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The University of Western Ontario

Medical Journal

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Canada N6A 5C1



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The dilemma of foreign graduates

It is difficult, in this age of vanishing residency positions, to sympathize completely with the problem faced by foreign graduates who come to Canada hoping to practice medicine, but attention needs to be drawn to their plight. Their treatment involves more than funding; it is about morality and human dignity.

The standard argument for our mistreatment of foreign graduates is that they choose to come here of their own free will, and should be happy to work at whatever our "free" system can offer. The sad truth is that more often than not these people leave countries destroyed by oppression, terrorism and war. Their choice is often between emigration and torture or death.

In most cases the decision to leave is made with anything but financial motivations, and often it is heartrendingly difficult. A neurologist left friends and husband in the Soviet Union to find in Canada a land of disappointment and closed doors. Initially she could find no work of any kind, and had to support her son on Welfare and charity. She eventually worked an unfunded year as an intern in St. Joseph's Hospital's busiest medical service. She was finally accepted into a residency program here and is now able to buy for herself and her son the things that we consider essentials, but her story of humiliation and degradation in a society which attacks Eastern Block countries for their lack of sensitivity should make us

all ashamed and apologetic. Her strength of will and profound dignity were unforgettable and inspirational.

As bad, and without a happy ending, is the story of Octavio, an experienced Obstetrician who left the violence of El Salvador in 1986 with his wife, herself a fully trained dentist. They have been unable to find any health related work, and are subsisting as a pizza deliverer and sewing machine operator respectively. Octavio does not want to take Canadians' residency spots; he is willing to work as a GP anywhere in the country. As yet, he has not had the opportunity.

We probably should look after our own first, but at what price? A mandatory period of general medicine in an underserved area would solve two problems at once, and if after that the foreign grads are more qualified than the domestic product, then so be it. The basic question here is this: What value does our licensing system ascribe to human dignity?

David Creery
Meds '89

Editor's Note: The title of our cover says "Give all little children their chance" in Creole.

What is the difference?

A hearty greeting to all students, new and returning, from the editor's desk. This year, as always, the Meds Journal will endeavour to be an interesting and provocative forum for your ideas and experiences as medical students. Don't be shy about contributing! Journal reps Alan Garbutt (Meds '91) and Warren Teel (Meds '90) have done excellent work in helping to prepare this issue - get to know them and talk to them about your addition to the next journal.

Social change does not spare even the hallowed traditions of the medical profession and as part of the continuing expansion of women's participation in the profession, this year marks the advent of a local group calling itself "Women in Medicine". On October 5th, I attended their first meeting at St. Joseph's Hospital, hoping to glean some insight into their mandate. I left feeling enlightened about the status of midwifery in Ontario but puzzled as to the group's *raison d'être*. This is 1987 - are there really still topics of interest to one sex only? Besides, one has no difficulty in imaging the hue and cry that would ensue about an organization calling itself "Men in Medicine". Why should a professional group exclusive to women be allowed?

Undoubtedly, medical school, not to mention the business of setting up as a professional afterwards, is different for men and

women. The system is not designed to accommodate a subgroup which, at the same time that it is expected to devote huge amounts of time and energy to medicine, sees its precious childbearing years slipping by. A dearth of good role models who have "done it all" (and have still maintained a sense of humour) is in part what drove many of the students present to attend. Though I personally have never felt prejudiced against in any way during my university career, there are hurdles to overcome within a profession that is still dominantly male. Perhaps, then, it isn't so unreasonable for a group of similar individuals to bond together for support.

Yet I saw no evidence of anything more than a lively debate on mid-wifery, totally free of gender-bias, and a pleasantly social coffee-and-cake afterwards. It would have been entirely appropriate to make the affair unisex. Besides, what is there to hide? The assumption that men couldn't or wouldn't be interested in or sensitive to matters of concern to their female colleagues is simply insulting. As long as "Women in Medicine" does not clearly clarify its existence, it opens itself, rightly so, to charges of a peculiar kind of reverse discrimination.

Monika Schwab
Meds '90

MEDOUTREACH TO HAITI

— A STUDENT'S VIEW

During the summer of '87, the Medoutreach sent 10 students from the faculties of medicine and nursing to Haiti to take part in a vaccination program and to learn about health care in a third world setting. The group was split into two: a group of 7 working with the Haitian ministry of health and 3 travelling the country with ICC (International Child Care), a north American based charitable organization. My group was associated with ICC and we spent our time visiting hospitals, clinics, and vaccination posts scattered around the country.

To begin with, I'll give a brief description of the country and its people. When Haiti was first discovered by European explorers, the mountainous island was over 90% tropical rainforest. Her soil was fertile and her natural beauty knew no end. She was aptly named "the jewel of the Antilles". The picture is startlingly different today. The forests have been largely destroyed and replaced by desert. The lush rainforests which once covered the entire island have retreated to the most remote of valleys. Each year, an estimated 50 million trees fall to be replaced by only 2 million in reforestation projects. The mountains in the north and south retain some degree of vegetation, still spared from the slash and burn technique of Haitian peasants. Most of the others suffered a less fortunate fate. They stand denuded of trees and topsoil, with deep gashes cut into their faces by torrential rainfall. The topsoil has been washed off the ocean, disturbing the delicate marine ecosystems, driving the fish away. Agriculture today exists only as subsistence agriculture; there is very little export. Crops include rice, coffee, sugarcane, bananas, pineapples, mangoes, cocoa, and grapefruit to name a few. Mining no longer exists because of economic reasons.

The surrounding ocean hold few fish. What was once a rich, thriving island is no more.

Haiti holds about 5 million inhabitants. It is very much a caste society. A small degree of intermarrying between blacks and whites since colonial times has produced a somewhat mixed

long term. An example of this can be seen in the way they treat their forests. The rainforests are being continually destroyed, largely for charcoal as fuel, with little thought to what might happen when that resource is depleted. Also, in reforestation projects where trees are planted

and accompanying misery. They gave me a glimpse into how wonderful a people they can be. They are a very friendly, loving, gentle, and hardworking people. I find the Haitians who have moved to the cities very different; they are quite discontented, bitter, and aggressive.



