

THE NOVA SCOTIA MEDICAL BULLETIN

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Adverse Reactions to Drugs

"I firmly believe that the whole materia medica, as now used, could be sunk to the bottom of the sea, it would be all the better for mankind, and all the worse for the fishes".

Oliver Wendell Holmes, 1861.

While no physician would agree with Holmes today, the increasing number of allergic, toxic and idiosyncratic effects of drugs is an alarming problem. Most data on the problem are from inpatient services although there is reason to believe that as serious a problem may exist in ambulatory patients. As many as 20-25% of hospital patients develop adverse reactions to drugs and 1-3% end fatally. Testifying before a House of Commons Committee recently, Dr. K. J. R. Wightman, Professor of Medicine at the University of Toronto, indicated that 5% of hospital admissions are required for adverse reactions to drugs. As the Provincial Medical Board's Charles Stewart Memorial Lecturer at the 1965 annual refresher course at Dalhousie and the Victoria General Hospital, Dr. Wightman expanded on this topic, his illustrations indicating the extreme range and severity of reactions encountered. Regularly circulated information from the Council of Drugs of the American Medical Association show an increase in the types of adverse reactions encountered and in the number of drugs which induce reactions. This information suggests that drug reactions account for significant patient morbidity and mortality. In Canada, appreciating that the number of reactions may be far greater than known, federal agencies concerned with the problem are asking physicians to report all suspected drug re-

actions to attempt to identify patterns which can be more extensively investigated.

Drugs can induce injury in or disturb the function of almost any system in man. While allergic reactions such as urticaria, serum sickness, bronchospasm and anaphylaxis are easily recognized, many adverse reactions to drugs are insidious or latent. Since the patient may already be ill the symptoms or signs of a drug reaction may mimic the primary illness thus making the recognition even more difficult, as for example, digitalis intoxication worsening congestive heart failure.

Many physicians because of the nature of their practice have become acutely aware of reactions to drugs. By taking a detailed drug history from patients, they have identified aplastic anemia due to chloramphenicol or phenylbutazone, renal failure due to phenacetin, gastrointestinal bleeding due to aspirin, depression due to reserpine, deafness due to kanamycin and streptomycin, jaundice due to chlorpromazine, osteoporosis due to steroids, atrial tachycardia due to digitalis with or without diuretic induced hypokalemia, gout or worsening of the diabetic state due to thiazides.

Some effort will have to be made to identify and prevent drug reactions. Since this is primarily a problem in therapeutics, the initiative might well come from the medical profession. In general, most physicians will agree that certain guidelines may help to reduce the number of reactions.

Before prescribing drug treatment to patients, it is wise to inquire if allergic or untoward reactions have ever occurred to drugs. Even simple "household" remedies such as A.S.A. have induced fatali-

ties on occasion. Limiting the duration and clinical re-evaluation before renewing prescriptions can often reduce the prolonged use of therapeutic agents.

Becoming familiar with one drug where several with similar effects are available is advisable. Most recent graduates for instance prefer digoxin, this choice reflecting the choice of their teachers who have found this drug most easily administered with maximal safety. A precise diagnosis before treatment will often avoid nonspecific or symptomatic therapy. In these circumstances, for example, antibiotics would not be required for viral infections or digitalis for non cardiac edema. The use of simple forms of treatment will often replace the more complex and hazardous. Oral iron usually suffices for iron deficiency and parenteral iron

is not often necessary.

When, in spite of the utmost care, reactions are encountered, we are urged to report these so that the magnitude of the problem will be recognized. Patterns not apparent to any one physician may have meaning when thousands report their findings.

Unfortunately the number and severity of drug reactions are likely to increase, this increase reflecting the demand for more health services and the availability of more potent agents. It is to be hoped that the medical profession can effectively identify problems in drug therapy and propose solutions before the public becomes so alarmed that other control occurs. □

G.R.L.

The Sir Charles Tupper Medical Building



Photo by Wambolt-Waterfield Photography Limited



Dalhousie Notes - 1966

I. THE PROGRESS OF THE SIR CHARLES TUPPER MEDICAL BUILDING

C. B. STEWART, MD, DEAN

Halifax, N. S.

Last year, I described the plans for the Sir Charles Tupper Medical Building and commented on the factors which the Faculty had considered in determining the size of the Medical School. It seems appropriate at this time to give a brief progress report to the readers of the Bulletin.

Immediately after the contract was let to the Kenney Construction Company Limited of Yarmouth, a ceremonial turning of the sod on July 29th, 1965, marked the beginning of construction. No time was lost by the builders. At 8:30 the next morning, a crew was at work removing the sods from the lawn and building a fence around the property. The excavation and concrete foundations followed within a few days and soon the building began to rise level-by-level. Exactly one year later, on July 29th, 1966, the flag was raised on the top of the building, signifying that the top level had been completed.

The precast concrete panels which form the outer wall of the building have now been installed to the fifteenth level. Above this, the style of the panels will change with more windows at the fifteenth floor. This is followed by a windowless wall at the sixteenth level resembling a palisade, which will surround the ventilating and other machinery on the roof. The picture shows the building as it appeared on September 27th, 1966. A horizontal grill will be installed later in the vertical strip which extends up the south side.

At the lower levels, most of the extremely complex system of piping, wiring and ventilating ducts has been installed in a three-foot space between the ceiling and the floor above. The contract for the benchwork and laboratory installations has now been let.

It is confidently expected that the building will be ready for occupancy on July 1st, 1967.

Meantime, the former Dalhousie Public Health Clinic has been renamed the Clinical Research Center and is also being remodelled to provide research laboratories for the clinical departments.

The new Law Building, which was completed in September, 1966, is located only two blocks west between the two campuses. One of the lecture rooms in the Law Building has been kindly loaned for some of our lecture classes.

It will be recalled that the Medical-Dental Library had to be demolished in order to provide the site recommended by the campus planners for the Sir Charles Tupper Medical Building. During the past year, the Medical and Dental Library collections have been located in a house on College Street. This has proved reasonably satisfactory as a Library, but has had inadequate reading room facilities. Another house was used last year for this purpose, and this year the new Law Building is providing a reading room. The loan of space in the Law Building has also permitted the remodeling of one of the lecture rooms in the Medical Sciences Building to provide office and research space for several new staff members.

There are 83 students in the first year medical class, the largest ever enrolled at Dalhousie University. In spite of this, it was necessary to reject a number of applicants from the Atlantic Provinces who were fully qualified. It is unfortunate that the new building was not available for the 1966 class, and every effort is being made to ensure that it will be completed in time for the 1967 enrolment.

□

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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.

2nd Meeting of Council and 113th Annual Meeting The Medical Society of Nova Scotia

P R O G R A M M E

Thursday Nov 24 - evening - Nominating Committee.

Friday Nov 25th - morning - Breakfast for Committee on Committees.

First Session of Council

Coffee Break

Luncheon, Informal

afternoon - First Session of Annual Meeting

Second Session of Council

evening - President's Reception

Annual Banquet and Ball

Saturday Nov 26th - morning - Breakfast Committee on Committees.

Third Session of Council

Coffee Break

afternoon - Luncheon to Council M.S. of N. S.

Second Session Annual Meeting 2.30 p.m.

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.

Graduate Course in Family Practice, McMaster University, Hamilton, Ontario.

This course will be established to begin July 1, 1967. The objective is to train physicians for Family Practice, and to present an academic programme which will allow the trainee to examine and learn about the major problems in Family Practice. Physicians in training will spend about one-third of their time in a Group Practice of family physicians who will be full-time faculty members of the McMaster Medical School. While working in this Family Practice Unit there will be increasing responsibility for patients, under the continuing supervision of the staff. Seminars, rounds, consultation-teaching sessions, and journal club meetings will be part of the programme. Elective time will be available for research into problems relevant to Family Practice and learning the techniques appropriate to such research, and for further experience in clinical areas of interest. About two-thirds of the

time will be spent in residency training in Departments of Pediatrics, Medicine, Psychiatry, Surgery, and Obstetrics and Gynecology in accredited hospitals.

An integrated three year course is being offered, but initially applicants will be accepted into the second year who have completed a junior internship or into the third year after two years of internship. The first year fulfils the requirements of the Ontario College of Physicians and Surgeons for a licence to practice in this province. While there will be no contractual obligation for a recent graduate to take the full three year course, preference will be given to applicants who wish to do so.

Please direct inquiries to: Dr. W. B. Spaulding, Associate Dean, Faculty of Medicine, McMaster University, Hamilton, Ontario. □

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May we help you?*



Physicians' Services Insurance Committee

This Committee was established by the first meeting of Council in November 1965. The members are the President of the Society, (who acts as Chairman), the President-Elect and the Past-President together with four members appointed by Council, Doctors A. L. Sutherland, D. M. MacRae, H. C. Still and F. A. Dunsworth. The Executive Secretary of the Society, Doctor C. J. W. Beckwith is the Secretary of the Committee but not a member. Doctor C. L. Gosse is serving as "Past-President" in place of Doctor T. W. Gorman who resigned on his appointment as a member of the Medical Care Insurance Advisory Commission.

The terms of reference include "all matters requiring discussion or negotiations with government on physicians' services insurance and related matters." In any discussions with other parties a minimum of four members of the Committee must be present.

The Medical Society of Nova Scotia is a body corporate and a voluntary organization, having as its objects: -

1. The promotion of health and the prevention of disease.
2. The improvement of Medical Services however rendered.
3. The maintenance of the integrity and honour of the medical profession.
4. The performance of such other lawful things as are incidental or conducive to the welfare of the public and of the medical and allied professions.
5. The promotion of harmony and unity of purpose between the medical profession and the various bodies assuming economic responsibility for the care of sick or injured persons.

The present membership is approximately 680 and represents, we believe, about 90% of the practicing physicians in the province. The Society is the only one of its kind in Nova Scotia and can justly claim to represent "organized medicine". However, the By-Laws make no provision for formal commitments binding on the members being made by the Society. It therefore follows that the furthest the Society can go in approving or rejecting Government plans for Medical Care Insurance is to make recommendations to its members for appropriate action by them as individuals. Fi-

nally, it must be emphasised that the Physicians' Services Insurance Committee is not empowered to initiate policy; this remains the prerogative of the Executive Committee whose actions are subject to the final approval of Council.

The Society has been actively considering all aspects of Health Insurance, including physicians' services insurance, since 1960. Representations were made to the Hall Commission, a Plan For Medical Services Insurance (Nova Scotia) was submitted to the Government of the province in October 1963 and several meetings were held with the Advisory Committee to the Minister of Health under the Chairmanship of Mr. Frank Rowe, Q.C. The Special Research Committee of the Medical Society under the Chairmanship first of Doctor A. A. Giffen and later of Doctor F. A. Dunsworth put in many hours of work and produced a wealth of valuable information. The Society is greatly indebted to all those who served on this Committee because it was they who provided the bulk of the evidence which supports the Society's position at the present time with regard to Medical Care Insurance.

