

# THE NOVA SCOTIA MEDICAL JOURNAL

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## Comments on the Nova Scotia Royal Commission on Health Care INTERIM REPORT

"If in any problem you find yourself doing an immense amount of work, the answer can be obtained by simple inspection."

The above quote comes from the book *Systems Analysis in Health Care Delivery* and is one of the laws that apply to both science, and systems analysis. It leads to a few thoughts after simple inspection as the Health Care Commission presents its recent interim report *Issues and Concerns: Summary of Public Hearings and Submissions*.

The Commission was established originally with the intent to find ways of better health care for less cost, but its mandate changed and became less restrictive. Among the hundreds of groups, hospitals and individuals that made presentations there was little to be found that will lower health costs. Even the monitoring and controlling mechanisms that were recommended will be expensive to implement.

The presentations showed that despite our present expenditures there are many more good ideas for spending our tax money, many more than can be afforded by our present funding system. This fact means that improved management control is of utmost importance and was addressed by many submissions. The recommendations of the numerous submissions, however, seem to show a real lack of understanding of our present problems. The recommendations of the submissions could serve as a collection of ways to spend the little new money that may come to health care. That the Government has closed the system to any amount of new sources of funding was ignored. The ethical, political, and economic realities of funding limitation does not seem to have been understood.

"Simple inspection" of the recommendations of three hundred and twenty-two submissions reveals a need for more resources or a massive education campaign explaining why new resources are not possible.

Indeed, the efforts of the Commission have already increased the awareness of Nova Scotians regarding funding and thus may already have achieved some success. If, however, the Commission is unable to explain the need for limitations, or to suggest some way to allow reasonable input into the process of control, then this must be some kind of failure. The Commission itself of course is one way of achieving some input into the system. However, Commissions in the past have been sporadic, ignored and sometimes a mere political tool of Government, rather than a genuine effort at achieving input from citizens.

Our health care system is a good one, but more is desired of it. Recommendations to the Commission seem to point to two central conclusions: 1) Funding is and always will be a problem for health care; limitations are a necessity, but new innovative funding methods should not be condemned. 2) Management should receive a responsible mix of professional as well as lay input on a continuing basis. The desire to have input has been demonstrated well by the enthusiastic response to the Commission.

We wish the Commissioners well in their most difficult task as they attempt to chart a healthy future for Nova Scotia. □

J.F. O'C.

# Dr. Vincent Audain

## PRESIDENT

The Medical Society of Nova Scotia  
1988-1989

The new President of The Medical Society of Nova Scotia is an Ophthalmologist. However, it is more the man than the specialty training that makes him a man of vision.

Vincent Patrick Audain, M.D. sees the need for change. "We need a kind of corporate renewal," he says, "We need to look at our organization and our structure and make sure that The Medical Society is what its members want it to be. Times have changed, and we must be prepared to face those changes."

Dr. Audain has been a strong advocate for renewal within The Society. During his term as President-Elect he participated in a number of formal discussions about the fundamental purpose of the association.

Along with the other Officers, he began the review of The Society's mission, its goals and objectives. He recognizes that the organization must relate directly to its members, that each individual feels a part of the association and that the association benefits each member.

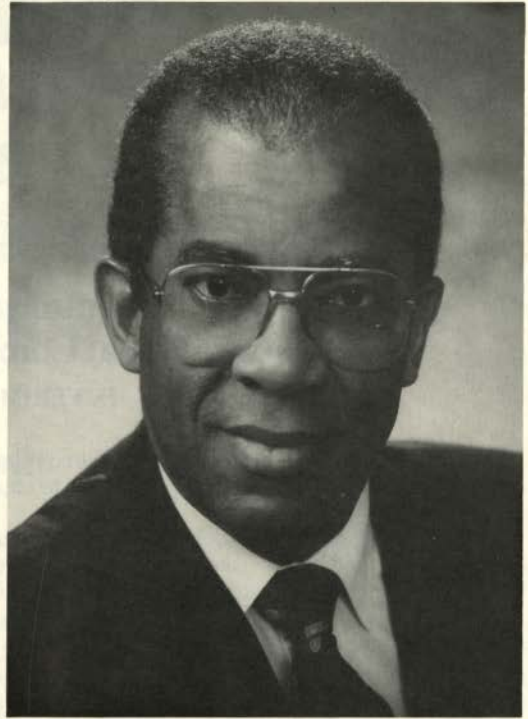
Dr. Audain also has a vision for The Society in the larger context. "We are the key players in the health care system," he says with a great deal of pride. "We have much to offer in terms of experience and knowledge and I intend to take that message as far and wide as I possibly can".

There was evidence during our Annual Meeting that relations with Government will be a high priority for the new President. While the President of the Canadian Medical Association was describing the seriously deteriorating relationship between organized medicine and government, Dr. Audain was with Nova Scotia's Minister of Health and Fitness continuing to develop our provinces's almost unique degree of cooperation.

"We invite you to consult with us, to call upon us to ensure the highest quality of care for the people of Nova Scotia," he said. "The Medical Society has been involved in health promotion for 135 years, and that experience is yours for the asking."

That's clearly the message for the year. Dr. Audain says physicians, through their professional association, are committed to serving Nova Scotians with the highest quality of health care. "I fear that we have always been held suspect when we talk about quality of care, but our record proves that we mean what we say." He added, "I intend to say it and say it often, so people will come to realize that doctors are a fundamental part of the team but that the emphasis is clearly on the team".

Dr. Audain has already put his many talents to work



for his chosen profession. He has been active in the Halifax Medical Society where he served as President. He also served as President, and before that as Secretary-Treasurer, of the Atlantic Provinces Ophthalmological Society. At the provincial level, Dr. Audain served on the Finance Committee both as a member and as the Treasurer of The Medical Society. He also chaired The Society's Pharmacy Committee.

This native of St. Kitts, West Indies, divides his alumnus allegiance between Mount Allison and Dalhousie Universities, where he is noted for his soccer skills, not to mention his academic achievements.

The private side of your President reveals a dedicated family man. He and his wife Janet have two sons, Colin and Brian. And, as the mileage on the family car will attest, Dr. and Mrs. Audain spend a fair bit of time following the athletic pursuits of their two sons.

It is his strong sense of family that he brings to the office of President. "We are all in this together," he says, "And it is together that we may approach our goals. The Society has something to offer for each and every physician out there, and each of them has something to offer in return". □

# All Terrain Vehicle Accidents

## EXPERIENCE AT THE I.W.K. HOSPITAL FOR CHILDREN

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Halifax, N.S.

All-terrain vehicles (ATVs) have enjoyed recent popularity in Nova Scotia, but concerns have been raised by increasing reports of related pediatric trauma. A chart review of the IWK Hospital's experience between January 1984 and June 1987 revealed 67 patients with ATV injuries. The number of cases rose each year. Seventy-five percent of cases involved moderate to serious injuries. Eighty percent of children were 14 years of age or younger. Recommendations include a minimum age restriction of 14 years, a national voluntary import ban, and a provincial accident data base.

Three and four-wheeled all-terrain vehicles (ATVs) have enjoyed recent popularity in Canada and Nova Scotia. In 1982, 35,000 were imported nationally; this figure rose to over 115,000 in 1984.<sup>1</sup> There are four main manufacturers: Honda, Suzuki, Yamaha and Kawasaki.

The recent medical literature has cited increasing reports and concern regarding injury and death amongst children using ATVs. These vehicles weigh anywhere between 150 to 600 pounds.<sup>2</sup> The larger varieties can attain speeds up to 100 km/hr.<sup>3</sup>

The mode of injury usually involves the driver losing control and rolling the ATV sideways or backwards. The driver is injured by the direct fall, or from being crushed by the ATV.<sup>4,5</sup>

ATVs are inherently unstable vehicles for the following reasons:<sup>2,3,6</sup>

1. They have a high centre of gravity,
2. They may lack independent suspension and thus bounce abruptly over objects,
3. They may lack a rear-wheel differential, making quick turns dangerous.

Although the 4-wheeled ATV has more stability than the 3-wheeled variety, it is not necessarily significantly safer.<sup>7</sup> Both types still readily tip.<sup>3</sup> ATVs are particularly prone to overturn on hills and when hitting bumps and ruts.

A survey by the Nova Scotia Safety Council during 1984 to (early) 1987 received 234 reports of ATV accidents. These were solicited from 23 hospitals in 16 counties. (From our estimates, the true number of

hospital visits probably exceeded 1,000.) One third of the survey cases involved children under 15 years of age. Forty percent of these had moderate to severe injuries (ie. fractures, major external or internal injuries). Youth, excessive speed and absent or neglectful adult supervision were consistently found to be contributing factors. Four of the nine ATV deaths during this period occurred in children 16 years of age or younger. Four counties (Shelburne, Annapolis, Yarmouth, and Kings) reported 50% of all cases.

Because of the above concerns, the ATV experience at the Izaak Walton Killam (IWK) Hospital for Children was reviewed.

### METHOD

Permission and help were obtained from the IWK Research Committee and Health Records Department. A search of records was conducted for children with ATV injuries between January 1, 1984 and June 30, 1987 inclusive. Charts were reviewed for the following data: age, sex, admission date, outpatient or inpatient, length of inpatient stay, driver or passenger, 3- or 4-wheeled ATV, mode of injury, nature of injury, and place of injury.

### RESULTS

During the three and one-half year survey period, 67 patients presented to the IWK with ATV-related injuries. The numbers increased each year, from 14 cases in 1984, to 17 cases in 1985, 23 cases in 1986, and a projected 25 cases in 1987.

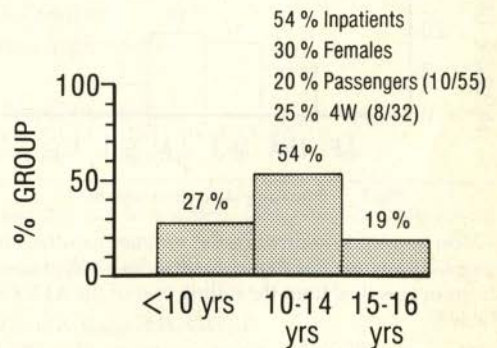


Fig. 1 Patient Profiles (n = 67)

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The patient profiles are illustrated in Figure 1. The age groups are divided according to recent laws regulating young drivers (see Table IV). Note that 81% of injuries occurred in children less than 15 years of age; 27% were less than 10 years. (The youngest patient was 3 years old.) Roughly 75% of all patients were Halifax County residents. Most of the rest were transfers. The ratio of three- to four-wheeled ATV accidents was 3:1.

More than half the children (n = 36) required admission, for a total of 275 inpatient days (see Figure 2). The average inpatient stay was 5.5 days (excluding 2 patients who each stayed more than 20 days). The modal stay was 3 days.

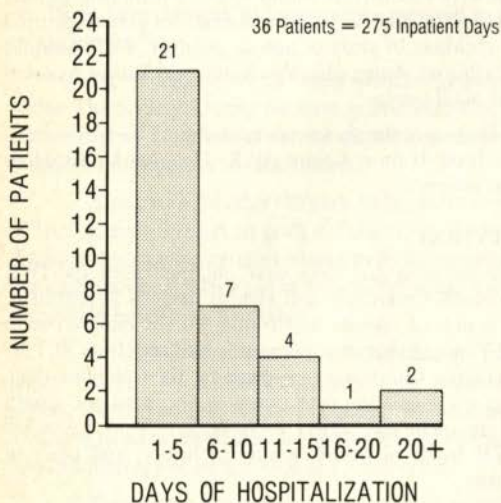


Fig. 2 Inpatient Days

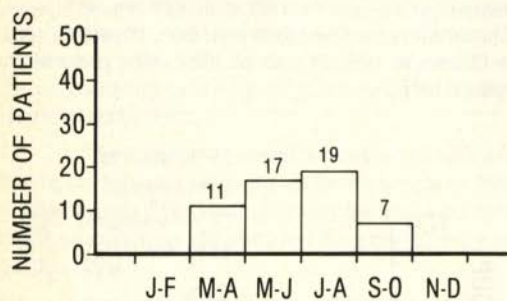


Fig. 3 Seasonality of Accidents (1984-86)

Most accidents occurred in the summer months, and none in the winter (see Figure 3). In at least 40% of cases, the injury resulted from the rolling over of the ATV (see Table I).

The major clinical presentations are stated in Table II. Fractures accounted for over half the injuries. (Forty-one patients sustained 51 fractures.) Upper limb

fractures were the most common (41%), followed by lower limb (31%) and axial/skull fractures (28%). Minor soft-tissue injury accounted for 25% of all cases. Soft tissue injury was labelled as "major" if admission to hospital or a general anaesthetic was required.

Five patients (7%) sustained potentially life-threatening injuries requiring ICU admission (see Table III). There were no deaths. Thirty-one patients required 44 general anaesthetics.

TABLE I

MODE OF INJURY (N = 52/67)\*

Fell Off (unspecified)	42%
Roll/Crush	27%
Roll/Fell	13%
Collision	10%
Other	8%
	100%

\*Fifteen charts did not state mode of injury.

TABLE II

MAJOR CLINICAL PRESENTATION (N = 67)

Fractures	57%
Minor Soft Tissue	25%
Major Soft Tissue	11%
Serious Internal Injury	7%
	100%

TABLE III

NATURE OF SERIOUS INTERNAL INJURIES

Age	Clinical
8 yrs	Hemothorax; lacerated liver; infarcted kidney.
9 yrs	Acute renal failure 2° to rhabdomyolysis; severe soft tissue injury requiring graft.
13 yrs	Hemothorax; lacerated liver and spleen
13 yrs	Head injury and several day coma; permanent loss of visual acuity.
13 yrs	Lacerated liver and spleen; infarcted kidney.

TABLE IV

SUMMARY: OFF-HIGHWAY VEHICLES ACT 1987\*

- Approved helmets
- Driver's license to cross highways
- Under 10 years of age:
  - Direct adult supervision and
    - On private property with guardian's permission.
- 10-14 years of age:
  - Direct adult supervision or
    - On private property with guardian's permission
- Must drive with due care and attention (fines \$25-\$1,000).

\*Enacted by Nova Scotia February 1, 1988.

DISCUSSION

This review raises several points of concern. The number of cases seen each year rose substantially (from 14 in 1984 to a projected total of 25 in 1987). Secondly,

75% of cases involved moderate to serious injuries, half of which required hospital admission. Finally, 81% of the children were 14 years of age or younger; 27% were less than 10 years old.

On February 1, 1988, the Province of Nova Scotia enacted the *Off-Highways Vehicles Act*, which regulates who can drive ATVs and where (see Table IV). There are no machine-size or minimum age restrictions for children. In 1987, the Canadian Pediatric Society stated ATVs should be banned for use by children under 14 years.<sup>1</sup> Several provinces currently have age restrictions: Alberta — 14 years; Newfoundland — 13 years; and Ontario — 13 years. In Nova Scotia, children over 10 years of age may in many circumstances drive *without* adult supervision.

The Medical Director of the U.S. Consumer Product Safety Commission has stated:

"ATV safety is more dependent on judgment, technical knowledge, acquired skill and maturity . . . I would not see children generally to be in a category where they had the opportunity to adequately achieve these to the degree required for safe operation of the ATV."<sup>4</sup>

Whilst the province is responsible for licensing ATV drivers, the Federal Government has a mandate to establish safety standards for the vehicles. Currently, there are no such standards.

Driver education programs have been advocated by the industry and government, but their impact on unsupervised 10 year olds is questionable. Recent reviews suggest that health education alone, without strong legislation, may have only minimal success in

changing "unhealthy" behaviours.<sup>9</sup> The provincial government should set a minimum ATV driver age of 14 years. Most problems with enforceability could be checked with stiff fines.

In 1987, the U.S. ATV industry imposed a voluntary import ban on 3-wheeled ATVs. A similar initiative was proposed in Canada for early 1988, but support for this has wavered. The Federal Government must renew this initiative, and take due responsibility for ATV vehicle safety standards.

Nova Scotia should closely monitor the incidence of ATV accidents by establishing a hospital survey system. Without firm measures, this form of pediatric injury will continue. □

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## DEPARTMENT OF FAMILY MEDICINE

### DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

Dalhousie University requires a family physician to be Chief of the Department of Family Medicine at the Camp Hill Medical Center (formerly the Halifax Infirmary Hospital and Camp Hill Hospital). This Department's activities include in-patient teaching units, ambulatory teaching practices and long term care in the Center for Health Care of the Elderly. The position offers a full time academic appointment at Dalhousie University.

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Please send curriculum vitae with names of three references to: David A. Gass, M.D., C.C.F.P.

Professor and Head, Department of Family Medicine, 5599 Fenwick Street, Halifax, N.S. B3H 1R2

# A Survey of Young Children with Special Needs

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The present study assessed the prevalence of special needs conditions among young children (birth through five years) in Nova Scotia, and explored the nature and extent of services available to these children. Questionnaires were sent respectively to all schools with Primary Grade classes in the Province of Nova Scotia, to all Public Health Nurses in the Province, and to the directors of all centres providing full- or part-day programs for preschool aged children. Approximately 20 percent of young children were reported to have special needs. However, only a small percentage of these needs are recognized prior to school entrance. Implications for governments, physicians, educators and other professionals are discussed.

The study reported here is a brief summary of a survey of the nature and prevalence of special needs children aged five years and under in Nova Scotia, and an examination of the existing services for, and future needs of, these young children and those professionals working with them. Special needs were defined to include anything (e.g., physical, mental or sensory impairment, family situation, social background) which might cause the child to need help or intervention beyond that normally required to assure the best developmental outcome. The rationale for this survey was predicated on the assumption that the development of health care and educational programs relevant to the special needs of young children, and the training of personnel to develop and implement these programs, must be based on knowledge of exactly what these needs are. However, it is difficult to compile a clear and accurate picture due to problems in defining, locating, and identifying this population.<sup>2,3</sup>

We attempted to compile as complete a picture as possible of the special needs of, and services for, preschool and grade primary children from the following three groups of professionals who deal with young children: (1) public health nurses; (2) directors of preschool programs; and (3) principals of elementary schools with Primary Grade.

## METHOD

### Procedure

Questionnaires were sent to all public health nurses in the province (N = 180), the directors of all centers providing full- or part-day programs for preschool aged

children (N = 325), and to the principals of all elementary schools in the province (N = 427).

### Questionnaires

Questionnaires solicited information on the numbers of children with special needs with whom the three groups had dealt during the previous 12 months, and information on existing services and further provision needed for these children. All questionnaires asked respondents to indicate the number of children who had been assessed formally and diagnosed as having any kind of special need, and the number of children whom they suspected had special needs which had not been formally diagnosed. Questionnaires sent to the three groups differed slightly to reflect differences in the age groups with whom they were concerned primarily.

## MAJOR FINDINGS

The rates of return of the questionnaires for the Public Health Nurses, preschool/daycare directors, and grade primary teachers were 77%, 25%, and 40%, respectively. These returns provided information on 28,983 children between birth and five years of age.

### Prevalence of Children with Special Needs

Public Health Nurses, preschool directors, and Primary Grade teachers, respectively, identified 9.87%, 6.77%, and 23.71% of children as having special needs. While the percentage of children identified by the three groups differed, each of the three groups suspected approximately an additional 12% of children to have special needs that had not been diagnosed formally.

### Types of Special Needs

The numbers and percentages of children by types of special needs identified by the Public Health Nurse and identified and suspected by the preschool and Primary Grade teachers are presented in Tables I, II and III\*. The Public Health Nurse identified 3% of children as having significant needs deriving from their social/economic backgrounds and approximately 2% as having a speech or language delay.

The type of special need most often identified (2.01%) and suspected (5.67%) in preschools is an emotional or behavioral problem. The second most often identified special need is language delay/disorder (1.76%). Surprisingly, no further children were suspected of having language difficulties although 4.21% were suspected as suffering from hearing impairment.

\*Discussion is limited to categories of special need mentioned most often.

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TABLE I

NUMBERS AND PERCENTAGES OF CHILDREN  
BY TYPES OF SPECIAL NEEDS IDENTIFIED BY  
THE PUBLIC HEALTH NURSES

Special Needs	Total No. of children with special needs	Percentage of total number of children
Environmental Deprivation/ Disadvantage	656	3.07
Speech/Language Delay	346	1.62
Visual Impairment	183	.86
Physical Handicap	170	.79
Hearing Impairment	158	.74
Developmental Delay	158	.74
Emotional Disturbance Behavioral Problem	145	.68
Mild Mental Retardation	103	.48
Severe Mental Retardation	93	.44
Abuse	53	.25
Other <sup>a</sup>	7	.20
Total	2072	9.90

<sup>a</sup>Not identified.

TABLE II

NUMBERS AND PERCENTAGES OF CHILDREN  
BY TYPES OF SPECIAL NEEDS IDENTIFIED AND SUSPECTED  
BY DAY CARES/PRESCHOOLS

Special Needs	Total No. of Children with special needs	Percentage of Total No. of children
Emotional/Behavioral Problem	64 (181)	2.01 (5.67)
Language Delay/Disorder	56 (0)	1.76 (0)
Physical Handicap	31 (8)	.97 (.25)
Mental Retardation	27 (1)	.85 (.03)
Hearing Impairment	20 (135)	.63 (4.21)
Visual Impairment	13 (13)	.41 (.41)
Other <sup>a</sup>	5 (58)	.16 (1.82)
Total	216 (396)	6.97 (12.39)

Note. Figures in parenthesis refer to numbers and percentages of children suspected but not identified as having special needs in these areas.

<sup>a</sup>Other handicaps cited included multiple handicaps, rare syndromes, and other general developmental delays.

Speech or language impairment is the type of special need most often identified (8.16%) by Primary Grade teachers, followed by hearing impairments (3.07%) and learning disability (2.90%). These data are in strong contrast to those of preschool children, of whom less than 3% were identified as having language problems and hearing impairments. Almost 5% of children enrolled in Primary Grade were suspected by teachers of being significantly immature. The next highest category of suspected special need was significant environmental deprivation/disadvantage (3.65%) which is almost equivalent to the percentage identified by the public health nurse.

#### Services for Young Children with Special Needs

Some indication of the adequacy of assessment facilities for preschool children with special needs can be determined from an examination of the number of children identified during the grade primary school year

TABLE III

NUMBERS AND PERCENTAGES OF CHILDREN  
BY TYPES OF SPECIAL NEEDS IDENTIFIED AND SUSPECTED  
BY PRIMARY GRADE TEACHERS

Special Needs	Total number of children with special needs	Percentage total number of children
Speech/Language Impairment	362 (115)	8.16 (2.50)
Hearing Impairment	136	3.07
Learning Disability	129	2.90
Visual Impairment	100	2.25
Gifted	89	2.0
Emotional Disturbance	61 (49)	1.38 (1.12)
Mild Mental Retardation	50	1.13
Severe Mental Retardation	26	.59
Emotional Abuse	25	.56
Physical Abuse	22 (33)	.50 (.74)
Physical Handicap	16	.36
Significant Immaturity	0 (218)	0 (4.90)
Emotional deprivation/ disadvantage	0 (162)	0 (3.65)
Other <sup>a</sup>	36	.81
Total:	1052 (577)	23.71 (12.91)

<sup>a</sup>Not identified.

as compared with those identified prior to school entrance. The percentage of children identified as having special needs prior to school was 16.5% while an additional 6.7% were identified during the first year of school. This latter figure, taken together with the number of children still suspected of having undiagnosed problems, make it clear that not all children with special needs are being identified at an early age. Almost half of the public health nurses (48.2%) and Primary Grade teachers (42.8%) considered additional assessment facilities to be a priority especially for very young children (i.e., 0-2 years) and those in rural areas.

