

THE NOVA SCOTIA MEDICAL BULLETIN

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The Editorial Board wishes to thank those members of the Medical Society who contributed material for the Bulletin during 1970.

Regional Disparity and Interdependence

The practice of medicine in Nova Scotia as in all of Canada has in recent years adjusted to many changes. Many more are to come. Although a disparity in terms of delivery of medical care exists throughout the province, there are many factors continually at work to correct this. There is a real sense of urgency about this situation and as a new year begins, those of us who practice at the periphery must seriously appraise our place in the regional program of the future.

Many factors contribute to this regional disparity. The change and expansion of the University-Victoria General complex ("central health care unit") has not been paralleled by similar developments in smaller hospitals ("regional health care units"). Despite excellent efforts by our Medical Society through its officers and this Bulletin, communication has not always been ideal. Apathy and indifference at the periphery, and failure to take advantage of continuing education programs, have their effect. The obvious attraction of the central teaching community to the newly trained specialist and the super-specialist is noteworthy. Among the latter group is a much higher percentage of planners and organizers than can be found throughout the province. Then there is the natural traffic of the lesser trained, often transient, specialist to the periphery as a result of unavailable opportunities in Halifax and unmet needs in smaller towns. Cost restraint, which seems the favored approach to the problem of rising costs in health services, certainly does not favor the outlying areas, where facilities already lag behind.

The standard of care delivered by the "primary contact physician" in the smaller centers may well compare favorably with that of his Halifax counterpart. Many doctors in smaller communities have extra surgical training and have developed a strong sense of responsibility over the

years. Yet once a problem is encountered, the equality seems to diminish. Associated with the asset of responsibility, the peripheral physician often demonstrates a strong independence, a trait we find hard to relinquish. In the 1970's the key word will not be independence, but *interdependence*, and this is a philosophy we tend to embrace with caution and reservation. In the outlying areas also, the availability of newer equipment and facilities, or of consultants when problems warrant such aid, is not what it should be.

If we need to be reminded of our weaknesses, to take a unique example, it is well known that perinatal losses are predictable early in pregnancy yet we find it difficult to set up high-risk obstetrical-neonatal care units and refer such cases to these centers. All this in spite of our published perinatal mortality statistics which clearly indicate the advantage or disadvantage a newborn has depending on which county he is born in.

One has only to read the President's Letter to know how active our committees are on behalf of all physicians. Our continuing education program, for those who take advantage of it, is an excellent one. What more can we expect, then, from the Society, the university, the central health care unit? And, more pertinent, what are the responsibilities of those of us who practice at the periphery, at the level of the so-called regional health unit?

The need for regional studies of comprehensive health care requirements has been stressed by the Task Force Reports. We are told that medical associations and medical educators should conduct studies to determine how many physicians are really needed in Canada and especially the numbers and proportions required in general practice and the different specialties. In addition there is the problem of new equipment. Our major purchases are subject to

approval by the Hospital Insurance Commission, often on the advice of medical confreres acting as their consultants, yet there is no group within our own Society to whom we can turn for a comprehensive opinion of our present and projected needs.

Such developments undoubtedly require government financing and support from the CMA, but we can begin by pressing for such a study to at least set down some guide lines for our current needs.

The central health care unit has some responsibility in regard to recruitment of peripheral personnel. It may be necessary to wait for the establishment of regional health planning boards before this responsibility becomes functional. What is needed is to maintain balance: the necessity for a general practitioner in an isolated community may easily outweigh the value of another endocrinologist in the university milieu.

We continue to expect from the central health care unit, support in the delivery of health care. This has been available in the past, although sometimes we have felt the share of delivery of care to the community surrounding the provincial hospital has been greater than to the rest of the province. In future major laboratory services will be concentrated here as well as complex testing and investigation.

We look to Halifax for the development of new procedures and techniques. It is here that research must have its rightful share of the medical effort, and the results must be communicated to the outlying areas.

Education of course is one of the prime functions of the central unit. We can be justly proud of our present system with provision of undergraduate, graduate and continuing education programs. We look forward to times when direct television link-ups will not only enhance communication, but greatly stimulate the continuing education program.

Our responsibilities at the level of regional centers or smaller communities are no less grave.

We must be prepared to adapt and experiment. The bottleneck of contact at the doctor's office must be modified to make it easier for patients to get to the source of good medical care. We must consider and implement medical assistants in this regard, and, in time, computers. Where once we might have been the determinants of our destiny, public opinion today has the deciding vote. People

turn to their governments to grant their requests and their prime need in the health field is readily available, up-to-date medical care.

We are prepared to share in the educational program of the medical student. It is hard to conceive of the present system helping to increase the numbers of "primary contact physicians" when all their training is so "teaching centre-" oriented. Part of the fourth-year rotation could be spent in the regional health units throughout the province. This would expose the student to the many diversified types of general practice in Nova Scotia, acquaint them with areas they might choose to live in, and also help to raise the standard of care among their teachers. The merit of including smaller affiliated hospitals in the overall training of medical and surgical residents poses greater problems, yet should be considered. The upgrading effect at the periphery would be most valuable from such a program.

We must press now for better facilities at our regional units. Through our Branch Societies we must seek to implement the recommendations of such responsible groups as our provincial perinatal committee. Specialized units must be developed in selected areas for special problems. Quality of care must be scrutinized and maintained at a high level.

We should be prepared to do more in terms of recruitment than we now are doing. Many participate in Career Day programs but there is a need for a kit, prepared by the medical school, for us to use. This would bring us up to date in regard to entrance requirements, financial aid programs, changes in curriculum.

The real test of our adaptability however will come as patients seek access to a more sophisticated care and we realize that another physician or team may be better able to provide the assistance needed in a particular circumstance. We must be willing to use the facilities at hand, the available consultants and in more complex situations, referral to the central health care unit.

This, then, is the challenge of the future. To the degree that we accept and foster interdependence, regional disparity will diminish. To skirt this responsibility is to invite government to make our decisions for us. Our predecessors managed to maintain their standards while adapting from the horse and buggy to the motor car; we can do no less. □

N. K. M.

NEW MEMBERS

The Physicians listed below have joined The Medical Society of Nova Scotia between November 1, 1970 and December 31, 1970. A most cordial welcome is extended from the Society.

Dr. G. R. Burns	Halifax, N.S.	Dr. H. M. Simms	Halifax, N.S.
Dr. C. C. Cron	Halifax, N.S.	Dr. S. K. Ummat	Porter's Lake
Dr. P. Gujral-Newman	Halifax, N.S.		Halifax Co., N.S.
Dr. A. M. O. Hebb	Dartmouth, N.S.	Dr. A. S. Wortherspoon	Halifax, N.S.
Dr. C. A. Murphy	Glace Bay, N.S.	Dr. R. H. Yabsley	Halifax, N.S.

Management of Arterial Injuries

M. A. Naqvi, M.D., F.R.C.S.(C), F.A.C.S., F. B. MacDonald, M.D.C.M., M.Sc. (Med) and F. J. Kelley, M.D., F.A.C.S.

Sydney, Nova Scotia

Summary: *Four cases of arterial injury are discussed. Two were associated with fracture dislocation, one at the region of the elbow, and the other at the region of the knee. Delayed arterial reconstruction was performed in three cases, and early exploration was carried out in the fourth patient with good results. Three patients had arterial reconstruction with insertion of vein graft, and one patient had direct anastomosis. Principles of management are also outlined which involved exploration of the injured vessels, adequate debridement of wound, extraction of distal thrombus, end-to-end reconstruction, autogenous vein graft if reconstruction is not feasible, fixation of fracture fragment, fasciotomy when indicated and coverage of arterial anastomosis.*

Introduction

Although arterial injuries in civilian practice are uncommon, and when they do occur the events are unexpected, the damage caused soon becomes serious beyond all normal experience of limb injury. Indeed such damage often leads to ending in crippling disability or amputation. The important complications in untreated patients are: *i)* secondary hemorrhage, *ii)* false aneurysm, *iii)* peripheral propagation of thrombus, *iv)* distal embolism, *v)* irreversible ischemic changes in muscle and nerves. To illustrate these features four cases will be presented, and the management of arterial injuries will be discussed.

Case Reports

i. C. G., a 23-year old man, was admitted to St. Rita's Hospital, Sydney. He had been a passenger in a front seat when the automobile went off the road and collided with another car. When brought into the Emergency Department he was fully conscious. Examination revealed the following: the blood pressure was 120/60 mm./Hg, the pulse rate was 110/min., and the respiratory rate was 20/min; there were multiple abrasions and contusions, and a skin flap had been avulsed involving the entire heel area and the proximal plantar skin and subcutaneous tissue; in addition, there was obvious fracture at the upper end of the left tibia (Fig. 1); the cardio-respiratory system was normal; and the abdomen was soft with no evidence of intra-abdominal injuries. Radiograph confirmed that the only injury to the musculoskeletal system was a comminuted fracture of the upper end of the left tibia.

Emergency treatment involved suturing of the avulsed skin flap and deep laceration of the foot, and a temporary plaster slab was applied to the left leg. The patient was given supportive measures. Within 48 hours after admission he developed massive swelling of the left foot and leg, and the pulse distal to the fracture could not be palpated. At this point the cast was removed, but the swelling

continued to increase and the foot became markedly cyanotic.

Due to impending gangrene, it was considered best to stabilize the fracture and explore the popliteal artery. The fracture was first plated and the popliteal artery was then explored through the same incision. A two-inch segment of the artery was impacted between the fracture fragments; this was freed, but, due to complete destruction of the vessel, this segment required resection. A Fogarty balloon catheter was inserted distally with successful removal of the clot. An end-to-end anastomosis could not be performed due to tension; therefore, a vein graft taken from the saphenous vein was grafted in between the two ends. Skin wound approximation was impossible due to massive edema. Therefore, tension was released by a counter incision in the skin and fascia, and wound closed primarily.

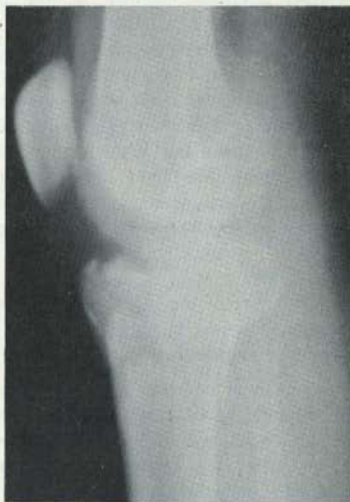


FIGURE 1
Radiograph showing tibia fracture.

His post-operative course was complicated by wound break-down and exposure of the metallic plate, infection of the foot laceration, and gangrene of the avulsed skin flap. Several other secondary procedures were carried out. However, the patient retained his limb, and good healing of the fracture occurred.

ii. H. McM. a 28-year old man, was admitted to the New Waterford Consolidated Hospital as a result of a direct blow to his right arm and fracture-dislocation of the elbow joint. He was admitted to the Emergency Room in a state of intoxication. Physical examination revealed good coloration in both hands, but the right radial pulse was absent. Radiography confirmed the diagnosis of dislocation of the elbow joint with fracture of medial epicondyle. The dislocation was reduced, but following this, the radial pulse did not return. A collar and cuff sling was then applied. While arrangements were being made for arteriogram, the patient signed out against medical advice.

He returned after twelve hours of complaining of numbness and weakness in the right hand. By this time the right hand was cold and cyanotic. An emergency arteriogram revealed complete block of the brachial artery at the region of the elbow joint with filling of the collateral vessel.

Due to the arteriographic findings, the brachial artery was explored: it was found to be completely transected into two pieces lying two inches apart. An end-to-end arterial anastomosis was carried out. In the post-operative period distal pulses returned to normal, the sensation in the hand returned to normal, and the limb remained viable.

iii. R. L., a 19-year-old male, was admitted to St. Rita Hospital, Sydney, as a result of a fall from a horse. He sustained a contusion hematoma in his right thigh. Physical examination revealed a large hematoma in the right thigh; distal pulses were present, the colour of both feet was good, but the right foot was cool. The hematoma was aspirated on two occasions. The pulses remained present, and the patient was discharged home to receive physiotherapy. One week following discharge, swelling of the right leg developed and the hematoma recurred. At this time the right foot was cold and the distal pulses were absent on the right side. The diagnosis of injury to the femoral artery was confirmed by femoral arteriogram and the femoral artery was explored. Surgery revealed extensive soft tissue injury in the thigh, and a lateral tear in the femoral artery with separation of intima and both distal and proximal thrombosis of the vessel. The lacerated segment of the vessel was resected together with distal and proximal thrombectomy of the vessels by Fogarty balloon catheter. Because of excessive tension, a saphenous vein sequent grafted into the defect. The distal pulses returned. His post-operative course was uneventful, and he was discharged home on the eighth post-operative day.

iv. K. H., a 19-year-old white male, was admitted to Sydney City Hospital, his left arm having been lacerated by a piece of glass. Shock, due to profuse hemorrhage from injured brachial artery, was evident on arrival, the patient being unconscious. Immediate resuscitative measures were carried out, and the bleeding vessel was ligated in the emergency room to stop bleeding. Blood transfusion was

started. However following these resuscitative measures, the patient regained consciousness. Examination of the arm revealed extensive soft tissue defect above the elbow; distal to the injury, the arm was cyanotic and pulseless, and there was anesthesia along the distribution of median nerve.

He was then taken to the operating room and the wound was explored. The two ends of the brachial artery were identified and were retracted farther apart; the two ends of the median nerve were also identified. End-to-end anastomosis of the brachial artery was not possible because of undue tension; therefore, a two-inch segment of cephalic vein was dissected, removed, and bridged into the defect. The median nerve was also repaired.

His post-operative course was uneventful with return of normal colour and radial pulses in the hand.

Discussion

Arterial injuries are divided into three etiologically distinct types: *i)* knife and glass penetrating injuries, *ii)* penetrating gunshot wounds, and *iii)* blunt trauma or crushed injuries. Injuries should be suspected when there is penetrating trauma near a large artery. Injuries may be further subdivided into: — *i)* traumatic vasospasm, *ii)* thrombosis, *iii)* complete transection, *iv)* lateral tear, *v)* arterio-venous fistula (Fig. 2).

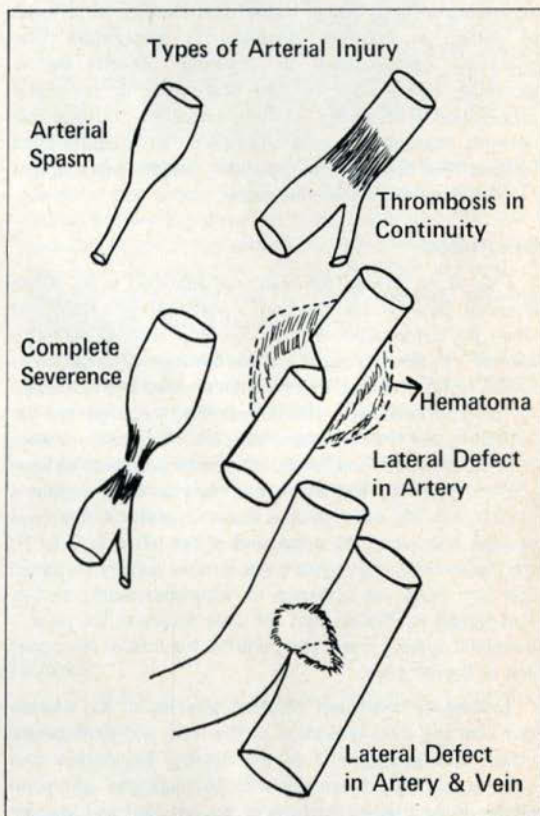


FIGURE 2
Types of arterial injuries.

The first successful end-to-end arterial anastomosis in humans was performed in 1896.¹ Vascular graft technique was devised² in the early 20th century. In 1910 Stitch reported 100 cases of arterial reconstruction by lateral suture method.³ DeBakey and Simeone, in reviewing 2,471 battle injuries to major arteries treated by ligation, reported an amputation rate of 49%.⁴ The amputation rate following brachial artery ligation was 30%, whereas 75% amputation rate followed femoropopliteal artery injury. In the Korean War casualties, Hughes reported an amputation rate of 50% following ligation, whereas it was 13% with arterial reconstruction.⁵ Due to the better results following arterial reconstruction, it has become the accepted mode of treatment in injured arteries.

The diagnostic criteria of arterial injury are pulsatile bleeding, active bleeding, distal arterial insufficiency, and pulsating extensive or enlarging hematoma. Arterial insufficiency can follow non-penetrating trauma from dislocation and fractures about the knee or elbow, or from compression of the artery in tight fascial compartment of crushed extremity. Following non-penetrating injuries, loss of pulses, coldness, pallor, progressive hyperesthesia, anesthesia, and paralysis are danger signs and indicate urgently the need for accurate diagnosis and surgical exploration or other treatment. A pulse present distal to the injury, however, does not exclude the possibility of an arterial injury in all cases of stab or gunshot wound or blunt trauma. Case no. 3 is an example where initially pulses were present and diagnosis could not be relied upon clinical grounds. In doubtful cases, an emergency arteriogram taken is helpful in establishing the diagnosis⁶ (Case no. 3).

Arterial injury can be differentiated from traumatic vasospasm by sympathetic block. Return of pulses following sympathetic block is reassuring, but increase in skin temperature and colour alone merely signifies improvement in collateral flow and does not exclude arterial injury.

With advancement of vascular surgical technique, primary arterial reconstruction has now become a frequently performed operation. Principles of surgical management involve early exploration, adequate surgical exposure secured by longitudinal incision along the course of the artery, proximal and distal control of the artery before incision into hematoma or false aneurysm, removal of distal clot by balloon catheter or by retrograde flush technique, correct care of the remainder of the wound including drainage, when indicated, coverage of arterial anastomosis and fixation of fractures and fasciotomy for closed space injuries. If end-to-end anastomosis is not possible, an arterial graft should be inserted in the defect (Cases no. 1, no. 3, no. 4). Most suitable is autogenous vein graft, but synthetic grafts have been used with good results. Best results are obtained in patients who are managed within six hours after the injury where end-to-end anastomosis is feasible. Cases with poor prognosis are related to blunt trauma or crushed injuries. □

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A Neglected Approach to Persistent Posteriors

N. K. MacLennan, M.D., C.M.,

Sydney, N.S.

In the management of persistent posterior positions the evidence would support abandonment of difficult forceps rotations in favor of Caesarean section, and most physicians who practice obstetrics, being aware of the fetal morbidity, are today less inclined to embark on such manoeuvres. Although this liberal attitude is acceptable, in deciding whether a given case of dystocia can be delivered vaginally or not finesse of judgment is still necessary. In the search for methods of handling these cases in order to minimize trauma, one particular pair of forceps has been overlooked, those described by Leff in 1955.¹ This paper reports on fourteen years' experience with these forceps, re-emphasizing their advantages and utility.*

Leff's description of the forcep bears repeating: "The special feature of these forceps is that the tips of the blades have been shortened, making the blades 35 to 40 mm. smaller than those of the standard traction forceps. This eliminates the parts that cut into the vaginal wall. The forceps as a whole are lighter in weight, the blades are narrower, and there is less of a pelvic curve. The lock is of the pivot and notch type. The bar on the end of the handles is for the purpose of locking the forceps after they are applied to the head. By this means the forceps hold the head snugly and prevent its being compressed, and at the same time prevent the forceps from rotating around the head. The screw locks the bar in place; it also serves to indicate the convex side of the pelvic curve. This bar, together with the crossbars below the lock, is for the fingers to hold the forceps and rotate them in the required direction.

