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GUEST EDITORIAL

It Seems To Me

S. C. Robinson,* MD, FRCS(C)

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I have been away from Nova Scotia for three years teaching in Pakistan, and everyone asks "What's it like to come back?". Let me tell you:

A Few General Comments

It is unfair to pretend to "know" a foreign country even if one has worked there for awhile; even more it is misleading to generalize about other countries. Developing countries — such as Pakistan — may be new in a political sense, but have ancient and rich traditions. Change has come quickly, overwhelmingly and problems of adaptation are usually massive. The easily absorbed elements of technology — cars, TV, radio — come first in a market economy, while resource development and services take longer. My observations should not be seen as criticism of a nation not yet fifty years old, enduring all manner of growth problems. Rather the difficulties, including a perceived foreign military threat, have to be understood and the people and their leaders commended for maintaining values and life's essentials in a remarkable way.

Further, I was associated with the Aga Khan University, a new medical sciences institution and the only non-government faculty in the country. The faculty are almost all foreign trained in their specialties but very few are Westerners. There is a fine university hospital, modern facilities and a curriculum and teaching method of international standards. The difficulty is to relate this centre to the struggling and meagre education and health services general throughout the country. How will these well-educated graduates cope, let alone make change?

The Aga Khan Foundation has widespread primary health care, education and rural development organizations through much of Pakistan, as well as in other Asian, African and Middle Eastern countries. The university, through its schools of nursing and medicine and its hospital, is an extension of these more local and basic services. Together, a model health care system for the country in conjunction with government and other private agencies may evolve. We hope so.

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Life and Living

I am getting used to obeying traffic rules, to shopping in one store instead of ten stalls, to near-empty streets, to regular phone, electricity and water. You see, we lived in Karachi, a rapidly overgrown metropolis of perhaps 14 million, located near the Indus River, in the desert of Sindh, but on the coast of the Arabian Sea. With irrigation or tube wells, the land can be greened and, in older parts of the city, there are trees, many blooming beautifully most of the year.

There is a vitality and energy in Asian society which we miss in our northern country (except perhaps in Cape Breton) — people constantly meet people, and acknowledge one another. It is natural to become a group — the people in and on a bus, the group gathered around an outdoor TV, those waiting for an event. A small incident can easily spark a group purpose and lead to impulsive activity, unpredictable with consequences good or bad, depending sometimes on your point of view. A riot and a burned-out bus may be simply teaching a lesson to the careless driver who injures a pedestrian, or a skirmish with Kalashnikovs between rival student political groups may close a university for six months. Back home we do not really have to look to our own safety — we assume it!

Poverty

The World Bank gives the average annual per capita income in Pakistan as about \$325 — about what a Canadian family will spend for their pet cat. In the urban slums where our medical faculty had clinics, a family of eight or nine might have an income of less than \$100 a month, a one-room home, no running water, sewage or toilet. Basic food, fuel and clothing is all that can be afforded and about half of the women and children are iron deficient, although real starvation is rare. I find I reflect with better understanding on that part of our Nova Scotia population which lives below the poverty line and I am more concerned with the implications in our northern climate. Are we doing enough?

Family

In Pakistan as in most of Asia, the only security lies in the family. There is no social security system through government, almost none through religious foundations (some noble exceptions), and authority resides in the senior family male. At marriage, the woman literally moves to her in-laws' home. Few can afford education and literacy is only achieved by about forty percent of males and twenty percent of females. My eyes have been opened to look again at the concerns here, and our sixteen percent illiteracy in Canada (twenty-five for "numeracy") seems appalling!

Religion

It took me a long time to get used to the "Azan" and the call to prayer five times a day from the loudspeaker

of every mosque in the country. I could hear fourteen at the pre-dawn call! The Friday sermons, also through the loudspeakers, are compelling, persuasive and often political. Religion is the principle unifying force in Islamic lands and contrasts unbelievably with our mostly post-religious society. We have lost a "brotherhood or sisterhood". Have we gained a resultant tolerance — perhaps we have, and I feel good about this after returning.

Government

I was disturbed at the governmental confusion while we were in Pakistan — General Zia's death in a plane crash, Benazir Bhutto's election, the confrontation between the federal and provincial leaders, between the original people and the newcomers (from India). Government is the military, an often corrupt civil service and a single and ubiquitous state TV, all requiring the support of the religious leaders, many of whom are fundamentalists. Politics are emotional, lively and sometimes violent, but then I returned to the "calm" of Meach Lake, free trade, GST and our boisterous Senate!

Public Services

In many Third world countries, less than ten percent of GSP is available for education, health and social services. The private sector moves in and provides a variety of services which the wealthy can afford to purchase. Generally speaking, there is no quality control, internal or external. The balance of the economy is usually concerned with defence, debt repayment to western "beneficiaries", and support of the bureaucracy. The salaried pay taxes, everyone else tries to avoid them. The economies of those countries without easy wealth in natural resources, e.g. oil, and no tradition of modern education, are in trouble.

I have come to realize that our state-managed, tax-supported social services (with all their deficiencies) are an incomparably better way to "care" for each other. When you do not need to have seven or eight children in order to raise one son who will take care of your old age, family planning and the quality of life for each child can be considered. Our system may need better checks and some fine tuning, but basically it is a caring, humane and effective response to human needs. People in need receive help, not as charity, but as an insured right which everyone supports.

Education

In Islamic societies, the first elements of primary education are, of course, religious and children learn to recite the Holy Koran in Arabic. From then on in Pakistan, education is more or less modelled on the British-based system found in India in the time the countries separated. Unfortunately, there has been little development or change since then where schools exist (which they don't in many parts of the country). In addition to general illiteracy, the basic standards in the

universities have fallen and the quality of graduates, which the country needs so badly, has clearly deteriorated. An exception to all this would be the few excellent private schools and the educational services operated by the military for their members and dependents.

Effective state-supported education available to all, means opportunity for all and, where available, has undoubtedly resulted in a quality of life on average way above those countries where education opportunities are not there for everyone.

Health Care

And finally, but not least, my thoughts about health care systems. I have read the Report of the Royal Commission on Health Care, the Medical Society's response, that of the RNANS and others, and listened to much debate. I have also read a series of articles in the *New England Journal of Medicine*, the *Canadian Medical Association Journal*, and heard the whining and wailing of those self-centred and indulgent physicians to whom the "get rich quick and damn the public" philosophy, typified in the U.S.A., appeals. They use every kind of rationalization to justify serving the richer half of society generally very well, while denying the same to the poor, except as a charity.

In South Asia, apart from quite successful UNICEF aided immunization programs, the poor, especially rural (and 80% of the population is rural), rarely receive any effective health care. I am talking of the most basic preventive services, like clean water, sewage disposal, infant and maternal care, as well as control of infection and deficiency diseases. Tuberculosis, typhoid, malaria and leprosy are important infections. Infant diarrhea is common and often fatal. Huge goiters are common across the mountainous north due to iodine lack. Iron and quality protein are scarce everywhere due to cost and lack of knowledge. Dispensaries may have no medicine, hospitals no nurses or doctors, whole districts no sanitary supervisor. Maternal and infant mortality are outrageous and life expectancy is still not much over 50 or 55, and lower for women than men. In Pakistan, one woman in 20 will die from a pregnancy-related incident.

Urban hospitals, government run, have long waits, incomplete services, often unsupervised housestaff and government doctors who spend large portions of their

time moonlighting in rewarding private practice. There is little quality control. Apart from narcotics, any medicine is available without prescription and may be used improperly. Private laboratories do a thriving business and those who can afford these carry sheaves of reports — often irrelevant. The borders between untrained attendants, traditional practitioners and science-based nursing and medicine are unclear. While there is a Pakistan College of Physicians and Surgeons for identifying and registering specialists, many so-called specialists are self-designated. Postgraduate programs are mostly ill-defined.

We have an imperfect health care system, but have learned a lot since the early fifties when hospital insurance came to Canada. We have developed safe water and sanitation services for a century. A lot of our ill health has to do with our ambivalent views about advertising, taxation, farm subsidies and so on, as these related to tobacco, packaging, market manipulation, quick and easy eating styles. Our children in school learn more about algebra and ancient history than about consumerism and health maintenance. What they do "get taught" is often not reinforced at home or is negated on the TV. As a force for learning with enormous potential, TV unfortunately has been stolen by advertisers with only commercial motives — this is also true in the developing world. As citizens and as physicians, we need to continue to address these matters with our colleagues and in the other health professions, and reinforce each other's messages.

Finally, our diagnostic, treatment, and rehabilitation services — Medicare system — struck me afresh on my return as something incredibly effective, available and affordable. Now I have heard and read most of the complaints and criticisms, but doesn't this mean that our system is dynamic and can be responsive and has built-in or available means for correction. Good. Let's work at it. But, let's remember, we have the finest health care system in the world, by no means the most expensive, and proudly remind ourselves that the rest of the world envies us! Other lands may develop health care in different ways — fine — but we have built well for us, and we would be fools if we did not continue to correct and improve what we have!

Or so it seems to me! □

What Else is New?

"We trained hard, but it seems that every time we were beginning to form up into teams we would be reorganized. I was to learn later in life that we tend to meet any new situation by reorganizing, and a wonderful method it can be for creating the illusion of progress, while producing confusion, inefficiency and demoralization."

Caius Petronius (AD66)

RICHARD J. DYKE

THE MEDICAL SOCIETY OF NOVA SCOTIA'S NEW EXECUTIVE DIRECTOR

Richard Dyke was a junior high school student when he read the unabridged version of *War and Peace*. Recently, he finished reading a *Complete History of Medieval Europe*. Those who know the new Executive Director of The Society well, will tell you that he is a perfect example of an individual who thoroughly enjoys the pleasures of great literature and classical music and the complexities of modern economics.

Richard Dyke is also no stranger to the complexities of today's health care system. In his years with The Society, he has been constantly immersed in sensitive areas that have honed his skills dealing with very difficult issues. Without doubt, his work as our Researcher and more recently, as the Director of Economics have provided him with invaluable experience that will serve him well in his new role.

Born in Yarmouth, Richard is modest about his scholastic achievements. "I was a straight B student," he says. "I probably could have made A's, but I've always believed that there is more to life than concentrating strictly on academics." He displayed his interest in non-academic pursuits by getting involved with youth organizations, becoming a proficient marksman and by playing on his high school curling team. He is also very proud of a special high school award he received for being the student showing the greatest appreciation of the Acadian culture, which he continues to truly admire.

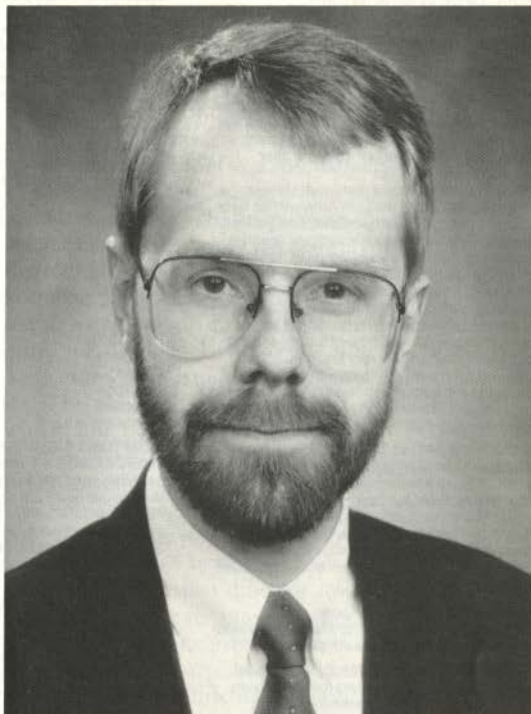
It was at the University of King's College that he first demonstrated his "eclectic" personality by successfully studying such diverse subjects as Latin, Greek, philosophy, linear algebra and economics. Why economics? According to him, "Because it combines the best of both worlds - hard core science and societal concerns."

During his last year at King's, he served as Treasurer of the Student Council. He takes some pride in the fact that he successfully "balanced the budget." This achievement was obviously appreciated because after graduating with his B.A. in Economics and Philosophy, he was asked to serve another term as Treasurer.