Few children in Primary Grade were known to have had any special help or preschool special education services. Teachers reported that 3% of the children with diagnosed special needs had received services as far as they were aware. Although a variety of professionals had provided information and support services to preschool and Primary Grade teachers, 47% of Public Health Nurses, 94% of preschool directors, and 55% of teachers, regarded the need for additional support services as a priority. Of the three groups of respondents, only the Public Health Nurses considered expanded services to parents to be a major need (in spite of the fact very few were reported to exist).

#### CONCLUSION

Almost 7% and 10% of preschool aged children were identified by preschool directors and Public Health Nurses, respectively, as having some type of special need. However, by the end of the first year of elementary school approximately 24% of children were reported to have a special need. When we examine the categories of special needs identified by the three groups, it is clear that those most likely to go undetected prior to school

age (i.e., speech or language impairment and hearing impairment) are precisely those that are most commonly reported in grade primary and that seriously affect school performance. Indeed, even at the end of the first year of elementary school approximately 11% of children are suspected of having a special need which has not yet been identified formally. It is possible to identify these primary linguistic needs prior to grade primary but this does not appear to be happening.<sup>1,4,5</sup>

Information solicited on the nature and extent of present assessment and educational services indicated that the current services are not considered to be adequate, particularly for very young children and children in rural areas.

### Recommendations

1. Approximately 20% of young children were reported to have special needs. However, since only a small percentage of these needs are recognized prior to school entrance, there needs to be a concerted effort to ensure that all children with special needs are identified as early as possible.

2. Although no coordinated effort exists in Nova Scotia for either the identification of, or provision for, preschool aged children with special needs, children are being identified through existing services. Comprehensive screening for children with special needs is not advocated in view of the problems associated with it and the evidence reported here that children can be identified in the absence of such a system.<sup>3</sup> It is recommended that a system of identification be built upon extensions to and further support for existing services. The value of the Public Health Nurse (as the professional with the direct contact with families with young children) in screening for children with special needs cannot be overstated.

3. Basic to an identification system is the establishment of an information service to facilitate assessment and programming for children with special needs. It is recommended that an information service be established to help to direct parents and professionals, especially those in areas outside the main centres, to the facilities currently available.

4. Specialized centre and home based programs for children with particular or severe handicaps are required, but as most of the children with special needs do not fit this category, most will be in regular programs. Up to 50% of all preschool programs reported having at least one child with significant special needs enrolled. Therefore, all regular programs need support services and aid to enable them to provide appropriate programs for all children.

5. Since the vast majority of children with special needs will be in regular programs, all those intending to work in settings for young children need to be educated in both normal and abnormal development and in methods of designing and implementing programs for all children.

6. Traditionally, courses pertaining specifically to preschool children with special needs have focused primarily on preparing graduates to work with the relatively small numbers of children with more severe mental, physical, or sensory impairments. However, the majority of children identified as having special needs do not fit into these categories. Far more children have special needs in the areas of emotional and language development. An emphasis must be placed on identifying those children who are at risk of difficulties especially in the less severe, or at least less obvious areas. Similarly, special education courses for teachers in the early grades must be responsive to this wide range of identified needs.

7. Professionals need to be prepared to function as part of an interdisciplinary team. The fact that few teachers either in preschools or elementary schools identified parent involvement as a priority highlights the continuing need to make students and professionals more aware that parents must be considered as a vital part, indeed the most vital part, of the team working with young children with special needs. □

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### NOTES

1. Preparation of this article was supported in part by an internal research grant awarded by Mount Saint Vincent University and by Employment and Immigration Canada Grant #7918BB0.
2. The contributions of both authors was equal.
3. The authors wish to thank the Public Health Nurses, the preschool/daycare personnel, and the teachers who participated in this study.
4. The data on which this paper is based are included in a longer paper which is being published in the *Canadian Journal of Education*.

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*True leadership means leading people where they don't want to go.*

Michael Kinsley, *Time* (Oct. 3, 1988)



# Iron Deficiency in Childhood

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Iron deficiency is the most common cause of anemia in the North American pediatric population. The prevalence of iron deficiency in the U.S.A. in adolescents has been reported to be from 0-5.5% in males, from 4.4-17.9% in females<sup>1</sup>, and is present in as many as 15-20% of infants.<sup>2</sup> The American Academy of Pediatrics recommends screening for anemia during infancy, in early childhood and in adolescence.<sup>3</sup> The Canadian Task Force on Periodic Health Examination recommends that infants of high risk groups — preterm infants, twins, infants born to iron deficient mothers, and infants of low socioeconomic circumstances be screened for iron deficiency at 9 months of age.<sup>4</sup> Other risk factors are infants fed cow's milk before 6 months of age, breast feeding for more than 6 months without iron supplements, early introduction of solid foods, and the use of formula not fortified with iron, as well as infants with frequent infections.

TABLE I

## VULNERABLE IRON-DEPENDENT PROCESSES

Oxygen Transport	Hemoglobin
Oxygen Storage	Myoglobin
Oxidative Phosphorylation	Cytochromes, NADH Succinate Dehydrogenase, Glycerophosphate Dehydrogenase
Neurotransmitter Metabolism	Aldehyde Oxidase, Tryptophan Hydroxylase
DNA Synthesis	Tyrosine Hydroxylase, Ribonucleotide Reductase

While iron deficiency is considered by most to be a benign disorder, it has been associated with a variety of debilitating effects. Table I lists body constituents which contain iron or require iron as a cofactor. Some of the many clinical symptoms not directly attributable to anemia, that are found in people with iron deficiency, may be explained by effects on these iron dependent processes.<sup>5</sup> Such signs and symptoms have included anorexia, blood loss in stools, malabsorption, growth failure, irritability, decreased attention span, exercise intolerance and decreased physical performance. The behavioral aspect of iron deficiency in infants is an area of controversy which has been extensively but generally ineffectively studied.<sup>5</sup> Mildly iron deficient infants have decreased mental developmental test scores but this may be related to irritability, inattention and limitation of maximal physical performance. This poor performance on mental development testing is reversed with iron treatment. For severely iron deficient infants this reversal may not always occur.

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Etiologic factors of iron deficiency in a pediatric population include rapid growth, inadequate intake of iron and, less commonly, blood loss. The two periods of growth acceleration mirror the peak ages of iron deficiency.<sup>6</sup> (Fig. 1) Fetal iron acquisition parallels fetal weight gain which is greatest during the last trimester of pregnancy (50 mg in a preterm 1 kg infant compared with 372 mg in a 4 kg full term infant)<sup>6</sup>. Thus preterm infants fail to receive a major part of their iron supply and are at risk of becoming iron deficient after erythropoiesis resumes at 2-3 months of age. The average infant almost triples blood volume during the first year of life. The blood volume of an average boy increases from 2500 ml at 12 years of age to 6000 ml at 16 years of age. The blood volume of the average girl increases by 1000 ml over the same period of time.<sup>7</sup>

Increased milk intake to the detriment of intake of iron containing food in infancy and an irregular diet during adolescence contribute to inadequate intake of iron in these age groups (Table II).

TABLE II

## DAILY IRON REQUIREMENTS

	Normal Loss (exfoliation/body fluids)	Growth	Menses	Total
Infants*	0.25 mg	0.8 mg		1.05 mg
School Children	0.5 mg	0.3 mg		0.8 mg
Pubertal Girls	0.75 mg	0.5 mg	0.6 mg	1.85 mg
Menstruating Girls	1.0 mg	0.5 mg	0.6 mg	2.2 mg
Adolescent Boys	0.75 mg	0.5 mg		1.25 mg

\*To attain absorption of sufficient iron to meet these requirements, the American Academy of Pediatrics recommends an iron intake of 1 mg/kg of body weight/day for mature infants and 2 mg/kg/day for preterm infants.<sup>6</sup>

Blood loss (gastrointestinal, genitourinary) is an uncommon cause of iron deficiency in infancy but may be a factor in older children. Rarer causes of blood loss include Goodpasture's Syndrome, paroxysmal nocturnal hemoglobinuria and other hemosiderinurias.

Iron absorption is greatest in the duodenum but can occur with diminishing efficiency along the entire intestinal tract. Heme-iron is absorbed readily and intact by the intestinal mucosal cells. The absorption of non-heme iron is enhanced by reducing substances such as ascorbic acid, by proteins in meat and fish, by the ferrous form of iron and through the effects of increased erythropoiesis due to any cause. Absorption is decreased by the tannic acid in tea, by alkali, by the phytates in cereal, and by the phosphates in eggs.

Normally, approximately 10% of ingested iron is absorbed and this can be increased to 20% in iron

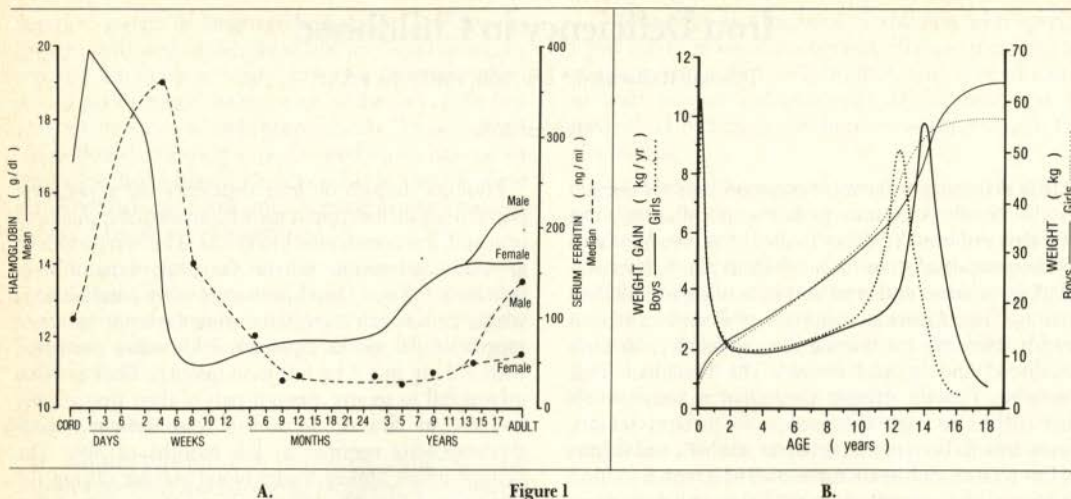


Figure 1

deficient individuals. Breast milk contains about 76 micrograms of iron, bound mostly to lipid rather than to lactoferrin, which may explain the 20-80% absorption of iron from breast milk during the first 3 months of life. Later, absorption decreases to 10%, a decrease partially but not completely attributable to the introduction of solid foods.

Non-heme iron bound to mucosal surface transferrin is transported into mucosal cells in amounts inversely correlated with the amount of ferritin present in the mucosal cell. Iron may be temporarily stored in the mucosal cell as ferritin to be later absorbed or may be exfoliated with the mucosal cell, or may be stored in the lamina propria or submucosa. From the submucosa or lamina propria, iron bound to transferrin or albumin enters the portal circulation bound to transferrin or albumin, or it may be engulfed by macrophages in the lamina propria and released into the gut lumen. Transferrin-bound iron is delivered principally to the bone marrow or to hepatocytes.<sup>8</sup>

Iron is highly conserved by the body. Senescent red cells are phagocytosed by macrophages, especially in the spleen. After cell lysis, iron is released from hemoglobin by heme oxygenase. This free iron may return to the plasma or become incorporated into iron stores as ferritin or hemosiderin (aggregates of ferritin). Apo-transferrin/transferrin is essential for the release of iron from macrophages and is dependent on the availability of ceruloplasmin and ascorbic acid.<sup>9</sup>

The development of iron deficiency anemia is a continuum reflected by gradually increasing numbers of laboratory abnormalities. (Fig. 2)

Suspicion for iron deficiency may be precipitated by a child's history. The recognition of microcytic, hypochromic red cell indices is the predominant laboratory key to the presence of iron deficiency. Normal values for hemoglobin concentration and red cell indices vary considerably with age.<sup>10</sup> (Fig. 3) All microcytic anemias

are not caused by iron deficiency and other etiologies are listed in Table III. In a pediatric population, as in other age groups, the principle differential diagnoses include thalassemia trait and anemia associated with chronic disorders.

I	II	III
Deficient Storage Iron	Iron limited Erythropoiesis	Iron deficiency Anemia
↓ Marrow Iron	→ Absent Marrow Iron	→
↓ Serum Ferritin	→	→
	↑ FEP	→
	↓ Serum Iron/↑ TIBC	→
		↓ MCV
		↓ HGB

Fig. 2 Stages in the Development of Iron Deficiency

The most practical initial evaluation of a microcytic anemia is the measurement of ferritin concentration. Ferritin consists of a protein shell which contains up to 4000 atoms of iron. As an acute phase reactant, the concentration of ferritin is increased in acute viral and bacterial infections; in inflammatory disorders (rheumatoid arthritis, inflammatory bowel disease); in liver disease; in malignancy (neuroblastoma and Hodgkin's Disease); in chronic renal failure; and with prolonged fasting. Some physicians have used a value of concurrent C-Reactive Protein (CRP) or sedimentation rate measurement to aid in the interpretation of ferritin values in patients with infection or chronic inflammation.<sup>11</sup> As illustrated in Figure 1, the median values of ferritin concentration vary considerably with age. Some patients require additional tests such as serum iron, total iron binding capacity, bone marrow hemosiderin assessment, hemoglobin electrophoresis or zinc erythrocyte protoporphyrin measurement. To determine if iron deficiency is present in some children, a therapeutic trial

of iron with monitoring of response may be more practical.

Zinc protoporphyrin concentrations are influenced by conditions affecting iron supply, heme synthesis and rate of erythropoiesis. Measurement of zinc erythrocyte protoporphyrin can be used to help diagnose iron deficiency. Protoporphyrin is a fluorescent compound which is increased when iron is not available for incorporation with protoporphyrin into heme. Elevation of zinc erythrocyte protoporphyrin is found in iron deficiency, lead poisoning, chronic infection, hemolytic anemia, sideroblastic anemia and in erythropoietic protoporphyria.<sup>12</sup> Its principle use is as a screening test for iron deficiency or lead poisoning and for distinguishing the microcytosis of iron deficiency from that of thalassemia trait.

Zinc erythrocyte protoporphyrin values reflect events which occur at the time of hemoglobin synthesis and they remain constant in a red cell during its lifespan. Except in hemolysis, blood loss and/or transfusion, changes in zinc erythrocyte protoporphyrin concentration evolve slowly and, therefore, are unlikely to reflect acute infectious/inflammatory episodes that may raise ferritin concentrations acutely. Zinc erythrocyte protoporphyrin concentration is elevated secondarily due to unavailability of iron for incorporation into heme for any cause as opposed to the concentration of ferritin which reflects iron stores.

TABLE III

MICROCYTIC ANEMIAS

I. Defect in Heme Synthesis

A. Disorders of Iron Metabolism

1. Iron deficiency
2. Anemia of chronic disorders
3. Copper deficiency
4. Congenital Atransferrinemia
5. Familial Hypochromic/microcytic anemia
6. Shahidi-Nathan-Diamond Syndrome

B. Disorders of Porphyrin Synthesis (Sideroblastic Anemias)

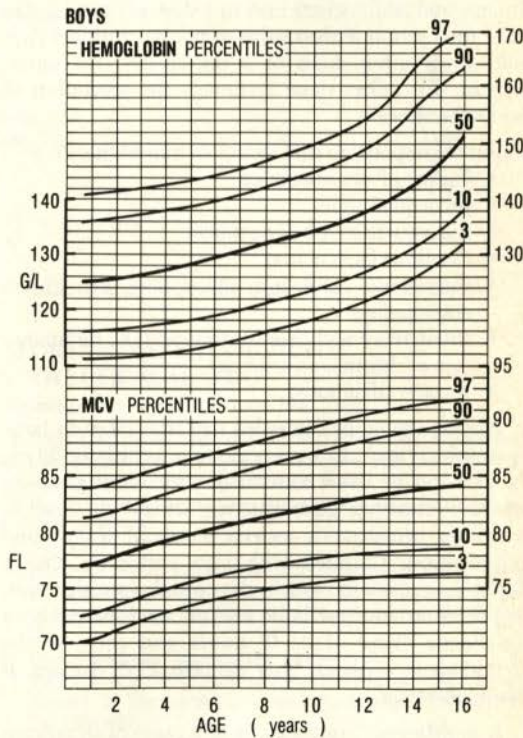
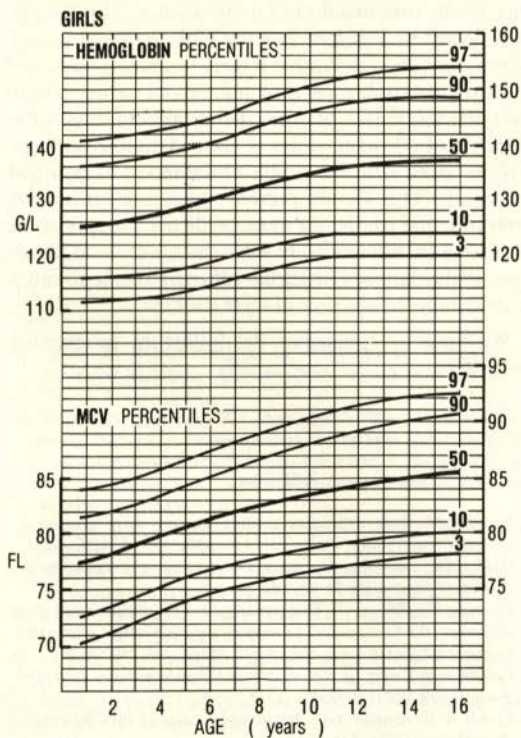
1. Defective Delta Aminolevulinic Acid Synthesis
  - a. VIT B6 Deficiency Vitamin
  - b. Defective B6 Metabolism — Drugs, Toxins
  - c. Defective ALA Synthetase Activity
2. Deficiency of Coproporphyrinogen Oxidase
3. Deficiency of Heme Synthetase
4. Lead, Isoniazid, Pyrazinamide
5. Idiopathic

II. Disorders of Globin Synthesis

1. Thalassemia Syndromes
2. Hemoglobinopathies — CC, EE, Unstable
  - Koln
  - Double Heterozygoes
  - E Trait

III. Non-Hypochromic

1. Microangiopathic Hemolytic Anemia
2. Congenital Pyropoikilocytosis



A.

Figure 3

B.

Treatment of iron deficiency in most infants requires nutritional counselling as well as therapeutic iron. In older children, the etiology of the iron deficiency should be determined carefully. While investigating patients with iron deficiency, it must be remembered that they frequently have guaiac positive stools secondary to damaged intestinal mucosa from lack of iron or because of mucosal interaction with milk proteins. This blood loss is reversible with iron treatment.

In general, iron should be given in the ferrous form. Timed release or enteric-coated iron is absorbed erratically. A dose of 3 mg/kg/day of ferrous sulfate, has few side effects in infants.<sup>13</sup> When higher doses are given, gastric side effects can be decreased by administration with meals or by starting with a lower dose and gradually increasing. Staining of teeth by liquid preparations can be decreased by brushing after each dose. Different ferrous salts are absorbed equally and in proportion to the concentration of iron present. The maximum reticulocyte response occurs between the fifth and tenth day of therapeutic iron. In mild anemia this response may not be apparent. In severe anemia, the hemoglobin may increase by 2.5 gm/L to 4.0 gm/L/day for the first week and then at a lower rate of 1.0 gm/L to 1.5 gm/L/day.

For infants, the American Academy of Pediatrics has recommended that full therapeutic doses of iron be continued for 6 to 8 weeks after the hemoglobin has returned to normal in order to replenish iron stores. Infants and adults given iron in a dose of 6mg/kg/day raise their serum ferritin value to normal within 5 days but, when given doses of 3 mg/kg/day, the serum ferritin will reflect more accurately the restitution of body iron stores.<sup>14</sup>

Failure of response to iron treatment may be due to:

- Failure of administration
- Inadequate dose
- Inadequate length of treatment
- Continued loss of iron
- Interference with iron absorption (i.e., gluten enteropathy)
- Interference with iron utilization (i.e., inflammation of rheumatoid arthritis)
- Incorrect diagnosis

Parents should be counseled that iron taken in large quantities is toxic. In acute poisoning, as little as 130 mg of iron can be lethal to a small child. Iron produces severe necrotizing gastroenteritis which can lead to vomiting, hematemesis, melena, metabolic acidosis and hypotension. Children with iron poisoning have a biphasic course in which the initial gastroenteritis, hypotension and metabolic acidosis are followed by a quiescent phase of 24-48 hours and then by the development of shock, liver damage, CNS damage or bowel strictures.

Iron deficiency continues to be a cause of significant morbidity, but is a disease which can be relatively easily diagnosed and treated. □

To expedite the investigation of children with microcytic anemia, the Immunohematology Division of the I.W.K. Hospital for Children has introduced an algorithmic approach designed specifically for Outpatient and Emergency Room patients.

Unless otherwise directed by the physician, children who are found to have a hypochromic, microcytic anemia are investigated according to the protocol which follows. (Fig. 4) The results are reported on a specifically designed form.

To avoid repetitive or unnecessary testing, the results of testing accrued are computerized.

Plasma ferritin is measured by an ELISA method. Since ferritin is an acute phase reactant and may be artifactually high in the presence of infection, C-Reactive Protein (CRP), another acute phase reactant, is measured in order to attempt to control this variable.

Although normal values for this test have been established for children (and literature normal values are available), we would appreciate assistance from the patient's own physician in clarifying or making more clinically relevant the meaning of borderline plasma ferritin values.

For children with borderline results and for whom the clinical findings and history are compatible with iron deficiency, we suggest that they receive a 30 day course of therapeutic iron in a dose of 6 mg/kg/day. This should be followed by a measurement of CBC, retic count, and plasma ferritin to determine if there has been a response. Improvement in hemoglobin and red cell indices favour iron deficiency; lack of a specific response indicates the presence of adequate stores of iron. A follow-up form will be issued with the child's initial report to facilitate follow-up. This should prevent unnecessary treatment with iron and facilitate a more predictive interpretation of plasma ferritin results. In some cases, we would like to contact the patient's physician office by phone in order to determine the outcome of these children.

We hope to commence the follow-up programme July, 1989.

