

# The Nova Scotia Medical Bulletin

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## Editorial

With the first issue for the year 1955, the Bulletin appears in a new dress. The familiar golden colour has been replaced by blue. The cover bears the armorial bearings of The Medical Society of Nova Scotia accepted officially last year. Doctor R. L. Saunders, Professor of Anatomy at Dalhousie Medical School undertook the task of redrawing necessary to adapt the armorial bearings to the present use. The Editors on behalf of all our readers extend him sincere thanks. Some internal changes have also been made in the Bulletin to bring the arrangements of basic material more in line with publications of this nature everywhere. It is hoped that these changes will appeal to all members of the Society.

The centre pages of this issue bear in colours a reproduction of the parchment patent of the Rothesay Herald and Lyon Clerk, officially describing and granting these Armorial Bearings to The Medical Society of Nova Scotia. A number of copies of this, suitable for framing, are available to those who desire them.

In 1952 the Society celebrated its one hundredth anniversary. As part of its recognition of this significant year in its history it took steps to define itself symbolically in the form of this armorial achievement. This tells the world that this Society is of Nova Scotia; that it incorporates all the best traditions of the healing art; that it gives objectivity to these in a worthy motto. The world can now expect that not only the Society, but every member of it wishes to exemplify the ideals of its arms.

# Problems of Abdominal Surgery in The Aged Patient<sup>1</sup>

E. Lee Strohl, M.D., Chicago.<sup>2</sup>

**D**ESPITE the advances in the field of surgery, there lingers a traditional reluctance on the part of physicians to refer old patients for surgery. Is it possible that our surgical failures of thirty years ago influence the thinking of physicians more than our surgical successes of today?

When one is confronted with the problem of surgery in the elderly patient, a few basic concepts should be borne in mind.

1. In 1850, the half million old people in the United States could be told they were too old for surgery, but the twelve and a half million old people of the 1950's refuse to be considered so carelessly. This group of people is increasing in size, and will approach twenty-three million in 1970.

2. The chronologic age does not parallel the physiologic age. On many occasions, the patriarch of 80 can undergo surgery more satisfactorily than the ne'er-do-well in his 30's.

3. Tissue healing occurs equally well at all ages. The elderly patient has the same ability to lay down fibrous tissue as has the young adult.

4. In old patients, the complications in the preoperative and postoperative periods are higher. These complications, however, are not related necessarily to the problem at hand.

5. Taking the foregoing factors into consideration, the criteria for surgery in the elderly patient are:

A. Is surgery essential to save the patient's life?

B. Will the operation remove the physical disability, and rehabilitate the patient to his more or less normal status?

C. Will surgery relieve the patient or cure him of a malignant disease? The average life expectancy, based on the result of the 1940 U.S. census, is a helpful figure when evaluating a surgical problem in an elderly patient. We discuss this table with the patient and his relatives, when surgery is indicated.

## *Psychological Preparation*

There is no field where seasoned clinical judgment, the art and science of medicine, are as important as in the management of a surgical problem in the elderly patient. Some elderly patients refuse to think of themselves as being old.

The visit to an older patient should never be hurried and should be one of pleasure to him. Since older people live on memories, it is well to discuss events of long standing rather than current events. Most older patients fear any type of surgery, since their life span covers the period when the mortality rates were high for all types of surgery. Therefore, hospital personnel must be alerted to differences in care of the elderly patient, as well as the need for an optimistic outlook when caring for the patient.

(1) Paper presented as a part of the Symposium on Geriatrics of the Dalhousie Post-Graduate Committee, December 8, 1954.

(2) Associate Professor of Surgery, Northwestern University, Chicago, Ill.

The results of preoperative tests and examinations should be discussed. These people, by virtue of their age, have become accustomed to suggesting to other persons what should be done. They are flattered to know that things are being done for them.

Prolonged bed care and change in environment and habits are discouraged. Feeling that most of his life lies behind him, the elderly patient has fewer worries than the active business man of younger years. They accept operation with more tranquility and resignation, when in the proper frame of mind.

#### *Evaluation of Cardiovascular Status*

The principal cause of death in old age is heart disease. Cardiac disease and peripheral vessel accidents account for more than one-half of the deaths in patients past 70 years of age. In choosing patients with cardiovascular disease for surgery, the following situations should be scrutinized with care:

1. The degree and extent of cardiovascular damage.
2. The degree of cardiac restoration possible by treatment.
3. The prognosis with regard to life expectancy.

Many times the cardiovascular handicaps cannot be improved before operation; however, they must be evaluated, and the complications anticipated in the preoperative period. The clinical data which are helpful in estimating cardiac reserve far outweigh the information obtained from laboratory studies. A good rule of thumb as to cardiac reserve is whether or not a patient can walk around the block, or climb a few stairs.

The laboratory studies should not be minimized in selecting patients in this age group for surgery, however. It is our opinion that an electrocardiogram and X-ray examination of the chest are important.

Thrombo-embolic phenomena are frequent postoperative complications. This is true in patients with anemia and a diminished circulating blood volume. It is useful to apply elastic stockings up to the knees as a preventive measure for all patients past 60 years of age. These stockings are worn for three or four weeks. Although we do not perform bilateral femoral vein ligation, there is some merit to this procedure in extensive surgery of the pelvic and rectal regions.

#### *Condition of Respiratory System*

Changes in the respiratory system are common in the elderly patient. A varying degree of bronchitis, bronchiectasis and emphysema is an almost constant finding. The respiratory exchange is diminished, and in most patients a low-grade infection is present. Although degenerative changes cannot be altered the infectious component should be cleared up. This is accomplished by a combination of antibiotic drugs, expectorants, postural drainage, and aerosol therapy. Recently, we have been using sodium iodide intravenously in the pre-operative period. This drug decreases the tenacious quality of the secretions in the respiratory tree. The X-ray examination of the chest is essential. It may unearth a silent intrathoracic tumor or other latent pathology. The post-operative respiratory complications can be prevented in most instances by a careful evaluation of the preoperative status. A Levine tube should be inserted

into the stomach before surgery, remaining there during the operation, to reduce the hazard of silent aspiration of gastric contents.

#### *Fluid, Chemical, Electrolyte, and Nutritional Studies*

The aged patient has a tendency to dehydration. The decrease in appetite and frequent annoying trips to the bathroom are contributing factors to this deficiency. The eating habits of elderly people differ from those of younger people because of their inability to chew. Partial or full dentures, and absent teeth, have forced them to food habits which tend to produce fat. Adipose tissue increases with age although the body weight may not change. Fat, being a relatively inert tissue, contributes little to the circulating blood volume. Therefore, a lowered total blood volume per kilo of body weight is found in older patients, not because they are old, but because they have a larger amount of inactive tissue fat. The Evans blue test is used to determine this situation before operation. With slow frequent transfusions of whole blood, this deficiency should be corrected before operation.

Chemistry studies of the non-protein-nitrogen, sugar chlorides, sodium, potassium, carbon dioxide combining power and total plasma proteins with the albumin globulin ratio, are important. Deficiencies in the electrolytes should be corrected before operation.

Caution is needed in evaluating the degree of anemia and hypoproteinemia. The patient must be properly hydrated before an accurate estimate can be made. These conditions should be corrected before surgery is contemplated. For example, if it is known that a patient with high intestinal obstruction has had nothing by mouth for two days, with a urinary output of 1,000 c.c., and vomitus of 1,000 c.c. in that period of time, and assuming an insensible loss of 1,200 c.c. daily, the total deficit of fluids is remarkable. These deficient fluids should be administered promptly, the electrolyte and blood distribution of the fluids will depend upon the history, physical examination, and the laboratory studies.

The nutritional deficiencies created by poor dietary habits, loss of appetite, inadequate digestion or absorption, and cramped economic circumstances, are seen rather often in the elderly patient. They result in a chronic anemia, hypoproteinemia, weight loss, and clinical or subclinical vitamin deficiencies. These abnormalities should be corrected by dietary measures, or by parenteral administration of whole blood, plasma, amino acids, and vitamins. If these deficient states are not corrected before operation, one may expect impairment of wound healing, more frequent infections, and other postoperative complications.

#### *Renal and Genitourinary Studies*

Most older patients have an impairment of renal function from arteriosclerosis or a chronic glomerulonephritis. A reliable test of kidney function is the concentration-dilution test. This test, together with the non-protein-nitrogen determination, usually gives satisfactory information of the functional capacity of the kidneys. Elevations of the non-protein-nitrogen and edema need corrective measures. Diet and the theophylline type of diuretics are helpful in reversing these changes.

Mechanical urinary obstructions from strictures, contractures at the bladder neck, or prostatic hypertrophy, should be anticipated and corrected if possible. In the elderly male it is desirable to insert an indwelling bag type catheter before operation, leaving it in place for 48 to 72 hours postoperatively.

#### *Presence of Liver Damage*

The liver is an important organ and frequently is passed unnoticed in the preoperative period. Reliable function tests are available and should be used. The thymol turbidity, bromsulfalein test, albumin globulin ratio, prothrombin time, and the urbilinogen test serve as a profile study of the function of the liver. No single test gives sufficient accurate information as to the state of function of the liver; results of two or three tests should be obtained.

The judicious administration of insulin to the non-diabetic patient with liver damage will increase the appetite and help store glycogen in the liver and muscles. Vitamin K may be indicated in selected patients with liver damage.

#### *Hormonal Changes*

Hypofunction rather than hyperfunction of the endocrine glands is common. A generalized reduction in the overall activity of hormonal function is less disturbing than the change of function of one gland. With an alteration of function in one system of glands, such as in diabetes, hyperthyroidism or adrenal dysfunction, corrective measures should be instituted in the preoperative period.

Estrogens and androgens have a place in the treatment of the elderly patient. Many times these drugs will increase muscular power and the feeling of well-being.

Volatile anesthetic agents exert hepatotoxic effects of varying degrees. It has been shown that testosterone, given preoperatively, produces a net gain in protein for the body and a net gain in glycogen in the liver.

The role of ACTH and cortisone in the management of older patients has recently been emphasized by Thorn.

#### *Choice of Anesthesia*

The anesthetic agent and the method of administration must be individualized. The elderly patient will not cooperate when given an anesthetic he fears. For this reason, the choice of anesthesia should be discussed with these people.

We prefer a regional block with procaine, supplemented by inhalation anesthesia. This choice is made because there is less damage to the already altered physiology. Local and regional techniques produce less disturbance of total body physiology than other methods. We have avoided spinal anesthesia in the elderly patient, due to the lability of their blood pressures and the danger of precipitating coronary occlusion.

Whatever anesthetic agent or method is chosen, adequate oxygenation must be provided at all times. A high alveolar oxygen concentration can be maintained by the mask method during local and regional anesthesia.

