

THE NOVA SCOTIA MEDICAL BULLETIN

Editor-in-Chief
DR. J. F. FILBEE

Editorial Board

Managing Editor
DR. C. J. W. BECKWITH

Board

DR. W. A. CONDY
DR. G. H. HATCHER
DR. G. R. LANGLEY
DR. R. B. NICHOLS†
DR. I. E. PURKIS
DR. I. D. MAXWELL

Corresponding Members

Secretaries of Branch Societies

Departments

Personal Interest Notes
DR. R. B. NICHOLS
Thousand Word Series
DR. G. R. LANGLEY

A Standard to Uphold

During the past four years, readers of the Nova Scotia Medical Bulletin will have noticed a steady current of change in this journal. A change to a more standard journal size, a more legible list of contents, a colourful exterior are but external signs of change. Within the covers, there has been, we believe, a steady improvement in the quality, content and layout of the Bulletin, especially noticeable in the large number of strikingly successful symposia. And although the change to more realistic methods of cost accounting has revealed the true cost of the Bulletin, the skilful exploitation of advertising potential has reduced the cost of the Bulletin to members of the Society almost to the break-even point.

It goes without saying that this improvement has been actively sought, and the degree of success achieved is in large measure due to the ideas, vision and hard work of the man that has held the post of Editor-in-Chief for the past four years, Dr. J. F. Filbee. These qualities have commanded the respect and ensured the willing cooperation of the Editorial Committee and Staff, and have established a working relationship which will do much to bridge the gap left by his resignation as Editor.

Our Editor-in-Chief has felt for some time that in a democratic society like The Nova Scotia Medical Society, it is a bad principle to allow any member, however good his contribution, to occupy a

position of influence indefinitely. There is no doubt that the Editor-in-Chief, while carrying out the policies of The Medical Society can, in the broad sense, influence members of the Society by placing emphasis on certain matters. Indeed, it is impossible to function as an Editor without a bias of some sort, even though this bias is a commitment to higher standards. Coupled with this is the thought that everyone tends to run out of ideas, in time, and in falling into a steady pattern of work, may overlook ideas of merit. Although the Editorial Board and the Executive have seen no evidence of this, in the face of these sincerely held beliefs, the Society has been shamed into accepting Dr. Filbee's resignation, after persuading him to stay on for an additional year.

That year has now come to an end, and although Dr. Filbee has agreed to be available for advice and consultation, it is with very real regret and no little trepidation that the Editorial Committee now realises that it will no longer have the wise direction and management that it has enjoyed during the past four years. It has been given a high standard indeed to uphold, a first class example of the way things should be done, which it will do its best to sustain and emulate in the future. □

I.E.P.

Spare my blushes. Thank you for all your help.

J.F.F.

THE MEDICAL SOCIETY OF NOVA SCOTIA

NOVA SCOTIA DIVISION

OF

THE CANADIAN MEDICAL ASSOCIATION

MEMBERS OF EXECUTIVE COMMITTEE

OFFICERS

PRESIDENT - - - -	A. J. Griffiths
PRESIDENT-ELECT - -	G. McK. Saunders
IMMEDIATE PAST-PRESIDENT - -	T. W. Gorman
CHAIRMAN EXECUTIVE COMMITTEE	S. C. Robinson
VICE-CHAIRMAN EXECUTIVE - -	F. G. Mack
HONORARY TREASURER - -	C. D. Vair
EXECUTIVE SECRETARY - -	C. J. W. Beckwith

BRANCH SOCIETY REPRESENTATIVES

ANTIGONISH-GUYSBOROUGH - - - -	G. Silver
CAPE BRETON - - - -	H. J. Martin, A. L. Sutherland
COLCHESTER-EAST HANTS - - - -	H. D. Lavers
CUMBERLAND - - - -	H. Christie
EASTERN SHORE - - - -	P. B. Jardine
HALIFAX - - - -	H. I. MacGregor, J. A. Charman, J. K. B. Purves
INVERNESS-VICTORIA - - - -	N. J. MacLean
LUNENBURG-QUEENS - - - -	D. C. Cantelope
PICTOU COUNTY - - - -	J. B. MacDonald
SHELburne - - - -	F. Markus
VALLEY - - - -	D. J. G. Morris
WESTERN COUNTIES - - - -	R. P. Belliveau

OBSERVERS

REPRESENTATIVE TO C.M.A. EXECUTIVE COMMITTEE - - - -	H. J. Devereux
CHAIRMAN PUBLIC RELATIONS COMMITTEE - - - -	I. E. Purkis
CHAIRMAN MEDICAL ECONOMICS COMMITTEE - - - -	D. C. Brown
EDITOR - - - -	J. F. Filbee

CHAIRMAN OF STANDING COMMITTEES

COMMITTEE	CHAIRMAN
AGING - - - -	A. A. Macdonald
ARCHIVES - - - -	D. R. MacInnis
BY-LAWS - - - -	J. E. Hiltz
CANCER - - - -	Ian MacKenzie
CHILD HEALTH - - - -	B. S. Morton
CIVIL DISASTER - - - -	S. H. Kryszek
EDITORIAL BOARD (Editor) - - - -	J. F. Filbee
FEES - - - -	H. C. Still
FINANCE (Hon. Treas.) - - - -	C. D. Vair
HOSPITALS - - - -	J. A. Smith
INSURANCE - - - -	P. B. Jardine
LEGISLATION & ETHICS - - - -	H. K. Hall
MATERNAL & PERINATAL HEALTH - - - -	D. F. Smith
MEDIATION & DISCIPLINE - - - -	President
MEDICAL ECONOMICS - - - -	D. C. Brown
MEDICAL EDUCATION - - - -	J. A. McDonald
MEDICAL LEGAL LIAISON - - - -	I. D. Maxwell
MEMBERSHIP - - - -	M. G. Tompkins, Jr.
MENTAL HEALTH - - - -	R. J. Weil
NUTRITION - - - -	C. F. Brennan
OCCUPATIONAL MEDICINE - - - -	J. C. Wickwire
PHARMACY - - - -	A. F. Pasquet
PHYSICAL EDUCATION & RECREATION	J.K.B. Purves
PHYSICIANS SERVICES INSURANCE - - - -	President
PUBLIC HEALTH - - - -	W. I. Bent
PUBLIC RELATIONS - - - -	I. E. Purkis
REHABILITATION - - - -	L. S. Allen
RESOLUTIONS - - - -	F. G. Mack
TRAFFIC ACCIDENTS - - - -	H. H. Tucker
W. C. B. LIAISON - - - -	M. DeLory

BRANCH SOCIETIES

	PRESIDENT	SECRETARY
ANTIGONISH-GUYSBOROUGH - - - -	G. R. Greening	S. B. Donigiewiez
CAPE BRETON - - - -	D. S. Robb	H. R. Corbett
COLCHESTER-EAST HANTS - - - -	D. R. MacInnis	K. B. Shephard
CUMBERLAND - - - -	J. A. McCully	J. P. Donachie
EASTERN SHORE - - - -	D. MacMillan	A. C. Marshall
HALIFAX - - - -	J. K. B. Purves	P. C. Gordon
INVERNESS VICTORIA - - - -	C. L. MacMillan	W. MacIsaac
LUNENBURG-QUEENS - - - -	D. C. Langille	W. I. Bent
PICTOU COUNTY - - - -	E. B. Skinner	W. D. MacLean
SHELburne - - - -	W. H. Jeffrey	S. Robbins
VALLEY MEDICAL - - - -	D. McD. Archibald	D. H. Kirkpatrick
WESTERN NOVA SCOTIA - - - -	V. K. Rideout	M. Churchill

SECTIONS

	CHAIRMAN	SECRETARY
Section for ANAESTHESIA - - - -	A. A. Drysdale	J. Feindel
Section for GENERAL PRACTICE - - - -	D. C. Brown	N. G. Glen
Section for INTERNAL MEDICINE - - - -	C. H. Young	S. F. Bedwell
Section for OBSTETRICS & GYNAECOLOGY - - - -	D. F. Smith	D. Cudmore
Section for OPHTHALMOLOGY & OTOLARYNGOLOGY - - - -	D. K. Murray	J. H. Quigley
Section for PAEDIATRICS - - - -	N. B. Coward	R. S. Grant
Section for PATHOLOGY - - - -	A. MacKenzie	A. J. Lewis
Section for PSYCHIATRY - - - -	R. P. Parkin	L. Kovacs
Section for RADIOLOGY - - - -	E. B. Grantmyre	H. B. Sabean
Section for RESIDENTS IN TRAINING - - - -	R. A. Langille	T. J. Murray
Section for SALARIED PHYSICIANS - - - -	W. A. Cochrane	S. H. Kryszek
Section for SURGERY - - - -	A. L. Murphy	C. H. Graham
Section for UROLOGY - - - -	F. G. Mack	W. A. Ernst

AUTHORIZED AS SECOND CLASS MAIL BY THE POST OFFICE DEPARTMENT, OTTAWA, AND FOR PAYMENT OF POSTAGE IN CASH.
PUBLISHED BY THE MEDICAL SOCIETY OF NOVA SCOTIA, 5849 UNIVERSITY AVENUE, HALIFAX, N. S.

113th Annual Meeting

The forthcoming 113th Annual Meeting of the Society and the 2nd Meeting of its Council are likely to be among the most momentous in our history. The problems associated with the establishment of physicians' services insurance will be uppermost in our minds, and decisions reached as a result of our discussions will have far reaching effects on the future of us all.

It is my earnest desire that as many of our members as possible, whether members of Council or not, will attend and take part in our deliberations so that each member may feel that his views have been considered, and that a true consensus be reached.

A. J. M. Griffiths, M.D.
President

Clinical Programme

The 40th Dalhousie Refresher Course (Monday, November 21 - Thursday, November 24 inclusive), is the Clinical Programme of The Medical Society of Nova Scotia.

The details of the Clinical Programme (40th Dalhousie Refresher Course) have been mailed to all physicians in the province by the Post-Graduate Division.

Registration

Joint registration at the Dalhousie Refresher Course is available for those attending the Clinical Programme, the 2nd Meeting of Council and the 113th Annual Meeting of the Medical Society.

Registration will also be available for the Meeting of Council and the Annual Meeting in the Lord Nelson Hotel Lobby:

Friday, November 25 8.30 a.m.
Saturday, November 26 8.30 a.m.

PROGRAMME

CLINICAL PROGRAMME

Dalhousie Refresher Course, November 21 - 24, 1966

EXECUTIVE COMMITTEE

Annual Meeting, Thursday, November 24,
9.30 a.m. Lord Nelson Hotel

NOMINATING COMMITTEE

Meeting, Thursday, November 24, 8.30 p.m.

COMMITTEE ON COMMITTEES

Breakfast 8.00 a.m. Friday, November 25, 1966
Breakfast 8.00 a.m. Saturday, November 26, 1966

BUSINESS SESSIONS AND ENTERTAINMENT

Friday, November 25
Saturday, November 26

Social Registration Fee \$15.00

Friday, November 25th, 1966

8.30 a.m. Registration
9.30 a.m. - 12:30 p.m. 1st Session of Council
(coffee break 11.00 - 11.15)
1.00 p.m. Informal luncheon
2.00 p.m. - 4.00 p.m. 2nd Session of Council
4.00 p.m. 1st Session of Annual Meeting
(Report of Nominating Committee, election of Officers etc.)
7.00 p.m. President's Reception - Regency Room
8.00 p.m. Annual Banquet - Imperial Room
10.00 p.m. Annual Ball - Regency Room
Erno Reti and his orchestra will provide the music.

Saturday, November 26th, 1966

8.30 Registration
9.00 a.m. - 12.30 p.m. 3rd Session of Council
1.00 p.m. Luncheon to Council -
Speaker, Dr. Norman Belliveau,
President Elect, Canadian Medical Association
2.00 p.m. 2nd Session of Annual Meeting
(Report of proceedings of Council to Annual Meeting)
3.30 p.m. 1st Meeting Incoming Executive

HOUSING APPLICATION FORM
113th Annual Meeting
The Medical Society of Nova Scotia
(N.S. Division C.M.A.)
Lord Nelson Hotel, Halifax
November 25th & 26th, 1966

Please print the name of the hotel or motel in which you wish to have accommodation:

First choice..... Second choice.....

Other.....

Date of arrival: Expected time of arrival.....

Date of departure:

Room will be occupied by: Name(s).....

Address

Accommodation required: (please check one)

Single.....

Double.....

Twin.....

Suite.....

Signed

Complete and forward to:

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

N.B. If attending the Clinical Programme as well as the Council and Annual Meeting please indicate by checking
() yes, or () no.

TELEPHONE MESSAGE CENTER

for Annual Meeting 1966

423-1216

This telephone number is made available for all incoming calls received for our members during the convention. This is also the number for the office of The Medical Society of N. S.

This message center is located at the Society's Registration Desk in the Main Lobby of the Lord Nelson Hotel.



Dalhousie Medical - Dental Library

M. D. E. FRASER, BA, BLS

Halifax, N. S.

Great change and much expansion is taking place on the Dalhousie University Campus at present, and the Dalhousie Medical-Dental Library has been deeply immersed also in this current state of transformation. This has resulted in the necessary attempt to carry through three levels of programming simultaneously:

1. Planning for public services - local, regional and national.
2. Reorganization of budget, staffing and administration to enable the Library to initiate these plans.
3. Planning and executing various projects required by the W. K. Kellogg Health Sciences Library building programme.

Local Development

A 5-year development plan entered its second year in July 1966. The Medical School is determined to develop a library capable of supporting its burgeoning teaching and research programmes fully. In the recent past, the collection has experienced an annual growth rate since 1957/8 of some 700 volumes a year. During 1962/63, this figure changed to 1,200, in 1965/6 it jumped to 3,912 volumes. This growth rate will be increased still further for some years to come. Should Federal funds be released, there will be a startling increase for a brief period. A noticeable change has taken place in the Library's subscription list of journals and serials:

	1957/8	1963/4	1964/5	1965/6
Subscriptions purchased	230(?)	327	440	749
Gift subscriptions	108(?)	208	251	267
Total	394	535	691	1016

1965/1966 figures not only include the clinical and basic science journals but also review journals and series, the bibliographic index and abstract services, and the series required by the various library acquisition and processing procedures. They exclude dental journals. Sixty-three review series have been added in two years to assist both hard-pressed patrons and the Library's information services.