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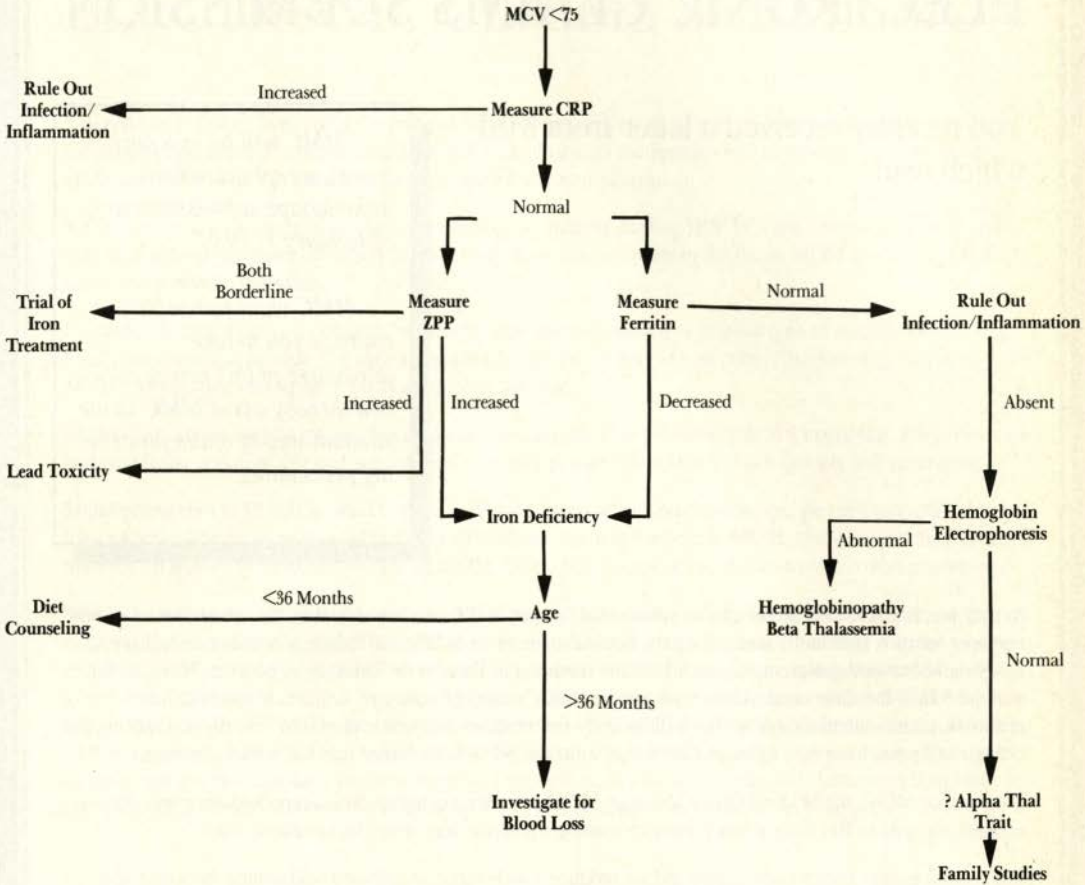


Figure 4



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## SPORTS RELATED INJURIES OF THE CERVICAL SPINE

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# Sports Related Injuries to the Cervical Spine

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Concern over sports related injuries has received increasing attention not only in the medical community but in the public media as well. Cervical spine injuries, because of their potential devastating consequences, are of prime importance. The purpose of this study was to review incidence and factors involved in sport related cervical spine injuries. A retrospective analysis of 260 patients admitted to the Victoria General Hospital with spine injuries over a six year period were reviewed. Findings demonstrated only 23 of 260 injuries were sports related (8.9%). MVA accounted for 56% of the total. Water sports accounted for 48% of all the sports related cervical spine injuries. Twenty-nine percent of the sports related C-spine trauma were noted to have a neurological defect. Eight percent (two patients) had a complete neurological defect. The relatively low incidence of sports as a cause of cervical spine injuries compared to other studies is encouraging but largely unexplained. This does not de-emphasize the seriousness of these injuries.

Over the last two decades North Americans have become increasingly more concerned with the safety of their daily activities. Legislation has been passed in many parts of the continent mandating seatbelt restraints in automobiles, international aviation restrictions have been intensified and childrens toys are subject to governmental inspection. This new concern over safety has also spread to the areas of sport and recreation. The growing awareness throughout the population about the importance of good health and fitness habits has led to exponential increases in athletic activity, both in organized and in recreational settings. With this growth, a widespread concern over the safety of most sports has developed. Great strides have been made in the prevention, diagnosis and rehabilitation of many sports related injuries. Conditions which fifteen years ago may have led to permanent and debilitating situations can now be completely rehabilitated, making the sports in which they occur infinitely safer.

The question of catastrophic injuries, particularly cervical spine injuries, is a question which should concern all physicians with even a passing interest in sports medicine. Do organized sport activities represent a majority of the severe spinal injuries? Do these activities carry with them the inherent risk of severe spinal injury?

The following study, a retrospective analysis of 260 spinal injuries admitted to the Victoria General Hospital, Halifax Nova Scotia, during the years 1979-85, was developed to examine these questions.

## METHOD

The case histories of all patients, admitted to the Victoria General Hospital for cervical spine injuries during the years 1979-85 were utilized for this study. Data were available for only those patients who required hospital admission because of the severity of their injury. Information was not available for this study regarding cervical spine injuries treated in the emergency department when the patient was allowed to leave hospital due to the minor nature of the injury.

Each case was analyzed according to a standard questionnaire which was divided into eighteen variables ranging from the gender and age of the patient through the level of injury and neurological deficit encountered. Each case was then synthesized into computer coded data and analyzed with the aid of the SYSTAT computer statistics analysis program. Standard, frequency and cross-tabulation data analysis were employed for this study.

## RESULTS

Medical histories relating to 260 hospital admissions to the Victoria General Hospital over a six year study period were reviewed for this study. From the information available it was possible to determine a number of factors associated with cervical spine injuries. This paper will present the results associated with the following factors; the activity at the time of injury, the year, month of the year, the age and sex of the individuals, anatomical location of the injury and the medical outcome of the injury. The following information will be presented in this order.

### Activity at Time of Injury

Motorized vehicles were involved in the majority (169) of the cases studied. (Table I) The automobile was the vehicle involved to the greatest extent accounting for 148 of the cases. The motorcycle was second followed by the all-terrain vehicle with 19 and 2 cases respectively.

The next major category of activity at the time of injury was fall from height (35 cases) followed by sport (23 cases). The remaining 33 cases were divided among falls at home, struck by falling objects and a combination of other activities including those cases where the activity was not recorded.

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TABLE I

ACTIVITY AT TIME OF INJURY	# of cases
Motorized Vehicle — car	148
— motorcycle	19
— ATV	2
Fall From Height	35
Sport	23
Fall at Home	18
Struck by Falling Object	7
Others and Unknown	8
	260

Within the category of sport activity, water sports (almost invariably diving accidents) accounted for 48% of the sports related injuries. Thirteen percent of the injuries were attributed to gymnastics and an equal percentage were the result of cycling mishaps. There were two incidents of ice hockey injuries and one injury reported due to wrestling accidents, accounting for 8.7% and 4.4% of the total number of sports injuries respectively. There were singular instances of cervical spine injuries admitted due to involvement in football, baseball and hang gliding. (Table II)

#### Year

The frequency of cases in each year ranged from 27 in 1979 to a maximum of 44 in 1983. Eight cases were reported as unknown due to a combination of factors such as incomplete records, problems arising from long standing medical problems and cases of re-injury. Sports related injuries occurred in every year of the study except 1979, with the greatest number of injuries, eight, occurring in 1985, the last year of the study. (Figure 1)

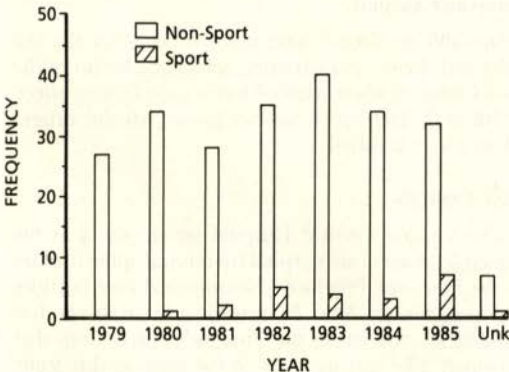


Fig. 1 Distribution of Sport and Non-Sport Injuries by Year

#### Month

A breakdown of the reported cases by the month of the year is presented in Figure 2. The frequency of cases in the months January to May and October to December were quite similar while the summer months had

substantially more cases. On average the number of reported cases approximately doubled for the summer period versus the rest of the year. A total of 50% of the reported 260 cases occurred during the summer months.

TABLE II

SPORTS INVOLVED IN CERVICAL SPINE INJURIES		
Sport	# of cases	Percent (nearest %)
Water Sports	11	48%
Gymnastics	3	13%
Cycling	3	13%
Hockey	2	9%
Football	1	4%
Baseball	1	4%
Wrestling	1	4%
Hang Gliding	1	4%
	23	100%

Seventy-nine percent of the sports injuries occurred during the summer months of June-September. July accounted for 30% (7 of 23) of the sports injuries, the largest one month total. No sport related injuries were reported for the months of January, April, May, October, or December. (Figure 2)

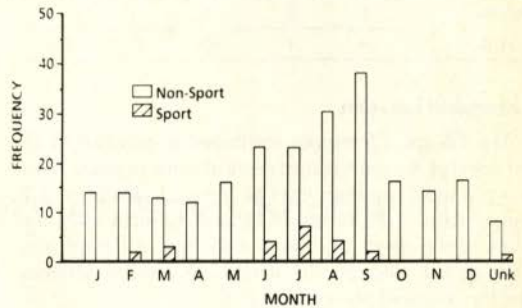


Fig. 2 Distribution of Cervical Spine Injuries by Month of the Year

#### Sex and Age

Men were the victims of 77.3% of all the cervical spine injuries reported and comprised 82.6% of the total for sports related accidents. The remaining cases of course, involved women and represented 22.7% of the total number of cases and 17.4% of the sport related cases. A breakdown of the reported cases revealed that although the women were involved in far fewer cases the distribution of cases within each sex category was quite similar. Sport accounted for 9.5% of the male cervical spine cases and 6.8% of the female cervical spine cases. (Table III)

The majority of the males involved in cervical spine cases during sport participation were 30 years of age or younger (14 of 19 cases). All of the females cervical spine cases during sport participation occurred to participants between the ages of 16 and 25 years. (Table IV)

**TABLE III**  
**SEX OF INDIVIDUALS REPORTING**  
**CERVICAL SPINE INJURIES**

	Sex		Total N (% row)
	Males N (% row)	Females N (% row)	
Sport (%col)	19 (82.6) (9.5)	4 (17.4) (6.8)	23 (100) (8.8)
Non-sport (%col)	182 (76.8) (90.5)	55 (23.2) (93.2)	237 (100) (91.2)
	201 (77.3)	59 (22.7)	260 (100)
(%col)	(100)	(100)	(100)

**TABLE IV**  
**DISTRIBUTION OF CERVICAL SPINE CASES**  
**BY AGE AND SEX**

Age (yr)	Sport		Non-Sport		Total
	Males	Females	Males	Females	
11-15	0	0	0	1	1
16-20	8	2	50	9	69
21-25	3	2	37	3	45
26-30	3	0	22	4	29
31-35	1	0	12	4	17
36-40	1	0	7	2	10
41-45	1	0	6	3	10
>45	1	0	42	28	71
Unknown	1	0	6	1	8
TOTAL	19	4	182	55	260

### Anatomical Location

The C5 and C6 regions combined to produce 43.5% (10 cases) of the sport related cervical spine injuries. This was the most common level of injury, followed by C7 region with 21.7% (5 cases). C2 and C3 accounted for 17.4% of the sports injuries and the rest of the injuries were spread amongst the remaining cervical vertebra and the odontoid process. (Table V)

**TABLE V**  
**ANATOMICAL SITE OF INJURY DISTRIBUTED BY SPORT**

*Site	Sport					Non-Sport
	Hockey	Football	Water	Gym	Cycling	
Odontoid	—	—	—	—	—	29
C1	—	—	1	—	—	16
C2	—	—	2	—	1	48
C3	—	—	—	—	—	25
C4	—	—	2	—	—	19
C5	1	—	3	3	2	39
C6	—	1	—	—	—	37
C7	1	—	3	—	—	24
TOTAL	2	1	11	3	3	237

\*C1 would include all injuries to C1 and any reported as C1-C2 likewise for all other anatomical sites.

All the gymnastics injuries occurred at the C5 level. Water sports accidents resulted in injuries at various levels of the cervical spine, although they were most prevalent in the C4 to C7 vertebra (72.7% of all the water

sport injuries). All of the ice hockey and wrestling injuries occurred in the C5 to C7 range as well. Cycling accidents occurred at the C2 and C3 level once and at the C5 and C6 level twice.

### Neurological Consequences

A total of 26.1% of the patients with sports related cervical spine injuries were noted to have some degree of neurological deficit on admission to hospital. This represents a total of 6 cases which were equally divided among those with only partial motor and partial sensory loss, those with just sensory loss and two cases of quadriplegia.

Lasting neurological deficit occurred in only 8.7% of the sports related injuries. The remaining percentage had, with varying lengths of hospital stay and degrees of treatment, complete neurological recovery. The 8.7% with a lasting deficit all remained permanent paraplegics. These conditions were the result of injuries incurred in organized ice hockey games. This percentage actually translates into two cases over the entire six year period. (Table VI)

**TABLE VI**  
**NEUROLOGICAL OUTCOME DISTRIBUTED BY SPORT**

Outcome	Sport					Non-Sport	
	Hockey	Football	Water	Gym	Cycling		Other
Complete Recovery	—	1	11	3	3	3	172
Paraplegia	—	—	—	—	—	—	4
Quadriplegia	2	—	—	—	—	—	19
Incomplete Recovery	—	—	—	—	—	—	17
Unknown	—	—	—	—	—	—	8
Deaths	—	—	—	—	—	—	19
TOTAL	2	1	11	3	3	3	237

### Drugs and Alcohol

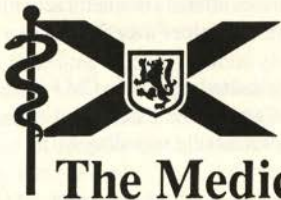
Drugs and/or alcohol were involved in 42 of the 260 cases and diving and wrestling accounted for all of the sports injuries where alcohol had a contributing effect. In 169 of the 260 cases it was not known whether drugs/alcohol were involved.

### DISCUSSION

The Victoria General Hospital serves one of as the principle tertiary care hospital for cervical spine injuries in the Maritime Provinces. Neurological care facilities are available in New Brunswick and relatively few patients are referred to the Victoria General from that Province. The vast majority of the cases in this study occurred in mainland Nova Scotia, Cape Breton Island and Prince Edward Island.

The impetus for this paper came from the feeling that the general public was increasingly more concerned with the danger that various sports presented to its participants, especially in terms of catastrophic neck injuries. This effort was undertaken to quantify the number of reported cases of sport related cases of cervical

**PROCEEDINGS OF**  
**24th MEETING OF COUNCIL**  
**and**  
**135th ANNUAL MEETING**  
**of**



**The Medical Society of Nova Scotia**

**HALIFAX**

**November 25 - 26, 1988**

# THE MEDICAL SOCIETY OF NOVA SCOTIA

## PROCEEDINGS OF

### 24th MEETING OF COUNCIL

### AND

### 135th ANNUAL MEETING

### November 25 - 26, 1988

The 24th Meeting of Council began as The Medical Society Officers, accompanied by Dr. John O'Brien Bell, President of The Canadian Medical Association, the Division Presidents, and Mr. D.D. Peacocke paraded through Council Chambers to the head table. Following call to order by Dr. Art Parsons, Chairman of the Executive and General Council, the Officers and Dr. O'Brien-Bell were introduced.

Mr. Peacocke read the names of Society members deceased since October 1, 1987 as follows: Dr. Maxwell D. Brennan of Dartmouth; Dr. J.J. Carroll of Antigonish; Dr. Ivan E. Carter of Halifax; Dr. Thomas C. Coyle of Dartmouth; Dr. Ernest I. Glenister of Halifax; Dr. Charles A. Gordon of Halifax; Dr. John R. Kerr of Annapolis Royal; Dr. Donald A. MacFadyen of Truro; Dr. G. Sterling MacLean of Tatamagouche; Dr. Clyde S. Marshall of Halifax; Dr. John O. McNeil of Glace Bay; Dr. Bernard F. Miller of Halifax; Dr. Frank S. Ozvegy of Yarmouth; Dr. John J. Quinlan of Kentville; Dr. Sterling A. Robbins of Lockeport; Dr. Albert M. Sinclair of Halifax; Dr. John J. Stanton of Halifax; and Dr. Robert C. Young of Pictou.

The Transactions of the 23rd Meeting of Council and 134th Annual Meeting (1987) as printed in the December 1987 issue of The Nova Scotia Medical Bulletin were approved.

Council approved a motion that the narrative of all reports and supplementary reports be received for information.

#### REPORTS

##### **EXECUTIVE DIRECTOR**

Mr. Peacocke's report provided Council with information on action taken by The Society relative to decisions made at Council 1987 along with on-going matters. He noted the continued support for the Memorial Fund for Nova Scotia

Physicians which continues to grow. Once again he urged Council to continue its interest and concern for mediation of complaints to The Medical Society.

Mr. Peacocke paid tribute to The Society office staff saying that they are a truly loyal group of people who have served The Medical Society extremely well. He thanked the membership for the support given through the past year.

##### **EXECUTIVE COMMITTEE CHAIRMAN**

Dr. Parsons offered a resumé of activities carried out by the Executive Committee over the past year.

He emphasized support for CMA undertakings relative to Health Care for the Elderly and recommendations nationally and provincially regarding AIDS.

Dr. Parsons noted the impending retirement of Mr. D.D. Peacocke and recounted the steps taken to establish a Search Committee to locate his replacement. He noted that Mr. Peacocke was nominated and unanimously endorsed as the first layman to receive Honorary Membership in The Medical Society.

Dr. Parsons invited Dr. Mark Kazimirski and Dr. Ken Scott to report on a survey undertaken by The Society and the Nova Scotia Chapter of the College of Family Physicians regarding a Registry of family physicians doing obstetrics.

A registry is to be published including names of family physicians who will accept obstetric referrals from other family physicians who do not practise obstetrics.

During discussion, concern was expressed at the declining number of general practitioners who do obstetrics. While the higher cost of CMPA protection was cited as a reason for some of the decline, the survey noted that lifestyle

concerns had the greatest effect. It showed that younger physicians were quick to drop obstetrics from their practices. Council agreed the matter needs closer consideration.

Dr. Parsons noted a number of By-Law changes that were examined and approved by the Executive Committee and the By-Laws Committee and proposed the following:

#### RESOLUTION # 1

*"THAT By-Law Amendments, as approved by the Executive Committee on September 24, 1988, as published in the October 1988 Journal, and as set out following this Report be approved."*

**CARRIED**

Dr. Parsons called on Dr. Rob Stokes to report on his search for committee chairmen and representatives to other organizations, as chairman of the Committee on Committees.

Dr. Stokes noted the difficulty in finding volunteers to fill the many positions. He also advised that some committees have been inactive in recent years. He suggested that the time had come to streamline the Society's standing committee structure. While some committees could be dissolved, others could be given Special Committee or Task Force status as they had some specific objectives which fit in a fixed time frame.

The following recommendation generated considerable discussion with some committee chairmen defending the level of activity of their committees. Many were supportive of the need to streamline the committee structure but there was concern that the matter needed further study by the Executive Committee.

#### RECOMMENDATION # 2

*"THAT The Medical Society of Nova Scotia designate or redesignate standing committees as follows:*

*Allied Health Disciplines - Allied Health Discipline Task Force*

*Annual Meeting - dissolve*

*Archives - continue as a standing committee*

*Awards - dissolve*

*By-Laws - continue as a standing committee*

*Cancer - dissolve*

*Child Health - continue as a standing committee*

*Community Health - dissolve*

*Drug & Alcohol Abuse - dissolve*

*Editorial - dissolve*

*Environmental - Environmental Task Force*

*Ethics - continue as a standing committee*  
*Hospital & Emergency Services - special committee*  
*Liaison Committees - continue as standing committees*

*( i) Minister of Health*

*( ii) Workers' Compensation Board*

*( iii) Registered Nurses' Association*

*( iv) Faculty of Medicine*

*Maternal & Perinatal Health - dissolve*

*Medical Education - continue as a standing committee*

*Membership Services - continue as a standing committee*

*Nutrition - dissolve*

*Occupational Health - special committee*

*Pharmacy - dissolve*

*Physical Fitness - dissolve*

*President's Committee - dissolve*

*Professionals' Support Program - continue as a special committee*

*Risk Management - continue as a standing committee*

*Senior Advisory Committee - continue as a standing committee."*

**DEFEATED**

To facilitate committee activity while further consideration is given to streamlining the Standing committee structure, a slate of committee chairmen and representatives to other organizations were proposed as follows:

#### RESOLUTION # 3

*"THAT the appointment of Committee Chairmen as set out at the end of the 1988 Transactions be approved."*

**CARRIED**

#### RESOLUTION # 4

*"THAT the appointment of Representatives to Other Organizations as set out at the end of the 1988 Transactions be approved."*

**CARRIED**

#### PRESIDENT'S REPORT

Dr. Henshaw's report offered a comprehensive view of Society activities during the past year. He paid particular tribute to the many physicians who serve The Society as Officers, Executive Committee members, Branch and

Section executives. He noted the extra assistance from Dr. Bill Acker, the Past President; Dr. Art Parsons, the Chairman of the Executive Committee; and Dr. Vince Audain who succeeds Dr. Henshaw as President.

Dr. Henshaw also paid particular tribute to Mr. Doug Peacocke. He said thanks on behalf of the 20 Presidents who served during Mr. Peacocke's term as CEO of The Society.

Dr. Henshaw noted the continued effort of Nova Scotia physicians in the battle against tobacco smoke. He commended those who lobbied for Bills C-51 and C-204, the federal legislation affecting tobacco, along with the effort to make Nova Scotia's hospitals smoke-free.

#### CHAIRMAN, ECONOMICS COMMITTEE

Dr. J.R. Rae presented the report on behalf of Dr. G.R. Burns during an in camera session. Included in the report were the following reports: Fee Schedule Sub-Committee; New Procedure Fee Review Sub-Committee; Joint Fee Review Committee; Technical Procedures, Physician's Offices Sub-Committee; Intensive Care Sub-Committee; Task Force on New Procedure Fees; and Task Force on Inter-Specialty Net Income Per Hour.

Dr. Bill Canham, Chairman of the Task Force on Inter-Specialty Net Income Per Hour, in response to questioning, advised Council that his Task Force Report would be brought forth early in the Fall of 1989 for presentation to Council 1989.

#### NEGOTIATING COMMITTEE

Dr. Bill Acker provided Council with an up-date of negotiations activity with the Health Services and Insurance Commission. He advised that his report could not deal with specifics while negotiations were on-going. He fielded questions about the broad principles that are being discussed, i.e. capping, utilization, CMPA dues and Continuing Medical Education.

Dr. Acker advised that the Commission has extreme concern about a number of fees that appear to be out of proportion with the time and expertise required to complete the procedures. He emphasized that the Commission's concern over certain fees is a major stumbling block in the negotiations. He feared that if these concerns were addressed within the negotiation process, an agreement could be very distant.

Dr. Henshaw referred to a special project designed to deal with the concern within The Medical Society. He noted the Relative Value Fee Schedule Project Directive was circulated with the Minutes of the November 2, 1988 Officers' Meeting.

