and housing of these girls are generally highly restricted and diets consist of the cheapest restaurant foods such as french fries and pop. Many will nearly starve themselves trying to keep their pregnancy a secret. On presenting themselves to a sheltered home for care, there are so many problems and food is only one. It is easy to imagine how many of their emotional needs are met by cleaning up every bit of food in sight. The church homes are always run on limited budgets. Foods included on the menus are too often the cheap, filling, high carbohydrate type. When "sensible meals" are served, many of the girls, not being used to them, will not try items like salad, skim milk and fruit. If a better society cannot be created whereby the numbers of unmarried mothers-to-be will be greatly reduced, then more attention must be given to her care. The mother and child will have many strikes against them whichever way their paths lead and in public health we should see that they at least have the best feasible physical care and mental outlook.

How do we reach the mother-to-be? . . . a great deal of this depends on our individual attitude at the time of teaching. If the subject of food and Canada's Food Guide is dull routine with us, we will not teach effectively. If we really feel that better nutrition will make a great improvement in a particular household, then we will use the language that is practical to our mother-to-be. This language as applied to nutrition may include a two-burner hot plate, six other children, no refrigeration, slim income or welfare assistance.

Do we teach pre-natal nutrition in time to the most important stage—the pre-pre-natal. Are our teenagers being taught and influenced in their teen groups in the high schools, the schools of nursing, in industry, the "Y", the church, and all youth groups. Are their daily eating patterns a beneficial and enjoyable part of their lives.

Do we teach the ever increasing numbers in our transient population, who through ignorance or

youthful inability to assume responsibility, do not seek pre-natal care.

The answer to many of these questions is better presentations on the median of television utilizing spot announcements, short demonstrations and discussion programmes. The person presenting these programmes should not be a highly paid actress, but a trained public health worker who has cleared the teaching to be presented with the local Medical Association. This teaching must be factual, practical and basic—always remembering the hundreds of Canadian women who do not know the simplest food preparation procedure nor do they care to learn. This television teacher must create sincere interest to the viewer and at the same time always remembering availability of food, facilities and income levels. Such television programmes are costly but somehow this should be promoted in Canada. There is so much promotion on child feeding and such a paucity for the most important stage of intra-uterine development.

The importance of nutrition is not recognized by large numbers of our population. The woman's first pregnancy presents the "golden opportunity" for teaching; and if this is missed, we miss the opportunity of teaching an entire Canadian family for this and future generations.

What of the women who do go to a physician early in pregnancy and still receive no word on the subject of food. Does the physician feel the patient knows all about food, or that they do not wish to discuss something so mundane, or that they do not know how to discuss it, or is it so easy or appealing to give vitamin and iron pills? It must always be remembered that it is what 'the doctor says that counts'.

How many of our Canadian Medical Schools have staff teaching nutrition to medical students? How many of these staff have a Ph.D. in Nutrition or an M.D. plus a Master's in Nutrition—or even an interest in the subject? What is the attitude of the professor to the subject of Nutrition or what is the attitude of fellow teachers to the one involved in Nutrition? If it is perhaps a poor and light-hearted attitude toward this "frilly" subject, the students absorb this and promulgate it into their practices and hence we continue to have the food and drug company advertising diet sheets torn off the pads for every patient.

Our attitudes and standards of teaching nutrition in schools of medicine will have to increase in quantity and quality before we will attain our goal of influencing the pre-natal woman of the importance of nutrition at this time. □

#### Reference

<sup>1</sup>Queen's Printer, Nutrition Division, Department of National Health & Welfare. *Healthful Eating*, p. 46, chapter 8.



# Smoking and Respiratory Disease<sup>1</sup>

*While the casual relationship between smoking and chronic obstructive lung disease has not been established, the evidence at hand incriminates cigarette smoking in the development of chronic bronchitis, frequently the fore-runner of irreversible lung disease.*

Cigarette smoking, and to a lesser extent other forms of tobacco smoking, are generally agreed to be associated with mortality from lung cancer. The question is whether there is a cause-effect relationship.

If there is merit to the hypothesis that cigarette smoke, by its effect on the epithelial defenses of the respiratory tract, provides a local environment for carcinogens, it would be meaningful to find that there is an association between lung cancer and chronic nonspecific respiratory disease (asthma, chronic bronchitis, obstructive pulmonary emphysema).