With all service aspects in mind there has been a great need to strengthen the bibliographic collection. Rapid access to a variety of subject fields is an essential time-saving and labour-saving factor in providing or obtaining useful information in short order. No single bibliographic service exists which can satisfy the wide variety of demands for information. To provide useful literature-searching "tools" to support the Library's information and processing services, the bibliographic collection has been developed in breadth and depth. The Library now receives the twenty-four *Excerpta Medica* Subject Sections, *Biological Abstracts*, *Chemical Abstracts* and a variety of subject bibliographies such as the *Index to Rheumatology*, *Cancer Chemotherapy Abstracts*, and *Psychopharmacological Abstracts*. By such means, there is better control of the literature - whether on the Library's shelves or available through Inter-library Loan Services from other library collections.

When staffing permits, the Library's Information Service Desk will be staffed full time. Since the beginning of the 1966 Fall Term, Librarians have been on duty at the desk during Monday, Tuesday and Wednesday evenings. They will assist patrons with the use of the collection, and with the location of "Quick Reference" information. Staff participation in current literature searches for 1-3 year periods must await further professional staffing. "Quick Reference" telephone service is not yet fully established but some service can be given (429-1420, Ext. 342).

Staffing has proved to be a bottle-neck. Although clerical staffing increased 500% between 1964/5 and 1965/6 to redress previous understaffing and to meet the similar sharp increase in activities, the professional staff dropped from two to one in November 1964 and the third position, which was established July 1964, has remained vacant since that time despite efforts to fill it. The appointment of Dr. T. L. Contreras as Dental Librarian, in September 1965 prevented a threatening crisis. The arrival of Miss Ruth Cordy on the 1st August 1966 to be Assistant Librarian (Technical Services) restores the balance lost two years ago.

Despite such difficulties, and the fact that the Library was moved to temporary quarters in an old house in June 1965 and had to store more than half of its collection, the use of the Library has been increasing. The effects of the new circulation policy established in January 1965 and the growth of the collection are very evident. The 1965/6 local Halifax circulation figures (5,780 books and 13,459 journals) doubled those of 1964/5, while the number of Xerox sheets processed during 1965/66 remained steady at approximately 30,000 despite the location of two new machines in the vicinity during the year.

Apart from campus activities, interest has arisen in the development of useful working collections for the Medical School's five Teaching Hospitals. No longer can one Medical School Library satisfactorily look after the differing requirements and interests in Halifax and the programmes which will result from the new building projects newly launched by several hospitals. Hospital Library Committee Chairmen have evoked considerable interest and planning has been practical. It is hoped that the Hospital Libraries and the Medical-Dental Library will be able to coordinate technical processing and public services eventually.

W. K. Kellogg Health Sciences Library

The Library will occupy the eastern half of the ground floor and all of the second floor of the Sir Charles Tupper Medical Sciences Building. Planned to produce maximum flexibility, should re-planning ever prove necessary at a later date, it provides space for 100,000 volumes and some 150 patrons. Medical students have individual study space provided elsewhere, and there is a 24-hour study room located near the Library. Health Science Faculties have been requested to provide adequate study space for their students in planning their respective new buildings - Dentistry, Nursing, Pharmacy and Physiotherapy.

Necessary wiring ducts and outlets for the use of Telex and IBM Computer have been incorporated in the present plans. Full-time Xerox service, either by manned or coin-operated machines, will be provided. Sufficient space has been provided for the Library's technical and public services to permit the development of coordinated services when the need arises.

Regional Services

There is every intention to develop regional library services to support the Dalhousie Medical School's Continuing Medical Education Programme and the local everyday needs of practitioners throughout the four provinces of the Atlantic Region. Tangible evidence of intent is the W. K. Kellogg Foundation's gift of US \$420,000.00 for the Library's new quarters which will enable it to expand its services as envisioned. No specific time-table yet exists, but there are intimations of things to come.

To be effective, a Regional Service will have to be adequately financed. Unfortunately the present programme permits extra-mural mail service with a minimum of reference service provided. The financing of regional and national health science library services is now under discussion in Ottawa, the outcome of a recommendation that funds should be made available for these purposes.^{3,4} Until such recommendations become a fiscal reality, little other than planning can be done. Eventually, as Hospitals become linked by computer, the possibility of "on line" library service will be introduced. This space-age type of service could well be closer to the medical practitioner than presently anticipated in this locale.

The Library issues its *Selected List of Acquisitions* to forty Hospitals in the Atlantic Region, having originally canvassed eighty to see whether there would be interest in such a list. Arranged by subject, the List provides full bibliographic information for monographs and texts, and the titles of new series and journals which have been added to the collection. By the inclusion of the classification number and price, it is hoped that Hospital Libraries and Library Committees might be able to make practical use of the List locally. Should Lists be cut and accumulated by the subject headings, a subject approach to the Dalhousie Medical collection would also be available.

Although regional use of the Dalhousie Medical Library's collection shows no great increase over previous years by practitioners in Newfoundland and New Brunswick, Prince Edward Island increased its use during 1965, and Nova Scotia shows a healthy growth during the last few years in the number of items borrowed; 1962/3-156; 1963/4-121; 1964/5-354; 1965/6-300. The Library has begun to build a "regional journal collection" from gift journals in order to keep the need for xerox copying to a minimum. Until the Kellogg Library opens this project cannot be developed in a substantial way.

Some attempt has been made to give assistance to Hospital libraries in the Region. A 3-day workshop for the Hospital Library Staffs in St. John's, Newfoundland was held at the request of Miss Carol Tueker who administers the St. John's General Hospital Library. Ten people attended. Such assistance will be given when requested if it is possible to do so. The Medical Librarian took advantage of the 1966 Atlantic Provinces Library Association meeting in Charlottetown, to discuss hospital library services with interested practitioners there, and assistance has been provided recently to the Library Committee of the Fishermen's Memorial Hospital in Lunenburg which is developing a useful library. In turn, Dr. H. Still, Halifax, and Dr. D. E. Lewis, Digby, have represented The Medical Society of Nova Scotia during 1964/5 and 1965/6 on the Medical-Dental Library Committee

and have been interested in the Committee's activities. As time goes on, there is no doubt that Committee Members will become involved in active regional programming.

National Planning

The Deans and Librarians of the Canadian Medical Schools are involved with the national planning which has resulted from the recommendations in Miss B. V. Simon's report on Medical School Libraries³. Dental Schools are becoming increasingly involved also in the project. Eventually, pharmacy, nursing, and other health groups will be included. Discussion now centres around the proper locating and financing of the proposed National Health Sciences Library Resource Centre in Ottawa. It has been recommended that this Centre, which will provide service to all health sciences through their local and regional libraries, should be established as a Division of the National Science Library.⁴ This recommendation was approved on 20 October 1966 at a meeting called by the Association of Canadian Medical Colleges. A request for this service must now go to the Federal Government for approval. No time can be lost because The National Science Library's plans for a new building have reached the final stages.

It is planned that the Centre will house an extensive Bibliographic collection and an Information Retrieval Programme based upon the U.S. National Library of Medicine's MEDLARS tapes. The

extent of its collection is a matter which remains to be decided. When use outgrows the capacity of the Ottawa-based Retrieval programme, regional retrieval projects will come into being. The IBM 360 Computer, which is being established in the Sir Charles Tupper Medical Sciences Building to serve the Dalhousie University and local Hospital needs, will be capable of handling the MEDLARS tapes. In addition, it is hoped that Medical School Libraries can be financed to use Telex for rapid cross-country communication. This will assist with the coordination of collections and Interlibrary Loan Services. If Telex can be correlated with TWX, we will be connected to the American network of library services.

It is now a question of time and funds and determination. □

References

- (1) Fraser, M. D. E., a milestone. *Nova Scotia Medical Bulletin*. 44: 123-124, May, 1965.
- (2) A National Library Resources Centre for the health sciences in Canada; the report of a Committee to the Association of Canadian Medical Colleges and to the Committee on Medical Science Libraries of the Canadian Library Association. [Ottawa] May, 1966.
- (3) Royal Commission on Health Services. Ottawa. Queen's Printer, 1965. Vol. 2, pp 130-131 Recommendation No. 220.
- (4) Royal Commission on Health Services. Medical education in Canada by J. A. MacFarlane and others. [Ottawa, Queen's Printer, 1965] pp. 61-62, 179,241-3.

SCHEDULE OF HOURS

CIRCULATION SERVICES:

Fall - Winter - Spring terms

1-2, 6-10 September 8:30 A.M. - 5:00 P.M.

12th Sept. - 22d Dec. 1966; 4 Jan. - 2d June, 1967

Monday - Friday 8:30 A.M. - 9:00 P.M.

Saturday 8:30 A.M. - 5:00 P.M.

Sunday Closed

21-3, 28-30 December 1966

9:00 A.M. - 5:00 P.M.

XEROX SERVICE

Monday - Friday 1:00 P.M. - 5:00 P.M.

Saturday 1:00 P.M. - 3:00 P.M.

INFORMATION SERVICE

Fall - Winter - Spring

Monday - Wednesday 6:00 P.M. - 9:00 P.M.

Dr. T. L. Contreras - Monday evening

Miss M. D. E. Fraser - Tuesday evening

Miss R. Cordy - Wednesday evening

SUMMER RECESS

Monday - Friday 9:00 A.M. - 5:00 P.M.

Wednesday 9:00 A.M. - 9:00 P.M.

Saturday & Sunday Closed

LIBRARY CLOSED

Labour Day Monday, Sept. 5, 1966

Thanksgiving Day Monday, Oct. 10, 1966

Christmas Weekend Sat.-Tues. Dec. 24-27, '66

New Year's Weekend Monday, Jan. 3, 1967

Good Friday Friday, Mar. 24, 1967

Dominion Day Monday, July 3, 1967

Commonwealth Day Monday, May 22, 1967

Service will be closed during the move into the W. K. Kellogg Health Sciences Library - Probably a period during July.

RESTRICTED SERVICE

Remembrance Day Friday, Nov. 11, 1966

New Year's Weekend Tues. Jan. 4, 1967

Munro Day Friday, Feb. 3, 1967

Easter Weekend Sat.-Mon. Mar. 24-27, '67

40th Dalhousie Refresher Course

November 21st to 24th inclusive, 1966

Chairman: - Dr. J. Fraser Nicholson

Special Visitors: -

- | | |
|-----------------------------|--|
| Dr. Bram Rose | Director, Division of Immunochemistry and Allergy, Royal Victoria Hospital, Montreal, Canada |
| Dr. Percy E. Ireland | Chairman, Department of Otolaryngology, University of Toronto, Toronto, Canada |
| Dr. Alan M. Mann | Department of Psychiatry, McGill University, Montreal |
| Dr. Lloyd D. MacLean | Surgeon-in-Chief, Royal Victoria Hospital, Montreal |
- who will deliver the John Stewart Memorial lecture on the subject: -

"Intensive Care - Past, Present, and Future"

MONDAY

- 8.30 a.m. Registration - Nurses' Residence Auditorium, V. G. Hospital
10.00 a.m. Small Group Clinics (Camp Hill Hospital and Children's Hosp.)
12.30 p.m. Socratic Luncheon: - Camp Hill Hosp.

Afternoon Programme Nurses' Residence, Victoria General Hospital.

- 2.00 p.m. Medicine: - Dr. Bram Rose
"Immunoglobulins in Clinical Medicine"
3.00- 3.30 p.m. Coffee
3.30- 4.15 p.m. Round Table - "Allergies"
Dr. Bram Rose
Dr. P. E. Ireland
Dr. A. M. Mann
Dr. R. S. Grant (Moderator)
4.15- 5.00 p.m. Question Period

TUESDAY

- 9.00-10.30 a.m. Small Group Clinics (V.G. and Grace Hosp.)
11.00-12.30 p.m. Small Group Clinics (V.G. and Grace Hosp.)
12.30 p.m. Socratic Luncheon - Victoria General Hospital

- 2.00 p.m. Surgery: - Dr. Lloyd MacLean
John Stewart Memorial Lecture -
"Intensive Care; Past, Present and Future"
3.00- 3.30 p.m. Coffee
3.30- 4.15 p.m. Short Presentations:
"Office and Out-Patient Surgery"
Dr. L. D. MacLean (Surgical Judgment)
Dr. J. F. L. Woodbury (Joint Injections)
Dr. G. W. Bethune (Surface Surgery)
Dr. F. J. Barton (Moderator)
4.15- 5.00 p.m. Question Period
7.00 p.m. Dalhousie Medical Alumni Dinner and Annual Meeting

WEDNESDAY

- 9.00-10.30 a.m. Small Group Clinics
Halifax Infirmary
11.00-12.30 p.m. Small Group Clinics
(Halifax Infirmary)
12.30 p.m. Socratic Luncheon - Halifax Infirmary

Afternoon Programme Nurses' Residence, Victoria General Hospital.

- 2.00 p.m. E.N.T.: - Dr. Percy Ireland
"Pitfalls in Office Therapy"
3.00- 3.15 p.m. Coffee
3.15 p.m. "Sinusitis"
Dr. A. G. Shane
3.30 p.m. "Hoarseness"
Dr. R. S. Murphy
3.45 p.m. Symposium
"Laboratory Procedures"
Dr. A. J. MacLeod (Moderator)
4.30- 5.00 p.m. Question Period

THURSDAY

- 9.00-10.30 a.m. Small Group Clinics
Children's and Grace Hospitals
11.00-12.30 p.m. Small Group Clinics at (Children's and Grace Hospital)
12.30 p.m. Socratic Luncheon - The Children's Hospital

- 2.00 p.m. Psychiatry: - Dr. Alan Mann
Case Presentations
3.00- 3.30 p.m. Coffee
3.30 p.m. Discussion of Psychophysiological Disturbances
Dr. A. M. Mann and the Audience to participate
Dr. R. O. Jones (Moderator)
8.00 p.m. The Medical Society of Nova Scotia,
Section on General Practice

NOTICE

Section for General Practice

A meeting of the Section for General Practice of The Medical Society of Nova Scotia is to be held on Thursday, Nov. 24, at 8:00 p.m. in the Nurses' Residence Auditorium, Victoria General Hospital.

FORTY YEARS AGO

From the Nova Scotia Medical *Bulletin*
November, 1926.