#### RESOLUTION # 5

*"THAT The Medical Society of Nova Scotia endorse the Relative Value Fee Schedule Project Directive which reads as follows:*

##### *INTRODUCTION:*

*Under a fully insured medical service, the monetary checks and balances of the Free Enterprise System are lost. Despite the annual tariff distribution process, the introduction of new technologies and techniques has resulted in a widening of disparities between incomes produced by the Schedule of Fees. Disparities exist between specialties and from one practice to another within specialties. The magnitude of the problem is such that mounting pressure from the Commission, as well as from Society Membership dictates the need for positive action to resolve the issue.*

*OBJECTIVE: To produce a Relative Value Fee Schedule.*

##### *COURSE OF ACTION:*

- 1. Develop a formula in terms of time, skill, stress, overhead, etc. to define relativity of procedure fees in quantitative terms. Obtain Society agreement.*
- 2. Measure or assess relativity of fees in the current Schedule using the above formula.*
- 3. Produce a Relative Value Fee Schedule with an assessment of the cost impact by Specialty.*
- 4. Recommend an implementation program recognizing a possible requirement to phase in the changes over an acceptable time frame.*

##### *TEAM COMPOSITION:*

*The project team will consist entirely of staff from the Society's Economics Department. The Director of Economics will act as Project Director and will assign tasks to staff members as their regular duties permit.*

##### *TERMS OF REFERENCE:*

*The Project Director will be responsible to the Officers for conducting the Project. He will provide regular progress updates until the Project's completion. The final report will be submitted to the Officers through the Economics Committee. The Economics Committee will make recommendations on the report at that time.*

##### *TIME FRAME*

*The final report is estimated to take two years to complete (October 1990). The Project Team will*

prepare an interim report at the end of one year - i.e. October 1989.

#### RESOURCES:

*There have been many studies of a Relative Value Fee Schedule undertaken by other provinces, but perhaps the greatest results have been achieved in the United States. It is expected that a review of the work done by these organizations will greatly reduce the direct study time required and will not only improve the quality and acceptability of the study, but will also prove to be cost effective. Much material will be available at nominal costs, but to take full advantage of the efforts of others, considerable travel will be involved. As data sources come to light, a more accurate itinerary and costs can be scheduled. At this time, the travel costs for the first year are estimated to be no more than \$10,000."*

**CARRIED**

A number of questions followed about inter and intra specialty fee disparities. Mr. Schellinck cleared up most of the concerns when he advised that the study would look at the relativity of each fee against every other fee.

#### RESOLUTION # 6

*"THAT The Medical Society of Nova Scotia approve an expenditure of \$10,000. to cover first year travel costs for the Relative Value Fee Schedule Project as outlined above."*

**CARRIED**

### REPORTS OF STANDING COMMITTEES

#### ALLIED HEALTH DISCIPLINES, Including TASK FORCE ON HEALTH PERSONNEL STANDARDS ACT

Dr. A.H. Shears noted that after several years, the Task Force on Health Personnel Standards Act had made a good deal of progress in 1988. He reported that the Deputy Minister of Health and Fitness is committed to convening a meeting of various health disciplines to review and study this issue.

#### RESOLUTION # 7

*"THAT the Task Force on Health Personnel Standards Act be authorized to carry out further discussions in pursuit of the development of legislation related to Allied Health Personnel as previously described as proposed draft legislation."*

**CARRIED**

### ARCHIVES COMMITTEE

Dr. Ian Cameron's report and slide show to Council reviewed many on-going projects relative to the collection, restoration and cataloguing of medical artifacts, photos and historical information. Most of the work is under the direction of the Medical Archivist, Mr. Owen McInerney.

#### RESOLUTION # 8

*"THAT The Medical Society of Nova Scotia continue to support the salary of the Medical Archivist with an annual grant of \$7,000.00."* **CARRIED**

### BY-LAWS COMMITTEE

Dr. Peter Littlejohn noted that a number of By-Law changes were approved within the Report of the Executive Committee. He noted that the structure of The Medical Society is no longer in step with the structure and terminology of most current organizations.

#### RESOLUTION # 9

*"THAT the By-Laws Committee review the Organizational structure of the Society and present recommendations to Council in 1989."* **CARRIED**

Dr. Parsons noted that Dr. Littlejohn had completed his three year term as Chairman of the By-Laws Committee and Council showed its appreciation of his diligent effort.

### COMMUNITY HEALTH COMMITTEE

Dr. D.B. Langille's report reflected an active committee during the past year. He highlighted support for the Nova Scotia Heart Health Program, concern for Hyperlipidemia as a Cardiovascular disease risk factor and concern for enhancing the reporting of communicable disease, as required by The Health Act. The Committee reviewed and commented on concerns raised in The Nutrition Council Report on nutrition among people receiving social assistance.

#### RESOLUTION # 10

*"THAT the Medical Society endorse the Report of the Nutrition Council of Nova Scotia 'How Do The Poor Afford To Eat? An Examination of Social Assistance Food Rates in Nova Scotia' and communicate such endorsement to the Minister of Community Services along with the recommendation that the Report be acted upon as quickly and as comprehensively as possible."*

**CARRIED**

## RESOLUTION # 11

*"THAT the Medical Society, through the Department of Health and Fitness, promote the establishment of a system of Communicable Disease reporting on a local (Health Unit) basis to facilitate the cataloguing of epidemiological data and to act as a resource for local physicians. This resource should also include regular publication of disease prevalence on a Health Unit basis to local physicians."*

**CARRIED**

## DRUG & ALCOHOL ABUSE COMMITTEE

Dr. V.P. Audain reported on behalf of Dr. E.L. Reid and raised the question of adopting a triplicate prescription form to combat prescription drug abuse.

A number of concerns were expressed about the need, control of the copies and the cost of printing and control. Dr. W.F. Mason and Dr. V.M. Hayes commented on an alternative expressed from the Bureau of Dangerous Drugs in a meeting with the PMB. Dr. M.A. Smith said the PMB decided to wait a year to see the effect of tightened regulations by the Bureau.

## RECOMMENDATION # 12

*"THAT The Medical Society of Nova Scotia urge adoption in Nova Scotia of the triplicate prescription form as used in Alberta as one step in attempting to curb drug abuse."*

**DEFEATED**

## ENVIRONMENT COMMITTEE

Dr. D.B. Shires reported on the extensive activity of his Committee. He noted concerns over the cumulative toxic effect of chemicals sprayed in our environment, contamination of drinking water through our ground water system and the absence of medical input in decision making within the Department of Environment.

## RESOLUTION # 13

*"THAT recognizing the cumulative toxic effects of pesticides and herbicides The Medical Society of Nova Scotia lobby Government to make appropriate changes in the legislation to ensure that these acts apply to all agricultural, horticultural and forestry pesticide and herbicide users."*

**CARRIED**

## RESOLUTION # 14

*"THAT The Medical Society of Nova Scotia commend the Government of Nova Scotia for its actions in clearing up the Sydney Tarpond but encourage the Government to consider the health implications in deciding the ultimate fate of the coke ovens."*

**CARRIED**

## RESOLUTION # 15

*"THAT The Medical Society of Nova Scotia find sources to fund a project to document the immediate and estimate the future health risks to Nova Scotians from common contaminants in ground water. These common contaminants include sodium from road salt, hydrocarbons from gasoline and stove oil, and nitrates from agricultural products. If sufficient funding was available, other contaminants such as pesticides, other agricultural chemicals and PCB's could also be studied."*

**CARRIED**

## RESOLUTION # 16

*"THAT The Medical Society of Nova Scotia approach the Nova Scotia Minister of the Environment to express the Society's request that there be medical/health input in their review of Canadian water quality standards."*

**CARRIED**

## RESOLUTION # 17

*"THAT The Medical Society of Nova Scotia contact the Nova Scotia Minister of Environment to offer medical/health input to their review activities for the Canadian Council of Resource and Environment Ministers."*

**CARRIED**

## RESOLUTION # 18

*"THAT The Medical Society of Nova Scotia join with The Canadian Medical Association to approach the Federal Ministers of Health, Agriculture and Environment to express their concern, and request a review of the Pest Control Products Act, so that registration of new products can only take place with the approval of both the Ministries of Health and Environment."*

**CARRIED**



Dr. V.P. Audain noted the Officers had supported the Environment Committee request for assistance in the study of ground water contamination.

#### **RESOLUTION # 19**

*"THAT The Medical Society of Nova Scotia approve application of the Environment Committee for a contribution from the Medical Society of \$2,500.00 for fiscal year 1989 in support of the study "Potential Health Risks of Ground Water Contamination in Nova Scotia" on the proviso that the funds will be expended only if other contributions are received as anticipated."*

**CARRIED**

#### **FINANCE COMMITTEE**

Dr. Brewer Auld reviewed the budget for The Society for fiscal year 1989. He presented the budget which was circulated earlier to all members and approved by the Executive Committee on September 24, 1988.

Dr. Auld then introduced the Financial Statements of The Society for Fiscal Year 1988 which had been prepared by Doane Raymond and circulated just prior to the meeting. The Treasurer then highlighted the significant points set out in the Statements.

#### **RESOLUTION # 20**

*"THAT the Financial Statements of The Medical Society of Nova Scotia for Fiscal Year 1988 be approved."*

**CARRIED**

#### **RESOLUTION # 21**

*"THAT Doane Raymond be retained as the Medical Society's Auditors for Fiscal Year 1989."*

**CARRIED**

#### **RESOLUTION # 22**

*"THAT membership dues for ordinary members of the Medical Society for Fiscal Year 1990 be increased by \$40.00 with other categories of membership dues to be increased proportionately."*

**CARRIED**

#### **MEDIATION COMMITTEE**

Dr. J.D.A. Henshaw noted that complaints against doctors, communicated to The Medical Society, most often involve difficulties in communication. He said in most instances neither doctor nor patient is totally to blame. He urged that, as professionals, physicians should make every effort to ensure adequate communications with patients.

#### **RESOLUTION # 23**

*"THAT The Medical Society of Nova Scotia continue with its mediation efforts within the Society and that individual physicians continue to do their very best to provide quality care together with the necessary compassion in order to satisfy their patients."*

**CARRIED**

#### **MEDICAL EDUCATION COMMITTEE**

Following the report by Dr. V.M. Hayes, the Chairman noted Dr. Hayes had completed her term as Chairman and Council extended a sincere vote of thanks for a job well done.

#### **PHYSICAL FITNESS COMMITTEE**

Dr. Kent Pottle reported on Society activities designed to show physicians practicing healthy activities. He noted the annual tennis tournament, a ski day scheduled for February 3, 1989, and on-going support for the Professional Challenge.

#### **RESOLUTION # 24**

*"THAT The Medical Society of Nova Scotia contribute \$500.00 to the budget of the 1989 edition of the Professional Challenge."*

**CARRIED**

#### **OTHER COMMITTEES**

The following committees of The Medical Society reported to Council but without recommendations requiring motions. It is advisable that these reports be reviewed in the Reports to Council book.

**BUILDING COMMITTEE**

**CANCER COMMITTEE**

**EDITORIAL BOARD**

**ETHICS COMMITTEE**

HOSPITAL & EMERGENCY SERVICES  
COMMITTEE  
LIAISON COMMITTEE - MSNS/FACULTY OF  
MEDICINE  
LIAISON COMMITTEE - MSNS/MINISTER OF  
HEALTH & FITNESS  
LIAISON COMMITTEE - MSNS/REGISTERED  
NURSES' ASSOCIATION  
LIAISON COMMITTEE - MSNS/WORKERS'  
COMPENSATION BOARD  
MATERNAL & PERINATAL HEALTH COMMITTEE  
MEDICAL EDUCATION COMMITTEE  
MEMBERSHIP SERVICES COMMITTEE  
NUTRITION COMMITTEE  
OCCUPATIONAL HEALTH COMMITTEE  
PHARMACY COMMITTEE  
PROFESSIONALS' SUPPORT PROGRAM  
COMMITTEE  
RISK MANAGEMENT COMMITTEE  
SENIOR ADVISORY COMMITTEE

**REPORTS OF NOVA SCOTIA  
REPRESENTATIVES TO C.M.A.**

**CMA BOARD OF DIRECTORS**

Dr. Judy Kazimirski offered a comprehensive report on the wide ranging areas of concern to the CMA Board.

Her report highlighted continued concern for health care for the elderly. She noted the CMA received a grant of \$45,000 from the Federal Government to conduct a workshop entitled "Attitudes and Ethics in the Health Care of the Elderly." She noted that care was taken to ensure that accepting government grants would not compromise any policies of the CMA.

The CMA continues to communicate concerns about health care funding. A Brief to the House of Commons Committee on Health, Welfare and Social Affairs suggests a review of Established Program Financing arrangements between the federal and provincial governments. It also suggested a national conference on the future of the health care systems be convened in 1990, hosted by Health and Welfare Canada.

The report also addressed manpower concerns noting a renewed emphasis in getting rural students to seek a career in medicine and to require medical students to gain some rural-practice experience.

Much discussion followed the report including a question about the legal challenge to the Canada Health Act. Dr. Kazimirski assured that because of the substantial expense involved, the challenge has been reviewed and evaluated and is proceeding.

**CMA COUNCIL ON HEALTH CARE**

Dr. A.H. Patterson presented the report on this Council's activities. It was received for information, without recommendations.

The Chairman noted the years of service offered by Dr. Patterson's predecessor, Dr. Dan Reid, and sincere thanks was extended.

**CMA COUNCIL ON MEDICAL ECONOMICS**

Dr. P.D. Muirhead offered an extensive report which highlighted concerns about the growing attention being paid to HSO's and HMO's. He cautioned about the growth and impact of advances in technology.

The report also raised concern about the long term funding of the health care system. He suggested funding is unavoidably tied to the economy and he said private funding must be given detailed study.

**CMA COUNCIL ON MEDICAL EDUCATION**

Dr. G.L. Myatt gave a broad description of his Council's activities. He stressed the value of the CMA brochure "Thinking of Becoming a Doctor" as a tool for local educators. He encouraged members to consider attending sessions of the Physician Manager Institute.

Dr. Myatt raised concerns about changing requirements for medical licensure throughout Canada. A lively discussion centred on the need to maintain flexibility in the pathways to licensure and reciprocity among provinces.

**RESOLUTION # 25**

*"THAT The Medical Society of Nova Scotia encourage the Provincial Medical Board of Nova Scotia to support the concept of the "third" pathway to medical licensure."*

**CARRIED**

## MD MANAGEMENT

Dr. G.A. Sapp reviewed the many programs of MD Management. He noted that Citibank is the principal bank through which loans to establish a medical practice are secured. Previously, five banks were used.

Dr. Sapp reported that MD Realty was about to make its first major purchase in Halifax. He said that November 30th was the date set for purchase of the Young Tower and the Metro One on Young Street in Halifax, ten buildings in Dartmouth's Burnside Park and one in Saint John, New Brunswick.

## REPORTS OF SECTIONS

### INTERNES & RESIDENTS

Dr. R. Walter noted in his report that the courts in British Columbia have ruled against the B.C. Government. The controversial legislation restricting physicians' rights to practice through limiting billing numbers was found to be unconstitutional. He noted the welcome ruling was long awaited and reiterated the position that all medical school graduates should have access to a general licence and practice.

Dr. John O'Brien-Bell, of British Columbia, warned that the court ruling does not clear all paths to practice. He said the B.C. Government has already introduced a six month, compulsory course on health systems. While it is part of the curriculum in B.C. medical schools, graduates from out of province must take the course separately, prior to licensure.

### **RESOLUTION # 26**

*"THAT The Medical Society of Nova Scotia strongly support that each graduate from an accredited Canadian Medical School must be guaranteed the opportunity to fulfill a funded prelicensure training which, if successfully completed, will lead to a general license for non-referral primary care."*

**CARRIED**

Discussion on the resolution was wide ranging. Views covered concerns about the impact on graduates of foreign medical schools, the fact that residency positions may be in short supply and that Dalhousie Medical School already offers more residency positions than local graduates can fill.

## OTHER REPORTS FROM SECTIONS

Council received, for information, the following reports from Sections which did not include recommendations. It is advisable that these reports be reviewed in the Reports to Council book.

**ANAESTHESIA  
EMERGENCY MEDICINE  
GENERAL PRACTICE  
INTERNAL MEDICINE  
LABORATORY MEDICINE  
OBSTETRICS & GYNECOLOGY  
OPHTHALMOLOGY  
OTOLARYNGOLOGY  
PSYCHIATRY  
RADIOLOGY  
SURGERY**

## REPORTS OF REPRESENTATIVES TO OTHER ORGANIZATIONS

### ABILITIES FOUNDATION OF NOVA SCOTIA

Dr. J.J.P. Patil reported on the activities of the Abilities Foundation in service of the disabled community of this province.

### **RESOLUTION # 27**

*"THAT The Medical Society of Nova Scotia continue to support the Abilities Foundation of Nova Scotia and its fund raising efforts."*

**CARRIED**

### HEALTH PROFESSIONS FOR ORGAN DONATIONS

Mr. Bill Martin noted the general support of the public toward the principle of organ donation and transplantation. However, he pointed out the continued decline in donor organs despite major public education efforts.

He suggested the question of organ donation needs to be addressed in advance of a person's candidacy for donation rather than after brain death. He invited Council to consider a motion to place the question of organ donation on all hospital admitting forms.

## RESOLUTION # 28

*"THAT The Medical Society of Nova Scotia promote the inclusion of a question on organ donation on all hospital admitting forms."*

**CARRIED**

## ST. JOHN AMBULANCE ASSOCIATION

Dr. J.D.A. Henshaw noted the training programs provided by the Association. He suggested such training would be valuable in the Province's Home Care Plan and to communities throughout Nova Scotia.

## RESOLUTION # 29

*"THAT The Medical Society of Nova Scotia recommend to the Minister of Health and Fitness, and to the Government of Nova Scotia, THAT the St. John Ambulance Home Nursing Program be utilized as the basis for training homemakers in the home care program so that they may have a basic knowledge of both first aid and resuscitation."*

**CARRIED**

## RESOLUTION # 30

*"THAT The Medical Society of Nova Scotia write to each hospital in the Province recommending that they use the St. John Ambulance Brigade in their vicinity, should there be such a Brigade, as an integral part of their disaster plan."*

**CARRIED**

## SMOKING AND HEALTH (Nova Scotia Council on)

Dr. D.F. Fay reported on the promotions and workshops conducted by the Council. He urged continued effort in lobbying for legislation against smoking and the hazardous effects of tobacco products.

## RESOLUTION # 31

*"THAT The Medical Society of Nova Scotia be continuously ready to be a member of lobby groups to pressure the Federal and Provincial Governments to make the Regulations of Bill C-51 (The Tobacco Products Control Act) truly effective."*

**CARRIED**

Concerns were expressed about the increasing number of young people who are smoking. Dr. Ken Scott suggested more be done to warn about the addictive nature of smoking.

## RESOLUTION # 32

*"THAT The Medical Society of Nova Scotia urge the Government of Nova Scotia to ban billboard cigarette advertising."*

**CARRIED**

## OTHER REPORTS OF REPRESENTATIVES TO OTHER ORGANIZATIONS

The following reports contained no recommendations but were received for information by Council. It is advisable to review these reports in the Report to Council book.

CANADIAN PHYSICIANS FOR PREVENTION  
OF NUCLEAR WAR  
COMMUNICABLE DISEASE CONTROL  
(ADVISORY COMMITTEE)  
DALHOUSIE REFRESHER COURSE  
PLANNING COMMITTEE  
DRIVER LICENSING (MEDICAL  
ADVISORY COMMITTEE)  
DRUG INFORMATION ADVISORY  
COMMITTEE  
LUNG ASSOCIATION OF NOVA SCOTIA  
MARITIME MEDICAL CARE INC.  
BOARD OF REGISTRATION OF  
NURSING ASSISTANTS  
OCCUPATIONAL MEDICAL ASSOCIATION  
OF CANADA  
PHARMACY REVIEW COMMITTEE  
PHYSICIAN MANPOWER ADVISORY  
COMMITTEE  
PROVINCIAL MEDICAL BOARD  
Rh COMMITTEE  
SAFETY COUNCIL OF NOVA SCOTIA  
V.O.N.

**SOCIETY BUILDING**

Dr. M.J. Fleming questioned if MD Realty Fund's purchase of The Young Tower (the existing Society office building) should alter the plan to build a Society owned building. He recalled that The Society had explored a joint project with MD Management which was ruled out a few years ago.

Dr. Henshaw suggested a change in ownership of Young Tower does not change the principle of The Society owning its own building. He said the matter had received wide spread discussion through Society communications and Branch Society Meetings.

Dr. Henry Bland and others noted that MD Realty's purpose was to benefit its investors, not its tenants and he cautioned that The Society would be no better off under a new landlord.

It was noted that The Society is well along on its approved plan, including some expenditures which could not be retrieved if the course was altered.

**RECOMMENDATION # 33**

*"THAT the 135th Annual Meeting of The Medical Society of Nova Scotia direct the Executive Committee to re-examine the options of relocation of the Medical Society office before any further funds are expended on the Building Project."*

**DEFEATED**

*"THAT The Medical Society of Nova Scotia establish a special committee to consider the establishment of a comprehensive pregnancy counselling service in Nova Scotia."*

**CARRIED**

**VOTE OF THANKS**

Dr. J.D.A. Henshaw extended a sincere vote of thanks to Dr. Art Parsons, outgoing Chairman of the Executive Committee and Council, for the fine job he had done during the past year.

**NOMINATING COMMITTEE REPORT**

**RESOLUTION # 35**

*"THAT the report of the Nominating Committee with respect to all Offices to be filled other than Chairman of the Executive Committee be accepted and that the names contained therein are the new Officers and officials of the Medical Society — President-Elect - Dr. P.D. Jackson; Vice-Chairman of the Executive Committee - Dr. S.M.T. Leahey; Treasurer - Dr. R.B. Auld; Honorary Secretary - Dr. E.R. Sperker."*

**CARRIED**

Following voting by secret ballot, Dr. G.A. Ferrier was declared Chairman of the Executive Committee for 1989.

**ABORTION**

Dr. G.L. Myatt referred Council to the new CMA Policy on Abortion, specifically to "The decision to perform an induced abortion is a medical one, made privately between the patient and her physician, within the confines of existing Canadian law, and is made after conscientious examination of all other options".

Dr. Myatt suggested a comprehensive counselling service would fulfill the requirement for a conscientious examination of all other options.

Dr. Judy Kazimirski noted the CMA policy also states "the patient should be provided with the opportunity to have full and immediate counselling services".

**RESOLUTION # 36**

*"THAT the Branch Representatives for 1989 be approved as read from the Nominating Committee Report and as set out at the end of these Transactions."*

**CARRIED**

**ADJOURNMENT**

The 135th Annual Meeting of The Medical Society of Nova Scotia adjourned at 12:05 p.m., Saturday, November 26, 1988.