Certain epidemiologic similarities between lung cancer and chronic nonspecific respiratory diseases may be noted from mortality statistics. Both have shown an epidemic increase in Canada, the United States, and England and Wales. Both have a similar urban-rural differential mortality and a predilection for men and for persons in middle age.

## Relative Risks of RD

The most widely reported prospective studies of smoking have demonstrated that the relative risk of death from the chronic nonspecific respiratory diseases is many times higher in cigarette smokers than in nonsmokers.

Population surveys of chronic nonspecific respiratory disease prevalence have contributed to our knowledge of the relationship of these diseases to current cigarette smoking. Through a standard questionnaire and simple pulmonary function tests, chronic respiratory disease can be identified and classified, and related to other variables under study.

In the 1961 survey of Berlin, N.H., the prevalence of chronic bronchitis was found to increase consistently in men and women with increasing cigarette smoking habits up to a five-fold increase for those smoking more than two packs a day. Similar smoking-intensity gradients

of disease were noted for the signs and symptoms of more severe obstructive lung disease.

A number of geographic comparisons of chronic respiratory disease prevalence indicate that differences in population smoking habits parallel differences in disease prevalence. The situation is not so simple. In the Berlin survey the combined effect of age and current *cigarette-smoking intensity* was found to have a significant relation to chronic bronchitis and obstructive lung disease. This was observed in men, not in women.

Age-smoking intensity specific rates should probably be used in geographic comparisons, though even this may be inadequate because of observed geographic differences in practices of inhalation and length of cigarette smoked.

The respiratory disease prevalence in Berlin was recently compared with that in a small rural town, Chilliwick, British Columbia. The prevalence of chronic bronchitis in men 25 to 74 was only 21.5 per cent at Chilliwick compared to about 30 per cent at Berlin. When age and cigarette-smoking intensity were simultaneously taken into account, the observed prevalences of chronic bronchitis and obstructive lung disease in Chilliwick were not found to be significantly different from those predicted from the experience at Berlin. Thus, for these two populations surveyed in a similar manner and by the same workers, the urban-rural gradient for the chronic nonspecific respiratory diseases in men can be explained by age and smoking differences.

## Age and Smoking Factors

This overwhelming contribution of age and smoking to the prevalence of chronic nonspecific respiratory disease can obliterate a less powerful effect of another variable in studies of small samples. Perhaps a smoker so pollutes the air which enters his tracheobronchial tree that the biological effects of other sources of pollution are not readily apparent.

Donald O. Anderson, M.D., *American Journal of Public Health*, November, 1964.

<sup>1</sup>Reprinted from the Abstracts of the National Tuberculosis Association, April, 1965.  
Printed through cooperation Nova Scotia Tuberculosis Association.

The question arises whether simple bronchitis is really a disease. Can such a condition, which affects 20 to 40 per cent of the adult American population, be of much pathologic significance? Most persons who have chronic bronchitis and who smoke either lose their bronchitis or have a marked reduction in their daily phlegm when they stop smoking.

This chronic productive cough is related to pathophysiologic changes in the tracheobronchial tree—tobacco smoke interferes with ciliary action, slows the flow of the mucous blanket, and changes the consistency of the mucus. Smoking has been shown to be associated with a hypertrophy of the bronchial mucous glands with cellular abnormalities in the tracheobronchial epithelium which appear to decrease when smoking stops; some cellular changes, however, appear to be related to age, sex, and residence (urban and rural), as well as to cigarette smoking habits.

Though many studies of cigarette inhalation have failed to show any effect on mechanical factors of respiration in healthy subjects, in a recent study, a 25 to 30 per cent decrease in airway conductance has been reported immediately after inhalation of cigarette smoke; this bronchoconstriction occurs similarly in both smokers and non-smokers, is rapidly reversible and recurs after a second cigarette. The inhalation of a pharmacologically inert submicronic particle can produce

this reaction, which is likely mediated through the vagus nerve.

The evidence points to the fact that smoking is the most important, though not the only, factor in the production of simple bronchitis, and that with time bronchial obstruction is produced; initially this obstruction is probably reversible, but with further exposure more serious irreversible obstructive disease of the lung is produced.