THE TREATMENT OF TUBERCULOSIS

In the summer I use a simple square lean-to tent about 7 x 8 ft. or 8 x 9 ft. ground space. The rear posts $5\frac{1}{2}$ ft. above the ground, the front posts $7\frac{1}{2}$ ft. which gives good clearance for the head of patient and attendants and sufficient slope to carry off the water. This makes a roomy tent. A foot space is left at the top of the foot wall which is filled with mosquito netting. The duck covering of the roof is long enough to come down over and to cover this space so that it can be closed at night or when the wind blows in too freshly from that direction. At the high side of the tent there is a two foot opening for a door, filled by mosquito netting, to swing inside the tent and a hanging curtain or part of the cotton that forms the wall, to close over at night, (as at the foot). I cover the ground in the tent with spruce or fir boughs as we used to do during our Annual drill at Aldershot. These I change about once a fortnight. This keeps the tent free from dust and fills with a balsamic odour. In the cold weather I have an outside tent made six inches larger at the foot and sides and two

feet larger at the head, so as to make a walk into the door of the inner tent. This hallway prevents winds or storms from blowing directly into the inner tent.

I have taken patients from hot rooms in zero weather, placed them in tents and if their temperature was above $102\frac{2}{3}$ given them a cold sponge bath in the tent night and morning until I got the temperature down.

From a paper by Dr. S. N. Miller, Middleton, N.S.

HAVE YOU MOVED?

Since it takes three weeks to change our mailing lists, members are advised to give us early notice of any change of address. This will ensure continuity of their subscription to **The Bulletin** and enable their Medical Society to give them the best possible service.

As notification of **C.M.A.J.** is not automatic, members are also requested to notify C.M.A. direct. Their address is:

150 St. George Street, Toronto 5, Ontario

the product nobody needs... except

patients on restricted diets those who have faulty absorption convalescents the chronically ill any other patients whose condition predisposes to low vitamin intake or to increased vitamin requirements

Each sugar-coated tablet contains:

Brewer's yeast concentrate . . .	75 mg
Thiamine mononitrate	5 mg
Riboflavin	3 mg
Niacinamide	12.5 mg
Pyridoxine hydrochloride	1 mg
Vitamin B ₁₂	1.5 mcg
Ascorbic acid	100 mg
Vitamin D	500 IU

DOSAGE: For prophylaxis: one or two tablets daily. For therapeutic use: one or two tablets three times daily.

Bottles of 30 and 100 tablets.

BEFORTE[®]
VITAMINS B WITH C AND D TABLETS
to prevent or correct nutritional deficiencies

[®] Registered trade mark



The Mitral Valve

Structure and Function in Health and Disease

Part II

J. H. HALDANE, MD

Halifax, N. S.

Endocarditis:

Gross and Friedberg (1936) recommended the following classification of endocarditis:

1. BACTERIAL
 - a. acute
 - b. subacute
2. NON-BACTERIAL
 - a. rheumatic
 - b. atypical verrucous (Libman Sachs)
 - c. Non-bacterial thrombotic
3. SYPHILITIC

Acute Bacterial Endocarditis

It may occur at any age, 56 per cent in men and 44 per cent in women. It may result from any bacteraemia or septicaemia. It may constitute the principal feature of the disease and because of embolic complications cause death within six weeks.

It may complicate other infections such as pneumonia or osteomyelitis.

Bacteria especially associated with bacterial endocarditis are: - *Haemophilus influenzae*, *Streptococcus viridans*, *Staphylococcus aureus* and *albus*, *Diplococcus pneumoniae*, *haemolytic streptococci*, *meningococci* and *neisseriae gonorrhoea*.

Because of the general use of antibiotics, this type of endocarditis is rarely seen now, but is well documented in the literature. Goldburgh (1942) reported 646 cases in 26,007 autopsies (2½ per cent). Clawson (1941) found 514 cases in 30,265 autopsies (1.7 per cent).

Acute Bacterial Endocarditis is characterized by vegetations, yellow red or yellow grey, which may vary in size and shape, from 2 cm to 4 cm, and situated usually along the line of closure of the mitral valve but may be present anywhere on the valve. The more superficial portion of the vegetation is soft and breaks off easily. Portions of the valves become necrotic, slough off and leave ulcers, which may perforate the leaflet. The adjacent endocardium is red and swollen.

Allan stated that in 50 per cent of cases there was a pre-existing valve deformity. The vegetation on the mitral valve are on the atrial aspect and may involve the atrial wall, chordae tendineae and papillary muscles, sometimes causing rupture of the latter.

Histology

The vegetations consist mainly of fibrin, with platelets, red cells and clumps of bacteria. The living endothelial cells of the valve become necrotic and disappear.

Subacute Bacterial Endocarditis.

Endocarditis Lente

It occurs at any age, more commonly in third and fourth decade and more commonly in males in the ratio two to one. The mitral valve is most often affected. The disease has a slow, protracted course, with persistent pyrexia.

Moore (1951) said the *Streptococcus viridans* was the cause in 95 per cent of his cases. Seabury (1947) recovered the *Streptococcus viridans* in blood culture in 80 per cent of cases.

The most frequent preceding disease is rheumatic fever and the valve is already deformed. In 10 per cent of cases there is a congenital lesion.

In Blount's series of 89 cases in 11 years in Carolina the average duration of symptoms before diagnosis was 2.2 months.

The gross appearance of the valves is characteristic. The vegetations, grey or yellow in color, vermiform in appearance, are large but not massive and extend on to the mural endocardium with minute ulcerations, never large ones. Adhesions between leaflets may be found and sometimes tearing of leaflets, which always show evidence of an older endocarditis in the form of thickening of free margins, rolled edges or moderate retraction of cusps.

Histologically the first change is probably swelling of the endothelial cells close to the line of closure. The nuclei disappear and cells become necrotic. In the subendothelial layers oval cells with vesicular nuclei appear with a palisade formation, the long axis being perpendicular to the free margin of the valve. The palisading of cells is characteristic. Giant cells may be found in the necrotic parts of the vegetation or valves. These may be foreign body giant cells.

Subacute bacterial endocarditis has never been produced in an experimental animal, but it is not difficult to produce acute bacterial endocarditis experimentally.

Rheumatic Valvulitis

Clawson (1945) reported that of the 780 cases of rheumatic heart disease in which the valves were affected, there was involvement of the aortic or mitral valve or both in 99.8 per cent. In only 5.6 per cent were the valves on the right side of the heart affected, and in all of these except one, the aortic or mitral valves were also affected.

According to Gross and Friedberg (1936) histologic examination discloses evidence of inflammation in the tricuspid valve as frequently as in the mitral and aortic.

Disease of the mitral valve is more common in females in the ratio 3 to 2.

The most conspicuous lesions in the early stage of valvular inflammation are the tiny translucent nodules or verrucae which form along the lines of closure on contact. They vary in size from 1mm to 3mm and are located on the atrial side of the mitral valve. Later the nodules become opaque and warty. They are firm and not easily dislodged. They may be arranged in a row or in clusters, sometimes fusing to form a ridge. They may be found on the chordae but rarely on the papillary muscles. They may extend on to the mural endocardium. Sometimes the valves are diffusely thickened with slight vascularization of the atrial surface.

Histology

A non-specific inflammatory process consisting of oedema, increased capillaries, lymphocytes and polymorphs, affects the entire valve, including the ring. Plasma cells, fibroblasts and macrophages may be present in variable numbers.

A specific inflammatory process consists of proliferation of Aschoff cells, large cells resembling young fibroblasts. These may be arranged in nodules or in rows surrounding foci of eosinophilic fragmented collagen. This is the fibrinoid swelling of the connective tissue which may go on to degeneration and necrosis. The proliferative stage follows and consists largely of collections of large Aschoff cells. They may occur singly or after fusion as multi nucleated giant cells. Sometimes

the proliferating cells are found perpendicular to the altered collagen in a palisaded arrangement.

The verrucae appear as an extruded portion of collagen which has undergone fibrinoid degeneration. There is marked proliferation of fibroblasts in the region around the vegetation, as well as oedema and lymphocytes.

Hatfield and Garrad (1947) pointed out that the mitral valve closed against the highest pressure exerted anywhere in the circulatory system. The impact of its surfaces and the mutual compression of these surfaces during systole constitute a degree of mechanical trauma which although sustained without injury by a healthy endocardium is sufficient to cause a breach of the surface when an inflammatory process lies beneath it. The superficial destruction occurs along the line of closure and along this line extensions of collagen occur and platelet thrombi may be deposited. On the other hand, the healing of acute rheumatic endocarditis may leave no grossly demonstrable defect in the form of function of the mitral valve.

Libman Sachs Syndrome

Atypical verrucous endocarditis. 1924.

In this condition there are valvular and mural vegetations, free from micro-organisms, and blood cultures are sterile.

On the mitral valve the vegetations are mainly on the line of closure but also involve the free margin. Each verruca measures 1 to 4 mm. Microscopically the vegetations were capped by blood platelet thrombi showing various degree of hyaline change. In the deeper layers there were focal or diffuse cellular infiltrations mainly of round cells, with small haemorrhages. In some cases the valves showed diffuse fibrous thickening. Gross (1940) found 27 hearts with this type of endocarditis, 23 of which were due to acute disseminated lupus erythematosus. He found lesions on the mitral valve in 11 cases.

Non Bacterial Thrombotic Endocarditis

Also known as terminal endocarditis and endocarditis simplex. Gross and Friedberg (1936) reported 47 cases, 32 of which had cachectic and infectious diseases associated with chronically deformed valves, usually of rheumatic origin. The most striking and characteristic macroscopic feature is the presence of vegetations which are larger than those seen in rheumatic endocarditis. They do not involve the mural endocardium but are seen as yellow confluent deposits, firmly attached at the line of closure of a thickened valve. The mitral valve is most commonly affected. Microscopically the vegetations consisted of agglutinated blood platelet thrombi, with early evidence of organization. There is an absence of inflammatory cells.

Syphilis of the Mitral Valve

Blackman (1935) stated that the syphilitic lesions of the mitral valve have rarely been described. He reported two cases where the syphilitic lesion at the root of the aorta and aortic cusps has spread to the membranous septum of the heart and the aortic leaf of the mitral valve. Grossly the lesions consisted of a diffuse leathery thickening of these areas. Microscopically, gummatous necrosis or dense vascular scars with perivascular round cell infiltration were found.

Mitral Stenosis:

Is nearly always due to Rheumatic fever but there may be no history of it in 40 per cent of cases. The thickening fusion and fibrous nature of chronic rheumatic valvulitis is due in part to intrinsic changes occurring within the substance of the valve and in part to the organization of vegetations and exudate on the surface of the leaflets, especially over the areas of contact during ventricular systole. The exudate becomes thick at the angles formed by the junction of the leaflets. In more severe cases exudate may envelope the chordae and the papillary muscles like a coating of ice. Invasion by fibroblasts converts this exudate into a thin coating of fibrous connective tissue, which gradually leads to the formation of successive layers of scar tissue upon the valve and to more extensive subvalvular alterations.

The chordae tendineae may become clumped into cable-like structures by the enveloping scar tissue. According to Brock (1952) the organization of sheets of fibrin which may extend from the free margin of the leaflets over the mesh of attaching chordae can cause a lengthening of the leaflets with consequent apparent shortening of the chordae.

In 39 per cent of cases of mitral stenosis, which may take a minimum of two years to develop following a rheumatic infection, calcific changes become superimposed.

The increased intra atrial pressure resulting from the valvular obstruction is transmitted through the valveless pulmonary veins to the pulmonary capillaries. Medial thickening and internal hyperplasia is followed by adventitial and medial fibrosis, and finally by irreversible lumen obliteration or thrombosis. The earlier vascular changes may undergo resolution if effective surgical relief of the valvular obstruction is given.

Reactive pulmonary hypertension may appear quite suddenly in mitral stenosis and the murmur of the latter may be obscured by the reduced cardiac output, and by the posterior position of the atrium made more posterior by the enlarged right ventricle and right atrium. Kerley's lines may be seen on X-ray of the chest, pointing to an increased amount of fluid in the lungs. Death may occur

within two years if the stenosis is not relieved. This type of patient may be thought to have primary pulmonary hypertension.

Lutenbacher's Syndrome

Is the combination of mitral stenosis and atrial septal defect. It produces greater right ventricular hypertrophy and greater dilatation of the pulmonary trunk than either lesion by itself. There is no left atrial enlargement but the rumbling mid diastolic or filling murmur may be heard at the apex.

Function in Mitral Stenosis

The narrowed opening interferes with blood passing from the left atrium to the ventricle and gives rise to a low pitched rumbling murmur. A murmur is defined as a series of vibrations lasting 0.10 seconds or more. This is heard during the period of rapid ventricular filling in mid diastole and is accentuated as a crescendo murmur in late diastole and during atrial systole when a second rush of blood from the atrium to the ventricle occurs. This atrial component disappears in auricular fibrillation. The mid-diastolic murmur is heard best in the apical region when the patient is lying on his left side, and is accentuated by exercise or other factors which increase the cardiac output.

The first sound is accentuated, giving rise to a snapping sound. This change in character may be noticed even in the absence of murmurs. This is because the left ventricle contracts when there is forward flow across the mitral orifice.

A third sound called the opening snap may be heard at the apex or to the left of the sternum in the fourth interspace, even in the absence of murmurs. The average $A_2 - O.S.$ interval is 0.06 to 0.10 seconds.

With normal or high flow, filling murmurs may be loud when stenosis is slight. A high degree of obstruction may cause a faint or even no rumble if cardiac output is sufficiently reduced. When stenosis is marked, ventricular filling is prolonged. The duration of the murmur is more reliable than the intensity as an index of the degree of narrowing.

Very high rates of flow may cause loud but brief filling rumbles despite normal mitral cusps. This may be seen in patients with patent ductus.

Patients with aortic insufficiency, in the presence of normal mitral cusps may have a diastolic mitral rumble. This is called the Austin Flint murmur. It is probably due to vibration of the aortic cusp of the mitral valve caused by the abnormal stream of blood from the insufficient aortic valve.

A faint diastolic murmur known as Coomb's murmur may be heard in a patient with acute rheumatic fever, and then disappears. This murmur is probably due to oedema of the mitral cusps.

Because of resistance to emptying the atrium becomes distended and hypertrophied, and the atrial pressure is elevated, 20-30 mm Hg at rest, increasing to 40 mm Hg with exercise. This causes an increase in pulmonary capillary and pulmonary artery pressure, pulmonary oedema and ultimately to right ventricular hypertrophy. Cardiac output is below normal at rest perhaps 2.3 L/min/Sq m, and fails to rise normally with exercise. The arteriovenous difference in oxygen concentration is elevated at rest and increases abnormally with exercise. Recurrent haemoptysis due to the development of anastomotic channels between the pulmonary and bronchial veins, is common.