The application of the forceps is simple. The left blade is always introduced first and then the right blade, and a correct cephalic application is attained. The bar at the end of the handles is locked, to hold the head snugly. The forceps are rotated through a small arc to turn the occiput anteriorly. For the rotation of the head with these forceps, very little anesthesia is needed."¹

In essence, what Leff stated was that Scanzoni had the right idea with his 180 degree rotations; the only problem was that he had the wrong equipment.

Uses

i. With head at mid-pelvis, and cervix at 8 cm. dilatation: turn and wait.

The lightweight structure of this instrument allows it to be inserted inside what is often a loosely-fitting, almost fully dilated cervix with a posterior position. When the posterior position prevents the head from descending,

rotation at this stage has real merit. This, however, is not for the novice, and if the forceps are inserted outside the cervix, lacerations will result. In a good pelvis, rotation here restores labor to its normal state, and this can be done with either no anesthetic, or Trilene "whiffs." Once rotation is accomplished, labor can usually be allowed to continue in a much more effective manner.

ii. With head at mid-pelvis position, second stage of labour: turn and wait.

With cervix fully dilated the application is simpler. When failure to progress is recognized, a mid-pelvic rotation can be done without displacement of the head, generally with the aid of trilene inhalations or minimal analgesia; sometimes, general anaesthesia is required.

iii. With head at mid-pelvis position, second stage of labour: turn and extract.

The situation is similar to (ii) except that delivery may be advisable for any of several reasons: a tired mother, fetal distress, or general anesthesia. Simpson forceps or any similar instrument may then be used for extraction.

iv. At outlet, second stage of labour: turn and wait.

Often a multipara will be unable to push out a posterior with head on the perineum, and she will be aware that "something is wrong". Rotation here is usually simpler than in mid-pelvis, with same or less analgesia.

v. At outlet, second stage of labour: turn and extract.

As in (iii) above, if reasons are present for delivery, extraction may be done with Simpson forceps.

vi. In the transverse position, at mid-pelvis or outlet.

The head can be turned to a more favourable position, if in fact this is advantageous in a given pelvis. Once again, when turned, extraction may be completed with any extracting forceps.

Approximately 3000 deliveries were attended by the author or, in the last six years, by the author or his partner, in either St. Rita or Sydney City Hospital between 1956 and 1969 inclusive. Of these, the incidence of posterior positions is unavailable; some of the "persistent posteriors" were delivered by forceps extraction as posteriors. In 52 of these deliveries, however, Leff forceps were used to aid delivery. 34 of these patients were primigravidae, and 18

TABLE I

Primigravidae - 34

Level	Weight of Baby	Anaesthesia	Termination
Mid: 30	< 7 lbs: 1	General: 16	Forceps: 21
Low: 4	7-9 lbs: 29	Trilene/local: 15	Spontaneous: 13
	> 9 lbs: 4	Spinal: 3	

*These particular forceps sells for ninety-five dollars (\$95.00) and are available from J. F. Hartz Co., Halifax.

TABLE II

Multiparae - 18

Level	Termination	Anaesthesia
Mid: 7	Forceps: 9	General: 2
Low: 11	Spontaneous: 9	Trilene/local: 2

TABLE III

Apgar Scores (All Cases)

(All Cases)
10 - 44
8 - 4
6 - 2
5 - 1
2 - 1

were multigravidae. There were no failed forceps or fetal or maternal deaths attributable to use of this forcep. Case material is analyzed in Tables I and II.

In the *primigravidae*, most babies were in the 7-9 lb. range, about half were delivered with minimal analgesia (trilene/local) and slightly more with general anesthesia or spinal. In the ratio of about 3:2 forcep extractions were used to terminate delivery as opposed to spontaneous delivery.

Similar results are seen with *multigravidae* where more were low rotations, half were spontaneous deliveries, most required minimal analgesia.

Apgar scores are notably non-specific, but only 8 of 52 were less than 10, with the lowest 4 requiring resuscitation (Table III). All babies were good leaving case room and on discharge from hospital.

Discussion

Very few would disagree with the opinion that the phasing out of difficult mid-forceps deliveries is desirable, and has to a large extent, happened.

Eastman *et al* reporting on 753 cases of cerebral palsy compared with a control series, found that mid-forcep deliveries were twice as high in the cerebral palsy group, and status of infants classed as "poor" was much more

frequent with mid-forcep and breech deliveries.² Mid-forcep deliveries were studied by Cooke, who found that one-third of such deliveries were classed as "difficult"; they were associated with 90% of the fetal trauma, all the depressed babies, and two-thirds of the vaginal lacerations.³

A history of difficult delivery in one-third of the infants with birth injury was noted by Perlstein in a retrospective study of 4500 children.⁴ Malamud, reviewing case reports of 162 brain injured children, found that 86% of those with subcortical damage had had a traumatic delivery⁵, while Morrison found that in two stillbirth studies in two countries, 11% were related to a traumatic birth.⁶

And so it goes.

In 1955 Leff described his forceps, and a perusal of current texts and literature would suggest that it has been largely overlooked. However, Wexler and Burnhill recently reported on 106 such rotations at the Jewish Hospital in Brooklyn between 1960 and 1965 with excellent results, and make a plea for re-appraisal of this instrument.⁷ A delicate instrument purely for rotation, it can be used easily and safely without displacement of the head, with minimal anesthesia, and often labor can be allowed to terminate spontaneously. It obviously allows the *average operator* to cope with the average persistent posterior position without need for assistance or involvement in other procedures like manual rotation or "key-in-lock" forcep rotation which are fraught with greater hazards.

It is the author's opinion that in the absence of disproportion, with an arrested transverse head, or a posterior position that has failed to progress despite adequate time, a trial Leff forceps rotation should be the method of choice for delivery. Failing this, caesarean section may well be indicated.

In these days of increasing pressure on all physicians, any addition to our armamentarium which helps to make life easier is worthy of note; one which has as an added benefit the lessening of neonatal morbidity and mortality is worthy of re-publication. □

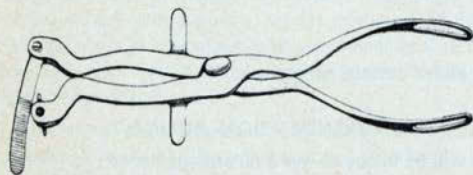


FIGURE 1

The forceps. The blades are shorter, narrower, and lighter than those of the standard forceps; shank; pivot and notch lock; bars for rotation; handles; safety and rotation bar, and screw to lock the bar. (From Leff, Morris: An obstetric forceps for the rotation of the fetal head, *Amer. J. Obstet. Gynec.* 70: 208, 1955. Reproduced by permission.)

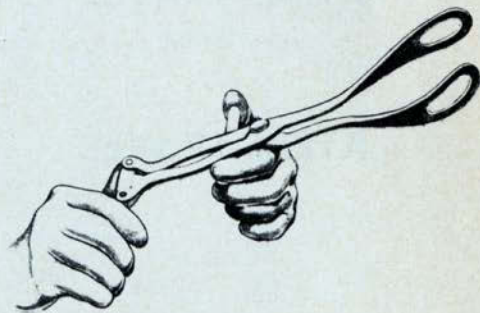


FIGURE 2

The forceps as they appear when applied to a head in the right occipitoposterior position; and showing the hold on the forceps by the fingers, ready for rotation. (From Leff, Morris: An obstetric forceps for the rotation of the fetal head, *Amer. J. Obstet. Gynec.* 70: 208, 1955. Reproduced by permission.)

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Duplication of Gallbladder

M. A. Naqvi, M.D., F.R.C.S.(C), F.A.C.S., D.S. Nathanson, M.D., F.A.C.S. and J. A. Roach, M.D.

New Waterford, Nova Scotia

Summary: *A case of double gallbladder was encountered, and the literature has been reviewed. Gallbladder duplication is a rare anomaly. There are two main types of duplication: bilobed gallbladder and double gallbladder. Double gallbladder occurs in two forms, the "H" type, in which the two cystic ducts enter the common bile duct separately, and the "Y" type, in which the two cystic ducts join together after a distance and form a common cystic duct. The symptomatology, diagnosis, and treatment are also discussed.*

Anomalies of the gallbladder are rare, but as cholecystectomy is a commonly performed operation in a community hospital surgeons should be familiar with these malformations. Only 49 cases of gallbladder duplication appear to have been reported in the literature. Recently we encountered a case of double gallbladder which was diagnosed pre-operatively by roentgenography, the patient subsequently undergoing double cholecystectomy. The purpose of this article is to add another case to the reported series.

Case Report

Mrs. L. M., aged 37 years, entered the New Waterford Consolidated Hospital because of right upper quadrant abdominal pain radiating to her back and right shoulder blade. Her history dated back to 3 years prior to admission when she was first seen because of right upper quadrant abdominal pain and fatty food intolerance. A cholecystogram demonstrated one apparently large gallbladder with the more concentrated contrast media in the centre, in a circumscribed fashion; there appeared to be a double density, one area being superimposed one upon the other. A diagnosis of double gallbladder was suspected. Further gastrointestinal investigation failed to demonstrate any other pathology was demonstrated, and since there were no stones in either gallbladder, the patient was treated by dietary means. However, the patient continued to have repeated bouts of right upper quadrant abdominal pain; the cholecystogram was repeated in 1968, a double density again being evident.

One month prior to the present admission she developed persistent pain in the right upper quadrant, associated with fatty food intolerance. There had been no nausea nor vomiting, nor was there a history of jaundice. The stools were of normal colour. Physical examination on admission revealed a white female of stated age. The pulse was 70/min., the blood pressure 120/70 mm. Hg., the respirations 20/min., the temperature 98.6° F (37° C). The abdomen was tender in the right upper quadrant; the gallbladder was not palpable.



FIGURE 1

Cholecystogram illustrating double density.

Investigations

Cholecystogram again showed double density (Fig. 1), and the diagnosis of gallbladder duplication was made. Blood studies: hemoglobin, 13 gms%, W.B.C. count, 10,000/cu. mm.; serum bilirubin, total - 0.8 mg%, direct - 0.2 mg%, indirect - 0.6 mg%; alkaline phosphatase, 8 King Armstrong units; S.G.O.T., 28 units; prothrombin time was 15, with control of 14 minutes; blood sugar, 90 mg%; and the blood urea nitrogen, 12 mg%; urinalysis was negative for sugar and albumin, the specific gravity 1.020. A routine chest x-ray was normal, and an gastrointestinal upper series failed to demonstrate any pathology in the gastrointestinal tract.

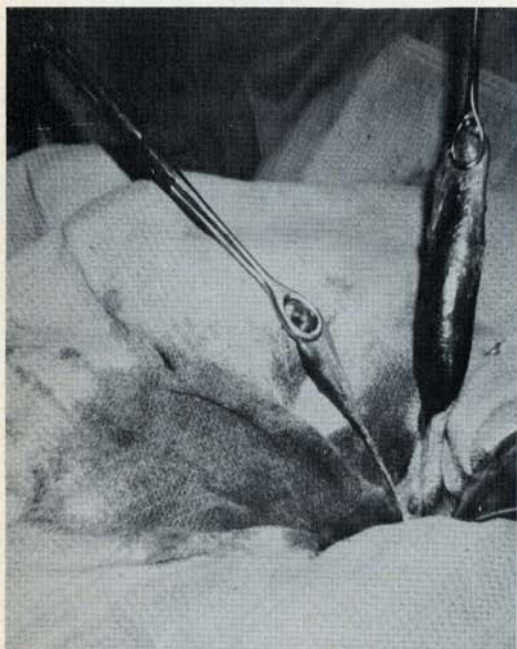


FIGURE 2

Operative specimen, showing two gallbladders and two cystic ducts.

Due to the persistence of symptoms in association with the abnormal cholecystogram, gallbladder disease was diagnosed, and the patient underwent double cholecystectomy. At operation there were two gallbladders encased in a common peritoneal sheath, as had been diagnosed previously by roentgenography. No calculi were demonstrated in either gallbladder. There were two cystic ducts joining to form a common trunk just before entrance into common bile duct (Fig. 2). An operative cholangiogram failed to demonstrate any filling defect in the common bile duct. Pathological study of both gallbladders demonstrated chronic cholecystitis. The patient had an uneventful post-operative course and was discharged on the eighth post-operative day. The patient has been followed up for one year since surgery and is symptom free.

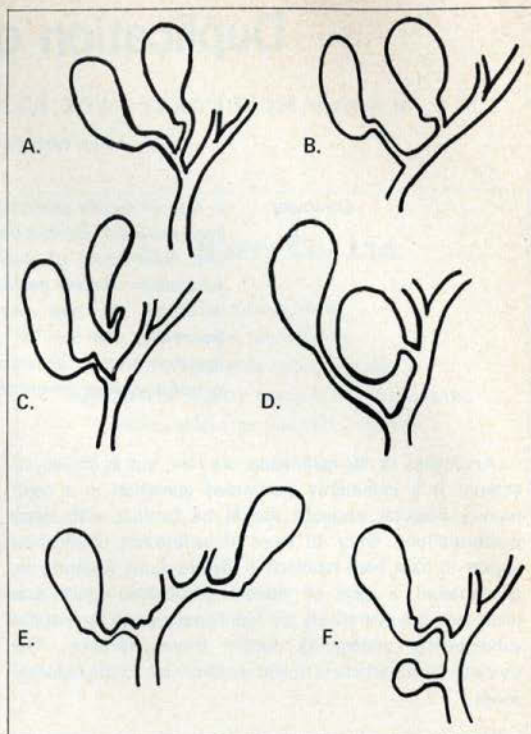


FIGURE 3

Diagrammatic representation of types of duplication of gallbladder.

- Figure A Duplicate gallbladder of normal situation with a Y-shaped cystic duct.
- Figure B The same, with separate cystic ducts (H type).
- Figure C The same with an accessory duct which enters directly into the liver substance (Trabecular type).
- Figure D An accessory gallbladder partly embedded in the liver and in communication with the hepatic duct.
- Figure E Accessory gallbladder under left liver lobe in communication with left hepatic duct.
- Figure F Accessory gallbladder situated in the gastro-hepatic ligament and communicating with common bile duct.

Discussion

Gallbladder duplication evidently was recognized as early as ancient Hebrew times when certain variations were described in relation to the religious codes of the time. Yet, as late as 1926, Boyden reviewed the reports of supernumerary anomalies of the biliary tract and collected only twenty cases in humans until 1926.¹ The literature was extensively reviewed by Gross in 1936 when he collected 28 cases.² The present authors have compiled the data since 1936, so that 21 additional cases including the present case now appear in the literature (Table 1).

Anatomy: There are two main types of gallbladder duplication: (i) *vesica fellea divisa* (bilobed gallbladder), and (ii) *vesica fellea duplex*, (double gallbladder) (Fig. 3). Bilobed gallbladders are of two types, the "V" shaped and

TABLE 1

No	Author	Year	Age	Sex	Sign & Symptoms	X Ray Findings	Pathologic Observation & O. R. Findings
1	Raymond (7)	1956	53	F	Painless Jaundice Pruritus Clay Stool. Dark urine Liver 4 +	-	1 - Gall bladder contained adenocarcinoma. 2 - Gall bladder seat of chronic cholecystitis. 3 - Two cystic duct.
2	Guyer (8)	1967	59	F	Vague Abdominal Pain	Multiple Stones possible two gall bladders.	Two gall bladders with cystic duct emptying separately into common bile duct. Both gall bladders contained stones.
3	Guyer (8)	1967	28	M	History of Gall bladder disease.	Gall stones outside single opacified	Two gall bladders, separate entry in a common bile duct. Stone in one gall bladder. Common fold of peritoneal.
4	Ryberg (3)	1959	26	F	Pain for two years.	Double gall bladder, with calculi in both	Two gall bladders with two cystic duct. Separate entry in common bile duct.
5	Recht (6)	1951	48	M	History of Ulcer Separated for perforation	-	1 - Gall bladder inflamed. 2 - Gall bladder normal. Inflamed gall bladder removed.
6	Williams (9)	1957	48	M	Pain for 3 years.	Stones in functioning Gall bladder	Both gall bladders inflamed. Containing stones. Com- mon peritoneal sheath.
7	Dunkery (10)	1964	29	M	Colicky pain for two years.	Several calculi in functioning gall bladder	Two gall bladders with common peritoneal sheath. Two cystic duct. Separate entry into common bile duct. 1 - Gall bladder contained stones. Other gall bladder was normal.
8	Martenstyn (11) *	1965	45	F	Epigastric distress. Fatty food intolerance for several years.	Two Gall bladders. One contained stones.	Two gall bladders. Two cystic duct. Common peritoneal sheath. One gall bladder contained stones.
9	Mackie (12)	1966	58	F	Epigastric Pain	Two gall bladders contained stones.	Two gall bladders. Two cystic duct. Separate entry in common bile duct. Both gall bladders contained stones. Common peritoneal sheath.
10	Owen (13)	1962	42	F	Abdominal Pain Dyspepsia for several years	Two gall bladders Two cystic duct. Common entrance in common bile duct.	1 - Gall bladder contained stones. 2 - Gall bladder normal. 3 - Common entry of two cystic duct in common bile duct.
11	Corcoran (14)	1954	32	F	Pain and fatty food intolerance for five years.	Two gall bladders contained stones.	Two gall bladders. Two cystic duct. Common peritoneal sheath. Both gall bladders contained stones.
12	Corcoran (14)	1954	60	M	Pain, nausea Vomiting.	Non visualized Gall bladder.	Two gall bladders. Two cystic duct. Common entry in common bile duct. No stones. Both gall bladders inflamed common peritoneal sheath.
13	Mulla (15)	New Born Infant.			Weak cry. Cynosis Rt diaphragmatic Hernia.	-	1 - Gall bladder and Liver in Rt Chest. 2 - Gall bladder and liver located in the abdomen.
14	Moore & Hurley (16)		30	F	Biliary colic. Tender mass in Rt costal arch.	Normal Gall bladder	Two gall bladders. Separate peritoneal sheath. Two cystic duct. Separate entry in common bile duct. No stones. 1 - Gall bladder inflamed. 2 - Gall bladder normal. Inflamed gall bladder removed.
15	Whittenberger (17)	1954	48	F	Pain and Fatty food intolerance	Multiple calculi in normal functioning Gall bladder.	Two gall bladders. Two cystic duct. One gall bladder contained stones. Common peritoneal sheath.
16	Palmisano (18)	1969	23	F	Pain, Nausea Vomiting pregnancy 7 months.	No X-Ray	Two gall bladders with common septum. Two cystic duct. Two cystic artery.
17	Wilson (19)	1930	55	F	Pain nausea vomiting acutely ill patient.	No X-Ray	Two gall bladders with common septum. Two cystic duct. Two cystic artery.
18	Cameron (20)		33	F	Indigestion Pain	Double Gall bladder with calculi	Two gall bladders with common peritonea 1 covering. Two cystic duct. Calculi in one gall bladder.
19	Scott W. R. (21)		57	M	Epigastric discomfort.	Two gall bladders.	Double gall bladder. Two cystic duct with stones in one gall bladder.
20	Oldfield (22)		67	M	Colicky abdominal pain acutely ill patient.	Double gall bladder.	Double gall bladder. Two cystic duct.

*See this Bulletin, 44 171, 1965.

the septal type. Vesica fellea duplex occurs in two forms: the "Y" type, in which the two cystic ducts join together after a distance and form a common cystic duct, and the "H" type, the two ducts entering the common bile duct separately. Boyden added two further types, one a gallbladder diverticulum communicating with either cystic or hepatic duct, the other a trabecular or accessory gallbladder.¹

Etiology: There are several hypotheses as to development of accessory gallbladders. True vesica fellea duplex arises from a downgrowth on the embryonic bile passages (common bile duct, cystic, and hepatic duct)³. The "V" type of bilobed gallbladder derives from a partial division of the primary gallbladder bud. The septal type would seem to have origin in defective absorption of the parenchyma in the solid stage through which the gallbladder passes during its embryonic development.