Shortly after he received his M.B.A. from Dalhousie University, Richard worked for the Nova Scotia Power Corporation as an internal consultant. In 1987, he accepted a position as Research Economist at The Society. A year later, he became the Associate Director of Economics. He graciously acknowledges the guidance of Anton Schellinck who he says, introduced him to the many nuances of organized medicine.

At its April 6th Meeting, the Executive of the Medical Society officially appointed Richard Dyke as its Executive Director. Asked if he has any reservations about the challenges he now faces, he confides that, like many interns and residents, he has already encountered the comment, "You look young for the job." But as he so astutely notes, "Maturity has little to do with one's chronological age." He says that he learned this a number of years ago when his mother became seriously ill and he had to assume most of the responsibility of running a home.

Today, Richard Dyke is enthusiastic about his new duties as Executive Director. He says he is fully cognizant of the drastic re-direction facing Canada's health care system and the ethical dilemmas it also faces. He is convinced that doctors must confront the implications of fiscal restraints.



He feels it is imperative they actively pursue an advocacy role in health care. "Doctors have to buy into the system even if it means sacrificing a small degree of their independence in order to maintain their position as leaders in health care"

Richard likes to describe himself as an "optimistic pragmatist." He explains that this means he always expects the best of people, but at the same time, remains vigilant for possible problems. He thinks this positive attitude has been a major factor in enabling him to build a strong working relationship with his peers. People who have worked closely with him agree that one of his great strengths is his exceptional inter-personal skills. This quality has often been demonstrated in the professional associations he has with many government and health related organizations.

In 1990, Richard Dyke reached his five year goal of becoming a Certified Management Accountant. For now, his future plans include becoming more involved in broader pursuits, "I feel it is very important to give something back to the community." He says this is the kind of commitment physicians in this province continue to make and that is one of the reasons, "I have great respect for doctors and the tremendous commitment they make to improving the health and life styles of all Nova Scotians."

The Society's new Executive Director is married to Nancy Elliott, who will receive her L.L.B. at Dalhousie University's spring convocation. The couple are proud parents of Nicholas, born February of this year. □

Dorothy Grant

Using the Sensitive TSH Assay

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The new sensitive TSH assay has improved thyroid function testing. The TSH is now the preferred initial means of determining the thyroid hormone state and for monitoring thyroid replacement therapy. The assay is not indicated for screening asymptomatic people.

What is the best way to determine a patient's thyroid status? If the history and clinical examination raise the possibility of thyroid abnormalities, laboratory testing is indicated. There has been a major change in which blood tests are recommended to assess the thyroid state. Many of the assays that were used over the past decade to evaluate the thyroid are now obsolete.

The older assays were, at best, crude estimates of thyroid status. The PBI, then later the total T4 and total T3, measure all the circulating hormone, both protein bound and free. There are several problems with using these assays. First, only 0.05% to 0.25% of the total circulating hormone is actually unbound and therefore biologically active, while the remainder is bound to protein. The levels of these carrier proteins are easily altered by a multitude of drugs, diseases, and even natural states such as pregnancy. As such, the measurement of total hormone levels has significant limitations for diagnosis and treatment.

The total hormone levels are also of limited use for subtle, early changes in thyroid status. There is a wide range of normal values for these measurements. Thus, thyroid abnormalities have to be very pronounced before the tests fall outside normal levels. For instance, a failing thyroid gland could be stimulated to keep up normal hormonal output by very high levels of TSH from the pituitary. Although such a state would be pathological (subclinical hypothyroidism) the measured total T4 level would be normal, until advanced thyroid failure had ensued.

Other assays and calculated indices were developed to estimate the free portion of hormone, e.g. the resin uptake tests and the free thyroxine index. Being indirect measurements of clinical thyroid status, they are subject to variability in different disease states. As a result, interpreting them can be difficult.

A very accurate test for free T4 is now available, but surprisingly, it still does not provide the best index of thyroid status.

The pituitary has a potent feedback system for controlling thyroid hormone production. The pituitary appears to monitor hormone levels by taking T4 out of

the circulation and converting it to T3. TSH is then produced by the pituitary. This TSH stimulates the thyroid gland to increase its hormonal output. *The level of the circulating TSH is a considerably better guide to a patient's thyroid status than the free hormone measurement.* The TSH rises above the reference range before the T4 falls below normal early in the course of thyroid failure. The TSH can provide evidence of hormone insufficiency well before the patient becomes overtly symptomatic. In almost all cases of hyperthyroidism, the TSH level falls below normal. In the past, TSH assays were hampered by their relative insensitivity. The results might be reported as "undetectable", which did not permit differentiation between low normal levels or the suppressed TSH resulting from hyperthyroidism.

A new sensitive TSH assay became widely available last year, which gives clear objective evidence of thyroid status. This new technique uses a double binding process in which two different reagents are used that bind TSH at separate antigenic sites. It is considered to be tenfold more sensitive than previously used TSH by RIA.¹ It is now the recommended first step in investigation of suspected thyroid abnormalities, and it has replaced the older test. Many Nova Scotia hospital laboratories are now using it, and there is a trend to convert over to this assay.

Using this new assay, even though the free T4 may be in the normal range, an elevated TSH provides evidence of thyroid insufficiency. If the TSH is elevated, then further testing may be indicated to determine the cause of the failure, but the diagnosis of hypothyroidism is made if clinical findings agree. If the TSH is normal, then the patient is likely to be euthyroid. A low TSH supports a clinical diagnosis of hyperthyroidism.

There is debate about whether one can rely on the TSH measurement alone. Some endocrinologists feel that both the free T4 and TSH together are required to avoid misinterpretation.² Other authors have suggested that the TSH alone be the initial test used, to be followed with a T4 only if the TSH is abnormal. Sawin *et al.* showed that depressed levels of TSH are far more common in seniors than true hyperthyroidism, and T4 levels are required to confirm the diagnosis.³ In their study of 2575 people over 60, 3.9% had a depressed TSH. Of this 101, only 6 were found subsequently to be hyperthyroid. This study points out the inadvisability of screening healthy people for thyroid problems, because of the high rate of false positives. It also indicates that many people on replacement therapy are getting too much hormone.

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The sensitive TSH assay can help to direct the level of replacement therapy in hypothyroidism. Until now it has also been difficult to judge the replacement dose required. For years, it was a "best guess" clinical approach. Not infrequently, the dose of replacement hormone was titrated against symptoms of fatigue and weight gain. Since most people suffer fatigue at some time, and weight gain and obesity are common also, there was a temptation to prescribe higher and higher dose of medication to alleviate these symptoms. Unfortunately, this could result in iatrogenic hyperthyroid states. There is evidence that overtreatment produces osteoporosis.⁴ Laboratory testing was often of little help, again because of the wide reference ranges and the relative insensitivity of the TSH assay.

Now, an elevated sensitive TSH in a hypothyroid patient on replacement indicates that the dose of synthetic hormone should be increased. If a patient on replacement therapy has a normal TSH then the dose is probably adequate. In addition, the TSH will fall to sub-normal levels if the patient is receiving too much hormone.

In Sawin's study, 31% of the seniors on thyroid therapy had low TSH levels, indicating they were overtreated. There may well be a number of patients receiving synthetic thyroid hormone who do not need it at all. Some authors have recommended that in patients where inadequate criteria exist for having initiated hormone therapy, that replacement be stopped and a TSH done 8 weeks later. A normal value indicates the patients are euthyroid without replacement.⁵

In the case of subclinical hypothyroidism, it has been suggested that early hormone replacement therapy might be beneficial, even if T4 levels are normal. There is evidence that these patients demonstrate depressed cardiac function, and can feel improved if their TSH levels are normalised with replacement therapy.⁶ A significant proportion will go on to overt failure.

In several thyroid diseases the levels of endogenous hormone may well vary over time, and regular assessment of the TSH is the best guide to titrating the dose of replacement therapy. After any change in dosage, it typically takes 6 weeks or more for the TSH level to stabilise. Repeat resting after that time seems indicated, although some authors have recommended that retesting be delayed for 2 to 6 months after a change in dose.⁷

A normal TSH and symptomatic relief is now the goal of replacement therapy. A normal TSH generally reassures the clinician that the patient is euthyroid, and other causes for fatigue and weight gain can be sought.

There are some uncommon conditions where more testing is required, such as pituitary failure. This would be suspected if both the T4 and TSH were low. A TRH challenge may be indicated under these circumstances, but referral to an endocrinologist for such workups is usually recommended.

As helpful as the TSH should be, it does not follow that widespread screening with it is indicated. The use of the assay should be limited to situations where the

clinical picture indicates the possibility of thyroid dysfunction. Although the new TSH assay is not a particularly expensive one by itself, it is a major cost item in the aggregate. This is because so many are done. In Nova Scotia in 1989/90, \$3,167,200 was spent measuring T3U, T4 and TSH (115,750, 119,000, and 121,980 tests respectively). This expenditure represented just over 5% of the total laboratory budget for all tests in this period, and was an increase of \$700,000.00 over what was spent in 1987/88 on thyroid assays.⁸

Thyroid testing can easily be overused if ordered for the evaluation of vague symptoms, or as part of a routine "screen" in hospitalised patients. This is not cost effective in hospitalised patients, and can be misleading.⁹

A recent study indicated that physicians will reduce their ordering of thyroid tests if they know the cost at the time of ordering, although the effects of the intervention waned after the reminders were stopped.¹⁰ □

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Conservative Management of Ectopic Pregnancy

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Ectopic pregnancy is a commonly encountered gynecologic problem. Recent advances have allowed early diagnosis and treatment. Therapy is now centered on preservation of fertility. Laparoscopic surgery and medical therapy are the modern approaches.

The incidence of ectopic pregnancy has been increasing steadily in recent years and in 1983, the Centre for Disease Control reported 69,000 ectopic pregnancies in the United States alone. This represented more than one percent of all pregnancies.¹ This increased incidence is due to several factors including earlier diagnosis and treatment of pelvic inflammatory disease, increasing tubal surgery, and the common use of the intra-uterine contraceptive device. In addition, the increasing availability of sensitive human chorionic gonadotrophin (HCG) assays have allowed the recognition of ectopic pregnancy much earlier than in previous years — even perhaps identifying ectopic pregnancies that would otherwise complete their pathological course unnoticed.

Maternal mortality has declined dramatically in the last ten to twenty years, in part due to earlier diagnosis; however, subsequent fertility has not improved. Repeat ectopic pregnancies have similar rates after radical or conservative surgery (10-15%). However, intra-uterine pregnancy rates seem to be higher after conservative surgery (60%) as compared with radical surgery (40%).¹

The object of conservative management of ectopic pregnancy (which can include both surgical and non-surgical techniques) is the removal of products of conception while inflicting as minimal damage as possible to the involved tube.

Surgical techniques include linear salpingostomy ± suturing; segmental resection (with simultaneous or subsequent reanastomosis); or if these techniques are not practical, then more radical surgery of salpingectomy. All these procedures can be performed by either laparotomy or laparoscopy.

The choice of surgical technique is dependent on several factors including: 1) the condition of the tube (ruptured vs. unruptured); 2) location of the ectopic pregnancy; 3) size of the gestation or accessibility (the presence of adhesions); and 4) complications encountered such as bleeding.

Non-surgical management techniques include expectant management and the use of Methotrexate.®

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Case Summary #1 C.G.

Thirty-one year old G2 P1 patient with a last menstrual period 4 weeks before. She had spotting, some right lower quadrant cramping, negative ultrasound and positive pregnancy test. Laparoscopy demonstrated a 2.5 cm ectopic in the frimbriated portion of the right fallopian tube. There was approximately 200 cc of blood in the cul-de-sac. Opposite tube was normal. Distal salpingectomy carried out laparoscopically. Pathology confirmed ectopic pregnancy.

Titres + follow-up examination normal.

Case Summary #2 W.M.