The longstanding congestion due to mitral stenosis causes extensive haemosiderosis and a pulmonary state resembling pneumoconiosis. There may be chronic bronchitis aggravated by minor respiratory infections. When pulmonary hypertension is present severe pain-like angina may occur, Thrombi occur in 25 per cent of patients with mitral stenosis, chiefly in association with atrial fibrillation.

E.K.G. May show right axis deviation and a bifid P mitrale.

X-Ray

X-ray of the heart shows well marked enlargement of the left atrial shadow which in the oblique position may displace the barium filled oesophagus. The left ventricle is usually not enlarged except in heart failure. The left atrial appendage is enlarged and the left pulmonary artery may be enlarged.

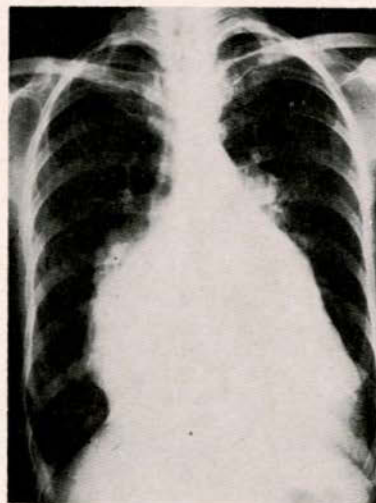


Fig. 1. PA view of chest showing "Mitral" appearance of heart.

Calcification of the mitral valve may be seen in 20 per cent of cases. 20 per cent develop small dense opacities in the lower lung fields - these are small ossifications in alveolar spaces. There is relative narrowing of the lower lung field veins and arteries. The pulmonary vasculature in the upper lung fields becomes dilated and there is enlargement of the hilar vascular shadows.

Left atrial pressure can be measured by:

- 1 Passing a catheter into right atrium and then through a patent foramen ovale or septal defect, or by transseptal puncture, into left atrium.
- 2 Retrograde catheterization of the femoral artery, aorta and left ventricle.
- 3 Trans bronchial needling.
- 4 By a needle passed trans thoracically using a right paravertebral approach.

Pressure curves can be taken and gradients measured across the mitral valve. Left atrial pressure is increased in mitral stenosis and mitral insufficiency, from the normal 5-13 mm Hg to perhaps 30 mm Hg or more.

Blood flow is an important factor. Without its measurement the significance of a small pressure gradient could be grossly underestimated in the presence of low cardiac output. In one case (Zimmerman) the left atrial mean pressure was 10 mm. Hg. with a mitral valve area of 1 sq. cm.

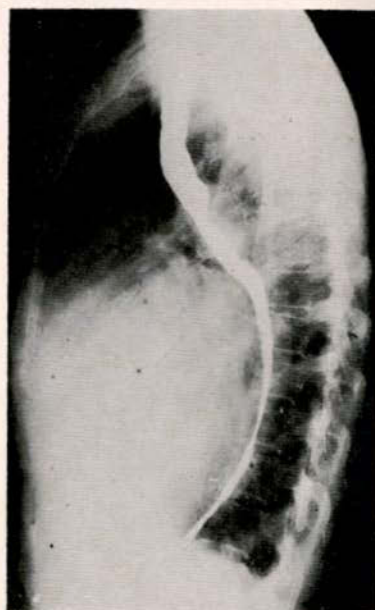


Fig. 2. Lateral view of same patient showing deviation of oesophagus.

Valve Area:

The normal mitral valve area is 5 sq. cms. (Lewis). Lewis in 1952 found that clinical disability was associated with a valve area less than 1.2 sq. cms. He used the following Toncelli formula to calculate the valve area.

$$MVA = \frac{MVf (=CO)}{\frac{DEP}{31} - \frac{C O}{39}} = \frac{4,200 \text{ cc/min}}{\frac{39 \text{ sec/min}}{31} - \frac{108}{31}} = 0.9 \text{ sq. cms.}$$

19-5

MVf = Mitral valve flow
CO = Cardiac output cc/min.
DEP = Diastolic filling period, sec/min
LA_m = Left atrial mean pressure
LV_{md} = Left ventricle mean diastolic pressure = 5 mm. hg. (assumed)

This formula is not accurate if there is significant mitral regurgitation or left ventricle failure.

Mitral disease has also been evaluated by means of curves showing concentration of radio potassium obtained by a catheter inserted into the femoral artery (Corsa 1957).

Ultra Sound Cardiogram

In 1954 Herz and Edler first introduced the echo ranging technique to record cardiac motion with a stationary send-receive transducer, which is applied at the 3rd or 4th interspace, 1 to 4 cm. lateral to the border of the sternum. They produced tracings which reflected motion of the anterior leaflet of the mitral valve, in normal hearts, in cases of mitral stenosis and in mitral regurgitation.

Mitral Insufficiency

In 1832 Hope observed that mitral insufficiency was associated with a cardiac murmur with systolic timing.

This is often combined with an element of mitral stenosis. There may be pure stenosis, pure regurgitation, predominant stenosis with mitral incompetence, or predominant mitral insufficiency with less significant stenosis, or equal degrees of involvement.

Mitral insufficiency may develop suddenly as a result of rupture of a papillary muscle which is involved by infarction. When this occurs there is associated chest pain and shock with a harsh systolic murmur heard all over the praecordium.

Apart from post traumatic cases there are two types of mitral regurgitation.

- 1 Congenital deformity of the valve.
- 2 Shortening or retraction of the mitral leaflet.

During ventricular systole blood is regurgitated into the atrium. During ventricular diastole, this volume of blood is added to the venous blood normally returned, thus increasing the ventricular diastolic size and tension. The greater volume of blood in the atrium leads to atrial dilatation and

hypertrophy. A huge left atrium always signifies marked regurgitation.

The flow of blood from ventricle to atrium through the narrow orifice into the larger atrial space gives rise to a blowing systolic murmur of medium pitch which is usually transmitted well out into the axilla, but may be radiated to the left sternal border, to the inferior angle of the left scapula and to the vertebral column. The murmur may be early, mid or late systolic, or be pan systolic. The second sound is widely split in many cases of mitral insufficiency, the average expiratory asynchrony being 0.048 secs. and the inspiratory asynchrony being 0.071 secs. This is due to early closure of the aortic valve associated with decreased duration of left ventricular systole.

The best method of establishing the degree of regurgitation is by injecting radio opaque dyes into the left ventricle, a method developed by Beato Nunez and Ponadomenach in 1951.

The late systolic murmur, frequent in patients with coronary disease, is probably due to mitral regurgitation resulting from distortion of ischaemic papillary muscles.

With tricuspid insufficiency there is a significant inspiratory augmentation of the systolic murmur, heard only in the 3rd and 4th left interspace at the sternal border. This does not occur with mitral insufficiency, there being no change in the murmur with phases of respiration.

Leon found that at the time of inspiration the right atrial V wave increases in amplitude reflecting increased regurgitant flow. In the left atrium the V wave is not altered by inspiration.

The distinction between mitral insufficiency and aortic stenosis which sometimes produces a murmur loudest at the apex, may be difficult. The phonocardiogram shows that the murmur begins before ejection and this is against aortic stenosis.

The leftward transmission of the murmur of mitral regurgitation differentiates it from that of ventricular septal defect which has a pansystolic harsh murmur, usually with a thrill.

In mitral regurgitation Draper (1951) found that cardiac output may not increase adequately with exercise. The arteriovenous oxygen concentration difference was increased at rest and greatly increased with exercise.

Rogers et al, New York, used a new diagnostic method incorporating cinefluorography of the heart with synchronized cardiac sounds to study mitral disease. Due to the proximity of the oesophagus to the left atrium events in the latter can be interpreted from pulses picked up by the oesophageal stethoscope, which is connected to two transducers, one to measure pressure and one to record sounds. Since the murmur of mitral regurgitation radiates dorsally, they claimed to be able to identify and assess a regurgitant murmur

which could be missed by auscultation on the chest wall.

Tumours

The Ball valve thrombosis is rare. It may be free floating or pedunculated. It is found most frequently in the left atrium in the presence of mitral stenosis, and is a constant impediment to filling. It may completely occlude the mitral opening, causing sudden attacks of syncope, or decrease the cardiac output, with marked feebleness of the pulse.

Myxoma of the left atrium may produce signs of mitral stenosis. Acute attacks of pulmonary oedema have occurred from obstruction of the mitral orifice by a pedunculated myxoma. This may be relieved by change in posture.

Endocardial tumours are recorded more frequently than all other primary heart tumours. They arise in the region of the mural or valvular endocardium. They are described as myxomas or organized thrombi. They vary in size from 0.5 cm. to 8 cm.

Almost all the recorded fibromas have been located on heart valves. Lambe in 1856 described villous, tassel shaped excrescences on the free border of the valves.

Margarey (1949) examined the mitral valve in 280 autopsies. He found Lambe's excrescences in 85 per cent and found their incidence increased with age. He believed that they were a manifestation of wear and tear, and part of the normal ageing process of the valve.

Tumour implantation upon the mural endocardium or valvular endocardium is very rare. Cobler (1953) reported vegetative growths on the tricuspid and mitral valves in a case of bronchogenic carcinoma.

Rarely simple epithelial cysts may be found on the papillary muscles.

Telangiectases are often found on the heart valves of new born infants, mainly the mitral and tricuspid valves. The cysts are about 1 mm in size.

Fatty Degeneration

Of the valvular endocardium occurs in the form of white and yellow plaques on the atrial aspect of the mitral valve, usually at or near the base, and is often associated with calcification. Microscopically numerous cells are filled with fine fat droplets which lie between the connective tissue cells. Calcium may be present. These lesions are common in old people but may be seen in children and young adults who have died from anaemia, intoxication or infection.

Summary

The embryology of the heart is reviewed with special emphasis on the atrioventricular canal and mitral valve. The normal structure of the mitral valve is described and also its normal function as found by clinical examination, fluoroscopy, electrocardiogram, fluorocardiogram and cardiac catheterization.

Congenital defects affecting the mitral valve are noted, followed by Gross and Friedberg's classification of endocarditis. The various forms of endocarditis are discussed, with their gross and histological pictures.

The structural changes in mitral stenosis and mitral incompetence are described with their effect on function.

Tumours and degeneration affecting the mitral valve are noted.

CONCLUSION

"What a piece of work is a man!
In form and moving how express and admirable!
In action how like an angel!"

These words of Shakespeare could well apply to the structure and function of the healthy mitral valve. With disease the picture changes. The noisy, pan systolic cum diastolic incompetent stenotic calcific valve becomes the symbol of heart disease, perhaps a reminder of the fact that we were made a little lower than the angels.

I end with the cardiologist's prayer:
- two lines taken from a hymn written by Anne Steele in 1760.

"Give me a calm and thankful heart,
From every murmur free." □

Bibliography

1. Embryology Gould's Textbook of Pathology.
2. Pathology Gould's Textbook of Pathology.
3. Physiology Samson Wright's Textbook of Physiology.

FOR SALE

Office examining and operating table.
Leather covered sponge-rubber cushion.
Electric automatic office sterilizer 16 ins.
Baby weighing scale.
Adjustable screen.
Large baby dressing table.
Apply Box 500
Nova Scotia Medical Bulletin.

The Value of Medical Evidence

The following is a shortened transcript of the Medical Legal Panel Discussion which took place at the summer meeting of The Nova Scotia Medical Association, Digby Pines, Nova Scotia, July 4, 1966.

CHAIRMAN:

This panel discussion today has two sponsors. One is the Medical Legal Liaison Committee of The Medical Society of Nova Scotia and the Nova Scotia Barristers' Society which was formed in 1963 under aegis of these two societies largely through the efforts of our President, Dr. Griffiths, and Mr. Kanigsberg who was the President of the Barristers' Society at that time.

In February 1964, it sponsored a panel discussion at the refresher course of the Nova Scotia Barristers' Society on the subjects of "Preparation of a Case for Trial" and "Relationship Between the Doctors and the Lawyers", which was a great success. It was felt that the next time we had a suitable meeting of the Medical Society we would invite two lawyers to come and join us in a second panel discussion. So this is a return engagement with the lawyers.

Amongst other things, our Liaison Committee has resurrected the Medical Legal Society of Nova Scotia and this is our second sponsor today. This Society has been reformed for the study of matters of common interest to members of the medical and legal professions, the presentation of papers, the conduction of research into medical-legal matters, the promotion of improvement in the administration of justice, and participation in cultural and recreational activities. Membership in the Medical Legal Society is open to practising physicians and barristers and also to persons of professorial rank in the universities who have an interest in medical-legal matters. The lawyers have been enthusiastic in their membership, but doctors up to now have been somewhat lukewarm. I bring the matter before you again today so that I can extend an invitation to you to join us in our meetings.

Today, at our return engagement with the lawyers, we are going to discuss the "Value of Medi-

cal Evidence". Before we can discuss this matter however we must know what the Law means by the term "Evidence" and whether there are specific features of Medical Evidence which set it apart from Common Evidence. Perhaps Mr. Kanigsberg would clarify these matters for us?

MR. KANIGSBURG:

Thank you Dr. Maxwell. Ladies and gentlemen: Since lawyers were never known to give a definite answer to any legal problem, but always say that the matter is fraught with great perplexity, I will try and do my best with the topic you have assigned me.

Doctors seem to think that lawyers are always out to get them, and as a matter of fact one of the doctors greeted me this morning as "you are the ones who fry us all the time". This is not true, we are not members of the Friar's Club. I trust that I can dispel this idea in my remarks this morning as a representative of "the Pleaders" appearing before "the Bleeders".

First of all I would like to say that it is not generally known that apart from the police, no profession appears on the witness stand as frequently as do the medical men, yet I have found that doctors often make the worst witnesses. There is no question that doctors do not realize their legal rights. In Nova Scotia particularly, doctors are regarded as the spoiled babies of the courts, and are given every consideration, by both the Bench and Bar. We, as Barristers, almost always change the normal procedure of a case where you call the Plaintiff first and interrupt the natural sequence of witnesses and take the doctor as soon as he appears in Court. We also contact the doctor in advance and arrange a time convenient to him. I am also glad to say that we have not reached the stage in our province where we pit one expert against the other, but we try to let

*This panel discussion was sponsored jointly by the Medical Legal Society of Nova Scotia and the joint Medical Legal Liaison Committee of The Medical Society of Nova Scotia and the Nova Scotia Barristers' Society.