**ELECTION OF BRANCH REPRESENTATIVES  
TO THE 1989 EXECUTIVE COMMITTEE**

Antigonish-Guysborough	Dr. M.A. MacKenzie
Bedford-Sackville	Dr. J.V. Ramanauskas
Cape Breton	Dr. P.W. Littlejohn
Colchester East Hants	Dr. D.E. Ryan-Sheridan
Cumberland	Dr. J.P. Donachie
Dartmouth	Drs. W. Canham & G. Stewart
Eastern Shore	Dr. D.R. Barnard
Halifax	Drs. A.H. Murray & J.J.P. Patil
Inverness-Victoria	Dr. G.W. Thomas
Lunenburg-Queens	Dr. D.V. Wright
Pictou	Dr. F.A.C. Galvon
Shelburne	Dr. Mark Riley
Sydney	Dr. R.J. Bedard
Valley	Dr. C.L. Smith
Western	Dr. C. MacKinnon
Student Members	S. Kupur, M. Atwell, & A. Kapoor
I.R.A. Representatives	L. Pereira & D. Vaughan

**ELECTION OF OFFICERS**

President	Dr. V.P. Audain
President-Elect	Dr. P.D. Jackson
Chairman of the Executive Committee	Dr. G.A. Ferrier
Vice-Chairman	Dr. S.M.T. Leahey
Treasurer	Dr. R.B. Auld
Honorary Secretary	Dr. E.R. Sperker
Executive Director	Mr. D.D. Peacocke

**APPOINTMENT OF COMMITTEE CHAIRMEN**

Allied Health Disciplines	A.H. Shears
Archives	D.P. Hogan
Awards	E.V. Rafuse
Building	J.F. Hamm
By-Laws	vacant
Cancer	vacant
Child Health	N.P. Kenny
Community Health	D.B. Langille
Drug & Alcohol Abuse	G.B. Ferguson
Editorial	J.F. O'Connor
Environmental	D.B. Shires
Ethics	D.M. Rippey
Finance (Treasurer)	R.B. Auld
Hospital & Emergency Services	D.M. Maxwell
<i>Liaison Committees</i>	President
( i ) Minister of Health	
( ii ) Workers' Compensation Board	
( iii ) Registered Nurses' Association	
( iv ) Faculty of Medicine	
Maternal & Perinatal Health	E.R. Luther
Mediation	President
Medical Education	vacant
Membership Services	G.L. Myatt
Mortality Review (Anaesthesia)	K.W. Fairhurst
Nutrition	M.S. Tan

Occupational Health	A.D. Doucet
Pharmacy	vacant
Physical Fitness	M.K. Pottle
Professionals' Support Program	W.G. Gill
Risk Management	H. Yazer
Senior Advisory Committee	W.C. Acker
<b><u>APPOINTMENT OF REPRESENTATIVES TO OTHER ORGANIZATIONS</u></b>	
Abilities Foundation of N. S.	J.J.P. Patil
Canadian Cancer Society(N. S. Division)	A.J. Bodurtha
Communicable Disease Control (Advisory Committee)	T.J. Marrie
Diagnostic Imaging Committee	D.W.F. King J.A. Chadwick
Driver Licensing (Medical Advisory Committee)	C.C. Giffin R.A. Purdy
Drug Information Committee (Camp Hill)	Jan Gray
Drugs & Therapeutics Committee	G.C. Jollymore C.R.T. Dean
Health Professions for Organ Donation	Bill Martin
Kellogg Health Sciences Library	vacant
Laboratory Services (Joint)	G.K. Kini S.E. York
Lung Association (Nova Scotia)	R.T. Michael
Medical Advisory Committee	R.D. Saxon, M.A. Smith & A.A. Schellinck
Nuclear War (Cdn. Physicians for Prevention of)	D.F. Fay
Nursing Assistants (Board of Registration)	G.B. Ferguson
Medical/Nursing Liaison Committee (NSAHO/MSNS/PMB/RNANS)	D.L. Cogswell
Occupational Medical Association of Canada	J.D. Prentice
Pharmacy Advisory Committee	D.C. Elliott
Physician Manager Program (Advisory Task Force)	J.D.A. Henshaw
Physician Manpower (Prov. Advisory Committee)	R. Stokes & Exec. Director
Provincial Medical Board	H.S. MacDonald
RH Committee Director	T.F. Baskett
Refresher Course (CME)	G.W. Thomas & A.G. Cameron
St. John Ambulance Association (Provincial Advisory Committee)	J.D.A. Henshaw
Safety Council (Nova Scotia)	R.A. Perry
School Health Education	vacant
Smoking and Health	D.F. Fay
Undergraduate Medical Education	vacant
Victorian Order of Nurses	M. Kazimirski
Voluntary Planning	Exec. Director
M.M.C. Inc. Observers	Chairman, Executive Ctte. & Executive Director
Reproductive Care Action Group	J.C. Kazimirski & C. Folsinbee

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AUDITORS' REPORT

To the Members of  
The Medical Society of Nova Scotia

We have examined the balance sheet of The Medical Society of Nova Scotia as at September 30, 1988 and the statements of operating fund income and surplus, building fund revenue, expenditures and surplus, changes in financial position, and related statements of the Cogswell Library Fund for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the Society and its related funds as at September 30, 1988 and the results of its operations for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Halifax, Nova Scotia  
October 25, 1988

*Doane Raymond*  
Chartered Accountants

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**Doane Raymond**

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THE MEDICAL SOCIETY OF NOVA SCOTIA

2.

BALANCE SHEET

SEPTEMBER 30, 1988

	<u>ASSETS</u>	<u>1988</u>	<u>1987</u>
Operating Fund			
Current			
Cash and short term investments		\$ 1,123,681	\$ 653,476
Receivables			
Members			300
Other		19,226	5,740
Accrued interest		5,028	5,841
Prepaid expenses		<u>15,811</u>	<u>14,400</u>
		1,163,746	679,757
Investments (Note 1)		320,594	797,722
Equipment (Note 2)		<u>46,212</u>	<u>46,453</u>
		<u>1,530,552</u>	<u>1,523,932</u>
Building Fund			
Land and project development costs (Note 2)		<u>205,811</u>	
		<u>\$1,736,363</u>	<u>\$1,523,932</u>

LIABILITIES AND EQUITY

Operating Fund			
Current			
Payables and accruals			
Trade		\$ 20,734	\$ 17,760
Honoraria		71,246	4,128
Cogswell Library Fund		3,595	487
Deferred revenue (Note 3)		<u>735,566</u>	<u>773,425</u>
		831,141	795,800
Contingency Fund		133,136	120,999
Surplus		<u>566,275</u>	<u>607,133</u>
		<u>1,530,552</u>	<u>1,523,932</u>
Building Fund			
Investment in capital assets		<u>205,811</u>	
		<u>\$1,736,363</u>	<u>\$1,523,932</u>

Contingent liability (Note 4)  
Commitments (Note 5)

ON BEHALF OF THE EXECUTIVE

\_\_\_\_\_ Treasurer

\_\_\_\_\_ Executive Secretary

**Doane Raymond**



THE MEDICAL SOCIETY OF NOVA SCOTIA

OPERATING FUND

STATEMENT OF INCOME AND SURPLUS

YEAR ENDED SEPTEMBER 30, 1988

1987 <u>Actual</u>		1988 <u>Budget</u>	1988 <u>Actual</u>
	Revenue		
	Annual membership dues		
	The Medical Society of		
\$ 825,305	Nova Scotia	\$ 840,000	\$ 841,675
214,610	The Canadian Medical Association	240,000	241,535
5,025	Intern and Resident	5,000	5,220
<u>788</u>	Students	<u>700</u>	<u>756</u>
1,045,728		1,085,700	1,089,186
77,266	Investment income (Note 6)	45,000	68,615
3,716	Bulletin		3,660
(6,961)	InforMed		4,611
(928)	Gain on sale of investments		45,940
<u>3,724</u>	Other income (Note 7)	<u>2,000</u>	<u>3,266</u>
1,122,545		1,132,700	1,215,278
<u>1,026,579</u>	Expenses (Page 8)	<u>1,160,450</u>	<u>1,194,181</u>
95,966	Net income (loss)	<u>\$ (27,750)</u>	21,097
511,167	Surplus, beginning of year		607,133
	Transfer to Building Fund		<u>(61,955)</u>
<u>\$ 607,133</u>	Surplus, end of year		<u>\$ 566,275</u>

**NOTE: The statement prepared by Doane Raymond, titled "Operating Fund - Statement of Changes in Financial Position" (page 4), is available from The Medical Society office by request.**

**Doane Raymond**

THE MEDICAL SOCIETY OF NOVA SCOTIA

BUILDING FUND

STATEMENT OF REVENUE, EXPENDITURES AND FUND BALANCE

YEAR ENDED SEPTEMBER 30, 1988

Revenue	
Annual membership dues (Note 9)	\$133,200
Investment income	<u>10,656</u>
	<u>143,856</u>
Expenditures	
Acquisition of land	183,308
Project development costs	<u>22,503</u>
	<u>205,811</u>
Excess of expenditures over revenue	(61,955)
Transfer from Operating Fund	<u>61,955</u>
Fund balance, end of year	<u>\$ Nil</u>

STATEMENT OF CHANGES IN BUILDING FUND ASSETS

SEPTEMBER 30, 1988

Investment in Building Fund Assets	
Land acquisition and related costs	\$183,308
Project development costs	<u>22,503</u>
Balance, end of year	<u>\$205,811</u>

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**Doane Raymond**

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THE MEDICAL SOCIETY OF NOVA SCOTIACOGSWELL LIBRARY FUNDBALANCE SHEETSEPTEMBER 30, 1988

<u>ASSETS</u>	<u>1988</u>	<u>1987</u>
Receivable from The Medical Society of Nova Scotia	\$ 3,595	\$ 487
Investments, at cost		
Province of Nova Scotia	2,000	2,000
Nova Scotia Power Corporation	<u>          </u>	<u>3,000</u>
	<u>\$ 5,595</u>	<u>\$ 5,487</u>
 <u>SURPLUS</u> 		
Reserve for Cogswell Library Fund	<u>\$ 5,595</u>	<u>\$ 5,487</u>

STATEMENT OF REVENUE, EXPENSE AND FUND BALANCEYEAR ENDED SEPTEMBER 30, 1988

	<u>1988</u>	<u>1987</u>
Income from investments	\$ 414	\$ 306
Contributions to Dalhousie University	<u>306</u>	<u>434</u>
Excess of revenue over expense (expense over revenue)	108	(128)
Fund Balance, beginning of year	<u>5,487</u>	<u>5,615</u>
Fund Balance, end of year	<u>\$ 5,595</u>	<u>\$ 5,487</u>

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**Doane Raymond**

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THE MEDICAL SOCIETY OF NOVA SCOTIA

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 1988

1. Investments

Operating Fund, at cost

<u>Bonds</u>	<u>Interest Rate</u>	<u>Maturity Date</u>	<u>Par Value</u>	<u>Cost</u>	<u>Approximate Market Value</u>
Government of Canada	13.75%	1990	\$ 10,000	\$ 10,000	\$ 10,450
District of Guysborough	9.75%	1990	15,000	15,000	14,850
Nova Scotia Power Corporation	10.00%	1991	50,000	50,000	49,750
			<u>75,000</u>	<u>75,000</u>	<u>75,050</u>

<u>Stocks, at cost</u>	<u>No. of Units</u>			
MD Growth Fund, Class A	6,000		82,458	103,381
MD Realty Fund, Class B	328.137		30,000	41,772
			<u>112,458</u>	<u>145,153</u>

Contingency Fund, at cost plus accrued interest

Evangeline Savings & Mortgage	10.25%	1990.	44,378	44,378
Merchant Trust - G.I.C.	10.25%	1990	44,379	44,379
National Trust - G.I.C.	10.25%	1990	44,379	44,379
			<u>133,136</u>	<u>133,136</u>
			<u>\$ 320,594</u>	<u>\$ 353,339</u>

2. Land, project development costs and equipment

	1988		1987	
	<u>Cost</u>	<u>Accumulated Depreciation</u>	<u>Net Book Value</u>	<u>Net Book Value</u>
<u>Building Fund</u>				
Land	\$183,308	\$	\$183,308	\$
Project development costs	22,503		22,503	
	<u>205,811</u>		<u>205,811</u>	
<u>Operating Fund</u>				
Office furniture and equipment	65,923	58,109	7,814	7,914
Leasehold improvements	38,827	34,087	4,740	6,320
Computer	82,911	49,253	33,658	32,219
	<u>187,661</u>	<u>141,449</u>	<u>46,212</u>	<u>46,453</u>
	<u>\$393,472</u>	<u>\$141,449</u>	<u>\$252,023</u>	<u>\$ 46,453</u>

All expenditures for fixed assets are capitalized. No depreciation will be claimed on the new building until construction is completed. All other assets are depreciated on the straight line basis over a five year period.

**Doane Raymond**

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 THE MEDICAL SOCIETY OF NOVA SCOTIA

## NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 1988

## 3. Deferred revenue

Annual membership dues for the next fiscal year received by the Medical Society before September 30, 1988 are recorded as deferred revenue.

## 4. Contingent liability

The Medical Society of Nova Scotia has guaranteed the bank loans of Nova Scotia Medical Society students with the Bank of Montreal totalling \$39,500 (1987 - \$36,900).

## 5. Commitments

The future minimum lease payments on the operating lease for office space are approximately \$51,750 per year. These payments do not include a provision for operating costs which are presently \$5.02 per square foot annually.

6. Investment income	1988	1987
Interest on short term investments	\$ 54,862	\$ 48,765
Interest on other investments	11,070	25,700
Dividends	2,683	2,801
	<u>\$ 68,615</u>	<u>\$ 77,266</u>

7. Other income	1988	1987
Grant from CMA	\$	\$ 2,200
Miscellaneous	3,266	1,524
	<u>\$ 3,266</u>	<u>\$ 3,724</u>

8. Contingency Fund	1988	1987
Balance, beginning of year	\$120,999	\$111,250
Interest earned on investments	12,137	9,749
Balance, end of year	<u>\$133,136</u>	<u>\$120,999</u>

## 9. Building Project

The Society has approved the acquisition of property and construction of a building to serve as offices for the Society. Funding for the Project will be raised by a special increase of \$100 in annual dues in each of the next several years. Project costs in excess of this funding will be transferred from the operating fund surplus to the building fund.

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**Doane Raymond**


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EXPENSESYEAR ENDED SEPTEMBER 30, 1988

1987 Actual		1988 Budget	1988 Actual
	Administration		
\$ 550	Accounting fees	\$	\$ 1,500
8,750	Audit fees	8,300	7,225
	Bad debts		300
799	Insurance, travel, bonding and property	1,000	799
2,153	Investment trustee fees	3,000	4,736
4,315	Legal fees	5,000	6,318
68,145	Office rent	75,000	70,780
35,807	Office services	35,000	35,534
700	Petty cash and miscellaneous	1,000	701
10,240	Postage	12,000	8,073
1,386	Repairs and maintenance	3,000	1,857
5,255	Taxes	6,000	4,999
13,325	Telephone	14,700	14,638
12,598	Travel - secretariat	12,000	20,787
1,040	Unforeseen expenses	5,000	7,666
	Salaries and benefits		
355,466	Salaries	398,000	397,855
3,887	Canada pension plan	4,200	4,613
49,750	C.M.A. pension plan and insurance	60,500	60,282
6,914	Unemployment insurance	7,500	7,873
16,766	Communication department	20,000	8,978
1,498	Economics department	3,500	4,503
773	Professional Support Program	23,000	25,047
	Committee expenses including travel		
5,000	Archives committee	7,000	7,000
	Awards committee	5,000	
14,455	Executive meetings	13,000	13,013
1,710	Horizon committee	2,000	
12,021	Officers and branch meetings	12,000	13,740
8,585	President's travel	15,000	20,612
608	Nominating committee	1,000	586
7,889	Other committees	6,000	4,791
21,360	Annual meeting	20,000	20,775
217,845	Canadian Medical Association membership	240,000	241,550
5,615	C.M.A. general council - travel	28,750	25,166
30,937	C.M.E. grant	30,000	30,000
18,834	Depreciation	12,000	21,818
3,610	Drugs and therapeutics bulletin	4,000	3,610
1,728	Eastern division conference	2,000	1,531
70,991	Honoraria	55,000	87,907
1,590	Staff development	2,500	2,244
3,684	Student assistance loan plan	7,000	4,374
	Unpaid student loans	500	400
<u>\$1,026,579</u>		<u>\$1,160,450</u>	<u>\$1,194,181</u>

**Doane Raymond**

## EXPENSES

FY 1988

to 30-09-88

1989

Administration:				
400	Audit Fees	\$ 8,300.	\$ 8,300.	\$ 10,000.
401	Insurance - Travel, Bonding & Property	1,000.	799.	900.
402	Investment Trustee Fees	3,000.	4,000.	4,000.
403	Legal Fees	5,000.	6,318.	5,000.
404	Office Rent (net) / Oper. Costs (inc Property Tax)	75,000.	66,000.	70,000.
405	Office Services	35,000.	32,000.	31,000.
406	Petty Cash and Miscellaneous	1,000.	700.	1,000.
407	Postage	12,000.	9,000.	11,000.
408	Repairs and Maintenance (office equip)	3,000.	800.	1,500.
409	Taxes - Business Occupancy	6,000.	5,049.	6,500.
410	Telephone	14,700.	14,000.	15,400.
411	Travel - Secretariat	12,000.	17,227.	12,000.
412	Unforeseen Expenses	5,000.	7,242.	5,000.
Salaries and Benefits:				
430	Salaries	398,000.	397,859.	420,000.
431	Canada Pension Plan	4,200.	4,742.	5,500.
432	Pension Plan (CMA) and Insurances	60,500.	60,279.	66,500.
433	Unemployment Insurance	7,500.	7,873.	8,500.
435	Parking and Christmas Bonus			7,480.
Departments:				
440	Communications Department	20,000.	10,000.	10,000.
445	Economica Department	3,500.	4,200.	20,000.
446	Professionals Support Program	23,000.	26,400.	33,000.
Committee Expenses - Including Travel:				
450	Executive Meetings	13,000.	11,000.	12,000.
451	Officers and Branch Meetings	12,000.	12,000.	12,500.
452	President's Travel	15,000.	20,000.	9,000.
453	Branch Secretaries	500.	---	---
454	Specialty Sections	500.	---	---
455	Membership Services Committee		---	1,000.
456	Nominating Committee	1,000.	586.	1,000.
458	Other Committees	5,000.	5,000.	5,000.
459	Archives Committee	7,000.	7,000.	7,000.
461	Horizons Committee	2,000.	---	---
463	Building Committee (see Bldg Committee Report)			
464	Awards Committee	5,000.	---	---
Miscellaneous:				
480	Annual Meeting	20,000.	20,775.	21,000.
481	Bad Debts	---	---	---
482	The Canadian Medical Association Membership	240,000.	241,400.	272,000.
483	C.M.A. General Council	28,750.	20,250.	13,500.
484	C.M.E. (Dalhousie) Grant	30,000.	30,000.	32,000.
485	Depreciation	12,000.	12,000.	12,000.
486	Drugs and Therapeutics Bulletin	4,000.	3,610.	4,000.
487	Honoraria	55,000.	55,000.	55,000.
488	Staff Development	2,500.	2,184.	3,000.
489	Student Assistance Loan Plan	7,000.	5,000.	7,000.
490	Unpaid Student Loans	500.	500.	500.
491	Eastern Divisions Annual Conference	2,000.	1,500.	2,000.
Capital Accounts:				
110	Office Equipment	5,000.	1,994.	5,000.
114	Computer Equipment	15,600.	17,485.	5,000.
	(InforMed (loss) net)			
		\$ 1,181,050.	\$ 1,150,072.	\$ 1,223,780.

## REVENUE

Annual Membership Dues:				
300	The Medical Society of Nova Scotia	\$ 840,000.	\$ 841,475.	\$ 907,000.
301	The Canadian Medical Association	240,000.	241,400.	272,000.
303	Student Membership	700.	756.	700.
304	Interne/Resident Memberships	5,000.	5,220.	5,000.
Other Income:				
340	InforMed (net)	---	5,000.	5,000.
350	Bulletin - Editorial Board (net)	---	5,000.	---
360	Investment Income	45,000.	45,000.	45,000.
361	Gain or Loss on Sale of Investments			
380	Miscellaneous	2,000.	1,500.	3,000.
390	Rental Income			
		\$ 1,132,700.	\$ 1,145,351.	\$ 1,237,700.

# Presidential Valedictory Address - 1988

J.D.A. Henshaw, M.B., ChB.

*Halifax, N.S.*

Mr. Chairman, Ladies, and Gentlemen I stand before you this evening to carry out my last official function as President of The Medical Society of Nova Scotia, my valedictory address. I wonder where my year has gone. In ancient Greece, the worship of the Earth Mother was a deeply rooted religious belief. Under that belief kings were appointed and reigned in the utmost splendor for a year. At the end of the year, the king was sacrificed and his body was ploughed into the earth as a ritual symbol of fertility. At the end of my year, I am glad to discover that present day practices are somewhat less radical. I start by saying thank you. Thank you entrusting me with the task of representing this Society throughout the past year. It has been a wonderful year for me, and it has been a wonderful privilege to have been chosen by you to represent your interests. How diverse these interests are and how widespread are the activities and influence of the Society.

Society policy is developed and proposed by the Officers. It is then debated and perhaps modified by the Executive Committee and thereafter the policies decided on and approved are implemented. Final approval of the actions of the Executive Committee is obtained at the meeting of General Council and ratification of the General Council decisions is made at the Annual Meeting of the Society. The President does not do this alone — oh dear, no! —. His task is made possible by the Society office; it is the office, the Secretariat, who flesh out policy decisions, arrange meetings, provide background research and information. Every President is deeply indebted to the staff of the Society. I would like to express my thanks, and your thanks, to all those who make our work possible. Douglas Peacocke, our Executive Director, needs no eulogy from me. He has been an outstanding and professional administrator, a tower of strength, and his knowledge of Society matters, and the politics of medicine is deep and extensive. He has been a loyal and conscientious colleague, flexible, and able, too, to draw the attention of your Officers to pitfalls and problems when he sees them. Doug, I know that we have to replace you, but I do not know how this Society can ever thank you enough for your massive contribution to our welfare.

Doc Schellinck, our Director of Economics; Bill Martin, our Director of Communications; Tove Clahane, the head of our Accounting Department; and Shirley Miller our Executive Secretary are our senior staff. Also, in no special order, Celie Manuel, Richard Dyke, Glenda Crews, Jeannette Osborne, Christina Cameron, and Pam Fancy. Each and every one of them has devoted their time and energies to Society business. It has been a pleasure getting to know them

better, and a privilege to have worked with them. To them also I extend my sincere thanks for a job well done.

My wife, Sylvia, has been a vital participant in my year. She has provided endless support and encouragement and has accompanied me on the visits to other organizations and often while travelling within the province as well. I would like to express my deep gratitude for her support and loyalty during the year. I know that she, too, has enjoyed this opportunity.

Let us look at our Medical Society of Nova Scotia, at our mission statements and at our goals, and at our policies. This Society predates Confederation, and it has an enviable reputation for quality patient care. Over the years the quality of patient care has been our prime directive and the care of our patients has been our first consideration. This fine tradition is in keeping with the high ethical standards that we set for ourselves and with the ancient traditions of our profession. This Society also has a role, a major and important role, as the promoter and the protector of the legitimate interests of its physician members. But do not let us confuse these two statements. It is legitimate to say, "I am a good and well trained doctor and I provide a necessary service with high professional skills and expertise, and therefore I am entitled to appropriate respect within the community and to due rewards for my services." It is not legitimate to say that "I am a physician and therefore deserve to be very well remunerated in order that I may provide a good service." The two are different.

Let me again remind you of the primary object of the Society as set out in our By-Laws.