A twenty-four year old G1 P0 patient who presented with lower abdominal pain, tenderness in the right adnexa, negative ultrasound, positive pregnancy test and spotting. Taken into the O.R. for laparoscopy where some bleeding from the end of the right fallopian tube was noted and, in the ampullar portion, there was a 1 cm swelling compatible with an ectopic pregnancy. Using laparoscopic cautery scissors, the antemesenteric portion of the tube was opened and using grasping forceps, the ectopic material was removed. There was bleeding from the edge of the tube that required hot cautery to effect hemostasis.

Follow-up HCG levels showed gradual droppage. When seen for postoperative check, all was well.

Case Summary #3 E.W.

A twenty-six year old G1 P0 patient, with a history of infertility and a prior cone biopsy, had her last menstrual period three weeks before and had presented to the Emergency twenty-four hours previously with marked lower abdominal pain. She had no bleeding. Ultrasound suggested a right ectopic pregnancy. Pregnancy test was positive. She was taken to the O.R. when a laparoscopy confirmed a right corpus luteum cyst that was leaking. However, there was a 1 cm swelling in the isthmic portion of the left tube. The tube was opened with laparoscopic cautery scissors and the products extracted, with bleeding being controlled with cautery.

HCG levels following post surgery returned to base line.

Case Summary #4 J.M.

A twenty-nine year old G1 P0 patient with a history of P.I.D. presented with right lower quadrant pain, positive pregnancy test and vague adnexal fullness. She was taken to the O.R. at which time a laparoscopy demonstrated marked scarring of the left adnexa such that the tube could not be seen. On the right side, there was a distal ectopic pregnancy. Salpingostomy was

carried out via the laparoscope opening of the distal portion of the tube with the ectopic being removed. Hemostasis was controlled with hot cautery.

Patient did well postoperatively with falling HCG levels.

Three months later, she presented with a positive pregnancy test, persistent spotting, and was again taken to the O.R. when a laparoscopy confirmed a repeat distal right ectopic pregnancy. Laparotomy was utilized to excise the right tube and a salpingostomy was done on the left tube.

LAPAROSCOPIC APPROACH

In 1973, Shapiro reported the first case of laparoscopic excision of ectopic pregnancy.² A two centimetre unruptured ectopic gestation was present in the isthmus of the right tube, and the patient underwent a segmental resection using coagulation of the tube, distal and medial, to the ectopic gestation.

In 1987, DeChurney and Diamond reported on their experience with 79 tubal ectopics over a six year period from 1978 to 1985.³ The patients were excluded from the study if they were hemodynamically unstable, or had contraindications to laparoscopy, or had ectopics not in the ampullary portion of the tube. Their complication rate was minimal: 2 of 79 patients required immediate laparotomy because of failure to control bleeding (in one, this was due to faulty equipment), and one patient developed a mild postoperative pelvic infection. Of their 79 patients, 69 attempted conception thereafter and 43 were successful (62% pregnancy rate), resulting in 36 intra-uterine pregnancies and 7 repeat ectopics (16%). Four of these ectopic pregnancies were on the contralateral side from the previous surgery.

Vermeche carried out a prospective, randomized, clinical trial to compare laparoscopy vs. laparotomy in the treatment of unruptured ectopic pregnancy, in terms of morbidity costs, length of hospital stay and fertility outcome.⁴ Sixty patients were randomized to either laparoscopic treatment (N = 30) or laparotomy (N = 30), after laparoscopy had diagnosed unruptured ectopic gestation of less than five centimetres. The authors concluded that both procedures were similarly safe and effective, with similar subsequent pregnancy rates (56% in the laparoscopy group and 58% in the laparotomy group) and similar repeat ectopic rates. However, laparoscopy was much more economical and required a significantly shorter hospital stay (1.4 day vs. 3.3 days).

In 1986, Bruhmstead *et al.* conducted a retrospective case control study comparing laparoscopy and laparotomy in the management of ectopic pregnancy.⁵ Those patients who were treated by laparoscopy had a significantly shorter hospital stay as compared with the laparotomy group (1.34 days vs. 3.92 days). The O.R. time was also significantly shorter (77 minutes vs. 103 minutes) as was the time required for return to normal activity (8.7 days vs. 25.7 days). In addition, those treated by laparoscopy had reduced postoperative analgesic requirements (0.84 doses vs. 4.64 doses).

Contraindications to a laparoscopic ectopic pregnancy include shock, tubal pregnancy greater than four to five centimetres in width, hemoperitoneum greater than 500 cc, interstitial or cornual pregnancy, Beta HCG greater than 15,000 mIU/ml, and extensive adhesions. Some authors also consider obesity to be a relative contraindication.¹

Postoperative care after conservative surgery (i.e. salpingostomy or segmental resection) includes measurement of Beta HCG at frequent intervals (every six to fourteen days) to confirm its fall and disappearance.

The complications of conservative management include persistent trophoblastic activity,⁶ secondary hemorrhage from the salpingostomy site and pelvic trophoblastic implants.⁷

NON-SURGICAL APPROACH

Interestingly a non-surgical approach to ectopic pregnancy has been stimulated recently due to the development of sensitive and rapid assays for Beta HCG, and improved ultrasound technology. These non-surgical modalities include expectant management and the use of Methotrexate.

Expectant management of ectopic pregnancy was first utilized by Lunn in 1955.⁸ However, almost half of his patients subsequently required laparotomy. In 1988, Fernandez reported on 14 patients with ectopic pregnancy confirmed by laparoscopy as being less than two centimetres, with a hemoperitoneum of less than 50 cc.⁹ In 10 patients, the ectopic pregnancy resolved spontaneously while 4 patients required reoperation. The authors concluded that the probability of spontaneous resolution of the ectopic pregnancy was high if the HCG level was less than 1,000 mIU/ml at the time of initial diagnosis.

Methotrexate® has been used for many years in the treatment of gestational trophoblastic disease, but only recently has its use been applied to ectopic gestations.^{10,11,12} Saur *et al.* reported on 26 cases of unruptured ectopic pregnancies of less than three centimetres.¹¹ Twenty-one patients were treated with Methotrexate® since Beta HCG levels were plateauing and five patients were managed expectantly as Beta HCG levels were falling.

There was only one treatment failure which required laparotomy, when a tubal abortion was found (the initial HCG level was 59,000 mIU/ml and the fetal heart was visualized on ultrasound). Hysterosalpingograms were subsequently performed on 20 patients, with tubal patency present in 15 patients. In the twelve months following treatment, six pregnancies occurred, 2 of these were intra-uterine. Of the 4 ectopic gestations, 2 were in the contralateral tube. Ichinoe used Methotrexate® to achieve a 95.7% resolution of ectopic pregnancies in 23 patients.¹² Patency of oviducts was evaluated by hysterosalpingogram or laparoscopy in 19 patients with 52.6% showing patency of the involved oviducts. No severe side effects from the Methotrexate® was encountered.

The disadvantages of non-surgical management include long follow-up time required (in Saur's study group, the follow-up time for those treated with Methotrexate was 27 days)¹⁰, and Mthotrexate® toxicity including stomatitis, gastritis, dermatitis and elevation of liver enzymes.

REPRODUCTIVE OUTCOME

The standard by which the success of various treatments should be judged is the subsequent rate of successful intra-uterine pregnancies.

In the largest series published to date, Pouley *et al.* reported on 321 ectopic pregnancies treated conservatively with laparoscopic salpingostomy.¹² One hundred and eighteen patients subsequently desired fertility and, of these, 64% achieved an intra-uterine pregnancy and 22% had a repeat ectopic pregnancy. If those patients with no previous history of ectopic pregnancy or infertility were considered alone, the intra-uterine pregnancy rate was 85%. Those patients with previous ectopic pregnancy or fertility problems and those who had microsurgical procedures on the fallopian tubes had repeat ectopic rates of 28% and 41% respectively.

CONCLUSION

The management of ectopic gestation has progressed since the days of laparotomy and unilateral salpingectomy. Due to improved diagnostic techniques, the traditional catastrophic presentation of ruptured ectopic pregnancy is no longer common. Rather, ectopics are being diagnosed at very early gestations with subsequent preservation of tubal integrity. Laparoscopic linear salpingostomy has been advocated as the treatment of choice for small unruptured isthmic gestations. Laparoscopic surgery will be used more to deal with ectopics, either as a conservative or radical approach. Methotrex-

ate® may be the future choice for early ectopic pregnancies. □

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Physicians in Management

WORKING FOR PATIENTS

Gordon Ferguson,* MB(NUI) FACS, FRSS, Eng

Fredericton, N.B.

It has been said that health care is changing from a system that is clinically driven to one that is increasingly economically and management driven. In business terms, this is the equivalent of the company which introduces wonderful cost controls, the most up-to-date automated production processes, has a fantastic operation within the four walls of its plant but neglects the consumer.

This change in the system, and it is undoubtedly taking place, should give us pause. It epitomizes why physicians must be actively involved in health care management and planning. We must be involved to protect the rights and well-being of our patients.

This paper presents some views I have formed on the role of the physician in management as the result of a varied career, first in the practice of surgery, then as a Civil Servant and now in my present job as Executive Director of the New Brunswick Extra-Mural Hospital.

First, I will make one or two general observations. A physician who becomes a manager must accept as a guiding principle that he is no less concerned with the welfare of the patient than is the practitioner who sees his patients on a one-to-one basis. Without this he is lost. He is more distanced from direct patient contact certainly but, nevertheless, it is to the entire population as potential patients that he owes his responsibility and his decisions must be made with this in mind.

Administrators have their skills and we as physicians must respect their expertise. If we want to go into management, we need to know which skills to acquire and how to go about acquiring them.

These skills are not all that esoteric — just a bit out of our daily round. As a general surgeon, I did not realize quite how much of an instant decision maker I was until I got into the civil service and found that bits of paper do not die; though many, like some patients, should have been discharged earlier. Extended care rather than intensive care was the rule.

If a physician can bring reasonable intelligence, experience and common sense to bear, depending on the depth of his involvement in management, he does not need to spend two years getting a Masters Degree in Health Administration. But, if his ambition is to be C.E.O. of a major hospital, he would be well advised to invest those years; otherwise he will be floundering and living his life, following his career, in the stress of uncertainty.

In the Extra-Mural Hospital we try to involve physicians to as great an extent as possible in management including membership of the Board of Trustees.

My own involvement is rather fortuitous. While in the Department of Health, I had nattered away about the need to develop community services so when, as a consequence, the Extra-Mural Hospital was set up, I was hoist with my own petard and told to get out there and run it. Though I protested that I was not an administrator I had, I suppose, established some degree of credibility by being prepared to put forward and defend ideas; I had developed a necessary degree of tenacity in pursuing an idea — tenacity is invaluable in the civil service where fads are as fashionable and as fleeting as political expediency. And I had taken the trouble to learn how to stick handle my way through the system.

So rather by chance the present Executive Director is a physician.

We have a full time Medical Director who is a member of senior management; he does not look after patients. That is left to our attending physicians. It is the responsibility of the Medical Director to keep the attending physicians informed of developments which are going on in the Extra-Mural Hospital, to seek their involvement in these developments and to introduce new physicians to our organization and its modus operandi. It is a vital role. If you are in any doubt of the importance of this position in a home-health care organization I would refer you to a discussion paper by Dr. Mary Jane Koren, entitled "Home Care — Who Cares", which was published in the *New England Journal of Medicine* in the April 3, 1986 issue.

Dr. Koren wrote that she wanted "to demonstrate why medical input is needed to protect patients from becoming the pawns of market forces and fiscal policy directives". Market forces may not be of great concern in Canada but "fiscal policy directives" certainly are. Dr. Koren's statement epitomizes our responsibility as physicians to be the patient's advocate, despite the many others who clamour for this role.

Dr. Koren went on to enumerate some of the dimensions of modern home care — "Intravenous lines, both central and peripheral, for administration of parenteral nutrition, chemotherapy, antibiotics, narcotics and occasionally cardiac pressor agents have become common place . . . Ventilators and apnea monitors are permitting patients who used to be confined to institutions to return home". I can confirm all this and would ask whether such modalities of care can be instituted without physician input? To me the answer is clear — not with credibility.