Symptoms: Gallbladder duplication itself probably produces no particular symptoms³, but on rare occasions duplication may be symptomatic⁵. Some authors believe that anomalies are accompanied by a greater tendency to stone formation. Review of the previous 21 most recently reported cases revealed that five patients had stones in both gallbladders, and eight patients had stones in only one gallbladder.

Diagnosis: Most cases of gallbladder duplication have been diagnosed first at operation. However, roentgenographic examination now seems to be capable of detecting increasing number of cases. With regard to the detection of gallbladder duplication at operation, the following may be borne in mind.⁴ The two gallbladders usually lie close up against each other and are encased in a common peritoneal sheath.³ The anomaly is then usually not detected until the gallbladder has been opened, or the surgeon finds the two lumina in the cystic duct. At times, the two may lie at an appreciable distance from one another, such as under each liver lobe. One gallbladder may lie freely visible while the other is more or less embedded, or even totally buried in the liver substance. Pre-operative cholangiogram may in some cases demonstrate the anatomic relationship.

Therapy: If gallbladder duplication has been demonstrated and function is normal, surgical procedures are not regarded as being indicated, except on rare occasions as in this case. This patient was followed for a considerable period because of the apparent normal functioning of the gallbladder. However, the symptoms were persistent, requiring surgery, and she has subsequently been followed over one year with complete relief of symptoms. If at operation one of the two gallbladders is found to be pathologically changed, while the other is fully normal, the literature recommends that the healthy one be left *in situ*.

However, the gallbladders lie so closely against each other that they are removed simultaneously and generally both show pathological change. □

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Toxic Megacolon

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Summary: *Two patients with toxic megacolon due to ulcerative colitis are presented. Toxic dilatation developed within one week following barium enema examination. Temporary ileostomy was of no benefit in one case who subsequently required colectomy. Both patients had a stormy post-operative course. The literature relating to this condition has been reviewed. The management is discussed; it must be placed in an individual category and close teamwork between the internist and surgeon is the only possible solution. The most important single observation is repeated scout films of the abdomen. Barium enema must be avoided in acute phase of ulcerative colitis. If the patient does not respond to medical regimen with serial follow-up films, the choice of operation appears to be subtotal or total colectomy with ileostomy, depending upon the circumstances.*

Toxic dilatation of the colon occurring during a fulminating attack of ulcerative colitis is a rare complication of this disease. The true incidence of this complication is difficult to assess. Edward and Truelove reported an occurrence of 1.6% in a series of 624 cases of chronic ulcerative colitis¹, while McInerney and co-authors noted 9.5% in 36 cases².

Recently we encountered two cases of toxic megacolon. Both of these patients developed a toxic megacolon following barium enema examination, which was done during an acute fulminating attack of ulcerative colitis. The surgical management of toxic megacolon is discussed, along with a report of these two cases.

Case Reports

i. — Mr. R. B., aged 50 years, was admitted to the New Waterford Consolidated Hospital on August 9, 1969. He complained that he had had bloody diarrhea, tenesmus, fever, and abdominal pain for seven days before admission. Bowel movements had been 15 to 20 times per day. Physical examination revealed a white male of stated age and average build, who was acutely ill. The pulse rate was 120/min., and the temperature was 103° F. (39.5°C). Abdominal examination revealed a soft abdomen with some tenderness in the left lower quadrant; no masses were palpable. Rectal examination revealed blood-tinged, foul smelling liquid stool. At this time a tentative diagnosis of diverticulitis was made. The patient was treated with antibiotics, intravenous fluid therapy, and nasogastric suction. A sigmoidoscopic examination was ineffectual because of an excessive amount of bloody stool. Barium enema examination revealed mucosal edema and the presence of a few diverticula in the sigmoid colon. Two days following the enema a sigmoidoscopic examination was repeated which revealed multiple polypi in the rectum,

with bleeding and superficial ulceration. A rectal biopsy showed definite evidence of ulcerative colitis. Steroids and Salizopyrine were then added to the treatment. In spite of medical therapy, the patient's condition deteriorated, the abdomen becoming markedly distended. A radiograph of the abdomen at this time confirmed the diagnosis of toxic dilatation of the colon (Fig. 1). A further trial of conservative treatment was carried out for 48 hours, but the patient continued to spike temperatures of 104° F. (40° C) with a toxic tachycardia, and colonic dilatation became progressive.

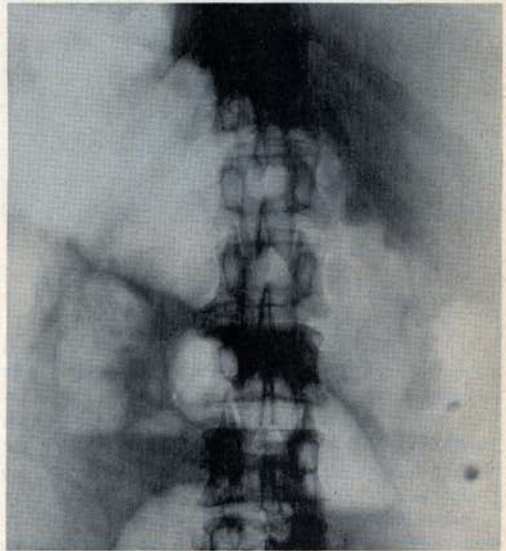


FIGURE 1

Plain radiography of the abdomen showing extreme dilatation of the transverse colon.

It was decided to treat this patient surgically, but due to the poor condition of the patient, only ileostomy was performed, with the cut end of the distal ileum being brought out as a mucous fistula. The patient responded well for 24 hours, the temperature falling to 100° F. (37.7° C), and the pulse rate to 110/min. The following day radiography of the abdomen showed further colonic dilatation: tachycardia returned, and the temperature rose again to 104° F. (40° C). In spite of the patient's poor general condition it was thought best to do a colectomy. A subtotal colectomy was performed, leaving the rectum. At operation a perforation was encountered in the descending colon. His post-operative course was complicated by bleeding from the retained rectum, septicemia due to aerobacter infection respiratory acidosis, massive gastrointestinal bleeding, and multiple micro-abscesses at the site of the venepuncture. In spite of the above complications, the patient recovered, and he was discharged home on the 40th. post-operative day.



FIGURE 2

Photograph of the resected specimen showing multiple pseudopolypi.

ii. — Mr. H. R., a 27 year-old white male, was admitted to the Sydney City Hospital on February 25, 1970. Prior to admission he had had severe bloody diarrhea, and tenesmus for at least two weeks. On admission patient was acutely ill with a temperature of 101° F. (38.4° C) and tachycardia. On palpation, the abdomen was soft, but no masses were felt; there was no tenderness, and no alteration in liver dullness. Rectal examination revealed blood-stained, foul smelling stool. Sigmoidoscopic examination demonstrated multiple superficial ulcerations with edema and inflammation. A diagnosis of ulcerative colitis was made. The patient was treated with Salizopyrine, antibiotics,

steroids, and intravenous fluid therapy. Barium enema confirmed the diagnosis of ulcerative colitis. The patient responded to medical management for five days, but following a barium enema examination his abdomen became distended and bowel movements progressed to 14 to 15 times per day. A plain radiograph of the abdomen revealed considerable dilatation of the transverse colon. The diagnosis of toxic dilatation of the colon was then considered. A progressively downhill course, with continued colonic dilatation, necessitated a total colectomy and ileostomy. The post-operative course was complicated by generalized septicemia, would evisceration, massive gastrointestinal bleeding, requiring ligation of bleeding gastric ulcer and pyloroplasty; however, the patient recovered well.

Discussion

Toxic megacolon, a complication of ulcerative colitis, has been known for thirty years. Its evolution through description and, subsequently into definition, has been attributed to numerous authorities. Its *incidence* varies from report to report. The greatest incidence of acute dilatation of the colon in ulcerative colitis occurs in early years of the disease; the present cases did not have any history of ulcerative colitis in the past.

The *etiology* of this condition occurring in the setting of ulcerative colitis remains obscure. In McInerney's series, many patients who arrived at hospital with serious chronic ulcerative colitis developed toxic megacolon at varied intervals after barium enema examination.² This appears to have been the experience of other authors. Formerly, tannic acid, used as an ingredient in the barium enema, had certain effects on the colonic mucosa which were thought to contribute to later production of toxic megacolon; however, toxic dilatation was also observed in many patients who had never had a colonic x-ray with ba-enema preparation. Another possible etiologic drug is codeine. Histological studies have been inconclusive. In one series, sixteen consecutively resected colons were studied: in all the specimens, ganglion cells in the submucous plexus of Meissner and the myenteric plexus of Auerbach were found to be viable and in normal concentration.⁴ Destruction of the ganglion cells therefore is not the mechanism by which dilatation is produced. The picture seen is that of an inflammatory process which extends through the muscularis to the serosa, causing destruction of the muscularis and resulting in an inadequate peristalsis.

As regards the *clinical picture* of this unusual complication, McInerney and associates found that the period of distension of the colon varied from two to thirty-two days, and averaged fourteen days. The average period of medical treatment prior to surgical intervention was ten days, with a range of three to twenty-three days; in our own cases, the first was managed medically for three weeks, whereas the second was managed for ten days prior to undergoing surgery. The maximum dilatation has been found to affect the transverse colon. Judd, in 1969, reported 36 cases in which dilatation of the transverse colon was present in 35

cases, the cecum being dilated in only one patient.³ Prohaska emphasized that there was a direct relationship in the mortality statistics, and the longer the colon was dilated the greater was the surgical risk.⁴ If the colon was dilated for fourteen days or more, surgical mortality was 60%. McInerney and colleagues reported a surgical mortality of 75%.²

Current Therapy

Cautious, non-operative treatment may result in a satisfactory condition of the patient after a variable period. Watchful waiting has been rewarded with satisfactory results. However, valuable time can thus be lost. Although megacolon may subside, it can return in an even more severe form in a matter of hours. Visits to the bedside must be frequent and numerous check-up scout films must be taken to follow the progress of the distension. It is a temptation to try deflation by passage of a rectal tube, and, on occasion, this has been successful. However, with the bowel in a very precarious state, extreme caution must be exercised, since perforation of the colon by rectal tube could easily lead to an early fatality. Each case must be treated on its own merits and close teamwork between the internist and surgeon is imperative.

Correct timing for surgical intervention will challenge even the highly experienced physician to the utmost. Currently, it appears that great progress has been made in minimizing the observation period, and proceeding early with surgical treatment if marked improvement has not occurred. If the patient is managed without surgery, the most important criterion is lack of evidence of dilatation of colon on x-ray. If there has not been any improvement in an average of seven days, surgery must, in general, be considered in these cases.

Several surgical procedures have been advocated in the past ranging from temporary ileostomy, cecostomy, colostomy, subtotal colectomy, to total proctocolectomy. Emergency cecostomy may give striking improvement, but the response is uncertain and subsequent colectomy may be necessary within two weeks. Others have suggested establishment of emergency colostomy which may prolong observation without risk. Prohaska expresses slight regard for a decompressing stoma in true toxic megacolon.

Turnbull has suggested the use of a temporary stoma, or even more than one stoma, finding that cecostomy rendered it most difficult to establish a suitable ileostomy

later; recently he has advocated establishing the permanent ileostomy stoma and immediately proceeding with a special type of transverse colostomy which avoids bringing the colon to the skin level.⁵ Using this specialized technique, the results have been gratifying, and definitive colectomy has been deferred for 6 months to one year. Ileostomy alone is not adequate to stop the progressive and rapid deterioration of the colon leading to multiple perforations and death from peritonitis. In Prohaska's series, simple diverting ileostomy was done on two patients; four days later they developed colonic perforation and died after a total colectomy.⁴

Our first case illustrates this important feature: the patient had a diverting ileostomy and subtotal colectomy was necessary within 72 hours following surgery. There is no question that colectomy will solve the problem most satisfactorily if the colon is not already perforated or, what is even more distressing to the surgeon, if the colon does not disintegrate in his hand during even the most gentle of surgical manipulation. Ideally, an ileostomy is established and the entire colon and rectum are removed. Since the condition is far from ideal in most of these cases, ileostomy with subtotal colectomy at one operation is the most acceptable procedure. The rectum can be removed safely at a later date.

The surgical mortality in toxic megacolon has been reported from 13-35%. Mortality in toxic megacolon with perforation and peritonitis has been shown to be 55%.^{3,4} A significant reduction in mortality, however, was achieved in those cases of fecal peritonitis in which irrigations of physiological saline solution containing 1 gm. of Oxytetracycline per litre of solution were part of the treatment.⁴ □

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SOCIETY DUES

Late payment of dues continues to be an unnecessary expense to the entire membership as well as a loss of revenue to the Society. Not only do 400 reminder notices cost something like \$300.00 but the loss of revenue through short term investments is in the order of \$2,500.00.

Please give this matter a moment out of your busy day. Thank you.

D. D. P.

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THE MEDICAL SOCIETY OF NOVA SCOTIA

PROCEEDINGS OF

6th MEETING OF COUNCIL (1970)

AND

117th ANNUAL MEETING

The first session of the 6th Meeting of Council was called to order by the Chairman of Council, Dr. C. E. Kinley, on Friday, November 27th at 9:30 a.m. Guests of the Society to whom Dr. Kinley extended a warm welcome included the Hon. D. Scott MacNutt, Minister of Public Health in Nova Scotia; Dr. D. L. Kippen, President, Canadian Medical Association; Dr. J. D. Wallace, General Secretary, Canadian Medical Association; Dr. W. D. Parsons, President, Newfoundland Medical Society; Dr. J. P. McNerney, President, New Brunswick Medical Society; Dr. R. D. Drysdale, President, Prince Edward Island Medical Society; Mr. S. S. Jacobson, Chairman, Medical Care Insurance Commission; Mrs. Joan Fox, President, Nova Scotia Registered Nurses' Association; Dr. Carl Dexter, President, Nova Scotia Dental Association; Mr. D. A. Geekie, C. M. A. Secretary for Communications and Information.

Dr. Kinley extended a warm welcome to the exhibitors participating in the meeting, noting that the Society recognizes the important contribution made to the Health Services Delivery System by the exhibitors at medical conventions such as the Annual Nova Scotia Meeting. He complimented the exhibitors on the quality of their displays and encouraged members of Council and the Society to seize every opportunity to discuss new products on display. Dr. Kinley also noted with pleasure that exhibit representatives would be joining members as guests at the Luncheon and Banquet.

Dr. C. J. W. Beckwith read the names of Society members deceased between October 31, 1969 and September 30, 1970 as follows:

Dr. C. H. L. Baker, Dr. T. K. Kryski, Dr. M. MacKenzie, Dr. R. H. Stoddard. Council observed a period of silence in tribute to the memory of these members.

New membership applications totalling eighty-two (82) were approved by Council.

The Transactions of the 5th Meeting of Council and 116th Annual Meeting (1969) as printed in the April issue of the Nova Scotia Medical Bulletin were adopted.

The Executive Committee Report — Dr. C. E. Kinley's Report was a comprehensive review of action and decisions taken on behalf of the Society members during 1970. In summary the Executive will hold one meeting per year outside the Halifax-Dartmouth area to provide out-of-town members with the opportunity to observe and participate in the business of the Society. Re-organization of C.M.A. into a Council System has created difficulties and pressures in the Nova Scotia organization and may ultimately require re-organization from the present Committee System to a form of Council System along the lines adopted by C.M.A. Nova Scotia representatives to C.M.A. Councils are Dr. P. C. Gordon — Council on Community Health Care; Dr. G. C. Pace — Council on Medical Economics; Dr. D. C. Brown — Council on Medical Education; Dr. G. R. Langley — Council on Personal Services to Physicians; Dr. J. A. Myrden — Council on Provision of Health Services. The Executive approved a proposal that Committee Chairmen be selected at the 2nd meeting of the Executive following the Annual Meeting of Council to allow

more time for consideration of the appointments. The past procedure of considering these appointments at a breakfast meeting during Council proved to be unsatisfactory.

Approved policy relating to the Medical Assistant issue is that the Society believes that the requirements of the public for medical care in certain geographic areas, and certain medical specialties necessitates the training and licensing of medical assistants suitably qualified to work under the direction of medical doctors and urges that standards be set, licensing legislation be passed, and courses of training be arranged. The Executive conveyed this policy to the Sections with the request that they undertake detailed study of the requirements for personnel who would provide direct assistance to physicians, and to include review of training or retraining requirements.

During the year the Executive Committee struck an Ad Hoc Committee to undertake study of the National Health & Welfare Task Force Reports on the Cost of Health Services in Canada. With each successive report from Dr. Howell and his Committee, the Executive felt more strongly that Society members must become thoroughly familiar with the contents of these Reports, and that they be made aware of the long-term implications a number of the recommendations of the reports would have on the Health Care Delivery System in Nova Scotia, and the practices of individual physicians. President's Letters frequently dealt with this subject. In addition, the Society arranged for delivery to each Branch President and Executive Committee Representative a copy of the Reports for study at branch level. The Ad Hoc Committee reports that it has been actively discussing the Reports with representatives of Provincial and Federal Departments of Health.

The Executive struck a Committee to review the situation regarding performance of therapeutic abortions. A number of hospitals are not performing therapeutic abortions and therefore present an additional load on the other hospitals in Nova Scotia. The reasons for not performing such procedures require investigation, along with the effect of the high volume of referrals to a small number of hospitals.

The Society has requested that certain medical services relating to family planning be included as benefits under M.S.I.

The Society has made strong representation to the N.S.H.I.C. that a system such as telex be considered for introduction in an effort to improve upon the poor "medical" communications so prevalent in Nova Scotia. The Society considers that high-speed and accurate inter-hospital and diagnostic centre communications are essential if any hope is to be held for maintaining or improving the level of quality of patient care.

The Medical Society approved and has implemented a plan to provide financial assistance to medical students.

The Executive heard dissatisfaction expressed from different sources concerning the difficulty and delay in obtaining specialists' consultation services in the Halifax area. An Ad Hoc Committee under the chairmanship of Dr. W. R. Gillis was formed to study the effects on patient care of the appointment of increasing numbers of

specialists as geographical full-time teachers. The Committee is expected to report early in 1971.

The Executive Committee approved a number of revisions to the 1967 Fee Schedule which are anticipated to eliminate or greatly reduce disparities in physicians' incomes.

Dr. Kinley reported that the Executive received a disconcerting brief on the serious situation in clinical pathology in Nova Scotia. Problems are difficulty in recruitment and retention of pathologists, the inadequacy of the number of technicians and the misuse and abuse of laboratory resources. The Section for Pathology is undertaking further study of this matter on behalf of the Society.

The Executive Committee approved the following: (a) Dr. H. J. Pôthier of Yarmouth - Senior Membership, Medical Society of Nova Scotia; (b) Dr. G. R. Forbes of Kentville - Senior Membership, Medical Society of Nova Scotia; (c) Dr. C. K. Fuller of Yarmouth - Honorary Membership, Medical Society of Nova Scotia; (d) Dr. C. J. W. Beckwith of Halifax - Honorary Membership, Canadian Medical Association; (e) Dr. H. R. Corbett of Sydney - Senior Membership, Canadian Medical Association.