Preoperative medication must be used sparingly. Excessive depression of respirations and circulation may carry over into the postoperative period, lasting as long as 18 hours, when large doses of narcotics are administered.

#### *Elective Surgery Compared With Emergency Surgery*

It is well known that emergency surgery, at any age level, carries a higher mortality rate than elective surgery. In the aged patient, acute conditions are more prone to develop, because of lowered systemic reserve. It is our policy to convert emergency situations, whenever possible, into situations in which safer elective procedures may be used.

One hundred and twenty-five patients had elective surgery, and 6 patients died—a mortality rate of 4.8 per cent. Seventy-five patients had emergency surgical procedures and 7 patients died—a mortality rate of 9.3 per cent. There were 13 deaths in the 200 patients having 230 operations—a patient mortality rate of 6.5 per cent. Thus the mortality was approximately twice as high in the emergency group as in the elective group.

#### *Biliary Tract Disease*

Biliary tract disease is the most common condition requiring abdominal surgery in the patient over 70 years of age. One would expect this to be true, because of the high incidence of gall stones in older people. This condition is found more frequently in females than males. The ratio is roughly 3 to 1.

Fifty of our 75 emergency-surgery patients, or 2 of every 3 had complications involving the biliary tract—acute cholecystitis, gangrene or perforation, in 18 patients, common duct obstruction in 20 patients; and carcinoma of the gall bladder or pancreas in 12 patients.

Cholecystectomy is the operation of choice. It was carried out in 38 of the 39 patients having surgery for chronic cholecystitis. The common duct was explored in 15 of the 39 patients.

Eighteen of the 75 patients, or roughly 1 out of every 4 patients, had acute cholecystitis. Furthermore, 10 of the 18 patients, with acute cholecystitis, had gangrene or perforation. Cholecystectomy was performed in 12 of the 18 patients. In the poor-risk patient in an advanced stage of the disease, cholecystostomy will release the obstruction and provide drainage. Cholecystostomy was performed in 6 patients.

Seven patients died following surgery, a mortality rate of 9.3 per cent. Four of the 7 deaths were in patients with carcinoma of the gall bladder or pancreas. Two deaths followed gangrene and perforation of the gall bladder. One patient with a high temperature died eighteen hours following cholecystectomy and common duct exploration. Autopsy examination revealed a portal vein thrombosis.

#### *Lesions of the Large Bowel*

Five-five patients had 80 operations for diseases of the colon. Carcinoma, as would be expected, was the dominant condition. It was present in 51 patients. The cancer was located in the left colon in 40 patients, and in the right colon in 11 patients. Sixteen patients, or approximately 1 out of every 4 pa-



tients, entered the hospital with acute obstruction. All of the obstructions were due to carcinoma, with the exception of 1, which was due to diverticulitis.

In the elderly patient, with acute obstruction of the colon, it is our practice to perform a diverting colostomy, as a preliminary procedure. Nine patients with lesions of the sigmoid or rectum had three-stage operations, and 7 patients had two-stage operations.

One patient died, a mortality rate per patient of 1.8 per cent.

### *Hernia*

We have elected to place hernia in the category of abdominal surgery, since it is an abdominal problem, primarily. Weight is lost as a part of the aging process. The loss of fat from the tissues of the abdominal cavity produces hernial orifices, where none had been present before. This process is noted particularly in the femoral canal, but may occur in the inguinal canal. The appearance of a Richter's type of hernia in the aged, can be explained on this basis.

There were 45 patients in this group, who had 50 operative procedures. Inguinal hernia was encountered in 41 patients, all males, Twenty-one of these hernias were incarcerated, or strangulated. Resection of gangrenous bowel was carried out in 2 patients. Six patients had surgery for femoral hernia. Four of these hernias were incarcerated and 2 were strangulated. Resection of gangrenous bowel was carried out in 2 patients. Three patients had incisional hernias, 1 being incarcerated.

There were no deaths in these 45 patients, who had 50 operations.

### *Lesions of the Stomach and Duodenum*

Carcinoma of the stomach represents the bete noire of surgery, in the aged patient. Six of the 8 carcinomas of the stomach were inoperable. Two resections were carried out. Palliative gastroenterostomy was performed in 3 patients, one of whom died of cardiac failure, twenty-four days post-operatively. It is our opinion that gastroenterostomy has little or no place, in the treatment of inoperable carcinoma of the stomach.

Seven patients had peptic ulcers—3 gastric, and 5 duodenal. Resection was carried out on all the gastric ulcers, with no deaths. Three of the duodenal ulcers were perforated, and all were closed surgically. One patient had a gastroenterostomy for an obstructing duodenal ulcer. One patient died from cardiac failure twenty-four hours after closure of a perforated duodenal ulcer of five hours' duration.

### *Acute Apendicitis*

We have pointed out in a previous communication, the similarity of the disease in infants and the aged. The child cannot describe his symptoms and in the aged, the symptoms are minimized as "a little gas, or constipation." Appendicitis is usually fulminating in type, progressing to gangrene and perforation in a short period of time. The frequent use of laxatives by the aged contributes to the severity of the disease.

Seven patients had surgery for appendicitis; 3 of the 7 had gangrenous appendicitis, 3 had perforations, and 1 had an abscess. Four of the 7 patients had taken laxatives following the onset of symptoms.

Two of the 7 patients died, a mortality rate of 28.5 per cent.

### Obstruction of the Small Bowel: Abdominal Exploration.

Two patients had acute small-bowel obstruction, due to adhesions following previous surgery.

One patient was explored and a large cyst of the liver was excised. The patient died on the sixteenth postoperative day, from a pulmonary embolus.

#### *Operative Considerations*

Preoperative medication must be used sparingly. An adequate airway and oxygenation are essential.

The surgery should be carried out carefully, yet rapidly, with a minimum of trauma to the tissues. An appreciation of the time factor is important, since the mortality rate is directly related to the length of anesthesia and the duration of surgery.

Blood replacement must be adequate to maintain the circulating blood volume.

Careful and repeated cleaning of the trachea and bronchi is essential. This should be carried out during the operation, and before the patient leaves the operating room.

#### *Postoperative Care*

In the postoperative period, attention should be directed along the following lines.

1. Nursing service.
2. Prevention of respiratory complications.
3. Prevention of cardiovascular complications.
4. Fluid and electrolyte requirements.
5. Prevention of urinary-tract complications.
6. Judicious use of sedatives and analgesics.
7. Prevention of gastrointestinal complications.

#### *Postoperative Complications*

The postoperative complications can be kept to a reasonable minimum, by vigilant attention to minor details.

In the preoperative period, 108 patients (54 per cent) had findings which added to the risk of surgery. Whenever possible, these changes were corrected before surgery. Nevertheless, in 35 patients (17.5 per cent) significant postoperative complications developed. The cardiovascular system, the pulmonary tree, and the genito-urinary tract accounted for the complications in most of the patients.

#### *Discussion*

We have pointed out the increasing number of older people, with each decade. As physicians, we must be prepared to meet the medical obligations and responsibilities in this age-group.

The mortality rate of emergency surgical procedures is approximately twice as great as that of elective procedures. Whenever possible, the emergency problem should be converted to an elective situation before surgery is attempted.

Such measures are practical in most instances of biliary tract disease, in that surgery may be recommended before the emergency arises. The hernia

problem falls into the same category. These two groups represented 120 of the 200 patients in this study.

The preoperative survey should be directed toward the patient as a whole. The associated diseases of degeneration add to the risk of surgery. Each system must be scrutinized with care. Postoperative complications, or catastrophes can be avoided or minimized, if one is alert to their possible occurrence. Again—it is very important that doses of sedatives or analgesics be small. The elderly patient should have about one-half or two-thirds of the usual adult dose.

Complete cooperation between the physician, the anesthesiologist, and the surgeon is essential.

The nursing service is of prime importance in the care of the elderly patient. Nevertheless, as soon as the critical phase has passed, these patients must be encouraged to develop self-sufficiency. No patient is nursed to death as quickly as an aged patient.

Significant preoperative complications were present in 108 of the 200 patients. In many instances these conditions were corrected before surgery. Nevertheless in the postoperative period, complications developed in 35 of the patients. It should be emphasized that the post-operative complications were not related, necessarily, to the primary condition requiring surgery.

In reviewing the causes of the 13 deaths, we found that cardiac disease and peripheral vascular accidents accounted for 9. Seven deaths followed emergency surgery, and 6 followed elective surgery. Four of the 6 patients having elective surgery had inoperable carcinomas.

Our poor results in carcinoma of the stomach are discouraging, but our results in carcinoma of the colon are encouraging.

Appendicitis presents a challenge in the aged patient. An educational program is needed, stressing the hazards of cathartics. More cautious and complete examination for appendicitis is indicated.

The postoperative care is of vital importance. However, most older patients will withstand extensive surgery well, if the proper measures are used in the preoperative, operative, and postoperative periods.

The morbidity and mortality in surgery of the aged patient have been reduced. We must continue our efforts to bring them in line with those for other age groups.

#### *Summary and Conclusions*

1. The criteria for abdominal surgery in the aged patient are stated.
2. The preoperative survey of the patient as a whole is outlined.
3. Hospital personnel must be alerted to the differences in the management of elderly people, as distinguished from the care of ordinary patients.
4. The mortality rate, in 200 patients 70 or more years of age having 230 abdominal operations at St. Luke's Hospital, Chicago, was 6.5 per cent.
  - (a) In elective surgery, the mortality rate was 4.8 per cent.
  - (b) In emergency surgery, the mortality rate was 9.3 per cent.
5. In our opinion, the morbidity and mortality of the elderly surgical patient can be reduced. The risk of surgery will not differ greatly from that of other age groups.

# Symposium on The Health of The School Child\*

## Dental Care of the School Child

W. Gordon Dawson, D.D.S.\*\*

Halifax, N. S.

DO not propose to labor the point regarding the need for dental care of the school child with a group who are all aware of this need. I would like to review the situation as it concerns,

- (1) Responsibility for dental care at various levels.
- (2) What is being done at present at each of these levels.
- (3) The outlook for the future.

It is generally agreed that the responsibility for providing dental care for children rests *first* with the parent or guardian, *second* with the community, *third* with the province, and *fourth* with the nation. How well is the situation being dealt with at the various levels?

*Family level:* The Canadian Sickness Survey gives us a pretty accurate picture of this. Twenty-six per cent of the families in this survey availed themselves of the services of a dentist. This ties in with the ratio of dentists to population in this province, viz., one to 3,800. A dentist can render comprehensive dental treatment to approximately 900 people per year. In brief, one-quarter of our population are at present receiving regular dental care; 75 per cent are not. The usual reasons for this are (a) Ignorance; (b) Carelessness; (c) Lack of money. There is some hope of educating the ignorant and awakening the careless. I do not know the answer to the third group, "The poor ye have with ye always."