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We make considerable use of Medical Advisory Committees in the Extra-Mural Hospital. Because of our province-wide operation, this is a fairly complex process, but worth while. One M.A.C. recently took the lead in developing our policies and procedures for home blood transfusions. Another investigated the use of electrocardiograms and yet another established guidelines for the use of continuous subcutaneous infusion pumps, which we use quite extensively for pain control in palliative care patients.

Committee work is an important way for physicians to be introduced to management. Not glamorous perhaps but effective if properly used; committees yield to the prepared mind — those who do their homework and come prepared, more often than not prevail. If members do not come prepared, committees deservedly earn the approbrium of being bodies which keep minutes and waste hours.

Regrettably in committees, it is often the physician(s) who are unprepared. One understands why; the committee is only an incident, often a distracting incident, fitted into the midst of a busy day. However, if we are ineffective in committee we soon become disregarded and left out of the planning and management process and the rot has set in; decisions that effect us are taken without us. Committee work is the price we pay for involvement, for having some say in our own destinies.

Now a sombre warning from Dr. Koren's article. Again I quote, "At the National Association for Home Care . . . ripples of laughter swept the auditorium at the mention of physician participation. Said the president of a large home health care agency "we are going to have a medical director — we really need him only to provide credibility to the medical community".

We should hang our heads in shame that we have allowed it to come to this. Physicians *must* be involved in the management of all aspects of health care. Examples such as this show that when we neglect our responsibilities others will take over — even to the extent of using the physician as a front.

Speaking on another occasion, I have said that one of the reasons physicians are not heavily involved in home health care is because they are not encouraged to do so. We are not encouraged to do so by others who would like to claim home care for their own, but neither are we encouraged to do so by remuneration systems which do not regard time spent travelling to see a patient as reimbursable time — try that on lawyers or accountants, two professionals which heavily influence government policies.

We hear a great deal from the Federal Government — heaven defend us — down about value for money auditing. Value for money may work well for "orificologists" who can specify to the auditors that they spent exactly so many minutes passing fibre-optic instruments up so many centimetres of some unfortunate's back passage but who will distrust any claim for time spent standing in the back passage of a remote farm house

supporting a recently bereaved family. Any try to get paid for a visit to that family two days later — bereavement visiting, bereavement counselling appears to be laudable and acceptable for everyone but the physicians.

No matter what one's involvement in health care management one comes in contact with government. This is often frustrating because in many jurisdictions medical input is inadequate; someone has decided that physicians do not have sufficient administrative experience to be included in decision making at a high level. This is hogwash, of course, but leads to the situation where health planning and decision making is being done by people with all the administrative expertise in the world but where there is little input from those who know what health care is all about. It is like having General Motors do the planning for I.B.M.

If you should question this you will be told that you are all wrong — that there was ample input from health professionals — social workers, nurses, health administrators. Not doctors, of course. They hold the bizarre view that patients should take precedence over bureaucratic convenience.

The English novelist, J.B. Priestley, in his novel, *Sir Michael and Sir George*, had something to say about administrators — "No enterprise should have administrators right at the top — they slow things down. They can't energize. They aren't creative. They kill not create enthusiasm. You have to have administrators but not right at the top".

And this, I believe, from Chris Argyris . . . "Organizations seem to be so constructed that they have basic thrusts towards . . . deterioration". Do you find, as I do, that these two extracts seem to complement one another?

It is said that if one views his problems closely enough he will recognize himself as part of the problem. Have we physicians been so involved with a myriad of things that we have abdicated our responsibilities in the area of management? Perhaps we have been too busy chasing the almighty dollar. We should not brush that thought aside too glibly. I sometimes wonder whether the medical profession lives in the real world or in a world of its own imagining. The editor of this *Journal*, himself, wrote in April 1990 "One suspects that society has changed around us and our conservative and insular attitude have [*sic*] left us isolated".

Do we for instance realize how much truth there is in that statement that health care is no longer clinically driven? Can we with equanimity accept that for our patients? I do not believe that we can; we do not have the right to neglect our responsibility to them. To protect it we must be in there at the grass roots of management and decision making.

In my capacity as a hospital administrator, I recently attended a meeting of trustees and administrators with, of course, the usual complaints that doctors are the cause of all the difficulties in the system. I asked if any of those

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Basket Extraction of Lower Ureteric Stones

INPATIENT OR OUTPATIENT PROCEDURE?

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Fifty-four basket extractions were attempted in patients with lower ureteric stones: 25 outpatients and 29 inpatients; and the success rates were 76% and 82%, respectively. Serious complications (i.e. perforated ureter) developed in 1 patient (2%) and unexpected admissions were required only in 2 outpatients (8%). There were no later admissions, infections, or complications, even when ureteric meatotomy or catheters were required as outpatients. The growing emphasis on cost containment in the medical sector has prompted physicians to increase their utilization of day surgery units. Our study suggests that outpatient basket extraction is safe and efficacious and that failure does not preclude further conservative management.

Recent technological innovations including rigid and flexible ureteroscopy, extracorporeal shock wave lithotripsy (ESWL), and percutaneous procedures have altered dramatically the management of upper ureteric and renal calculi.¹ However, in dealing with lower ureteric stones, transurethral basket extraction continues to be a popular and safe form of intervention.

There has been a growing emphasis on cost containment in the medical sector, prompting physicians to increase their utilization of outpatient/day surgery units. In urology, this has been applied successfully for many procedures (e.g. circumcision, vasectomy, vasovasostomy, hydrocelectomy, gonadal vein ligation, endourologic procedures, and ESWL²). A review of the literature failed to disclose a similar trend in the management of lower ureteric stones. This was motivation to evaluate the efficacy and safety of outpatient basket extraction and to compare it with a similar inpatient experience.

MATERIALS AND METHODS

The charts and radiographs of all patients undergoing basket extractions for ureteric calculi from January 1987 until December 1988 at the Halifax Infirmary Hospital, were reviewed retrospectively. The success and complication rates of 25 outpatient — were compared to 29 inpatient-attempts. Seventy-two percent (18/25) of outpatients were men compared with 66% (19/29) of inpatients. Mean age of the day surgery patients was 45

years (range 25-77), while that for inpatients was 46 (range 28-85). A past history of ureteric stones was present in 45% of both groups. All patients underwent a thorough medical examination pre-operatively and a review of pertinent laboratory data (complete blood count, electrolytes, urea, creatinine, calcium, uric acid, urinalysis and urine culture) and electrocardiogram and radiographic studies (KUB and IVU). Patients were selected for outpatient instrumentation by strict criteria (Table I).

TABLE I
Selection Criteria for Outpatients

Minimal colic
Uncomplicated lower ureteric stone(s)
Negative urine culture
No major medical problems
No documented lower ureteric strictures
Live within one hour radius of hospital

The outpatient basket extractions were compared with the inpatient procedures with respect to success rate, stone characteristics (size, position and number), operative factors (time, technique and complications) and the need for post-operative analgesia.

All procedures were performed under general anaesthesia. Pre- or intra-operative antibiotics were not given. Visualization of the calculus was by plain radiographs and retrograde pyelograms: no fluoroscopy was utilized.

Post-operatively, patients were monitored in the recovery room until they were alert and stable. Post-operative pain in the recovery room was managed with intravenous narcotics in small incremental dosages. If pain was not severe and there was no gross hematuria, patients were discharged home into the care of an informed adult. They were given a prescription for oral analgesics (usually acetaminophen plus codeine) and instructed to return to the emergency department if they experienced renal colic, increasing hematuria, or signs and symptoms of a urinary tract infection including fever. Follow-up visits were arranged. Patients with a major complication were admitted directly from the recovery room.

RESULTS

The 25 day surgery patients were generally healthy and colic-free in contrast to the 29 patients who required admission (Table II).

Retrograde pyelograms were performed in 88% (22/25) of outpatients and 97% (28/29) of inpatients. The

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radiographic characteristics of the calculi in the two populations were compared (Table III).

The operative times (from patient entering until leaving the cysto suite) were similar with the outpatients averaging 30 min. (range 22-52 min.) and the inpatients 32 min. (range 25-61 min.). Ureteric meatotomy was necessary in 8% (2/25) of outpatients and 3% (1/29) of inpatients. Ureteric catheters were placed in 8% (2/25) of outpatients (1 with ureteric perforation and 1 with a meatotomy) and 7% (2/29) of inpatients (both post-manipulation of the mid-ureter).

TABLE II
Cause for Admission of Inpatients (N = 29)

Renal colic	22/29	(76%)
Obstruction and Urosepsis	6/29	(21%)
Post-ESWL Steinstrasse	1/29	(3%)

TABLE III
Characteristics of Stones

	Outpatient (n = 25)	Inpatient (n = 29)
A. Ureteric Location		
Left	15 (60%)	18 (62%)
Right	10 (40%)	11 (38%)
Within 4 cm of UVJ	23 (92%)	26 (90%)
Within 5-10 cm of UVJ	2 (8%)	3 (10%)
B. Number		
One	22 (88%)	20 (69%)
Two	2 (8%)	5 (17%)
Three or more	1 (4%)	4 (14%)
C. Size (mm)		
Mean	5	6
Range	2-9	2-11

Successful basket extraction occurred in 76% (19/25) of the outpatients and 82% (24/29) of inpatients. The influence of stone size on success is shown in Table IV. The reasons for and outcomes of the failures are presented in Table V. The only major operative complication in both groups was extravasation from the lower ureter in a single outpatient (1/54 = 2%). This was managed uneventfully with a ureteric catheter, admission, and later ESWL.

In the recovery room, 28% (7/25) of the outpatients received intravenous analgesics and only one required more than two doses. Only two needed to be admitted unexpectedly from the recovery room. Among inpatients, 38% (11/29) required analgesia and only one required more than two intravenous doses.

DISCUSSION

When intervention of small lower ureteric calculi is indicated, basket extraction remains a popular choice. With appropriate technique the success rate should be

high, and the prevalence of major complications low. Our study reaffirms the high success rates reported previously for inpatient extractions at approximately 83%.³ The success of our outpatient group (76%) was slightly lower although the reasons for this difference are not clear. Prior reviews have also been unable to specifically define the conditions for successful retrieval, other than stone size smaller than 10 mm in diameter and the presence of symptoms for less than three months.⁴ Both of these criteria were present in all our outpatients.

TABLE IV
Influence of Stone Size on Successful Basket Extraction of Ureteric Stones in Outpatients and Inpatients

	Outpatients		Inpatient	
	successful (n=19)	unsuccessful (n=6)	successful (n=24)	unsuccessful (n=5)
Mean (mm)	5.0	5.5	6.2	6.0
Range (mm)	2-8	3-9	2-11	3-8
>5 mm	58% (11/19)	33% (2/6)	45% (11/24)	80% (4/5)

TABLE V
Summary of Failed Basket Extractions

	Outpatient (n=25)	Inpatient (n=29)
A. Reasons For Failing		
Basket passed, unable to engage	4 (16%)	3 (10%)
Basket unable to pass	1 (4%)	1 (3%)
Stone pushed to pelvis	0 (0%)	1 (3%)
False passage, extravasation	1 (4%)	0 (0%)
B. Outcome		
Spontaneous passage	2 (8%)	1 (3%)
Repeat basket extraction	1 (4%)*	1 (7%)**
Inpatient ESWL	2 (8%)	3 (10%)
Outpatient ESWL	1 (4%)	0 (0%)

*Successful

**Unsuccessful requiring later ESWL

A possible reason for the lower outpatient success rate may be that greater care was taken to try to avoid a perforation or post-operative edema and therefore less manipulation was carried out. Although total time was similar, the inpatients required more post-operative analgesia than the outpatients (35% vs 24%). The mean diameter of successful inpatients' calculi was 6.2 mm compared with 5.5 mm for the failed outpatients' calculi. In fact, only 33% of failed outpatient extractions involved a distal calculus greater than 5 mm. The above points seem to indicate a less aggressive approach in the outpatients.