Haitian population. If one can believe it, there actually exists a caste system with 32 classes, each one with a certain amount of "white" blood in it. There is a tremendous disparity in the distribution of wealth amongst the Haitians. The mulattos (those with both black and white ancestors) by and large have all the money and control. These Haitians in influential positions, the so called upper-middle class are largely responsible for the oppression of the poorer Haitians. Even after the past revolution and ousting of the Duvaliers, deep divisions among Haitians were firmly established and any change would be long in coming. A tremendous long term plan is required to put Haiti back on its feet.

I find the Haitian culture vastly different from our own. The Haitian method of thinking is often short term rather than

on private property (the trees are gifts), the Haitian property owner would sooner cut them down earlier and sell them rather than wait for greater profits from them as lumber. Perhaps, the Haitians are live-for-today types out of necessity, but this mentality works against their survival. I find that Haitians are a spirited and argumentative people. They are also a very tactile people; it's not odd to see men holding each other's hand. They aren't very shy people either; little kids will run up to you and grab onto your arms and legs. By and large, they are a naturally very friendly and likeable people. Unfortunately, poverty, oppression, and the tough city life have hardened many Haitians and their behaviour towards foreigners can hardly be considered as friendly. The mountainfolk, although as poor as the city dweller, have not been caught up in the discontent

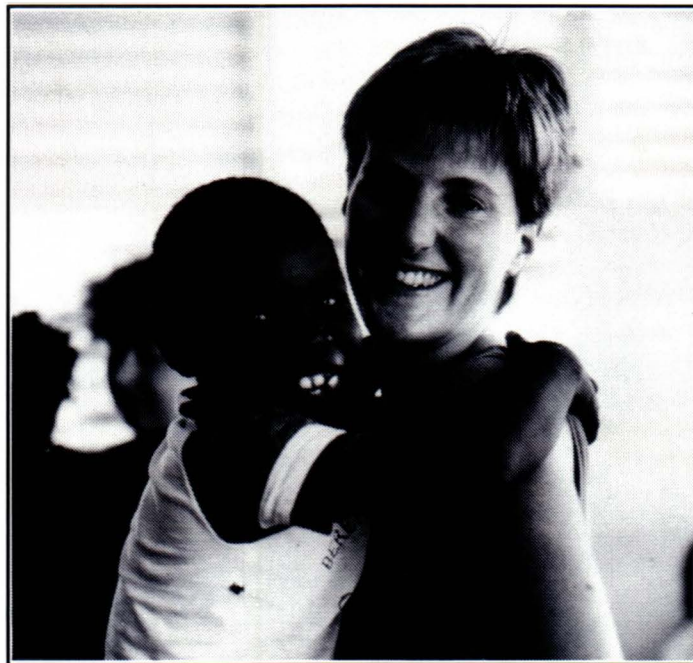
Poverty itself isn't nearly as bad for Haitians as their attitude towards their own poverty.

Having some idea of the problems plaguing Haiti, one may ask what the affluent first world can do to be truly helpful. During my contact with foreign development workers, I gained much insight into this matter. I learned that foreign aid should ideally consist of people rather than food and money which has nothing more than a palliative effect on a steadily deteriorating situation. Education is of paramount importance. The whole education system in Haiti needs to be restructured. Their system as it exists now emphasizes learning by rote and largely ignores thinking, problem solving, concepts, or imagination. This must begin from the kindergarten level and the results of such an effort cannot be expected to be seen for many years. To help

Haiti to become self-sufficient in terms of food, the first world can help by teaching proper agricultural practices eg. do away with slash and burn and encourage replanting and controlled harvesting of trees. To combat disease, the two most important things would be clean water and good sanitation. Most Haitians have yet to appreciate the importance of clean water; they clean themselves, do their wash, and drink from the same water source, often no more than a dirty stream or gutter water alongside a road. Indiscriminant urination and defecation contaminates food and water sources and contributes to disease; this problem can be solved with latrines and proper waste treatment. Vaccination of the population beginning from an early age would bring down an alarming child mortality rate. Most important of all, foreign aid in all these areas must emphasize the training of native Haitians in the management and execution of these practices. Haiti must begin to develop its own program and follow them systematically. Visitors such as vaccination teams must respect any such system and work within it if they are to leave any lasting positive effect; turning loose a vaccination team on the general populace to do indiscriminant vaccinations would do more harm than good. The eventual self-sufficiency of Haiti must be recognized as the final desired endpoint of foreign aid.

With that said, I think I'll describe some of my personal experiences in Haiti. I spent much of my working time in small clinics around Cap Haitian in the north of Haiti. The

clinics were run by Americans and Canadians in association with church groups. The vast majority of the cases I saw were people with worms (round, tape, hookworms), amoeba, malaria, or typhoid. I did abbreviated physical exams and histories (becoming functional in terms of speaking Creole is of tremendous importance). At one clinic, I even got to work diagnoses and prescribe the medicines for treatment. The working day was usually 6-7 hours long. If you plan to spend some time in clin-



ics, it would not be a bad idea to bring a stethoscope, ophthalmoscope-otoscope, and blood pressure cuff. Brushing up on the important points of a history and physical would be helpful. If you plan to do vaccinations, it would be important that you learn the techniques and become proficient at it before you arrive in Haiti (Haitian health officials would have more confidence in

you and let you do more if you look competent right off the bat).

My living quarters and meals were looked after by the people I was working with. This included ICC staff and the people whose clinics I spent time at. The group that went down two years ago had to find a house to rent for the month, do their own shopping and cooking, and laundry. For transportation, my group had ICC people take us around and we also used public transportation (crowded, dirty, smelly, but an absolute neces-

sity). The other group rented a landrover for the month. Grocery shopping can be done at small grocery stores and the market is good for getting fresh fruit. You'll have to be a skillful bargainer or the Haitians will burn you (another reason to learn Creole). Clean water can be bought in jugs. Tap water (if running water is available) is probably not safe for drinking. You can also purify your own water with bleach (chlorine). As for cost, eating in Haiti is pretty inexpensive. Fruit is plentiful and you can get mangoes for 4 cents and a pineapple for between 20 and 40 cents. The staple food is rice and beans and meat is eaten pretty sparingly. Creole cuisine is good and spicy so you'll have to make it a point try lots of Haitian food.