From the epidemiologic study at Berlin it was found that the point at which the relative risk of chronic bronchitis and obstructive lung disease doubled in smokers over that of those who had never smoked cigarettes was somewhere between 3,000 and 6,000 packs of life-time smoking. This is the equivalent of eight years of smoking at the rate of a pack a day.

At the moment, epidemiologic, pathologic, and physiologic evidence incriminates cigarette smoking in the production of chronic bronchitis, though not solely so, for nonsmokers also have this disease.

What should be the public health action to deal with bronchitis? Certainly, control of air pollution will contribute somewhat. But bronchitis is clearly related to another form of air pollution which is self-induced—tobacco smoking. It seems inefficient to plan an effective control program which does not attack the practice of cigarette smoking first. □

### GENERAL PRACTICE WITH ANAESTHESIA:

Five years experience in Anaesthesia besides two years experience in General Practice. Looking forward to settling in Nova Scotia.

Desirous of a steady practice preferably partnership on reasonable salary basis - available for January 1st, 1966.

Fully licensed to practice medicine in Nova Scotia.

Please contact Box 100.

DR. H. ANWAR

### NOTICE

#### Register of Specialists

A letter setting forth the requirements for entry of doctors names on the Register of Specialists has been sent by the Provincial Medical Board to all doctors registered and residing in Nova Scotia.

An application form has also been circulated and if this is returned, it should be accompanied by the Documentation/Registration Fee of \$10.00, which is not returnable.

Many applications have been received, but applicants have failed to enclose the fee. Applications will not be considered unless the fee is paid.

Any doctor who has not received a letter or application form may obtain same by writing to

M. R. Macdonald, M.D.  
Registrar  
Provincial Medical Board of  
Nova Scotia  
Victoria General Hospital  
Halifax, Nova Scotia.



## Personal Interest Notes

The continued drought of the summer of 1965 over all of Nova Scotia has made even more pertinent the widespread interest evinced in the question of water pollution by doctors throughout the Province.

In Yarmouth, Dr. V. K. Rideout, Divisional Health Officer for the Nova Scotia Department of Public Health, stated early this season that the water of Yarmouth Harbour was so badly polluted that "it was unfit for anything but to sail a ship in," and that it was not fit for fish plants to use for their purposes or to dig clams in because they were poisoned.

In Cape Breton, Dr. N. F. MacNeil, Director of part of Nova Scotia's Health Services said there should be "an all-out war" about the lack of service facilities in Cape Breton County. He said that most brooks in the County were becoming polluted and the Rotary Club swimming pool had to be closed for the season. A survey had found that in the Scotch town area near New Waterford 91 households were dumping sewage in highway ditches and 31 sink drains were leading into them.

That was the last of June. Since then there has been a continual lack of rain. Wells are dry, crops and cattle have suffered, so that a serious epidemic of gastro-intestinal infections may very well be a sequela.

### SIR CHARLES TUPPER MEDICAL BUILDING

The "turning of the sod" for this building took place on Thursday, July 29th, at 4 p.m. The short but impressive ceremony under the chairmanship of Mr. Donald MacInnis, Q.C., Chairman of the Board of Governors, was the culmination of several years of intensive planning. Attended by approximately a hundred interested people, Rev. M. C. P. Macintosh initiated

proceedings with an invocation. Premier Stanfield, the Hon. R. A. Donahoe, Minister of Public Health and President Hicks each expressed pleasure and congratulations that this point in the development of the addition to the medical school had been reached. Dean C. B. Stewart briefly reviewed the background and purposes for which the Sir Charles Tupper Building was being erected; that it would serve as a teaching centre for some 700 students of Medicine and medical sciences as well as 600 students in related fields of dentistry, nursing, physiotherapy, pharmacy and other health interests. Mr. C. W. McCormick, President of the first year class in Medicine who had been invited to participate in the ceremony, passed to the Dean a silver spade, suitably engraved, to turn the sod. The ceremony was followed by a tea in the Medical-Dental Library.

The twinge of sorrow caused by the forthcoming demolition of the



Library was overcome by realizing that the Sir Charles Tupper Building would include one four-times the size with ample space for reading and study. It was appropriate to have had tea in the vacated medical library which provided a suitable background for reminiscences and discussion of the promising future for the medical school.