Immediately after the announcement by the Minister of Health of the establishment of the Medical Care Insurance Advisory Commission under the Chairmanship of Mr. R. McD. Black, Q.C. the Society indicated its desire to co-operate in any way possible. Arrangements were made for the Physicians' Services Insurance Committee to meet with the Commission once every two weeks. It was agreed that a formal "brief" would not be the best way to present the views of the Society and that memoranda would be prepared on matters of concern to the Society and on any questions which might be posed by the Commission. In this way it was felt that ideas could develop with more flexibility than would be the case with an initial exhaustive presentation. Experience suggests that the decision was a wise one.

A pattern of work for the Committee has begun to emerge. The Chairman assigns a topic to a member who is asked to prepare a draft memorandum; this is then considered by the Committee as a whole and amplified, amended, edited or corrected before being approved for submission to the Commission. The member responsible for the original draft presents the final version at the meeting with the Commission and answers questions which may be put. The Committee, of course,

accepts joint responsibility for the views expressed in the memoranda. Meetings with the Commission are being held on alternate Thursdays and the Committee meets on the Sunday preceding to approve the submissions.

The Committee considers itself bound by policy decisions already reached by the Society and in any case of doubt will refer the matter to the Executive Committee for a decision. It is interesting that so far only two such problems have come up; this shows how much thought has been devoted to such matters in the recent past by the Society. No doubt other decisions will have to be made in the future and it seems highly probable that the second meeting of Council next November will see important and interesting debate.

Memoranda have been submitted on the following subjects: -

1. An introductory statement on the constitution of the Society and the terms of reference of the P.S.I. Committee.
2. The potential position of M. M. C. as a fiscal agent.
3. The extent or range of physicians' services to be included under medical care insurance, with a review of services at present covered by existing legislation.
4. An historical account of the Profession's attitude to physicians' services insurance.
5. The advantages of a "Commission" as an administrative agency.
6. Fee schedules. Specialist services.

Further memoranda are being prepared to express our views and to answer specific questions put to us by the Commission. Advice is being sought from other Divisions and from the Secretariat of the Canadian Medical Association when occasion warrants.

One member of the Society has responded to the request to pass ideas and suggestions to the Committee by submitting a very interesting brief which includes, amongst other valuable ideas, a proposal for paying doctors accounts by a method which enables the patient to be made aware of the cost of the service received. This brief is being carefully studied and the member has been asked to meet with the Committee.

It must be realized that the Committee is a very active one and that this account will be out of date by the time it appears in print. It is hoped that each Branch Society will be visited by a member of the Committee at its regular meeting preceding the October meeting of the Executive Committee. In this way we hope that as many of the members of the Society as possible will have had personal contact with a P.S.I. Committee member and will have had an opportunity to express their views. □

September 1st, 1966 A. J. M. G.

FORTY YEARS AGO

From the Nova Scotia Medical *Bulletin*

October, 1926.

The Importance of Recognizing Symptoms

In reviewing our most interesting and instructive experiences at the bedside and in our consulting rooms, we all have many memories of first hand impressions that were not subsequently verified by the course of cases. No practitioner of medicine can have failed to experience such incidents. The purpose of this paper is to summon up into the foreground a few of these points of interest and to categorize them for practical purposes.

Pain in the Epigastrium - Sudden pain in this region associate with tenderness, rigidity, vomiting, and facies hippocratica, naturally gives one a first impression of perforating gastric ulcer or acute pancreatitis, both of which conditions are essentially surgical. Yet here again granted the patient is of mature age, a timely observation of a pair of Argyll Robertson pupils and absent knee and ankle jerk may justify the second thought and some hesitation in preparing the operating room; for the gastric crises of Tabes are non-surgical so far as the attack is concerned at any rate. On the other hand a perforating ulcer, unless it happens to be a perforation into strong adhesions will not as a rule respond to a period of rest in bed, liquid diet, and bismuth and soda every two hours. Physicians and Surgeons should have their heads very close together in such emergencies with plenty of room for the second thought.

Vomiting Blood - There are few more alarming conditions for an individual than the ejection of blood from the stomach. Haematomesis gives much concern to the physician and surgeon. Perhaps cancer is the first impression of the patient and doctor. The second impression that of ulcer. With opium, icebag and starvation the symptom usually subsides; the X-ray is called in at an early date. The second thought will, however, defer that expensive procedure until a careful history is taken and a careful examination of the whole patient is made, which may reveal either splenic anaemia or cirrhosis of the liver from prolonged worship at the shrine of Baccus.

Palpable Lumps in the Abdomen - On examination of the abdomen the finding of a small palpable lump is not a justification for a diagnosis of neoplasm demanding immediate operation. It may be only faecal matter and may not be demonstrated at a second examination. In a muscular abdomen, a palpable lump on the right side may be only the right rectus muscle. □

The Mitral Valve

Structure and Function in Health and Disease

Part I

J. H. HALDANE, MD

Halifax, N. S.

Introduction

The word "mitral" is derived through the Latin from the Greek mitra, a headband, or head-dress, a sort of folding cap consisting of two halves, from the lower rim of which hang two hands, terminating in fringes.

Thus there is some resemblance to the mitral valve, with the annulus or valve ring corresponding to the head band, to which are attached the two leaflets with their chordae tendineae ending in papillary muscles.

Historical

Knowledge of cardiac structure and function was scanty before the 18th century. The ancients maintained that the heart was not subject to disease. COR NON AEGROTARE POSSE, said Hippocrates. In 1628 William Harvey described the circulation of the blood in *De Motu Cordis* - "The movement of the blood is constantly in a circle and is brought about by the beat of the heart."

In 1715 Raymond Viennsen produced his "Traite Nouveau de la structure et des Causes des Mouvements du Coeur." According to Moon, this was the first serious contribution to knowledge of diseases of the heart. Mitral stenosis was described. His contemporary, Giovanni Franesi in Italy, described sclerotic and warty valves. In 1761 Morgagni wrote *De Sedibus et Causis Morborum*, in which he described cases of vegetative endocarditis.

In the 19th century two French physicians, Corvisart and Laennec, dominated the field of cardiology. Corvisart divided diseases of the heart into its three layers, pericardium, myocardium and endocardium. Laennec invented the stethoscope. He described the physical signs and correlated them to autopsy findings, but interpreted wrongly the origin of the normal heart sounds.

Development of Heart

The cardiac primordia are formed from the splanchnic mesodermal layer of the pericardial cavity on either side, where it lies close against the developing foregut. The embryo closes ventrally

and each half primordium joins centrally, becoming the endocardial tubes which fuse to form a single tube surrounded by the epimyocardium. Between these two structures is the cardiac jelly. As development progresses, cells from the endothelium invade the cardiac jelly to become the endocardial cushion tissue which eventually forms the septum of the heart and the valves.

The first heart beats of the human embryo begin at the end of the third week of development.

At the end of the first month the primary regions can be recognized. These are the sinus venosus formed by the confluence of the great veins entering the heart, the atrium, the ventricle and the truncus arteriosus. Blood passes to the ventricles through a constricted region known as the atrio ventricular canal.

The partitioning of the heart begins in the second month. Starting as a crescentic ridge on the dorso-cephalic part of the atrial wall, the septum primum grows toward the atrio ventricular canal. At the same time, two local thickenings, one dorsal, one ventral, appear in the wall of the atrio ventricular canal. These thickenings are the endocardial cushions. Each cushion consists of a plastic mass of embryonal connective tissue of the type which appears to points where the septa will fuse, or where elaborate connective tissue structures, such as the cardiac valves, are destined to form.

During the sixth week the dorsal and ventral masses join to divide the atrio ventricular canal. If the growing septa divided the heart completely, the left side of the heart would remain almost dry. By the 17 mm stage, at the seventh week, the inter-ventricular septum has closed, forming a thin fibrous sheet near the ventricular outlet. However, just when the ostium primum is about to fuse, a second opening appears in the septum primum near the cephalic end. This enables the left side of the heart to receive a contribution of blood from the right side. Occasionally abnormal development prematurely closes the interatrial communication and the left side of the heart is stunted.

At this time a second interatrial septum develops. This is crescentic in shape and the lower end fuses with the endocardial cushions. If the

endocardial cushions fail to develop, the septum primum will remain undeveloped on the atrial side of the defect.

The septum secundum does not become a complete partition. It leaves an oval aperture called the foramen ovale which usually closes post nately at nine months.

The secondary opening in the septum primum is formed so near the cephalic wall of the atrium that the unresolved lower part of the septum primum lies as a loose flap, covering the foramen ovale on its left atrial side. It thus acts as a one way valve allowing filling of the left atrium.

From the partition which divided the atrio ventricular canal and from the outer walls on each side, masses of tissue in the shape of thick, blunt flaps project toward the ventricle. It is these masses of primitive type of connective tissue which later become differentiated into the adult valve leaflets. One of the essential features of any cardiac valve is the fibrous annulus to which its leaflets are attached and which reinforces the orifice against over dilatation as the pressure builds up behind closed valves.

When the atrio ventricular canal has been divided into two channels, the foundation is laid for the medial portion of the atrio ventricular ring.

Around each of the atrio ventricular orifices, the young connective tissue begins to differentiate into the circularly disposed collagenous fibre bundles that form the mitral and tricuspid annuli. Flange-like projections into the lumen appear. These become the valves. The medial leaf of the mitral valve arises in part from the dorsal and in part from the ventral endocardial cushion of the A.V. canal. In defects low down in the atrial septum where there has been also a defect in the endocardial cushion, the medial cusp of the mitral valve becomes notched.

As the flanges which constitute the valve primordia become extended, the trabeculated myocardium is carried out on their ventricular surfaces, so that the connective tissue of the valve is continuous with the muscular trabeculae of the heart wall. In the final moulding of the valves, the muscle on the ventricular face undergoes retraction and regression so that the basis of the valve flaps becomes entirely connective tissue. At the same time the muscle pulls away from the part of the trabeculae directly adherent to the valve and this leaves only slender, fibrous strands which are the forerunners of the tendinous cords. The basal portion of those trabeculae become thickened to constitute the papillary muscles.

In the annulus heavy interlacing bundles of collagenous fibres form and send out strands which anchor the base of the valve leaflets to the annulus. Bundles of collagenous fibres also form in the tendinous cords, anchored in the tissue of the

papillary muscles. A strongly developed meshwork of slender elastic fibres interlace with the finer collagenous bundles of the atrial surface of the valve.

The endothelium constitutes an unbroken covering of the valve, cords and papillary muscles.

Structure of the Mitral Valve

The cavities of the heart are lined with a simple squamous epithelium called endothelium, supported by a layer of fibre elastic connective tissue. The endothelium and its subjacent connective tissue make up the endocardium.

Between the atrium and ventricle is a fibrous framework which gives attachment to the atrial and ventricular musculature. This is a fibrous ring called the annulus fibrosus, surrounding the mitral valve, and to which the mitral cusps are attached.