"The promotion of health and the prevention of disease." Ladies and Gentlemen when we stick to that ideal, we retain the respect and admiration of our peers and of our patients. When we are seen, or portrayed, as interested in money only — we are diminished in the eyes of all. When we look back to the era between the two world wars, we see medicine in a pre-antibiotic era. At that time care was mainly supportive and it was a widely held perception, with a grain of truth in it, that people went in to hospital primarily to die. Few of us will recall that era as other than children, but most of us can remember the enormous therapeutic weapons that were developed in the immediate post war years. The availability of penicillin and other antibiotics revolutionized the treatment of infection. Improvement in insulins, the finding of vitamin B12 as a by-product of antibiotic culture, and the discovery of the steroids are but a few of the advances that I saw as an impressionable student and a young physician.



During that era — the 50's, 60's, and 70's — medicine was expanding, new horizons were being conquered daily and the millennium appeared to be at hand. Nevertheless, as many ailments and illnesses came under an effective therapeutic umbrella, and as techniques in surgery and anaesthesia improved, we began to appreciate that though people were perhaps living longer they were beginning to develop problems for which we had no real answer. And yet people continued to expect us to provide answers and preferably swift answers at that. And so we have seen a gradual disenchantment with scientific medicine, coupled with ever-increasing expectations of faultless diagnoses and speedy cure. Should these criteria not be met, then patients who are disappointed, baffled, and angry may turn to litigation. We have seen this too. So now we have moved into the 80's, an era where we see much illness directly attributable to aberrant lifestyles and environmental factors. We see ever expanding technology of ever increasing complexity and expense; we see endless opportunities for massive medical intervention, and yet we see this in the framework of a finite supply of doctors, a finite supply of money, and a finite supply of time. We have arrived at an era of choices. We have more than enough technology, and we have too little money to go round. Despite this, it remains the policy of the Society to bring the best and the highest quality health care, to all Nova Scotians, without discrimination, and regardless of age.

How then do we proceed. Clearly, we cannot proceed solely by piling technology on top of technology. We need to look farther back. We need to look at prevention. The factors that spring to life are familiar to many of us and are also, I am happy to see, being recognized at both Federal and Provincial Government level. The development of a healthy lifestyle with personal responsibility for an individual's own health is capable of making an enormous impact on our health care costs. Things like exercise, education in healthy behaviour starting at the elementary school level, proper diet, the catastrophic effects of ill-considered use of an automobile, with or without the added influence of alcohol are all matters that deserve our attention, both as a Society and also as individuals in our offices and in our community. The matter of smoking has been addressed most energetically by your Society and by individual members. This Society has worked hard to ban smoking in hospitals in this Province, and has actively lobbied the Federal Government in support of the Bills banning the advertising of tobacco. These Bills though, they have passed Parliament and received Royal Assent, have yet to be proclaimed. We must ensure that this is done. I think, too, we have to take a serious look at anticipating disease and illness. We already do this in an efficient and cost effective way by the process of immunizing against childhood and other serious illnesses. But we can anticipate that uncontrolled hypertension will lead to strokes, and so control of hypertension pays dividends in the health of our patients as well as reducing the financial burden on the public purse

which occurs when a patient has a stroke and is thereafter helpless. We must all be concerned about environmental issues. More and more, professional people of all disciplines are coming to realize that the ecosystem of our planet cannot continue to absorb the blows that are rained upon it, not only in the interests of quick profits for multi-national companies, but also by each of us in our daily uncaring lives. When you consider that the rain forest of the Amazon River is considered to provide fifty percent of the earth's supply of oxygen, and when you realize that that rain forest is being destroyed at the rate of 100 acres a minute, you have cause for concern. The epidemiology of cancer is now receiving more and more study together with the impact of environmental carcinogens. We are constantly being told that our population is aging and we know this. Our elderly are the people who have made Canada the Country that we live in today and they deserve our compassion and care and help, and the list goes on.

There has been remarkable and significant change within the Society during the past few years. The work of the Horizons Committee has been completed and this has been refined by Dr. Art Parsons and the Officers with a view to bringing forward a Mission Statement that will carry us into the 21st Century. There is a new spirit of co-operation abroad, and this is shown by increasing dialogue between the Minister of Health and Fitness, the Government in the form of the Management Board, The Registered Nurses' Association of Nova Scotia, and other organizations as diverse as the Workers' Compensation Board, and The Nova Scotia Association of Health Organizations. In this connection, we eagerly await the final Report of the Royal Commission of Health Care. The Federal Government has published a pamphlet entitled "Achieving Health For All". This has now been available for three years, and serves notice that the Federal Government recognizes its responsibility to promote fitness, to promote personal involvement in one's own health care, and to promote an active program of prevention of disease. There is serious interest in improving our ambulance service — a much overdue development being addressed as we speak by the Royal Commission on Health Care. There is tremendous interest in developing a really good home health care program. I return to this, but it is only because of its extreme importance. The ability to remain independent and in one's own home is greatly valued by the elderly and this is what a good home health program can provide. As a spin-off, it will ultimately save us money in hospital construction and new beds. There has been an increasing interest in physicians as managers and a joint program is currently being developed with both the University and the Medical Society deeply involved in an attempt to produce programs that will introduce students to the concept of their role as managers within the health care system. This program will also provide opportunities for more senior students, and postgraduate physicians, to undertake in-depth studies to provide them with information and skills that will enable them to function in a

managerial capacity as heads of department and chiefs of staff. This development is being welcomed by the professional administrators of our health care system. It is a measure of their breadth of vision that they are able to do this.

Physicians in Nova Scotia have been fortunate over the years, in that their leaders have been able to negotiate with other organizations and arrive at useful solutions by consensus rather than by confrontation. It is gratifying to see this continue and to look at what I hope is the beginning of an era of genuine co-operation between all concerned in the health care field.

There are areas where our progress has not been either spectacular or successful. We have made little real progress to date with improving our ambulance service. This is something that needs to be addressed aggressively, and I am hoping that we will be able to achieve something constructive here during the course of the coming year. The Minister of Health and Fitness is well aware of our concerns, and has had Dr. Canham's excellent Brief submitted to him and discussed in detail. Our submission to the Royal Commission on Health Care was relatively well received but the concept of physicians as gatekeepers of the system continues to be raised and was raised once again by the Chairman of that Commission. During our rebuttal, we were able to point out that in the last ten years the cost of health care in this province has remained at a pretty steady percentage. In 1976, health care consumed 26 per cent of the Nova Scotia budget. In 1986, it consumed 27 per cent of the health care budget. During that same period, the cost of servicing debt within the Province more than doubled. As we pointed out to the Commission, our primary interest remains the provision of good and quality health care. The gatekeeper role is not part of this task. Physicians, however, do have a responsibility to see that the diagnosis and treatment of their patients is carried out without unnecessary duplication of investigations or inappropriate referral because of a fear of litigation or even because of patient preference. We have a responsibility to the public to ensure that our own professional judgment plays the major part in determining the course of investigation and treatment of any particular illness. To return briefly to smoking, I would like to mention again the stalwart work done by doctors in this province and by the Society office, in promoting a smoke-free environment. Letters to your M.P.'s regarding Bill C-51 and Bill C-204, and the passage of these Bills represent a major change in public opinion, and the physicians of Canada and of this province can and should take pride in this achievement. Here, in Nova Scotia, we have an award from our Society to pharmacies which do not sell cigarettes and to hospitals that are smoke-free. This, too, has been well accepted by the public. In terms of health promotion, these preventive measures will have enormous impact and bring great benefit to the health of our young people growing up. The cost savings to

health care from a reduction in bronchitis, COPD, cardiovascular disease, and lung and bladder cancer cannot even be estimated.

It continues to concern me when I look at other provinces, and see how our ministries of health across the Country seem to measure health with a pocket calculator. This disturbs me deeply. Canada has, without question, the finest health care system in the world. It is comprehensive, accessible, and we can afford it. Indeed, we cannot afford not to afford it. It provides a uniformly high standard of quality care across our Country. When I suffered a back injury in Australia, my main objective was to get back to Canada, and my greatest dread was being stuck in the United States where care, although good, is exceedingly expensive. Surely my colleagues, in this great and wealthy Country, we can continue to finance health care adequately. As a physician, I am not responsible for inflation nor for the decline in the value of our dollar. We can blame that on years of deficit financing, the have now pay later syndrome. It gets individuals into trouble, and now we see it can get great nations in trouble too. When I see rigid ceilings on health budgets, when I see other provinces with utilization caps, paybacks, and litigation, I do not know what to think. It makes me wonder about the sincerity and purpose of our political masters. It makes me feel a pawn in a game I have never played, with rules that vary according to the whims of my opponent. It is rather like the croquet game played by Alice with flamingos for mallets, hedgehogs for balls, hoops that are mobile, and a general air of surrealistic uncertainty.

In our province of Nova Scotia we have been fortunate. The needs of our patients have been and are being met. Fiscal responsibility has been the rule. Regular meetings between the doctors and government with negotiation by consensus has encouraged the maintenance of a standard of health care, and working conditions, including remuneration, for the physicians have been reasonable and equitable. I hope, and indeed expect, that we will all continue to negotiate in good faith as this is in the best interests of the patients we serve. Our Society is committed to addressing disparity in physicians' incomes and has already successfully addressed the G.P./Specialty Ratio Disparity. Currently we have an Interspecialty Study looking at income on a net income per hour basis. We plan to move to address other disparities and anomalies within the Fee Schedule.

When I look back on the things I have said and the points I may have made, I am reminded of the comparison drawn by the Spanish matador between public addresses and bullfighting. He pointed out that both showed a point here and a point there and that both had an awful lot of bull in between. Thank you, once again, for allowing me to serve you during the past year. □

spine injuries and to compare the frequency of sport related injuries to non-sport. As well, it was considered important to compare the number of cases reported in this region of Canada to values reported in the literature.

Two hundred and sixty cases of cervical spine injuries were reviewed and sports accounted for 9.2% of the total (23 cases). This percentage is fairly consistent with data available in the literature from various studies on sports and spinal injuries. Kraus, in California, attributed 6.7% of the cervical spine injuries in his study to sports.<sup>1</sup> A fairly low percentage of sports injuries was reported by Tusji in Japan, 3.3%.<sup>2</sup> Tator reported that 15.4% of the cervical spine injuries that he encountered in a study conducted in Toronto occurred during sports.<sup>3</sup> Thus the percentage of the total number of injuries which occurred in our study as a result of involvement with sports was within the range encountered in previous studies.

Geography is perhaps the critical factor in analysing a study of sports related injuries. It is necessary to consider the climate of a region and the cultural atmosphere which dictates the popularity of various activities. California, with its warm climate and lengthy coastline is expected to have a much larger number of participants in sports such as swimming and surfing than the Northeast with its cooler waters and shorter summer season. Consequently, the number of water sports injuries to the cervical spine should be higher in the warmer climates. Kraus reported that a remarkable 83% of all sports related cervical spine injuries were due to water sports,<sup>4</sup> whereas only 46% of the injuries in our study were water related. This does not mean that water sports are safer in the Maritimes, but rather, because of the shorter swimming season, Maritime athletes spend more of their leisure time engaged in less dangerous activities.

It is important to note that the number of cervical spine injuries due to water sports is undoubtedly higher than what is reported in most studies, including our own. The data in this survey does not include information about patients who never received treatment for major cervical injuries because of paralysis which resulted in drowning deaths or minor injuries which did not require hospital admission. However, the same can also be said for the other sport and non-sport activities reported in this paper.

Ice hockey, although very popular in Atlantic Canada, provided only two cervical spine injuries throughout the entire six year survey. Both injuries occurred in February of 1982. Although it is tempting to perhaps draw conclusions about the conditions of play during that month, this information must be viewed as a simple coincidence and the remarkably small number of hockey injuries prevents one from deciphering any major chronological trends in that sport.

Ice hockey was the only sport in the survey responsible for permanent neurological deficit. Sports accounted

for just 3.0% of the injuries which resulted in permanent neurological damage. (Table VII) Both hockey related injuries resulted in quadriplegia. This should not suggest that the sport has any inherent risk of catastrophic cervical spine injuries. When viewed in the light of the fact that close to 100,000 people played in Nova Scotia Hockey Association numerous games over the course of the study and that not a single cervical spine injury was reported, any alterations in either equipment or rules would be unjustified. But rather, careful consideration should be given to the enforcement of the rules as well as, the safety of the environment in which the sport is played.

There did not appear to be any trend, either increasing or decreasing cases of injury during the period of the study. Although the first year had the fewest sports injuries and the last year had the most, the intermediate years provided inconclusive information. Sports injuries rose steadily until 1982 and then fell through the next several years until a sharp rise was experienced in 1985. These data must be interpreted within the light of the very small number of sports related injuries encountered in the entire study. The total number of injuries per year is much more consistent when all injuries regardless of their cause are considered. (Figure 1)

A consistent pattern of cervical spine injury is evident when the injuries are categorized according to the month of injury. Cervical spine injuries were found to be the most frequent during the summer months of June through September. Both sports and general cervical spine injuries rise sharply in number during the summer season. Fifty percent of all cervical spine injuries occurred during these four months (see Figure 2) and 79% of the sports injuries. The discrepancy between these two figures is undoubtedly due to the significant increase in water sport activity during the summer months. Since water sports were responsible for almost half of all sports related cervical spine injuries, it is only natural that a greater number of injuries occur in the summer. Winter sports which have been associated with catastrophic injuries, such as ice hockey and alpine skiing were not major contributors to the number of cervical spine injuries occurring during the colder months.

In this study men were three and a half times more likely to suffer cervical spine fractures than women. Except for Kraus, who reported a male female ratio of 2.82:1,<sup>5</sup> most reports tend to maintain a much higher ratio. Frankel in England, Key in South Africa and Tusji in Japan, all reported ratios above 8:1.<sup>6, 7, 8</sup> These findings may suggest cultural differences which alters the risk of cervical spine injuries to women. However a study by Jousse in Toronto also found a high ratio of males to females 6.85:1.<sup>9</sup> This information was accumulated over a twenty year period ending in 1967. Perhaps some of the current sociological changes may have had the unfortunate side effect of increasing the rate of cervical spine injuries among women, through their

increased involvement in the workforce and in athletic activity.

Men were the victims of 83% of the sports related injuries. There may be a tendency to explain this finding by simply concluding that men are involved to a much greater degree in those sports which most commonly result in cervical spine injuries. However gymnastics, the sport which reported the second largest number of injuries to the cervical spine, is a sport in which the participants are overwhelmingly female. Yet all of the injuries occurred to men. Approximately 252 males and 1053 females are involved in organized gymnastics in 1988 in Nova Scotia and this ratio has remained fairly constant over the years of the study.<sup>10</sup> Two of the gymnastics injuries occurred to males involved in organized clubs although they occurred during unsupervised activity. The remaining case occurred during gymnastics activities at home.

From the perspective of sports involvement, women were only involved in diving accidents, making up 37% of the diving cases. Cycling injuries, which accounted for as many injuries as gymnastics, only involved men. Ice hockey and wrestling, traditionally male sports, had only male players injured. The remaining sports — football, baseball, and hang gliding, all had only one reported case of cervical spine injury, but in each instance, that individual was male.

Perhaps the most significant information to come out of this study is that 88% of all the sports related injuries occurred during unsupervised activity. Both Torg in Philadelphia<sup>11</sup> and Tator in Toronto<sup>12</sup> have lobbied to have rule changes enacted in football and hockey respectively, which would significantly lower the risk and incidence of cervical spine injuries.

Football injuries appear to be rare in the Maritimes. Only one was reported over the course of the entire six year study, and that occurred in an unsupervised tackle football game without proper equipment. Not a single injury was reported from any junior football, high school, or university team. Currently football is played at an organized level by over 1200 people in the province of Nova Scotia annually, translating into more than 7200 players over the course of the study.

There are over 15,000 players/year in The Nova Scotia Hockey Association, an organization which does not include any of the gentleman's or industrial leagues in the province. Yet, not a single incident of a cervical spine fracture was reported throughout the six year history of the survey. The two injuries reported in the study occurred to a referee who unfortunately fell backwards into the boards suffering a severe flexion injury with accompanying quadraplegia. The second case involved a junior player in Prince Edward Island who also suffered a flexion injury secondary to a bodycheck into the boards.

The clamor for rule changes stems undoubtedly from a feeling that sports injuries could somehow be

prevented. When neurological damage occurs because of work related injuries or due to motor vehicle accidents, the public, although acknowledging the horror of the injury, seems able to justify the risk of injury as an unfortunate side effect of life in the modern world. The automobile, the greatest single cause of cervical spine injury, is a critical part of all of our lives and its use is unavoidable. However, the data presented here suggests that in order to significantly reduce the number of cervical spine injuries legislation regarding the use of the motorized vehicles, work and non-work related falls and recreational swimming and diving should be the prime concern according to the frequency of reported cases.

Perhaps an increase in the advertising campaigns conducted in the summer months and directed primarily towards the 16-25 year old age group (to whom 72% of all diving accidents involve) warning of the dangers involved in diving, would be the most effective step in reducing sports related cervical spine injuries.

Alcohol was a contributing factor in 18% of all the diving accidents. However, it was extremely difficult to account for the true incidence of alcohol involvement in all of these cases. The impairing effects that alcohol places on an individual's judgement and motor skills are well known and naturally extends to the world of sports. It is important to note however, that all the alcohol related sports injuries occurred during unsupervised activity and appeared to be spontaneous in nature. It may be almost impossible to prevent such incidents from occurring.

## CONCLUSION

Sports were not the major source of cervical spine injury in the period of this study. Motor vehicle accidents, falls from heights and accidents at home all resulted in more cervical spine injuries. Remarkably, aside from water sport accidents, there were twice as many cervical spine fractures secondary to falling trees than to any other sport.

The overwhelming majority of serious cervical injuries and concurrent neurological deficit are a result of motor vehicle accidents. Unfortunately, the 16-25 year old male, in a motorized vehicle remains the most likely to be affected in the Maritime Provinces. The reduction of this phenomena would see the greatest decrease in serious neck injuries. □

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Continued on page 189.

# Sudden Infant Death Syndrome

## METABOLIC DISEASE: A LOW FREQUENCY CAUSE A LINK TO REYE'S SYNDROME?

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The sudden infant death syndrome (SIDS) continues to be a prominent cause of death in infancy. Multiple causes of a final common fatal pathway are likely. Defects in mitochondrial fatty acid beta oxidation, a cause of Reye's-like syndrome, and a cellular calcium defect like that in malignant hyperthermia are being studied as low frequency causes of SIDS.

The sudden infant death syndrome (SIDS) continues to be a significant cause of infant mortality in most of the developed countries throughout the world. The long search for a single etiology has resulted in the recognition that there are multiple causes of a common final pathway leading to the death of these infants.

The proponents of the apnea hypothesis of the cause of SIDS argue that most cases of SIDS are due to an infant's failure to start breathing after a period of apnea; apnea which may have been periodic. Chronic abnormalities that are present in most cases are anatomical, biochemical and those related to growth and behavior.<sup>1</sup>

Recent interest in inborn errors of metabolism as causes of a small proportion of the cases of SIDS stems from two lines of evidence: 1. links between SIDS, Reye's syndrome and errors in mitochondrial fatty acid beta oxidation,<sup>2,3,4,5</sup> and 2. the association between SIDS and malignant hyperthermia.<sup>6</sup> These clues are being followed in our work on SIDS at the IWK Children's Hospital in collaboration with the Pathology Department of the Children's Hospital Medical Center in Boston.

Defects in mitochondrial fatty acid beta oxidation, resulting from a congenital lack of activity of one or more of the acyl-CoA dehydrogenases (short-chain, medium-chain or long-chain acyl-CoA dehydrogenase), may present as an acute life-threatening event with hypoketotic hypoglycemia, fatty acidemia, fatty liver, etc. in infancy, a picture similar if not identical to that seen in Reye's syndrome, or it may cause sudden death in infancy. Deficiency of the enzyme medium-chain

acyl-CoA dehydrogenase (MCAD), the most common of these rare inborn errors, has been found in asymptomatic siblings of children dying of sudden infant death or Reye-like syndromes.<sup>3</sup> If recognized early, MCAD is treatable but the first episode is fatal in about a third of cases. Other metabolic diseases, such as inborn errors that cause lactic acidosis, are also apparently capable of causing sudden infant death.

The likely pathophysiology resulting from MCAD is shown in Figure 1. The infant, when subjected to an ordinarily minor upper respiratory infection for example, becomes hypoglycemic and acidotic as free fatty acids are mobilized because of fever, poor feeding and inadequate fluid intake. When these fatty acids cannot be metabolized adequately due to a defect in mitochondrial beta oxidation fatty, acidemia rises to levels that can cause cardiac arrhythmias, cardiac arrest and sudden death. Less acute results include encephalo-

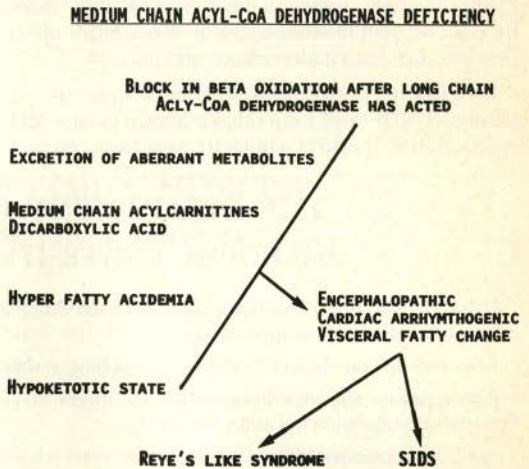


Figure 1

pathic effects and progressive accumulation of fat in liver, muscle, kidneys, and other tissues as seen in Reye's syndrome.

It is curious that Reye's syndrome, which was so common twenty years ago, has all but disappeared in most parts of the world. No doubt this favorable course is attributable, at least in part, to the recognition of aspirin as a co-factor in the pathogenesis of the disorder but some of these past cases probably were due to inborn errors of metabolism and are now recognized as such.

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A link between some cases of SIDS and MH has been suggested by:

1. evidence of hyperpyrexia and other signs and symptoms of MH in some cases of SIDS;
2. a high incidence of SIDS in families of subjects with susceptibility to MH<sup>7</sup>;
3. muscle biopsy evidence of MH in some parents of SIDS cases<sup>6</sup>; and
4. an animal model of MH in which young piglets are subject to sudden death.<sup>8</sup> A recent report<sup>9</sup> contradicts points 1,2,3.

Our hypothesis is that some cases of the sudden infant death syndrome (SIDS) and the parents and siblings of SIDS cases have a defect in cellular calcium like that seen in subjects with susceptibility to malignant hyperthermia (MH).<sup>10</sup>

A newly developed in-vitro test in which free cytoplasmic calcium is measured in lymphocytes and fibroblasts before and after exposure to halothane is being introduced to our laboratory and will be used to test this hypothesis.<sup>10</sup> Cells from subjects with susceptibility to MH have larger halothane-induced change in cytoplasmic calcium than controls. This test has not been reported to have been used in the context of SIDS.<sup>11</sup>

Our SIDS research project at the IWK includes studies that will detect these inborn errors that we hypothesize may be responsible for up to 15% of all SIDS cases. Pivotal to these studies is the realization that viable lymphocytes and fibroblasts can be obtained for up to two days after death under certain conditions.

Lymphocytes from cases of SIDS and the parents and siblings of SIDS cases, from subjects known to have MH susceptibility (positive controls) and from normal

controls, are studied for free cytoplasmic content and correlations are measured.