Another possible reason for the lower success of the outpatients may relate to stone impaction and encrustation.⁴ This group had minimal or no colic, and this may

relate to a lesser degree of acute obstruction. While stone position was similar in the two groups, the ambulatory calculi were on average smaller by almost 1 mm. Being less symptomatic, they may have been present in the lower ureter for a longer time period, and hence demonstrated a greater degree of impaction and encrustation in the mucosa, thereby presenting a more difficult extraction.

Of all the basket attempts, there was only one major complication (perforated ureter in an outpatient). This confirms the reported low rate (1.5%) of serious complications following basket extraction in the lower ureter.⁵ No delayed complications (such as hemorrhage, fever, infection, sepsis, obstruction or colic requiring IV or IM narcotics) were observed, despite the lack of prophylactic antibiotics. Meatotomy was demonstrated to be a safe outpatient procedure, as was the insertion of ureteric catheters attached to indwelling Foley catheters.

The recent emphasis on cost effectiveness in urology has placed more procedures within the realm of ambulatory treatment. It has been estimated that in 1990, 50% of all surgery in the U.S. will be performed on an outpatient basis.² Our favorable experience with outpatient basket extraction has shown it to be a safe, efficacious, and economical method to treat the minimally symptomatic lower ureteric stone. Readmission rate is low and failure does not preclude conservative observation or further outpatient procedures. Further technical developments should aid in lowering both the failure and complication rates. □

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PHYSICIANS MANAGEMENT

Continued from page 49.

present could visualize the immensity of the burden placed on the doctor's shoulders when a young woman, 25 years old and pregnant, comes into his office and says, "I think I feel a lump in my breast" and after a pause, "My mother died of breast cancer". Now, who is going to say that tests and examinations and follow-up visits are unnecessary? That we are spending too much money on that young woman? As physicians we know the burden that our colleague carries until he can say, "You do not have cancer of the breast". We know how difficult it is to prove a negative. Concern for the patient is a dimension that we must bring to decision making and management.

Management is a blunt instrument if those who apply it forget the human factor; that is why physician-managers must understand that they continue to work for patients. Cost-effectiveness, budget control, value for money are the idols that governments worship today. It is the responsibility of physician-managers to see that they are not worshipped with human suffering, perhaps human sacrifice. As managers we dare not lose our patient focused perspective. We must not yield unquestioningly to the necessities of the situation as explained by bureaucrats, purseholders and politicians. William Pitt said in 1783, "Necessity is the plea for every infringement of human freedom. It is the argument of tyrants; it is the creed of slaves".

Physician-managers become slaves, are false to their principles, to themselves and to their profession if they cease to fight for policies based on a health agenda. They may not always win; that is understandable. But they, as physicians, must make decisions on their informed perception of the health needs of the population.

At that meeting of administrators and trustees to which I referred earlier, one hospital administrator said with a great deal of insight, "the doctor is the only person in the system who is actually chosen by the patient; all the rest of us come in incidentally".

I think that makes an appropriate note on which to close. That is our challenge, that is a responsibility we undertook, we accepted, when we became physicians. We must so manage, that that fundamental right to choose remains with our patients. □

Might This Not Apply to Medical Information

"A great part of the information obtained in war is contradictory, a still greater part is false and by far the greater part is of a doubtful character."

Karl von Clausewitz (1780-1831)

Afro-Nova Scotians and Dalhousie Medical School

PART I: HURDLES AND HELPS FOR BLACK STUDENTS

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This is a condensation of a paper submitted to the Dalhousie Faculty of Medicine and to the Committee on Access to Health Professions, in September 1990. The study was based on informal discussions with members of the black community and medical faculty members, correspondence with the two black Nova Scotian graduates of Dalhousie Medical School, and a survey of related literature.

The author wishes to thank Mr. Calvin Ruck and Mr. Robert Upshaw who assisted her throughout the project.*

Part I covers medical school admission policies, an overview of black history and cultural difficulties, and suggestions for helping black students prepare for medical school. Part II is a sociological perspective of multiculturalism, ethnicity and race, and the manner in which the white community perpetuates discrimination against blacks.

Although Dalhousie Medical School has had a number of black graduates, only two of them were born and educated in Nova Scotia. Dr. James Phills, Dalhousie, 1951, is an internist in Plattsburgh, N.Y. He was born in Sydney N.S. Dr. Harris Barton, Dalhousie, 1978, is a psychiatrist in Ottawa, Ont. He was born in Halifax, N.S. The imbalance in educational opportunities for black and white Nova Scotians raises the question: How can we help black Nova Scotian students get into medical school?

The Admissions Task Force of the Dalhousie Faculty of Medicine has stated that the medical school is "eager to accept qualified students from all groups present in the Maritime population, especially those groups such as black and native peoples who are, at present, underrepresented in the medical classes."¹ The medical school has taken a number of precautions to avoid discrimination in its admission procedures and yet, there are very few applicants from the indigenous black Nova Scotian community. The problem appears to lie more at the level of early education and in the transition into a white professional society than in medical school admission policies.

*Mr. Calvin Ruck is Chairman of the Educational Committee, Nova Scotia Association for the Advancement of Coloured People. Mr. Robert Upshaw is Executive Director of the Black Educators' Association of Nova Scotia.

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Medical education is not only training for the practice of medicine, but also a process of socialization into a conservative, predominantly white, professional society. The socialization process, intimidating for any student, may be overwhelming for the student from a minority group. The question of admission of minority students cannot be reviewed solely from the ethnocentrism of the white majority, but must prompt us to examine the cultural orientation of minorities and of the medical school, and ask if adaptations should be made in both cultures.

DEFINITION

The Blacks of Nova Scotia are not a single cultural group. Like the white community, they are differentiated in class, culture and place of origin. The community includes immigrant West Indian and African Blacks and an indigenous Canadian group that has been here for generations. There are cultural and socioeconomic variations between and within these groups.

In this paper I use the terms *indigenous Black Nova Scotian* or *Afro-Nova Scotians* to refer to black persons of African ancestry who have been born and educated in Nova Scotia. They have always been a minority group that has experienced economic disadvantages and have been held in low esteem. Black West Indians and Africans have grown up in a majority situation. While they encounter the same racial problems in Nova Scotia as indigenous blacks, they may react differently.

MEDICAL SCHOOL ADMISSION PROCESS

Prospective students for Dalhousie Medical School are selected by a committee of 11 members. Medical school applications (without photographs) include university transcripts, results of the Medical College Admission Test (MCAT), three references, and an account of extracurricular activities (e.g. jobs, sports, volunteer work, group activities, hobbies). Applicants are usually selected for interview only if the applicant has a bachelor's degree with a B average in two of the three years, and a satisfactory MCAT score. Categories assessed during the interview are:

1. communication skills
2. motivation
3. self-appraisal ability
4. interpersonal skills
5. self-confidence
6. problem-solving skills

The final selections are made at an Admissions Committee meeting. By informing rejected candidates of

reasons for their rejection, unwarranted suspicion of racism can be allayed.*

It is widely agreed that standards should not be lowered to allow admission of poorly prepared students to medical school. The risk of failure, loss of pride, stress on the student and the possibility of backlash are all factors against this. It is preferable to ensure proper preparation prior to medical school to help students achieve an adequate standard.

INTERVIEWS

Interviewing involves interpersonal relations and subjective perceptions. In the United States in the 1970s, some universities found it advisable to establish special committees to recommend which minority applicants to include in the final list.² Although the Canadian situation differs in numbers, contacts and social relations, the American experience can alert us to areas of possible stress.

Dalhousie Medical School has taken a number of steps to avoid bias in the interviewing process. The make-up of the committee, interview training, clearly specified assessment goals and the process of review all help to assure fairness. No further steps are needed at present but, if the number of black applicants increases, it may be advisable to involve persons from the black community in the review process.

MCAT

The Medical College Admission Test (MCAT) is often cited as a problem for applicants. In the United States, it is recognized that minorities consistently do less well on it. There have been too few Afro-Nova Scotian applicants to assess its relative difficulty for them, but its appropriateness needs continued scrutiny. The MCAT was revised in 1990.

ETHNOCENTRISM

Underlying all decisions about medical school training is the current philosophy of medicine which incorporates, at a subconscious level, society's worldview. North American medicine serves a materialistic, secular society. Some cultural aspects of medicine that are taken for granted include competitiveness, singleness of purpose, uniformity of standards, and a dedication to work and speed. These attitudes are so entrenched in white Canadian society that their "rightness" is seldom questioned. Yet they may be stumbling blocks to students from other ethnic groups. Where priorities differ, minority students must decide which traits are acceptable in a different cultural setting, and which are incompatible. An informed faculty will also make adaptations and learn to accept ways that differ from their own. Minority groups can bring valuable new insights into a receptive community.

*Information about the admission process was provided by Dr. Renn Holness, Admissions Committee member and Dr. Wayne Putnam, Associate Dean of Admissions.

EARLY PREPARATION FOR MEDICAL SCHOOL

"Seven personal qualities have been identified as relevant to success as a medical student and presumably physician: compassion, coping capabilities, decision-making, interprofessional relations, realistic self-appraisal (including positive orientation toward lifelong learning), sensitivity in interpersonal relations, and staying power (physical and motivational). Ability to listen attentively and demonstrate empathy, integrity, emotional stability, initiative, determination, sensitivity to individuals and concern for human needs are important qualities that are difficult to test."³

In order to be successful in a dominant white majority culture, black minority students have special needs in addition to those expected of white students. They must have a positive self-concept and be able to deal with racism. In the US they were shown to have better chances of success if they had a strong support person and had demonstrated leadership experience, and community service.⁴

To make a decision to study medicine, students need to be aware that it is a career option open to them. They need appropriate role models, a broad life experience, and sound education through school and university. They need a goal and the incentives and determination to reach that goal, and some hope of success. They also need adequate financial backing. Although it is not its primary responsibility, the medical school can help younger students realize their potential. Physicians can play a vital role in demanding better education for black Nova Scotians, in presenting career options and role models to young students, and in taking an active part in expanding their goals and opportunities. To do these things effectively the profession needs an understanding of both cultures and the relationship between them.

AFRO-NOVA SCOTIANS

Among the Loyalists who arrived in Shelburne in 1783 was a Black physician and surgeon named John Brown.* Nothing further is known about him, and he may not have remained in the province. There was a black doctor, Adam Bayley, in Sydney, Nova Scotia in 1871.⁵ They could have learned by apprenticeship.

By 1949 only three Afro-Nova Scotians had graduated from university.⁶ All of them had grown up in mixed communities where they attended predominately white schools. Since then, there have been many university graduates from the Afro-Nova Scotian community but only two from Dalhousie Medical School. The history of the black Nova Scotians reveals their potentials and their problems in obtaining an education.

The first black in Nova Scotia, Matthieu da Costa acted as Micmac interpreter for Champlain in his original settlement in 1604. Black soldiers fought with

*Personal communication, David States and Dr. A.E. Marble

the French at Louisburg. Many Nova Scotians owned black slaves. Slavery was not legally abolished in Nova Scotia until 1834.⁷

Over 3000 blacks, including many skilled workers, came to Nova Scotia as Loyalists in 1783. The Black Loyalists were not given enough land to provide sustenance. They lived in poverty and often in the fear that they might be resold into slavery. In spite of their problems they consolidated themselves into a culture that was uniquely Canadian and uniquely black, and laid the foundations for the present day community.⁸

In 1792, the Black Loyalists were so destitute that nearly 2000 of them took advantage of an opportunity to emigrate to Sierra Leone, Africa. Their exodus had a serious effect on the economy of Nova Scotia and left the black communities bereft. The community was just beginning to recover when the War of 1812 started.

As had happened after the War of Independence, a large number of black refugees who had joined the British forces were brought to Nova Scotia. Most of them settled in Preston, Hammonds Plains and other areas within and around Halifax. They are the ancestors of the majority of contemporary Afro-Nova Scotians.