Besides all the work, you'll


have lots of time to be a tourist. The citadel, a 19th century fortress, is a must. It is atop a mountain and the long, long walk up affords a terrific view of the surrounding mountainous countryside. The beaches of Haiti are the best I've ever seen. Because tourism is non-existent, endless stretches of unspoiled, virgin beaches are everywhere. Often times, you can have the whole beach, rows of palms, and blue ocean all to yourself. The coral reefs are still beautiful due to man's limited presence. Souvenir shopping is just great. Haitian craftsman do lots of work in wood and the cost is very reasonable, considerably less than comparable pieces back home. If you're the type of vacationer who relishes the chance to experience a different culture, a different cuisine, a different geography, and unspoiled beauty, Haiti is an ideal spot. An unintended bonus of all the political turmoil is the sparing of Haiti to hotel chains, club meds, and the like.

My experience in Haiti was a unique and unparalleled one. I was able to get to know the people really well and could truly sympathize with their plight. My perception of the third world has become more accurate and my appreciation of my own country has increased tremendously. I also enjoyed the companionship and camaraderie that I shared with the people I travelled and worked with. The exposure, or more accurately, the immersion into a different culture and way of living was absolutely exhilarating. I always felt that travelling was the best way to educate oneself and enrich one's life and Haiti is a fine example. Last, but not least, my work in the clinics brought me happiness in knowing that our contribution to Haiti, small as it was, is part of an effort of concerned individuals working to help those in less fortunate situations. For me, Haiti '87 was a once in a lifetime experience and I hope that in the future, others will also take the opportunity to participate in similar endeavors.


**Tom Li
Meds '90**

DIAMONDS APPRAISALS ESTATES

NASH JEWELLERS



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HEALTH CARE: FREEDOM vs. EQUALITY

Health care is being extensively remodelled across the country. Each respective provincial government believes it is improving a flawed and unbalanced system by attempting to provide better access to health care and a more equal distribution of manpower. What the legislators are failing to realize, however, is that their motivations are economic and political in nature, as is almost always the case, and this is the reason they so easily neglect the personal rights and freedom of doctors, throwing constitutionality out the window in the process. My intention is to argue from basic principles that this is not evolving into something better, but regressing.

The evolution of society over the last few thousand years has been for the most part slow and often dangerous. Wars and strikes are classically occurring over rights and freedoms. And it is far from over: apartheid and bigotry; the two super-powers disagreeing over what society owes the individual; the nuclear threat indicates that our technological adolescence is not being matched by our societal infancy. But great achievements have been made with Charters of Rights in most countries outlining exactly what society owes the individual.

For the purposes of this article, I am going to greatly simplify some very complex socio-political principles; I believe the perspective I create will hold for its purpose, but some may choose to contest the argument's cogency at this point of simplification. (Indeed, some may choose to skip the next few paragraphs to get to my point!)

There are two very basic rights that man is born with and which are guaranteed to have throughout his life as long as the social contract is upheld. These are freedom and equality. Unfortunately, these two concepts

are mutually exclusive — the two do not go hand-in-hand. And it is up to each society to decide exactly where its equilibrium point will lie. To use the superpowers as an example: the U.S. has opted for the extreme of complete freedom, to the extent that equality is sacrificed. There, you are free to pursue your desires, but in such a right-wing system there inevitably exists the poor and homeless while the rich and powerful continue to flourish, arguably at the expense of the unfortunate. Meanwhile, the USSR has chosen the left-wing where equality is guaranteed but freedom is lost. You cannot own the property you want, pursue your own dreams, even leave the country. But the state ensures that your neighbour is not going to have even the slightest advantage over you. In theory, both freedom and equality have their strengths and ideally a compromise of the two should exist such that both belong to the individual. But in practice, which way would be better to lean toward?

Jean-Jacques Rousseau wrote on the "Organs of the Inequalities of Man", stating that man is born into inequality. Some are faster, some are stronger, some are smarter, but they are definitely not equal. However, it is the responsibility of society to reverse this and create equality argues Rousseau, although he fails to adequately provide the means for such a reversal in present times. When Thomas Jefferson wrote of the self-evidency that "all men are created equal", in his Declaration of Independence, he wasn't attempting to disagree with Rousseau. Rather, his play on words actually stated that all men are born with the same rights, and as has already been stated, the U.S. was desperately seeking a system where freedom was the prime directive.

Freedom is an arbitrary notion entirely decided by governments as they deem necessary for society. It can be provided or withheld at the discretion of the body politic because it is not an inherent property of man but a provision of society from the moment of birth. (Some, such as the pro-lifers, would like to see freedom begin at the moment of conception.) Equality, or more accurately inequality is not a provision but is something inherent, and not arbitrarily determined, as Rousseau recognized and most everybody would agree to. But why does this natural and fundamental inequality have to be unnaturally reversed? It doesn't make sense to smother and stifle the differences we all have, to create an artificial equality. Since we are born unequal and it is freedom that is determined by man, it is only natural to choose freedom at the expense of equality. This is not wrong. We all recognize the limits to a society where equality is enforced — the USSR is not without its problems — and some are inevitably more equal than others. As long as those who cannot survive independently are provided for, inequality is not bad.