Members of the panel: Dr. S. B. Bird, Liverpool, Nova Scotia
Dr. R. O. Jones, Halifax, Nova Scotia
R. A. Kanigsberg, Esq., Q.C., Halifax, Nova Scotia
K. M. Matthews, Esq., Q.C., Truro, Nova Scotia

*Chairman: Dr. Ian Maxwell, Halifax, Nova Scotia

the doctors give their evidence to the Court with all fairness. One of the troubles, however, is that some doctors try to become advocates instead of doctors and they try then to argue the case instead of merely confining themselves to the facts.

I remember a few years ago where a doctor, during the intermission of the court case, gave up his dinner to observe one of the Plaintiffs, and then came back to Court and took the witness stand to say that he saw him running across the street, to disprove that he couldn't walk well.

Doctors are not bound by the ordinary rules of evidence that apply to others, but are permitted to give what is known as hearsay evidence, whereas no other witness is permitted to do so. A case of hearsay evidence would be if a patient comes to you and tells you that he or she received the injuries in an accident. A person other than the doctor would not be permitted to give this version to the Court, but a doctor is. A doctor can say that when he examined this patient immediately after the accident she told me that she had a pain here or there or was hurt or all sorts of things which would strictly be ruled out if given by any one else.

On the other hand, doctors are not permitted to plead privileged communication - anything told to a doctor, even though confidential must be divulged to the Court if asked by opposing counsel. This doctrine of privileged communication does apply to lawyers, but does not apply to doctors. In the famous Duchess of Kingston case reported in 1792, a woman confided to her doctor that when she married for the second time, she had really never been previously divorced yet, and on the stand the doctor was compelled to disclose this fact. Oddly enough, if the lawyer received this information from the doctor he would not be compelled to disclose this information to the Court and could plead privileged communication, but the doctor cannot do so.

Another point that I would like to make is that whilst there is great co-operation between lawyers for the examination of the injured party by a doctor - and this is usually done on the understanding that both lawyers will get a copy of the medical report - nevertheless, in this Province, a patient does not have to undergo such medical examination unless she wants to. I might apply to the Court to try and obtain an Order to compel a medical examination, but I doubt if the Court would grant it. But the practise has grown up here that we do co-operate in this regard to a great extent.

This, Mr. Chairman, is really only the beginning of the story but, as lawyers are associated in the popular mind with Briefs, I have attempted to be brief. If I have left any points unclear perhaps I shall have the opportunity to clarify them in the Question Period. Thank you.

CHAIRMAN:

Thank you very much indeed Mr. Kanigsberg. Mr. Kanigsberg has told us that we must not be advocates. I am sure he would be the first to admit that the matter is not quite that simple and that it often depends on the view point of Counsel. The law proscribes that we should be advocates, but Counsel who calls us often demands it of us. We are required when we go on the stand, to swear that we tell The Truth, The Whole Truth and Nothing But the Truth. Any doctor who has had to swear this oath must have been impressed by the fact that the lawyers frequently do not allow him to tell the whole truth. They ask him to tell the truth but only the limited truth they wish aired. For many years the problem existed whereby medical evidence was called by both sides in Criminal or Civil Proceedings and doctors were on the two sides of the case, both of them perhaps agreeing on the findings, with each of them only being able to tell one side of the case. Certainly in criminal proceedings it used to be very common for each side to call its own psychiatrist, one of whom was trying to show that the accused was as mad as a hatter and could not possibly have been responsible for his actions; the other trying to show that he was as sound as a bell. This is a problem that Dr. Jones must have had to face many times.

DR. JONES:

Mr. Chairman, Ladies and Gentlemen: I think Dr. Maxwell has already pointed out that many of the problems of Medical Evidence are highlighted in the question of psychiatric evidence. We have the battle of the experts, we have the complaints of our legal friends that psychiatric evidence is extremely vague and confusing, and I think that these are reasonable charges. I think also, they're inevitable charges and ones that are probably going to remain for a long while. They spring to a very considerable extent from certain differences in attitudes between law and medicine in general and psychiatry in particular and I would just like to mention two or three of these differences that I think are important.

The first one is that the doctor goes into Court to give evidence as Dr. Maxwell has said, with the idea that he is there to help the Court find the truth. Now the Court as personified by the judge, may be interested in the truth, but the lawyer is not really interested in the truth. He is there as an advocate. He is there to defend or to prosecute, this is his job and this is what he is supposed to do. The young doctor arrives into Court like Sir Galahad on a white steed prepared to help with the truth and as Dr. Maxwell has said, is very soon cut down at the knees and finds that any truth which is against the lawyer that is examining him is kept in the background as much as possible.

The atmosphere of the scientific laboratory is not the atmosphere of the Court Room. The Court Room operates in the adversary kind of atmosphere where one person should emerge the winner. I might say that I think this is a valuable thing, and if I ever kill somebody and have Mr. Kanigsberg defend me I hope he will pull every stop he can in my defense and not worry too much about getting at the truth.

The second thing is that the doctor comes into Court from a background in which he is considered an expert. By and large his environment is that of his office, the hospital and the clinic. If the doctor in the hospital, when he looks out the window and sees that the sun is shining brightly, says "my goodness, it's a terrible rain storm", the chief nurse says, "Yes, it's raining hard, doctor"; this goes on all the way down to the janitor. Everybody says it's raining hard. So he comes in feeling that what he says is gospel and nobody should challenge it. He finds in Court that everything he says is challenged, that nobody seems to have any faith in his validity and not only do they challenge it but they challenge it in a way which is often imputing motives to him that aren't very honourable. This is entirely a new kind of situation that puts his back up right off the bat. After one or two such experiences he is likely to say - "Well, I just hope I never get to Court again because this is the way I am treated".

Thirdly, in psychiatry in particular, there are special difficulties because the law is very apt to see things in terms of black or white. You are either normal or you are crazy - you are either right or you are wrong. Human behaviour really isn't of this kind. If you think of the person who is sitting next to you in this audience and try to describe what sort of man he is, you will find that description is a mixed one.

They've got some good traits, they have some bad traits; there are things they do that look awfully crazy to you, other things that are highly normal because they are the same things you do. You don't get a black and white picture of ultimate good or ultimate bad, but in Court you have just this simple division. Things are either right or wrong, a person is responsible or he's not responsible and there are no shades of grey. Human behaviour is constantly made up with shades of grey.

The fourth thing is that the lawyer relies on the past all the time. You note Mr. Kanigsberg quoted a case from 1793. If it's 1793 that makes it twice as valuable as 1893 and any prognostication of what is going to happen in 1993 does not have any place in Court at all. The medical procedure of experimentation, of change with new facts, is something that doesn't apply to the law. The older a precedent is and the less knowledge there was when it was originally defined makes it all the more valuable as far as the lawyer is concerned. So you get

all these differences which are constantly bringing up antagonisms and opposition between the law and medicine in general and psychiatry in particular.

Now in psychiatry too, there are a couple of other things that make giving evidence difficult. One is this business of privileged communication. If a patient goes to a physician and gives his history, we ordinarily look upon this as privileged within our own bounds of ethics at any rate. If you have to give a history about a fracture it may be a little embarrassing to say, "Well, the guy really was drunk when he fell down and broke his leg, but it's too bad." When you get into the psychiatric field, however, you begin to be concerned about how this person felt about this, that, and the other thing. It becomes very difficult.

The matter of privileged communication, Mr. Kanigsberg said, has been raised in the American Courts and within the last year, I believe, psychiatric information has been held privileged in the Ontario Courts; this makes added difficulty.

The final thing is; the doctor in general, and I think the psychiatrist in particular, is always sensitive as to what he is saying may do to the patient who is in the Court. What does it do to a person sitting there to hear a physician get up and describe all his feelings, his abnormalities, his perversions and things of this kind? It puts the doctor in a very difficult position to talk about intimate information with the patient sitting there, with other people sitting there, and so on. I know that there are ways of getting around this by getting to the judge's chambers and so on, but this does make for very considerable difficulty.

Now, if I may just take the question of the defensive responsibility to point out that even in the law things are not as black and white as they are often said to be. You will remember, and I certainly hope any old Dalhousie students will remember, that we don't operate in Canada in terms of the McNaghten rules. We changed the McNaghten rules in the late 1800's and we substituted "to know the nature and quality of the act, to appreciate the nature and quality of the act". That means you have to define the word 'appreciate'. The McRuer Commission wrote about ten pages trying to define 'appreciate'. I sat through all the discussions and I still find it an exceedingly difficult word to define. Then you come to the latter part of the test of responsibility where it says "and know that it is wrong". I think my legal friends will confirm that the lawyers don't really know what they mean when they say wrong. In different parts of the British Empire wrong means in one case "against the law", and in other cases it means "morally wrong", and this is open to interpretation. So I feel that the lawyers are sometimes demanding a little more of the doctor when they demand exactness than they are willing to give themselves.

Finally, I have already mentioned this question of having to decide with loose words like "appreciate" and "wrong" that aren't defined, whether the person is responsible or not. And again if you hark back to last evening I would suggest that there were many of you who were very responsible citizens at 7 o'clock, whose responsibility had diminished quite considerably by midnight. Yet in the eyes of the Law there is this utter cut off point; it must be one or the other.

CHAIRMAN:

Thank you Dr. Jones. Our prime subject today is the Value of Medical Evidence. Medical Evidence can have positive or a negative value and anybody who has read the popular press material on the Stephen Truscott Case will certainly question in his mind whether perhaps medical evidence of debatable validity, given in a firm voice, the voice of God, may not have a negative value in the furtherance of Justice. Again, not only may medical evidence have positive or negative values but there may be good and bad medical evidence; that is, valuable evidence may be given badly. I am going to ask Mr. Matthews to give us some advice from the point of view of the lawyer as to what constitutes good and bad medical evidence and what are the common faults of doctors.

MR. MATTHEWS:

Mr. Chairman, ladies and gentlemen: I was interested to hear the remarks of Dr. Jones in respect to responsibility, especially in the light of your introductory remarks. Dr. Jones spoke mainly as to the Criminal Law when he said that past is so important in law. Although precedents are important in civil cases, it is my view that our courts have been much more rigid in interpreting precedents in criminal cases than in civil cases. In criminal cases, certain rules have been set down many years ago in respect to the medical aspect of criminal cases and sometimes have been slavishly followed.

Now, Mr. Chairman, in addition to the two matters you have asked me to cover, there is one other subject that you previously asked me to speak on, namely some of the basic differences between examination and cross-examination: there is a great difference between these two.

First of all, as you probably all know, those of you who have been in Court and even those of you who have been adulterated by watching television, or seeing American movies on the subject, that examination is the claimants' ease (in a civil case). Cross-examination is when the defendant's solicitor takes over and then cross examines you on the evidence which has been brought out by the solicitor for the plaintiff (who is the claimant in the action).

Now you as a medical witness are called basically to give your diagnosis and prognosis of an injury, and the findings which you have made. It is important, I would suggest to you, that you remember that if I am acting for the claimant, your

patient, in this respect, is my client. I believe that it is my duty to you and my duty to my client to have a pre-trial discussion with you in order that I may discover what you will say to the questions which I will put to you. Dr. Maxwell spoke of "the truth and the whole truth" and as has been said now by all three speakers, this is an adversary system. My duty is to bring out these points which will best suit my client, your patient, in order that those facts be brought before the court. But there is a far greater duty upon me when in direct examination to bring out the whole truth, than that which is my duty when I cross-examine you.

When I am on the other side and acting for the defendant, and cross-examining, then I only bring out those pertinent details which will best suit my client's case; this is basically because it is an adversary system. I only have a duty to put to you those questions which will test you to find out whether you are or are not sound in your opinion as to the diagnosis and prognosis.

Direct examination I would suggest to you should flow smoothly and that is why it is important to have a pre-trial discussion so that we know the different phraseology that you and I use, and that we both understand it. It is I hope, for the most part, conducted in a reasonably straight-forward manner and in somewhat of a logical sequence.

Cross-examination on the other hand is not conducted in what by-standers would think to be a logical sequence, because as I said before it is a testing process. The cross-examiner will both figuratively and literally jump from head to toe because this again is testing. A person, as you well know, can tell a story smoothly in direct examination but especially if his opinion is not all that sound, he may be less convincing if the cross-examiner moves here and there in his questioning.

Now, I want to stress to you that cross-examination to be effective need not be cross even though some of you who have been cross-examined by my learned friend Mr. Kanisberg, probably think otherwise. But for the most part cross-examination of a professional witness in my opinion is most effective when it is conducted in a calm manner. There are some people with whom one must get perhaps a little rough in order to get the truth from them, but as has been said before by both Dr. Jones and Mr. Kanisberg, you as doctors are not part of the adversary system even though it is most difficult not to be an adversary on behalf of your patient.

You may have seen the patient for years, perhaps he may even be a friend of yours. It is most difficult for you not to defend and become part of the process. May I suggest to you that you are not part of the process in that respect, but are summoned as an expert and as such treated by the court as an expert witness and not in the ordinary course of events as the usual witness is. Therefore, I

would suggest to you that if any solicitor does get angry with you and wishes to press you unduly that you try to keep in mind the truth of the statement that "a soft answer turneth away wrath".

Now, you should understand as well that the presiding judge is in charge of the court room and he will, if necessary, come to your assistance in this respect. Many times if a lawyer presses you as a witness unduly for a yes or no answer you need not give him this yes or no if a qualification is necessary. Seek the protection of the court in this respect by simply asking the judge, "Do I have to answer yes or no to that question because I feel that I cannot do so? I wish to qualify it". I have never seen such a request by a doctor refused by a judge. Again I want to say that this is not so with the usual witness. The basic reason for the difference is that you are called as an expert and your considered opinion is being sought.

I have been asked to list some of the things which you as a medical witness should keep in mind. I am going to suggest to you that you take the role of the medical witness seriously. The court room in my opinion is a place where practical men are engaged in serious work in which your role as a medical witness is most important. It is upon your evidence that great weight is attached when a judge is attempting to determine the quantum of damages awarded to any claimant.

You should insist upon being advised by the lawyer who has called you as a witness, or subpoenaed you, what you might expect on examination, and not only that, but what you may expect on cross-examination. But if you do not make yourself available to lawyers, then how can you expect them to put themselves out in this way? I want to underline that, because any lawyer who is engaged in litigation, who has had to deal a fair amount with doctors has found it almost impossible at times to get the co-operation of the doctor, to sit down with the lawyer before a trial, to go into these matters of examination and cross-examination. You are very busy practitioners, I understand that, but I want you to keep in mind that your patient is my client.