*Community Level:* There are several different efforts to provide dental treatment for the school child at this level. In the Halifax School Dental Service one full-time and two half-time dentists are employed to provide emergency service for those unable to pay for treatment by a private practitioner. This service is paid for by City funds and is the only one of its kind in the province, supported by the Municipality.

Next come those efforts to provide a dental service to the school child supported by voluntary organizations. Most comprehensive of these is the Yarmouth School Dental Service sponsored by the Y's Men's Club; Wolfville School Dental Service sponsored by the Home and School Association; Kentville by the Lions' Club; New Glasgow and Pictou intermittent services sponsored by the Local Council of Women; Lunenburg by the V.O.N.; Truro, Amherst, selected cases are treated by private practitioners at the expense of the

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\*This symposium on "The Health of the School Child" was presented at the Annual Meeting of the Atlantic Branch of the Canadian Public Health Association, Sydney, N. S., September, 1954. Although the medical aspect of the school health programme is well known to the readers of the Bulletin, the editors considered that this symposium might be of value in acquainting the medical profession with what is being done by nutritionists, nurses, sanitarians and dentists in this important field.

\*\*Director, Division of Dental Services, Nova Scotia Department of Public Health.

I.O.D.E. The Bear River Home and School Association has probably the best *village* dental arrangement, sponsored by the Home and School; and several of the Pubnicos have an arrangement whereby school children are taken to a Yarmouth dentist on a group basis sponsored by the Home and School. Shelburne County has a privately endowed dental clinic—The Doctor Gordon Robert MacKay Memorial Hospital for Shelburne County (Dental Clinic) providing free treatment for pre-school children and Grades I, II and III. There may be some other community dental services of which I am not aware.

*Provincial Level:* Three mobile dental units are operated from May to November each year in remote rural districts. They do not visit any community that is less than twenty miles from an established dentist and they carry on a treatment and educational programme for the younger age groups (under twelve years of age). Some local community organization is essential for this service; usually this is looked after by the Home and School, or Women's Institute groups. The community provides board and lodging for the dentist and dental assistant. The cost of operation of one of these units is borne by the Province—the other two are financed through Federal Health grants.

*Federal Level:* In addition to the health grants' assistance in the rural dental programme, the Department of Indian Affairs has one dentist for the three Maritime Provinces. This dentist visits the various reservations and spends most of his time with the Indian school children.

*Future Outlook—short range:* There is a serious shortage of dentists in this province and no immediate hope that this situation will be improved in the near future. It is difficult to secure dentists for the mobile units. Three dental hygienists now in training should be available next June. These young ladies will be employed for the most part in town schools on Dental Health Education, and also in some larger villages on topical application of fluorides as a preventive measure. By employing these ancillary workers, we hope to extend our activities to reach a larger segment of the population previously mentioned, i.e., the ignorant and careless, and also get started on a preventive programme.

*Long range:* The concept of Dental Public Health has changed considerably in the last ten years. The old idea that concentrating dental health education and early detection and correction of dental defects would control dental disease has not been too successful. It is granted that some years ago these were the only weapons we had to work with. Now, with the discovery of the role that fluorides can play in preventing tooth decay, we have another valuable weapon at our disposal. Prevention is the most logical approach to disease control. It is granted that fluorides are not the final answer to the dental problem. However, if every city and town with facilities to use this measure were to start fluoridation, in a very few years we could reduce the dental problem for 50 per cent of our population by two-thirds, or an overall reduction of one-third. Is this not a worthwhile goal for which to strive? It is granted, however, that it would take fifteen years to accomplish this.

Fluoridation, along with a topical fluoride programme for rural and village areas plus an accelerated programme of dental health education carried

on by ancillary workers in the person of dental hygienists offer hope for the future.

In closing, I would like to express my appreciation for the assistance given the Dental Division by the other members of the Public Health team. With your co-operation, I feel that our hopes for the future can be realized.

### The Nutrition of the School Child

Mary T. Doyle, B.Sc., C.P.H.\*

To bring out the importance of nutrition for the school child alone is rather difficult. Recommendations concerning nutrition have been made for all with slight variations for various age groups. In certain health fields, a change to-day would have a marked effect on the child to-morrow. In nutrition the results are not so dramatic. Good nutrition throughout life is important.

The nutritional health of the school child may be referred back to the nutrition of the pre-school child, and that of the pre-school child referred back to the nutrition of the mother. If a mother's diet is superior, the chances of the child being healthy and robust are four times greater, if her diet is inferior, the chances of the child having a low health rating are twenty times greater. Nothing has a greater influence on a child's growth and physical development than the food he eats. It is especially important in the early years when the body is built from the food that goes into it.

Mealtime should be a happy time. New foods should be offered in a matter of fact fashion. Frequently, however, unpleasantness is associated with mealtime. It is felt by some that the high incidence of food problems and later in life gastro-intestinal disturbances, such as ulcers and a distaste for food, result from a child being forced to eat by a tense mother because a certain food is said to be good for him, or the whole routine of mealtime is built around quarrelling and bickering.

Good nutrition for the school child is necessary. Many are becoming cognizant of this. The Canadian Education Association states that:

"School health is of primary importance in our educational and national development. The first aim of our school is to develop young Canadians sound in mind and body."

The most important single factor in the development of a sound body is nutrition. A child who is undernourished is beaten before he starts. He is, for the most part, apathetic and listless and fails to think clearly. On the other hand, a well nourished child is more apt to be happy, quick to learn new things and successful. So often a report card is taken as sign of the school child's ability to succeed, forgetting that without health, success is difficult. A prominent doctor in the Public Health Service of the United States has said:

"We are wasting our money trying to educate children with half-starved bodies. They cannot absorb teaching. They hold back classes, require extra time of teachers and repeat grades."

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\*Nutritionist, Cape Breton Island Division, Nova Scotia Department of Public Health.

Much has still to be done to correlate mental ability and nutrition. It is felt by authorities that a relation definitely does exist. From Columbia University, A. Harnett made studies on a group of children in a Virginia Orphanage. Her studies indicated that children with improper nutrition made higher scores on arithmetic, word-matching and similar tests.

Physiologically let us consider the difference between well-nourished and poorly nourished children. The well-nourished child has an appearance of well being, an air of contentment, a well-developed body, eyes clear and bright, facial expression, alert and happy, hair smooth and glossy, appetite and digestion good, elimination regular, sleep sound and refreshing, bony framework strong and well-built, head and chest well shaped, arms and legs straight, teeth well formed and sound, gums firm and light pink, muscles well developed and strong, posture erect, a moderate padding of fat, and a good red blood supply. The poorly nourished child may be undersized, show poor development or physical defects, dark hollows or blue circles around the eyes, hair may be rough and without luster, food habits "finicky", nervous indigestion, sleep restless and spasmodic, mishapen bones, poorly developed and defective teeth, unhealthy gum conditions, muscles small and flabby, with a lack of endurance and vigour, and susceptibility to infections.

Briefly let us consider some vitamin deficiencies prevalent among school children. Symptoms such as dry rough scaly skin with papular eruptions on arms and legs may indicate vitamin A deficiency. Cracks at the corners of the mouth, granulated conditions of the eyelids may be signs of lack of riboflavin. Inflammation and bleeding of tender gums is often the result of low vitamin C in the diet. Over a ten-year period in Canada, the Dominion Bureau of Statistics has recorded 478 deaths from rickets and osteomalacia, both preventable by vitamin D. Rickets, maims more children than it kills directly and it may contribute to death in later life.

Previous remarks indicate the importance of good nutrition for the general well-being of the child. How are we to improve its health through nutrition? The school child is reached in two ways:

1. Through the Home and School Association.
2. Through the school in the teaching of nutrition and by the school lunch.

In the past, work was done with Home and School Associations on the school lunch and the Fish Liver Oil programmes, and by nutrition study groups. At the present, nutrition is stressed in its relation to total health. There is a pamphlet entitled "Total Health" prepared by the Health Committee of the Nova Scotia Federation of Home and School Associations. The Chairman of the Committee is Doctor Charles Gass, Sub-Committee Chairmen consist of:

Liaison with National Committee of Home and School—Doctor E. L. Eagles  
Nutrition—Doctor Juanita Archibald  
Mental Health—Doctor F. A. Dunsworth  
Dental—Health—Doctor James P. MacGuigan  
Physical Fitness—Miss Dorothy Walker

The aim of the pamphlet is to indicate the important changes that unfold and the contributions that aid in the gradual development of the new-born infant to mature adulthood. Frequently, some aspects of child development are over emphasized or ignored. This pamphlet tries to present a well-rounded picture. The physical intellectual, emotional and social development and spiritual growth of the individual is presented. Included is a section on Education for Health Living prepared by Doctor L. A. DeWolfe. Copies of this pamphlet are available through the Nova Scotia Federation of Home and School Associations, P. O. Box 85, Truro, N. S. Price ten cents.

In teaching nutrition to children, it is felt that emphasis should be placed on the following items:

#### 1. *Adequate Breakfast*

In a study of the breakfast habits of over 8,000 rural elementary school children in another province for one week, it was observed that 95 per cent of the children had some breakfast but 45 per cent of these breakfasts were rated only fair or poor. Another study of urban children was similar but went further to show that those who had a good breakfast invariably had a good lunch and those who had a poor breakfast did not compensate for their lack by eating a good meal at noon. A recent study made at the University of Iowa on a group of school boys indicated that for those who omitted breakfast their maximum work rate and maximum work output was significantly less in the late morning hours. A good breakfast is important because it is a long time since the last meal. Children who have poor breakfasts are hungry before noon, as a result they become weary and listless. If children carry a lunch to school, a good breakfast is particularly necessary. It is difficult to provide all the essential foods on just two meals a day. Breakfast is a good time to include fruit, whole grain cereal with milk, bread and butter, egg or a protein in food if desired, and milk. Children are at a habit-forming age and this habit is for a lifetime.

#### 2. *Mid-Day Meal*

The mid-day meal is of certain importance. In Nova Scotia, 15,000 to 20,000 children carry a lunch to school. Children leaving home early in the morning need a good lunch. A good lunch should consist of milk or food made with milk, fruit or vegetables or both, bread in some form, and a protein food such as meat, fish, poultry, eggs, cheese, peanut butter or baked beans.

#### 3. *Vitamin D*

The school programme is designed to educate the people of the need for vitamin D. Five capsules supply the week's needs. The capsules are administered throughout the school year. It is realized, however, that the ideal place to administer fish liver oil is in the home. Yet in one area of Nova Scotia where cod liver oil was manufactured, fish liver oil was not administered in 80 per cent of the homes.