Life and living traditionally depend on food, clothing, and shelter. To this classic triad should be added health care, for as the World Health Organization noted, health is not the only thing, but without health there is nothing. These four elements must be provided at an acceptable basal level to every member of society and is the responsibility of the government. The triad is usually lumped together as welfare support for those unable to manage. Here in Ontario, perhaps one of the most advanced societies in the world, the fourth is covered by OHIP, an ingenious system that ensures good health for everyone, far surpassing the systems used

in the U.S., such as Medicare and hospital insurance. Here, we are indeed lucky to be guaranteed these four basic qualities of life. But there's a problem: bill 94. With this bill now law, we have all lost a basic freedom, for the purpose of striving toward equality in health care. Doctors are no longer able to freely determine the value of their services, and the public no longer has the freedom to go beyond that basal level provided by government for a doctor who, just like French vanilla and chocolate fudge at Baskin & Robbins, "costs a little bit more . . . but is worth it!" Here is where health care is set apart from the other three. Welfare will provide the poor with good clothes, but at least I still have the freedom to buy clothes more expensive than them. Or food, the most necessary of all — why isn't it regulated by the government? (It would be nice to be able to order a meal at "Michael's on The Thames" and pay the same as a McDonald's Happy Meal.) The answer: because it shouldn't be, nor should health care. Establishing a minimum of acceptance does not preclude better quality beyond that minimum. Forcing all doctors to charge the same is like forcing the Italian designer to charge the same as Mark's Work Warehouse. Ultimately, the designer would compromise his quality for the money his clothes would be generating. The same will happen to the quality of health care. I remember reading in the Toronto Sun that an MPP argued it was the same as Bell Telephone. Both Bell and the doctors are monopolies he claimed. Bell was regulated and everything has worked out fine. But that is a poor analogy. With Bell, I still have the right to get more if I choose to pay extra, such as a Harmony Phone or a private line where the basic service is two-party. Again, the

mimum level of acceptance does not preclude quality beyond that mimum.

Some argue that because the government is paying doctors through OHIP, they can dictate wages just as any employer can. This is bunk: a company dental plan does not make the dentist an employee of the company; rather, the company has taken it upon itself to provide its employees with dental care. As with health care, the government has taken it upon itself to provide the public with health care as it arguably should, but by doing so it does not make doctors employees of the state. As for access, the idea that doctors are a monopoly is idiocy. Rather, each doctor is like a small business, and market forces determine that each one

get what he or she is worth. If one is overcharging, he will not get the amount of business he would like. But as politicians have proven countless times with the state of inefficiency of the post office, they know nothing about business. If Queen's Park was filled with small business owners, we wouldn't be in this mess.

I don't mean to harp on bill 94. What's done is done. But it is not likely to stop there. With restriction billing members in British Columbia, 2 year pre-license requirements on Quebec and Alberta, talks of disallowing moonlighting in Alberta and income-capping based on the number of OHIP claims in our own province, a domino effect could take place with the whole country headed downhill. And

as David Peterson proved with bill 94 to getting back the money lost through the unconstitutional Canada Health Act, he is motivated by political and economic reasons. Everyone of the above possibilities (likelihoods?) will save provinces money at the expense of our freedom. This is wrong. If problems with access and manpower exist (and there is certainly not an overabundance of objective evidence to prove this), the provincial governments must go about solving them by means other than restricting freedom. The Canadian Charter of Rights allows every individual the right to thrive in any location. Nowhere does it say doctors are exempt from this. The capitalist approach has worked well in this country, allowing freedom of

choice while providing the poor with an acceptable minimum of quality. Free enterprise has also been working as far as health care is concerned. Why change it?

Doctors have the same rights and freedoms to work where they want and for how much they care to charge as anyone else. We have to make sure that the governments do not take away that which we deserve. Equality is not necessarily better. Making all health care equal is more a deterrent than an improvement. We have to fight for our freedom, supposedly the man principle on which this society is based.

**Brad Dibble
Meds '90**

MEDICAL STUDENT'S DISEASE

Just the other day I was sitting in the kitchen, slurping coffee and wondering how I might rearrange my bedroom furniture when I realized that my head was beginning to hurt. In fact, it was beginning to hurt **SUDDENLY** and **SEVERELY**. Immediately I realized that it was the **WORST** headache I'd ever had. Dread fear began to grow in the paracolic gutters of my belly. My greater omentum was beginning to quiver. Instinctively, I did a Val Salva; the headache ominously worsened. I could see it was time for Harvey. My hands were shaking as I scanned "subarachnoid hemorrhage" (pages. 1289 - 91). By now I had but one recourse. I woke up my roommate (also in med school) and quickly explained the crisis. Would she look at my fundi and check for 3rd nerve palsy? Unfortunately, both our ophthalmoscopes needed charging

and my roommate could only give me her gut feeling that I didn't have papilledema. I trusted her and took some Tylenol - it seemed to work.

This wasn't the first time I'd had a medical crisis. In fact, ever since I started med school I found myself having them with frightening regularity. I was diagnosed as having MSD (Medical Student's Disease) last year, shortly after I self-diagnosed my probable patent ductus arteriosus and congenital thyroglossal cyst. The MSD bothered me until I learned that the greater part of my class was similarly afflicted. And truly, this MSD binds us closer together; we all know the sheer hell of looking into a mirror, day after day, wondering whether the acromegaly will go away or not. Which one of us hasn't woken up in the middle of the night, tachycardic with the fear of sarcoid or an ascending uri-

nary tract infection? Indeed, haven't we all fretted over peculiar skin lesions or wondered if that sore throat from 1972 might manifest as endocarditis this week?

MSD is not rare and while viruses have, of course, been implicated in its etiology, some think that the medical education program itself is the culprit. Evidence towards this latter theory includes the strong correlation between time of teaching of a particular pathology and the subsequent onset of the signs and symptoms of that pathology in 47% or more of the class. Clinical studies have shown that the best treatment of MSD is the patient's acquisition of a "second opinion". (Daily physical exams have been found to be too time consuming.) In view of these results, I propose the establishment of a telephone diagnosis network whereby the person with MSD whose

roommate is unavailable/incompetent can still find quick comfort during crises.

Just imagine all the benefits of such a network. Diabolically enlarged lymph nodes could be palpated minutes after a simple phone call. Prolonged periods of worry would virtually be eliminated. Student Health Services would probably give us a multi-million dollar grant with which to start the network considering how much labour we'd be saving them through peer diagnosis. With a bit of organization MSD could become socially acceptable and need not be the torment that it is today. While this issue deserves much more discussion, right now I've got to go and percuss the borders of my heart and check the capillary refill in my nail beds.