Each of the two leaflets of the mitral valve consists of a fold of endocardial connective tissue covered by endothelium. The connective tissue is differentiated into two main layers, one associated with each face of the valve. The term "holding face" is used to designate the face of a valve against which pressure builds up when the valve is closed. The predominant fibres in this layer are coarse collagenous bundles which afford the maximum strength. The holding face is relatively incompressible, but the opposite face of the valve is stretched as the valve opens and closes. It is for this reason called the deformed face. The connective tissue of this face has fewer and smaller collagenous fibre bundles and a conspicuous proportion of interwoven elastic fibres.

The collagenous fibres of the chordae tendineae are inserted into the dense white fibrous layers of the holding face. The endothelial covering of the chordae is continuous with that covering the ventricular surface of the valve.

The fibrous layers of the valve are continuous with the fibrous framework of the heart.

There is a difference of opinion as to whether the mitral valve is vascularized or not. Some workers believe that it is. Others maintain that it is only vascularized if there has been previous infections or endocarditis.

Normal Function

When the atrium contracts it does so in waves beginning at the Sino-auricular node. The intra-auricular pressure rises. Late in the atrial systole relaxation has begun in most of the atrial fibres, so the pressure falls. The jugular venous pressure reflects the pressure waves. The first wave is due to atrial systole.

The second wave is due to the bulging of the Atrio-ventricular valves which occurs at the onset of ventricular systole. A sudden fall of pressure

then occurs due to the ventricular muscle shortening and pulling down the Atrio-ventricular ring, thus enlarging the cavity of the atrium.

The third positive wave is due to the blood accumulating in the atrium while it is still shut off from the ventricles by the closed a.v. valve. This wave continues beyond ventricular systole to the end of the isometric relaxation phase (ventricular diastole). When the ventricle muscle relaxes, the a.v. ring moves up again. This makes the atrium smaller, the pressure rises and the a.v. valve opens.

At the onset of ventricular systole, the pressures in the atria and ventricles are about the same. The atrio ventricular valves are flooding into apposition. As the ventricles contract, the ventricular pressure rises steeply. The a.v. valves are shut and bulge slightly in a dome shaped fashion into the cavity of the atrium. No blood leaves the ventricle because the interventricular pressure is lower than the aortic. This isometric contraction phase lasts 0.05 second. Its duration is constant and is not affected by alterations in the heart rate.

When the ventricular pressure exceeds the aortic pressure the semi lunar valves open. Rapid ejection of blood occurs and the ventricle diminishes in size. As the ventricular muscle shortens, the base of the heart descends and pulls down the a.v. ring. The cavity of the atrium is enlarged causing an abrupt fall of pressure with it. The ventricle and aorta now form one continuous chamber, with pressure equal in both. The systolic ejection now lessens. All parts of the ventricle do not contract for the same length of time. During the latter part of systole some portions of the ventricle cease to contract and the pressure declines.

The ejection phase is variable in length and is chiefly responsible for the variations in the duration of systole. It lasts 0.2 to 0.3 seconds. The total duration of systole is the time interval between the onset of the first and second sounds. When the pulse rate is over 100 per minute systole lasts less than 0.25 seconds, and under 65 per minute, longer than 0.3 seconds. With ventricular diastole, the intraventricular pressure falls steeply but throughout this period the ventricle is a closed chamber and there is no alteration in the length of the muscle fibres.

The atrial pressure which has been rising throughout the greater part of the ventricular systole, now exceeds the intraventricular. The a.v. valves open because of the difference of pressure between the two chambers, and rapid inflow of blood occurs. During early diastole 60 per cent of the ventricular filling takes place in this way. A good deal of blood can thus enter the ventricles in the absence of any effective atrial contraction, as in atrial fibrillation. As the atrial and ventricular pressures become equal little further inflow into

the ventricle occurs. When the diastolic phase is a lone one, very little additional increase in ventricular volume takes place (phase of diastasis). Atrial systole now begins and the contents of the atrium are driven into the ventricle. Atrial systole accounts for only 35 per cent of total ventricular output. The exact amount it contributes depends on the time in diastole at which atrial systole occurs, the strength of atrial systole and the completeness with which the ventricle is already filled. If the atrium contracts after a short diastole it may contribute 60 per cent of the ventricular filling. Atrial systole lasts 0.1 seconds.

Heart Sounds

First Sound. Is due to closure of the atrio ventricular valves. It is prolonged 0.1 to 0.17 second, and low pitched. It coincides with the peak of the R wave in the E.K.G., and just precedes the onset of the C wave of the venous tracing. The vibrations have a frequency of 25 to 45 per second. Sometimes the first sound is split in normal people. This is due to asynchrony in closure of the mitral and tricuspid valves.

The intensity of the first sound depends on the degree to which the valve cusps have floated together before the onset of ventricular systole. If the edges of the cusps are already almost in apposition, their final closure will be relatively silent. If, on the other hand, the cusps are wide apart when ventricular systole begins, their approximation will be more forceful and will cause a louder sound.

The first sound is fairly quiet in a heart beating slowly, when the P-R interval is prolonged, and when the L.V. end - diastolic pressure is high as in aortic incompetence. It is loud during tachycardia or when the P-R interval is short.

Second Sound is due to closure of the semi-lunar valves, is of higher pitch, abrupt and clear, best heard in the 2nd left interspace. Its duration is 0.1 to 0.14 seconds, with a vibration frequency of 50 per second. It occurs at the onset of diastole and its intensity varies with the pressure in the great vessels at the onset of diastole. It may precede, coincide with or follow the T wave of the E.K.G. It may be split due to asynchrony of aortic and pulmonary valves but the interval should not be greater than 0.04 second.

Third Sound is heard best at the apex of the heart and lasts 0.1 second. It coincides with the phase of rapid filling of the ventricles when the A.V. valves open, the inrush of blood setting up a series of vibrations.

Fourth Sound occurs with atrial contraction and is heard best in children or in cases of ventricular hypertrophy with hypertension. It has been recorded in 27 per cent of normal people. It may be caused by the rapid inflow of blood through

the A.V. valve or by the sudden distention of the ventricle, or both.

The 3rd and 4th sounds may be very difficult to hear but as Shakespeare said, "A lover's ear will hear the lowest sound."

Congenital Defects of Mitral Valve

Mitral Atresia is very rare, usually causing death of the patient in early infancy. It may be the only abnormality or may be associated with aortic atresia.

The mitral orifice is represented by a blind depression when seen from the atrial side and no elements of valvular tissue are identifiable. The chief outlet for blood in the left atrium is via the foramen ovale which is normally found.

Congenital Mitral Stenosis is rare and resembles mitral stenosis of rheumatic origin, with fibrous thickening of the leaflets, commissural fusion and chordae shortening and fusion, converting the valve into a funnel shaped structure. The left atrium may be enlarged with a hypertrophied wall and thickened endocardium.

Mitral stenosis may be part of endocardial fibroelastosis in which left ventricular endocardial thickening is present.

Fereny (1954) reviewed 43 cases, 34 from the literature (since 1846) and 9 from the children's Memorial Hospital, Montreal. Of the 43 cases only one lived beyond 3 years of age.

Congenital Mitral Insufficiency is relatively common in association with congenital cardiac lesions. It may be found when the left ventricle is enlarged in a left to right shunt as in ventricular septal defect. Sometimes it is caused by anomalous insertion of the chordae from the posterior leaflet, coexisting with a ventricular septal defect. There may be regurgitant lesions on the posterior wall of the left atrium.

Most commonly when mitral insufficiency is part of a complete malformation, it is part of a persistent common atrioventricular canal. Ostium primum defect is an atrial septal defect, the lower border of which is formed by the mitral and tricuspid valves. In the majority of cases there is a cleft in the anterior mitral valve leaflet. There is a high ventricular septal defect as well in common a.v. canal, with clefts in either a.v. valve or both. Endocardial cushion defects are more common in children with mongolism.

Associated mitral incompetence is common in corrected transposition of the great vessels. Here the aorta arises from a ventricle situated on the left which has the structure of a normal right ventricle, and the pulmonary artery arises from a ventricle located on the right, with the structure of a normal left ventricle. The mitral valve is displaced downward and is malformed. It is the mirrored image of Ebstein's malformation of the tricuspid valve.

The chordae tendineae are shortened. Occasionally anomalous insertion of mitral chordae with mitral insufficiency may be present in otherwise normal hearts. Rarely a cleft may be present in the anterior leaflet of the mitral valve with no associated septal defect.

In Marfan's Syndrome mitral insufficiency may result from redundant leaflets and chordae tendineae.

Krovetz (Circulation, Jan. 1965, Vol. 31) reviewed the findings of 58 necropsies in Hurler's Syndrome. Mitral valve involvement was noted in 39 of these cases, with the presence of small nodules along the fine margin of the valve edge. In some cases there was shortening and thickening of the chordae. Mitral insufficiency was the predominant haemodynamic lesion, but occasionally mitral stenosis was reported.

In 1948 Winsall and Lewis described a double orifice of the mitral valve in a Yak calf. In a search of the literature they found 14 cases of the condition in man. Lewis believed that the accessory opening represented incomplete fusion of the endocardial cushion.

Cor Triatriatum: McGuire et al (Circulation, Feb. 1965) reviewed eight cases in young adults. In this condition the two right and the two left pulmonary veins come together on each side to form a common pulmonary vein or third atrium. This was separated from the true left atrium by a membrane composed of both myocardial and fibrous tissue, and had two openings communicating with the left atrium.

Only 36 cases were known up to 1960 but in the Index Medicus for 1963 six reports on twice that number of new cases were listed.

This condition may be confused with mitral stenosis. There is exertional dyspnoea and haemoptysis.

The obstruction can be relieved by surgery.

To be concluded.

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Low Back Pain

M. ERDOGAN, MD, FRCS (C)

Halifax, N. S.

Low back pain is a symptom, not a disease. It is either caused by a lesion in the lumbar spine or is referred from somewhere else. The lesion in the lumbar spine may involve either the vertebral column or the cauda equina. The etiology may be **congenital predisposition** like spondylolisthesis, sacralization of L-5 vertebra, asymmetrical facet joints; **traumatic** like an acute sprain, fracture, dislocation or chronic wear and tear causing the degeneration of a disc; **infectious**, including tuberculosis; **neoplastic**, primary or metastatic; **idiopathic** like osteoporosis, spondylitis ankylopoetica. The referred pain may be caused by a variety of lesions such as prostatitis, salpingitis, endometriosis, pancreatitis, duodenal ulcer, aortic aneurysm, neoplastic lesions involving viscera, etc. The purpose of this paper is to discuss the lesions of the lumbar discs in a concise manner.