#### 4. *Milk*

Milk requires special emphasis. In a survey, results showed that 30 to 40 per cent of the people in Canada used little if any milk. In some schools.



it is the practice to give supplementary feedings of milk. It would be wise to consider this as a supplement to breakfast and administer it at ten o'clock. In some schools recess is altered to carry out this programme effectively. If a child eats a good breakfast and a good lunch, a glass of milk later in the morning is usually unnecessary.

Chocolate dairy milk is generally a mixture of milk with chocolate syrup. Unfortunately, the extra sugar in the chocolate promotes tooth decay.

#### 5. *Decreased Use of Sweet Foods*

There should be a drastic reduction in the consumption of sweet foods, such as pies, cakes, candies and soft drinks and other such foods because they promote tooth decay, spoil the appetite for other good foods and they are expensive when food value is considered. Children should be encouraged to eat raw fruits for desserts, and for in-between-meal snacks fresh fruit, fruit juice, raw vegetables, and milk.

#### *Teaching Materials*

Helpful materials in teaching nutrition are film-strips, flannelgraphs, posters and the following literature:

"Let's Have Lunch" prepared by the Nutrition Division, Department of Public Health, Nova Scotia.

"Lunchtime in the Rural School" prepared by the Nutrition Division, Department of Public Health, Nova Scotia.

"Mother, The School Lunch" prepared by the Nutrition Division, Department of National Health and Welfare.

"Feeding Habits", Child Guidance Series, prepared by the Dental Health Division.

Nutrition is of interest to all of us. "As the child eats, so will he grow." Children are an asset to any community. "Canada's Food Rules" point the way to better nutrition.

### **School Sanitation**

W. J. Chisholm\*

Sydney, N. S.

The subject of school sanitation, or to be more inclusive, school environment, is one which has evoked a great deal of interest and study among public health workers throughout Canada. Present day programmes of school sanitation have evolved largely as the result of a recognized need for a healthful school environment as being fundamental to the learning process.

A few years ago, a School Health Survey was made in Canada by the National Committee for School Health Research. The report of this Committee revealed that, while not all of our urban schools were up to standard, by far the greatest number of problems were to be found in our rural and semi-urban

\*Sanitary Inspector, Nova Scotia Department of Public Health.

schools. The survey report deals with school environment as being the most important factor in the health of school children.

In the educational programme carried out by Sanitary Inspectors towards a safe and healthful school environment, many items of sanitation must be assessed—such items as school water supply, the sanitary disposal of sewage, school lighting, heating and ventilation, and sanitary maintenance of classrooms.

Almost all rural schools obtain drinking water from brooks, springs or wells. Many of these water sources are completely unprotected and open to various means of contamination. As we all know, serious illness may result from the drinking of polluted water. For this reason, it is important that the school water supply be tested regularly and every reasonable precaution taken to ensure its safety.

Regarding the storage of drinking-water, where the provision of sanitary type drinking fountains is not possible, water should be stored in a clean metal container fitted with a faucet with which single service cups may be used. Under no circumstances is the use of a common drinking cup to be condoned.

Equal in importance to school water supply is the matter of the sanitary disposal of wastes. The outdoor privy, in use in many of our rural schools, is usually located at some considerable distance from the school building. In winter, children put off as long as possible the trip from the warm classroom to the frigid toilet. This delay sometimes causes upset stomach, nausea, and headache thus interfering with the academic performance of the pupil. In summer, these toilets become a breeding place for flies which find their way from the unprotected privy to the lunchroom of the school pupils. All windows should be screened from early spring to late fall in school buildings. It is most desirable that all rural schools should provide sanitary facilities which will eliminate as much as possible the spread of communicable disease. In areas where the soil texture is suitable, schools should use a septic toilet—such an installation may be made part of the school building and on the basis of present information, this system is completely adequate for school needs. In instances where the use of the septic toilet is not possible, a properly constructed privy, adequately maintained, should be provided as an only alternative. In urban schools where water carriage sewerage systems are in general use flush toilets provide a safe and sanitary means of waste disposal. Along with proper toilets goes the necessity for the provision of some type of hand washing facilities. In many of our smaller schools, a metal basin, soap, clean water and paper towels placed in a convenient location help to teach the children good personal hygiene habits, particularly the importance of washing the hands after each visit to the toilet.

*School lighting* is an item of very great importance in school environment. The Committee report, in dealing with the subject of classroom lighting, indicated that of the schools inspected, over 60 per cent were inadequately lighted. Insufficient light and improper types of lighting are the causes of eye strain and fatigue, and since children spend almost half their waking hours in school it becomes at once evident why proper seeing conditions are so important in classrooms. Recommended for school lighting is a minimum intensity of

twenty foot candles of light at desk level in all parts of the classroom—some authorities on the subject feel that any light intensity under thirty foot candles is inadequate for classroom needs. Schoolroom light is supplied from two sources, namely, natural light, from windows, and artificial light, from electricity. For the best daylight penetration, windows should be massed on the left of the pupils and form a large window area. Actual window-glass area should not be less than one square foot of glass to five square feet of floor space and preferably more. Since it is from the upper part of the windows that the opposite side of the room receives most of its light, it is important that the top of the windows should be as near to the ceiling as possible. The number of sash frames in the glass area should be kept at a minimum since this cuts down the frequency of eye accommodation from light to shadow which results in eye fatigue to the children. Regular cleaning both inside and outside is necessary to keep the glass free from soil which interferes with the penetration of light rays. Windows should be cleaned at least once a month inside and three times yearly on the outside. Window shades should be used only when it is necessary to control glare by intercepting direct sunlight and diffusing it throughout the entire room. Shades should, of course, be light in colour and of translucent material to allow light to pass through but prevent glare.

Interior colours influence to some extent the effectiveness of lighting the school room. Very light shades of colour which have a high reflection factor are most satisfactory. A flat finish paint minimizes the glare which results from the use of gloss paints. The trend in favour of light coloured chalkboards is now widespread, the green hyloplate being favoured because of its non-reflecting surface and its lesser amount of light absorption. Tilting of chalkboards at the lower edge a few inches outwards from the vertical has been found helpful in eliminating glare.

The use of artificial lighting in schools has become rather an important feature of school sanitation. There are many schools during the year when unsatisfactory interior daylight conditions prevail which make artificial light necessary to maintain proper seeing conditions. There are two types of electric lighting in general use, namely, semi-indirect and indirect lighting. Whichever of the two systems is used the desirable results should include uniform illumination, a minimum of glare and shadow, and correct distribution and diffusion of the light.

In regard to the ventilation of school classrooms, it is well known that the condition of school-room air, particularly its temperature has a direct bearing on the incidence of respiratory diseases among school children. In many of our schools, systems of regulated ventilation are entirely lacking, and the improper use of windows and doors as vectors of air change is common. For example, in some schools the practice is to keep windows closed until recess time. While the children are at play, all windows are thrown open—the result? The children return from active play to a cold classroom, in which the windows are again closed. Another improper method of ventilating which is not uncommon, is opening of windows from the top and bottom at the same time. This allows the warm air to escape and leaves a layer of cold air around the children. These frequent extremes of temperature in the school room, undoubtedly contribute

to the incidence of colds and respiratory infections among school children. Windows should be opened from the bottom—draft deflectors which will direct the incoming fresh air above the level of the children until it can be warmed slightly should be installed on all windows. An exhaust duct, located near the ceiling of the room, should be provided to take out warmed air in order to allow for replacement with fresh air. This arrangement of windows, draft deflectors and exhaust duct allows the following process; First, the incoming cold fresh air mingles with the warm air in the room, is deflected upwards and moves towards the exhaust. As it moves it cools and falls toward the floor where the body heat of the children warms it. It then rises again and escapes through the exhaust duct.

School heating is closely associated with ventilation and has an important bearing on the health of the school child. High temperatures combined with high humidity provide optimum conditions for the development of colds and other infections of the delicate membranes which line the passageways of our breathing mechanism. While many of our urban schools have controlled central heating plants, the common type of heater in the small rural school is the classroom stove. This stove is usually placed near the centre of the room and is often looked after by the pupils themselves. In winter, temperatures in the area immediately adjacent to the stove are often as high as ninety per cent—this results in weariness and discomfort in the children and increases their susceptibility to the bad effects of chilling drafts. Optimum room temperature in a school is considered to be between 65 and 68 per cent at desk level. Classroom stoves should be surrounded by an insulated jacket which will project warmed air towards the ceiling from which it may be reflected gradually over all parts of the room. Every classroom should be equipped with a thermometer placed at desk level as an indicator of air temperature in the room.

On the subject of cleaning and maintenance, in the larger schools it is important that janitors be instructed in school sanitation, particularly with regard to ventilation, heating and the necessity of maintaining optimum air condition in classrooms. Cleaning should be done often and by proper methods. Since dust is an efficient carrier of bacteria, its scattering and diffusion through the air for later settlement on furniture should be avoided. The use of a good dust layer is an integral part of a satisfactory floor sweeping operation. Floors should be swept daily and scrubbed at least three times yearly. Regular cleaning of windows and light fixtures is another important duty in the maintenance survey, since illumination is often seriously impaired because of neglected light bulbs and shades.

In the foregoing observations I have attempted to show how an improper school environment can materially contribute towards ill-health in school children—and conversely, that if a sound policy of promoting a safe and healthful environment in schools is followed, dividends in the way of a healthy and happy school population are certain to accrue.