**Hema Patel
Meds '90**

THE FUTURE OF COMPUTERS IN THE PRACTICE OF MEDICINE

It may come as no surprise to anyone today that computers have found far reaching applications in many aspects of medical technology. These range from such diagnostic procedures as CAT scans to educational programs (eg. the medical computer assisted learning lab). What lies in the future appears to resemble something out of science fiction — computers that give a critique on a doctor's proposed plan of treatment as well as advice on alternative strategies, continental computer networks which allow swift access to patient records from any city, etc.

I recently had the opportunity to read the October issue of *Scientific American* (1987). This issue was solely devoted to computers and their future capabilities and applications. The basic theme underlying this issue was that the past few years have seen computer capabilities explode in terms of memory size, speed, efficiency and also in the area of communications. It is these same attributes which are critical to the processing of the large amounts of scientific information scattered throughout the continent. At the rate that new knowledge is currently being released, it is becoming increasingly difficult for doctors to access and process this information, let alone memorize it!

One article in this issue of *Scientific American* was entitled, "Advanced Computing for Medicine". It discussed the future use of computers to access information from basically "electronic libraries" or databases scattered across the continent and utilize the latest knowledge to solve practical problems such as diagnoses, modern treatment approaches or simply to critique a proposed treatment approach. This would be a mammoth task for those who are working on the artificial intelligence aspects of such a system. Currently however, it is quite feasible to set up the communications network towards achieving such a goal. With the present technology it is feasible to dramatically improve the distribution and interpretation of medical data within today's hospital. For example, with a PACS (picture-archiving and communication system), it is conceivable to digitize pictorial data (eg. radiographs) accurately and permit multiple access to such data from terminals scattered throughout the building.

There are, however, a few barriers to overcome. In terms of hardware, chips with more memory capacity are necessary along with improved technology in networking and chip design. These areas will definitely progress with time. Another barrier is cost. Some institutions go about acquiring such technology in a piecemeal fashion — gradually replacing the old with the new until an integrated information systems used in a hospital setting exists in LDS Hospital in Salt Lake City. It was affectionately named HELP. It has been in development over the last 15 years. By means of a central computer, information about patients (medications, history, status, lab findings, etc.) can be distributed to the various terminals in the building. As well, continuous monitoring of intensive care patients is carried out via computer with alert warnings issued to the appropriate nursing station in emergencies. The plan is to have a terminal beside all 520 beds in the hospital.

The more interesting barriers exist in the development of software, especially those dealing with medical problem solving. Some researchers are actually involved in developing medical AI (artificial intelligence) systems. According to the article, psychological research suggests that what distinguishes experienced physicians in their ability to make accurate diagnoses and take effective actions is their accumulated knowledge of diseases, symptoms and treatments rather than their method of approaching problems. This is not to say that a medical problem-solving algorithm will be relatively easy to

devise. There is the problem of coping with the massive amounts of data in terms of the tangle of relationships which can exist between data. Medical knowledge is more than the sum of its parts. When new information is discovered, it may shed new light on the old or alter its interpretation. These additional relationships are relatedly easily perceived by the creative human mind compared to that of the cumbersome high-powered machine. One can begin to appreciate how the relentlessly incoming rush of data rapidly compounds itself with their complex interrelationships. One major difficulty with AI stems from the fact that although computers are extremely good at following recipes or algorithms, they are not blessed with the ability to be autonomous thinkers. Such an idiosyncrasy cannot be tolerated in a field where there are so many unknowns — physicians, along with being able to reason logically may also have recourse to their "old bag of tricks" gained from years of experience rather than textbooks and take into account such diverse areas as social issues to effectively take actions and make decisions. With time however, it appears plausible that somebody (or something) will design an effective medical recipe for patient management. In the University of Pittsburgh School of Medicine, 10 years of work culminated in a computer system named QMR (Quick Medical Reference). It has knowledge of 577 diseases and their interrelations with 4,100 signs and symptoms. It can request additional information it needs about a given case problem as well as suggest further tests which might be helpful in its investigation. Its predecessor, INTERNIST-1 was shown to be almost as accurate as academic physicians in diagnosing difficult cases.

Despite the rapid developments made in the field of computer technology it is unlikely that people will be left stranded because of a lack in knowledge about computers — there is a heavy emphasis on software which are developed to be easy to use (user friendly; or I've heard some smug computer techo's use the term "idiot proof"). As well, there are many rapid developments in the field of user interfaces (speech and even handwriting recognition) which will facilitate much easier and flexible interactions with computers. The future of computer applications in medicine looks bright.

The article concludes by stating:

"computer systems do not now — nor will they soon — have a sufficiently complete understanding of medicine's technical, clinical and social considerations to approach the richness and flexibility of human expertise. There are many aspects of human problem solving that we and others in the field simply do not yet know how to model within a computer." (Rennels & Shortliffe, 1987).

The catch phrase is "... nor will they soon ...", implying that the authors believe that inevitably such a goal will be attained ... given enough time.

On a more philosophical note ... it is said that knowledge is power. Nobody could reasonably dispute the fact that computers are the ideal tool for the storage, processing and distribution of knowledge. Medicine, however, is both an art and a science. Art is one endeavor that is most highly associated with humans and least associated with machines. Needless to say, it is disturbing to imagine computers of the future emotionlessly carrying out activities which today are considered intrinsically human endeavors. In medicine, knowledge is power but Albert Einstein so elegantly puts this statement in perspective by stating, "Imagination is more important than knowledge".