As this is being written it is to be noted that the contractors started the preliminaries for construction on Friday, July 27th, and that at this date (Aug. 11) the library has been demolished and "the hole" for the foundation is advancing rapidly.

C.J.W.B.

#### CAPE BRETON

**Dr. N. K. MacLennan**, widely known Sydney physician was recently installed as President of the Sydney Rotary Club.

**Dr. S. Marsh** and family of Windsor, Ontario have been visiting his mother, Lorway, Reserve, C. B., prior to taking up practice in the area.

"The Lighthouse", interesting pamphlet put out monthly by the N. S. Department of Public Health has in its August issue, thumbnail sketches of Dr. L. D. McCormick, Director of Cape Breton North Division of Public Health, who, it said, was a relative newcomer to public health. Dr. McCormick is a native of Sydney, a graduate of St. F.X. and Dalhousie and spent a short time in practice in the Sydney area before going to Toronto for his D.P.H.

Of Dr. N. F. MacNeil, Director of the Cape Breton South Division, The Lighthouse tells that he is from Glace Bay, graduated from St. F.X. and Dalhousie Medical School during the war years and was overseas. He then worked at relieving practices in Glace Bay and Arichat. In 1949 he took his course in Public Health and after a year at Kentville, assumed his present position.

#### HALIFAX

The Medical practitioners of Halifax met at the Halifax Convalescent Hospital, the former Tuberculosis Hospital, to enlarge and reorganize the medical staff, to give doctors in Halifax an opportunity to use the hospital for treatment of patients from the local area.

President: Dr. F. Murray Fraser  
Vice-Pres.: Dr. A. J. Buhr  
Secretary: Dr. Wm. J. MacRae.

The hospital is not equipped for surgery or for patients requiring intensive specialized investigation. Any practitioner or specialist may apply for membership on the staff and the privilege of admitting and treating patients in the hospital.

**Dr. C. L. Gosse** headed up the newly formed professional division for the 1965 Halifax United Appeal which included doctors, dentists and lawyers.

**Mr. Duncan Murray**, fourth year medical student at Dalhousie had an interesting summer at St. Anthony, Newfoundland. On one occasion he was one of two doctors who, "in extremely hazardous conditions" made their way through 20-foot waves in a lifeboat and then up the side of the stricken ore carrier "Pennyworth", to assist in the rescue of five United Kingdom seamen, injured in an explosion on board the carrier. Not until the next day were the men able to reach hospital in St. Anthony after transference to the life boat and a fisheries vessel, the Cape Freels.

**Dr. W. A. Cochrane, Dr. V. W. Krause and Dr. W. A. Ernst** were co-authors of a paper entitled "Renal Studies in Refractory Rickets" presented at the Canadian Association of Urologists' Meeting held at St. Andrew's early in the summer. The paper expressed concern regarding large doses of Vitamin D given to patients with refractory rickets.

#### LUNENBURG-QUEENS

**Dr. M. E. DeLory**, a native of Prince Edward Island, has opened

an office for referred practice of Surgery at Hillcrest Clinic, Bridgewater.

**Dr. DeLory**, a Science and Medical graduate of Dalhousie, class of '55, practised for five years in Annapolis Royal before taking postgraduate work in the U.S.A. and Halifax receiving Certification in Surgery from the Royal College of Physicians and Surgeons of Canada in 1964.

He is a former Executive officer in the R.C.N.(R.) with training in submarine medicine in Washington, D. C. and practised Surgery for a year in Shelburne before coming to Bridgewater.

**Dr. P. J. Kavanaugh** recently commenced a practice in Caledonia, Queens Co. The northern section of Queens County has been without a resident physician since the death of Dr. H. S. Smith last year.

The corner-stone of the **Dawson Memorial Hospital** was laid on August 1. Work on the building is about two-thirds completed and is expected to be finished by March 1966.

#### VALLEY MEDICAL

**Dr. J. Baker** and his family drove from Middleton to Victoria, B. C. recently. Dr. Baker has been appointed Chief of Surgery at the Naval Hospital, HMCS Naden, Esquimalt, B.C.

The Fundy Mental Health Centre had visits from distinguished guests from New York City Hospital. These included Dr. Zebulon Tainter, resident psychiatrist of the Payne Whitney Clinic and Dr. James Spencer, chief resident psychiatrist and Dr. Richard Sallick.