**T**O ALL AND SUNDRY WHOM THESE PRESENTS

Do or may Concern, We, Sir Thomas Innes of Learney, Knight Commander of the Royal Victorian Order, Baron of Learney, Kinnairdy and Veochrie, Lord Lyon King of Arms, Send Greeting: WHEREAS the President and Secretary of **THE NOVA SCOTIA MEDICAL SOCIETY OF NOVA SCOTIA**, with offices at the Public Health Clinic, University Avenue, Halifax, in the Province of Nova Scotia, Canada, having by Petition unto Us of date 17<sup>th</sup> March 1954 Shewn: **THAT** the Society was, by an Act of the General Assembly of Nova Scotia, 1861, cap. 69, of date 28<sup>th</sup> March 1861, incorporated in the name of "**THE NOVA SCOTIA MEDICAL SOCIETY OF NOVA SCOTIA**," and that the said Society was empowered to hold real estate: **THAT** the present Officers of the said Society are as follow: President; Myles Gregory Tompkins, Doctor of Medicine, Master of Surgery, Fellow of the American College of Surgeons, residing at Glace Bay; 1<sup>st</sup> Vice-President, Hugh Fraser McKay, Lieutenant-Colonel (Supplementary Reserve, Royal Canadian Army Medical Corps), holder of the Efficiency Decoration, Doctor of Medicine, Master of Surgery, residing at New Glasgow; 2<sup>nd</sup> Vice-President, Vera Mason Cochrane, Doctor of Medicine, Master of Surgery, residing at River Hebert; all in the Province of Nova Scotia; Treasurer; Robert Ordville Jones, Bachelor of Science, Doctor of Medicine, Master of Surgery, Fellow of the American Psychiatric Association, residing at Halifax aforesaid; and Secretary, Harry Goudge Grant, Doctor of Medicine, Master of Surgery, Member of the Royal College of Surgeons, Licentiate of the Royal College of Physicians, Dean of Medicine, Dalhousie University, Halifax aforesaid: **THAT** the said Medical Society of Nova Scotia is desirous of bearing and using such Ensigns Armorial as might be found suitable and

according to the Statute of Arms of Scotland, **KNOW YE THEREFORE** that We have Devised, and Do by these Presents Assign, Ratify and Confirm unto the said **THE NOVA SCOTIA MEDICAL SOCIETY OF NOVA SCOTIA** the following Ensigns Armorial, as depicted upon the margin hereof, and matriculated of even date with these Presents upon the 157<sup>th</sup> page of the Thirty-Ninth Volume of Our Public Register of All Arms and Bearings in Scotland, **videlicet**: - Murray, a pallet Or ensigned of a serpent Argent, langued of the second, on a chief of the third a saltire Azure, and in an Escrol below the same this Motto **REPARATE ANO RUMANTO**; by demonstration of which Ensigns Armorial, Insignia of Nobility, the said Society is, amongst all Nobles and in all Places of Honour, to be taken, numbered, accounted and received as an Incorporation-Noble in the Noblesse of Scotland; **IN WITNESSE WHEREOF** We have Subscribed these Presents and the Seal of Our Office is affixed hereto at Edinburgh, this Twenty-Seventh day of April in the Third Year of the Reign of Our Sovereign Lady Elizabeth the Second, by the Grace of God, of Great Britain, Ireland, and the British Dominions beyond the Seas, QUEEN, Defender of the Faith, etc., and in the Year of Our Lord One Thousand Nine Hundred and Fifty-Four.



Thomas Innes of Learney  
 You.

# Lumps In The Neck

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The rather unscientific title of this article was not chosen thoughtlessly. First, the term "Lumps" may be used to include tumors, inflammatory swellings, congenital conditions and cysts, which, in a title would be too long. Secondly, the term is very commonly used clinically, and as we hope in this article to approach the problem in a practical way, the title seems appropriate. All of us have seen patients whose sole complaint was, "Doctor, I have this lump in my neck; what is it?" In the great majority of patients, a confident diagnosis may be made, and correct treatment carried out. However, there is a minority of patients in whom diagnosis is obscure, and it is these problem patients that we are primarily concerned with here.

In order to cover such a subject at all adequately, it is almost essential to start with a classification, which we will attempt to make as practical as possible. There are a number of such classifications, but probably the best is to divide all lumps of the neck into two main groups, viz., cystic and non-cystic.

The cystic group will be covered first. It is usually, (but not always) easy to determine by palpation and transillumination whether a lump is a cyst or not. In a rare case, where the fluid in a cyst is under marked pressure, there may be no fluctuation, and the cyst feels firm. Alternatively, there may have been haemorrhage into a cyst, which nullifies the cardinal sign of transillumination. In both cases, however, aspiration will give the information required.

## Cysts of the Neck

### A. Midline

1. Thyroglossal cysts
2. Inclusion dermoid and sebaceous cysts
3. Cyst of thyroid isthmus or pyramidal lobe

### B. Lateral

1. Branchial cleft cyst (or fistula)
2. Cyst of thyroid lobe
3. Cystic degeneration of tuberculous glands
4. Cystic degeneration of malignant glands
5. Cystic degeneration of non-specific lymphadenitis
6. Sebaceous cyst
7. Dermoid cyst
8. Cystic hygroma

The above classification follows generally the frequency with which each condition is seen.

We have a patient then, with a cyst in (or very near) the midline of the neck. What is it, and what do we do about it?

Thyroglossal cysts (or fistulae) are the commonest. The cysts may be found anywhere from the foramen caecum to the supra-sternal notch, and in every case there is a tract extending from the cyst to the foramen caecum. If

the cyst lies below the hyoid bone, this tract may run in front of, behind, or through the bone. These cysts ordinarily move up when the patient swallows, as do cysts of the thyroid isthmus. However, palpation usually will determine whether or not the cyst is a thyroid cystadenoma. Also, due to the fact that the thyroglossal tract originates at the foramen caecum, the cyst will rise a bit when the patient protrudes the tongue, or at least, a tightening of the tract may be felt under the skin. This is a pathognomonic sign.

The treatment of such a cyst is surgical excision, through a transverse skin incision. This excision must extend up to the foramen caecum, and in almost every case a one centimeter section of hyoid bone should be excised. Other treatments advised are worse than useless, e.g., aspiration, injection of sclerotics, x-radiation, surgical drainage of the cyst, etc. Such treatments never cure and usually invite infection. The only excuse for surgical incision is to drain an infected cyst. This procedure is followed later by the usual operation.

Cysts of the thyroid isthmus or pyramidal lobe are ordinarily diagnosed easily by palpation, determining that the cyst is in thyroid tissue, and that it rises with swallowing. For these the treatment is surgical excision, because of the ever-present danger of a co-existent or primary carcinoma in any *solitary* lump in the thyroid gland.

Dermoid cysts usually are more superficial, do not move with swallowing, are not fixed to the skin, as are sebaceous cysts, and although fluctuant, do not transilluminate. Treatment for dermoid or sebaceous cysts is excision and is usually for cosmetic reasons.

In the patient where the cyst is laterally placed, the problem is somewhat more difficult. In this short discussion, we will eliminate cysts of the thyroid, dermoid and sebaceous cysts, since they have been briefly covered. This leaves for discussion branchial cleft cysts, cystic degeneration of lymph glands involved with tuberculosis, metastatic carcinoma or non-specific infection, and cystic hygromas.

1. *Branchial cleft cysts* are relatively common, arising from the second or third branchial clefts. They usually present as rather soft fluctuant swellings along and deep to the anterior border of the sternomastoid. They may present just inferior to the angle of the mandible or as far down the neck as the clavicle. The usual position is in the upper half of the neck. There are no definite diagnostic findings, but their position and consistency are usually helpful. Aspiration is valuable in diagnosis, the fluid being thick and clear or slightly milky, frequently containing cholesterol crystals. These cysts do not transilluminate well. Treatment for such cysts is surgical excision, being certain to remove the whole of the tract up to the pharynx (or tonsillar fossa) in order to prevent a recurrence. This tract may run up between the external and internal carotid arteries, or across anteriorly to these vessels, depending on the cleft from which the condition originated. In a small percentage of branchial cleft cysts, carcinoma will develop. This carcinoma may develop primarily, or in a pre-existing cyst. The diagnosis usually is made only when the tumor is excised. Lesions liable to be confused with a simple branchial cyst are briefly as follows:

2. *Cystic hygromas* are usually found in babies or children, and are con-

sidered to be congenital cavernous lymphangiomas. They are soft superficial masses, poorly demarcated, and transilluminate well. No one treatment is un-animously accepted, but early excision is probably best.

3. *Cystic degeneration of lymph glands involved by tuberculosis or carcinoma*: Differentiation here is not easy. If careful examination of head and neck does not reveal a primary focus of tuberculosis or malignancy, aspiration should be done. The examination of the aspirated material may be of help, e.g. the finding of tuberculous pus, or bloody cellular material from a malignant gland. If the diagnosis is still in doubt, biopsy should be done. When tuberculous glands filled with pus are found, the treatment advised is complete surgical excision of all involved glands, plus the usual systemic treatment. In the case of malignancy, the primary should be searched for and treated, and the cervical glands removed by block dissection. Radiation for such glands can not be given in curative doses, but may infrequently be used for palliation if the condition is incurable.

4. *Deep seated cavernous haemangiomas* may simulate a branchial cleft cyst. The differentiation is easily made by aspiration.

5. We have had on the Head and Neck Service at the Victoria General Hospital, a number of patients presenting with a cystic swelling in the region of the submaxillary salivary gland. Very superficial examination of these showed that the swelling was due to retained gland secretion from blockage of the duct by carcinoma of the floor of the mouth. A similar cyst-like swelling may be seen in blockage of the duct by stones, strictures, etc. In such non-malignant cases, the treatment is to relieve the obstruction if possible. In some selected cases the treatment of choice is to remove the sub-mandibular gland, being careful to preserve the cervical branch of the facial nerve.

6. *Cystic degeneration in a non-specific lymphadenitis* is more properly termed an abscess, which may be acute or sub-acute. Diagnosis is not difficult, the primary focus usually being in the mouth.

The above, while not complete, covers the majority of cysts found in the neck.

Insofar as *solid* tumors are concerned, the difficulties in diagnosis are almost wholly concerned with chronically enlarged lymph glands. In such cases it is nearly always necessary to remove a typical gland and have it examined by a competent pathologist.

The essentials of the diagnosis of a neck tumor lie in the differences between an acute or chronic inflammation, and primary or metastatic tumor. Excluding lymph glands, primary tumors may arise from any tissue in the neck. For practical purposes, such tumors arise from the thyroid, rarely from the carotid body, and very rarely from nerves. The parathyroid glands give rise to tumors but these patients are first seen for complaints due to over-production of the hormone, and not primarily for a lump in the neck.

### Thyroid

In considering the thyroid gland, discussion will be limited to only a few facets of the problem, since this should not turn into an essay on thyroid disease.



We shall consider then—

I Adenoma

- a. multiple
- b. solitary

II Carcinoma

III "Lateral aberrant thyroid."

I. *Adenoma*

(a) Multiple adenomas in a thyroid gland are familiar to all. Such a gland may or may not give rise to toxic symptoms. It is usually considered that toxicity from such a gland is due, not to the adenomas, but to the remaining glandular tissue. However, recent studies with radio-active iodine have shown that in a small proportion of cases, one or more of the adenomas are hyper-active and causing hyperthyroidism.

The likelihood of malignancy developing in a thyroid with multiple adenomas is small, less than a half of one per cent.

The diagnosis of multiple adenomas is by careful palpation, together with such other investigation as may be indicated, e.g., B.M.R., blood picture, etc. Treatment, if required for therapeutic or cosmetic reasons, is a subtotal thyroidectomy removing all involved tissue.

(b) In the case of a solitary adenoma the problem is totally different, and treatment is imperative. Diagnosis is by palpation of a single tumor in the thyroid gland, rising beneath the fingers when the patient swallows. At the New York Memorial Hospital for Cancer of the Head and Neck, an aspiration biopsy is done on all such tumors. In the majority of cases, this procedure is not of great help.

All such single tumors of the thyroid, because of the danger of malignancy, should be excised with a surrounding zone of normal tissue. 10-20% of solitary adenomas removed are found to be malignant. If malignancy is found, the treatment of choice is a complete hemi-thyroidectomy combined with radical neck dissection and followed by x-radiation.