The vertebrae are joined together by the discs anteriorly and facet joints posterolaterally reinforced by the ligaments. A disc consists of a strong circular annulus fibrosus containing resilient nucleus pulposus in between hyaline cartilage plates. An acute rupture of a normal annulus fibrosus is rare, usually degenerative changes by wear and tear precede it. The L 4-5 and L 5-S1 discs are inclined forwards and are more susceptible to injury. Therefore the great majority of the disc herniations in the lumbar spine occur at these levels. The disc degeneration causes narrowing of the disc space with traction spurs on the vertebrae along with osteoarthritic changes in the adjacent facet joints; the vertebra above tends to displace downwards and backwards, narrowing the intervertebral foraminae through which the nerve roots pass. The nucleus pulposus within a degenerated disc may or may not herniate. A nerve root may be compressed either in the vertebral canal or in the intervertebral foramen. L 4-5 disc hernia may compress L4 root in the foramen or L 5 root in the canal; L5-S1 disc hernia may compress L5 root in the foramen or S1 root in the canal.

The Symptoms

The PAIN may be felt across the low back region or only at one gluteal region with occasional radiation to the thigh. If there is nerve root irritation present caused by a herniated disc the pain is felt below the knee level. In L4-5 disc hernias the pain tends to radiate more so toward the big toe, in L5-S1 disc hernias it tends to radiate more so toward the little toe. Aggravation of the radiating pain to the leg by coughing or sneezing would indicate a nerve root irritation. The pain free remissions is one of the characteristics of a herniated lumbar disc. Sitting is usually more bothersome than standing. If the pain would radiate to the inner aspect of the thigh a posterior urethra or bladder lesion should be suspected. The pain radiating to the low abdomen and groin would suggest spondylolisthesis.

Numbness and paresthesias in the leg along with weakness of one leg indicate nerve root irritation. If the patient would complain of the coldness in a foot arterial insufficiency should be ruled out first.

The Physical Findings

The patient may have a pelvic tilt with a sciatic scoliosis. In the great majority of the patients the involved side is carried higher and indicates the herniation being lateral to the nerve root. In the remainder of the patients the opposite side is carried higher, the lesion being either beneath or medial to the nerve root.

The movements of the lumbar spine are limited. The normal lordotic curve of the lumbar spine may be straightened because of the spasm of the erector spinae muscles. Especially extension of the spine from a flexed position is painful.

Local tenderness may be present over the spinous processes or at the paravertebral region. The radiating pain to the leg caused by the percussion over a spinous process would indicate nerve root irritation. Tenderness may be present also at the sciatic point on the gluteal region.

The straight leg raising is limited on the involved side; as the recovery takes place its range

gradually increases. The presence of a nerve root irritation is checked by raising a leg straight to the point causing pain, the lowering it just a bit so that there is no more pain; at this point the foot is dorsiflexed. If there is a nerve root irritation this manoeuvre causes radiating pain to the leg.

The circumferences of the both thighs and the both calves are measured to rule out atrophy. Normally in right handed persons the right lower limb may measure $\frac{1}{4}$ " more in circumference. The weakness of one leg walking on the toes or the weakness of the plantar flexion power of a big toe indicates S1 root deficit; the weakness of one leg walking on the heels or the weakness of the dorsiflexion power of a big toe indicates L5 root deficit.

The sensation to touch as well as to pin prick and the deep tendon reflexes are checked. The hypesthesia along the medial aspect of the foot and the big toe would indicate L5 nerve root deficit; at the outer aspect of the foot and the little toe would indicate S1 root deficit. The diminished ankle jerk indicates S1 root deficit, diminished knee jerk L4 root deficit. If the L5 root is compressed quite frequently both tendon reflexes are intact.

The compression of the both jugular veins at the neck for two minutes increases cerebrospinal fluid pressure. If there is a disc herniation present this test may initiate or aggravate the pain radiating to the leg. This also true for any space occupying lesion within the vertebral canal.

As a rule also a general physical examination should be done. Along this line a rectal examination is a good practice. As far as laboratory investigation is concerned the most useful one is the sedimentation rate. If it is found to be elevated the further investigation is a must.

The radiographs of the lumbar spine should be taken to rule out any congenital or acquired abnormality. The osteoarthritis of the facet joints can be detected on oblique views as subluxation of the facets, narrowing of the joint spaces and the sclerosis of the subchondral bony plates. A soft tissue lesion like a herniated lumbar disc may not cause any changes on radiographs.

As far as myelography is concerned it has its risks and should be done only on patients who will be operated to localize definitely the involved disc level.

Clinically it is very important to differentiate a herniated lumbar disc from the cauda equina tumors. In a tumor the onset of pain is insidious without any injury. The pain is unremitting, progressively gets worse and is aggravated by rest. It tends to radiate into both legs more frequently. The spasm of the erector spinae muscles and the

sciatic scoliosis are usually not present. The neurological deficit as the loss of sensation and flaccid muscle paralysis is more prevalent and widespread. The bladder and bowel sphincter disturbances are caused much more frequently by a tumor. On the myelogram the filling defect is relatively larger. The cerebrospinal fluid changes like xanthochromia and increase protein content are more frequently seen, caused by a subarachnoid block. (The protein content over 45 mg %).

The Management

The great majority of patients with a herniated lumbar disc can be treated conservatively.

Acute Stage:

1 The complete bed rest, with a $\frac{3}{4}$ " thick plywood under the mattress is the most important part of the conservative treatment. The patient could lie on his back or on his either side with both hips and the knees flexed; he should never lie down on his stomach. The bed rest should continue for three weeks.

2 The local application of heat to the back usually gives relief; the moist heat is preferred. Sometimes in the very acute stage local heat may aggravate the symptoms, then cold applications may be found to be useful.

3 An adequate dose of medication is prescribed for sedation. There are conflicting reports regarding the efficacy of the antispasmodic agents. Probably the same end can be achieved by bed rest, moist heat and traction if necessary.

4 The local injection of an anesthetic agent at a trigger point may be found to be very useful; it may be combined with the hydrocortisone. The same may be injected into the epidural space.

5 A pelvic traction may be applied, keeping the hips and the knees moderately flexed. The amount of weight can be increased gradually to the optimum value compatible with the relief of pain.

6 In the acute stage the lumbar spine may be strapped by criss-cross tape. If it is a must for the patient to be up and around it is better to apply a plaster body jacket with the lumbosacral joint in flexion. This would give better immobilization for a satisfactory healing of the soft tissue injury. If applied it should be kept on for about six weeks.

7 Manipulation of the spine is known to give an occasional dramatic relief. It is done with the lumbar spine, hip and the knee in flexion. As a general rule if there is a clinical evidence of nerve root irritation it is safer to avoid it; otherwise serious harm can be done.

8 If the pain radiates to the relatively long leg a lift on the shoe may give a spectacular relief; if it radiates to the short leg it might aggravate it.

The Chronic Stage:

The disc lesions are known to cause episodes of pain with remissions. After the acute stage subsides it is important to rehabilitate the patient adequately to prevent the recurrence of the symptoms.

1 As a general rule the lifting up of heavy weights should be avoided. Even on picking up light objects from the floor the patient should be taught to bend with his knees, keeping the lumbar spine relatively straight.

2 On doing different things in the standing up position the hips and knees should be flexed gently actively contracting the abdominal muscles.

3 Extension of the lumbar spine should be avoided.

4 On sitting or driving the knees should be kept higher than the hip joints.

5 Plywood boards should be kept under the mattress. Sleeping on stomach should be avoided.

6 The women should avoid high heels as much as possible.

7 Twice daily exercises are done to strengthen the abdominal muscles (lying down, knees kept bent, arms held straight overhead, patient attempts to sit up) and to stretch the erector spinae muscles of the lumbar spine (knees and hips acutely bent,

one hand holds each knee and alternately forces toward the chest, lifting up the buttock).

8 A spinal support may be found to be helpful. If exercises are properly done the patient will have his "built in" support. As a general rule a corset is prescribed for women and a brace for men.

9 The job placement constitutes one of the most important aspects of the treatment. It is important that the patient should not do any heavy lifting.

The Operative Treatment:

The excision of a herniated lumbar disc with a partial laminectomy might be considered in the following situations:

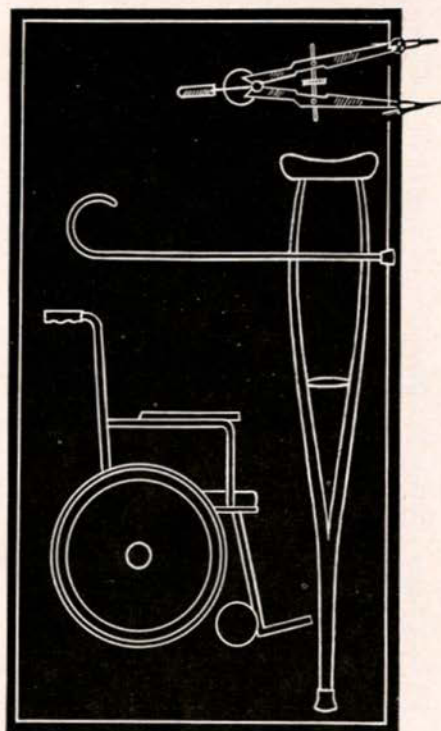
1 The symptoms fail to improve after three weeks of bed rest.

2 A major neurological deficit such as bladder or bowel disturbance is present.

3 Increasing neurological deficit in spite of conservative treatment.

4 Recurrent incapacitating attacks with clinical evidence of nerve root irritation.

If the leg pain is the chief complaint of the patient only the excision of the herniated disc is adequate. If there is also a long history of an incapacitating back pain also the fusion of the unstable segments should be done. □



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difficult if the Flight Nurse does not know what treatment the patient has received, and other relevant facts from the history.

1. The Provincial Health Unit Director must be contacted to authorize the flight if at all possible. In unusual circumstances, where the Health Unit Director cannot be reached, call the R.C.A.F. Rescue Coordination Centre at Halifax 422-9311. This Centre is manned continuously.

2. Case notes, including a brief history, physical examination and treatment given, are essential in all cases.

3. Children or minors who may need surgery should have legal consent for surgery given to the Flight Nurse with the case notes.

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Appreciation

Dr. W. Alan Curry

On September 9, 1966, the angel of death chose a shining mark and Dr. W. Alan Curry, a distinguished surgeon, died quietly and peacefully on that day.

Dr. Curry was born in Windsor, N. S. He received his early education at King's Collegiate School. He graduated in Arts from Dalhousie University in 1905 and in Medicine from McGill University in 1909. In search of more learning in the profession that he loved, he did extensive post-graduate study in Montreal and in England and finally obtained the high degree of F.R.C.S. (Eng.).

He served with distinction in the First World War in France, retiring with the rank of Major.

In 1919 he started his practice as a surgeon in Halifax, N. S., where, first as an assistant surgeon at the Victoria General Hospital, he forged ahead to become a prominent teacher and head of the Department of Surgery at Dalhousie University. He held for many years the rank of chief of surgery at both the Victoria General Hospital and the Children's Hospital.

In his profession Dr. Curry attained many honors. In addition to his F.R.C.S. (Eng.) he became a Fellow of the Royal College of Surgeons of Canada and a Fellow of the American College of Surgeons; in 1962 he was made a senior member of the Canadian Medical Association.