The refugees from the War of 1812, mostly unskilled labourers, arrived at an unfortunate time. There was a post-war depression and an excess of cheap white immigrant labourers. They were given Licences of Occupation rather than land grants, so that they were unable to sell their sparse scrub lands. They suffered drought, unusual cold, and epidemics. Their neighbours testified to their hard work but it was to little avail. Their poverty increased white prejudice against them. New black leaders appeared in the 1820s and 30s, and helped them develop a sense of unity, but the segregation, prejudice and poverty continued throughout the 19th century and on into modern times.⁹

In the early part of the 20th century, several hundred West Indian Blacks were brought to Sydney to work in the coal mines and steel mill. They suffered less financially because of the jobs available to them.¹⁰ Nevertheless, they faced the stereotyping and racism that plagued the black community, and they had difficulty aspiring to more prestigious occupations.

The history of the black Nova Scotian community, too often obscured, reveals the courage, pride, and endurance of a beleaguered people, and the untapped resources that have been lost to the province because of racism. Some of these resources can be regained by identifying young people of particular talent and reaching out into the community to give them and their parents support while they are still in school. Concurrently, we must as individuals and as an educated segment of society speak out against those practices that perpetuate institutionalized racism in Nova Scotia.

BLACK EDUCATION

Some social institutions still separate black and white residents of Nova Scotia. Blacks had their own schools,

notoriously inadequate, until the 1970s and they may still be segregated by streaming into non-academic courses and by unduly low expectations of black students. Newspaper articles, television news and personal communications refer repeatedly to the continuing problems in education for black Nova Scotians. The need for changes in the educational system cannot be considered here, but it cannot be ignored by thoughtful Nova Scotians.

Although the situation is improving, discrimination still prevents Afro-Nova Scotians from feeling at ease in many white settings. Identifiable by colour, often by name or home address, and sometimes by dialect, they are an easy target for racism. One of the most devastating forms of discrimination is simply ignoring the existence of the black community.¹¹ Textbooks have omitted black history and heroes. Black students had no role models. As one black adult said, "I never saw a face like mine in any of my textbooks."

The Afro-Nova Scotian culture is basically Canadian with the same values, orientations and aspirations as other Canadians. At the same time there are features that give them a distinct identity, based on ethnicity, not race. The emphasis on community and family, often an extended family, their religion and their music have been identified as distinctive cultural characteristics, some of these going back to their historic roots. These features of their society must be understood when assessing Black candidates for employment or advanced education.¹² Linguistic differences, the perception of time and priorities, expectations of success or failure, job opportunities, and motivation are other areas where cultural differences may affect their entrance into medicine.

Many parents of today's high school and university students have had the disadvantage of poor education in separate schools. They are unable to give their children the extra advantages that one gains in an educated family setting — intellectual curiosity, discussion, guidance, resource material, opportunities for learning experiences (e.g. field trips and travel), and wide circles of friends in all walks of life.

The Afro-Nova Scotian who undertakes professional training has to move between cultures. Black persons wish to retain their cultural heritage and identity, while being free to participate fully in Canadian society, to be accepted on the same level as their white confreres. This entails difficult decisions when they enter university as to what traditional values to keep, and what new values and customs to adopt. As they work this out, they may encounter rejection in the white community and accusations of "selling out" from their home community. They tread a narrow path as they seek to integrate themselves into the broader society.

Successfully educated black persons are able to function well in either cultural group. While adapting to white traditions, they accept their race, retain their culture and do not reject their past. They are the leaders who will move us toward the time when the pride of

ethnic and racial inheritance is not obliterated, but race is no longer a significant factor in the interaction between human beings. Before we reach this goal there must be changes in both communities.

While black graduates are the most important role models and leaders for future generations, they should not be restricted to returning to the black community. Each individual must have the freedom to decide where he or she can best use their talents and their knowledge. Both black and white communities need their ability and their insight, and their achievements should be evident to all Canadians.

HOW TO HELP YOUNG STUDENTS

The question "How can we help black students get into Dalhousie Medical School?" must be answered by informed communication between the black community and the decision makers in the medical school and university. Black doctors and students have made a number of suggestions for consideration.

American universities have pointed to the need for medical schools to become involved at earlier levels of education if they are to be successful in recruiting blacks.¹³ The story of black education in Nova Scotia reinforces the need for similar action by Dalhousie University. It was reconfirmed many times in our discussions.

Study groups and "big brothers" help at the university level. Study groups could start in high school. The prospect of a child going to medical school can raise a number of anxieties in parents, both cultural and financial. Career talks and opportunities to visit the campus and meet black professionals can help both students and their families. Black physicians, medical students and nurses, Canadian or West Indian, are important role models. Professionals who visit the black community need to understand the cultural differences that they may encounter. Learning should be two dimensional, medical school participants learning more about the black community, the community about the university.

Students also need help in getting part-time jobs. Individual physicians wishing to be of service can act as role models or support persons on an on-going basis for students and their families. Informal contacts can help students gain self confidence in cross-cultural experiences and take some of the mystery out of medical school. Just as important, they can introduce white professionals and their families to black families and the problems they encounter in seeking advanced education.

Black role models can be involved in education: black nurses and doctors teaching health care and sex education; black dentists and dental assistants, dieti-

tians, lawyers, business men and police giving instruction in their fields. Black musicians and parents should have an opportunity to participate in education. As both white and non-white students see role models from various racial groups, racism will be reduced and expectations changed. Entering a profession will not be seen as "selling out."

Written material on medicine as a career, or a videotape that shows black doctors and medical students at work are other possibilities. Illustrated material should show persons of various races at work. It is important that white as well as black students see both races in many roles.

Community programmes require time and money, but they can be a valuable experience for the medical faculty as well as for the students. Doctors who have gone from a residency straight into a teaching practice may have limited experience in their own community. Even their knowledge of epidemiology tends to be hospital oriented. Doctors who participate in outreach programmes for the indigenous black community will discover the community's strengths and learn the effects of racism. They will become better teachers and better practitioners because of their increased understanding of an important group in our society. □

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PART II: (On following page)

PART II: MULTICULTURALISM, ETHNICITY AND RACE

To rectify the problems encountered by minority students seeking secondary education at Dalhousie University we need to understand the nature of racism and its various interpretations. We also need insight into the nature of multiculturalism in Canada and the complex relationships among our ethnic and racial groups.

An ethnic group is a subgroup within a larger society that has a common cultural tradition and a sense of identity. It may be set off by race, religion, national origin, or a combination of these, giving it a sense of nationhood.¹

Race is an arbitrary classification of human populations based on actual or perceived biological characteristics. The physical characteristics representing race and the cultural characteristics of ethnicity may overlap but do not necessarily correlate with one another. There may be many cultural groups within a race and several races within one ethnic group. A person can move from one cultural group to another, but one's racial identification is ascribed at birth and not a matter of choice.

The Canadian multicultural society, usually described as a mosaic, is composed of a great variety of ethnic groups held together by political structure and economic advantage. There is some correlation between ethnicity and socioeconomic status. Immigrant or racial groups are sometimes maintained at a lower economic level or used to do work that others find undesirable. Mobility is especially difficult for racial groups and visible ethnic minorities and they are more likely to experience discrimination.

In a multicultural society national identity is recognized by common goals, values and symbols acceptable to all members of the society. Canadians share the ethical values of freedom and respect for others and they incorporate cultural differences and change into their national identity. These values are transmitted and inequalities can be reduced through education and socialization. They can also be encouraged through law and administration.²

MINORITIES

A "minority" is a group of persons who, because of their physical or cultural characteristics, are singled out for differential treatment. The term implies the existence of a majority with a higher social esteem.³ The designation minority can become a stereotype and affect a person's self-esteem. In Nova Scotia, there is a tendency to lump together aboriginal and black groups and designate them as "disadvantaged minorities", keeping before the public a single racist view of two very different cultures that have made significant contributions to our society in spite of their minority numbers and imposed disadvantages. In referring to them as "disadvantaged minorities", we identify them by their situation in

society rather than by their cultural identity, and we fail to address their individual problems adequately.

RACE

Race is an artificial concept that groups human beings on the basis of inherited physical characteristics. All human beings belong to the same species, and can and do cross breed so that race is actually a continuum. There have been no pure races since earliest pre-historic times. Every race has the same range of intelligence and capabilities.

The most common designation of race divides mankind into five groups based on skin colour and some accompanying inherited characteristics: European or Caucasoid, African or Negroid, Asian or Mongoloid, American Indian, and Australoid, popularly referred to by colour: white, black, yellow, red and brown. While these types can still be easily identified, with mingling and interracial marriage there exists every possible racial combination.⁴ Persons of mixed race are differently designated in different areas. In South Africa they are called "coloureds," in the United States all who are not white are grouped together as black. In Canada they are variously perceived by different people.

RACISM

The biological differences among men have been used to justify exploitation of one group by another. There is no scientific rationale for this differentiation. No race is inferior or superior to another. Over a period of time, an inferiorly treated group comes to believe itself truly inferior and incapable of changing the situation. It is morally defeated and unable to gather the physical and mental resources to resist mistreatment. This, in turn, increases the appearance of inferiority and intensifies the misconceptions of the dominant group.

The African slave trade left its mark on the North American black population. Subjugated and degraded, with little or no hope of escape, Blacks began to see themselves as an inferior race, aspiring to, but never reaching the white ideal. The black power movement in United States in the 1960s turned away from this defeatist attitude and recognized that "Black is beautiful". Blacks began to take pride in being black and in their own culture and history. The idea was radical and initially threatening to the white population, necessitating a change in white attitudes if it was to be pursued without conflict. Over a period of time this attitudinal change has begun to happen, but practice lags far behind law and stated values.

Racism is a form of communication, and can be exhibited in two directions. Racism within a minority group can manifest itself as anger or violence that blocks efforts toward understanding. There is also a subjective

element to racism. Some behaviours are obviously racist, others are difficult to define. Behaviour that is an accepted norm for one part of society may be racist for another. An insecure member of a racial group may feel unjustly treated or see racism in actions or comments that would go unnoticed by more confident members of the same society. Resolution of racist problems requires care and understanding on the part of all.

Black Nova Scotians have, from their first arrival in the province, been denied economic and cultural rights through segregation in community and in worship, separate or inferior education, denial of job opportunities, inadequate housing, denial of adequate legal representation, and adverse influences of the media. Although such actions defy the value system and law of modern multicultural Canadians, many of them continue to be practiced. They have their roots in history, and their continuation in misunderstanding and indifference.

PREJUDICE AND DISCRIMINATION

There are several components to racism-stereotyping, ethnocentrism, prejudice, discrimination and social distance.⁵ Social distance refers to the quality of interaction between the groups.

Prejudice is the adoption of beliefs about and attitudes towards certain ethnic groups on the basis of assumed characteristics. It is based on unsubstantiated opinion.⁶ Even when prejudice is not taught at home it can, as Allport suggests, be "caught from an infected atmosphere."⁷ Who "catches" and who resists it depends on many factors including attitudes in the home, school and media.

Discrimination is closely related to prejudice. Whereas prejudice refers to attitudes, discrimination refers to behaviour—policies and practices. Discrimination may consist of overt individual acts, such as using derogatory names, refusing to eat with a person of another race or culture, and a variety of other behaviours that are easily recognized as discriminatory. It may also be inadvertent, "talking down" to persons of a different race, having false expectations about their behaviour; or passive, never questioning discriminatory hiring policies or segregated educational facilities.

Stereotypes are rigid, standardized images or caricatures that are applied to an entire ethnic group. They are based on over-generalization and unsubstantiated beliefs, and fail to allow for individual differences.

Ethnocentrism is the tendency to view all people from the perspective of one's own particular ethnic group, and to evaluate outsiders in terms of one's own standards and values.⁸ It is associated with a tendency to rate one's own race or cultural group as superior to others and to insist that the standards of one's own group should be the standards for all.⁹ Ethnocentric attitudes are based on the social norms that are learned first within the family. Because these values are internalized and frequently reinforced by society, the ethnocentric person is not "abnormal", but is often well-adjusted to his or her own

society and unaware that the standards of that society are not universal standards. The person may not recognize his or her own culturally accepted values until confronted by others.