II. *Carcinoma of the thyroid*

There are a number of types of cancer, of greater or lesser degrees of malignancy. Clinically, the first symptom complained of may be chronic hoarseness, or a stubborn cough, due to direct involvement of the recurrent laryngeal nerve. On examination of the neck, a hard mass is found arising from the thyroid. This mass may be fixed to contiguous structures. If the condition is considered curable, the treatment is radical surgery followed by x-ray. Hopeless cases may be given x-ray for palliation.

Radioactive iodine has been used with unpredictable results. In many cases of cancer, the neoplasm loses the normal faculty of thyroid tissue to take up iodine, so that the giving of radioactive iodine is useless.

III. "*Lateral aberrant thyroid*"

This condition was placed in a sub-group after considerable thought. This was done to emphasize the fact that it is a type of cancer of the thyroid of a relatively low (but definite) degree of malignancy. The condition form-

erly was considered to be a benign developmental anomaly. It is now accepted that such laterally placed thyroid tissue is actually a lymph node invaded by metastatic thyroid carcinoma, the primary being in the homo-lateral lobe of the thyroid. The diagnosis is almost invariably made by the pathologist after microscopic examination. The treatment is radical surgical excision. As an example of this type of case, we recently had on our *Head and Neck Service* at the Victoria General Hospital a lady of about 65 years complaining of a small lump in the posterior triangle of the neck. This lump had been present for thirty years, and had begun to enlarge somewhat three years ago. Clinical investigation did not help us, but biopsy showed a low grade thyroid carcinoma. At radical operation, a bean-sized tumor was found in the homo-lateral lobe of the thyroid. In this case, if no biopsy had been done, and the gland had been considered tuberculous, which it appeared to be clinically, the tumor of the thyroid would undoubtedly not have been found until widespread metastases had occurred.

### **Carotid Body Tumor:**

These tumors are uncommon, arising in the carotid body at the bifurcation of the common carotid. They cause few symptoms aside from the presence of a palpable tumor. They are found usually at the level of, or just below, the hyoid bone, and frequently show a transmitted pulsation. On palpation, they do *not* move with swallowing, may be moved in a transverse direction in the neck, but cannot be moved up or down. The ideal treatment is surgical removal. However, due to their location, excision may necessitate ligation of the common carotid and internal and external divisions, with the consequent dangers of hemiplegia or other neurological catastrophes. The essential point then, is whether or not these tumors are malignant, and *must* be removed in spite of the operative risks. The consensus at present is that carotid body tumors are usually benign, or of an extremely low degree of malignancy. If excision involves ligating the common or internal carotid arteries, such surgical interference is unwarranted, and biopsy only should be done. Should this biopsy show undoubted malignancy, excision of the tumor is carried out, in spite of the surgical risk.

Tumors of nerves may simulate many of the solid tumors of the neck. There are no diagnostic signs or symptoms and usually are diagnosed at operation.

### **Lymph Node Enlargement**

Finally there is the group of enlarged lymph nodes. These are the most difficult to diagnose clinically and a biopsy together with other investigation is usually required. Every text book gives a number of supposedly helpful criteria for the palpation of such glands, e.g., they are described as rubbery, discrete, matted, etc., but on the whole, little reliance in diagnosis can be placed on such findings, particularly since the characteristics may change during the progress of the disease.

Lymph gland enlargements may be:—

I *Inflammatory*

- a. acute
- b. chronic
  - i. specific—e.g., tuberculosis, syphilis
  - ii. non-specific

II *Neoplastic*

- a. benign—e.g., lymphoma
- b. malignant
  - i. Primary—e.g., lymphosarcoma
  - ii. Secondary—e.g., from mouth, lung, etc.

III *Manifestations of systemic diseases*

e.g., Mononucleosis, leukemia, sarcoidosis Hodgkin's Disease, etc.

I. *Inflammatory Enlargements:*

(a) *Acute:* The diagnosis in this group is obvious and requires no further discussion.

(b) *Chronic:* Tuberculous lymph glands are not as rare in Nova Scotia as they should be. They frequently appear first in the neck, the portal of entrance probably being the tonsils. There may or may not be the usual systemic signs and symptoms of tuberculosis. Definite diagnosis usually is by biopsy. Treatment varies with the individual case, but use should be made of all possible agents: rest, specific antibiotics, etc. Local treatment may be a limited or extensive surgical excision; or in some cases, x-radiation, depending on the particular anatomical and pathological stage of the disease as it is found in the affected glands.

Syphilitic cervical adenitis is part of a luetic lymphadenitis in the primary or secondary stage, and other signs are present. In tertiary syphilis, gummas in a lymph gland have been *rarely* reported.

Non-specific chronic lymphadenitis usually is associated with a sub-acute inflammatory lesion of the head, mouth, ear, etc., and if such a finding can be made treatment is directed at the primary condition.

*Neoplastic Enlargements*

A. Benign lymphomas

This is an uncertain diagnosis to make. The pathologist may make it, but usually with some reservations.

B. Malignant lymphomas.

i. *Primary:*—There are a number of pathological types which differ in their prognosis and treatment. Not all such malignancies are hopeless. By appropriate treatment, e.g., excision, x-radiation, nitrogen mustard, etc., worthwhile palliation may be had. Indeed, in the giant follicular type, 5 year

non-recurrence rates in as high as 65% of cases have been reported<sup>1</sup>. Such tumors frequently make their appearance in the lateral portion of the neck, enlarge at a variable rate, are associated with few or no other symptoms. In later stages, other glands may be involved, but clinical investigation such as blood picture, sternal marrow puncture, etc., is generally unproductive. With adequate biopsy (which may have to be repeated) the diagnosis may be made, and correct treatment carried out.

ii. *Secondary*:—Lymph glands of the neck secondarily involved with malignancy are ordinarily hard and nodular. In order to examine adequately such a patient for the primary, one should remember the drainage area of each group of glands and thus concentrate examination on the proper area. Areas easy to overlook in such examinations are the root of the tongue, the pharynx, and the accessory nasal sinuses. In addition, it must not be forgotten that cervical glands are frequently involved from primary malignancies below the clavicle, e.g., lung or stomach. A lead as to the site of the primary may be obtained from the pathologist's examination of the biopsied node.

Treatment of such glands depends on the primary condition. If this is below the clavicle treatment is palliative. If the primary is in the head or neck, and is curable, radical neck dissection is indicated.

iii. *Manifestations of systemic disease*:—This is a rather miscellaneous group as noted in the classification. It is difficult to pick out any for discussion since in the majority of these conditions, the enlarged cervical lymph glands are merely an incidental finding of diseases with general systemic complaints, and the lump in the neck is not the primary complaint.

Hodgkin's disease frequently makes its presence known first by enlarged cervical lymph glands. Whether this disease should be placed in this group, or in the group of neoplastic diseases is a controversial point. Nevertheless, the diagnosis is usually first made by examination of a biopsied cervical gland.

The remainder of this hodge podge of systemic and lymphoid diseases, which, only incidentally cause cervical lymph gland enlargement, will be omitted for the sake of brevity. However, it may be noted that in such diseases a gland biopsy may be required as an aid in diagnosis. Such a gland should be chosen from a typical group, and not chosen because it is more accessible or easier to remove.

### Summary:

This is a review of the common causes of lumps in the neck, attempting to emphasize the importance of exact diagnosis. To arrive at this, all clinical aids should be used: careful palpation, transillumination, x-rays, blood studies, etc., after the fundamental of a careful history. Finally, biopsy should be done in every case of doubt.

(1) WARD and HENDRICKS — Tumors of The Head and Neck. pp. 705.

# Rheumatism In Nova Scotia

J. F. L. Woodbury, M.D.,\*  
Halifax, N. S.

SIR William Osler is quoted as having said: "When I see an arthritic entering the front door, I leave by the back door." How do you feel when an arthritic enters your office? It is estimated that one person in twenty suffers from some kind of rheumatic disease, yet, until 1948, the amount of research going on in Canada into the problems involved was negligible! The average Medical School in the United States devotes no more than four hours in four years to the teaching of arthritis, it is said.

We are all familiar with the fact that chronic arthritis drains the pocket-books of patients who suffer from it, and that their treatment is therefore financially unrewarding to the physician. Diagnosing these diseases takes longer than is required for most medical conditions, because "Rheumatism" covers a large group of different diseases, and if a good job is to be done one must take a great deal of time over eliciting the history. Moreover, the treatment of the chronic arthritides is prolonged, and is directed to the encouragement of a spontaneous remission of symptoms, or at the best (as, for example in gout) at control rather than cure.

So far I have painted a black picture. This situation was one that seemed to justify pessimism on the part of doctors, and defeatism on the part of patients. Out of the situation that I have described arose a strong feeling on the part of some physicians that more research was necessary to develop specific treatments or methods of prevention, and that meanwhile the sanatorium-like regime of treatment required for rheumatoid arthritides must somehow be made available. It was a difficult problem, because many hospital beds appeared to be required immediately, and quite clearly beds were not forthcoming in such numbers. In the meantime patients, and the friends and relatives of patients were becoming deeply interested in the problem, and medical organizations such as the Canadian Rheumatism Association and The Canadian Medical Association were discussing the matter. Governments were taking an interest in the public health aspects of rheumatism, which ranks first in incidence, and second only to nervous and mental disorders as a cause of disability.<sup>1</sup> In 1948, the Department of National Health and Welfare called a conference at which all Provincial Departments of Health, University Medical Schools, The Canadian Medical Association, the Canadian Nurses' Association and other interested groups were represented. Out of this conference grew the Canadian Arthritis and Rheumatism Society, a voluntary, (i.e. non-Governmental) agency.

Since its inception, the national body has organized Divisions in eight out of ten Provinces, and has initiated an important programme of clinical and scientific research, in which many university scientific departments co-operate. In an effort to provide undergraduate and post-graduate teaching and a consulting service, the Society has fostered a programme of professional education, under which more than twenty-six Fellowships have been awarded for advanced training in the diagnosis and treatment of rheumatic diseases. As a

\* Medical Director, The Canadian Arthritis and Rheumatism Society.

result most teaching and main regional hospitals now have on their staff at least one physician with special training and experience in arthritis. In the first five years of the Society's activity, the number of arthritis clinics at general hospitals in Canada was increased from five to more than thirty. The Society's answer to the need in rheumatoid arthritis for a programme of bed-rest, balanced by therapeutic exercises, to maintain joint mobility and muscle function, has been provision of "Mobile Physiotherapy Units." These units consist of a fully-trained physiotherapist, a vehicle and some simple equipment, which can move from one patient's home to another treating arthritics at the prescription of their own family physician. Demonstration programmes in vocational rehabilitation and social services as they affect rheumatic diseases, have been inaugurated by the Society.