You must be as thorough as is reasonably necessary in the examination of anyone of the parties in preparation for trial, and you must be prepared to justify any omissions in your examination. You must inform the lawyer who has called you of all unfavourable information developed in your examination as well as favourable information.

You must be frank about financial arrangements with the party that is calling you as a witness, if asked by the other side in court when you are on the witness stand.

You must answer all questions honestly and frankly. You must not display any embarrass-

ment nor reluctance to answer that might tend to discredit your testimony. Again I stress - you are not the adversary.

You must be willing to disagree with the so-called authorities if you are convinced that they are wrong, for you must remember that contrary opinions of authorities will not necessarily discredit you.

You must remember to be courteous no matter what the provocation and particularly this is true under cross-examination.

You must pause briefly before answering a question, taking a moment for deliberation when necessary and remembering always that this does not indicate uncertainty nor embarrassment.

If you have X-ray films then you should take them into the court room.

You must remember that when you receive a subpoena summoning you to court that you must obey that subpoena. But you must likewise remember that it is common courtesy for the lawyer who is producing you as a witness for the party he represents, to advise you as soon as he knows the appropriate time and place when your testimony may be required.

You must remember that there may be others who will testify and will disagree with your opinion, and this is not unusual among professional people.

Above all you must remember to be fair, polite and firm in your conviction where it is possible to be firm.

You must remember that you have a right to explain or qualify your answer if that is necessary in order to give a truthful answer.

You must not agree to accept compensation for your services contingent upon the outcome of litigation. Undoubtedly your Canons of Ethics should have something to say about this (I am not aware whether they do or do not). However, I believe that if the contingency fee is disclosed at the time of trial that it would help to discredit your testimony.

You must not act as an advocate or a partisan in the trial of the case. This again will strongly tend to discredit your testimony. And above all you must not exaggerate, not only in regard to your patient but in your own respect. You must not puff up your qualifications but state them fully and completely. Do not attempt to qualify yourself as an expert in a field where you are not an expert.

I would suggest to you most strongly that you never attempt to bluff an answer. This is when a skilled advocate can really take you into camp. If you don't know the answer to a question do not guess because if you do guess and guess wrong you surely are in trouble. You must not forget that an admission that your opinion is not

absolutely conclusive or that you don't know the answer to particular questions, is perfectly all right. Honesty may frequently require that you testify in this way.

You should not use technical terminology which will not be understood by the judge, the jury or the lawyers. If you use technical terms then explain them as best you can in the language of the layman. It is my view that I like to see a doctor use medical terms and then without any request from the lawyer explain the medical term.

Do not be smug. If you are smug or immodest you may find that the judge or the jury will act adversely to you as a witness and then you do harm to the lawyer's client, who is your patient.

You must not lose your temper, because if a cross-examining lawyer can provoke you to a display of anger or sarcasm then he may have succeeded in discrediting part of your testimony.

The above are not meant to be, nor can they be, a complete list of the do's or don'ts in order to give good or bad testimony. I suggest to you that if you do follow this list that you may not enjoy the experience of appearing in court, but you can leave the court room with an erect posture and have some sense of moral security that what you have done and the way you have conducted yourself reflects credit both upon yourself and your profession.

CHAIRMAN:

Thank you very much indeed Mr. Matthews. I suspect that perhaps many of the points that you have so ably made were going to be discussed by Dr. Bird but no doubt he will wish to add some comments from the other side of the witness box.

DR. BIRD:

Thank you, Dr. Maxwell. As you said, Mr. Matthews has stolen some of my thunder but I should like to add that I believe that the value of medical evidence will vary according to the doctor's conduct and his appearance in the court room.

A doctor should be respectful to the court, using either "Your Lordship," "Your Honor" or "Sir" where indicated. This respect should be shown in the doctor's dress. My own opinion is that conservative, neat clothing commands more respect than flamboyant articles of dress. If in doubt about conduct or dress, do as you would in a house of worship; after all our courts should be regarded as sacred institutions in our way of life.

A doctor should show a degree of humility and not give the impression that he is all knowing and all wise. If you do not know some fact or have no opinion, say so and do not attempt to bluff an answer, because if your deception is detected the opposing counsel will use it to discredit all of your testimony. A doctor should show a degree of humility in avoiding terminology except when necessary and then explain any long words that he has

used in terms that the court and juror may comprehend. In my thinking the continued use of these medical terms tends to impress the jury but in a way far different than the medical witness intended.

Finally, I believe that a doctor should answer questions simply and without antagonism no matter what the provocation from the opposing counsel. It is not personal on his part and it is a tool or a method that he must use in order to cast some doubt upon the testimony of the medical witness and in so doing further his client's interests.

Another matter that I want to touch on is the matter of the doctor's own records. If a doctor brings his own records into court it's very good, it shows that he is to be commended for keeping records, but the records should be decipherable, at least to the doctor who made them and preferably by another doctor. When you bring records into court they become part of the case (exhibit, I think, is the word). And you may get them back after they have served their purpose.

I think that the most common mistake a younger physician can make in court is that he is too afraid to say "I don't know". It may be an admission of failure on his part but I think that it takes a bigger person to admit that he doesn't know than it does to bluff. Doctors cannot be competent in all fields of medical knowledge. The younger physician realizes that there are spectators in the court who are, perhaps, some of his patients and he doesn't like them to get the idea that he doesn't know some aspects of medicine. As this young doctor gets a little older he will learn that he knows less than the sum total of medical knowledge.

CHAIRMAN:

Thank you Dr. Bird. Mr. Matthews, during his remarks about cross examination, mentioned his "Learned Colleague". Lawyers (at any rate, in public) are always very courteous to one another. I fear there is a regrettable tendency in the opposite direction among members of the medical profession. It would indeed be good if we could learn from the lawyers in this regard.

I have told the legal members of our panel that we should be grateful if they would touch on the tactics employed by opposing Counsel and indicate how we may thwart these tactics. They will admit I am sure that there are many tactics that Counsel can employ and if he does not mind giving away trade secrets, Mr. Kanisberg will now have the opportunity both to answer his learned colleague and perhaps to touch on some of these points.

MR. KANISBERG:

Counsel never agree with each other and I am in a wonderful position of agreeing neither with my learned friend Mr. Matthews nor with Dr. Bird in some of the things that they say. Some of the cases that I have had bring to light certain things. Dr. Bird says that plain simple language is far more

effective but that all depends on whose ox is being gored. If I have a client I prefer that the court be told that this fellow is suffering from conjunctivitis rather than just say it is a simple case of pink eye, and the word "contusion" is much better than saying he is black and blue. In so far as dollars and cents are concerned, I prefer medical terminology. I also prefer the stretcher case. I would like to bring a plaintiff into court, if I can, when he or she is still unable to walk around rather than later on, say two years later, when everything is rosy and the doctor just puffs away like a puffin to show what a wonderful job he has done, because pain and suffering in our courts do not bring very many dollars to the patient.

I was appalled once when a young lad had a broken leg, and the doctor, to justify that he was the best doctor in the world, sent me a report saying that he had inserted a plate in this boy's leg and now he was better than he had ever been; as if he had welded it and made it stronger. Now you can imagine the result if we went to Court to claim damages for a fellow who was better than he ever was. Some doctors love to show their prowess in the medical field when I want them to minimize, not their ability to treat this fellow, but to minimize the fact that a foreign plate or body has improved the patient's condition. This can hardly help his claim!

Dr. Jones did touch on a very important aspect in psychiatry - the effect sometimes of a doctor giving evidence on the stand in the presence of the Plaintiff which may have a harmful effect in future life on that patient. In this particular case, a very eminent neurosurgeon was called to the stand and in order to justify the quantum of damages being set as high as possible, we had to elicit from this doctor in the presence of his client, the fact that epileptic seizures might set in from time to time. Now the patient never knew of this and from that time on this became a source of worry to her. The doctor was most reluctant to give this evidence on the stand, because of its possible harmful psychiatric effect on a person who would then live in terror for the rest of her days, that maybe epileptic seizures would set in. Far worse than that was the fact that the press was there and were ready to record it in a paper, which would hold her up to ridicule. The social effects of such a statement in the press that her doctor had said that because of this head injury she might suffer and become more difficult as time went on, that her character and her personality might change and so forth, was disastrous.

These are great problems that the medical profession has to deal with and as I discussed with Dr. Jones, in some cases like this, the evidence should be given by the doctors in the private chambers of the Judge rather than in the presence of a Court room with the plaintiff or the injured party there to hear it.

CHAIRMAN:

I am sorry Mr. Kanigsberg doesn't believe if he had a plate in his head it might improve him. In these days of prosthetic limbs and plastic hearts and plastic lungs and donor kidneys, the day will not be far distant when we actually will be so completely rejuvenated that we will be virtually new men. One wonders what our personalities will be like in this case and whether we will own our own bodies if we have kidneys from one fellow and a liver from somebody else and plastic lungs that are repaired in the prosthetic shop and overhauled once a year; perhaps this is a matter for a future panel to decide.

There is one important subject that we have not really covered, namely the operation of the juvenile court. This is a completely separate type of jurisdiction and it poses its own problems. I should like Dr. Jones to remark on this.

DR. JONES:

Mr. Chairman: Mr. Kanigsberg has already had some evidence of rejuvenation. But you can't sell me on the idea either that it's good to have plastic and steel implanted in your body.

The query I have applies to the juvenile court, but it applies to a great many social agencies as well. What we have been talking about really are criminal procedures with major crimes, claims for damages, etc. etc., but there is a great deal of psychiatric evidence that goes on in the lower court, the magistrates court and juvenile court. This very often has to do with the question of competence. Whether a mother is competent to care for her children or whether a person is competent to run his business.

One of the things that is a constant bug-bear is the referral from the court by the agency saying "please examine this woman and tell us, that she is not fit to care for her children". My point would be that this is not the kind of decision that is made on any kind of medical examination. This is made on actual observation of the kind of job that a person does, and I think we would be much better off if we had the kind of evidence which said that the social worker, for example, visited the home and found the children in this kind of condition and that kind of condition rather than trying to collect evidence about the mother's mental state. This may be important, but when it comes to whether you can care for a child or not, the kind of actual job you do is the thing I think the court has to know about to make its decision.

There is one question I would like to ask about this business of cross-examining, Mr. Chairman. One of the tricks that Counsel frequently has in cross-examining, a psychiatric witness at any rate, is this. He is sitting there with a pile of text books on his table and after you have made a positive statement he suddenly pounces on the second text book from the bottom, drags it out and says:

"Doctor, have you heard of Eugene Boyler?"
You say, yes you have heard of Eugene Boyler.

"He was one of the World's experts on schizophrenia, wasn't he doctor?"

"Yes, he was one of the World's experts on schizophrenia".

"Now doctor, on page 63 he makes this statement, such and such. You have admitted he was one of the World's experts on this field".

Dr. Jones could well say, "Yes, this man was known as an expert in his field, but I should like to qualify". But if the lawyer presses on and will not permit this, then Dr. Jones will have to rely on the lawyer who has called him as an expert to stand in rebuttal as he may do, and indeed as a lawyer should do, and say, "Dr. Jones in answer to a question put to you by Mr. Kanigsberg, in which he demands a yes or no answer, you found on page 63, such and so. Do you wish to qualify this answer?" And Dr. Jones can then say, "Oh yes, this very learned man died in 1918. Since that time we have had other experts and if I may quote to you, Mr. Kanigsberg, from a more recent work, such and so." Mr. Kanigsberg is now flat on his proverbial.

I would like to say something about the stretcher case. Mr. Kanigsberg brings the stretcher into Court. He has tried it, both literally and figuratively he has tried it. But keep in mind the position he is putting you in as a doctor. Mr. Kanigsberg tries to bring his case to court some six months after the injury. So I am now forced to ask you the physician, if it is not true that as far as arriving at an accurate prognosis Mr. Kanigsberg's action is premature for you have seen many patients in like condition become completely cured, and I would suggest to you that if you see no difference in this patient than in others whom you have examined, the court may come to its conclusion that the claimant may stand on his own two feet in six months time completely cured and have no complaints whatsoever.

CHAIRMAN:

Dr. Jones has called our attention to the problem of the obsolete text book. There is a further pitfall. Lawyers will sometimes read you a passage from a text book out of context. One must always be very careful to see the passage, because they may draw most amazing conclusions otherwise. There is another trick that they have; you will give an answer to a question. They will paraphrase it and ask sweetly "Isn't that so Doctor"? The paraphrased version will be just a little different but so very slightly that you will feel foolish protesting that you have been slightly misquoted. Be on your guard, however, because everything you say goes in the Court record and the lawyer may have something up his sleeve and be planning to make something out of this little difference. Later on when he does so and you try to establish that you have been misquoted, you will be made to look, if not an out and out liar at least a very shifty type.

Perhaps we could now consider some of the questions from the floor. It seems that most of the questions will be directed to the lawyers. I shall ask Mr. Kanigsberg to answer the first one.

Q. When is a doctor designated as an expert witness?

How is this done? What does it imply?

MR. KANIGSBURG:

The legal definition of an expert in the rounds of the smokers of the Court is a S.O.B. from out of town who knows everything about nothing and is able to propound that proposition to the Court. In order to qualify as an expert, though, you have to, in the examination put to you by counsel, show which University you graduated from; what degrees you hold; whether you are a member of a certain Learned Society specializing in that field and by that time counsel opposing you will then say "I admit the qualifications of Dr. So and So as an expert in the field".

If you have given evidence in the Supreme Court on previous occasions it is always good for your counsel to remind you of that fact and to ask you, "Have you appeared in the Supreme Court and given evidence before?" and that will qualify you as an expert. So that is that.

May I now say that there is no halo over my learned friend, Mr. Ken Matthew's head at this moment. And when he says that you should wait and see that the man recovers - well, don't bring him in as a stretcher case - those are pious words said by the attorney for the insurance company and not by a solicitor acting for a client.

CHAIRMAN:

I have three questions with respect to notes in court. The first one is:

Q. If the doctor as a witness has forgotten certain points and has recently refreshed his memory by consulting his notes, does he have to indicate this fact when giving his evidence?

This shows a misconception with respect to notes and if I may make a remark from the Chair - you should never give evidence unless you have notes on the subject because your evidence could well be wrong and you may be wreaking an injustice. Not only that, if the case goes to a higher court and you have not consulted your notes, your evidence in the higher court may well be different from what it was in the lower court. So this is a misconception. If you have notes, the fact that you have refreshed your memory from your notes is a good thing, not a bad thing. You need not be ashamed of it.