There are a number of ways in which racism can become institutionalized. An ethnic hierarchy can be maintained by *social distance* — separate communities and schools, infrequent opportunities for interaction. It can also be maintained by demographic balance — limiting the number of immigrants from a certain group — and by social organization. Inadequate housing, education, and job opportunities are forms of institutionalized racism that may be against a society's value system, yet permitted by indifference, ignorance or neglect.

The costs of discrimination and prejudice are both moral and psychological. The most serious psychological damage is done to members of the low status group. One's identity is affected by relations within a group and relations of that group to others. Being part of a low status group can lead to malaise and discouragement, low motivation, and internal conflict. In spite of this, many members of low status groups develop a strong sense of self and of their place in society.¹⁰

Discrimination and prejudice have a cost for the dominant society as well. Its members become less sensitive to the welfare of all and justify their behaviour on false grounds.¹¹ The talents and abilities of an important segment of society are lost and the quality and social structure of the whole society is weakened.

CONTRIBUTING TO RACISM

"Racism may take many forms and stems from the consequences of the actions and feelings of individuals and social institutions. It is important to focus on effects rather than intentions when discussing racism . . . If we define racism as the negative outcomes that befall a person because they are a member of a certain identifiable group (e.g. blacks) even though we may not have intended it that way, we have a better chance of understanding the phenomenon."

William Sedlacek¹²

When I undertook an informal study into how we can help Afro-Nova Scotians get into Dalhousie Medical School, I soon realized that I could not answer that question unless I was willing to explore a second question:

How do I, a well-meaning white person who considers myself not to be racist, unconsciously or unintentionally contribute to racism?

The word "racism" has different meanings for different people. It is an emotional word; because I do not intend to be racist, I may feel resentful when someone points the finger at me and calls me racist. My black neighbour, who suffers the effects of racism no matter what the intention, sees me as racist. Failure to

recognize our differences in interpretation leads to misunderstanding. It results in tokenism and indifference on the part of whites, frustration and failure for blacks.

Am I racist? In intention, no. In effect, yes; we all are, for we have grown up in a racist society. The fact that we distinguish skin colours when we speak of cultural differences defines us as a race-conscious society. We are racist when we falsely associate certain characteristics with skin colour, or use colour to separate or suppress one group in society. To avoid misinterpretation, we need to break the word "racism" into its component parts (prejudice, discrimination, stereotyping, ethnocentrism and social distance) and specify exactly what we mean.

Overt racism, open acts of discrimination, are readily evident and arouse the anger of most Canadians of any colour. This is the easiest type of racism to fight. Much more difficult to deal with is the unintended, unconscious racism of liberal whites. It takes the form of paternalism, tokenism, stereotyping, indifference, passivity, and ignorance. It is not hard to find.

Stereotyping: Assuming black students are poor students.

Paternalism: Imposing our own ways on black students.

Tokenism: Stating that black students are welcome in medical school but not helping them reach it.

Indifference: Leaving the black community to resolve its own problems.

Passivity: Noticing that there are no black persons in your apartment building and not asking why.

Ignorance: Blaming black persons for their problems without knowing why those problems exist.

Blacks, too, can be racist: "White people don't care about us."

Only when we have faced the reality of unintentioned racism can we effectively communicate with the black community and turn tokenism into action. When we have done this, we will find black candidates for medicine waiting in the wings. They will find not only a receptive medical school, but a fostering one. □

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in the Victoria General Hospital and/or the Camp Hill Medical Centre (both sites, Halifax Infirmary and Camp Hill Hospital).

Physicians interested in practical experience in the care of acutely ill hospitalized patients and who have a full license in the Province of Nova Scotia, are encouraged to apply.

The position will involve day and/or night work, in areas such as critical care (ICU/CCU), investigative units (cardiac catheterization) and other inpatient care areas. The positions will commence on June 1st and July 1st, 1991. The annual salary will be \$52,000 for a full-time position, and prorated for part-time. Job sharing will be considered. ACLS training would be a definite asset.

Interested applicants should submit their resumes, with the names of three references to:

Ms. Christine Smith, Education Co-ordinator
Department of Medicine
Room 8018, Centennial Bldg. Victoria General Hospital
Halifax, N.S. B3H 2Y9

Current Topics in Community Health

Selected by: Dr. Lynn McIntyre
Department of Community Health & Epidemiology
Dalhousie University, Halifax, N.S.

A COMMUNITY RESPONSE TO BICYCLE-RELATED HEAD INJURIES

Bicycle riding is enjoyed by most children. Unfortunately it is not without hazards, especially in the young. It is well documented that the use of helmets and safety instruction can greatly reduce the number and severity of injuries sustained by children. This report outlines one community's response to the prevention of bicycle-related head injuries through the promotion of bicycle helmets.

The Facts

A number of studies report that head injury is the primary cause of death in 70-80% of all bicycling fatalities.^{1,3} One-third of bicyclists injured suffer a head injury while two-thirds of bicyclists hospitalized have a head injury.^{1,2,4} The majority of bicyclists suffering a head injury are children.

A recent case-control study of the effectiveness of bicycle safety helmets in reducing the risk of head and brain injury found that riders with helmets had an 85% reduction in their risk of head injury. This translates to a 6-8 fold increase in a bike rider's risk of suffering a head or brain injury when not wearing a helmet.³

Ten to 15% of trauma visits to pediatric emergency wards are bicycle-related injuries.³ Approximately 70-75% of the children will be male with the highest number of injuries occurring in the 8-10 year age group.^{4,7} One-third of those injured have less than one month experience of bike riding.⁵ The majority of children will be within one kilometre of home and a motor vehicle will not be involved.^{1,5,6} Over 60% of all accidents are attributable to poor bicycle control or carelessness.⁵

Various studies have shown that only 15% of those injured had received formal instruction in the operation of their bicycle.⁵ Education in bicycle safety rules and control skills has been shown to reduce accidents.²

Studies have also shown that bicycle helmet use occurs in only 2-5% of children.^{1,4,6} Impediments to bicycle helmet use include lack of parental awareness, cost, peer pressure and lack of availability of helmets at stores where bicycles are sold.^{1,6,8}

There are 1100 children in Queens County between the ages of 5-12 years of age who ride bicycles. This represents 95% of all children in this age group, and bicycle helmets are owned by 11.5% only. Actual use of these helmets has not been documented but undoubtedly is much less. Of notable interest is the fact that bicycle helmet ownership is highest in grades primary and one (25%) but falls to zero percent by grade six (personal communication).

At the present time, no program addresses this issue in Queens County or, for that matter, in Nova Scotia. We believe that a focused community-wide campaign can increase bicycle helmet use.

The Program

The program has two goals: first, the promotion of bicycle safety helmet use and secondly, bicycle safety education.

The program will educate children on the benefits of safety helmets and bike safety as well as promote helmet use and reduce helmet cost. This will be carried out each spring over a several week period, with the children taking part in the schools. They will have access to helmets for fitting and purchasing arrangements, during a bike rodeo.

Currently, the Queens County Community Schools Association has an employee who, in concert with a representative from the Department of Transportation, organizes and runs a bicycle safety program for children aged 5-14. The bicycle safety helmet program will be presented concurrently with the safety presentation so that the two programs can complement each other. In addition, the public relations officer of the RCMP will participate in the presentations and bike rodeo.

A knowledgeable individual will be available to demonstrate helmet features and will fit each child with the appropriate size (CSA approved). At the end of the presentation, each child will be provided with an information package outlining for their parents the purpose of the program, the size and cost of the helmet, and the procedure followed for the purchase of a helmet. Helmet swaps and sales will be arranged each spring to help offset the cost of helmets.

One person (S. Woodford) will be responsible for organizing the school visits, helmet acquisition, publicity, and providing accurate medical facts to children which reinforce the importance of bicycle safety helmet use. She will also be responsible for ongoing program evaluation and continuation. A local physician (Dr. T. Woodford) will also be donating time to the program. A publicity campaign is planned through the local newspaper and cable television station.

Evaluating Outcomes

The number of helmets purchased will be an indication of the number of children potentially using the helmets after the start of the program. In September of each year, all children will be surveyed to determine bicycle helmet use. In addition, data will be gathered at

the local hospital on bicycle injuries. Victims will be asked if they own a bicycle safety helmet and if they do, were they wearing it at the time of their accident. They will also be asked if they were educated by this program. If successful in enhancing bicycle helmet use and injury reduction, this project may serve as a blueprint for similar endeavours elsewhere in the province.

Submitted by: Sandra Woodford, BN RN and Tim. J. Woodford MD, Liverpool, N.S.

Comment

This community-based program is an excellent example of community health promotion. It seeks to coordinate the activities of volunteers and local agencies to create an environment that fosters healthy choices among children. The leadership shown by small community-based groups such as this one is the foundation of continuing community development and empowerment.

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When the amount of reading matter ingested exceeds the amount of energy available for digestion, the surplus accumulates and is converted into the unhealthy state known as IOA'. (Information Overload Anxiety).

Lance Shaw

CLINICAL TRAINEESHIP in RESPIROLOGY

The Nova Scotia Lung Association is pleased to announce the creation of two Clinical Traineeship Awards to be known as the:

Ralph E.J. Ricketts Memorial Clinical Traineeship Award

in Respirology

Two Awards, each in the amount of \$2,500.00, will be offered for fellowships of two to four weeks duration to be taken during the period September to December, 1991.

Closing date for applications June 30th 1991.

Applications forms for these Awards are available from:

The Nova Scotia Lung Association
17 Alma Crescent,
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B3N 2C4

&

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Appreciations

DR. J. DONALD HATCHER

Donald Hatcher, M.D., Ph.D., F.R.C.P., LL.D. (Queens), LL.D. (Memorial), dean emeritus of Dalhousie Medical School, and a cherished friend to faculty, staff and students, died on Saturday, February 2, at his home, The Barriefields, R.R. #2, Kingston, Ontario.

Born in St. Thomas, Ontario, he attended St. Thomas Collegiate Institute and graduated from the University of Western Ontario with an M.D. and a Ph.D. in physiology. Following graduation, he joined the faculty of the medical school at Queens University in Kingston, where he was the first Markle Scholar in Medical Science. He remained at Queens until 1976, holding several major positions, including professor and head of the Department of Physiology, and associate dean.

In 1976, he came to Halifax as dean of Dalhousie Medical School. When he came, the major challenge was to increase the potential of research at the medical school. He did his job well, encouraging faculty and recruiting excellent researchers. But his crowning achievement was the establishment of the Dalhousie Medical Research Foundation. His enthusiasm and determination for the Foundation were infectious, and it has flourished. His influence on our medical school and on the medical community in general has been profound in many ways.

When he retired as dean, the Faculty of Medicine established the J. Donald Hatcher Endowment, to provide an annual award to a graduating medical student for excellence in research. He continued his work at Dalhousie in the field of research and technology transfer. In 1990, he was named dean emeritus.

When the news of his death reached us, faculty and staff at Dalhousie talked about the things we remember best about him: his positive and joyful approach to life; his wonderful laugh; his determination and courage in the face of his own illness; his caring approach to individuals on faculty and staff. He was an exemplary dean and a dear friend. We mourn his death and we celebrate his life.

Our sincere condolences go out to Helen and their two daughters, Janet (Mrs. Allan Roberts) of Ottawa, and Carolyn, of Kingston, and two grandchildren, Cory and Emma Roberts.

Funeral services were held in Kingston on February 5, with burial the next day in St. Thomas, Ontario. A memorial service was held at Dalhousie Medical School on Thursday, February 14. □

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DR. HAROLD LAMBERT SCAMMELL 1905-1991

Doctor Scammell was a product of Pictou County and the famous Pictou County Academy, prior to graduation in medicine from Dalhousie in 1927 — a class of which he was the Life President. He first did general practice in Pictou for a couple of years, then became a resident at the Victoria General; became a field representative for the American College of Surgeons; was registrar; then secretary-treasurer of the Provincial Medical Board from 1931 to 1958. He lectured at various times from 1932 onwards and in a wide variety of subjects. He became Medical Officer of Workers' Compensation Board from 1937 to 1946. In 1940 he revived the *Alumni News* and, as an executive secretary of the Campaign Committee, raised three and a half million dollars at the cost of one percent. Later, he was instrumental in the establishment of the Graduate School of Nursing at Dalhousie. From 1948 to 1958, he was registrar and executive assistant to the President at Dalhousie University. At one time he was Associate Editor of the *Nova Scotia Medical Bulletin* and a director of Maritime Medical Care. He was an author of a number of articles, particularly involving Nova Scotia history and the history of medicine.