In the Second World War Dr. Curry was surgeon to the merchant navy men hospitalized at the Halifax Infirmary where, with no monetary gain, he gave himself unstintingly to the care of the numerous frost-bitten and war-worn casualties of that time.

The writer had a long, happy and inspiring association with Dr. Curry. As one of an intern group entering the old Victoria General Hospital in 1921 we were, one and all, greatly helped by his kind counsel.

One incident stays in one's memory. Dr. Curry was an avid lover of sports and games and in the autumn of 1921, when an important football game was about to be played, Dr. Curry, F.R.C.S., acted as intern at the V.G. Hospital to allow two

of the residents to see the game, despite the fact that in his short tenure of service he found it necessary to go out on emergency calls in the horse-driven ambulance which was considered adequate at that time.

As we extend our sincere sympathy to Dr. Curry's widow (Gladys Sireom Curry) and to their two daughters, it is a comfort to them and to us that Dr. Curry was a gentle and kind man who reached the heights in his profession. He was a great warrior for his ideals and he attained his goal in introducing new teaching, better training and higher standards in surgical procedures through his own inspiring zeal.

A noble soul has passed from this transitory existence to the life of eternal duration. He will long be remembered by a host of patients who owe life and happiness to his surgical skill and his wonderful diagnostic ability.

The stirring tribute of Aytoun to Viscount Dundee well expresses our admiration for a great and distinguished confrère:

"Sleep in peace with kindred ashes
Of the noble and the true,
Hands that never failed their country,
Hearts that never baseness knew."

J. W. M.

Dr. W. Alan Curry was outstanding in Nova Scotian and Canadian Surgery, to which he significantly contributed. He really loved his work and was always aware of current surgical practices - ready to adopt that which was worthwhile and quick to discard an operation not sound or safe.

Throughout his professional life in Halifax he maintained a great interest in the medical students; in the mid twenties he soon came to know them first in the dissecting room and kept close touch through their clinical years. As he became more senior, he was a friend to a host of internes and residents and helped to advance the careers of many.

Dr. Curry really shone as a Clinical Teacher and clearly correlated surgical anatomy, pathology and clinical surgery. I believe that few will forget his twelve o'clock third year Clinics near ward seventeen, and rarely were teacher or students absent.

Many will remember the drives with him for consultations throughout the Province - always a surgical teaching session. I particularly remember a visit to Truro in 1929, where I helped him with a Mיעuliez resection in the hospital and later watched him diagnose and open a retropharyngeal abscess on a kitchen table!

The public wards at the Victoria General and Children's Hospitals were his life, and those who entered them under his care, received the most prompt and the best attention he could give. Here he taught sound surgical principles to student, interne and resident; he liked them to be brief in their case presentations; he did not consider verbosity a virtue. He was averse to *eye wash* in a

confrère but was quick to commend a bright diagnosis or a good operative result.

He was probably the last of the really *general general* surgeons and in the twenties and early thirties, did considerable neurosurgery, urology, a bit of gynaecology as well as paediatric surgery, fractures and general surgery. He always considered it a privilege to work in the public wards and an honour to care for veterans at Camp Hill where he directed surgery for about twenty years.

Many will remember him as a good travelling companion to surgical meetings, where he was good fun and kept a fatherly eye on the young. He played a good game of tennis until he considered that he should turn to golf.

To Mrs. Curry and her daughters, will go the sympathy of the entire profession; her constant devotion contributed greatly to the success which he achieved. She was always very kind to Dr. Curry's boys.

E. F. R.

Appreciation

Dr. Clarence N. Morrison

Dr. Clarence N. Morrison died at the Victoria General Hospital on August 23, 1966, following a progressive illness of less than a year's duration.

He was born in Dominion, Cape Breton, a well known mining town at that time, in 1905. He was the son of the late Dr. and Mrs. M. D. Morrison, who, for many years was the astute Medical representative on the Workmen's Compensation Board of Nova Scotia.

He received his early education in Dominion and Glace Bay High School. He graduated from Dalhousie Medical School in 1933. He then did post graduate work in London, England and Dublin, and returned to New Waterford, Cape Breton where he had a large general practice. In 1950, he moved to Halifax where he lived for some years in his former home, and soon established a busy general practice.

He was a member of the Halifax Medical Society, The Nova Scotia Medical Society and the Canadian Medical Association. He had other interests besides medicine, being a member of the Men's Canadian Club, the North British Society

of Halifax, the Nova Scotia Historical Society, and the Waegwoltie Club. He was a valued member of St. Andrew's United Church.

Clarence will long be remembered by those who knew him as a soft spoken, warm-hearted, friendly and kindly gentleman of the Medical profession, whose ability, integrity and good-will we all admired.

He was much loved and admired by his patients, testifying to his ability and kindness to them as a physician, his readiness to serve them, and his deep sense of responsibility to them.

During his final illness, which must have caused him much pain and anguish, not once did I hear him complain. He bore his suffering with great courage and humility, knowing full well what the outcome would be.

He is survived by his wife, the former Catherine (Kit) Slessor; three sisters, Dr. Mabel Morrison, of Raleigh, N. C.; Mrs. Ben Rogers, Madrid, Spain; and Mrs. Ronald Hiseler, Peterborough, Ontario.

K.M.G.

Appreciation

Dr. Ralph L. Smith

Dr. Ralph L. Smith, radiologist-in-Chief at the Children's Hospital died suddenly on July 7th. A McGill graduate who came to Halifax as Radiologist with the Canadian Army during World War II, Dr. Smith remained to become a vigorous and energetic member of the Halifax Medical Community.

He was a man of firm conviction, and he had no hesitation in letting these convictions be known. The effervescence of his nature, together with his keen wit and boundless enthusiasm firmly established him as one of our unique and outstanding medical personalities.

Dr. Smith had been director of Radiology at Camp Hill Hospital, Consultant Radiologist to Canadian Forces Hospital, Director of Radiology at the Grace Maternity Hospital, a charter member of the Society of Pediatric Radiologists and also Associate Professor of Radiology at Dalhousie University. Besides other executive offices he served as President of Staffs of Camp Hill Hospital and also the Children's Hospital. He was deeply concerned with the Children's Hospital, and indeed was one of the original members of the Expansion Committee, who have spearheaded the drive that will soon bring a new Children's Hospital to this area. He is survived by his wife, Pat and two children Hugh and Barbara, both scholarship students at Dalhousie.

As a teacher he was one of the few who had the ability to entertain as well as educate; as a consultant he refused to hide behind a cloud of semantics but rather would give a definite opinion and suggest a straightforward course of action; and finally as a colleague and associate, he will be long remembered for his warm friendship, his scintillating sense of humour and his ability to direct an extremely efficient Department of Radiology.

..... and the elements so mixed in him that nature might stand up and say to all the world, "This was a man."

E. B. G.

The sudden death of Dr. R. L. Smith was a great loss to the medical profession, The Children's Hospital and to the children of Nova Scotia.

"Smitty", as he was affectionately known to his many friends, was the Radiologist-in-Chief at the Children's Hospital, Halifax. He was born in Connecticut but grew up in Montreal and graduated from McGill University and later qualified as a specialist in general surgery. While in the Medical Corps during the war he was stationed in Halifax and subsequently remained in the community. He served in the Radiology Department at the Victoria General Hospital, Camp Hill Hospital, Grace Maternity Hospital and the Children's Hospital and was Associate Professor of Radiology at Dalhousie Medical School. His interest in pediatric radiology led him to confine his talents to pediatric problems and he remained as the Head of the Department of Radiology at the Children's Hospital from 1951 to 1966.

Ralph Smith had many friends who admired his quick wit, explosive laughter and dedication to his profession. He was always available to offer his help and advice. He served the Children's Hospital in many capacities including President of the Medical Staff and more recently as an active member of the Building and Expansion Committee in the design of the new Isaac Walton Killam Hospital for Children. He pursued his beliefs with a vigour and frankness that frequently left his associates uneasy and embarrassed in not being able to quickly reply to his most direct questions.

He was a family man, very proud of his charming wife and his two children, but it was very uncommon to hear him remark in a boastful manner of their accomplishments.

He enjoyed travelling and was a faithful attendant at various national and international radiology and paediatric meetings.

Ralph Smith will be greatly missed by his many friends and particularly by the staff of the Children's Hospital. However, those who had the privilege of knowing him will never forget his warmth, humour and dedication and will feel just a little bit better having associated with him in many mutual activities.

W. A. C.

PRODUCTS FOR RESEARCH PURPOSES

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

Normal Serum Albumin - Human

Fibrinogen - Human

Caeruloplasmin - Human

Fractions of Plasma - Human (Various fractions produced by Cohn cold ethanol process)

Insulin - Human (Carefully standardised ampoules containing 0.69 int. units)

Insulin - of Dog, Monkey or Horse origin

Antihaemophilic Globulin - Human

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

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ARNOLD LOGAN

Halifax, N. S.

This will be an admixture of things medical and, because I am a layman, quite possibly a compound of things confounded. I offer them because I believe a layman talks and exchanges views with other laymen about physicians in different language entirely from that employed between normal patient-physician relationships. Therefore some of the following (unless you've been "bugging" our laymen gathering spots) may be of interest to you doctors. At any rate this hodge-podge (and I claim the same for other articles I have written for the Bulletin) will be truthful and will, I trust, bear the stamp of professional observing acquired in a career of some twenty years in the newspaper business and some fifteen years in the voluntary prepaid medical care plan field.

Have you doctors ever considered engaging the services of an actor, preferably one who has just been discharged as a hospital patient, to teach you how to enter a hospital ward, or a six-bed "semi-private" room? As I ask the question I'm thinking of the time I was a patient in a six-bed unit at the Victoria General Hospital.

Naturally, when a doctor or nurse is not within hearing distance, we talk about doctors; as inpatients there's very little else to do. There is, however, a sort of conversation about doctors held within ourselves right in your presence.

Six pairs of eyes see you enter the room. They're following your every move; they (let's be accurate) five see you go up to the patient "in the second bed from the end." Even sneaky reporters surreptitiously take their eyes from their newspapers to watch you, and this, I suggest, is what they're thinking:

"That doctor is walking too fast. So many patients he has to run from bed to bed" "That doctor is walking too slowly. Can't be much of a doctor; so few patients he has to spin out his visits" "Look at that one - twenty seconds and he's gone!" "Ha! Looks too young to know anything" "Ha! Looks too old to know anything!" "Not even smiling; that old guy he's treating there must be in a pretty bad way." "Hm-mm-mm! Smiling all the time; substituting a good bedside manner for medical knowledge."

I could continue for some time with this highly unscientific appraisal, but I'm eager to offer my advice on how doctors should enter a hospital room although I'm not unmindful it, too, may prove to be as un-medically indicated as the foregoing.

I think you doctors should walk neither fast nor slowly toward your patient. You should neither grin nor scowl. Don't ask me to outline a happy medium; perhaps, as I've suggested above, an actor can tell you.