Dr. Kinley reported that some months ago the Medical Society had been instrumental in establishment of a Task Force which would be representative of the entire community, to inquire into the matter of non-medical use of drugs. The consequence of this was that the Medical Society had never established a clear policy on this subject for its members. The Executive, therefore, directed an Ad Hoc Committee to prepare a Society Position Paper on the subject of non-medical use of drugs. The report of that Committee follows.

NON-MEDICAL USE OF DRUGS POSITION PAPER

A. INTRODUCTION

This Committee was authorized at the meeting of the Executive October 31, 1970 and two meetings have been held. Members include Doctors Alistair Murray, Kevin Smith, Everett Smith, Brian O'Brien and Mr. Peter O'Brien.

It has focussed with urgent priorities on the following:

1. An immediate assessment of the medical defects in the Interim Report of the LeDain Commission.
2. An emphasis on the medical aspects of drug abuse especially in the local situation and the need for leadership in corrective and therapeutic approaches by the Medical Society of Nova Scotia.
3. The preparation of an outline for presentation to the Executive and the General Council.
4. The preparation of recommendations for continued action.

The Committee was recruited with the understanding that its functions were (a) fact-assembling; (b) a stimulus for the Society and not necessarily as a continuing committee.

B. OUTLINE OF THE DRUG ABUSE PROBLEM

1. "Abused" Drugs and substances under consideration. Narcotics, Heroin, synthetic opiates; Hallucinogens, L.S.D., Marijuana (Cannabis); Stimulants, Amphetamines; Depressants, Barbiturates; Tranquillizers (minor), Valium, Meprobamate; Volatile Solvents, Airplane glue, Nail Polish Remover.

Clearly only a small percentage of drug abusers come to the attention of the physicians. The numbers are sufficient, however, to justify the term epidemic. The user of Marijuana rarely comes to attention because of that drug *per se*. Presently in Nova Scotia we are concerned with the users of Hallucinogens, Amphetamines and Volatile Solvents. We are not seeing many patients who are using Narcotics but experience elsewhere would suggest this is only a matter of time. A 1969 survey of 1606 Halifax high school students revealed a use of amphetamines and marijuana by about 6% and of L.S.D. by 2.4%. This is no doubt a low estimate.

Hallucinogens

The patient on L.S.D. or similar drug is only likely to present as an emergency with a "bad trip": typically a teenager brought to our emergency department by friends. Users differentiate two adverse reactions - the "freak out" and the "bad trip"; however, those who come or are brought for treatment cannot be readily assigned to one category or another.

The "freak out" is drug slang for an acute toxic psychosis, characterized by fear, panic, hallucinations, loss of emotional control and awareness of reality. The "bad trip" seems to be little different in kind but perhaps a less intense experience. Notwithstanding uninformed claims by users to the contrary this is an acute toxic psychosis and should be treated as such. Because it is usually impossible to obtain a true history of what drug has been taken diazepam is the drug of choice and is usually very effective in terminating the psychotic episode.

Long term sequelae of hallucinogens abuse is not known. Chromosomal damage is a possibility. "Flashback" experiences certainly occur. There have been many deaths from associated dangerous behaviour: e.g. jumping from a window in a belief of being able to fly. Chronic psychoses cannot be ruled out but it may legitimately be asked which came first.

Amphetamines

Amphetamine abuse is currently a very serious problem in Nova Scotia. The user who comes to medical attention has usually been using the drug for some time. Invariably the i.v. route is used. As much as 15 grams of methamphetamine a day may be taken by the established user or "speed freak".

Effects: *Short-term effects* are CNS arousal and sympathetic stimulation with increase in heart rate and BP, dilatations of the pupils and relaxation of smooth muscle. Appetite is immediately suppressed. The short-term psychological effect is a feeling of increased energy and drive.

The high dosage 'speed freak' seeks to experience what he calls a 'rush' which they translate as 'a total body orgasm'. At this dosage level concentration is impaired, judgement is faulty and there is psychomotor incoordination. The user, however, sees himself as all powerful and capable, and may behave aggressively.

Long-term effects: The heavy user eventually becomes physically debilitated and exhausted. Intercurrent infection is common. There is marked weight loss. Sleep patterns are disrupted. The E.E.G. may remain abnormal months after cessation of the drug. Psychosis requiring hospitalization is common, usually of a paranoid nature.

An incidental problem is infection from using unsterile needles e.g. hepatitis, pericarditis, lung infections.

The established high dose amphetamine user is like the sufferer from a malignancy. Hospitalization is mandatory. Even then the outlook is poor and return to use likely. Undoubtedly many in this category of user die.

Solvents

These substances tend to be used by a younger age group (9 to 15 years) although there are adult users. Two serious cases and resulting in death occurred in Halifax this year. The substances were carbon tetrachloride and gasoline and acetone. The effects are very similar to those produced by alcohol.

Damage to liver, kidney and bone marrow is possible and there is some evidence to suggest chromosomal damage.

There is *no doubt* permanent brain damage can occur with some substances.

Typically the user is young, has been caught by an adult and brought to the physician. He may still smell of the solvent and may have a hyperaemic nasal mucosa and conjunctivae. He may, of

course, still be intoxicated. While less dramatic the hazard from constant solvent use is considerable.

In summary the greatest abuses at this time in Nova Scotia are of a) marijuana (but rarely used medically); b) amphetamines; c) hallucinogen; d) barbiturates and (minor) tranquilizers.

2. Causes of Drug Abuse. It has become obvious that attempts to delineate the cause or causes of drug abuse are doomed to failure. In the past we have been in the same quandries to delineate cause or causes of Juvenile Delinquency. Finally over 20 years ago Bovet (WHO) concluded Juvenile Delinquency is best viewed as a bio-psycho-social phenomenon.¹

Though the Interim Report of the LeDain Commission² is an excellent source book concerning drugs and drug abuse, in our opinion it fails to clarify patterns, practices and motivations of the drug user. In the section entitled "causes" the rambling mixture of pseudo-philosophy, and pseudo-theology, anecdotal experiences by drug users, quotations from persons as disparate as eminent Canadian psychiatrists versus Timothy Leary is hardly worthy of a sophomore paper rather than a learned Royal Commission. In fact many paragraphs seem an encouragement for cannabis use! No wonder Federal Minister of Health, John Munro³ speaking to the British Columbia Medical Association October 5, 1970 said "I need help". We wonder if he'll get much from the LeDain Commission.

At this time we only wish to offer one observation. It has to do with youth alienation and modern stresses. It is a matter of opinion whether modern youth faces more stress than youth in other times but since the patterns of drug abuse are wide-spread and outstandingly present in middle class and affluent families it is more likely that changed patterns in child training are of significance, especially decreased parental guidance. Clinical experience seems to indicate a parental permissiveness, almost a "carte blanche" attitude within some parents of youth with drug abuse problems. However, their seeming permissiveness may be because they are not close enough to their children to know what is going on. Hence the shock the parents feel on learning that their children have become involved in drugs, hence the plethora of publications, such as "Is your Child on Drugs?"⁴

For our purposes we wish to emphasize the patterns in Drug Abuse, associated not only with the drugs but especially with the drug users.

Under Drug Abuse we are excluding two groups, first, the classical drug addict who has been recognized in the literature for many years and secondly, the pattern of drug-taking in the socio-educationally and economically deprived minority groups, especially the Negro and Puerto Rican groups in the United States.

The group that is our main concern in this report shows up in the middle and upper class, usually educated teens and twenties, and seems to have reached pandemic proportions on a global basis. In Canada, the past 5 to 7 years, it has reached into the smallest town and village.⁵

The overwhelming characteristic is the group phenomenon. This involves the rituals, mutual support and encouragement to experiment and, at least in the so-called "soft drugs", is probably the main factor in distribution.

To date we have more questions than answers to why only some young people are attracted to these groups. Perhaps we should study those who do not join these groups, otherwise we may be blinded by common characteristics in the drug users that are actually universal characteristics of adolescent rebellion. Perhaps, too, studies should be made of those who break away from the drug groups to learn why but there is a need for pragmatic action now.

To date psychiatric attempts to classify those involved in drug abuse have not been successful but Robert Garber, President of the American Psychiatric Association is recently quoted as saying upon full evaluation of those hospitalized for drug abuse "the great majority are found to be schizophrenic".

We are bewildered by our clinical findings, first because we realize that we are only seeing a small proportion of drug abusers in the medical settings, primarily those who cannot be handled by their group because of the severity of their reactions; and second, because once these patients are "brought down" from their acute psychosis few, if any, are motivated to seek psychiatric help and almost invariably return to their group. Thus we do not know the incidence of sequelae of drug abuse.

If we start with the frequent picture of a teenager, unsure of his own identity and feeling socially unaccepted, the acceptance into a drug-using group is better than isolation. If the price of acceptance is drug-taking, which is the overwhelming inference for "belonging", the smoking of marijuana is usually the first step. Resistance to "trying" marijuana are usually overcome by group pressures and/or rejection and especially "quotations" on its harmlessness. Comparisons to tobacco and alcohol are frequently made, often with marijuana indicated as less harmful; unfortunately for our youth the reports cited (pharmacologically-based) that cannabis does NOT cause a drug dependency are from pharmacological rather than a clinical basis.

In most of these drug groups there are a few, often older, individuals who sometimes are the suppliers. They have travelled and have had experience with stronger drugs. They encourage further experimentation and deride as "chicken" any member of the group who resists. At this point controversy appears in various authorities. Those who study the drug itself tend to insist the use of cannabis does not escalate into the use of "harder" drugs. They seem to ignore the group phenomena as clinical experience seems to confirm that, barring spontaneous withdrawal from the group or the rare therapeutic intervention, many of the young people that we see requiring treatment have escalated.

In recent months there seems to have been an increasing incidence of amphetamine abuse in the local area. The pattern of i.v. injection, rapidly increasing tolerance with the need for increased dosage to obtain a "rush" has produced an alarming number of seriously disturbed individuals with psychotic paranoid aggressiveness and serious related medical complications. Prevention is essential as this type of addiction is virtually uncontrollable.

The consensus of psychiatric opinion is that L.S.D. is of doubtful therapeutic value. For several years in western Canada attempts to treat psychoses and alcoholism proved fruitless, even dangerous. The deception about all the psychodysleptics (mind disrupting drugs - which includes cannabis, mescaline, L.S.D. and other similar synthetics) is that they "expand consciousness" but in reality, they not only produce sensory distortions and misperceptions and perhaps delusional thinking but even worse, as far as therapeutic intervention is concerned, they produce a false belief that the takers of these drugs have developed new insights into life, living and the world. This latter deception is reinforced by others in the group. In claiming that they have reached some higher levels of understanding that those who have not tried such drugs cannot understand makes therapeutic contact more difficult. Unfortunately such propaganda is reinforced, not only by self-appointed drug authorities but by the public media.

In summary we cannot outline causes of Drug Abuse but submit the patterns are closely associated with a group phenomenon which tends to become self-perpetuating.

3. The Prevention of Drug Abuse. The prevention of drug abuse is obviously much wider than simply what can be offered by Medicine. It includes forces within society in strengthening family and society ties and communication, the provision of healthy involvements and alternatives for youth, etc.

The Medical Society of Nova Scotia should offer leadership in distributing information and guidance concerning drug abuse based on medical knowledge to physicians, youth and the general public and information media.

The individual physician should accept drug abuse as at least partially a medical problem and attempt to help individuals and their families to the best of his ability and training.

The Medical Society of Nova Scotia should support the establishment of crisis centres throughout the Province and offer support and medical leadership for centres already established that are offering healthy alternatives for those who have left the drug culture. A closer liaison between the Medical Society and these voluntary groups as well as greater cooperation with the existing Public Health Services seem essential.

The fullest utilization of the Public Relations structure of the Medical Society of Nova Scotia will be required to carry out these preventative and therapeutic endeavours.

C. RECOMMENDATIONS

1. That this report be accepted for Information by the Executive and be presented to the General Council.
2. That the total report be circulated to the Membership-at-Large.
3. That adequate general publicity be given to this interest of the Society.
4. That this Committee continue its functions and submit its recommendations for continued action to the Executive Committee.
5. That this Committee be granted the liberty to cooperate with other agencies involved in the Drug Abuse problem.

F. A. Dunsworth, M.D.
Chairman

References

1. *Juvenile Delinquency* — Lucien Bovet, *World Health Organization Publication No. 1*, Palace of Nations, Geneva, 1951.
2. *Commission of Inquiry into the Non-Medical Use of Drugs* — (LeDain Commission), Queen's Printer, Canada, 1970.
3. *Munro, John* — Address to B.C. Medical Association *Canadian Medical Association Journal* Vol. 103 (Nov. 7) 1970.
4. *Is Your Child on Drugs* — Wendeborn, McLaughlin & Palko Mel Mac Publications, Toronto Canada 1970.
5. *Drug Abuse in Canada* — *Hammond, R. C.*, Int. Symposium on Drug Abuse — published in *Applied Therapeutics Secombe House Ltd.*, Toronto 298, Vol. 12 No. 9, Sept. 1970.

Discussion following presentation of Dr. Dunsworth's Committee Report dealt with the establishment and operation of crisis centres and the matter of drug users wishing to remain anonymous for fear of being "busted". Dr. Parsons stated that Professor LeDain's legal opinion was that drug abuse does not have to be reported. It was agreed that doctors should respect the request of the drug user to remain anonymous in order to maintain contact and communication with him in hopes of bringing about a change in his social pattern. It was generally agreed that the Society and its members have a deep responsibility to become increasingly involved in the drug abuse situation. Arising out of the lengthy discussions were two resolutions reading "WHEREAS certain drugs that are 'abused' in Canada are obtained through over-prescribing, refilling of unauthorized prescriptions, and forgeries, etc. BE IT RESOLVED that increasing co-operation is required between physicians and pharmacists, and that the Medical Society of Nova Scotia will initiate discussion with the Nova Scotia Pharmaceutical Association to control the availability of these drugs through legal outlets. BE IT FURTHER RESOLVED that the Food and Drug Directorate in Ottawa be urgently requested to inform all physicians of the dependency producing drugs, and that such properties will be stressed in all labeling and drug compendia, and BE IT FURTHER RESOLVED that the Medical Society of Nova Scotia will urge its members to cease prescribing amphetamines and related 'mood

elevators' except under the most unusual circumstances." and secondly, "THAT pending further clinical experience and clarification of conflicting findings, the Medical Society of Nova Scotia urges that no changes be made in legal prohibitions against marijuana, however, the present trend of magistrates using their discretion in sentencing for simple possession in contrast to trafficking of this drug seems to be appropriate."

Presidents' Liaison Committee Report — Dr. L. C. Steeves reported that soon after assuming office he had called on Premier G. I. Smith to discuss matters of mutual interest to the government and Society. Although a valuable liaison was established, the Medical Society was subsequently frustrated in some instances in its desire to co-operate with government in certain areas, such as study of the future Health Services Delivery System, and pollution control.

This Committee met on four occasions with the M.C.I.C. to discuss a variety of items, one of which was the matter of complaints received by the Commission re doctors billing above tariff. The Society approved Dr. Steeves' Committee recommendation that the Society not object to public release of its May 1969 Position Paper on Physician Billing Practices. The seven sections read as follows:

"1. Your Executive recognizes and endorses the right of the individual physician to conduct his practice under MSI in the manner he considers suitable and proper.

"2. In your relations with your patients, your executive recommends that you use exactly the same considerations you used previous to the introduction of MSI.

"3. The regulations under MSI have made some changes in your financial relationship with your patients and we would urge that you take adequate time and trouble to explain these changes to each patient.

"4. Your executive reminds you that, whatever financial circumstances have evolved, the primary aim of the medical profession continues to be the provision of the highest possible quality of medical care.

"5. In an attempt to aid you in the financial arrangements in your practice your executive recommends the following procedures: — a. make sure that your patient knows your administrative approach to MSI, b. make sure that he understands and accepts your approach, c. in most cases you will know the economic circumstances of each patient, so it is recommended that you use discretion and not bill above the MSI tariff if such a billing will work a hardship. Naturally, this includes patients under public assistance, such as: 1. provincial or local welfare recipients, 2. war veterans allowance recipients, 3. most pensioners, as well as under-income persons or groups.

Generally speaking, you as a doctor in an established practice are in a better position than most to recognize the latter.

"6. Although we realize that it is difficult under the regulations (and a busy schedule) we urge that you scrupulously avoid the collection of money before the patient has been seen by you.

Your executive would also advise that you do not charge above the Medical Society of Nova Scotia FEE SCHEDULE except in very special circumstances and then only after previous discussion with the patient.

The members of your Executive, like yourself, are encountering the difficulties we all realized MSI would bring during the first few months. The expected misunderstandings at many levels inherent with such a major change will be resolved and, we are working toward such a resolution.

"7. Your Society officers at the provincial and branch level require your assistance in this work. Please attend your branch meetings. Please make your opinions known to us. Advantage should be taken of the fact that in your branch you have an Executive member — discuss matters with him."

Approval was given to the Committee's recommendation that the Society support the C.M.A. Code of Ethics statement on provision

of medical services to one's own family which reads "the ethical physician will provide only minor or emergency services to himself, or to his immediate family and these without payment".

Dr. Steeves reported that the Medical Advisory Committee of M.M.C., whose members are appointed by the Medical Society, was created to carry out reviews of patterns of practice of the providers of medical services and the utilization patterns of patients receiving these services to attempt to ensure that acceptable criteria are being adhered to. This Committee has already been active and rendered its first report to the M.C.I.C. and the Medical Society jointly on November 19, 1970. It is anticipated that investigations by this Committee will bring to light instances where the standard of medical care appears not to be meeting acceptable standards. In such instances it is expected that the Section Standards Committees, now being formed will play a most useful part in conducting more detailed investigations. Dr. Steeves reported that his Committee anticipates that the activities of this Committee will prove to be invaluable to the profession by bringing to its attention innovations and procedures which contribute to more efficient and effective medical care, as well as maintaining a watchful eye out for instances of deteriorating service.

Public Relations Committee Report — Dr. D. B. J. O'Brien advised the members that this report was for information only and designed to acquaint the Society's members with the activities of the Public Relations Committee and the consultants over the past year. It was also designed to provide an indication of the manner in which the committee functioned and to describe how various instances relating to activities of the news media were handled. He recommended that members contact their branch representatives on Council to review the report. It was not intended that it be discussed outside Medical Society circles because of its frank and open approach to the subject.

Fee Committee Report — Dr. J. H. Charman reported that two years ago the Fee Committee was directed to begin a revision of the 1967 Schedule of Fees which was drawn up in 1966 and represented the oldest schedule in use in Canada today. Although considerable increases have taken place in cost of living, wages, and salaries, the Fee Schedule has not changed over the five-year period. The 1967 Schedule did little to correct long standing inequities in income between the various Sections of the Society. With this in mind the Executive directed the Fee Committee to hold the line where incomes were considered adequate and to upgrade those Sections where incomes were relatively depressed. The incomes of general practitioners and medical specialties have been increased by specific fee item changes, while the surgical specialties have not changed. He reported that his Committee has been able to approach this problem on a much more intelligent basis than in the past because of the availability of Section incomes and detailed computer figures supplied by M.S.I. The revisions have attempted to improve Nova Scotian incomes relative to other provinces in order to attract doctors to this province. Adequate standards of medical care are dependent to a large degree on having a sufficient number of doctors available and this can only be achieved if incomes and conditions of work are competitive. A doctor will not be satisfied with the same income as his Ontario counterpart if he has to work twice the hours to obtain it. The proposed revisions should put the Nova Scotian practitioner about midway in the Provincial averages.