In 1950, those Nova Scotian medical educators who had been present at the conference which led to the formation of the C.A.R.S., invited a group of physicians known to be interested in rheumatism to hear the story of the Society unfolded by its Executive Director. As a result the Nova Scotia Division was formed, and a doctor was selected to go away for a period of training in the diagnosis and treatment of the rheumatic diseases. In the course of the next two years the Nova Scotia Division conducted its first financial campaign and got its first mobile physiotherapy unit on the road in Halifax.

At this point it should be recognized that a great deal of the credit for the success of the Society should go to the Provincial Governments which have liberally assisted the Divisions through Federal-Provincial Health Grants. It is customary for Divisions to be reimbursed for the cost of equipment in this way, and sometimes Governments have made it possible in a new district for services to be provided at very low cost prior to the holding of a financial campaign in that area. The Government of Nova Scotia has broadened the range of its out-patient services at the Victoria General Hospital to include a clinic specializing in the care of rheumatic diseases.

The Nova Scotia Division now operates mobile physiotherapy units in Halifax and in Dartmouth. Branches of the Division have been formed in the Annapolis Valley, Pictou County and Cape Breton. The Division hopes to make facilities for the more adequate treatment of rheumatic diseases available to doctors in all major centres throughout Nova Scotia. When funds become available it is hoped that general practitioners in centres throughout the Province will avail themselves of short courses in this field, so that each community will have a doctor with a special interest in rheumatic disease.

What is the procedure for a physician who wants his patient to receive treatment from one of the Society's mobile physiotherapy units? He simply calls the office of the Division or Branch in his centre, and gives or writes instructions for the physiotherapist. For example he may say, "My patient Mrs. So-and-so has rheumatoid arthritis and requires general bed exercises with particular attention being given to her shoulders." Or he may say, "I want you to visit my patient three times a week, and attempt to increase the stability of her knee joints by giving her quadriceps muscle drill." In other words the treatment that is given is exactly what the doctor prescribes. Therapists are sometimes asked to go in to evaluate the case from the stand-

point of physiotherapy. They then call the doctor and discuss it with him, at which time a course of treatment is worked out. Then the physiotherapist, depending upon the prescription, may take into the patient's house an infra-red lamp, a frame over which the patient may drape her knee while carrying out exercises, or a muscle-stimulating unit to coax muscles which have forgotten their function to make a come-back. The accent is usually on active exercises to maintain muscle bulk and strength, as well as joint movement, unless the patient's doctor wishes otherwise.

The C.A.R.S. is an active and interested member of the Nova Scotia Council for Rehabilitation of Disabled Persons, and hopes to take its place beside other voluntary agencies in the work to be done in the rehabilitation centre of the future. Meanwhile, practical rehabilitation is being carried on, somewhat hampered by lack of the centralization which would lead to better team-work among the group of physicians, surgeons, therapists, nurses and others by whom, ideally, the treatment of arthritis is carried out.

The project and activities of the Society are designed wherever possible to stimulate action on the part of other agencies and groups in developing an over-all programme, and to supply directly only those services which it can provide more efficiently than any other agency. The Society aims to blaze a trail which other health and hospital authorities, governments and the general public, can and will wish to follow. It is hoped that this trail-blazing may help to dissipate the gloom surrounding the outlook of the arthritic, and to introduce into the attitude of the physician a note of optimism, so that he will not leave the office by the back door when he sees an arthritic coming in.

1. Swaim, L. T: Problem of Chronic Rheumatism. *Annals of Rheumatic Diseases*. Vol. 5, p. 192, Dec. 1946.

## Dalhousie Notes 1955;34:33-36

One of the interesting developments at the Dalhousie Medical School in recent years has been the extension of post-graduate education. Most physicians in Nova Scotia, and many from the adjacent Atlantic Provinces, have attended one or more of the programmes sponsored by the post-graduate committee. They will be reminded again this month of the existence of this organization when they receive their annual notices that the fees of The Canadian Medical Association and its Nova Scotia Division are due once again. There is an additional levy this year of three dollars for the post-graduate programme, and this will increase next year to five. A brief outline of the development of this programme might be in order, and an explanation of the need for support from The Medical Society.

It goes without saying that the primary function of a medical school is to teach undergraduate students. The university plays a secondary role in the education of medical specialists, whose training is for the most part received in accredited hospitals. That a medical school may also have some responsibility for the "continuing education" of practising physicians after graduation is a rather new idea, and one that is not yet widely applied. It is true that teaching hospitals have always opened their doors to a physician or surgeon who wished to study there for a few days or weeks, but relatively few universities or hospitals have had organized programmes designed to bring post-graduate education within the reach of all interested physicians in a region.

The post-graduate efforts of Dalhousie University had started in a small way twenty-seven years ago with the Dalhousie Refresher Course, which became an annual event. This was, and still is, designed to provide a programme of varied interest for general practitioners. A short course in Surgery was also organized a few years ago, which was primarily designed to meet the needs of applicants for certification or fellowship in The Royal College of Physicians and Surgeons of Canada. The much more extensive development of post-graduate education which has taken place during the past three years was envisaged by the late Dean H. G. Grant. It was to be of much wider scope, and designed to serve the physicians of the four Atlantic Provinces, especially the general practitioners. Because of the experimental nature of this type of post-graduate education, he was able to interest the Kellogg Foundation, which agreed to finance the programme in full for three years.

With the co-operation of the administrative and medical staffs of the Halifax hospitals, one of the most extensive and comprehensive post-graduate programmes for general practitioners now operating anywhere in Canada has been built up. In addition to co-operating in the clinical teaching, the Victoria General Hospital has also provided facilities for the office of the Secretary. The administration is under the general direction of the Post-Graduate Committee of the Faculty of Medicine. A larger advisory committee, which meets annually, has representation from the Medical Societies of the four Atlantic Provinces, the General Practitioners' Association, the teaching hospitals and other interested groups.

The programme of the Post-Graduate Committee has centred around three main types of activities. First, men of outstanding ability in various fields of medicine and surgery have been brought to Halifax, and to other



centres in the four Atlantic Provinces, to give lectures and conduct clinics. In most instances the lecturer has visited two centres while in the Maritimes. Thirty-eight of the outstanding figures of Medicine in Canada, the United States, and in some instances the United Kingdom, have visited the Atlantic Provinces under the auspices of the Dalhousie Post-Graduate programme during the past three years. In many instances the visitors have been kind enough to lecture also to the Dalhousie medical students and the contact with these prominent members of the profession has been a stimulating experience for the under-graduates.

The second type of programme has consisted of intensive special courses of approximately five days, which have been arranged for general practitioners by the Departments of Surgery, Medicine, Obstetrics and Gynaecology, Paediatrics and Anaesthesia. In addition, the Departments of Ophthalmology and Otolaryngology, Urology, Preventive Medicine and Psychiatry have made contributions to some of these programmes. Attendance at these short courses has averaged about twelve general practitioners. A planned effort was made to keep the numbers small in Obstetrics in order that each visitor might participate to the fullest extent in the clinical work of the hospital. These short courses have been very well received and have been attended during the past three years by 113 doctors from all four of the Atlantic Provinces.

The third type of programme is one in which the Dalhousie staff members have carried their post-graduate activities to the smaller centres of the four Atlantic Provinces. This is the largest and most important aspect of the programme. During the first two years most of the lectures or clinics were arranged through a Branch Medical Society. They usually consisted of an evening lecture or symposium by one or more of the University staff, but in some instances discussions or clinics were carried out on the following morning in the local hospital. During the past year increasing emphasis has been placed on clinical teaching rather than lectures or other formal presentations, and at the same time more active participation by the physicians in the area has been encouraged. The form this has taken is called "A day in the hospital." A specialist from a department of the Faculty of Medicine is invited to one of the smaller local hospitals to discuss clinical cases with the staff members. The local practitioners work up a number of problem cases and present them to their confreres and the visiting specialist, who then leads a discussion on the problems thus presented. This type of programme has not been very widely used yet by the smaller hospital groups, since it is a new approach, but it has been commented upon very favourably where it has been tried out. It involves more work on the part of the practitioners. The earlier lecture programme required mere attendance at a Medical Society meeting. There seems little doubt that it is a more valuable type of post-graduate programme partly because it is clinical and partly because of this direct participation. In the first three years Dalhousie staff members conducted 109 lectures, symposia or clinics in the four Atlantic Provinces.

Assistance has also been given to the five-day Dalhousie Refresher Course to extend its programme and obtain more visiting lecturers. Some assistance has also been given to the annual Saint John clinical programme of two days.

During the past year also a new type of decentralized programme has been introduced with considerable success. A group of practitioners in a small area enroll for an organized course of lectures, clinics and demonstrations, to be held at weekly intervals. An evening programme of three hours includes presentations by two visiting Dalhousie teachers, and clinical presentations by one or more members of the study group. To date such organized courses at weekly intervals have been possible only in the towns near Halifax. To extend them more widely would involve greater travel costs and a heavy expenditure of staff time and effort.

In the spring of 1954, on completion of the first three years of this post-graduate work, an approach was made to the Kellogg Foundation for continued financial support. Their usual custom is to finance a new project only until it has proven its value. They had provided a budget of \$18,000 per year for three years. The Foundation agreed to support the continued operation of the Dalhousie Post-Graduate programme for three years longer but only on a reduced basis, and subject to the University undertaking to obtain additional funds to carry the programme through. Unfortunately Dalhousie University was not, and is not now, in a financial position to support this programme completely. The expansion of the under-graduate medical training, which is envisioned in the immediate future, will require additional funds which are not now available. It is considered impractical to withdraw funds from under-graduate education to support the continuing education of physicians in the four Atlantic Provinces. In fact, such a procedure could not be justified on the basis of the earlier statement that the primary function of the University is under-graduate education, next, graduate training of specialists, and only finally, the continuing education of practitioners. The lack of financial support is regrettable but it can be readily understood that the primary function of the Medical School, to teach under-graduate medical students, must receive first priority. It has therefore been necessary for the Medical School to seek special funds for the purpose of continuing this post-graduate programme. It was initially hoped that some assistance might be obtained from the Provincial Departments of Health, but to date this has not been forthcoming.

The practising physicians of the four provinces have indicated their appreciation of the programme, and in particular the College of General Practice. This has now been demonstrated in a tangible way by The Medical Societies of Nova Scotia, Prince Edward Island and Newfoundland indicating their willingness to contribute to this programme up to five dollars per member per year. The Provincial Medical Board of Nova Scotia has also made a grant. The Provincial Medical Society of New Brunswick, and the Medical Boards of that Province and of Newfoundland are considering the matter. Commitments to date are still inadequate to cover more than one quarter of the budget which is required to operate the programme. It is hoped that additional grants from The Canadian Medical Association to the Provincial Medical Societies may be forthcoming and that the Societies will permit their use for this purpose in addition to the levy already approved. There will still be a serious financial problem, but it may be possible to ease this somewhat by charging higher registration fees for the special lectures and courses.