I think you should pull up a chair or hitch yourself onto the edge of your patient's bed whether you can stay at his side for three minutes or ten seconds. I think if you're able to spend three minutes with him there's no need to refer to the fact you've been looking at his chart "outside". On the other hand I think you should tell him you've been examining his chart outside if you can remain for only a few seconds.

I don't think you should ask him how he's "feeling today". Good grief, don't you KNOW? I confess, however, I can't think of a substitute. In the old days when doctors had the time to "treat the whole person" (something I'm against today) doctors could use any number of substitutes: "Well, well, well, Jim. Your good wife, Elsie, was asking me yesterday when I was going to let you out of here. . . ." or "Now listen here, Jim, don't be bellowing about the meals; they're giving you just what I want you to eat." And so on.

If you haven't visited your patient for a couple of days, please tell him when you DO see him, that you've been "keeping in touch". Oh I know you really have been keeping in touch, but take a few seconds to elaborate: "I've been getting the charge nurse to read off your chart every night" sort of thing. You're in trouble if your patient takes suddenly very ill and the night nurse has to call in an intern to give him medication unless the "man-between-mister-and-doc" has sense enough to say he has been "keeping in touch with your doctor". And we have sincere pity for the doctor who doesn't arrive at this patient's side the very next day or, failing this, hasn't sent some medical man from "outside" to visit him!

(Incidentally, I once published some doggerel - I'm not capable of writing poetry - on "The Intern - the Man Between Mister and Doc", and some intern combed me for fair for my views. One of these days I'll repeat it just to see if interns have the same old fire in their make-ups.)

In the foregoing I've referred to the fact I'm not today in favor of doctors treating the whole person. I'm waiting quite long enough in their waiting rooms as it is. However I AM in favor of INSTANT TREATMENT of the whole person by doctors.

Last fall I suffered a severe case of influenza. Well I managed to get my doctor to come to my home. He listened to my back, muttered something about there being "quite a bit of congestion there" and fumbled around his oblong black bag.

"By the way, does penicillin affect you adversely?" he asked as he fitted needle to syringe.

I assured him it didn't. And.

HEAVEN'S ABOVE! What WAS that fleeting look on the doctor's face?

ONE OF RELIEF?

Perhaps I imagined it. But if it was, then THAT'S what I mean by instant treatment of the whole person. I don't mind waiting in a doctor's office, in other words, while a patient is being patted on the back, or looked at with understanding, sympathy or relief, but I'm hanged if I'm going to wait another few hours or so while the doctor treats the patients ahead of me from their toenails to their pates stopping in-between for discussions to their relatives' well-being, the fishing luck they've had, their last round of golf. Please don't misunderstand me. I think such treatment would be wonderful if there was time for the luxury, but I'm the patient reading condensed versions of medical articles in Reader's Digest, still waiting to get in to see you, and I'm the kind of patient who deserves full consideration because I'm not going to bring the Digest into your office and stick an article under your nose explaining just how you cure me. Did it once, and the doctor told me, oh so patiently, he was getting all his medicine from Time Magazine.

I had tremendous respect, and liking, for the late Dr. Corston, of Halifax. (I'm not going to bother to link this hodge-podge together, even; it's much easier to write off the top of my head.)

Anyway, back in 1925 (I think it was) my mother, two sisters and I suffered from attacks of influenza. Doctor Corston came to our home, went to our bedrooms, wrote four different prescriptions, each of which "worked".

He came to my bedroom, examined me, told me I had a touch of 'flu and added I would be back

to school soon. I was the last he saw in our home that day and I had plenty time to practice a look of a dying swan. Didn't fool that excellent doctor for a second.

So when I was a patient some years later in the V.G. Dr. Corston asked me if I would go before a clinic with him. I would. Next day they wheeled me into this large hospital lecture room. I had a nurse at my head and dozens of medical students peering down at me from the steeply banked rows of seats.

Dr. Corston was describing my condition to the students. He asked me to outline the symptoms of "my trouble" (sore, inflamed joints) and I obeyed. Then some imp took possession of me. I began to wonder if these students realized their lecturer was a specialist in a field not, so far as I know, related to rheumatic fever. I was a brash young reporter at the time.

"Do you gentlemen know that Dr. Corston is a specialist in influenza?" I blurted. There was silence for a couple of seconds, then tumultuous hand-clapping and foot stamping. Boy, did I feel like a ham actor! A "specialist in influenza"; no such thing, is there? Well, perhaps today there isn't, but back in 1925 during the "big 'flu epidemic" Dr. Corston was one and we must remember there was no penicillin then.

I've heard many a splendid tribute to doctors since. One was just recently. I was conducting an enrolment campaign in New Glasgow for the medical plan I represent when an elderly lady - she must have been close to ninety - came into our temporary enrolment headquarters.

"And who is YOUR doctor?" I asked.

"Oh, I haven't any," she replied brightly.

I could feel my eyebrows lifting.

"You see," the good lady explained, "my doctor was Dr. Ballem, of New Glasgow. But he passed on a few years ago."

I didn't know Dr. Ballem, but I know a tribute when I hear one. Whether it comes from elderly ladies or medical students. □

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Public Health News

Smallpox

The Department of Public Health recommends smallpox vaccination during infancy (under 1 year of age) and at least one revaccination preferably during the school years or early adult life.

Persons especially exposed to risk of smallpox such as nurses, doctors, medical and nursing students, all hospital personnel, persons present at ports of entry, international travellers, armed forces personnel should be properly vaccinated at regular intervals, preferably every three years.

Since a live vaccine is used, certain precautions should be taken. *It should be given only to persons in good health.*

Contraindications to smallpox vaccinations are:

Eczema or any septic skin condition in the individual or household contacts.

A BCG vaccination which is unhealed or the simultaneous administration of an intracutaneous sensitivity test.

Corticosteroid treatment.

Pregnancy.

Diphtheria, Pertussis, Tetanus and Poliomyelitis

It is recommended that the quadruple (QUAD) Vaccine be given at three months of age, a second dose at four months, a third dose at five months, a fourth dose at one year, a fifth dose at three years and a sixth dose at five to six years of age.

Following this a dose of triple antigen (diphtheria and tetanus toxoids combined with polio vaccine) at three to five years intervals is recommended up to the age of about 15 years. The triple antigen may be given between the ages of 15 to 18 but 0.5 cc is recommended instead of the usual 1 cc in this age group. Persons over 18 years of age should have a dose of T-Polio (Polio vaccine combined with tetanus toxoid) every three to five years.

Sabin Oral Polio Vaccine

The Department recommends that Sabin Oral Polio vaccine be offered to all persons who have previously had Salk vaccine. Because of the difficulty in handling this vaccine due to the large number of doses per bottle, the need for refrigeration, etc., it is not practical at the present time to supply it to physicians or to use it in our ordinary immunization programs.

After the above schedule of immunization the vast majority of children will have a high degree of immunity against polio. It is therefore recommended that the use of oral polio vaccine be directed toward school children in order to maintain a high level of immunity and to eliminate the possibility of having a susceptible adult population in the future. It is recommended that the Public

Health Nurse give the vaccine each year to beginners and grade six which are the groups she is presently working with in the schools.

Persons with a high risk of exposure to wild polio virus such as nurses, doctors, medical and nursing students, all hospital personnel, persons at ports of entry, international travellers, armed forces personnel should be fed Sabin vaccine.

It is recommended that Sabin vaccine not be given to pregnant women unless they have had Salk vaccine previously.

In an outbreak of polio, all epidemiological contacts of first cases in a community should be fed Sabin Vaccine immediately in an effort to stop further spread. The vaccine should then be offered to all regardless of age or Salk vaccine status.

Diphtheria

Persons especially exposed to risk of diphtheria such as nursing personnel, doctors, medical students and all hospital and laboratory personnel should be checked every three to five years and receive diphtheria toxoid if indicated.

Adults who have not been immunized or whose immunization status is unknown should have a Schick test done and receive diphtheria toxoid if indicated.

Tetanus

It is recommended that all adults especially agricultural workers, who have not been immunized or whose immunization status is unknown, receive three doses of tetanus toxoid with not less than three weeks between doses. At the present time tetanus-polio vaccine (BIAD) is recommended for this purpose.

Typhoid and Paratyphoid Fever

It is recommended that all persons with an exposure hazard to typhoid or paratyphoid fever such as doctors, medical and nursing personnel, all other hospital personnel, laboratory personnel, and contacts of known carriers be immunized with typhoid-paratyphoid vaccine. All such persons should be given a recall dose annually as long as they are exposed to risk. It is also recommended that all persons going into an area where typhoid or paratyphoid exists or is expected to exist, be immunized.

The Department of Public Health provides the vaccine free of charge. The vaccine is given subcutaneously in doses of 0.25 c.c., 0.5 c.c. and 1 c.c. one week apart. A reinforcing dose of 0.5 c.c. annually is recommended.

Tuberculosis

It is recommended that B.C.G. Vaccination be given to persons of any age who have a tuberculin reaction negative to at least 5 tuberculin units and who face an environmental or occupational hazard of exposure to tubercle bacilli. It is recommended that B.C.G. Vaccination be carried out only by

operators familiar with its use by the multiple pressure, multiple puncture or the intracutaneous injection method.

Measles

It is recommended that measles vaccine be administered to all children at 9 months of age or as soon as possible thereafter.

The Department of Public Health does not provide measles vaccine.

Influenza

It is recommended that influenza polyvalent vaccine be given to the aged, the debilitated and those involved in essential services such as hospital personnel, the police, firemen, etc.

The Department of Public Health does not supply influenza vaccine.

Other Communicable Diseases

The Department of Public Health maintains a supply of gamma globulin in 2 ml. rubber stoppered vials. Physicians may obtain this material free of charge for the following purposes by signing form C.D.C. 4 and giving the name and address of each case:

Prevention of infectious hepatitis in close contacts. This does not include classroom contacts in public schools.

Prevention of rubella in expectant mothers. (German measles).

Prevention of measles in debilitated children and children under two years of age.

Prevention of infection in persons with hypogammaglobulinemia.

When gamma globulin is needed for treatment purposes, such as in cases of eczema vaccinatum, etc., it may be obtained from the Red Cross Society.

Foreign Travel

Persons going to foreign countries may obtain yellow fever vaccine free of charge at the Medical Services Clinic Department of National Health and Welfare, Pier 21, P. O. Box 129, Halifax, or Medical Services Clinic, 63 Charlotte Street, Sydney, Nova Scotia. Other vaccines for foreign travel such as cholera vaccine should be obtained from private physicians.

General

All persons should be urged to maintain their immunity to the above diseases at a high level, and also to secure a record of all immunizations they have received and to guard this record carefully at all times. Such a record can be of great importance to both doctor and patient, particularly, in the case of a patient who has been injured and there is a possibility of tetanus.

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Personal Interest Notes

The daily papers, particularly each Monday morning, carry gruesome details on the fatal and near fatal accidents over the weekend. Sometimes it is not the fatal ones which bring the greater tragedy. Canada's accident fatality rate has risen from 54.9% to 56.1%. Collision of two or more vehicles caused 39.4% of the total traffic deaths. Of pedestrian deaths, 41.7% were children under 15. The 15-24 age group provided 26.7% of all traffic victims, and in that age group 40.5% of the road fatalities involved collision between two vehicles.