"Lighthouse" also gave a sketch recently of Fundy Director, **Dr. G. M. Smith**, a Liverpool native, whose six foot stature made him an asset to the basketball teams of Mt. Allison and Dalhousie until Tuberculosis had to be conquered. Private practice in Liverpool, resident surgeon at the V.G., a time at the Nova Scotia Sanatorium, and work with

TB control in Cape Breton were all part of his preparation for his DPH from Toronto. Since then he has been with the Fundy Health Unit.

#### WESTERN NOVA SCOTIA

**Dr. and Mrs. C. K. Fuller** have returned from a vacation in Majorca.

**Dr. and Mrs. L. M. Morton** have returned from Florida where they spent the winter months. Dr. Morton celebrated his 76th birthday on July 19.

**Dr. and Mrs. A. J. Murchison** and family have returned from approximately a month's holiday in New Mexico.

**Dr. J. T. Balmonno** has purchased a fifty foot cruiser, the "Bett", on which he plans to spend his vacation cruising in New England and Nova Scotia waters.

**Dr. and Mrs. Ozvegy** will leave on September 10 for Europe where Dr. Ozvegy plans to attend the International Congress of Radiology in Rome from Sept. 20-28 and the International Congress on Tuberculosis in Munich from Oct. 5-9.

**Dr. and Mrs. G. V. Burton** have returned from San Francisco where Dr. Burton attended a meeting of the American College of Obstetricians and Gynecologists.

#### POST-GRADUATE COURSES

Education is a life long business - Plato.

#### HALIFAX

A **Short Course in Anaesthesia** is planned for September 20 to 24, 1965. Dr. A. S. Wenning, Chairman of the Course, plans special emphasis on Paediatric Anaesthesia. The mornings are spent in the O.R.'s of the various Halifax Hospitals. Lectures and discussions will be held each afternoon.

**Endocrinology, October 1 and 2.** Dr. W. I. Morse will Chair a two-day course in Endocrinology featuring Dr. Pierre Hoet of Louvain, Belgium - the

McLaughlin Gallie Visiting Professor.

#### REGIONAL COURSES

**Aberdeen Hospital programme.** Six members of the Faculty of Medicine will visit the Aberdeen Hospital for a series of weekly conferences beginning Saturday - September 18th at 10 a.m. Dr. R. L. Aikens will open the series with a Chest Conference. The visitor on Sept. 25 will be Dr. S. F. Bedwell who

will discuss Common Neurological Problems. Other topics planned for subsequent meetings include Paediatrics, Obstetrics, Psychiatry, and Surgery.

Antigonish, Sheet Harbour, Windsor, Kentville, Sydney, North Sydney, Glace Bay, New Waterford are all planning programmes in continuing medical education during September, however the details have not been finalized.

#### COMING MEETINGS

##### COLLEGE OF GENERAL PRACTICE OF CANADA

Provincial Chapters of Nova Scotia, New Brunswick, and Prince Edward Island

CHARLOTTETOWN, P.E.I. - OCTOBER 11th and 12th, 1965  
(Thanksgiving Week End)

Monday, October 11th - MEDICINE - Chairman: Dr. W. E. Hirtle  
9.00 a.m. "Chronic Bronchitis and Emphysema"

Dr. C. C. Gray, Associate Professor of Medicine,  
University of Toronto

10.00 a.m. "Resuscitation - Drowning and Fire Victims"

Dr. H. B. G. Parlee

10.50 a.m. "Unusual Chest Cases" - Dr. E. M. Found

11.10 a.m. "Air Medicine" - Dr. S. D. Clark

11.30 a.m. A Period of General Discussion.