The changes recommended will result in an increase of approximately three percent a year over the five-year period. Dr. Charman stressed that while the Society has the sole right to draw up its own Fee Schedule, it is the sole right of the M.C.I.C. to set the tariff. The two are separate and distinct. Hope has been expressed by both the Society and the Commission that the Fee Schedule and tariff should develop along parallel lines. It is the Society's hope that the Commission will see fit to adopt the revised Fee Schedule as the basis for determination of the Tariff.

Dr. Charman reported that the revisions to the Fee Schedule had been arrived at after numerous meetings with the various Sections. Proposed changes were discussed with Sections and agreed upon

before being implemented by the Fee Committee. Ample time has been available throughout the revision process to permit full consideration. Dr. Charman noted the invaluable assistance provided by Prof. M. F. Bradfield, Professor of Economics at Dalhousie, and thanked him for making the Fee Committee task so much easier.

Concluding, Dr. Charman said the Fee Schedule represents a real attempt to arrive at a more realistic relative scale of values within the profession, and it aims to provide a fair return for a given amount of work. In the near future, with more detailed information and experience available appropriate revisions to the Fee Schedule should become relatively easy to achieve. Dr. Charman's report was received for information.

Membership Committee Report — Dr. N. G. Glen reported to Council that there are still a large number of practicing physicians in Nova Scotia who are not members of the Medical Society, but are benefiting through the activities of the Society. The Society is continuing its campaign to encourage membership and appears to be having some degree of success. Generally, however, the reasons for members dropping their membership continue to remain vague and obscure in spite of attempts to ascertain them. Dr. Glen encouraged members who have complaints to forward them to either their branch executive or to the Society office rather than resign in silent protest.

Dr. Glen's report included proposals to introduce student membership in the Medical Society of Nova Scotia. The Canadian Association of Medical Students has received decreasing support from the students to the point where earlier this year the organization was disbanded. The C.M.A. has urged all divisions to undertake development of some physician-student association, as it is generally believed there is a great deal to be gained by both groups. Dr. Glen's report considered the pros and cons of the issue and included a summary of advantages and disadvantages to both students and Society members. Having concluded that Student Membership in the Society would be of mutual advantage to the profession and the student, and that full participation in Society affairs was essential to a viable relationship, Dr. Glen recommended that provision be made for a category of Student Membership in the Medical Society of Nova Scotia for 1st, 2nd, 3rd, 4th, and 5th year medical students, and for interns in Nova Scotia. This was approved by Council. Dr. Glen's Committee went on to recommend that student members be given voting privileges and the right to hold office in the organization. This aspect of Dr. Glen's report was debated at length. Concern was expressed by a number of members that although membership on the Executive and Council would be restricted to reasonable proportions, student members attending an Annual Meeting of the Society would all be permitted to vote on any issue and by virtue of their potentially large membership could bring about an alteration of Society policy that would not necessarily be acceptable to graduate physicians.

The matter of voting privileges for student members was referred back to the Membership Committee and Executive Committee for re-evaluation, but in the meantime the Executive Committee was authorized to evolve a modus operandi for student participation in the Medical Society of Nova Scotia for the forthcoming year.

Task Force Reports — Study Group Report — Dr. D. R. S. Howell informed the Council that the Executive Committee had established a Ad Hoc Working Group to study the National Health and Welfare Task Force Reports on cost of Health Services in Canada early in 1970, to review the Reports and their recommendations, and also to consider ways and means of bringing this information to the attention of the profession. Noting the Reports contained over three hundred and forty recommendations, Dr. Howell said his Committee had confined its study mainly to those recommendations which would have the greatest effect on physicians directly, as well as attempting to single out areas of physician responsibility for implementation of some of the proposals. Council was advised that Dr. Howell and Dr. Savage had been meeting with representatives of the N.S.H.I.C., C.H.A., (Nova Scotia Division), the Provincial Department of Public Health, and

the National Department of Health and Welfare to consider the various recommendations and how and when they might be implemented.

Dr. Howell said that the Society had taken all possible means to keep members informed on these reports, and the presentation to Council was just one further step in the education process. He reported that three video tapes had been produced, but due to time limitations only one could be shown at Council. Chosen was the one on Regionalization. He reiterated that the tape was not a presentation of fact, but designed to acquaint members with the concept and how variations in its application could have a variety of effects. To reach conclusions on an individual basis members must take every advantage to acquaint themselves with the contents of the reports which have been provided to branch executives.

Dr. Howell's Committee report was successful in achieving the goal it had set out upon, namely not to provide precise factual information on what is about to happen, but to stimulate member interest in the contents of the Reports and alert them to the possible consequences of unilateral implementation of the recommendations by government. Questioning and comment ranged far and wide, and included concern with such things as the shortage of physicians now and for the future, ways and means of increasing doctor utilization, the effect of community hospital closures on patterns of practice, the mechanism for establishing regional councils in the province, and the overall effect of the quality of medical care that would result from these various changes. Council was advised that arrangements were being made for briefings on these Task Force Reports at the forthcoming branch meetings scheduled for February, and that the other video tapes would be employed. As discussion came to a close Dr. C. B. Stewart expressed the hope that these Reports and recommendations would not be considered final and accepted without further investigation, and that further study and review with appropriate authorities be continued. Dr. D. L. Kippen, President, C.M.A. complimented the Medical Society of Nova Scotia on the vigor and effectiveness of its study of these Reports; he had not seen use of the video tape technique for encouraging member-interest and felt it should be highly successful. Dr. J. D. Wallace, General Secretary, C.M.A. also complimented the Society and added that since the publication of these Reports, the National Health Grants Committee has been steadily increasing the funds available for projects designed to evaluate the Health Delivery System. He suggested that Nova Scotia should take advantage of this changed attitude and seek funds to further its objective.

Discussion concluded with passage of a resolution that established a Special Research Group directed to conduct continuing study of methods of improving the Nova Scotia Health Services Delivery System. The Executive Committee was directed to set out terms of reference for this Group and name its members at its January 9, 1971 meeting.

Editorial Board Report — Dr. D. A. E. Shephard's report was received for information and the Committee budget for fiscal 1971 was approved. Dr. Shephard's impression formed as editor is one of pleasure at the remarkable richness of clinical material which is to be found among the practices of practitioners in Nova Scotia. It is clear to him that a rich vein of medical interest remains to be tapped, not only in the grounds of "academe", but especially in the less noticed pastures of the hinterland. He made a special plea to Council for contributions from members of the Society, noting that it is the *members'* bulletin and it is what they wish it to be.

Insurance Committee Report — Dr. R. A. Perry's report told of the recent work his Committee has been doing evaluating the insurance plans presently available to Society members. In expressing the belief that the plans were generally inadequate and compared less than favourably with other Provincial plans, his Committee recommended that a survey of members be conducted to determine the reasons for the low level of participation and proposed that the Medical Society become more directly involved in the operation of the plans. Council did not approve of his

recommendations and directed that his attention turn to investigation of the possibility of improving the plan through amalgamation with other divisions. Dr. Kippen, being asked to comment on the issue, said that in Manitoba a fifteen thousand dollar term life plan is taken out as a condition of membership. He said that reaction to this approach had been surprisingly good, and only three or four members of the association had terminated membership because of this innovation.

N.S.H.I.C. Liaison Committee — Dr. J. F. L. Woodbury reported that this Committee had met on several occasions during the past year with the N.S.H.I.C. being represented by its Executive Director plus the other medical member of the Commission. Subjects discussed included appointment of consultants to the Commission, remuneration of radiologists and pathologists practicing in hospitals under the jurisdiction of the Commission with particular reference to application of increased rates of proration for work done in excess of an arbitrary figure, and remuneration of Residents in Nova Scotia hospitals.

In reporting that the Medical Society representatives on this Committee have been unable to make significant progress in negotiations on these various issues, the Committee has concluded that further attempts at communication on the same basis are unlikely to be rewarding, and that alternative methods for liaison with the N.S.H.I.C. will have to be explored. In so reporting, Dr. Woodbury resolved that the Nova Scotia Hospital Insurance Commission Liaison Committee be dissolved.

Dr. Simms expressed the view that the liaison was in being and serving a useful purpose, and expressed the view that continued communication with the government was most important. Dr. J. A. George, in commenting on the hard position taken by the Commission on the matter of proration, agreed that continued liaison was important, but disagreed with existing arrangements. An amendment to the motion approving disbanding the Committee made provision for the Executive to study alternative methods and means of liaison with the Commission and government.

C.M.A. Council on Community Health Care Representative's Report — Dr. P. C. Gordon reported that his Council was meeting in Ottawa and discussing the subject of therapeutic abortion. Review of statistics indicated that most are being done in the larger hospitals, and that hospitals with religious affiliations are refusing to do them. This Council has expressed concern about the effect that referrals from smaller communities to larger centres for therapeutic abortions will have on hospital bed utilization, and resulting delays in performing elective surgery and medical treatment. Dr. Gordon expressed the view that C.M.A. sees as part of the decision removal of reference to therapeutic abortions from the Criminal Code. He anticipated that the Board of Directors would recommend this course of action.

On the matter of voluntary sterilization, Dr. Gordon reported that a new statement on this subject is to be published in the December 19th issue of the C.M.A. Journal and is thought to be one of the best summary statements on this problem produced to date. C.M.A. has concluded that there is no need to effect change in the Criminal Code and that C.M.A. should make it abundantly clear that a doctor considering a request by a patient for sexual sterilization must apply the same principles and bring the same medical judgment to bear as he would when making his decision regarding any other surgical procedure. The C.M.A. paper will include a Consent Form suggested by C.M.P.A. and which will include an Approval Statement by the spouse.

Dr. Gordon added that the two committees for medically disadvantaged in urban and medically disadvantaged in rural areas had been amalgamated into one, and that they had recently made recommendations related to methods of subsidizing the services of community health centres which would be operated by boards established by the people the centres are designed to serve.

In concluding his report he advised Council that a Committee of his C.M.A. Council is considering the LeDain Commission Report

and to the best of his knowledge it has not altered its views from that published some time ago in the C.M.A. Journal.

Archives Committee Report — Dr. C. J. W. Beckwith's report detailed the achievements of his Committee during the past year. Although reporting slow progress in interesting members in Archives, it was apparent his Committee had been very active and had achieved a great deal. His report made a special request to branch societies to give greater consideration to preservation and location of mementos of the past.

Medical Education Committee Report — Dr. J. E. MacDonell's report to Council consisted first of a restatement of recommendations made to 1965 Council reading as follows:

"That the responsibility for the quality of patient care be placed with individual Hospital Medical Staffs throughout the Province, That "Committees of Quality Patient Care" be established in all hospitals in Nova Scotia, That the evaluation of The Quality of Patient Care be achieved by methods including that of the "Medical Audit", That specific "corrective measures" be initiated when defects in the Quality of Patient Care are identified by the Hospital Committee, That the Medical Society support the stand of the Canadian Medical Association, and other Provincial Societies, in requesting income tax relief from the Federal Government for physicians taking part in programs of Continuing Medical Education, and That the Medical Society of Nova Scotia continue to support the Division of Continuing Medical Education of Dalhousie, and take into consideration its increasing operative costs."

Dr. MacDonell, in speaking to his recommendations reported that progress in implementing last year's recommendations had been slow, however, his proposals were considered as natural follow-ons and were required at this time. Council approved "That the twelve (12) Regional Hospitals of Nova Scotia be designated by this Society as Teaching Centres to co-ordinate Continuing Medical Education in the Hospitals of their respective areas, and that the use of "Medical Audit" be encouraged as the chief method of Continuing Medical Education in Regional Teaching Centres."

His Committee's proposal that financial support to the Division of Continuing Medical Education be greatly increased by matching contributions of M.S.I. income, 1% from the physician and 1% from the government, was referred to the Executive Committee and Branch Societies for consideration. Discussion of this proposal indicated agreement on the need for establishment of a large fund of money to provide greater opportunities for Continuing Medical Education.

Dr. MacDonell's proposal that the study of the Fee Schedule of the Society be made in order to encourage by means of this Schedule, patterns of medical practice to result in better patient care was defeated.

By-Laws Committee Report — Dr. H. J. Devereux's report to Council proposed establishment of separate committees for Discipline and Mediation, and included recommended terms of reference. These were approved. Also approved was his Committee's recommendation that eligibility requirements for election to office in a Branch Society should include membership in the Medical Society of Nova Scotia, and eligibility requirements for election to office in the Medical Society of Nova Scotia shall include membership in the Canadian Medical Association were both approved.

Pharmacy Committee Report — Dr. C. A. Gordon's report recommended that the Medical Society should agree to the policy in force for Pharmacare with respect to dispensing physicians. This policy requires that the services of a contract pharmacy must be used where one is available within a radius of fifteen miles from the doctor's office. Arising out of discussion of this was the recommendation that the subject be referred to the Joint Committee of the Medical Society and M.M.C. and also to the Branch Societies for an opinion. The referral to the Branch Societies

is to be accompanied by relevant excerpts from the C.M.A. Code of Ethics relating to dispensing of drugs by physicians.

Dr. Gordon's report included a proposal for a comprehensive prescription form to be used throughout the province. Its use should eliminate many problems regarding the information, or lack of it, on prescriptions by reducing telephone calls, delays in receiving medication, and also reduce drug costs.

Finance Committee Report — Dr. J. A. Myrden's report included the financial statements for the fiscal year ending September 30, 1970 prepared by H. R. Doane & Company Halifax. The net income arising out of the 1970 operation was just under \$2,000.

The report also included the budget for fiscal 1971. Expenses are forecast to increase approximately \$8,000.00 over last year, as a result of increases in salaries, printing the Fee Schedule, and the student assistance plan. However, income is forecast to increase by more than an adequate amount to meet these additional expenses, and of a sufficient amount to cover the per member levy to the Division of Continuing Medical Education, which was increased by Council from ten dollars to fifteen dollars per member per year. To maintain this increase in fiscal 1972 Council approved the Committee recommendation that dues be increased next year by \$5.00 to meet the added cost on a long-term basis.

Dr. Myrden retiring as Honorary Treasurer received a unanimous vote of thanks from Council for the excellent work the Finance Committee have done over the years in managing the financial affairs of the Society.

Although it had been reported to Council by the Executive Committee Chairman that attempts to introduce compulsory payment of dues to the Medical Society in co-operation with the Provincial Medical Board licensing fee have been unsuccessful, it was requested by Dr. G. McK. Saunders that this matter be one of continuing interest to the Society and that other means be explored to ensure that all doctors contribute to the operation of the Society. The Executive Committee was instructed to consider this matter in the forthcoming year.

Maternal & Perinatal Health Committee Report — Dr. D. W. Cudmore's report was a lengthy and detailed analysis of the year's activities of his Committee. It is summarized as follows:

The work of collection and analysis of mortality statistics has continued to provide an important source of information on the quality of obstetrical-neonatal care, and upon changing patterns of practice.

Maternal mortality in Nova Scotia is lower than the average for Canada, although by no means the best. On the other hand Canadian maternal mortality lags far behind other western countries, and we should be accepting the best standards for comparison. As well, there is a major discrepancy in the smaller hospitals and in certain regions of the province in maternal and perinatal mortality, reflecting a poor standard of obstetrical-neonatal care.

Nova Scotia has a high stillbirth rate, typical of the Atlantic Provinces, for which the reasons are not at all clear. The stillbirth rate has been rising progressively with the exception of 1968, and continues to do so. Although the countrywide stillbirth rate increase may be explained by widespread use of contraceptives in low risk pregnancy women, the Nova Scotia rate is increasing more rapidly than the country as a whole.

Neonatal mortality has fallen progressively in Nova Scotia from 1966 onwards faster than that of the country as a whole, to a rate of 11.0 in 1969, with a premature mortality rate of 7.6 percent. This is lower than recorded in any other province for 1968, and is approaching the rates of Japan, Sweden, and other progressive countries. If perinatal death and perinatal damage go hand in hand, and there is every indication that they do, then Nova Scotia is becoming the safest province in which to be born, to be alive and healthy. This reduction in neonatal mortality is the first major step in the overall reduction of reproductive mortality and damage.

One of the most striking findings of this report is the awesome differences in reproductive mortality (maternal, stillbirth, neonatal) in most of the regions outside of Halifax and in the small hospitals.

It has been shown, and our preliminary data support this in our population, that the large majority of perinatal losses are predictable before birth, before labour, early in pregnancy, and in many cases even before conception.

On that account, knowing that the average numbers of deliveries per hospital outside Halifax is 250, and these deliveries are divided amongst many physicians, it is almost impossible for the average physician to have continuing experience in high risk obstetrical-neonatal care. Therefore, this committee has supported and continues to support the concept of high risk obstetrical referral for those predictable situations, and neonatal referral for the unpredictable.

From 1965 to 1968 a noticeable shift of deliveries, prematures, and stillbirths into the larger hospitals, indicating referral of high risk patients, was noted. In 1969 a reversal of the previous trend to high risk obstetrical referral occurred. This will prove a serious blow to the rapid improvement of reproductive care in the province.

Attempts to investigate individual perinatal deaths in the province have been relatively unsuccessful so far. Further attempts will be made to encourage the setting up of perinatal committees in each hospital. If this continues to be unsuccessful, perinatal investigation forms will be sent directly to each physician who has a death for completion and return to the committee.

At the same time support will continue to be sought for the sending of investigative teams to each hospital.

The work of this maternal and perinatal committee has been supported by a grant from the provincial government till this time. Last year the budget was cut drastically. This year we are to expect further cuts. If support for the perinatal demonstration project is not forthcoming from the federal government, then funds will be required from other sources.

The following resolutions were passed by Council:

"That the society should continue to support this committee's efforts, that the committee continue to function in its present capacity.

"That all hospitals providing obstetrical care be required to form a perinatal committee and to report all deaths on an appropriate form to the central committee. That the perinatal committee, local or central, should arrange that each physician having a perinatal death under his care fill out and send such a form. That if necessary, the Hospital Accreditation or Government body be enlisted to see that these committees become mandatory.

"That on-site analysis of all perinatal deaths be performed by investigative teams at regular intervals, and the results of these studies be presented to the hospital staff, and form the basis of recommendations for improved obstetric and neonatal care.

"That new data collection forms be initiated, with name, weight, time of death, doctor in charge, and transfer information if patient died in another hospital within 7 days of birth.

"That standardized labour, delivery, case room, and newborn sheets be used throughout the hospitals in Nova Scotia.

"That the physicians of this society endorse in principle and practice the grading of pregnant patients into degrees of risk, and that high risk obstetrical and neonatal patients be referred to specific high risk facilities, decisions concerning the pattern of use of these facilities to be carried out by the Branch Medical Societies in consultation with the central perinatal committee.

"That each physician in the areas of the province where reproductive mortality is excessively high be prepared to co-operate in the development of markedly improved standards of care."

An additional resolution "that the Medical Society support the initiation of the Perinatal Demonstration Project with an opera-

tional grant of \$1,000. This amount to be returned if and when Federal and Provincial Grants became available" was not approved since it was understood that the matter of government grants had been satisfactorily resolved.

C. M. A. Council on Medical Education - Nova Scotia Representative's Report - Dr. D. C. Brown advised that the C.M.A. Board of Directors authorized conduct of a "medical manpower needs" survey which will probably be undertaken this coming year. He also reported his Council had been concerned with the matter of adoption of standard criteria applying to intern training program and that the co-operation of the Provincial Licensing Boards have agreed to co-operate. The Council has also agreed that C.M.A. should continue its support of approval programs for allied health professions, that there should be more direct involvement and increased participation of the individual allied health professions in the administration of the programs, and that the allied health professions approval program should become financially self-supporting, either through fees from surveys or government grants. Dr. Brown's report also contained full details on various technician programs in which the C.M.A. has an interest.