**Arnold Kim
Meds '90**

To Benny

*My memories of you are so vivid.
It could have been yesterday that I said goodbye to you
I can picture you as your Mother wheeled you away
With a tear in my eye, I watched you go
But that was two years ago now.
I remember the first day I saw you
Strapped in your little blue chair
A sock on your hand, taped at the wrist.
You struggled to taste your thumb through that sock
But that comfort would not be afforded you.
To me you looked perfect, any mother's joy.
A round baby face crowned with fine, blond hair
A sweet little nose and soft, velvety skin
And those beautiful, big blue eyes.
But I soon learned that those eyes couldn't see anymore
Although I'd worked on the ward in the past
No one else grabbed my heart and tore it apart the way you did the
next morning
When I got you out of bed, your whole body jerked;
your head down, your knees up
And with each spasm you let out a frightened cry
But nothing I could do seemed to soothe you one bit.
Eventually, since none of my efforts could calm you
I put you back to bed and sat with you and I cried.
Until gradually the spasms subsided and we both relaxed
Slowly, gently I fed you your breakfast, afraid to trigger a new bout
But your little sounds urged me: "Faster with the porridge, please
miss."*

I met Benny during my second summer working as a primary care worker on a ward for severely developmentally handicapped children. Until that point, no particular patient had had such a profound effect on me. I felt that I had dealt with the emotional issues that arise when one is confronted with a child who has severe cerebral palsy, or multiple congenital anomalies and profound mental retardation, or a child who seizes ten to twenty times a day or changing the diapers of an 18 year old. It was uncommon for there to be a child on the ward who could talk or feed himself. On my first day on the ward, I remember being caught up in the great enthusiasm of the staff over a tiny four year old clumsily holding a cup herself for the first time. I felt that I had things sorted out - "I can't apply my idea of quality of life here since these children don't know any

different and usually seem happy; I can love them, keep them as comfortable and happy as possible and encourage them to develop to their full potential; they remind me of the importance of little things, absorb my attention and make my own problems seem less pressing and give me some love in return." I also felt that I had learned about what it was like to care for such a child and would be able to understand the feelings that parents of a handicapped child encounter once I became a doctor. But when Benny came along my coping system fell apart and I realized, through the intense interest I took in him, that I had not really been close to understanding how a parent feels, nor could I ever expect to fully comprehend it although I did come a few steps closer. I'm not sure why Benny had this effect on me. Perhaps it was because his story was so sad in that he

*A year before, they told me, you could run and swim
You were like every other 3 and a half year old boy
Then something changed; First you fell much too often
By Christmas, you could still stand up and valiantly tried to lift
your feet to walk
But your strength and co-ordination were going - those feet were
rooted to the floor.
When I got to know you, sitting was difficult
You'd fall over and struggle to regain your posture
How much did you realize about your little life?
You were my special child, I gave you so much love
But did you really know me, as I wanted to believe?
I took you out swimming in hopes you'd remember
Some of the things you used to enjoy.
You did love your food; Meal time was a happy time
The others thought cake and popsicles were too hard for you to
manage
But I found ways that you could handle them and was rewarded
when you showed you enjoyed them
Recently I've been back to the ward where we met
I think of you often, I'll never forget
I loved you; You showed me how much small things count
Sometimes I'm tempted to ask about you, though I'm sure that
you've probably died.
But I never will; In my mind I want to keep you alive.*

**Beth Cummings
Meds '90**

had been a "normal" child, active with a developing personality, and beginning to fulfill some of his family's expectations for him when suddenly this was cut short by an unrelenting, degenerative disease of the central nervous system. But there was more to it than that because the effect began before I knew his story. My reaction was to become intensely involved with and attached to him, giving him special attention, going out of my way to keep him happy and loving him. This experience of becoming close to Benny taught me a great deal.

Firstly, I came to realize how difficult it must be for a family to care for a child like Benny. The eight hours a day for a regular work week that I spent on the ward were enough to make me realize how demanding a job the family of a handicapped child are faced with. Tasks we normally take for granted for a five

year old become time consuming and emotionally draining events. Benny easily became agitated due to central nervous system instability and would lapse into spasms where his whole body jerked and he would cry out, apparently from fear. These could be triggered by normal circumstances such as awaking abruptly, feeding or bathing and would only subside with time lying in a quiet place. When at his best, feeding Benny was still not an easy task as his poor motor control impaired his chewing and tongue movements and made it necessary that he eat pureed foods. Even play became a job, since a child who cannot function well needs extra stimulation and may not be able to manipulate toys or move about on his own. This meant that he needed a great deal of attention to be talked to and helped to play since without it he would have had little stimula-

tion. At the end of my shift, I could go home and carry on my life without being constantly faced with Benny's situation. However, a mother cannot do this, she must continue to care for her child. This must be difficult for a family since so much of their time and physical and emotional energy must be put into caring for this child. My experience has helped me to realize that such a family will need a great deal of support and may at times need some alternate care setting for their child to give them a break from the constant demands being placed on them.

Benny taught me another

important lesson that I hope I will always remember when I am dealing with families of individuals with apparent disabilities in communication and function such as the developmentally handicapped or those suffering from a degenerative disease. My first impulse, when I met Benny was to care for him in a way that I would assume was best for him. I soon learned, however, that despite his impairments he had definite likes and dislikes and was able to communicate these to me. As I spent time with him, I began to recognize individual, often subtle, ways of communication and other basic abilities that required my interest and obser-

vation over time to be seen. It became important to me that a person meeting Benny for the first time or one who simply spent less time with him than I did, recognize these abilities that I knew were present. After a few weeks, I know the foods he liked, the music he enjoyed and how important sitting up on his own was to him, but my initial expectation had been "How could I know what he likes? He can't communicate." If it was important to me that others acknowledge Benny's abilities, how much more important must it be to a parent that a doctor appreciate her child's assets? There is a tendency to think that

a caregiver sees more ability in the child than is present because she wants to and that another person will have a more objective viewpoint; however, my experience has shown me that the caregiver lives with the reality of the individual's deficits and assets daily and so knows best what that person can and cannot do and what their problems are. I returned this past summer to work as a medical extern in the place where I met Benny and quickly realized that I often needed to remind myself of what he had taught me. This prompted me to write the preceding poem as a concrete reminder of my feelings.