12.15 noon to 2.00 p.m. Luncheon (Ladies Invited)

Chairman: Dr. S. G. B. Fullerton

Speaker: - DR. W. VICTOR JOHNSTON,  
Executive Director, College of General  
Practice of Canada

Subject: - "A Visit to Russia"

Monday Afternoon - SURGERY - Chairman: Dr. C. M. Dewar  
2.00 p.m. "Vascular Diseases in General Practice"

Dr. K. C. Grant

3.30 p.m. "Intestinal Obstruction" - Dr. A. A. Giffin

3.50 p.m. To be Announced

4.30 p.m. A Discussion Period

Monday Evening - Business Meetings of the Three Provincial  
Chapters of the College of General Practice of  
Canada

Tuesday, October 12th - PAEDIATRICS - Chairman: Dr. J. A. McDonald  
9.00 a.m. "Diseases of the New Born by Clinical Examination"

(Mead Johnson Lecture)

Dr. J. F. Lucey, Associate Professor of Paediatrics,  
University of Vermont

10.00 a.m. To be Announced

10.50 a.m. "Control of Staphylococcal Infections in the New Born  
Nursery" - Dr. K. R. Parker

11.10 a.m. "The Poor Eater" - Dr. J. M. Williston

11.30 a.m. Discussion of the Morning Papers

12.15 noon to 2.00 p.m. Luncheon

Chairman: Dr. N. C. Grant

Speaker: - DR. NORMAN C. GLEN

Subject: - "Continuing Education for the Family  
Physician"

Tuesday Afternoon - OBSTETRICS AND GYNAECOLOGY

- Chairman: Dr. L. T. Morgan
- 2.00 p.m. "Symptoms in Obstetrics and Gynaecology in General Practice" - Dr. J. H. Maloney
- 3.30 p.m. "New and Old Obstetrics in a Rural Practice" - Dr. D. J. Gauthier
- 3.50 p.m. Topic to be Announced - Dr. T. Moore
- 4.00 p.m. "Carcinoma of the Cervix in General Practice" - Dr. D. C. Brown
- 4.30 p.m. Discussion Period
- Tuesday Evening - Reception, Dinner and Dance

Chairman: Dr. J. A. MacMillan

Speaker: - DR. FRANK MACKINNON  
Principal, Prince of Wales College,  
Charlottetown, Prince Edward Island

(An interesting programme is being arranged for the ladies)  
All meetings are being held in the new Confederation Center.

UNIVERSITY

**Dr. J. C. Szerb** has recently been appointed Head of the Department of Physiology and Biophysics at Dalhousie. He succeeds Dr. C. B. Weld who retired after being for 30 years the head of this department.

Dr. Szerb, a native of Hungary graduated in Medicine from the University of Budapest. He is also an MD of Munich and took postgraduate work at the Pasteur Institute in Paris. In 1960 Dr. Szerb, having been awarded a Nuffield Scholarship, spent a year in study and research with Sir John Gaddum at the Institute of Human Physiology, Babraham, Cambridge, England. His present work is on the detection and measurement of substances involved in the transmission of

nerve impulses in the brain.

**Dr. W. T. Josenhans**, professor at Dalhousie has had renewed a grant of \$14,109 for 1965-66 from the Muscular Dystrophy Association of Canada. The grant is for the second year of Dr. Josenhans' research into, "Metabolic cost of static contraction", which is basic research into the adjustment of circulation and respiration in the contraction of muscles. Three further grants of \$7000 each have been reserved for research by Dr. Josenhans by the Association, subject to need.

The Medical Research Council of Canada has awarded scholarships to **Dr. R. C. Fraser**, of Halifax (\$4,300) for metabolic studies at Dalhousie; to **Dr. R. M. Read**, Halifax (\$4,700)

fellowship for biochemistry research at University of Western Ontario; **Dr. E. C. Abbott** of Wesleyville, Nfld., and **Dr. J. S. MacKay** of Saint John, both graduates of Dalhousie have received \$6,000 fellowships the former for medical research at St. Mary's Hospital, London and the latter, for microbiology research at the University of Toronto.

The Canadian Tuberculosis Association has granted **Dr. L. Cudkowicz**, Dalhousie \$5,200 for further investigations into the mechanics of the lung, and a teaching fellowship to **Dr. P. L. Landrigan**, Dalhousie.

BIRTHS

To **Dr. and Mrs. S. Ostrich** (née Joan Fitz-Randolph), on August 11, 1965, at Reading, Penn., U.S.A., a son.

OBITUARIES

**Dr. Thompson Brenton Hall**, 34, died at his home in Broad Cove, Lunenburg Co., on August 7. A native of Halifax, and a graduate of Dalhousie Medical School he had been practising at Broad Cove for the last two years, after five years service in the Navy since his graduation. To his wife, the former Betty Lou Norman, and his three small daughters we extend our sympathy.

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