Anaesthesia Standards Committee Report - Dr. D. A. E. Shephard's report told of a number of meetings held throughout the Province in the past year to discuss the problems of maintaining satisfactory standards of anaesthesia, and proposed that the hospitals of the Province be informed of the existence and aims of this Committee to further the objective of improving anaesthesia standards. A resolution to dissolve this Committee because Sections of the Society were in the process of establishing Standards Committees was defeated. The view was expressed that standards was a problem of the whole Society, and not just Sections. However, it was agreed that Section Standards Committees could achieve the desired results by including in their membership doctors with skills and knowledge in specialties other than that of the parent section. Dr. Steeves commented on the rapidly growing need for Standards Committees which he anticipated would be required to undertake specific studies directed to them by the Society for purposes of investigating possible problem areas highlighted by the Medical Advisory Committee.

Two factors, namely shortage of time and the large number of excellent reports to Council resulted in many reports being received for information only, with no opportunity for discussion on their contents. The following reports fell within this category. These reports will be considered by the Executive Committee. President - Maritime Medical Care Inc. - Dr. T. B. Murphy; Legislation and Ethics - Dr. D. R. S. Howell; Child Health - Dr. B. D. Grover; Civil Disaster - Dr. A. R. Prossin; Hospitals - Dr. B. C. Trask; Medical-Religious - Dr. D. C. Brown; Mental Health - Dr. Edmond Ryan; Nutrition - Dr. C. M. Harlow; Occupational Medicine - Dr. L. A. MacLeod; Traffic Accidents - Dr. R. F. Scharf; Rehabilitation - Dr. B. J. S. Grogono; Cancer - Dr. J. A. Aquino; MMC/Medical Society Joint Committee - Dr. J. A. Myrden; Mediation - Dr. L. C. Steeves; Discipline - Dr. L. C. Steeves; Medical Economics - Dr. G. C. Pace; Public Health - Dr. J. B. MacDonald; Workmen's Compensation Board Liaison - Dr. G. H. Cook; Rep. to Medical Advisory Board of N.S. Tuberculosis & Respiratory Disease Association - Dr. H. M. Quinlan; Section for Salaried Physicians - Dr. A. W. Titus

Society members attending the final session of Council on Saturday morning had the privilege of being addressed by the Hon. D. Scott MacNutt, Minister of Public Health. At the outset Mr. MacNutt discarded his prepared notes commenting that they were undoubtedly a precise factual account of the activities of his Department, but were not at all likely to be of great interest to the Society members in comparison to what thoughts he might have in mind for the future.

Pointing to his short term in office, Mr. MacNutt explained that to date his main activities had been confined to evaluating that which was and had been in being, and taking the first steps in formulating policy regarding the operation of the Public Health

Department. In this context, he stated that he had developed attitudes of varying degrees of firmness which, in some instances, might well become policy, and in others, might be discarded in the light of new information.

In the ensuing twenty minutes, Mr. MacNutt spoke on the subject of hospitals in Nova Scotia, the drug problem, remuneration of physicians, to name a few. Following his remarks, he asked for questions from the floor and received a generous response. On conclusion of his presentation, he received a standing ovation from the members in appreciation for his openness and frankness in a challenging discussion of the major issues that confront the Province in the field of health services.

Nominating Committee Report — Dr. L. C. Steeves' report named Society members to the 1971 Executive Committee, Nominating Committee, and Officers of the Society. They are as follows:

1971 Executive Committee — Officers — President — Dr. J. F. L. Woodbury; President-Elect — Dr. G. W. Turner; Past President — Dr. L. C. Steeves; Chairman, Executive — Dr. P. B. Jardine; Vice-Chairman, Executive — Dr. J. A. McPhail; Honorary Treasurer — Dr. T. M. F. Roberts; Honorary Secretary — Dr. W. F. Mason; Executive Secretary — Mr. D. D. Peacocke.

Branch Society Representatives — Antigonish-Guysborough — Dr. J. A. MacCormick, Alt. Dr. J. R. Greening; Cape Breton — Dr. P. S. Gardner; Cape Breton — Dr. M. A. Smith, Alt. Dr. R. G. Petrie; Colchester East Hants — Dr. P. C. Handforth, Alt. Dr. K. B.

Shephard; Cumberland — Dr. J. A. Y. McCully, Alt. Dr. H. Ali; Dartmouth — Dr. J. A. Smith, Alt. Dr. J. A. MacLennan; Eastern Shore — Dr. S. W. Potter, Alt. Dr. R. J. Fraser; Halifax — Dr. D. R. S. Howell, Alt. Dr. I. D. Maxwell; Halifax — Dr. W. E. Pollett, Alt. Dr. D. F. Folkins; Halifax — Dr. D. F. Smith, Alt. Dr. J. E. Harris Miller; Inverness-Victoria — Dr. C. S. Chow; Lunenburg-Queens — Dr. Wm. W. Bennett, Alt. Dr. J. B. Crowe; Pictou — Dr. J. F. Hamm, Alt. Dr. J. K. G. Gieves; Shelburne — Dr. G. O. W. Davies Webb, Alt. Dr. W. H. Jeffrey; Valley — Dr. J. D. Henshaw, Alt. Dr. J. A. E. Smith; Western — Dr. C. W. MacNeil, Alt. Dr. A. F. Weir.

Branch Representatives to Nominating Committee — Antigonish-Guysborough — Dr. T. W. Gorman, Alt. Dr. G. L. Silver; Cape Breton — Dr. A. L. Sutherland, Alt. Dr. D. H. MacKenzie; Colchester East Hants — Dr. M. M. Bruce, Alt. Dr. D. G. Dewar; Cumberland — Dr. J. P. Donachie, Alt. Dr. H. A. Myers; Dartmouth — Dr. J. A. Smith, Alt. Dr. T. Tenderenda; Eastern Shore — Dr. R. J. Fraser; Halifax — Dr. D. R. S. Howell, Alt. Dr. S. E. York; Inverness-Victoria — Dr. C. B. MacLean; Lunenburg-Queens — Dr. W. W. Bennett, Alt. Dr. N. G. Glen; Pictou — Dr. H. A. Locke, Alt. Dr. R. G. Munroe; Shelburne — Dr. J. H. Robbins, Alt. Dr. F. Markus; Valley — Dr. D. H. Kirkpatrick, Alt. Dr. E. G. Vaughan; Western — Dr. M. W. O'Brien, Alt. Dr. A. F. Weir.

PRESIDENTIAL ADDRESS — DR. L. C. STEEVES

Dr. Steeves' address as delivered to the final session of the Annual Meeting is contained verbatim in the December 1st 1970 issue of the Nova Scotia Medical Bulletin.

ANNUAL MEETING EXHIBITS

The Medical Society of Nova Scotia wishes to express its sincere appreciation to those firms which exhibited at our Annual Meeting in November 1970 at The Lord Nelson Hotel.

LIST OF EXHIBITORS

McNeil Laboratories
Maritime Medical Care
Medical Care Insurance Commission
Parke-Davis & Co.
Pharmacia (Canada) Ltd.
Poulenc Ltd.
A. H. Robins Co.
W. B. Saunders
Smith, Kline & French
Strasenburgh Co.
The Upjohn Company
Winthrop Laboratories
Workmen's Compensation Board
Royal Trust Co.

Anca Laboratories
Astra Chemicals Ltd.
BDH Pharmaceuticals
Burroughs Wellcome
Carnation Co. Ltd.
Cow & Gate
Cyanamid of Canada
Eli Lilly & Co.
Elliott-Marion Co. Ltd.
Empire Labs.
Charles E. Frosst & Co.
Geigy (Canada) Ltd.
Glaxo-Allenburys
Frank W. Horner Ltd.

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

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

D.D.P.

PRODUCTS FOR RESEARCH PURPOSES

In the course of research activities and the development of new preparations in the Connaught Medical Research Laboratories, it sometimes happens that materials of scientific interest for research purposes become available. Some materials at present available, in some instances in only very small amounts, are the following:

- Normal Serum Albumin—Human (Dry powder or solution)
- Immune Serum Globulin—Human (Gamma globulin)
- Fibrinogen—Human
- Caeruloplasmin—Human
- Antihaemophilic Globulin—Human
- Fractions of Plasma—Human (Various fractions produced by Cohn cold ethanol process)
- Insulin—Human (Carefully standardised ampoules containing 0.69 int. units)
- Insulin—of Monkey or Horse origin
- Tubercle Bacillus—Killed (For the preparation of complete Freund's adjuvant)
- Complete Freund Adjuvant
- Incomplete Freund Adjuvant

None of the above preparations is suitable for human use. The Laboratories would welcome inquiries from qualified research personnel or laboratories and will be glad to supply prices for specified items on request.



CONNAUGHT MEDICAL RESEARCH LABORATORIES UNIVERSITY OF TORONTO

1755 Steeles Avenue West, Willowdale, Ontario

*Established in 1914 for Public Service through Medical Research and
the development of Products for Prevention or Treatment of Disease.*

A booklet entitled "Products in the Service of Medicine" (1968 ed.)
is available on request from Connaught Laboratories.

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

**THE MEDICAL SOCIETY OF NOVA SCOTIA
APPLICATION FOR MEMBERSHIP**

NAME
Surname Given names

ADDRESS

TELEPHONE NUMBER DATE OF BIRTH

MEDICAL SCHOOL DATE OF GRADUATION

LICENSURE PROVINCE DATE ISSUED

OTHER DEGREES

POST GRADUATE TRAINING

PRESENT TYPE OF PRACTICE

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

- | | | |
|--|--|--|
| <input type="checkbox"/> Anaesthesia | <input type="checkbox"/> Paediatrics | <input type="checkbox"/> Radiology |
| <input type="checkbox"/> General Practice | <input type="checkbox"/> Pathology | <input type="checkbox"/> Salaried physicians |
| <input type="checkbox"/> Internal Medicine | <input type="checkbox"/> Psychiatry | <input type="checkbox"/> Surgery |
| <input type="checkbox"/> Ophthalmology and
Otolaryngology | <input type="checkbox"/> Residents in Training | <input type="checkbox"/> Urology |
| | | <input type="checkbox"/> Obs and Gyn. |

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

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

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

DATE SIGNATURE

P.T.O.

MEMBERSHIP DUES

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

	<i>C.M.A.</i>	<i>M.S. of N.S.</i>	<i>P.G. Levy</i>	<i>Total</i>
1st Year Practice	\$ 18.00	\$ 25.00	\$ 10.00	\$ 53.00
Ordinary	55.00	120.00	10.00	185.00
Post-Grad. Trainee	14.00	25.00	2.50	41.50
Post-Grad. Trainee (outside Canada)	36.00	25.00	—	61.00
Retired	5.00	10.00	—	15.00
Non-Res. inside Canada	—	20.00	—	20.00
Non-Res. outside Canada	36.00	25.00	—	61.00
Senior	—	—	—	—
Husband / Wife : First Year	30.00	40.00	20.00	90.00
Ordinary	83.00	200.00	20.00	303.00
Post-Grad.	21.00	35.00	5.00	61.00

Members are entitled to the following :

(a) Members receive the following :

Schedule of Fees (N.S.)
 By-Laws (N.S.)
C.M.A. Journal

N.S. Medical Bulletin
 Code of Ethics (C.M.A.)
 C.M.A. Information Booklets

(b) Members are entitled to make application for :

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

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



Tuberculous Peritonitis



Summary: *Percutaneous biopsy of the peritoneum was a simple and quick method of diagnosing tuberculous peritonitis in 47 patients. The condition was successfully treated with antituberculosis drugs. Addition of a steroid improved long-term results.*

Forty-seven patients with tuberculous peritonitis were followed for periods ranging from two to almost six years. The purpose was to ascertain how frequently such patients have tuberculous foci in the lung, intestine, or fallopian tube.

It was also intended to test the usefulness of histologic techniques for the diagnosis of peritoneal tuberculosis, and to find out whether the involvement of other serous membranes such as the pleura and pericardium occurred often in tuberculous peritonitis. Effectiveness of antituberculosis drugs and the role of adrenocorticosteroids in the treatment of this condition were also evaluated.

Of the 47 patients, 20 were men and 27 were women. All had been admitted to a medical ward of the Irwin Hospital in New Delhi, India, between 1963 and 1966.

In each case diagnosis was based on the finding of a caseating granuloma in a biopsy specimen of the peritoneum. Other studies included X-ray examination of the chest, tuberculin skin tests, and, in the case of the women, salpingograms.

All patients had fever and ascites. Other clinical manifestations included abdominal pain, often only vaguely described and vaguely localized; night sweats, anorexia, and weight loss. Before admission symptoms had been present for from two weeks to seven months. The average was three months. Total white-cell count in the peripheral blood was within normal range in 86 per cent of the patients and mildly elevated in the remaining 14 per cent. Hemoglobin values were between 10.0 and 13.0 gm per 100 ml.

None of the patients had ascitic fluid protein content below 3.0 gm per 100 ml. The highest value was 7.5 gm per 100 ml. Pleocytosis in ascitic fluid ranged between 150 and 2,800 leukocytes per cubic millimeter. Lymphocytes accounted for 75 to 96 per cent of the total cell count. The tuberculin test was positive to first strength PPD in all cases.

Lung Focus Rare

Only three of the patients showed a focus of infection in the lung on X-ray film. Barium studies to detect intestinal tuberculosis showed increased intestinal motility and

dilatation of segments of small bowel in 24 (51 per cent) patients, but in no patient was an intrinsic intestinal lesion detected. Intravenous pyelography did not reveal renal abnormality in any of the patients, and salpingograph in the women gave no evidence of a lesion in the fallopian tubes. On direct smear examination of ascitic fluid, acid-fast bacilli were found only once. Cultures, however, were positive in 39 cases.

Because of the time necessary to culture the bacilli, an evaluation of various techniques for histologic diagnosis was made.

Biopsy Procedure

Percutaneous liver biopsy was not found to be helpful. Percutaneous biopsy of the peritoneum, with the use of an Abrams needle first and a Cope needle later in the study, was tried in all 47 patients. A caseating granuloma in the biopsy specimen was demonstrated in 30 (64 per cent) of the patients. In the remaining 17 patients, peritoneoscopy was carried out. With the addition of this procedure, the success of histologic diagnosis rose to 85 per cent. In the remaining 7 patients, laparotomy was necessary to obtain histologic diagnosis. At laparotomy, the peritoneum was found to be studded with tubercles. There was thick exudate, and loops of bowel were often badly matted together.

On X-ray examination, 15 patients were found to have pleural effusion in small amounts. A diagnosis of "cryptic pericarditis" was made in six patients on the basis of electrocardiographic findings even though none had chest pain, pericardial friction rub, or radiologically enlarged hearts.

Antituberculosis drugs were administered to all patients. Streptomycin and isoniazid were first given. After three months, PAS was substituted for streptomycin. In all, the antituberculosis drugs were given for 18 months. Alternate patients also receive prednisone, which was gradually tapered off during the fourth month and discontinued at the end of that month.

The antituberculosis therapy was highly effective. No deaths occurred in the patients treated. However, intestinal obstruction developed a year and a half or more later in three of the 24 patients who did not receive the steroid, and surgery was necessary. This complication was not seen in the patients who had steroids.

One of three patients with "cryptic" pericarditis who did not receive the steroid had frank manifestation of constrictive pericarditis and had to undergo surgery two

(continued on page 20)

Madan M. Singh, M.D.; Amar N. Brargave, M.D.; and Kranti P. Jain, M.D. *The New England Journal of Medicine*, November 13, 1969 (Vol. 281, No. 20).

Reprinted from the Abstracts of the National Tuberculosis Association, March, 1970. Printed through cooperation of the Nova Scotia Tuberculosis Association.

1. The Need for Future Perspectives

David A. E. Shephard, M.D., C.R.C.P.(C),

Editor, Nova Scotia Medical Bulletin.

"As for the Future, your task is not to foresee, but to enable it."

— Antoine St. Exupery.

Seven decades of the 20th Century have now passed into the pages of history. Imprinted firmly on these pages is the record of man's progress within the lifetime of those of us born as the century dawned; in this short time progress, more startling than at any other period of man's 800 earthbound lifetimes, has been breathtaking in its pace and dizzying in its momentum, more so than ever could have been predicted. And now, within three decades, mankind will reach a new millennium: not an insignificant event for, as Krutch has amusingly remarked, "The end of a millennium doesn't come around very often".¹

The year 2000 will form a good, round, wholesome page in the saga that is Man; its prospect is well suited to man's penchant for future projection, prediction, and prophecy. The Future has always held an irresistible fascination for men, and the subspecies of soothsayer, mystic, and prophet has ever flourished. Today speculation about the future is rife, and as we approach the 21st Century prophecy appears to be "an active business". Moreover it is a respectable occupation, its charisma embodied in a special label, to wit, Futurology. No doubt this is in part so that governments may make it feasible and fundable, even if, at times, in the true tradition of prophecy, it does prove fallible also. It is certainly a telling reflection on the potential dangers which do confront mankind that most major powers have set up "think tanks" to consider future developments, both good and evil, and that they employ the modern equivalent of the court astrologer, the futurologist, to serve today's courts, governments and industries.

Physicians have good reasons for considering some of the studies and implications of futurology as the third act of the fabulous drama that is the 20th Century unfolds. An obvious reason is that the 21st Century is only one generation away, and so it is by no means too early to consider how the doctors of tomorrow, ourselves perhaps or more surely the students of today, are likely to practice medicine in the society of 2,000 A.D. Thus, today we should be considering how and what to teach the doctors of tomorrow, what problems they are likely to encounter, and indeed what the entire business of health care delivery is likely to entail. These are large questions, which clearly

require careful analysis; in later articles consideration will be given to them, as it will to other complex topics, such as medicine in the context of computer technology.

However, these questions cannot be answered *in vacuo*, and it is essential that medicine for the year 2000 be considered within the framework of the probable nature of society thirty years from now. Here, of course, futurology permits the full flowering of the imaginative mind: and even if one has but little imagination (certainly few of us can hope to emulate the remarkable foresight of the 13th Century savant, Friar Roger Bacon, who predicted fast land transport, automatically guided ships, as well as aerial machines and submarines), brief reflection on progress during the past thirty years is enough to suggest that during the next three decades progress is likely to be more fantastic than any of us could possibly predict, not only in technology but in the sociological sphere as well. One medically oriented projection into the future notes that the forces of social change, population growth, and automation will be crucial in the evolution of medical practice in the year 2000.²

Much has been written about the possible ways of life as the 21st Century nears. While prediction is at best difficult, and at worst, confounded by totally unexpected developments which will alter directions and trends, it is possible to "possidict", that is, to consider where certain present trends may possibly take us, under certain circumstances. Thus, the "cybercultural revolution" will presumably rescue us from drudgery, and provide us with increased opportunities for education and enjoyment of greater amounts of leisure. However, at the same time, there will be great need to develop the capacity to employ leisure facilities sensibly, and not all may be capable of developing much-needed inner resources. The ethos of hard work gaining its reward may well change, as greater productive techniques, automation, and affluence will mean that fewer men and women are required to produce goods. There may be a reaction against the materialism of industrialization and technology, so that new life styles, with a return to the basic elements of life, and creative hobbies and pastimes, may be developed. The family as a nuclear unit in society may give way to a group-oriented society, in view of the changing relationships between men and women, in part due to medical advances like the introduction of effective

*Introducing a series of articles about medicine of the future. Topics will include computer technology, ethics, medical education, future practice, and other aspects of medical practice.

contraceptives. Life in some senses may be highly organized in view of the increasing complexity of urban and impersonal, technological living. The sophistication of communication and transportation, which will teach all that the world is but a "global village", may well lead to a demand for a greater participation in politics, and political systems may well change; injustice in society anywhere may not be easily tolerated. One could continue to catalogue the possibilities; however, even brief analysis suggests pointers in many facets of life to quite marked change, with which doctors are likely to be concerned.