At the time of his retirement in 1970, he made the comment that he had "enjoyed every hour" of his forty years involvement in medicine, administration, teaching, etc. He further commented the only thing he dreaded in his retirement would be idleness. He had a real sense of humor, and considerable insight into the sacrifices many families make to give their sons and daughters a university education.

To the modern day student, or recent graduate who does not remember Dr. Scammell, you might be interested to know that the emblem of the D.M.S.A. (Dalhousie Medical Student Association), the Assyrian pinecone, was a revision (by a member of the class of '57) based on the original design by Dr. Scammell in 1923. This particular sacred Cyprus tree may have been the basis of the tree of life of the Scriptures, and figured prominently in the Assyrian Pharmacopoeia, commonly used by doctors and healers.

D.C.S. Brown, MD
President, Halifax Medical Society. □

Donations in Dr. Hatcher's name may be made to the Dalhousie Medical Research Foundation, which he founded and fostered, Sir Charles Tupper Medical Building, Dalhousie University, Halifax, N.S., B3H 4H7.

Correspondence

To the Editor:

THE DOCTOR AS A HEALTH ECONOMIST

Your recent issue, February 1991, on Quality Assurance dealt with health outcomes and the economics of health care.

I will like to explore the realities of the doctor as a health economist. The consequences of Universal Health Care, as enshrined in the Canadian Health Act, must now have sunk into the federal and provincial consciousness; that is, the ever expanding health budget as a proportion of government expenditures, and the woefully inadequate methods available to control these expenditures.

Dogma flies thick and fast in any debate on health care, but there are a few essential points which must be considered. It is now worldily accepted that the WHO Classification of Health and Diseases is so broad that practically all of us are in a constant state of illness whether suffering from physical infirmity, emotional stress or plain ignorance. The use of health care facilities rises in times of unemployment. Accepting illness as an act of God is no longer possible, in that too many of the major illnesses are linked to behavioural characteristics, e.g. smoking, alcohol, drugs etc., that are remediable. Individuals have accepted a discriminant pattern of behaviour in life insurance, accepting different premiums according to their habits, yet are not able to translate that to their health insurance. Individuals are also willing to give up their rights to obtain many opinions or repeat visits from doctors, and doctors in a fee for service environment are not always first to push for educating such patients to a different behaviour pattern.

Doctors are not white knights. They have not been seen as leaders in the provision of universal health care services, and they are seen as having been most vocal in defending their professional turf, fighting for their fee increases or preventing any rationalization of health care service providers, eg. midwives.

There exists a middle ground and, if our society is to survive and achieve its health care goals, the medical professional must now show some leadership in a new area — medical economics. In accepting that we as doctors are responsible for the diagnosis and treatment of patients, we must also recognize that our spirit of scientific inquiry has to be applied to analyzing the outcomes of our interventions. We must prove that the dollars invested in the diagnosis and treatment have a demonstrated effect in improving patient outcomes, either by short term easy measures such as length of stay in hospital, or by more difficult measures, eg; quality of life. As we do this we must educate the public, the ultimate payers of the process, and enter into a constructive dialogue with their representatives, the politicians, to direct our health care dollars appropriately. This is not for us to make decisions as to who

should or should not be treated in the era of scale resources; it is for us to identify the cost of treatment, the benefits of such treatment, and let the public be involved in the decision making process.

The Department of Surgery has sponsored a "Friday-at-Four" Lecture this April for Professor Jack Wennberg. He is an epidemiologist at the Dartmouth Medical School who has pioneered a method of outcomes analysis, the "Small Area Analysis". His methodology is now being widely used in the United States of America to try and understand, and to correct some of the widely varying rates of medical interventions. A significant part of his approach is the direct involvement of the doctors themselves in both the measurement and the interpretation, and in the readjustments that take place during the whole process.

It is to be hoped that the provincial government will respond to a similar approach from the medical profession here.

Yours very truly,

Michael Gross, MD, FRCS (C & Lond)
Orthopaedic Surgeon
Victoria General Hospital, Halifax, N.S.

To the Editor:

EUTHANASIA, ASSISTED SUICIDE AND THE ELDERLY

I have received copies of the above-noted article this past week. (*The Nova Scotia Medical Journal*, February 1991) I noted a few editorial errors which I missed when I reviewed the paper. For this I express my apologies. None of them really detract from the paper except one. This is on page 19, second column, thirty-second line down. The sentence reads, "There appears to be a growing medical-ethical and legal consensus in North America for permitting the withdrawal of fluids and nutrients from patients in various circumstances such as the following, for example." The examples are not given. They should be as follows: those terminally ill; those who can participate in decisions about medical care and choose to decline treatment; those who have been considered competent and have clearly expressed their wishes in advance; those whose condition will worsen if they receive artificial food and nutrition.

You may wish to include the above as a correction in one of the upcoming issues of the *Journal*.

Thank you for your time and attention.

Yours truly,

David B. Hogan
Head, Division of Geriatrics
The University Of Calgary
Calgary, Alberta.

YOUNG CHILDREN WITH SPECIAL NEEDS

We would like your readers to be aware of a project entitled Information and Resource Services for Parents and Professionals Working with Young Children with Special Needs.

The term "children with special needs" refers to all children who require extra care or services. This includes, but is not limited to, children with physical, mental or sensory impairments, language, learning or emotional difficulties, serious or chronic health problems and children with problems due to social or family circumstances. Defined in this way, 15 percent of children are consistently reported to have special needs. This figure coincides with the results of a survey into the prevalence of special needs in 0-6 year-old children in Nova Scotia (Canning & Lyon, 1988).^{*} Child care/preschool directors, community health nurses and grade primary teachers reported that an average of 15 percent of children seen in the previous year had special needs.

In the past three decades it has become increasingly clear that the earliest possible identification of the child's special needs and the early provision of the appropriate support and intervention for the child and family are essential for the child's future development.

Early Intervention

The help and intervention that families require depends upon the child and the family but may include an array of medical and health-related, social, educational/developmental, financial, support, respite, material and personal resources.

There are, in Nova Scotia, a number of services, programs and organizations which provide assessment, support, intervention and resources for young children and families with special needs (eg. clinics, home-based early intervention programs, child development centres, community and charitable organizations, parent support groups, etc.). However, there is no coordinated system in the province to identify all children who need services nor a mandate to provide appropriate services for all children.

Needs of Parents and Service Providers

Few parents of children with special needs have any prior knowledge or experience of the problems their child may have, or of the services which exist to help them or to which they may be entitled. Faced with an often overwhelming task, one of their most pressing needs is often for information on the child, the problem, and the services available. In the absence of information parents may even know the questions to ask.

Professionals who work with these children and families also report that a major difficulty is knowing

exactly who or what service or program can help, if a problem is suspected or identified. This is particularly the case in rural areas of the province. More programs and support for parents, more information on services and more integration of services are priorities for the improvement of programs for young children and families.

The Project: Information and Resource Services for Parents and Professionals Working with Young Children with Special Needs

This project was developed as an initial step in addressing the information needs of parents and professionals. Funding of \$200,000 dollars was received from the Child Care Initiatives Fund, Health & Welfare Canada in May, 1990. The project is sponsored by Mount Saint Vincent University and directed by two members of the Department of Child Study, Mount Saint Vincent University.

Major Objectives

1. To increase public awareness of: a) special needs in young children; and b) the necessity of providing support and services to children and families as early as possible.
2. To provide to parents easy access to information on all services available in the province so that they will know to whom and what services to contact, and where to find them.
3. To improve and expand the ability of existing resources in the provinces, to meet the needs of young children with special needs and their families by the dissemination of information on available services and supports.
4. To make available to parents and service providers resources to assist in appropriate support and intervention in home and preschool environments.

Major Activities

1. To research: a) the needs of parents, programmes and services; and b) the services and resources available in the province.
2. To publish a directory of the services and resources available to the province. This will be made available to parents and professionals within the province.
3. To prepare a computerized bank of information on community resources and agencies able to provide assessment and other services. This information bank will be accessible by telephone. It is projected that both the directory and computerized information bank will be updated regularly.
4. To develop and produce information packages for parents and those providing services for children, on normal patterns of development and what to do if they suspect a problem with a child's development.

^{*}Canning, P. & Lyon, M. A Survey of Young Children with Special Needs. *NS Med J*, 1988; 67: 182-184



Personal Interest Notes

Dr. T. J. (Jock) Murray, currently Dean of Medicine Dalhousie University and well known to the physicians of this Province has been recognized for his outstanding service by being awarded Officer of the Order of Canada. His recognition and honor are well deserved as are congratulations from all Nova Scotia physicians.

Two Halifax physicians, **Drs. Peter and Carol Camfield**, pediatric neurologists at the Izaak Walton Killam Children's Hospital and founding members of EANS, recently received the prestigious American Epilepsy Society's Milken Family Foundation award for their clinical research into childhood epilepsy. □

C E N S U S • 1 9 9 1 • R E C E N S E M E N T



CORRESPONDENCE

Continued from page 64.

5. To develop a resource bank and lending service for parents and service providers. This resource bank will contain an up-to-date collection of existing published resources (eg. materials) plus materials developed as part of the project to meet specially identified needs. The directories and information bank should be completed by Fall 1992.

If you would like any additional information about the project please contact Adele McSorley, Project Coordinator, Special Needs Information Project, Mount Saint Vincent University Halifax, N.S. B3M 2J6, 443-4450 ext. 565.

Yours truly,

Patricia Canning, PhD
Mary Lyon, PhD
Project Directors

□

□

Dr. Harold Scammell, (86) of Halifax, N.S. died on January 21, 1991. Born in Pictou County he received his medical degree from Dalhousie Medical School in 1927 and practised medicine in Pictou for a year before returning to Halifax to become a resident physician at the Victoria General Hospital. He was appointed Inspector of Hospitals, appraising the work of 300 hospitals in Canada and the United States. He was registrar and secretary-treasurer of the Provincial Medical Board and was medical officer with Workmen's Compensation. In recognition of his contribution to medicine he was named Dalhousie Medical Alumnus of the year in 1986. He is survived by his wife, and a daughter, to whom the *Journal* extends sincere sympathy.

Dr. J. Donald Hatcher, (67) died on February 2, 1991 in Kingston, Ontario. Born in St. Thomas, Ontario, he received his medical degree from the University of Western Ontario in 1946. In 1976 he came to Halifax as Dean of Dalhousie Medical School. During his years with Dalhousie he received many awards and honours, including the Foundation Award for Outstanding Service and her Majesty the Queen's 25th Anniversary Medal. In 1990, he was named Dean Emeritus. He is survived by his wife and two daughters. The *Journal* extends sincere sympathy to his family.

Dr. Francis Misener, (76) of Kentville, N.S. died on March 6, 1991. Born in Glace Bay he received his medical degree from Dalhousie Medical School in 1948. He received the Dr. A.F. Miller Prize for the highest standing in tuberculosis, and the Colonel Murray MacLaren Memorial Award for service as an intern at Saint John General Hospital. He was a member of The Medical Society of Nova Scotia, The Nova Scotia Lung Association, and the Valley Medical Society. He is survived by his wife, a daughter and a son. The *Journal* extends sincere sympathy to his family.

Dr. Sandy MacLeod, (82) died on February 24, 1991 in Musquodoboit Harbour, Nova Scotia. Born in Halifax, he received his medical degree from Dalhousie Medical School in 1931. He served as president of Maritime Medical Care from 1955 to 1958. In 1959 he was named chief medical officer on the Workers' Compensation Board, where he served until his retirement in 1973. He is survived by his son, to whom the *Journal* extends sincere sympathy.

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