It should be pointed out that at present the total expenditures for the maintenance of this programme, with the exception of the full-time secretary's salary, are for travel, preparation of teaching material and other necessary operating expenses. No visiting lecturers or members of the Faculty of Medicine are given any honoraria for their work. The time that has been spent by many staff members on this programme, and the sacrifices that have been made to ensure its success have been great. The University is grateful for their efforts, and for all the support that this programme has had to date. It is sincerely hoped that it will be possible for the Medical School to continue and even to expand the work. It would seem to fit most of the requirements for continuing education that are a basis for membership in the College of General Practice, and it is of course readily subject to further modification to meet the needs or requests of this group or other practitioners of the four Atlantic Provinces.

If this type of post-graduate programme is as valuable as the College of General Practice and many individual physicians have indicated, there should be no doubt of its finding financial support. The University is happy to do its utmost to operate the programme as a service to the medical profession of the Atlantic Provinces so long as, and to the extent that, finances will permit.

C. B. S.

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### NOTICE RE MARITIME MEDICAL CARE INC.

Doctor H. J. Devereux, Chairman of the Medical Economics Committee of The Medical Society of Nova Scotia, announces that the Honorable Harold Connolly, Minister of Public Welfare, has approved of the proposal to increase medical benefits to the recipients of Mothers' Allowances, who are enrolled with Maritime Medical Care Incorporated under the Provincial Welfare Plan.

Effective January 1, 1955, the members of this group will receive medical care for any medical or surgical condition while in hospital for a maximum stay of twelve days. A maximum of \$25.00 will be paid for the medical care thus provided.

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### NOTICE

Applications are invited for the post of full-time secretary for the Nova Scotia Division of the Canadian Medical Association. Those interested should address communications, stating qualifications and experience, to—

The Chairman,  
 Secretary Selection Committee,  
 The Medical Society of Nova Scotia,  
 Dalhousie Public Health Clinic,  
 University Avenue,  
 Halifax, N. S.

# Maritime Medical Care Incorporated

It has become increasingly apparent that many of our participating physicians are at present not well informed regarding the functioning of the prepaid medical plan which they sponsor, Maritime Medical Care. There has not been, in the past, sufficient information regarding new developments, such as growth of the scheme, increase in numbers of subscribers, necessity of subsidiary contracts, pertinent executive decisions, etc., made readily available to them. This has resulted in a certain amount of dissatisfaction with the plan.

In order to remedy this situation, the Executive has instructed that an informative letter be published in each issue of the Bulletin. This will reach a large proportion of participating physicians. In addition, participating physicians will be notified by form letter of recent Executive decisions which may affect their accounting.

A regular series of letters may be a trifle difficult to produce without slight prodding, so if any of you readers have a burning question which you would like to have discussed in this column, please send it in to Maritime Medical Care.

At this point, we wish to announce a new Welfare benefit, and perhaps a brief review of the whole Welfare situation might be in order. At present there are 8,892 Welfare recipients. As you know, for each of these the Provincial Government pays 83c. per month, and this fund is administered by Maritime Medical Care. The following benefits are provided by this fund:

- (1) Visits (home and office) paid on basis of The Medical Society of Nova Scotia fee schedule.
- (2) Mileage on home visits (rate 75c. per mile) beginning 2 miles from office, except in obstetrical cases, where the allowed fee of \$60.00 is all inclusive.
- (3) Fees as per schedule for minor surgery in doctor's office or O. P. Department.
- (4) Fees as per schedule for fractures.
- (5) Refractions (one per year up to age 16 for dependents). One *only* allowed to blind pensioners.

Not included as benefits are consultations, lab. work routine physical examinations, phone calls, drugs, X-rays and therapy, etc. There is no exclusion under this plan for tbc. or V. D.

Apparently there is much less demand for physicians services among this Welfare group than among regular subscribers, hence we are finding a certain amount of money available to increase the allowable benefits to the Welfare recipients.

Effective January 1, 1955, an agreement has been concluded between The Medical Society of Nova Scotia and the Provincial Department of Public Welfare whereby up to twelve days hospitalization will be authorized for any medical or surgical condition which may require hospitalization. This results in a maximum allowance of \$25.00 to the physician or surgeon for in-hospital attendance.

(No mileage on this deal, please.)

On this happy note I will leave you until next issue - - - Please send me some questions.

G. B. Shaw, M.D.  
Medical Director.

## Society Meetings

The annual meeting of the Nova Scotia Society of Ophthalmology and Otolaryngology was held on Monday, November 8, 1954, at Halifax, Nova Scotia. A joint meeting with the New Brunswick Society of Eye, Ear, Nose and Throat Specialists was held in conjunction with this meeting.

The meeting opened with clinical presentations at the Victoria General Hospital in the morning. The following clinical cases were presented for examination and discussion—Atopic Cataracts; Dislocated Lens with Acute Glaucoma; Post Operative Cataracts; Pharyngeal and Aesophageal Stricture; Carcinoma of the Antrum; Blue Ear Drums; Strabismus. Following the presentation and examination of these cases, the discussion was held over until afternoon.

A short business meeting was held with the president, Dr. E. F. J. Dunlop in the chair.

The resolution with regard to C.N.I.B. cases was finalized. After hearing the executive's report of the meeting with the C.N.I.B. supervisor, Mr. F. H. Flinn, the following resolution was passed by the meeting:—

“That the refraction fee be ten dollars; the prescription for the glasses prescribed to be forwarded to the C.N.I.B. along with the C.N.I.B. eye report and also the bill for the refraction fee; this latter to be rendered at the discretion of the examining physician.”

The Secretary-Treasurer's annual report was read. There are now thirty-three active members and seven honorary members. During the year the death of one honorary member was recorded—Dr. A. C. Fales of Wolfville.

The financial condition of the society is good—no outstanding debts—a satisfactory balance on hand—and the membership response to the annual dues was satisfactory.

The president appointed, a nominating committee of Doctors Kirkpatrick, McKean and Davidson to retire and bring back a slate of officers, and Dr. A. Ernest Doull as auditor.

A new schedule of fees for the Dept. of Indian Affairs has become available and the committee consisting of Dr. R. Wright, Dr. R. T. Hayes, and Dr. J. P. McGrath were asked to take up the question of refraction fees, etc., with the Dept. of Indian Affairs and perhaps bring in a report at our next joint meeting.

The meeting then adjourned for luncheon at the Lord Nelson Hotel.

The afternoon meeting was held in the Lord Nelson Hotel. The nominating committee presented the following slate of officers:

President—Dr. J. G. Cormier, Sydney.

Vice-President—Dr. L. G. Holland, Halifax.

Secretary-Treasurer—Dr. E. I. Glenister, Halifax.

Executive—Dr. H. R. Sutherland, Sydney.

Dr. J. P. McGrath, Kentville.

Dr. C. F. Keays, Halifax.

Dr. A. Ernest Doull, Halifax.

Dr. E. F. J. Dunlop, Bridgewater.

The adoption of the report was moved by Dr. Kirkpatrick, seconded by Dr. Schwartz and passed by the meeting.

The auditor, Dr. A. Ernest Doull reported the Secretary-Treasurer's report and records as correct and in order and moved its adoption. This was seconded by Dr. Hammerling and passed.

Several members commented on the newer plans of Maritime Medical Care, which were being offered to the public and expressed the hope that the agents selling these restricted plans would not confuse them with the original or fully covered plan, and thus cause or create poor public relations between the physician, Maritime Medical Care and the general public.

It was moved by Dr. Kirkpatrick, seconded by Dr. A. Ernest Doull, that our next joint meeting be held early in May, at Fredericton, New Brunswick, if that proved satisfactory to the New Brunswick members arranging the details. This was passed by the meeting.

Dr. H. R. McKean of Truro, Nova Scotia presented a paper "Toxic Amblyopia". He discussed the common causes, those creating scotoma or central field visual loss. These being tobacco, alcohol, methyl alcohol, carbon disulphide, lead, inorganic arsenic, sulphanilimide and streptomycin. Those causing peripheral field loss being, organic arsenicals, quinine, Filix Mas, ergot and salicylates.

He discussed the question of progress and treatment, the elimination of the cause, the improvement of the general health and the use of B<sub>1</sub> and the multiple vitamins. These gave satisfactory results and in practically all cases good results were obtained except in those cases where there had been destruction of nerve fibres as in methyl alcohol poisoning, arsenic, etc.

Malnutrition seemed to play a big part in a large number of those cases and this seemed to go hand in hand with the use of alcohol and tobacco in excess or large amounts.

There was general discussion of the paper by several of the members present.

Dr. J. S. Hammerling of Halifax presented the following paper "The Role of Rhinoplasty in Cases of Difficult Nasal Breathing." Dr. Hammerling stated that his paper was based on the Joseph Technique of Rhinoplasty. His presentation was further clarified by the use of diagrams and slides, showing in detail some of the more elaborate steps in the procedure, such as the bone splinting and the plastic surgery used in changing the shape of the nares.

There was considerable discussion and questions by various members.

A movie film was shown "Ptosis repair by using Fascia Lata and Frontalis Muscle." This film was presented through the courtesy of the Dept. of Ophthalmology, University of Toronto. Details were arranged through the Imperial Optical Company of Canada. Their local manager arranged for the use of a projector and screen and the handling of the film.

This presentation was enjoyed by the members, who expressed their thanks to the donors of the film.

There was a discussion of the clinical cases seen at the morning session. Suggestions were made by several members concerning the Atopic Cataracts, the Strabismus and the Carcinoma of the Antrum cases.

At the informal round table discussion Dr. J. P. McGrath took up the problem of sometimes determining the criteria of blindness in blind pension

cases with no discernable pathology, one who appeared to be able to get about quite well, do housework, etc., and was not considered blind by local residents. There was considerable discussion by several of the members.

There being no further business or discussion, on motion of Dr. Likely, seconded by Dr. McKean, the meeting adjourned.

E. I. GLENISTER, M.D.,

Secretary-Treasurer.

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The Nova Scotia Medical Bulletin is published on the 20th day of each month.

Advertising forms close on the last day of the preceding month. Subscription Price is \$3.00 a year. The Bulletin is mailed to all doctors and hospitals in Nova Scotia.

It is to be distinctly understood that the editors do not necessarily subscribe to the views of its contributors.

#### Suggestion to Contributors

1. Manuscripts should be in the hands of the editors on or before the first of the month.
2. Manuscripts should be typewritten, on one side of the paper only and should be double-spaced.
3. Should proofs be sent to a contributor, corrections must be clearly marked and no additional material should be added, and the proof should be returned promptly.
4. Orders for reprints should accompany the proofs.