The future must be considered in social, cultural, political, and technological terms; each is a fascinating area for study and speculation, and certainly medicine is intimately linked to each of these aspects of society. This is the second main reason why the medical profession should heed the futurologists. For not only does medicine exert a significant effect upon society, but also, to a considerable extent society molds medicine as one of its essential institutions. It is probable that in the year 2000 society, beset by the urgent problems of technological diversity and potency, urbanization with its attendant ills, and the burgeoning of population, will insist that medicine be tailored to the nature of tomorrow's world. We in the healing arts and sciences are rightly conservative: but it is imperative that in a world in which the rate as well as the direction of change is ever faster, we consider the startling yet very real developments which are affecting people's lives. We must avoid being caught napping when vital issues are raised, in the way that some say the medical profession was caught over the issues of drug abuse, abortion and transplantation.

As we stand on the threshold of the 21st Century, we observe that for the first time in history, there are possibilities for drastic change in man and society which are the consequences of advancing technology. These include notably the potential to effect significant modifications in our environment, and, closely connected with our own interests, the potential for alteration of man's physiology and psychology, stemming from fantastic advances in the biological sciences. With these fundamental areas, of man and his environment, medicine is most intimately concerned. We are now masters of our destiny, in our own milieu interieur as well as the environment without which nourishes us, in a way which is quite remarkable compared with the limited powers possessed by man in former years.

It is in this context particularly that the medical profession must seriously consider the implications of present and future advances, and what role medicine is to play in the society of tomorrow. Consider for a moment the following advances, which are either presently realized or which are not beyond the realms of possibility:

- i The introduction of effective contraceptives;
- ii The introduction of mind-affecting drugs;
- iii Research into "biological engineering", that is, the design of biological organisms, including human beings, so that certain of their functions can be

performed the better. This area includes advances in organ transplantation, elimination or modification of the aging process, electrical transmission of information to the brain without going through the senses, and direct genetic manipulation;

- iv Synthesis of fundamental cellular units such as DNA;
- v The application of computer technology to the possible creation of artificial intelligence and the elimination of the need for human work.

Clearly these are biomedical advances of tremendous, even limitless, import. Spectacular as they seem, however, in the future there will be other, presently unpredictable, developments which will overshadow them. Man will have powers undreamed of: as Feinberg has remarked, "Man may soon have the ability to make himself biologically what he wants — and the question then will become, what does he want to be?"³

The medical profession will more and more have to give guidance to society on matters of this nature, matters with the most difficult and complex moral and ethical implications for all men and women. These will be considered at more length in other articles in this series, but for the present a futurological perspective is helpful. Events during the past thirty years — the introduction of the modern antibiotic and anaesthetic drugs, effective contraceptives, and radioisotopes, the understanding of mental illness and the rehabilitation of its sufferers, the virtual eradication of disease like poliomyelitis, and the development of surgical techniques such as open-heart operations and organ transplants — have had profound effects upon the welfare of men, women, and children. In the next thirty years, medical advances are likely to be even more fundamental. The medical profession will neglect at its peril the implications of these advances. In an era of biological engineering and the creation of artificial intelligence, to say nothing of the problems of stresses imposed by the triad of technology, urbanization, and explosive population growth, we will be called on to answer some of society's most pressing problems. The future belongs to us all, and we in medicine are bound to understand the future problems before being able to solve them.

There is a third reason why physicians should take an interest in the society of the future. This lies in the need to decide upon priorities, both in medicine itself — in its preventive, therapeutic, and research aspects — and in society at large. Futurology may be helpful, even if all such study does is to suggest a new attitude towards looking at the future. The old game of prophecy and prediction took as fixed points the future itself, as an unalterable state of affairs, and the human condition, as an unchanging biological entity. However, mankind has reached the stage at which, as Feinberg has pointed out, "more and more of what happens in the world is subject to human intervention and control, so that more than ever before we have the power to determine the future, rather than to prophesy it".³

In short, we are now capable of deciding what sort of future we want, and today we *must* realize that the future will develop only out of the way we feel and think and behave today. The future is no longer to be regarded as a mysterious, hazy, and dreamlike state visualized only in a crystal ball; it is rather a dynamic possibility inherent in the basic forces and elements at work in society and medicine today. It is up to us to look at the developments and potential consequences of today's knowledge, and from such an analysis to offer advice to society, so that the right choices for a rational future may be made. In Eric Hoffer's words, "The only way to predict the future is to have power to shape the future".⁴

The question of priorities is of extreme importance because the achievement of one aim in society may preclude the development of another, which might be actually more beneficial. In medicine, the cost of health care is a crucial matter, and questions of productivity, efficiency, and distribution (which may be regarded as a cost-benefit equation) will loom large; the medical profession should consider the way the wind is blowing here. In medical practice, priorities are likely to affect areas in which preventive medical measures are balanced against curative and palliative aspects of medicine; there are also likely to be continuing discussions about the choice of both patients and methods of treatment in "expensive" illnesses such as kidney or heart disease. With an increasingly youthful population, and with the possibility of lengthened life spans, debate may well centre around the desirability of maintaining the health and productivity of the young rather than intensively caring for other segments of the population. If society does decide that selection of members of the human race is important, as in eugenics, questions about artificial insemination, and, in the case of foetal abnormalities which may be detectable before birth, whether or not to let a foetus progress to birth, for example, may become critical. These *are* possible areas for decisions about priorities, and the medical profession would do well to consider the future in these terms, so that we as

doctors can define the issues for society as far as the medical aspects are concerned. Outside medicine, too, doctors may become increasingly consulted about the great social problems of overpopulation, hunger, poverty, and endemic disease, for health is no longer the absence of disease merely, but more positively, the social, mental, as well as physical, well-being of our fellows. Nor are the urgent problems of malnutrition and theoretically preventable infectious disease becoming less frequent: by the year 2000, when the present population of the world may have almost doubled (it may by then have reached the figure of 6 billion), these huge problems will certainly have become vastly more acute.

It is clear, from a reading of future developments, that social issues vis-a-vis medicine are likely to become even more prominent in our lives in the years ahead. It was recently said of one Canadian group of doctors, by one of themselves, that "for the problems of today's society" they "have been so cautious in extending themselves toward social issues that they have failed to step in and speak where their special competence is needed".⁵ In today's "one world" we all need each other; as physicians we must recognize the changing ways in which our "special competence" will be needed as the 21st Century dawns, and as the spectrum of health and disease changes with man's social ways in the future. □

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Tuberculous Peritonitis (continued from page 17)

and a half years later. None of three patients in the steroid-treated "cryptic" group had constrictive pericarditis. Thus, in four of the 24 patients treated without steroids, later fibrotic complications of tuberculosis developed.

The study shows that parenchymal pulmonary foci are uncommon in patients with tuberculous peritonitis, the rate in this series being only 6 per cent. It therefore seems unreasonable to attribute tuberculous peritonitis to a hematogenous spread from a concomitant pulmonary focus in the vast majority of such patients.

Latent Tuberculous Focus?

The evidence strongly favours the hypothesis of C. M. Nice, Jr., that tuberculous peritonitis is due to the activation of a long latent tuberculous focus in the peritoneum, perhaps established years previously as a result

of hematogenous spread from a primary focus in the lung. Healing of the pulmonary focus was so complete that no X-ray evidence of a lung lesion was apparent.

In the present series, percutaneous biopsy of the peritoneum was a useful method of arriving at a quick diagnosis. The success rate was high. However, the possibility of bleeding and bowel perforation must be kept in mind, and the biopsy should be performed only on patients with ascites. Patients should be followed closely for 48 hours after the procedure. If a patient's condition becomes worse, a diagnostic paracentesis must be performed rapidly to ascertain whether complications have developed.

The fact that no deaths occurred in the present series shows how effective antituberculosis drugs are in treating the condition. The study also points to the desirability of adding steroids to the antituberculosis drug regimen in treating tuberculous peritonitis. □

1. Travel

Impressions of The Orient (I)

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The Orient differs in many ways from any other part of the world, so that when one is travelling in oriental countries it gives an entirely new and unique experience. Each oriental country differs from its neighbor not only in the variety of its beautiful scenery, but also in its customs, and language, both the spoken and written. For example, the written characters of Korea differ from those of China and Japan. Unfortunately, it is impossible to get more than an insight into the many interesting places and the customs of each country on a short trip. However, my wife and I spent three months on this trip and saw a great deal of the countryside and admired the enterprise and culture of the Orientals. There was much more than we should like to have seen.

Japanese Journey

We left Tacoma, Washington, on January 12, 1970, aboard a freighter, the *Korean Mail*. As the ship took the northern circle toward Japan, we travelled along the coast of Vancouver Island and later, we passed just south of the Aleutian Islands. Although our freighter was new and fast, travelling twenty-one knots an hour it took nine days to reach Yokohama, Japan.

The sea was grey or blue, depending on the skies overhead, and the waves were large or small, depending on the wind. The temperature was reasonably warm at all times, although it was January. We passed only one ship until we neared the coast of Japan. Then there were numbers of small Japanese fishing vessels all around us.

The passengers on our ship were limited to twelve in number and were all above the age of sixty. Unless the passenger list exceeds twelve in number, marine law does not require that a ship's doctor be carried on board. The purser is then in charge of the health of the crew and passengers. He has a kit containing a stethoscope, thermometers, blood pressure machine, and a variety of pills. We were told when nearing the end of our trip that the stewards expected that many of the passengers would be ill, which would have required them to make frequent trips to their staterooms; but none was ill, and every one of the passengers ate in the dining room at all times and many appeared below deck near midnight for a delicious snack which was always available in the ship's pantry. However, several of the crew got influenza, and I was asked to visit the Captain when he was quite sick with this disease.

Life on board a freighter is quieter than aboard a large passenger ship, and the atmosphere is very pleasant and friendly. We were invited to tour the ship, and later were

welcomed at any time on the "bridge" and given private talks on the many aids to navigation. We travelled from 518 to 524 miles each day.

On Saturday, January 17th., 1970, we received a certificate of appointment to the "Ancient and Honorable Order of International Meridian Mariners". We had crossed the 180th meridian at a latitude of 50° 31' North. The day before had been Thursday, January 15th, so we had completely lost Friday, January 16th.

The days passed quickly; meal times were a pleasant event, with delicious menus and congenial table companions. Every second evening, movies were shown in the lounge and the alternate evenings were taken up with interesting stories. One such story was related by the first mate, Mr. Dale, who described his experience of 1963 in 175-mile-an-hour cyclone in Pakistan, a country which only recently suffered a catastrophic blow from a cyclone.

On the morning of January 21st, we were due to arrive at Yokohama, Japan. We set our alarm for 6 a.m. and saw the lights of Yokohama in the distance, the moon going down in the west and the early morning light appearing in the east. At 10 a.m. a quarantine officer arrived, and later the immigration officers. Then two tugs came alongside, taking us up the harbour. Hundreds of ships were all around. We counted 30 large cargo vessels and many smaller fishing schooners. Some of the small fishing vessels appeared to have only one man aboard. When we came to the pier, two tug boats nudged us gently between two ships which were already moored there. The space between the two ships had looked rather small, and before we docked I had asked a ship's officer what would happen if our ship



North Gate Seoul, Korea

bumped one of the other ships. His reply was that the pilots were very well trained and if our pilot did strike a ship, there were a dozen more pilots waiting to take his job.

Tourists in Yokohama

We decided to explore the city, and as we started to walk from the pier to the gate of the Navy yard, a kind Japanese man, who gave his name as Tamuro Ogawa, opened the door of his car and offered to drive us to wherever we were going. He took us through busy streets to the centre of the city and to our destination, the Silk Hotel. From there we were on our own. First we visited the Yokohama Marine Tower. After buying tickets we went to the top, which afforded an excellent view of the city. Although there was some fog, large photographs of Yokohama had been placed in position over the windows of the tower, and with this help we could see and visualize all of Yokohama. We walked down to the second floor and visited a marine exhibit. This included such items as pictures of various ancient and modern ships, models of ships, graphic displays of ocean beds, tuna fishing in Japan, oyster prepared for breeding, and fishing nets.

We then took a bus to the Sankei-en Gardens. These gardens contained buildings which dated from 1600 A.D.; many had been partly destroyed during World War II, and had been restored. As it was January, the grass was brown and dry. Many trees were still in leaf, and there were large white ducks and mallards swimming in the ponds. We paid an extra fee to go to the Inner Garden, which contained old houses furnished in the ancient Japanese style. After going through the garden, we walked up a long hill to the ancient shrine of Buddha. On the way we saw garbage collection units, which we thought were tree stumps; on close examination we found they were made of cement, but were colored and appeared exactly like tree trunks. Even rustic bridges were made of the same material, with boards and planks resembling the grain in wood.



Market Scene, Seoul, Korea

We returned to the "Silk Building", which contained exhibits of the silk worm, various shops, a hotel, and restaurants. In one lovely restaurant called "The Cosy Bar", we ate Japanese food. A pretty Japanese girl in native kimono cooked sukeyaki right at our table and also served saki, the popular rice wine which she heated for us.

Then we returned to our ship, talked to the passengers, and shared the champagne, which had been sent to us by the Maritime Travel Service.

Next morning we awakened at 6 a.m. and found our ship preparing to leave Yokohama. We were soon on our way down the coast of Japan. We passed many more fishing vessels and saw an active volcano atop a mountain. We sailed down the east coast of Korea, around the southern end and up the west coast. At 7 a.m. on January 24th, as we approached Inchon, the quarantine boat arrived and a little later the pilot came aboard. Then we proceeded up the harbour and dropped anchor.

Kim and some Korean Capers

The Everett Travel Agent came aboard, and we changed some American money into Korean won, one American dollar being worth 310 Korean won. After this, six of us went ashore in a tender, taking about a half an hour. As we walked along the waterfront, we came to the Seamen's Club. Four of us went in: we saw a large hall and a lovely Korean hostess. We inquired about two shows which were advertised for that evening, then left to tour the city on foot. As we were walking along, a Korean man, who had seen us in the Seamen's Club, accompanied us. In spite of protests that we did not need him, he continued to stay with us. We continued window shopping, and took a subway to cross the street as the traffic was very heavy. Then we went to a crowded market, which was partly in the underground passage and partly above ground, occupying many streets. This market contained clothing, food, nuts, cooking utensils, and so on. One yard nearby was full of large ceramic jars, which were used to hold drinking water. The Korean man who was still accompanying us then told us his name was Kim Dong Un, also known as Tom. When our camera jammed Kim called a taxi and took us to a camera shop, where it was quickly repaired, at a cost of 500 won. The weather in Korea was cold, and as we got cold our self-appointed guide, Kim, took us to a tea house. We would not have been able to find a tea house without his help, as the only characters on the front were in the Korean alphabet. We sat in a dimly lighted room at a table by an oil heater. We had tea and bought our guide cigarettes and coffee. The tea room was made of stone set in cement, attractively decorated; loud recorded music, both western and Korean, was being played. After we left the tea room, we asked our guide to take us to a Korean restaurant. At this restaurant we had to take off our shoes and sat on a small cushion on the floor in a private dining room. Our guide ordered the meal. It consisted of two kinds of raw fish with raw vegetables. One dish was of special pressed cabbage; another concoction was of fish ten days old, clam broth with clams and clam shells, with another kind of fish resembling mackerel. There were also large bowls of rice, soy sauce, hot pepper sauce, rolled egg, a dish of custard and shrimps, and other fish, and a large dish of sukayaki, another soup of small shell fish, besides a small dish of what looked like hamburgers, with sweet white potatoes. There were two kinds of pickles and tea. Our guide ate with great relish. Assisted by Kim, we tried the chop sticks; we were

able to eat with some difficulty.

During our meal our shoes had been shined, which cost 100 won; the dinner cost 3,000 won. In the private dining room next to ours, we noticed Koreans sitting on the floor, eating at their low table with their legs crossed.

Kim walked with us to the pier. On the way we stopped at the Ferry office, and Kim asked us for a gratuity, which we gladly paid. We walked down the wharf, over ten boats to our Ferry, which left promptly at 7:30 p.m. A high school boy called us "Mama San" and "Papa San", and said, "Papa San, I like you. Papa San and Mama San married? How many babies?" We returned to our ship the *Korean Mail*.

Next day we took the tender for Incheon. All of the twelve passengers took the bus at the terminal and went to Seoul. We travelled along a fast four-lane express highway. We saw houses of the poor clustered along the side of hills, with hardly space between them. Somewhat better homes of this type had walls all around them. There were farms with usually old houses, and there were many dwellings with thatched roofs made of rice stalks. Many roofs were of concrete-like tiles.

At Seoul the Everett Travel Agency representative, Hchscoi, met us. He took us to a tea room down in a basement; particularly striking was a large bronze-like creation along a large part of one wall. After lunch the bus arrived, and we went to the Ducksoo Palace, which was begun in 1392 A.D. We saw a large statue of an early emperor, who gave the Koreans their alphabet of 28 letters. Our guide told us that today they only use 24 letters. We toured two large connecting buildings now used as museums; one of these contained relics from the 2nd to 3rd century B.C. Amongst other things, we saw lacquered wooden coffins, clay figures of camels and horses, a jar coffin made of pottery, dating from the 5th to the 6th century, and stones from the early metal age. Then we took a walk past children's playgrounds.

We also visited the open market. This was thronged with people and filled with everything imaginable: boots, books, yardgoods, jewelry, sweaters, kimonos, happy coats, and beautiful lacquered tables, cabinets and boxes. Another point of interest was the Commissary, a large store with several floors; on one of these, we noticed radios and TVs for sale.

We then went to the Walker Hill Hotel. Here we ate in a private dining room overlooking the frozen river below on which skaters were enjoying the ice. After dinner we drove up a hill, and up a series of mountains; we saw a large part of the 27 miles of wall, which was built to protect Seoul from her enemies. We were not allowed to take pictures of this wall. There were sentries behind the rocks with guns, and as we passed the approach to the President's Palace, two guards were in evidence. After a series of winding curves through beautiful mountains and country roads, we saw many beautiful, expensive homes. Then we returned to Seoul.



Ducksoo Palace Grounds, Seoul, Korea

Our guide then informed us, as it was 5:15, that for an extra dollar each, he would try to meet our launch at Incheon, which left at 6 p.m. Our driver then got gas and bought tickets for the express highway. He tore back in the direction of the setting sun, which I saw go down three times before we reached Incheon. Our guide called the launch back as it had already left the pier, and we arrived on our ship hungry and happy.

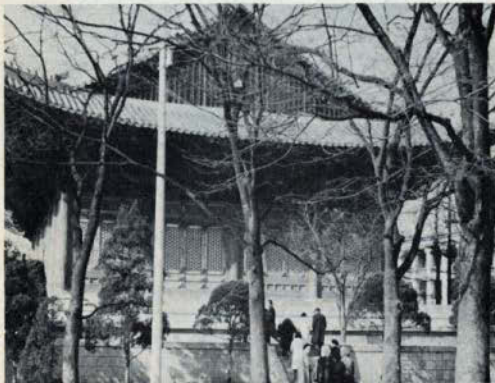
While we were in Incheon and Seoul, we saw many Korean women carrying babies on their backs. Others walked with large bundles on their heads; sometimes they held them with one hand, but mostly their hands were free. In some cases their men walked beside them without any burdens. Other men carried large loads of wood in frames on their backs. We also saw boys on bicycles with large packages on the back of their bicycles; one boy was wheeling two large oil drums. We saw several trucks with only three wheels, with the single wheel on the front of the truck.