The next two questions are:

2. "It is stated that the Doctor should take his notes into court but that such notes could be impounded as exhibit X. Can hospital charts also be impounded and what about photostatic copies?"

3. "The Doctor may need to refer to notes transcribed from a tape recorder, how can he avoid a hassle over the validity of the transcription?"

Perhaps Mr. Matthews would be willing to answer these questions?

MR. MATTHEWS:

Well, as far as notes are concerned, the important thing is - were they notes made at the time of your examination. If they are of course you should refer to them. As the Chairman said, you should take your notes into Court. You cannot be expected to speak from memory of someone you examined two years ago. It is perfectly obvious that you have referred to your notes before coming to court and you should do so. You should take whatever notes you do make, in the form you made them on at your first examination, into Court. Now it may be possible to have these notes taken as an exhibit because you can then say - Doctor, you are reading from notes, then you examine the doctor as to when he made the notes. You may then as Solicitor examine the notes to make sure the doctor is then putting into court everything. This is the danger once you start to bring out notes. If you are going to refer to notes be very truthful because a smooth practitioner can get up there and find out perhaps more than you are prepared to bring into court at that time.

Tape recorded notes are all right, provided again they are made at the time. The accuracy of the transcription of the notes of course is in issue, and you must be prepared to say that they have been accurately transcribed because I would suggest to you that in all probability you referred to your notes at a fairly recent time after they were transcribed by your secretary and therefore you can speak with truth as to their validity.

MR. KANIGSBURG:

Might I add, from a legal point of view, the extension of the doctor and of hearsay evidence also applies, and I think Mr. Ken Matthews will agree with me, to notes. For instance, if a doctor asks Dr. van Rooyen to give a pathological report on something, or there is an X-ray you want to show the Court, you don't have to prove the person who took it and developed it himself such as you would in an ordinary action.

There is great latitude given doctors that can incorporate the temperature taken by a nurse without calling the nurse in reports. And that is an exception to the hearsay rules which is given beneficially by the courts to the doctors.

CHAIRMAN:

Dr. Jones, we have a question here from St. John's, Newfoundland which refers to what you have already said in part of your remarks today.

- Q. "Shouldn't a doctor be totally unbiased in court?"

Does he have to act for or against any part?"

DR. JONES:

I think theoretically he should be unbiased. I think that the point all of us have made up here is that he is not allowed to be unbiased because he will appear, under our present system, for either the prosecution or the defence. The lawyer who is on the side that he is testifying for will, as Mr. Kanigsberg said, bring out the points in the evidence that are in favour of that client. That is his job and that is what he should do. Now, theoretically the opposing counsel should be able to bring out the other points, but this depends to a very great extent on the knowledge that the opposing counsel has. Although theoretically the doctor should be unbiased, frequently it is impossible for him to remain so because often he is talking about one of his own patients, perhaps a person he has known for ten to twelve years. He does have an intimate relationship with that patient either positive or negative, and this is certainly going to influence the way he sees the situation and thus finally what goes on depends to a great extent on the medical sophistication of the two counsels. I think that this is a very important thing and I think this great problem here between the client who is able to afford good learned, not in the political sense, but in the true sense here, counsel who knows what he is doing as against the poor man who frequently has to take the junior counsel assigned to him by the court who has had little experience in the field. I think there is a great inequity of justice in this area of who is going to be your counsel. I am convinced that you can kill anybody and if you get the right counsel you will not get hanged for it whatever happens. If you get a bad counsel you will likely get hanged right off the bat.

CHAIRMAN:

One of the prime functions of the Medical Legal Society is the promotion of research into the administration of justice. So perhaps we could end our panel discussion this morning with a brief remark from each member of the panel with respect to possible ways in which Medical Legal matters could be improved. Dr. Bird, may we start with you.

DR. BIRD:

Mr. Chairman: One recommendation I would like to make in improving relationships between the doctors and the lawyers is that in the medical schools some effort be made to teach medical students court procedures, what they can reasonably expect and what the court expects of them. Perhaps a joint course between the medical students and the law students would be of benefit. That is my suggestion.

MR. MATTHEWS:

Mr. Chairman: I have two recommendations to make. One of which I believe, Mr. Kanigsberg is going to speak on as well I am just going to dwell on very briefly and that is that we should

consider the advisability of setting up an independent panel of medical experts, which panel will be at the service of the court, not of the individual lawyers, and Mr. Kanigsberg will, I believe, add flesh to that statement.

Secondly, I believe that probably one of the most important things we can do is get to know each other better; that we stop treating each other at arm's length, that we stop being suspicious of one another, that we start talking to one another of the problems with which we are both faced when the patient, my client, has to go into court in order to obtain damages.

MR. KANIGSBURG:

One important suggestion I think to save the time of the medical practitioner, is to try to achieve a sense of justice and fairness for the injured party. To do what they have done in New York State and other places in the United States, and that is, instead of pitting one expert against another on the stand and adding chaos to confusion in the mind of a judge who is not a medical expert, that either the Government or both societies select a panel of experts to sift these reports and they give their private opinion to the judge for him to have as a guide as to whether the injuries are serious or not.

A judge is most confused and put in a position of believing one expert as against another when the two views are opposed to each other. I think that these can be reconciled; the system has worked out beautifully in the United States, where they have found out that there has not been this advocacy that the medical men are not supposed to indulge in when they refer to a body of their peers. There wouldn't be any nonsense to their reports in such a case, and they in turn submit it to the court for the Judge's assistance.

Perhaps it shouldn't be made mandatory at this stage, but I think that it should be available to the Counsel to ask the Court to select an independent body to sift the evidence in extreme cases or cases of great importance and assist in the medical findings.

I also feel that there should be some direct push given by both Societies to the Breathalyzer Test. The carnage on the roads today is unheard of and far greater than the daily take in Korea or in Viet Nam. We seem to take pious attitudes about the doctrine of self-incrimination, the liberty of the subject and so forth that cloud the fact that the Driver's Test is whether or not you can drive a car. This doesn't impinge on the liberty of the subject and if you can't pass a driver's test you can't drive a car. Similarly, if you refuse to take a breathalyzer test maybe you are not able to drive a car at certain times and I think that you should take a more direct attitude on that.

Finally, I echo the sentiments of Ken Matthews that there should be some mutual understanding between the lawyer and the doctor. It is almost impossible at times to get a doctor to give you a

medical report long enough in advance of trial and give you a few moments to talk it over with him. They are busy and I know that some of the doctors have complained to me that even in an insurance report where they get paid for completing this, are months behind and it might be that in this modern age that greater staff is needed or whatever it is. I know that the doctors are very busy but somehow or other the lawyer must proceed, and in some cases persons have been known to wait three or four years for a medical report before they can even go to court, and that is very bad.

Most lawyers will arrange a schedule with the doctor, if he will tell him what time he can appear and if the trial is set for ten o'clock and the doctor can be there at twelve o'clock, the lawyer will take him at twelve o'clock so that it won't interfere with his schedule, and the lawyers will co-operate with the doctors in that regard.

CHAIRMAN:

We certainly can't blame Mr. Kanigsberg for feeling strongly about this matter of medical reports. With respect to the Breathalyzer Test it is not the doctors who are dragging their feet. I would refer him to a paper on the subject in the current issue of the Canadian Bar Association Journal; modesty forbids that I should say whether the paper is a good one or not.

DR. JONES:

Mr. Chairman: I must concur with Mr. Kanigsberg that the lawyers are very willing to set a date and say you will call me at twelve o'clock and they almost certainly do it within a day and a half of the date they tell you. It is most difficult sometimes.

By and large I am dissatisfied with the present situation in psychiatry. There are two things I would like to see.

One is, I believe we should have a concept of diminished responsibilities. Take the case of the mentally retarded. What point on the intelligence scale is the person responsible or not responsible? Obviously there is no cut-off point like this. Diminished responsibility has worked in Scottish law for generations now. The English introduced it in 1957 and when England introduced this concept from Scotland it must have really had something to back it up. I think that this is a good concept.

Secondly, I would like to see us get away from our present ideas about responsibility and use the kind of formula that has been used in New Hampshire for some time and has been introduced recently in the District of Columbia, and in several other states, the so-called mental rule where instead of being asked about whether the patient was responsible, you are asked, "Is he mentally ill, what kind of mental illness has he, and is his action the product of the mental illness?"

Finally, I have great reservations about this board of experts. I went into the McRuer Commission with the idea that this was a good thing and

then I heard a number of my psychiatric colleagues testify and came to the conclusion that there were hanging psychiatrists just like there were hanging judges. If I were on trial I would like to have an expert that would present the items of my history and my behaviour from my point of view. If someone wants to present it from the other point of view, fine, but I would like to have both sides presented and I would trust the jury to make up their minds more than I would most boards of experts.

There has to be collaboration between doctors and lawyers, better understanding on both sides, and I would entirely concur that both law schools and medical schools should be thinking of a closer relationship in their teachings.

CHAIRMAN:

I have on the table here a most elaborate study made for the Attorney General of Ontario Mr. Wishart. This was carried out by a Liaison Committee of the Ontario Medical Association and the Ontario Bar Association which explored the matter of medical evidence in court in civil cases. They made a number of recommendations, one of which I understand from Mr. Wishart has become law

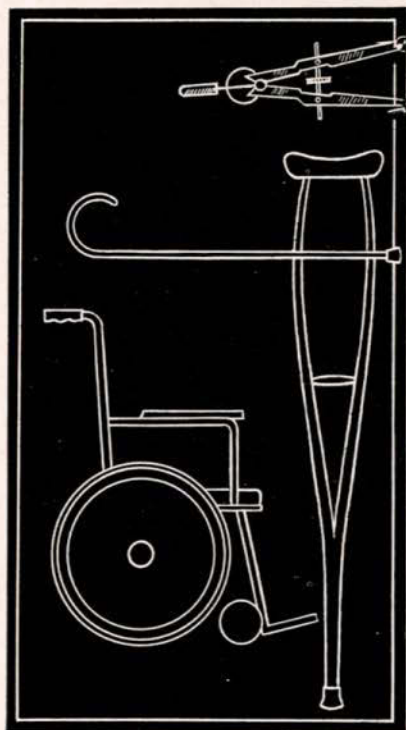
already in Ontario and is one with which I am sure we all agree:

"Statutory provisions should be made for the admission in evidence in the discretion of the trial judge, of medical reports when signed by a duly qualified medical practitioner, authorized to practice in Canada, without the author of the report attending in court to give evidence."

"Where, in the opinion of the court, a doctor is required to attend in court to give evidence that could satisfactorily have been received from a medical report, the court shall have authority in its discretion to assess the appropriate costs against the party calling the doctor."

In other words, medical reports now are admissible in the courts of Ontario without the medical practitioner attending, and, if he is improperly required to attend, the costs are levied against the side which calls him. Anyone who has had to attend court frequently will realize what a boon this is.

In closing I should like to thank the panel for the masterly way they have dealt with the matters at hand. I am sure there is no need to invite you to attend at the same time tomorrow when the panel discussion will be on "Sex". Thank you. □



designed for long-term,
high-dosage salicylate therapy
without gastric irritation

"ENTROPHEN" BRAND

The special "Polymer 37"* coating of "Entrophen" prevents the release of the acetylsalicylic acid in the stomach.

DOSAGE: One to four tablets every four hours.

Each "Polymer 37"-coated tablet contains 5 gr. of acetylsalicylic acid.

Bottles of 100 and 500 tablets.

*Patented 1959





Primary Tuberculosis in Children

In a Brooklyn, N. Y., study, the incidence of infection with drug-resistant tubercle bacilli was found to be higher in children than in adults. One factor may be that children in depressed areas were infected by adults whose organisms had become resistant during treatment.

The significance of the emergence of resistant strains of *Mycobacterium tuberculosis* to the three major drugs used in treating tuberculosis has been the subject of several studies in recent years.

Initial infection with drug-resistant strains is known as primary drug-resistant infection. Studies of the incidence of such infection have been made by the U.S. Public Health Service, the Veterans Administration, and the New York City Department of Health. Data from these studies, made on adults, show that the present level of tuberculous disease due to resistant strains is low, about 5 per cent or less for the three major drugs—streptomycin, isoniazid, and para-aminosalicylic acid (PAS).

However, unless the tuberculin test has recently converted to positive, it cannot be said with certainty whether the tuberculous disease in adults is the result of recently acquired infection or is due to an endogenous exacerbation of infection acquired during childhood.

Since primary tuberculosis in children represents recently acquired infection, isolation of resistant organisms from such patients prior to drug therapy affords a more nearly accurate assessment of the incidence in a community of primary drug-resistant infection than does the isolation of resistant organisms from untreated adults.

Such a survey was undertaken at the Children's Chest Service of the Kings County Medical Center to which 332 children were referred from January 1, 1961, through December 31, 1966, for evaluation either because of a recent contact with a patient with infectious tuberculosis or for treatment because of disease. The majority were from a district of low socioeconomic status where the risk of tuberculosis was high. None was more than 13 years of age.

Cultures positive for *M. tuberculosis* were obtained from gastric washings in 120. When growth of the cultures was adequate, the organisms were planted separately on medium containing each of the three drugs. A control culture contained no drug.

Two Criteria

Strains from 101 of the 120 patients were considered suitable for study. Of these, 80 patients had received isoniazid for five days or less, a time considered insufficient for the emergence of resistant strains.

The data on isoniazid were analyzed according to two criteria, that of the Public Health Service and that of the Veterans Administration. In the former, + growth in the 0.2-microgm. concentration of isoniazid is considered the lower boundary of significant resistance. By this standard, 13 of 80 strains (16.3 per cent) were resistant to isoniazid. According to the VA criteria (any growth in 5-microgm. concentration or growth in the 1-microgm. concentration of isoniazid equal to that in the control), only 5 of the 80 strains (6.3 per cent) were resistant to isoniazid.

None of the patients had received streptomycin prior to the isolation of the organisms. With the criteria of either the PHS (+++ growth in 10-microgm. concentration), or the VA (++++ growth in 10-microgm. concentration), only three of 101 strains tested were significantly resistant.

As for PAS, three of 101 strains (3.0 per cent) were resistant by the PHS criterion (+ growth in 10-microgm. concentration); and only one strain by the VA criterion (++++ growth in 10-microgm. concentration).

Only two cases of multiple-drug resistance were found, one to isoniazid and PAS and one to all three drugs.