WORKING FOR A SAFER TOMORROW

"If mankind is to survive, we shall require a substantially new manner of thinking"
Albert Einstein

The threat of nuclear war looms over us like a dark cloud before a storm. To say that this threat has caused people "some concern" is, of course, an absurd understatement. Those concerned include the International Physicians for the Prevention of Nuclear War (IPPNW). IPPNW

has a single mandate: bilateral nuclear disarmament.

It would be reasonable to ask what special interest physicians have in such an issue. There are several answers. In the event of any nuclear attack, the available medical response would be entirely inadequate. Hence, prevention is seen as the only effective approach. Further, even the threat of such an event has serious psychological consequences: it is estimated for example, that approximately

one in five Canadian children lacks hope for the future because of fear of a nuclear holocaust. A third reason is that as members of the community whose non-medical opinions are generally (rightly or wrongly) respected, it is important that physicians be well-informed. Finally, by virtue of being a distinct group, doctors are in a position to become organized (in the same way that any other group could be).

One might also ask what good we, as individuals, can do. It should first be realized that the IPPNW has over 150,000 members from 49 different countries (both East and West block). Hence, the influence is on the largest scale, and as evidence of its success, IPPNW was awarded the 1985 Nobel Peace Prize. International meetings are held annually. In June 1988 Canada's organization (CPPNW) will play host to 5,000 physicians who are expected to meet in Montreal.

In addition to these large-scale activities, local chapters carry out activities in the community. Education plays a major part and can be achieved in several ways. For example, the

London chapter will be hosting a visit by renowned scientist/broadcaster David Suzuki in early 1988. Further, a film series is being run on the UWO campus. The next film, "True North - Strong and Free?", highlights a symposium on Canadian defence, especially concerning nuclear war (to be shown on November 10th at 4:30 p.m. in Room 2024, Social Science Building). Future plans include a debate on defense between student political leaders. Another activity of the group has been to set up education programs within the high schools.

The interest and involvement of the general public will be necessary to eliminate the threat of nuclear war. Through your involvement in IPPNW, you can help make this happen. It is absolutely NOT necessary to be an expert on the subject - those who just want to learn more are most welcome. Together, real progress can be made.

For more information, contact Dr. John Thompson c/o St. Joseph's Hospital London, Ontario

**Greg Parkinson
 Meds '90**



A VIEW OF THE OTHER SIDE

Summer 1985, I was accepted into the class of Meds '89 and was busy making preparations and getting in my preliminary worrying. In late July, however, these preparations were slowed down by an attack of colitis. I had previously been diagnosed as having inflammatory bowel disease and knew that this could happen at any time. Though very concerned with my illness at the time, my sister now looks back on those days rather pleased in the fact that a man has finally experienced menstrual cramps. In early September, my symptoms began to subside somewhat and after having missed 3 days of classes, I began medical school. After 8 days though, the realization of what the class of Meds '89 was really like became obvious and I decided to get phlebitis and leave class (actually I have some very good friends in that class). Thus began what was to become more than 3 months in University Hospital. A stay which would include bowel surgery and my final discharge in mid-February.

I am not going to write about what it was like to be sick for most everyone has a good idea of that already. Instead, what follows is a collection of some of the things I did, things that happened to me, and people that I met while in UH (very much like "My Summer at Camp" eh?)

Once admitted for phlebitis, it was decided that treatment for the colitis should begin as well. This meant that I was put on TPN, which is a fancy way of saying that the only thing that could enter my mouth was air. This treatment lasted for about two weeks. In this time, under the suggestion of the faculty, I made arrangements for a leave of absence from Meds '89 and thus joined the class of Meds '90. With the arrival of Thanksgiving, I began feeling much better and was discharged home. Unfortunately, health lasted as

long as Thanksgiving did and I was soon readmitted. This time, I remained on TPN for 49 days. . . this was when the fun really began.

Being on TPN means that physiologically you are supplied with all of the nutrients you need, but actually you crave the taste of food and think about it constantly. By the second week, any and every type of food began looking very appetizing. My mouth would water whenever I'd see the man put water on his dog's food to make "real" gravy. I remember thinking "Damn cats and dogs eat well!" I'll bet you never realized that 75% of commercials are about food and in almost every episode of any sitcom, someone will sit down to eat.

Fortunately, my friends rallied to support me. One of them thought it would be comforting to allow me to hear him cook, so he would call me and treat me to the sounds of eggs and bacon being fried and then chewed. The rest of my friends visited me at lunch time so that I could smell their ham sandwiches and King Dongs. Did I say they were friends? Of course I didn't make it any easier on myself. Many times, people would catch me reading the yellow pages under "Restaurants". I recall being able to recite the names of most of London's eating establishments.

Soon, I began running out of peripheral veins that were adequate for further IV infusion. As a result, a central line into my subclavian vein was inserted. Seven people arrived to do what I was told was a simple procedure. Green sterile towels were placed over me leaving only my chest exposed. You see, they decided that my face may contaminate their work and, as a result, covered it as well. This seemed reasonable until I discovered that these towels were rather thick and non-porous and I began realizing a demand for

oxygen. After several requests and nearly 3 minutes, a corner was turned up so that I could finally get some air. As they began working, I could not see what they were doing, but I heard the one word which instills confidence in every patient - "Damn". "Damn what" was the first thing I thought and immediately said so, to which I got no reply. As they began inserting the needles deeper I began to feel some pain. Each time I would jump. I felt a clerk gently squeeze my arm. This was the greatest display of compassion I'd ever experienced, for in his touch I felt some honest concern. I have no doubts that he is a superb doctor somewhere now. After about 10 minutes of unsuccessful searching, the crew decided to quit and, because of the risk of puncturing a lung, I had a portable X-ray taken. (Attention X-ray tech: You were gorgeous. If you are still single, please contact me.) Needless to say, the IV was begun the following day by one experienced man in about 2 minutes (with no towels).