The following day we again took the tender to Incheon. We walked to the Olympos Hotel and then to the Everett Steamship office. The manager invited us to drive in a taxi, with a seaman, who was getting his passport in Seoul. So we went with him, and we enjoyed exchanging information about Korea with him. When we reached the Everett office in Seoul, we found here, as elsewhere in Korea, that in the washrooms the women passed behind the men who were at urinals, to enter their department. Here as in Incheon we had to cross the street by an underpass. We visited the Mitopa department Store, where we were intrigued by their inlaid tables. We met and talked to a man from Jacarta, Indonesia, who had just bought a \$50.00 vase; he assured us that we could do no better elsewhere if we wanted to purchase Korean-made articles. We made several purchases. Then the pretty clerk accompanied us to the exchange office on the floor above as they could not accept our currency. They put handles on our packages so we could carry them out easily. We then crossed the street to look for Korean souvenir spoons.

In a jewellery store we met two Mormon apostles, who started the conversation by asking, "buying late Christmas

presents?" These men were clearly enjoying their missionary work in Korea.

We decided to return to Incheon by bus. We got the first tickets after the wicket opened, but had to wait an hour, and then only got on the third bus. After our arrival at the bus terminal at Incheon we grabbed a taxi that had stopped to let out a passenger. The driver had another passenger, but we got in. As we neared the pier he let the other



Ducksoo Palace, Seoul, Korea

passenger out, and just then we spied our Tom Kim running after us. We arrived at the pier too late for the launch, so Kim suggested that we get the next launch, which sailed at 8 o'clock. To fill in time we visited the General MacArthur Monument in a park overlooking the city. We took movies at this point, and our guide took out a polaroid camera and took a coloured picture of us, which turned out very well. All this time we were accompanied by a large number of small children who followed us down the street. We walked to the lower level, and Kim helped us buy postcards, which we mailed.

Before returning to our ship, Kim took us to a Korean restaurant where we partook of a bowl of fresh vegetables, large shrimps fried in butter with sauce, and had sukayaki for the third time. Then we caught a local bus to the pier.

After we walked out onto the pier, we had to climb across ten other boats before we reached the ship's tender; this seemed to be the usual thing. When we reached the side of the *Korean Mail*, we had to climb the gangplank; sometimes there is another tender in front of the gangplank, and we had to climb over it first.

Sometime through the night our ship weighed anchor and began the two-day voyage to Hong Kong. I hope to continue my impressions of Hong Kong later. □

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The death of Dr. Gordon Blanchard Wiswell in Halifax early in the morning of December 26th, 1970, will recall for many a valued association of long standing. His was an honoured name in Halifax, throughout the Maritime Provinces and in medical circles in Canada.

Dr. Wiswell received his B.A. from Dalhousie in 1910 and his M.D., C.M. in 1914. Following service in the First World War, in which he served with distinction winning the M.C. for gallantry in the field, he returned to Canada and began the practice of medicine in Halifax; where he became increasingly well-known for his skill and knowledge of paediatrics, then a relatively new field. His interest lay not only in the treatment of the disease of infants and children but also, in the prevention of these diseases.

In 1928 he established the first "Well Baby Clinic" in conjunction with the V.O.N. Later he devoted much time to similar clinics held at the Dalhousie Public Health Clinic and the Grace Maternity Hospital.

In 1922, Dr. Wiswell began his long association of thirty-six years as a member of the Medical Faculty of Dalhousie University becoming Associate Professor of Paediatrics in 1933 and Professor and Head of the Department in 1942 until his retirement in 1958, at which time he was made Professor Emeritus. In 1968, his alma mater gave public recognition to his outstanding services by awarding him an LL.D., *honoris causa*.

In 1935, Dr. Wiswell joined the Staff of the Children's Hospital in Halifax as an attending physician; in 1948 he became the Physician-in-Chief. Perhaps only those who were actively associated with him could know the extent of his labours and accomplishments in the Children's Hospital to which he devoted so much of his time, his skill and knowledge. His ethical standards were of the highest. Rank and position were of minor

importance to him although both were accorded to him. He had a keen mind, well-trained and disciplined. He read extensively and kept abreast of the times. He had excellent judgement and his carefully considered opinions commanded the respect of his colleagues.

As Professor and Head of the Department of Paediatrics and Physician-in-Chief of our hospital, his qualities of leadership, breadth of vision, tact and intense interest were largely responsible for laying the foundations of the present high standard of this department. He was continually thinking, planning and working towards better paediatric care in the hospital and in the Paediatric teaching of nurses and medical students, and he had the satisfaction of seeing the Children's Hospital accredited by the Royal College of Physicians and Surgeons as a centre for postgraduate training in Paediatrics.

As a medical practitioner with a large and busy practice, Dr. Wiswell was rewarded by the trust and devotion of parents carried over to their children and their children's children who responded to a heart filled with kindly and unflinching consideration for their difficulties or sorrows.

His compassion was great and embraced all human beings in genuine need. This was expressed in his own quiet way by a few words, a look, or a smile. That he found time in the midst of his busy life to treat, on a purely voluntary basis, countless numbers of infants and children in our Wards and Clinics is a measure of the man.

We at the Children's were particularly glad that he lived to see our splendid new Izaak Walton Killam Hospital which will continue the work to which he gave the larger part of his life.

I close my inadequate tribute to this distinguished physician, wise counsellor, loyal friend, scholar and gentleman with the words that seem to me most fitting "Well done, thou good and faithful servant".

— *Gratias tibi agimus.* —

N. Barrie Coward, M.D.

ATTENTION

If you have not received your December Issue of the Bulletin please inform our office. We suspect that a number of subscribers were missed in the December mailing.



Right nice to have some contributions from Cape Breton. While arranging this issue I've had the opportunity to make a nodding acquaintance with these gentle and honest islanders. As a foreigner from across the pond rather than across the Canso Straight, I see the similarity between these new Scots and the older ones in Scotland who threatened the Sassenachs by their ubiquity and their ready adaptation to the life south of the border-while retaining their own personality.

There are too many fine things about Cape Breton to list here. But in this era of nationalism and strident minority groups, whether these be the Transylvanian Liberation Front or the Welsh Nationalists or the Basques (to say nothing of some Canadians), it's good that one group doesn't have to press its claims to independence and to a way of life by relying on such unoriginal maneuvers as blockading the causeway, bombing Province House, or kidnapping an unwary resident of the south end—of Halifax. After all, like the irrepressible Cockney in the life of London, the Cape Bretonner does have his own unique contribution to life here in Nova Scotia: for example, his dialect. Do you see what I mean and get what I'm after tellin' yer?

A strange thing happened on my way to the island . . . in fact, on each of recent trips there. Once I'd paid the toll fee and reached the blessed isle, gosh bye, and didn't the Jaysus car suddenly go wrong. Wouldn't that give a dog's ass the heartburn? Sure and there was some leprachaun who would teach me, a foreigner, some humility upon arrival. And he was saying to me: "Stay where your'e at till I come where your'e to", and then and only then, after giving me the hard look and a wink, would he let me pass.

Aye, there's friendliness there, and a personality, and magic, and beauty to the island. The grandeur of Bras d'Or (where I'd be prepared to rest) and the truly breathtaking beauty of a Cape Breton fall are second to none: "earth has not anything to show more fair", or do I mean "it's some right good, bye"? A visit to Cape Breton is always a pleasure, and when it's time to leave and they say, "See yer round bye" you know they mean it, for *ciad mille failte* is no empty greeting.

* * * * *

How's this for a reference to a fertile woman: "She's a two-legged drosophila".

* * * * *

I see the medical profession in the position of a sea-going vessel, in danger of being swept on to the rocks of government and bureaucratic control, some degree of which is admittedly inevitable and not necessarily immoral, or on to the other rocky shore, that of public chastisement (the taxpayer in the end has a right to a say in the provision of services related to health care). How should we navigate a safe course between the twin dangers of Scylla and Charybdis? The good ship Medicine is still widely respected as a safe vessel, although, as a recent conversation with a hospital chaplain made clear, the hold named Esteem is in danger of showing leaks. However, as long as we understand the changing charts of the passage before us, and as long as we are respected as pilots in the welfare of the passengers who are the public, our competence and our honesty will not be in doubt. Nevertheless, it would not do harm to educate the passengers as to the shoals of diluted quality and the iceberg of cost which lie ahead. And how to be sure ourselves also an essential facet of any program of public education. I'm sure it means immersing ourselves sometimes in the swift running waters of society and feeling the currents of social change, and then being able to tell the public, "This is where we're at".

* * * * *

If you can read the handwriting on the wall, it was not written by the average adult.

* * * * *

In some homes the only switch used to control the children is the one on the TV.

* * * * *

My Faith in Doctors

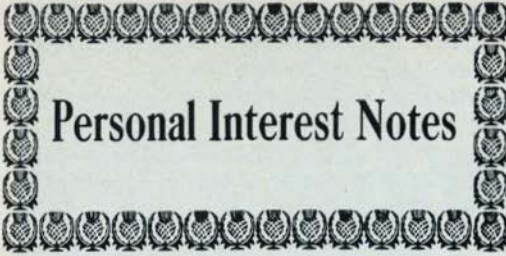
"My faith in doctors is immense
Just one thing spoils it:
Their pretense
Of Authorized omniscience."

—Anon.

□

Notice

BLAZER CRESTS for Members of The Medical Society of Nova Scotia are now available at Colwell Brothers Limited, 1673 Barrington Street, Halifax, N.S. The cost is \$9.95 plus tax.



Personal Interest Notes

Citations for Honorary and Senior Membership in Medical Society

"Mr. Chairman, Honorable Minister of Health, Dr. Kippen, President of the Canadian Medical Association, Members of the Executive, Ladies and Fellow Confrères.

It is a great pleasure for me to present to you two members of the Western Nova Scotia Medical Branch for whom the Executive Committee of the Medical Society of Nova Scotia at its meeting on October 3rd approved the nomination respectively to Honorary Membership and Senior Membership of the Medical Society. Both of these men are remarkable in their career and really smart and fine chaps.

Dr. Charles K. Fuller* was born in 1890 in Yarmouth, the son of a general practitioner.

Dr. Fuller passed his early years in the Yarmouth Academy and then went to Mount Allison in Sackville where he graduated in 1912. Following this he went to Dalhousie University for a year and after four years at the University of Toronto he graduated in medicine in 1916. He practiced general medicine in Yarmouth until 1924 when he left for Europe to specialize in Otorhinolaryngology. He studied in different centres including Scotland, London, Bordeaux (France), Spain, and Vienna (Austria). He obtained his Fellowship in Edinburgh in 1925 and the following year his Canadian Certificate in Otolaryngology and Ophthalmology.

Dr. Fuller practised his speciality in Yarmouth from 1925 until now. He is chief of the Department of Ophthalmology and Otolaryngology at the Yarmouth Regional Hospital. For 15 years, Dr. Fuller was associated to Drs. Lebetter, Campbell, and Morton in a private clinic in Yarmouth.

He was Councillor and Deputy Mayor for the Town of Yarmouth for a number of years.

During his University years at Mount Allison Dr. Fuller met a charming lady, Ethel McKeen from Pictou, whom he married in 1916. They had three children, a boy who died in infancy, a second son Dr. Stewart who is in general practice in Bedford, and a daughter Lorraine, married to Dr. Arthur Titus, well known as director of M.M.C. and medical administrator of M.S.I.

*Citations delivered November 27th, 1970, F. J. Melanson, President, Western Branch of the Medical Society of Nova Scotia.

Dr. Fuller is a remarkable man by his activities, his great skill as a member of the medical profession but also as a very skilful woodworker. He has a Royal Domaine at Oakdale Manor on the Clyde River where he and his wife are producing great works of art, she in the field of painting and Dr. Fuller in remarkable pieces of furniture such as elaborate chairs, desks, and tables. He is very proud of his workshop and with good reason. Dr. Fuller just had recent cataract operations performed and we are all glad to see how remarkably well he has recovered his vision, and is about to continue enjoying his work, his domain and his great enthusiasm for living.

I am very honored therefore, Dr. Fuller, to be able to present to you this citation on the occasion of your Honorary Membership to the Medical Society of Nova Scotia."

"Et maintenant j'ai le grand honneur et le plaisir de vous présenter un de mes bons amis de Sud-ouest de la Nouvelle-Ecosse, le docteur Hector Pothier.

Dr. Hector Pothier* was born at St. Anne de Ruisseau, Yarmouth Co., N.S. in 1891 of a family of 8 boys (he was the 7th) and 2 girls. His father was a skilful woodworker and had a large lumber mill. Hector Pothier is a first cousin to his Honor Judge Vincent J. Pothier whom you well know and who was born in the same parish as Hector.

His school years were fortunately under the supervision of the Sisters of Charity. In 1913 he went to St. Ann's College at Church Point, and from there went to Dalhousie University where he graduated in medicine in May 1919. Following this Dr. Pothier went to St. Vincent's Hospital in New York for one year of training. In 1920 he began his successful career as a general practitioner in Weymouth, Digby Co., N.S. In 1918 Dr. Pothier married his first wife, Helen Mombourquette, a sister of Dr. Percy McGrath's wife. They had no children of their own, but they adopted a child at the age of 3 months and this child became a very successful and clever lawyer who unfortunately died in 1968 at the age of 44 of a thymoma at St. Catherine's, Ontario. Helen Pothier died at the age of 55 after having been bedridden for 13 years, suffering from multiple sclerosis.

Dr. Pothier married for the second time in 1944, Helen Belliveau of Belliveau's Cove. He again had the misfortune of losing her at the age of 50 after a long illness. Dr. Hector Pothier remarried again for the third time in 1955: a very charming nurse by the name of Evangeline Saulnier of Little Brook who had escaped the casanovas of New York.

During World War I Dr. Pothier was Ship Surgeon board a French cable ship. At the time of the Halifax Explosion in 1917 he was a witness of that frightful explosion. He is very active and very inclined to music. Dr. Pothier was President of the Dramatic Society while at Dalhousie University. While in practice he also on many occasions

performed on theatrical plays. So much concerned with the well being of the human being, not satisfied to threat them only when they were ill, but also while in good health, he built for them a cinema in Weymouth which lasted from 1925 to 1945. Although his theatre burnt in the great Weymouth fire of 1929 it was rebuilt. In 1944 he had a cabin cruiser built in Weymouth and on a trip to New York sold it there. During his University years at Dalhousie he was the first President of the Newman Club. In Weymouth he was the first President of the Weymouth Kiwanis Club. Dr. Pothier was also President of the Chamber of Commerce of Clare and the first President of the Digby County Power Board which developed the Sissiboo Dam.

Recently, Dr. Pothier was honored by the church being made a Knight of the Order of St. Gregory the Great, in June of this year. His official investiture in this order will be held on Sunday, December 6th in Yarmouth. Having been so active in his life it is not surprising to see Dr. Pothier play politics, being elected as conservative member for Clare in 1963. Because of this nomination he felt that he should reside in the area he was representing and so he then moved to Beaver River just inside the Digby County line. Dr. Pothier served us well in the Legislature for 4 years. I mentioned how Dr. Pothier has been a very active man all of his years of practice and still is and it is always a pleasant trip with his presence at our hunting camps. I can recall vividly how I was treated on my first contact with camp life at 6° below zero at Comeau's Hill in Eddy Kinney's little shack, burning Sydney soft coal, when I had the misfortune to hide his preferred drink, at the time, a large bottle of John de Kuyper. He called me "puny" then. I wonder how he felt a few years later, when on a cold October afternoon, I had to swim to rescue the boat that was drifting away from the great Pubnico Island Camp and made possible his return as well as his brother-in-law to firm land.

It is therefore a great pleasure for me to see the Society honor this member as Senior Member of this Society."

"Mr. President, Honored guests, Ladies and gentlemen.

May I present, as President of the Annapolis Valley Branch Society, **Dr. Ronald Forbes**,* B.S.C., M.D., C.M. F.A.C.C., L.L.D. for Senior Membership in the Medical Society of Nova Scotia.

Dr. Forbes was born in Stewiacke, Colchester County, Nova Scotia. His high school years were spent in Cape Breton.

He started his Science course at Dalhousie University then at the age of 17 years enlisted in the Royal Canadian Artillery. His unit was invaluable in many major battles including Vimy Ridge and Passchendaele. At the conclusion of the war, he served in the Army of Occupation in Germany. He returned to Dalhousie and obtained a Bachelor of Science degree. He entered the Medical School graduating in 1926. He entered the field of General Practice which he continued until the outbreak of World War II, when he joined the Royal Canadian Medical Corp with the rank of Major. He served first as District Medical Officer in Halifax then as O.C. H9 Canadian Hospital in England and later as O.C. 14 Canadian Hospital in Italy, a 1750 bed hospital.

At the conclusion of the war he studied in England, cordially under the great Dr. Wm. Evans. He returned to Kentville, Nova Scotia and has since then practiced his specialty in that area.

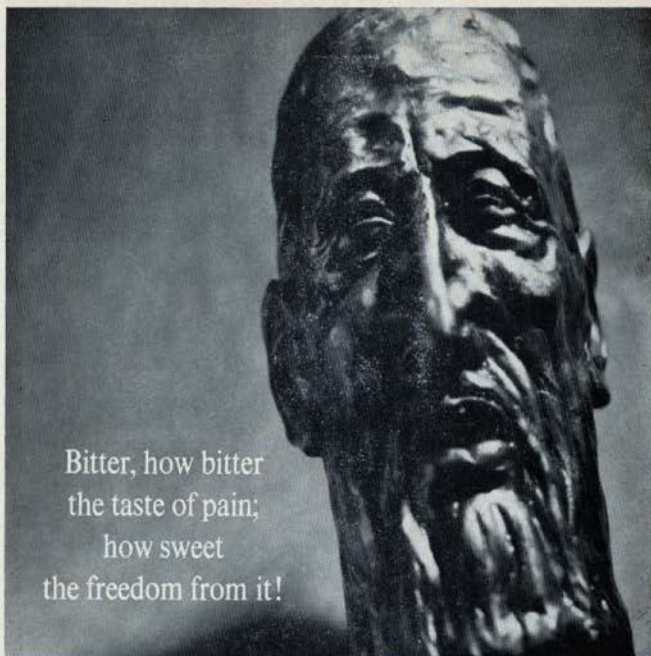
He is highly regarded both as a doctor and a citizen. In 1966 Dalhousie University conferred on him a Honorary Doctor of Law degree.

It is with great respect that I present Dr. Ronald Forbes to you." □

*Citation delivered November 27, 1970. Dr. D. E. Lewis, President, Valley Branch of the Medical Society of Nova Scotia.

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

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

MEDICAL GROUP MANAGER, age 49, wishes to relocate in Maritimes. 7 years with present group in P.Q. Experienced in all departments of clinic management (Personnel administration, accounting, x-ray, laboratory and public relations). References available on request. Reply to Box 100, The Nova Scotia Medical Bulletin.

GENERAL PRACTITIONER — preferable some surgical experience — for locum. Required for two or three months, starting March 1971; possibly become permanent partner if agreeable. Nova Scotia License required. Contact Dr. A. K. Patel, P. O. Box 70, Inverness, N.S. Telephone; 258-2266.

GENERAL INDEX

VOLUME 49, 1970

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