Cultured fibroblasts obtained at autopsy from SIDS cases and from age-matched controls are also tested and results correlated. These fibroblasts are also tested for defects in fatty acid metabolism if screening tests on urine specimens are positive. □

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## THE DEPARTMENT OF FAMILY MEDICINE DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

Dalhousie University requires a Director of the Postgraduate Training Program in Family Medicine. The position offers a full time academic appointment.

Responsibilities include clinical practice, teaching, research and administration.

Administrative responsibilities include the supervision of the ongoing design, implementations and evaluations of Postgraduate Education in Family Medicine.

Qualified applicants will:

- have functioned as a member within a Family Medicine Teaching Department and possess good knowledge of its goals
- have demonstrated administrative experience
- be Certificants of The College of Family Physicians of Canada
- have at least three years' practice experience, INCLUDING OBSTETRICS
- have demonstrated enthusiasm for an involvement in teaching.

This position will be available July 1, 1989. Dalhousie University has an affirmative action policy.

In accordance with Canadian immigration requirements this advertisement is directed to Canadian citizens and to permanent residents.

Please send curriculum vitae with names of three references to: David A. Gass, M.D., C.C.F.P.

Professor and Head Department of Family Medicine, 5599 Fenwick Street, Halifax, N.S. B3H 1R2

# Home of the Guardian Angel

Shireen V. Singer,\* MSW,

Halifax, N.S.

We at the *Home of the Guardian Angel* would like to take this opportunity to increase your awareness of the services we can provide to your patients.

You, the members of the Medical Society, are a valuable resource to our clients both in terms of referral and pre- and post-natal health care. Thus, it is critical that you become aware that the focus of the Home has changed dramatically over the years from that of an infant and founding home to its present status as a social agency responsible for providing a comprehensive service to single mothers.

*Professional Counselling* encourages women to plan constructively for themselves and for their babies, and focuses to preserve the family unit by including parents and as often as possible, the unwed father, in the enormity of the decision before them.

*Residence* facilities are available for the young mother prior to the birth of her baby. A vital aim of this program is to better prepare the single mother for the

decisions she must make with regard to her future and that of her child.

*Nursery* facilities provide loving and professional care for the babies while the mother is making her final decision. Should the mother decide to keep her child, she is encouraged to take her baby into care as soon as possible so that bonding can occur.

Our *Single Parent Centre* located in Spryfield serves as a resource and support centre for these young women and their children. Programs offered vary from parenting, social assistance policies, family violence, alcohol and drug abuse to fitness and nutrition, only to mention a few.

*Adoption* services are available to those single mothers planning placement of their infants.

*Post-placement* services offer post-placement counselling to birthparents and post-placement education and counselling to adoptees and adoptive families.

We would appreciate your continued support of our efforts in this endeavor. Referrals can be made by contacting the Home of the Guardian Angel at 422-7964 or 422-7548. □

\*Social Worker, Home of the Guardian Angel.

Correspondence: Mrs. Maureen A. Driscoll, Home of the Guardian Angel, 6345 Coburg Rd., Halifax, N.S. B3H 2A4.

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## THE DEPARTMENT OF FAMILY MEDICINE DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

Dalhousie University requires a family physician for the Family Medicine Center to function as the Associate Director of the Postgraduate Training Program in Family Medicine. The position offers a full time academic appointment.

Responsibilities include: clinical practice, teaching and research.

Administrative responsibilities include the development and the expansion of the Residency Training Program to accommodate an increased number of residents.

He/She will assist the Director of Postgraduate Training with the supervision and ongoing design, implementations and evaluation of Postgraduate Education in Family Medicine at Dalhousie University.

Qualified applicants will:

- be Certificants of The College of Family Physicians of Canada
- have at least three years' practice experience, INCLUDING OBSTETRICS
- have demonstrated enthusiasm for an involvement in teaching.

This position will be available July 1, 1989. Dalhousie University has an affirmative action policy.

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Professor and Head Department of Family Medicine, 5599 Fenwick Street, Halifax, N.S. B3H 1R2

# Open Letter to Physicians

## RE: INFANT HEARING SCREENING PROGRAM

Dear Doctor,

As you may know, the Nova Scotia Hearing and Speech Clinic has been operating an Infant Hearing Screening Program (IHSP) since March 1977. In the past few years, the IHSP has expanded from Halifax to include several hospitals throughout the province. This means that more Nova Scotians are receiving this valuable service, and so we would like to take this opportunity to re-acquaint you with the details of the program so that you might make better use of it.

The IHSP involves two parts:

- 1 identification of newborns who are High Risk for hearing loss, based on a seven point High Risk Register as recommended by the Joint Committee on Infant Hearing Screening; and
- 2 a screening test administered to High Risk infants at levels appropriate to rule out *severe to profound* hearing loss.

In most hospitals the identification and initial screening test takes place before discharge, however, in some locations, the infant may be booked for the screening test after discharge. Upon completion of the screening test, the family physician (as named by the patient) of the high risk infant is sent a report indicating why the infant is high risk for hearing loss and whether or not he/she has passed the screening test. If the infant does not respond appropriately to the hearing screening test, that is, *FAILS* the test, the Nova Scotia Hearing and Speech Clinic arranges for follow up evaluation of the infant's hearing with an audiologist, and keeps the physician informed of the child's audiological progress via written reports. A "pass" on the screening test indicates the infant has responded at levels which would likely rule out a severe to profound loss bilaterally, *but not necessarily a mild loss or one which might appear later on.*

It is important, in addition to being screened at birth, that high risk infants be followed to observe for any later onset of hearing loss. The parents and the family physician are in the best position to do that. To that end, the IHSP provides most new parents with a brochure entitled, *Can Your Baby Hear?* which describes the expected behavior of infants in response to sound. It is

strongly suggested that if parents note anything suspicious in their child's responses they should immediately contact their family physician and/or the Nova Scotia Hearing and Speech Clinic.

Family physicians who regularly see the infant, especially in the first year of life, have a unique opportunity to assess the children's responses, both in the office and by interviewing the parents about the children's responses in the normal home environment. A valuable reference for physicians is the "Information Kit on Childhood Hearing Impairment" prepared from the Task Force Report *Childhood Hearing Impairment*. Both the kit and a detailed report about hearing loss in Canada may be obtained from:

Institutional and Professional Services Division,  
Health Services Directorate,  
Department of National Health & Welfare,  
Ottawa, Ontario K1A 1B4

The kit serves to alert physicians to risk factors for hearing impairment in infancy and childhood, while the Infant Hearing Screening Program reports alert physicians to their own specific patients who are "at risk" for hearing impairment.

Awareness is the first line of defence, with medical attention and referral to appropriate audiological services following close behind. The Nova Scotia Hearing and Speech Clinic operates clinics in 21 different areas of the Province, providing speech and audiology services at sites convenient to all. The Clinic encourages physician referrals.

Working cooperatively together, the physicians of Nova Scotia, along with the IHSP and the full audiological services of the Nova Scotia Hearing and Speech Clinic, can assure the hearing impaired patient of the optimum medical and audiological care of their problems.

Sincerely yours,

Lenore S. Mencher, MA,  
Coordinator,  
Infant Hearing Screening Program,  
Nova Scotia Hearing and Speech Clinic  
Halifax, N.S. B3H 1R2

□

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*Scientific truth . . . is often thought as the goal of a scientist's work, though "asymtote" would be the better word, for there can be no apodictic certainty in science, no finally conclusive certainty beyond the reach of criticism.*

*The Limits of Science* Sir Peter Medawar (1915-1987)



# A Pathologist's Viewpoint

Annette Foyle,\* MDCM, FRCP(C),

Halifax, N.S.



Fig. 1 What is the organ? What is replacing the organ in the left hand portion of the field?



Fig. 3 What is the arrowhead attempting to illustrate?

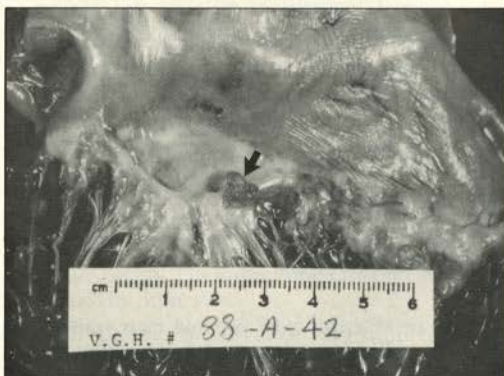


Fig. 2 What is the structure at the arrowhead? What is the organ?

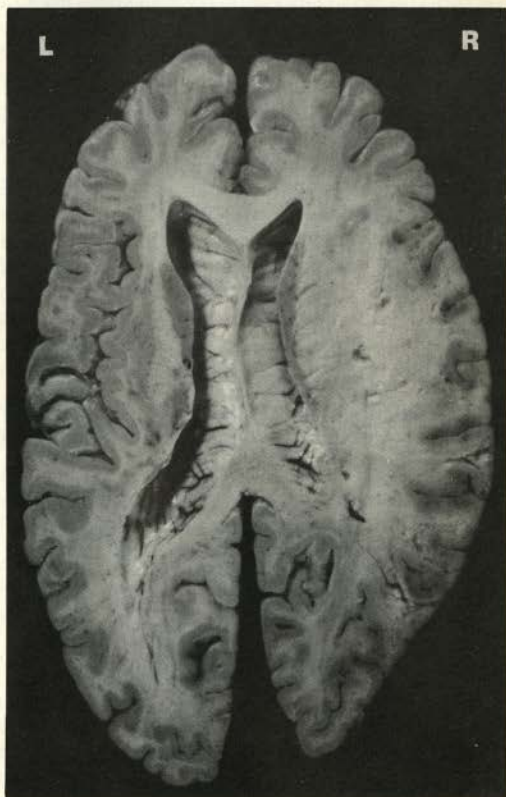


Fig. 4 What is this vital organ? What has destroyed it?

This 66 year old male, was admitted to hospital in February, 1988. For four months he had been losing weight, "not feeling good" and had right hip pain upon coughing. Four weeks prior to admission, he developed stomach pain. Two weeks later, he developed intermittent frontal headaches and bloody sputum.

He had had a carcinoma of the larynx in 1980 which had been treated by laryngectomy and permanent tracheostomy.

From the Department of Pathology, Dalhousie University and Victoria General Hospital, Halifax, N.S.

\*Assistant Professor, Department of Pathology, Lecturer, Department of Medicine, Dalhousie University.

He had been a welder for 35 years and had smoked tobacco for 55 years. He drank alcohol occasionally. The family history was non-contributory.

On physical examination he was a cachectic man looking older than his stated age. The blood pressure was 110/70. The pulse was 70. The respiratory rate was 20 and the temperature was 36.6 C. On chest examination there was dullness in the right lower lung zone. Auscultation was normal on both sides. There was slight clubbing of the fingers. The lymph nodes in the left supraclavicular, right inguinal, and cervical regions were enlarged, mobile and non-tender. The remainder of this physical examination was unremarkable.

Laboratory Investigations were as follows: Hgb 136. Hct .398. WBC 15.2 with a normal differential. Electrolytes, glucose, urea, creatinine proteins, bilirubin, SGOT normal. Alkaline phosphatase 235. LDH 313. PT and PTT normal. A chest X-ray disclosed an opacity in the right apex 4.5 cm in diameter. A liver/spleen scan was normal. Pelvic and lumbar spine x-rays showed spotty lytic changes in the right innominate bone consistent with metastatic disease. A bronchoscopy was negative. A fine needle aspiration biopsy of the right apical mass revealed a poorly differentiated carcinoma.

Following the diagnosis of carcinoma of the lung, he was treated with radiotherapy to the chest and to the hip area. Three weeks after admission he suddenly became unresponsive. He had no motor function on the left side from the face to the entire left side of the body, and he had decreased pain sensation over the left side of the body. He had a decreased gag reflex and he was areflexic on the left side. The right pupil was fixed and the gaze deviated to the right. CAT scan of the brain performed at that time was normal.

The condition did not improve and he expired approximately one week later. Questions at autopsy: 1. How widespread was the carcinoma? 2. What was the cerebral lesion?

At autopsy a large tumor measuring 5 cm was found in the right upper lobe with metastases to the peribronchial, paraaortic, peripancreatic lymph nodes, left lung and bone. The tumor was a poorly differentiated adenocarcinoma. (Fig. 1)

Carcinoma of the lung is the most common cancer in males in Nova Scotia followed shortly by prostatic carcinoma and colo-rectal carcinoma.<sup>1</sup> Lung cancers are classified into four major histologic types — squamous cell, adenocarcinoma, large cell and small cell carcinoma<sup>2</sup>. Adenocarcinomas have become the most common form of lung cancer and are as common in women as in men. They are usually peripheral tumors and remain asymptomatic for a longer time than those tumors occurring centrally. Hence not infrequently these are first discovered by the presence of metastases.

Adenocarcinomas have a glandular structure but some are poorly differentiated and the demonstration of epithelial mucin is necessary for correct identification, as observed in this case.

Non-bacterial thrombotic endocarditis (marantic endocarditis) was discovered in the heart. There was a large vegetation along the line of closure of the mitral valve. (Fig. 2)

Non-bacterial thrombotic (marantic) endocarditis is caused by the precipitation of fibrin and other blood elements upon valve leaflets; the vegetations are sterile.<sup>3</sup> The patients have some debilitating disease such as a metastatic cancer and a hypercoagulable state is postulated. The vegetations may produce emboli.

In this case there was evidence of embolization in the brain and in the kidneys. An embolus was present at the bifurcation of the right internal carotid artery. (Fig. 3) There was recent infarct in the brain in the distribution of the right middle cerebral artery. (Fig. 4) There were no metastases in the brain.

Occlusion of the internal carotid artery produces a wide spectrum of signs and symptoms because the anastomotic channels of the circle of Willis can compensate for the obstruction.<sup>3</sup> In this case infarction ensued in the distribution of the right middle cerebral artery. The observed clinical findings were typical for this location. When the infarct is large with associated cerebral edema, herniation may occur leading to depression in the level of consciousness and death.

In addition, there were multiple pulmonary thromboemboli involving medium and small arteries.

In summary, the fundamental cause of death was carcinoma of the lung with metastases to lymph nodes and bone. The terminal event was massive cerebral infarction with herniation.

The case describes a 66 year old man with poorly differentiated adenocarcinoma of the lung (Fig. 1) who presented to his clinicians in the terminal phase of his illness with widespread metastasis. As a consequence of this, he developed non-bacterial thrombotic (marantic) endocarditis on his mitral valve. The vegetation (Fig. 2) had sent off an embolus (Fig. 3) to the bifurcation of the right internal carotid artery. The terminal event was cerebral infarction (Fig. 4) in the distribution of the right middle cerebral infarction with brain herniation. □

#### References

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2. Coulson, WF. *Surgical Pathology*, Philadelphia: J.B. Lippincott Company 1988.
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**This Issue demonstrates an attempt to include more pathology in our content.  
Dr. A. Foyle has agreed to facilitate this effort.**

# An Unusual Psychiatric Presentation of Bronchogenic Carcinoma

## A CASE REPORT

K.N.R. Chengappa,\* MD, MRC Psych. and P. Flynn,\*\* MD, FRCP(C),

Halifax, N.S.

A 59 year-old male with no antecedent psychiatric or neurological history presented with unusual behavioural and personality changes. It was not until his fourth hospitalization in an eight-week period that the diagnosis of small cell bronchogenic carcinoma was made. The change in his mental state was related to hyponatraemia and probably SIADH (syndrome of inappropriate secretion of antidiuretic hormone) — a complication of the carcinoma.

### CASE REPORT

#### First Admission (Community General Hospital December 1987)

**Presentation:** 59 year-old electrical draftsman, immigrant from U.K., presented with a 2-month history of depression, slowed mental functioning, insomnia, a 20 lb. weight loss, neglect of personal hygiene and colostomy care, and deluded that the T.V. and radio were controlling his mind.

He smoked 2 packets of cigarettes per day for years, and 2 weeks prior to admission he had stopped consuming alcohol (up to 24 beers per week). A colostomy had been performed 3 years earlier for complications of diverticulitis. Captopril had been started for essential hypertension which had been diagnosed a few months earlier. He had no previous psychiatric history. His mother and maternal aunt had been treated for depression.

**Hospital Course:** A day after admission, he was witnessed by his wife to have a generalized tonic/clonic seizure. Neurology consultation suggested three possibilities: (a) primary brain tumour, (b) secondary brain metastases, and (c) CVA. He became increasingly combative and became sexually explicit towards nursing staff.

**Investigations:** Hyponatremia (122 mmol/L) and Hypokalemia (2.9 mmol/L) were noted on admission. CT brain scans and chest Xray were reported as normal. EEG revealed a non-specific diffuse fronto-temporal theta dysrhythmia.

**Management:** Haloperidol and restraints were used for agitated behaviour and electrolytes were corrected.

Arrangements were made for a transfer to a tertiary care hospital.

#### Second Admission (Tertiary Care Hospital — Neurology Service; December 1987)

**Presentation:** He was transferred for further neurological evaluation.

**Hospital Course:** He was intermittently confused, combative and difficult to manage. He displayed bizarre behaviour. He would insist that nurses and staff members stand in a "Z" configuration. He would draw circuit diagrams on paper napkins, some of which perhaps related to his work, though he was unable to explain any of it. He was convinced his watch was a lethal device that could kill people.

**Investigation:** Electrolytes and hemogram were normal. Lumbar puncture revealed a normal CSF with normal cell counts. Repeat EEG showed a pattern consistent with metabolic encephalopathy.

**Management:** All medications except captopril and phenytoin, 300 mg/day (which had been started in the previous hospital) were discontinued without much change in his mental state. Electrolytes were normal. Repeat neurological examinations failed to reveal localizing or lateralizing signs. Psychiatric consultation was requested in view of his extremely disruptive behaviour and failure to control his agitation with neuroleptics. A diagnosis of organic brain syndrome was made, the exact etiology at that point was not known. It was recommended that he be transferred to the psychiatric service of an adjacent general teaching hospital.

#### Third Admission (General Teaching Hospital — Psychiatry Service December 1987)

**Presentation:** Following psychiatric consultation, he was transferred to an adjacent general hospital for further psychiatric evaluation and management.

**Hospital Course:** He remained intermittently disoriented and seemed to have visual hallucinations — saying he could see "dogs lifting their legs" and "children on windows."

Neuropsychological testing revealed a normal IQ but defective verbal memory and confabulation. Neurological consultation raised two possibilities: (a) alcohol related CNS disease, (b) an ischaemic event affecting the temporal lobes.

**Investigations:** Electrolytes and hemogram were normal. VDRL was non-reactive. Thyroid function, serum B<sub>12</sub>,

From the Division of Consultation/Liaison Psychiatry, Victoria General Hospital, Halifax, N.S. B3H 2Y9.

\*Resident in Psychiatry, Dalhousie University.

\*\*Professor, Department of Psychiatry, Dalhousie University, Halifax, N.S.

and serum folate were normal. Alkaline phosphatase and Gamma GT were raised.

**Management:** Agitation was controlled with haloperidol in doses up to 20 mg/day and was gradually discontinued. Phenytoin and captopril were continued unchanged and he was given a course of parenteral thiamine. No further seizures were noted. Over the next two weeks he improved marginally and stopped expressing bizarre ideas. No explanation could clearly explain his improvement. He was discharged home with arrangements made for neurological follow-up on an outpatient basis.

#### Fourth Admission (Tertiary Care Hospital — General Medicine January, 1988).

**Presentation:** Two days after his discharge he became confused again, convinced the police were after him for not paying bills. He proceeded to dismantle electrical appliances at home for no understandable reason. He was admitted to the general medicine service of a tertiary care hospital.

**Hospital Course:** He remained confused and agitated. The psychiatric consultation service was again requested to help with diagnosis and management. The psychiatric consultation report emphasized the need to look for a primary malignancy, especially bronchogenic carcinoma causing SIADH and hyponatremia as a possible cause for his altered mental state.

**Investigation:** He was hyponatraemic (127 mmol/L) and hypokalemic (2.6 mmol/L) on admission. Repeat chest Xray revealed a suspicious focus on the left lung, which a CT thoracic scan strongly suggested was bronchogenic carcinoma. This was histologically confirmed by needle aspiration cytology as "undifferentiated small cell bronchogenic carcinoma." Also noted were elevations of carcinoembryonic antigen, alkaline phosphatase and LDH.

**Management:** The agitated behaviour responded well to small doses (10-30 mg/day) of methotrimeprazine (Nozinan). Following a family conference, oncologists decided to treat him with chemotherapy using VP-16 and platinum. He improved transiently with electrolyte correction and the first course of chemotherapy. Although he was marginally improved, the family decided at another family conference to take him home with the back-up support of hospital and family based community services.

**Postscript:** Fairly soon thereafter, he developed a fulminating pneumonia to which he succumbed.

#### DISCUSSION

The presentation of a well functioning 59 year old man with no previous psychiatric or neurological history with neurobehavioural changes led to a high suspicion of a primary organic illness. However, despite ongoing search, it was not until his fourth admission

that the diagnosis of bronchogenic small cell carcinoma was made.

Schwartz and Bartter described SIADH and developed criteria for its diagnosis.<sup>1,2</sup> In this patient's case the diagnosis is difficult to confirm in the absence of serum and urine osmolality. There were other confounding variables in his diagnosis: electrolyte imbalance other than hyponatremia, medications that alter antidiuretic hormone, stopping alcohol consumption prior to hospitalization, heavy nicotine use and neglected colostomy care.

SIADH has been described in patients with cancer as well as in psychiatric patients.<sup>3</sup> 68% of patients with anaplastic small cell cancer have abnormal water metabolism and 46% have SIADH.<sup>4</sup> It is argued the most important factor in treating this condition is aggressive antitumour therapy especially when hyponatremia is a problem.

In conclusion, it is traditional teaching that bronchogenic and pancreatic carcinoma may initially present as a depressive illness. In this case, although he presented initially with symptoms of depression, these were quickly overshadowed by an organic brain syndrome resulting in a confusional state and bizarre behaviour. □

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### THE PSORIASIS SOCIETY OF NOVA SCOTIA OBJECTIVES

- provide information to the people who suffer from psoriasis
- encourage the formation of support groups where individual sufferers may share experiences and exchange information on self-care
- provide facts about psoriasis to the medical community, general public and teaching profession
- promote and encourage research directed toward the treatment, prevention and cure for psoriasis.

For more information contact:

Judy Misner,  
The Psoriasis Society of Nova Scotia,  
168 Harlington Crescent,  
Halifax, N.S.  
B3M 3N1  
Phone 443-8680

# Current Topics in Community Health

Selected by: Dr. Karim H. Kurji  
Department of Community Health & Epidemiology  
Dalhousie University, Halifax, N.S.

## A FOCUS ON MENTAL HEALTH

The Hon. Jake Epp, Minister of National Health and Welfare has released a document entitled *Mental Health for Canadians: Striking a Balance*. The document introduces a broad definition of mental health, proposes a set of guiding principles in the development of mental-health-related policies and programs and puts forward strategies for the promotion, protection and restoration of mental health.

He urges us to think of health as a collective experience that requires interaction with the wider environment — the physical, social, cultural, regulatory and economic conditions that impinge upon our everyday lives. He calls for a broad positive concept of mental health, a critical examination of how resources are allocated, the provision of sufficient and appropriate care for persons with mental disorders, the promotion of mental health and prevention of mental illness, while simultaneously maintaining the commitment to the treatment of mental disorders.