During the first week in September, the Canadian Good Roads Association, held its annual convention in Halifax. A morning was given to "Safety Education", "The Medical and Legal Professions Examine the Consequences of Traffic Accidents". The medical men taking part were, **Dr. H. H. Tucker**, neurosurgeon, **Dr. A. Buhr**, orthopedic surgeon, **Dr. James Ross**, plastic surgeon, **Dr. Donald Nicholson**, general surgeon and **Dr. Arthur Shears**, medical director of the Nova Scotia Rehabilitation Centre. They showed pictures of the horrific damage which 7/10ths of a second can cause followed by a life-time of impaired health and livelihood. It was stated that drinking and driving accounted for 75% of traffic accidents. In the month of July 1593 accident cases were treated at the Victoria General Hospital, a five times increase in 10 years.

Let us help the National Safety League of Canada to become as successful in preventing accidents as the Health League of Canada has been in prevention by immunization, in the years since 1943 when Immunization week was first held, of the incidence of cases and fatalities from those old-time killers, diphtheria, whooping cough, and polio.

1943 Diphtheria: Cases 2,804: deaths 287: 1965 Cases 51: deaths 6

1943 Whooping Cough: Cases 19,082: deaths 416: 1965 Cases 2,475: deaths 9

1943 Polio: Cases 8,878: deaths 481: 1965 Cases 3: deaths 1
Immunization Week was held this year from September 18 - 24.

CAPE BRETON

Dr. and Mrs. James H. Brown and their children, formerly of Rockwood, have left for Winnipeg where Dr. Brown will be assistant professor of Psychiatry at the medical school of the University of Manitoba.

Dr. S. R. Sharma has opened an office in the Causeway Shopping Centre, Port Hawkesbury.

CUMBERLAND

Dr. W. O. Coates, Amherst, has returned after a six week tour through England, Holland, East and West Germany, Poland, Russia, Finland, Sweden and Denmark.

Dr. C. N. Morehouse, who has recently moved to Halifax to practise, was honoured by the communities in the north Hants area which he had served so faithfully since his graduation from Dalhousie in 1943. Both he and Mrs. Morehouse were presented with several gifts, especially the sum of \$450.00 to buy a piece of equipment for the new Children's Hospital in his honour. Mrs. Morehouse travelled miles to clinics with him before there were any public health nurses in that area. She has also kept his accounts and records and he publicly expressed his appreciation for her assistance.

HALIFAX

Dr. F. P. Malcolm, Chief Medical Officer of the Halifax County Hospital has recently retired after having been associated with the hospital for the past 16 years. He has been on the permanent staff for the last ten years.

Dr. John Barteaux, Dartmouth, has been named chairman of the medical staff of the hospital. The medical staff have recommended to the board of directors that the appointment of two full-time psychiatrists and two more part-time medical men in addition to the one already on the staff, should be considered, as well as consultants in various clinical specialties.

Dr. Clarence L. Gosse has been re-appointed chairman of the Halifax professional division of the 1966 United Appeal campaign which was reorganized last year to cover doctors, lawyers, and dentists. He graduated from Dalhousie in 1939 and is Professor of Urology at Dalhousie and Head of the Department of Urology at The Victoria General Hospital and Camp Hill. He is president of the Dalhousie Medical Alumni Association and past president of Halifax and Nova Scotia Medical Societies and of the Canadian Urological Association.

Dr. Arthur L. Murphy's three-character comedy, "The Sleeping Bag" has been amusing audiences at the Neptune Theatre since early in July. Dr. Murphy is well known for his interest in theatre over the years. An active member of the old Theatre Arts Guild, he served as founding president of the Neptune Theatre Foundation. He is one of five Canadian authors at work on a centennial play which will be presented throughout Canada next year.

The University of Virginia's graduating class in June awarded **Dr. Gabriel Nigrin**, instructor in Paediatrics, with the Robley Dunglison Award, (named for the first medical faculty member at the University), as an outstanding teacher. Dr. Nigrin went to Virginia in 1963 after having been chief resident at the Children's Hospital, Halifax, in 1959-60 and for two years research fellow in paediatric metabolism there. He has been especially noted for teaching and patient care programs in cystic fibrosis and childhood metabolic diseases. A native of Turkey he received his medical degree from the University of Istanbul. On July 1 he joined the staff of the Brooklyn-Cumberland Medical Centre in New York.

Dr. S. H. Dhalla has accepted an appointment as lecturer in Anatomy at Dalhousie. Born in Tanzania, he received his medical training at Bombay University. He has postgraduate surgical training and received his Fellowship from the Royal College of Surgeons in England in 1961.

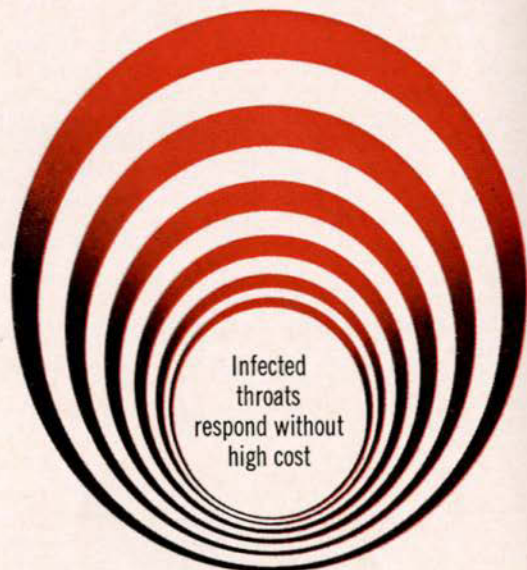
Dr. C. W. Helleiner, professor and head of the Department of Biochemistry at Dalhousie has been appointed to a new grants committee established by the Medical Research Council. This committee will be concerned with molecular biology, dealing with basic research in biochemistry and related fields. Dr. Helleiner, a native of Vienna obtained his

B.A. and Ph.D. from the University of Toronto, did postgraduate work at Oxford and later worked with the Ontario Cancer Institute and the department of medical biophysics at the University of Toronto.

Five Dalhousie medical students, one from the second year and four from the third have returned from the first CAMSI, (Canadian Association of Medical Students and Internes) expedition in Haiti, to study tropical medicine. From August 11th to September 1st they joined 55 other medical students, five from each of the other eleven medical schools in Canada, in this pilot project sponsored by the medical students themselves, the medical colleges and Ciba Company Ltd. (Canada). Associate sponsors are

the Canadian Premier Life Insurance Co. and the Canadian Medical Association, and the kind assistance of the Haitian Embassy in Canada.

A Canadian Centennial Exchange, sponsored by the Canadian Centennial Commission and an orientation were held in Victoria College, Toronto, with seminars held under the direction of medical and paramedical personnel who have spent time in Central American countries so that the students arrived in Haiti with some insight into the problems facing them. **W. C. Acker** and **R. T. Michael**, **I. A. Cameron** and **V. Andersons** went from third year and **Meng Hee Tan** from second year.



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John Albert Still, 21 year-old son of Dr. and Mrs. Hereford Still, Halifax has been awarded two graduate fellowships to further his studies at the University of Toronto. The awards, a teaching fellowship from the University and a Province of Toronto Graduate Fellowship, will apply to-

wards an M.A. and Ph.D. degree. He received his bachelor of Arts degree this year from the Honors School of English Language and Literature, Oxford.

Dr. and Mrs. Robert M. MacDonald, Halifax, have left for India and Japan where they will spend three and a half months.

Dr. and Mrs. R. F. Hand have returned after spending the summer months in Europe.

SPORTS

Dr. Clem Young, Sydney, Cape Breton made a hole-in-one at the Lingan Golf course recently with a 200 yard drive on number 8.

Dr. Greg Tompkins, RNSYS won the Brett Marine Trophy with his Eastwind - "Seawind" at Bedford Basin's annual regatta on Labour Day.

Dr. Gordon Bethune won the A Class Rochelle Tray with "Encounter" and **Dr. N. B. Trask's** "Sakoose" won the Schooner trophy.

Dr. J. K. Sullivan, of Saint John, won the Maritime High Gun over all title at the Halifax Gun Club on Labour Day. at the Maritime Trap and Skeet championships. This title goes to the competitor who posts the highest score in all the events of the meet. In second place for the third year in a row was **Dr. Harris Miller**, Halifax just two birds behind Dr. Sullivan. Dr. Miller won the trap shooting doubles with a score of 42/50 while his son won the junior all gauge title.

CONFERENCES

Dr. J. E. Hiltz, provincial president of St. John Ambulance and **Dr. J. E. Harris Miller**, commissioner for Nova Scotia will attend the one-day senior St. John Ambulance instructors seminar in the Lord Nelson Hotel on Sept 17.

Dr. William C. Nicholas, lecturer in Medicine, Dalhousie and **Dr. Robert N. Anderson**, Associate professor of medicine at Dalhousie will take part in the largest scientific assembly for family physicians to be held in Eastern Canada, in the Confederation Centre, Charlottetown, P.E.I. over the Thanksgiving weekend. Experts from Johns' Hopkins and McGill will be present to take part in the discussions on both pediatric and adult cardiology, paediatric, psychiatry and endocrinology.



The doctor spent a comfortable night

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AURORA ONTARIO

Dr. C. A. Gordon and Dr. Robert Mathieson will present papers at the medical session of the Conference on Silicosis, Pneumoconiosis Oct. 14 in Sydney. This program is sponsored by the N. S. Thoracic Society under the general chairmanship of **Dr. J. E. Hiltz**, administrator, tuberculosis control service, Nova Scotia. **Dr. J. S. McLintock**, deputy chief medical officer of the National Coal Board, London, England will be the key speaker at the sessions.

BIRTHS

To **Dr. and Mrs. James Dunne**, (née Lona Scott), a daughter, Mary Jennifer, at the Grace Maternity Hospital, Halifax, on September 8, 1966.

To **Dr. and Mrs. Albert McMurdo Sinclair**, (née Audrey Lougheed), twins, a son Albert McMurdo, and daughter, Alexis Dianne, at the Grace Maternity Hospital, Halifax on August 27, 1966.

To **Dr. and Mrs. Nicholas R. Sinclair**, (née Florence Bridger, RN), Amersham, Buckinghamshire, England, a son, Geoffrey Malcolm St. Clare, on August 19, 1966.

To **Dr. and Mrs. Jack Stein**, (née Natalie Lipton), a son, at Mount Sion Hospital, Toronto, on August 17, 1966.

OBITUARIES

Dr. W. Alan Curry, 78 years, former professor of surgery at Dalhousie University Medical School, and former chief of surgery at the Victoria General and Children's Hospital, in Halifax, died on September 9 in the Victoria General Hospital. A native of Windsor, Dr. Curry was a graduate of Dalhousie in Arts and of McGill University in Medicine in 1909. He began practice in Halifax after service in France with the Royal

Army Medical Corps in the First World War, and extensive post-graduate study in Montreal and in England. He was Fellow of the Royal College of Surgeons of England and Canada and of the American College of Surgeons, and was made a senior member in 1962 of the Canadian Medical Association, of which he had been president of both the Halifax and Nova Scotia branch. We extend our sympathy to his wife and daughters.