The nurses are, by far, the most interesting part of any hospital stay. Every morning they would awaken me at 7:30 because "breakfast was coming". The fact that I was not allowed to eat seemed to matter very little. It seemed that I had to be awake to watch my roommate eat. Before he could start, though, I made him describe everything he'd ordered. Then, after breakfast, the nurses would force me to bathe (a sponge bath at the side of the bed which I unfortunately did myself). This they insisted upon at 9:00. I was not eating which meant that this bath was the only thing I had to do all day and, for some reason, I had to wake up and do it early. Unable to go back to sleep, I had no choice but to watch game shows.

One afternoon, the head nurse came into my room and sat

beside my bed. She told me that she knew that I was a medical student and then proceeded to treat me to a 20 minute lecture on "How to treat a Nurse". I assured her that I would not forget what she told me and I haven't.

The nurses became like friends in a short while and I enjoyed our discussions about a variety of topics. One evening, one of my favourite nurses found the Playboy magazines that my friends (these are the real friends) brought me. I assured her that it was the articles that I really enjoyed (it was true) and that her son probably read them too. She then sternly informed me that he would never read that magazine and that he was only two years old. I found a picture of an infant reading Playboy and gave it to her for it was only a matter of time. Well, he's 4 by now (in 1987) and has probably read several already (I had by then).

Two mornings a week, the student nurses were assigned to take care of the patients. I recall one morning when I was awakened by one of the rubbing my thigh and asking "Can I do anything for you today?" Well, the imagination soars. She was quite efficient and allowed me to skip the formality of watching my roommate eat and go directly to the bath. With a high spirit of fun (and a little bit of hope) I attempted to convince her that I was unable to bathe myself and that I required a bed bath. She checked the orders and, obviously, it wasn't there. I went on to make up a story of a student nurse I had the week before, at which time it was also left off the chart, who got in trouble for delaying the bath and doubting a sick patient. To completely convince her, I proceeded to take of my shirt for the bath. She was nearly sold but, with a last bit of doubt, decided to check with the supervisor. I knew the battle was lost.

When spending this much

time in the hospital, you have a variety of roommates and, as a result, meet some very interesting people. For two weeks, I roomed with a diabetic who, through our conversations, learned that I was a medical student. I told him that I had only 8 days of training but this was apparently enough to satisfy him. Whenever a resident or staff doctor would leave him an order, he would clear it with me before complying. At first, I was amazed that he thought I knew something about diabetes (I still don't) and I just told him "Do what they say". By the second week, though, I was getting used to the role. My answers had now grown into several minute pauses of feigned thought and lines like "If I were your doctor, I would do the same thing. Your physician is obviously very well trained".

I also roomed with a young man about my age. I was excited to room with someone with which I hoped to have several things in common. When the nurse came to fill out his admission forms and asked about drugs, he went on for five minutes about several substances he had smoked, inhaled, and injected in the last week. Later that night, I discovered that we had nothing in common.

Somehow, I had a complete recovery shortly before Christmas and was discharged. I enjoyed the holiday season but, right after New Year's. I had a further exacerbation and was readmitted, this time for surgery. Surgery meant a new floor (8th) and a new team of nurses. It also meant several days on Demerol and early morning wake-up calls from the surgical team.

The surgical rounds deserves some comment. The team was composed, as close as I could figure, of two residents, an intern, and usually two clerks. At 6:30 a.m. several groups of not so quiet young doctors wandered the floor on rounds. As my surgeon's team came in to see me the bright light above my head was turned on, thus guaranteeing that I was awake (and temporarily blinded). Without

my glasses, I couldn't read the name tags to see who was who, but, I soon learned that this was not necessary. The residents were the ones who stood on each side of the bed. The intern would stand at the foot of the bed and was apparently in charge of reading my chart. The clerks stood in the doorway, often being only partially in view. I think they were scared someone would ask them a question if they came too close.

Every morning they would come in, blind me, examine me and talk about me. Then, they would leave to see the next patient without turning out the light, with the light switch being well beyond my reach. This assured that I would be awake for the lab nurse that always arrived 15 minutes later for blood. On one morning, the team moved my night table in order to stand next to the bed. On this table was my urinal since I was not yet allowed, or even able to move very much. Upon leaving, they did not return my table to within reach. These doctors had written the orders for 6 litres of fluids IV a day and now declared that I shall not urinate. I lay there, with the light in my eyes, wondering of the explosion of my bladder would summon them back to my room. Another morning, they woke me up and then simply talked amongst themselves about me and left without doing an examination. The only reason I could see for awakening me was to see if I would indeed awaken.

The surgery cured me and, after a mild complication, I began to recover. I remained in London until Tachy week (the show was great) and, with my new found health, decided to go to Florida for a March break. With no obligations until September, this March break was exactly that. I spent 21 days in Fort Lauderdale with friends and relatives. I felt I'd earned it.

In September, I began medical school again in the class of Meds '90, with a group of people that I like more and more each day. In November, we were being subjected to two exams on adjacent days. Feeling



that the exams would be difficult and knowing that no one had started writing our tachy play (I was a merrymaker), I decided to have a bowel obstruction and take a few weeks off. I got a lot of support from my class of that time and, to this time, it still means a lot to me. I was only in the hospital for about 10 days but met a male nurse who had a real knack for making me laugh and making me smile. Following my surgery, he would try to pacify me with promises of an orange popsicle. When discharged, I had gained a great respect for him and a love for orange popsicles.

Throughout all of my days of illness, there is one thing I am very proud of. In fact, I brag about it. In all of the boring afternoons when I had nothing to do, I never, not even for five minutes, tuned in a soap opera. In my illness, my mind was spared.

A special note must be made

of my mother who sat with me for nearly 12 hours every day. We have always been close and spent time together but I hadn't spent this much time with her since I was breast feeding. I love her very much.

Many other things happened to me in those days, but these were the more memorable incidents. The care I received at UH, both from the doctors and the nurses, was excellent. I hope that my medical school education will train me to deliver that caliber of care one day. I don't know yet if I'll be a good doctor but, for my experiences, I know I'll be a better doctor. A nurse overheard me telling these stories to a friend over the phone when I was in the hospital and told me that after I graduate and begin working hard, I'd forget. I hope I never forget.

**Edward Sabga
Meds '90**



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