The lack of a widely accepted definition of mental health is acknowledged as is the fact that most of the services, programs and laws are orientated towards dealing with mental disorder. Current concepts of mental health reflect a number of themes — psychological and social harmony and integration, quality of life and general well-being, self-actualization and growth, effective personal adaptation, and the mutual influences of the individual, the group and the environment.

Mental health, as described by the World Health Organization is an "inner experience linked to interpersonal group experience". Mental life may be spoken of as a combined experience of three kinds — cognitive, affective and relational. Accordingly, an "interactive" definition of mental health has been developed: "*Mental health is the capacity of the individual, the group and the environment to interact with one another in ways that promote subjective well-being, the optimal development and use of mental abilities (cognitive, affective, and relational), the achievement of individual and collective goals consistent with justice and the attainment and preservation of conditions of fundamental equality.*" In the new definition, individual strengths, collective energies, and environmental resources interact to produce mental health. The distinction between "mental disorder" and "mental health problem" is elaborated upon. Mental disorder may be regarded as one of several possible obstacles to this process, other possible obstacles being physical illness, poverty or discriminatory social attitudes.

That a person with a mental disorder may still enjoy a considerable degree of mental health is underlined, with

factors enhancing this being adequate shelter and income, a nurturing, accepting setting that supports personal growth and development, and opportunities to have meaningful social roles.

The preceding document, *Achieving Health for All* proposed a framework for Health Promotion built around three challenges — reducing inequities, increasing prevention and enhancing coping. If progress is to be made in reducing inequities, it is argued that a better understanding of the distribution, causes the risk factors associated with common mental disorders and mental health problems needs to be developed. In particular, the body of knowledge concerning the nature and causes of good mental health has to be expanded. As inequities are eliminated, people's empowerment grows. This might be facilitated by encouraging involvement in mutual-aid, community development and other grass-roots processes that enable people to work collectively to identify and deal with common concerns.

The notion of increasing prevention is put forward but referred to rather disappointingly as being not well developed and a subject of some controversy.

The seven guiding principles discussed deal with a range of concerns — human rights and citizenship, mutual aid and voluntary service, consumer participation, professional participation, the strengthening of communities, knowledge development and policy coordination.

In conclusion, the hope is that the ideas presented in the document would help organizations define more precisely the protection and promotion of mental health, and the shaping of comprehensive and coordinated responses.

In many ways, this document has been overshadowed by its predecessor — *Achieving Health for All: A Framework for Health Promotion*. As such, little that was not formerly known has been said. The focus on mental health is welcomed but there is a growing body of criticism against the production of yet another document. As one participant at a conference on Health Promotion in Halifax remarked: "When all is said and done, more was said than done".

Source: The Hon. Jake Epp, Minister of National Health & Welfare: *Mental Health for Canadians: Striking a Balance*. Health & Welfare Canada, Ottawa, 1988.

The Editor would like to note the change in this column, our usual Community Health person is leaving the area to take up a position as Director of the Caribbean Epidemiology Centre (PAAO) in Trinidad. Dr. Frank White's column has been a part of the Journal since February 1983, and he has our appreciation and good wishes in future endeavours. □

## Pictorial Highlights 135th Annual Meeting



The Medical Society's newest Senior Members received their citations at the 135th Annual Meeting. Here, left to right are Drs. J.F. Woodbury, A.M. Clark, J.M. Tha Din and N.J. MacLean.



Dr. G.W. Thomas of Mabou (left) received his CMA Senior Member Citation from Dr. John O'Brien-Bell, President of the Canadian Medical Association. Dr. O'Brien-Bell also presented a Citation to Dr. Helen Holden on behalf of her late husband Dr. J.J. Quinlan.



Dr. Vincent P. Audain, shown here with the Chain of Office, was installed as President of the Medical Society to succeed Dr. Douglas Henshaw.



As one of his final duties as President, Dr. Douglas Henshaw paid tribute to the soon-to-leave Executive Director of The Medical Society. Dr. Henshaw presented an oil painting on behalf of the membership. Left to right are: Dr. and Mrs. Henshaw with Mr. and Mrs. Doug Peacocke.

# Mr. Douglas D. Peacocke

HONORARY MEMBER  
The Medical Society of Nova Scotia

Douglas Dennison Peacocke was awarded Honorary Membership in The Medical Society of Nova Scotia on November 25, 1988. It marked the first such presentation in twenty years, but more importantly, it was the first Honorary Membership ever awarded to a layman.

The honour followed the unanimous support of The Executive Committee on a motion by Dr. Vince Audain, the then President-Elect. In making his motion, Dr. Audain noted that Honorary Membership could be awarded for "signal service to this Society", and there is not a soul who would question the service Doug Peacocke has given to The Medical Society of Nova Scotia.

In presenting the Certificate of Honorary Membership, Dr. Douglas Henshaw said, "With it comes the respect and love of the thousands of doctors you have served in the past twenty years". The Society President noted, "Every Nova Scotian physician, every Nova Scotian Minister of Health, and indeed, every Nova Scotian owes him a debt of gratitude."

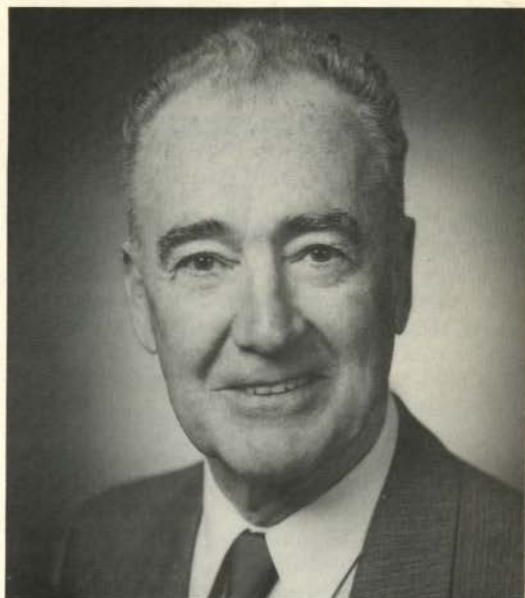
Doug Peacocke arrived on The Society's doorstep in 1968. He was fresh from the Royal Canadian Navy, a Lieutenant Commander, Retired.

He had that certain military air about him that instantly led everyone to call him Mr. Peacocke. To this day, his staff would never consider calling him anything but MISTER Peacocke. Similarly, they could not even consider anyone else who could generate more respect, loyalty or admiration. He is MISTER because he commands respect, yet he is a friend to each and every member of his staff.

That enduring respect was evident when a guest from Doug's past attended the recent Annual Meeting. Admiral R.H. (Bob) Falls, a former Chief of Defence Staff and one of Doug's military superiors, spoke at the President's banquet.

Admiral Falls recounted aspects of Doug's military career. It was quite evident that the Admiral was indeed proud of his association with Doug Peacocke. He suggested, quite rightly, that The Medical Society had chosen well when it hired Mr. Peacocke.

The Admiral left out one salient detail. He failed to note Doug's early involvement with medicine. While he did tell us that Doug had crashed a plane into Nova Scotia's Whites Lake, suffering a broken back, but he left out the details that followed. For instance, during his recovery and subsequent posting aboard the aircraft carrier HMCS Mag-



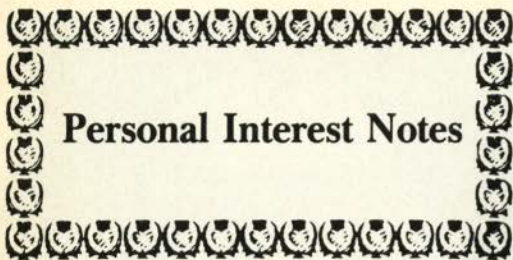
nificent, Doug spent a great deal of time playing bridge. His main partner was Surgeon Lieutenant Joseph Cyr, also known as Waldo Ferdinand Demara, or better known as "The Great Imposter". Doug admits to spending a lot of time with Demara, but he has never confessed to having the Surgeon Lieutenant as his personal physician.

Nova Scotia's Minister of Health and Fitness was also on hand for the Annual Meeting. Joel Matheson made a presentation on behalf of the Government saying that he spoke for the numerous Health Ministers who came before, during the tenure of Doug Peacocke. He noted the degree of cooperation between The Society and Government and he gave much of the credit for that to the advice and guidance offered over the years by Doug.

Doug Peacocke has made his presence felt across the country. Presentations were made to him throughout the year as he attended various divisional meetings. At each event, including the CMA Annual Meeting in Vancouver last August, organizers took time out to pay tribute to his contribution to organized medicine.

At the end of January, 1989, the second of two outstanding careers will come to an end. The tribute was paid at the Annual Meeting but the impact of his presence in The Medical Society will be felt for many years to come. In a sense, Doug Peacocke has set the standard for all The Society's Executive Directors who follow.

As The President described, Honorary Membership in The Medical Society of Nova Scotia is the highest honour The Society can bestow. It has come to a rare few, and perhaps none more deserving than Doug Peacocke. □



## Personal Interest Notes

### SENIOR MEMBERSHIP CITATIONS THE MEDICAL SOCIETY OF NOVA SCOTIA

#### Dr. Joan Tha Din

Dr. Joan Tha Din was born in Rangoon, Burma, part of the British Empire on November 11, 1919, an Eurasian of Christian parentage, whose father worked in the Burma Civil Service. Thus, she grew up versed in Western Christian culture, yet living in a land predominantly Buddhist in religion and culture. Few women then went on for higher studies, the majority getting married soon after completing their schooling; college female freshers consisted only of about 5 to 10 percent of the total student body. On entering University College, Rangoon, and later Rangoon Medical College, she grew to appreciate the Buddhist culture and way of life was exemplified by her fellow College mates — you might say living in a sphere of two religious cultures and appreciating the good in both.

The Second World War saw great changes in her life. She had fled to India and completed her final year in Medicine as an evacuee at Lucknow University Medical College. Having spoken three languages as a child — Burmese, English and Hindustani — learning the finer elements of Hindustani for dealing with patients was not too difficult. What was a bit harder was completing a two-year course in Ophthalmology including refraction and surgical procedures, that was included and essential in the Lucknow University M.B.B.S. degree program.

Following tenures of House Surgeonships at Queen Mary's Obstetrical Hospital in Lucknow and a year-and-a-half stint at the Dufferin Hospital in Calcutta, Bengal, India (where she again had the problem of mastering yet another language — Bengali — in order to converse with patients), Dr. Tha Din got married and returned to her homeland, Burma, in 1946 when the war ended.

Dr. Tha Din had chosen Pathology to work in; and following a year at Rangoon Medical College Pathology Department, she set out on a Burma State Scholarship to England for further studies in Bacteriology and Pathology.

Dr. Tha Din obtained her post-graduate Diploma in Bacteriology from Manchester University, England, studied the production of bulk vaccines for a few months at the Wright Fleming Institute in London,

England, and then went to Dublin, Ireland, for her M.R.C.P. (Pathology), being attached there to the Pathology Department of the Royal College of Surgeons, Dublin.

On returning to Burma in 1950, Dr. Tha Din joined the Burma Government Medical Service, first working at the Pathology Department of the Rangoon General Hospital, and then as a Bacteriologist in the joint World Health Organization/Burma Government Tuberculosis project. Here she remained until 1963 when she and her husband fled from Burma following a Military Coup in 1962.

In 1966 Dr. Tha Din and her family emigrated to Canada, her late husband being taken on as a Radiologist at Colchester Hospital in Truro.

In 1972 she attended a post-graduate course for the Diploma in Ophthalmology at Moorfield Hospital, London University, England and since 1973 Dr. Tha Din has been working a practice in Medical Ophthalmology and is an Associate Member of the Atlantic Provinces Ophthalmological Society.

What has impressed Dr. Tha Din most in her lifetime of work on three Continents is the amazing influence of the emergent sulpha drugs and later fungal antibiotics, the change from composing medical potions to prescribing commercial medical tablets and fluids, and the astounding up-grading of anesthesia, surgery and immunology. Tropical diseases like Typhoid and Bacillary Dysentery were conquered, so also Syphilis. Leprosy was on hold; and in the West, cancers, genetic and cardiac illnesses are being beaten.

Dr. F. J. Carpenter,  
Representing Colchester/East Hants Branch Society

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#### Dr. Alexander MacD. Clark

Alexander (Sandy) MacDonald Clark was born in England near Birmingham in 1922. He qualified at the University of Birmingham in 1947 after three years of hospital residencies. He then did two years in the Royal Army Medical Corps, and went into Family Practice in the English Lake District. In 1953 he was a Founder Associate of the Royal College of General Practitioners, and subsequently received his membership in the Royal College of General Practice.

In 1966 he emigrated to Canada and took a single handed practice in Pubnico. His wife died fifteen months after he came there, but he stayed and raised his three children. His son, John, is now in the anesthesia department of Dalhousie, and a daughter, Jill, in Australia, he finds time to visit every two years. His other daughter, Sara, is in Alberta and he visits yearly.

He represented the Western Branch on the Executive of the Nova Scotia Medical Society, is a past president of the Western Branch, and was also Officer at large of the Medical Society for one year. He is a



Founder Member of the Pubnico area Lions Club and still actively involved in that organization. In 1978 he was appointed a Serving Brother of the Order of St. John's, for services rendered in the St. John Ambulance Association.

Sandy has a large group of cystic fibrosis families in his practice, and is always available to them for any problems that he can solve, or for liaison with the IWK. He has spoken many times at their functions, and they consider him a good friend.

Sandy still can be seen every morning at the Yarmouth Hospital either seeing his in-patients, assisting at surgery or doing one of his many obstetrical deliveries, which he has kept up.

The Western Branch takes great pride in presenting Dr. Sandy Clark for admission into the senior membership of the Medical Society of Nova Scotia.

Dr. W. M. Gorman,  
President, Western Branch Society

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### Dr. Norman J. MacLean

Dr. N. J. MacLean was born in Port Hawkesbury in 1920. He was educated at St. Francis Xavier and graduated in 1941, cum laude. He just missed magna cum laude because he was not able to take his final exams, he caught the measles, probably got them from his brother Bernie, who was only six years old at the time.

Jim went on to medical school, graduating from Dalhousie in 1945. He spent a year at Sheet Harbour — 1945-46. He then had two years post graduate training in surgery in St. Vincent's Hospital, Worcester, Mass. from 1946-48.

Following this training he returned to Inverness County where he has remained the senior physician at Inverness since 1948, to the present time. Dr. MacLean was elected to the provincial legislature in 1963 where he served until 1974 and was re-elected again in 1984, retiring at the end of this past term.

Dr. Jim, as he is affectionately known in Cape Breton has served the people of Inverness County during his life time under many hardships and difficult circumstances in that remote part of Cape Breton. Besides attending in the legislative assembly, he found time to be President of the Surgical Society and served on the Provincial Medical Board.

Jim is married to Dorothy "Tobey" Tobin. They had four children. I take great pleasure in presenting him for Senior Membership in the Medical Society of Nova Scotia.

Dr. G. W. Thomas,  
Representing Inverness/Victoria Branch Society

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### Dr. John F.L. Woodbury

It is a privilege to put forward the name of Dr. Jack Woodbury for Senior Membership in The Medical Society of Nova Scotia.

Although a Nova Scotian who can trace family roots in the Province back to about 1750, Dr. Woodbury was born in London, England. A 1943 Dalhousie University medical graduate, he acquired his postgraduate training in the Canadian Army and became a Captain in The Royal Canadian Army Medical Corps, assuming the duties of trainee specialist in medicine at The Halifax Military Hospital.

Following his army career, Dr. Woodbury spent five years in general practice in Halifax, soon becoming interested in rheumatology. He is Professor of Medicine at Dalhousie University and has served as Chief of Service, Rheumatology, at Victoria General Hospital, Director of the Dalhousie Rheumatic Diseases Unit, Consultant Rheumatologist to The Dalhousie University Teaching Hospital, and a member of The Medical and Scientific Committee of The Canadian Arthritis and Rheumatism Society.

He started an Arthritis Outpatient Clinic at the Victoria General Hospital and organized a team approach including nurses, physiotherapists, occupational therapists and social workers. Through his efforts the discipline of arthritis management began to emerge in this province and in this region.

For twenty years, he was a member of The Nova Scotia Rehabilitation Council, working tirelessly for the establishment of a rehabilitation centre. He is also a Past President of The Canadian Rheumatism Association, a former Chairman of the Executive and a Past President of The Medical Society of Nova Scotia.

Jack is married to the former Mary Johnson and they have three children, Susan, Gail, and Frank — All of these individuals are very successful in their own right.

Dr. Woodbury's interests extend far beyond medicine. He has a consuming interest in gardening, fishing, and photography. The historic Milford House in Annapolis County and its successful preservation can be traced to the influence and managerial skills of this man.

Dr. Woodbury is respected for his work involving the investigation of lung disease in our miners — heading a government policy in the field of Workmans Compensation of Pneumoconiosis.

His medical publications are many and respected. He has obtained respect from his colleagues as a superb clinician and from students of many levels as an educator. He has done his share and more within our Medical Society and his wisdom and council are still regularly sought.

Above all this we see a strong family man, a model for each of us.

Tonight we honour our distinguished colleague who embodies a philosophy of fostering health and eliminating disease while at the same time, educating undergraduates as well as those dedicated to speciality practice.

Thus it is with great pride that as President of The Halifax Medical Society I put forth the name of Dr. Jack Woodbury for Senior Membership in The Medical Society of Nova Scotia.

Dr. A. H. Murray,  
President, Halifax Branch Society

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### SENIOR MEMBERSHIP CITATIONS THE CANADIAN MEDICAL ASSOCIATION

#### Dr. Gordon Waddell Thomas

The medical career of Dr. Gordon Thomas began at McGill but reached fruition in the operating rooms and classrooms of Eastern Canada. In fact, apart from wartime service, periods of postgraduate training that took him as far away as Sweden, and a brief stint as a teacher in Toronto, his entire career was spent as a surgeon and teacher in Newfoundland and Nova Scotia.

Gordon Waddell Thomas was born in Ottawa, Ontario, on December 28, 1919, but he was educated in Montreal. He completed his Bachelor of Arts degree, in honours economics and sociology, at McGill before graduating with his medical degree in 1943. Dr. Thomas served in the Royal Canadian Army Medical Corps during the Second World War, and upon his release from the service in 1946 he joined the International Grenfell Association as a medical officer and surgeon in St. Anthony, on the northern tip of Newfoundland.

He became surgeon-in-charge at St. Anthony Hospital in 1950 and took on the added duties of acting superintendent at the hospital in 1959. From 1962 to 1979 he was surgeon-in-chief and executive director of the International Grenfell Association, which delivered medical services to isolated parts of Newfoundland and Labrador.

His teaching career began in 1961, when he was appointed a teaching fellow in cardiovascular surgery at the University of Toronto. He return to Newfoundland in 1962, and began a lengthy association with Dalhousie University in Halifax, Nova Scotia, in 1966-67, when he held the appointment of clinical assistant in paediatric surgery. From 1968 to 1979 he was a lecturer in Dalhousie's School for Outpost Nursing. Dr. Thomas was also well known to medical students at Memorial University in St. John's, Newfoundland, where he was a clinical professor of surgery from 1972 to 1979. He is currently a staff surgeon at Nova Scotia's Inverness Consolidated Memorial Hospital and a consulting surgeon at Sacred Heart Hospital in Cheticamp, Nova Scotia.

He became a member of the Council of the Royal College of Physicians and Surgeons of Canada in 1974 and served on its executive from 1978 to 1980. He also served as chairman of the college's Ethics Committee. He was a governor of the American College of

Surgeons from 1972 to 1987 and has served on the executive of the Nova Scotia Medical Society since 1984. He became a member of the Provincial Medical Board of Nova Scotia the same year.

The author of numerous papers, mainly on surgery for pulmonary tuberculosis in *CMAJ* and the *New England Journal of Medicine*, and of a book, **From Sled to Satellite**, Dr. Thomas has received numerous honours and awards. He was appointed an officer of the Order of Canada in 1970, and the high esteem in which he is held by the medical profession was shown when he received the Canadian Medical Association's F.N.G. Starr Award, which is presented for an "outstanding contribution" to science, fine arts or nonmedical literature or for, among other things, improving medical service in Canada. He has also been awarded honorary degrees by Memorial and Dalhousie universities and received the Royal Bank Award in 1977.

Dr. Thomas, who maintains an interest in flying, fishing and beekeeping, married in 1944. He and his wife, Thora, have two daughters and a son.

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#### Dr. John James Quinlan

Dr. John Quinlan was born in Newfoundland but has spent his entire medical career in Nova Scotia. It is perhaps appropriate that this thoracic surgeon, who in 1940 suffered a bout of pulmonary tuberculosis that made him ineligible for wartime service with the medical corps, would devote his career to the treatment of chest disease.

John James Quinlan was born in Holyrood, Newfoundland, on February 18, 1917. After completing his early education in Grand Falls and St. John's, Newfoundland, he entered medical school at Dalhousie University in Halifax, graduating in 1941. From 1941 to 1948 he was resident surgeon at the Nova Scotia Sanatorium in Kentville, where he trained under Dr. V.D. Schaffner.

Dr. Quinlan, who received his certification in thoracic surgery from the Royal College of Physicians and Surgeons of Canada in 1953, was thoracic surgeon at the sanatorium and at Blanchard-Fraser Memorial Hospital in Kentville from 1948 to 1975. He then served as thoracic surgeon and chief of staff at Valley Health Services Association Hospital from 1975 to 1982, and is currently consultant thoracic surgeon there. His lengthy surgical career has provided him with extensive experience in all thoracic surgical procedures, both diagnostic and therapeutic.

A Fellow of the Royal College of Physicians and Surgeons of Canada since 1972, Dr. Quinlan has played an active role in medical organizations in Canada and the United States. A Fellow of the American College of Chest Physicians since 1947, he was governor of the eastern provinces from 1949 to 1970. He is currently a senior member of the American Association for Thoracic Surgery and has belonged to

the American Thoracic Society since 1944. He was a member of Nova Scotia's Provincial Medical Board from 1977 to 1982, serving as board president during his final year. His longest relationship with any medical organization is with the Medical Society of Nova Scotia, which he joined in 1943. He chaired the society's surgical section in 1974-75. Locally, he was president of the Valley Medical Society for two terms.

Dr. Quinlan and his wife, Dr. Helen Holden, were married in 1947. His main interests outside medicine include curling, fishing and reading. He has a very extensive personal library.

Editor's Note: Dr. Quinlan died July 12, 1988.

## OBITUARY

**Dr. Maxwell D. Brennan**, (80) of Dartmouth, N.S. died on October 25, 1988. Born in Dartmouth, he received his medical degree in Edinburgh in 1937. He established the Dartmouth Medical Centre and was instrumental in establishing the Dartmouth Emergency Centre, Dartmouth General Hospital and an alcohol and drug treatment centre at the Nova Scotia Hospital. He was part of the surgery staff at the Halifax Infirmary and Victoria General Hospitals and sat on the board of the Nova Scotia Commission on Drug Dependency and the Provincial Medical Board of Nova Scotia. He was a senior member of The Medical Society of Nova Scotia and the Canadian Medical Association. He is survived by his wife, two daughters and two sons. The *Journal* extends sincere sympathy to his wife and family.

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# THE MEDICAL SOCIETY OF NOVA SCOTIA

NOVA SCOTIA DIVISION OF THE CANADIAN MEDICAL ASSOCIATION

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