Dr. Clarence N. Morrison, 61 years, died at the Victoria General Hospital on August 23. Born in Dominion, Cape Breton, he was the son of the late Dr. and Mrs. M. D. Morrison. He graduated in Medicine from Dalhousie in 1933 and took postgraduate work in London, England and Dublin and returned to New Waterford to set up a general practice. In 1950 he came to Halifax. We extend our sympathy to his wife and sisters. □



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Clinical Staff Conferences Effective October 1966

PATHOLOGY INSTITUTE

Seminars in Pathology and Bacteriology	Monday	4:00 p.m.	Lecture Rm. 327	Weekly
Orthopedic Pathology	Monday	5:00 p.m.	Lecture Rm. 327	Periodically
Surgical Pathology	Tuesday	4:00 p.m.	Lecture Rm. 327	Weekly
Gynecological Pathology	Tuesday	5:00 p.m.	Lecture Rm. 327	Monthly
Neurosurgical Pathology	Wednesday (1st of mo.)	9:00 a.m.	Autopsy Room	Monthly
Neuropathology	Wednesday	2:00 p.m.	Autopsy Room	Weekly
Autopsy Cases (Gross)	Friday	2:30 p.m.	Autopsy Room	Weekly
Autopsy Cases (Micro.)	Friday	4:00 p.m.	Lecture Rm. 327	Weekly

THE CHILDREN'S HOSPITAL

Cardiology Rounds	Monday	10:30 a.m.
Neonatal Conference (Grace Hospital)	Monday	11:00 a.m.
Cardiology Conference	Monday	4:00 p.m.
Admission Rounds	Tuesday	8:00 a.m.
Medical Grand Rounds	Wednesday	9:00 a.m.
Admission Rounds	Thursday	8:00 a.m.
Metabolic Conference	Thursday	11:00 a.m.
Neurology Conference (alternates weekly)		
Case Presentation	Thursday	4:00 p.m.
Orthopaedic Ward Rounds (alternates with Orthopaedic Conference)	Friday	8:30 a.m.
Surgical Conference	Friday	11:00 a.m.
Radiology Conference (bi-weekly)	Friday	3:00 p.m.
Ward Rounds	Daily	9:00 a.m.

GRACE MATERNITY HOSPITAL

Staff Meeting Luncheon	Monday (Last)	12:00 noon
Obstetrical Conference	Tuesday (Third)	5:00 p.m.
Ward Rounds	Daily	9:00 a.m.
Journal Club Luncheon	Thursday	12:15 p.m.
Prenatal Clinic	Tuesday, Thursday, Friday	2:00 p.m.
Well Baby Clinic	Tuesday, Thursday, Friday	2:00 p.m.
Postnatal Clinic	Tuesday, Thursday, Friday	2:00 p.m.
Family Planning Clinic - by appointment		

HALIFAX INFIRMARY

Department of Anaesthesia	Monthly Conference	3rd Monday	4:00 p.m.	O.R. Suite
Department of General Practice	Monthly Conference	4th Thursday	8:30 p.m.	3C Clinic Room
Weekly Joint Conferences - attended by Department members as follows: -				
with the Department of Surgery	Wednesday		8:00 a.m.	
with the Department of Medicine	Thursday		11-12:30	
with the Department of Paediatrics	Friday		11- 1 p.m.	
with the Department of Psychiatry	Wednesday		9-10 a.m.	
with the Department of Obs.-Gyn.	Friday		12- 1 p.m.	
Department of Medicine	Grand Rounds	Tuesday	12- 1:15 p.m.	4C Clinic Room
Intern-Resident Training Conference	Thursday		11-12:30 p.m.	4C Clinic Room
Department of Obstetrics and Gynecology	Weekly Rounds	Friday	12- 1 p.m.	3C Clinic Room
Monthly Meeting	3rd Tuesday		5- 6 p.m.	3C Clinic Room
Daily Conference	Mon.-Fri.		9 a.m.	3C Clinic Room
Department of Ophthalmology	Weekly Conference	Tuesday	6:30 p.m.	Outpatient Dept.
Monthly Conference	3rd Tuesday		6:30 p.m.	Outpatient Dept.
Department of Pathology	Clinical Pathological Conference	Last Wednesday	12 noon	Auditorium
Department of Pediatrics	Grand Rounds	Friday	11-12 a.m.	Pediatric Dept.
Pediatric Conference	Friday		12- 1 p.m.	Pediatric Dept.
Department of Psychiatry	Case Presentation	Wednesday	9 a.m.	2A Clinic Room
Monthly Conference	3rd Wednesday		9-11 a.m.	2A Clinic Room
Daily Ward Rounds			8 a.m.	Psychiatric Dept.
Department of Radiology	Weekly Conference	Thursday	3:30 p.m.	Radiology Dept.
House Staff Conference	Tuesday		1- 2 p.m.	Radiology Dept.
Department of Surgery	Weekly Conference	Wednesday	8 a.m.	3C Clinic Room
Department of Urology	Weekly Conference	Thursday	12 noon	Urology Dept.
Monthly Meeting	2nd Thursday		12 noon	Urology Dept.

This listing is as complete as possible, and all excerpts listed are open to any interested Physician.
Information regarding other areas of the Province is welcomed and will be published when available.

VICTORIA GENERAL HOSPITAL

Department of Medicine

Cardiac Working Conference			
Grand Medical Rounds	Monday	1:00- 2:00 p.m.	X-ray Conference Room
Cardiac	Tuesday	8:30-10:00 a.m.	4th Floor Class room
	Tuesday	1:00- 2:00 p.m.	OPD Conference Room
	(1st & 3rd)		
Pulmonary	Tuesday	1:00- 2:00 p.m.	OPD Conference Room
	(2nd & 4th)		
Haematology	Tuesday	2:00- 4:30 p.m.	3rd Floor OPD
Gastroenterology			
and			
Haematology	Wednesday	1:00- 2:00 p.m.	OPD Conference Room
Neurosurgery-Neurology			
	Wednesday	9:00-10:00 a.m.	Pavilion Conf. Room
Rheumatology	Wednesday	9:00-11:00 a.m.	3rd Floor OPD
Metabolism			
Endocrinology	Thursday	1:00- 2:00 p.m.	OPD Conference Room
Renology			
Neurology	Friday	1:00- 2:00 p.m.	OPD Conference Room
	(1st & 3rd)		
Cardiopulmonary Pathology	Friday	1:00- 2:00 p.m.	OPD Conference Room
	4th		
Cardiology	Friday	2:00- 4:00 p.m.	3rd Floor OPD

Department of Surgery

Weekly Clinical Conf.	Saturday	11:00 a.m.	5th Floor Clinic Room
Surgical Pathology			
Conference	Monday	4:00 p.m.	Path. Bldg.
Surgical Cardiovascular			
Conference	Saturday	8:00 a.m.	4th Floor Clinic Room
Ward Rounds			
Surgery A	Friday	8:00 a.m.	6 South
Surgery B	Saturday	9:00 a.m.	6 North
Surgery C	Wednesday	8:30 a.m.	6 South
Surgery D	Saturday	9:00 a.m.	6 North
Orthopaedics	Tuesday	11:00 a.m.	4 West
Out Patients Clinics			
Surgery A	Friday	9:30 a.m.	Outpatient Dept.
Surgery B	Thursday	9:30 a.m.	Outpatient Dept.
Surgery C	Wednesday	9:30 a.m.	Outpatient Dept.
Surgery D	Tuesday	9:30 a.m.	Outpatient Dept.

Department of Gynaecology

Ward Rounds	Daily	9:00 a.m.	5 West
Grand Rounds	Saturday	8:30 a.m.	5th Floor Clinic Room
Pathology Conference	Tuesday	5:00 p.m.	Path. Institute
	(First)		
Tumour Clinic	Tuesday &		
	Friday	11:30 a.m.	Outpatient Dept.
Gyb. Outpatient Clinice	Monday	2:00 p.m.	Outpatient Dept.
Gyn. Endocrine Clinic	Wednesday	2:00 p.m.	Outpatient Dept.

Department of Radiology

Therapeutic Radiology			
Ward Rounds	Thursday	8:30 a.m.	6 South
Diagnostic Radiology			
Conference	Daily	3:00 p.m.	Radiology Dept.
Proven Case Conference			
	Thursday	1:00 p.m.	Radiology Dept.
Clinical Conference	Thursday	5:30 p.m.	X-ray Conf. Room
	(3rd)		
Departmental Conference			
	Friday	1:00 p.m.	X-ray Conf. Room
	(Last)		

Department of Psychiatry

Ward Rounds	Monday &		
	Friday	10:30 a.m.	Pavilion
Seminar	Friday	4:00 p.m.	West Annex Conf. Rm.
Child Guidance Clinic	Thursday	9:00 a.m.	Auditorium
Case Presentations	Monday, Tuesday, Friday &		
	Saturday	9:00 a.m.	Pavilion Conf. Room

Department of Urology

Conference	Monday		
	Wednesday &		
	Friday	4:30 p.m.	6 West
Seminar	Tuesday	4:30 p.m.	X-ray Conf. Room

Department of Anaesthesia

Conference	Friday	3:30 p.m.	
	(First)		

Nova Scotia Tumour Clinic

Conference	Friday	12:30 p.m.	Tumour Clinic
	(Third)		
Clinics			
Rectal	Monday	11:00 a.m.	Tumour Clinic
Breast	Monday	2:00 p.m.	Tumour Clinic
Gynaecology	Tuesday	11:00 a.m.	Outpatient Dept.
Skin, Soft Tissue	Tuesday	11:30 a.m.	Tumour Clinic
Colon	Tuesday	11:30 a.m.	Tumour Clinic
Leukemia &			
Lymphoma	Tuesday	2:00 p.m.	Outpatient Dept.
Paediatric	Tuesday	2:00 p.m.	Tumour Clinic
	(Fourth)		
Ophthalmology	Tuesday	2:30 p.m.	Outpatient Dept.
Head & Neck	Wednesday	11:00 a.m.	Tumour Clinic
Otolaryngology	Wednesday	11:00 a.m.	Outpatient Dept.
Neurosurgery	Wednesday	11:00 a.m.	Outpatient Dept.
Urology	Thursday	10:00 a.m.	Outpatient Dept.
Breast	Thursday	11:00 a.m.	Tumour Clinic
Pulmonary	Friday	12:00 noon	Tumour Clinic
Gastric &			
Esophageal	Friday	12:00 noon	Tumour Clinic
Orthopaedic	Friday	10:00 a.m.	Tumour Clinic
	(2nd & 4th)		
Gynaecology	Friday	11:00 a.m.	Outpatient Dept.