Studies Compared

While the findings of this study cannot be compared with those of the PHS and VA studies because of the vastly different population groups, there is basis for comparison with a study conducted among adults in New York City in which an incidence of primary isoniazid resistance of 2.6 per cent was reported, as compared with 6.3 per cent in this study.

The lower incidence in the adult group may be accounted for in part by the "dilution" of recently acquired primary resistance with endo-

continued on page 302

Morris Steiner, M.D., and Amor Cosio, M.D. *The New England Journal of Medicine*, April 7, 1966.

Reprinted from the Abstracts of the National Tuberculosis Association, Oct. 1966.

Printed through cooperation Nova Scotia Tuberculosis Association.

Personal Interest Notes

As we go to press, we learn with deep regret of the loss of **Dr. Roberta Nichols** who edited this section for the last four years. She died in the Victoria General Hospital October 29th aged 64.

Born in Halifax, she was educated at Tower Road School, Halifax Ladies' College and Mount Allison Academy. She graduated from Dalhousie, BA in 1920 and MD, CM in 1925. After practising in Newfoundland she married Dr. Edward W. Nichols, Professor of Classics at Dalhousie.

After his death she resumed practise and has been anaesthetist at Halifax Children's Hospital for 26 years.

Dr. Nichols was active in the medical, educational, and social affairs of the community in which she lived. She was a member of Zonta International, the Business and Professional Women's Association, the Anaesthetists Society, the Canadian Medical Women's Association and The Nova Scotia Medical Society. Dr. Nichols was also a serving officer of the Most Venerable Order of St. John of Jerusalem.

Dr. Nichols is survived by four children: Dr. Edward G. Nichols, of Sackville, N. B.; Mrs. Margaret Bishop, of Singapore; John Richard Nichols, of Digby, Nova Scotia; and Robert Hart Nichols, of Dartmouth, Nova Scotia and 10 grandchildren.

Dr. Nichols sent us the following notes from her hospital bed.

Halifax paper headlines, "7 DOCTORS PLEAD NOT GUILTY TO PARKING CHARGES" then a week later, "Parking Charges Against 7 Doctors Dismissed". So all's well that ends well (Is the medico-legal get-together of last spring bearing fruit?). With the plethora of construction in the hospitals' area as it is hard to find even illegal parking space. What use is a green sticker and nowhere to stick a car, nothing is more frustrating than to be in a hurry and drive round and round in vain.

CAPE BRETON

We'll let Cape Breton claim him as a native son but Nova Scotia and Canada unite in pride as **Dr. Walter C. MacKenzie**, now of Edmonton as Dean of Medicine of Alberta, becomes the fifth Canadian president of the American College of Surgeons at the annual clinical congress in San Francisco on October 11. Over 12,000 are expected to attend and 1,350 will be initiated as new Fellows, part of its 27,000 members in 83 countries.

The seventh annual convention of the Nova Scotia Association of Medical Record Librarians held recently in Sydney were told by **Dr. N. K. MacLennan** of St. Rita's Hospital Medical staff what an ideal medical record librarian needs must be, a mixture of Grace Kelly and Cassius Clay, Job and U Thant - with others added. Later in the day a panel discus-

sion headed by **Dr. B. C. Trask** of Sydney was held on, "A Complete Summary in Any Case." Other members of the panel were **Dr. H. J. Devereux**, Sydney and **Dr. J. A. Myrden**, Halifax.

Dr. H. R. Corbett, radiologist of St. Rita's Hospital, Sydney, was the keynote speaker at the banquet of the Radiological Seminar of the Cape Breton Branch of the C.S.R.T. "With all the many marvellous advances made in regard to medicine and the treatment of sick people, everyone should remember that consideration in every respect of the patient must always come first." **Dr. C. J. Ezekiel** also took part in the seminar.

Dr. D. H. MacKenzie has been appointed Divisional Surgeon of the Dr. Freeman O'Neil Crusader Cadet N.D. which is the only one east of Ontario. Dr. Freeman O'Neil was a Knight of the Order of St. John and this Nursing Division is the centennial project of No. 390 Sydney T. S. MacLanders, N.D. It has, since its inauguration in June, volunteered over one hundred hours of First Aid Service.

Dr. Mitchell Wright, a graduate of Dublin who practised at St. Peter's a few years ago, has opened an office in Arichat.

On October 11th and 12th, **Dr. T. B. Acker**, under the auspices of the North Sydney Rotary Club conducted Crippled Children's Clinics at Harbour View Hospital, Sydney Mines and St. Elizabeth's Hospital, North Sydney, as he has for so many times before.

Two Sydney junior high schools, Woodill and Sheriff will begin pilot classes in sex education this fall. The lectures are to be given by **Dr. Kenneth MacLennan** and **Dr. Charles Brennan**. Boys and girls in grade nine will be given the lectures the first year separately after the regular school hours at 3.30 p.m. The programme is optional and not part of the school curriculum.

At the annual meeting of the Nova Scotia Health Association held during the latter part of September in Kentville, **Dr. R. C. Young**, Pietou was elected president to succeed **Dr. Helen Holden Quinlan**, Kentville. One of the vice-presidents elected was **Dr. Lloyd Hirtle**, Halifax. At a concluding banquet honorary life membership was awarded to **Dr. J. C. Wickwire**, Liverpool. **Dr. W. A. Cochrane** speaking on the "battered baby" problem in a panel discussion, asked the public health nurses if they had come across instances of similar abuse. Forty nurses raised their hands. Another panel discussion on "Poisons," which brought out the fact that headache tablets were the chief offenders - had as doctors **Dr. S. D. Dunn**, Pietou, **Dr. Pius Sigsworth**, Halifax and **Dr. David Cogswell**, Aylesford.

HALIFAX

Dr. R. L. Aikens has returned from Paris where he attended the 4th international conference on sarcoidosis.

Dr. Lynn E. Bashow, a medical graduate of Dalhousie, has been appointed as the new medical director of the Ridgewood Rehabilitation Centre in Lancaster, N. B.

Doctor Harris Miller, Halifax and **Dr. Wylie Verge**, Dartmouth were winners in the trap events of the "Harvest Shoot," held at the Dartmouth Skeet and Trap Club on the Thanksgiving weekend. Dr. Miller was "high gun" in shoot with a score of 93/100.

Dr. Albert W. Taylor, medical superintendent of St. John's General Hospital, Newfoundland, a Dalhousie Medical graduate, has been appointed medical director of the University Hospital, Saskatoon.

Dr. Charles U. Henderson, Dalhousie graduate in Medicine has been appointed Chief of Anaesthesia at the new Dr. Charles A. Janeway Child Health Centre, St. John's, Newfoundland.

DALHOUSIE

Dr. Benjamin Knowles Doane has been appointed to the Faculty of Medicine as assistant professor of Psychiatry and lecturer in Physiology. Dr. Doane is an MD from Dalhousie, after receiving a BA from Princeton, an MA from Dalhousie, a PhD from McGill. He has also acted as psychology research officer with

the Defence Research Board and two years as research associate at the Neurological Institute, Montreal. He has just returned from a year in Europe on a McLaughlin Travelling Scholarship. Most of his time was spent in Maudsley Hospital, London, but he visited research centres in various parts of the British Isles as well as in France and Moscow.



The doctor spent a comfortable night

Terpo-Dionin with its "3-way" relief (sedative—anodyne—expectorant), gives coughing patients—and their doctor—an undisturbed night.

Each teaspoonful (5 ml.) contains 5.5 mg. ethylmorphine HCl; 13.9 mg. terpin hydrate; 5.0 mg. guaiaicol; 10.2 mg. calcium glycerophosphate; white pine compound base. Dosage: One teaspoonful every three hours, and one at bedtime.

^N TERPO-DIONIN



cuts down coughing night calls

Winthrop
LABORATORIES
AURORA ONTARIO

Dr. P. Flynn, MD, assistant professor of Psychiatry, Dalhousie consultant at the Victoria General Hospital, and staff consultant "in service teaching programme" at the Halifax Mental Hospital attended the general meeting of the White Cross Volunteers Canadian Mental Health Association in order to clarify any problems arising during the programme consisting of a film shown through the courtesy of Hoffman-La-Roche.

Dr. G. H. Hatcher (Head - Preventive Medicine) had been awarded a W.H.O. Fellowship for three months travel in Europe. He will study methods of maintaining the quality of medical care in European countries that have had medicare programmes for many years.

Dr. R. O. Jones, (Head - Psychiatry) was one of the five speakers at the 18th annual Mental Health Institute in Boston on September 29th. He spoke on "Appraisal of the Total Network of Services."

Both the Halifax papers and the Medical Post (Sept. 27) have given excellent coverage of the work of **Dr. R. L. Saunders**, Head of the Department of Anatomy and his research on Cerebral Circulation with the aid of XMPJ, Dalhousie's second X-ray microscope, which was built especially for the study of micro-cerebral circulation by means of

contrast media. Dr. Saunders is presently engaged with, Dr. Hans Roekert of Gothenberg University and Dr. Ted Hall of Cambridge University, in a book on "X-ray Microscopy in Clinical and Experimental Medicine."

BIRTHS

To **Dr. and Mrs. Peter A. Carr**, (née Sheila Kingston), a daughter, Fiona Judith, on October 9, 1966, at the Grace Maternity Hospital, Halifax, N. S.

To **Dr. and Mrs. Ernest Johnson**, (née Margaret Mac-Millan), a son on September 22, 1966 at the Halifax Infirmary.

To **Dr. and Mrs. Michael Kirby**, (née Bonita Regan), a son, Bruce Regan, on October 10, 1966, at the Grace Maternity Hospital, Halifax, N. S.

OBITUARIES

We regret to record the death of former provincial legislature member, **Dr. Pierre E. Belliveau**, 70 on October 4th at Yarmouth General Hospital after a long illness. He had practised medicine with headquarters in Meteghan for over forty years and served as Member for the Municipality of Clare for ten years. We express sympathy to his two Doctor sons, Dr. Robert Belliveau, Meteghan and Dr. Gerald Belliveau, Yarmouth, and to the other members of his family.

Dr. Ian MacKenzie, FRCS (Edin.), FRCS (C.), FACS, Professor and Head of the Department of Surgery at Dalhousie, died October 17th at the Victoria General Hospital after a long illness.

Born in Edinburgh, he graduated from Edinburgh University in 1939 went to the Rockefeller Institute in New York, working under Peyton Rous. From the outbreak of the War he served with the RAMC in France and the Middle East until in 1943 he was parachuted first into Yugoslavia to serve with Tito and later into France to work with the Maquis. For his services he was awarded the Croix de Guerre with Gold Star and the MBE military division.

After the war he returned to Edinburgh and later moved to the Department of Surgery at Durham University before coming to Dalhousie in 1957 as Professor of Surgery.

He was in addition Consultant to CFH Halifax, and Camp Hill Hospital. Chairman of the Cancer Committee, Nova Scotia Division of the Canadian Cancer Society, he was undertaking research into Cancer at the time of his death. He also wrote many papers and a student's text of surgery.

He is survived by his wife Ann, a son, Ian with the Canadian Press and two daughters, Rosemary at Acadia and Ruth at Dalhousie. To these we extend our deepest sympathy.

F. GORDON ROBERTSON, C.L.U.

NORTH AMERICAN LIFE ASSURANCE COMPANY

TOTAL DISABILITY INCOME REPLACEMENT

ESTATE PLANNING — DEFERRED AND IMMEDIATE ANNUITIES

Representative for Medical Society Group Plans

Bank of Canada Bldg.
1583 Hollis St., Halifax

Phone: Office 423-7144
Residence 423-2198

Primary Tuberculosis in Children

continued from page 298

genous reinfection. Since none of the patients in the present study was more than 12 years of age and 75 per cent were four years of age or younger, this factor was eliminated.

Furthermore, patients in the present study were drawn mainly from a local area of depressed socioeconomic status and of high risk for tuberculosis. It is likely that the greater incidence of primary isoniazid-resistant infection in these patients as contrasted with the adult group represents contact infection with individuals in the community whose organisms had become resistant during treatment.

Since the adult population in a community is a source of infection for children, it is perhaps surprising that the incidence of primary drug resistant infection was not greater in the present study. This may be because the children were infected with drug-sensitive organisms before the organisms of the source case had become resistant as the result of incomplete therapy. Another explanation may be that a large proportion of the adults in the earlier study were of a less socially responsible group (skid-row alcoholics) who had little close contact with children.

Clinical studies to denote the level of *in vivo* resistance of infecting organisms are difficult to assess. In the present study, the clinical course of the patients in whom isoniazid-resistant strains were obtained was no different from those in whom sensitive strains were found. Both groups were treated with isoniazid and PAS and there were no deaths in either group. Although success in treatment is not a sufficient criterion of the significance of resistance tests, it should be remembered that the mortality rate in children with active primary disease before chemotherapy was high.

From a theoretical point of view, there are two major differences between acquired and primary resistant infections.

In acquired resistance the process of selection and multiplication of the resistant mutant occurs in the patient himself, the interpretation being that sufficient concentration of the drug is not present to prevent multiplication of the organisms. In primary resistant infection the process of selection and multiplication of the resistant mutant has occurred elsewhere than in the patient. It therefore does not necessarily mean that the patient cannot cope with such a strain if sufficient concentration of the drug can be achieved in the blood. □

PHYSICIANS-IN-ORDINARY.....

Well, as far as we are concerned there aren't any. Doctors lead complicated lives and have complicated assets and our attitude is, simply, that we must "marry up" insurance coverage to each in his own way. And this is a task which gives us pride!

ALFRED J. BELL & GRANT LIMITED

One Sackville Place, Halifax, N. S.

Telephone 429-4150

ADVERTISER'S INDEX

Abbott Laboratories Limited.....	I.F.C.
Ames Company of Canada Limited.....	II
Bell, Alfred J. & Grant Limited.....	302
Frosst, Charles E. & Company.....	III, 297
Lilly, Eli and Company (Canada) Limited.....	VI, VII
Mead Johnson Laboratories.....	V
North American Life Assurance Co.....	301
Pitman-Moore, Division of Dow Chemical of Canada Limited.....	O.B.C.
Poulenc Limited.....	IV
Robins, A. H. & Co. of Canada Limited.....	I.B.C.
Sandoz Pharmaceuticals.....	X
Searle, G. E. & Company (Canada) Limited.....	I
Smith Kline & French Inter-American Corporation.....	VIII
Warner Chilcott Laboratories Limited.....	IX
Winthrop Laboratories.....	300