
"Doctors. Just because a bunch of whiners complain about 23,000 deaths a year caused by Canadian acute care hospitals, no one is blaming you. Those hospitals are just accident prone! "

3.
Adverse Events

A hospital is like a war. You should try your best to stay out of it. And if you get into it you should take along as many allies as possible and get out as soon as you can. For the amount of money the average hospital stay costs, you could spend an equal length of time at just about any resort in the world, transportation included. And unless your condition required emergency treatment, your health might be better off if you spent the time and money at the resort, too. For the hospital is the Temple of the Church of Modern Medicine, and thus one of the most dangerous places on earth.

— Robert Mendelsohn, MD

Serious traffic accidents, particularly if there is an injury or loss of life, can paralyze whole freeways for several hours. Thousands of cars and commercial vehicles sit and wait, spewing carbon monoxide. People miss appointments, airline flights, and delay-caused business losses accumulate. Hospital, patient, and doctor schedules fly asunder. Everyone must wait while police, emergency crews, and expert accident investigators gather the evidence they need to determine the who, what, why, where, when, and how of the tragic event. Accuracy is thought to be far more important than either the cost or inconvenience caused to thousands of other citizens. It is important to be precise in the assignment of responsibility and, if facts dictate, blame. In order to do that, the investigation must take place right away, before evidence disappears.

In Canada each year, about 3,000 people lose their lives in highway accidents. Unfortunately, this great toll is a minor statistic compared to the tragic mistakes made within the health care system of the country. The "adverse events" study released in May, 2004, by the Canadian Institutes of Health Research (CIHR) and the Canadian Institute for

Health Information (CIHI) reported that as many as 23,750 deaths occur each year in Canadian acute care hospitals due to error, clearly preventable mistakes, most often due to surgery, infection, and drug reactions.

A truly alarming aspect of these numbers is that all of the data came from medical charts, and not from any independent assessment of the circumstances. In other words, those who committed the mistakes and their associates were the only sources of evidence. A similar American study stated bluntly, "Only 5-20 percent of iatrogenic events (medically caused) are ever reported." If all this is not sufficiently chilling, the Canadian study analyzed only a representative sample of acute care hospitals, and based its findings on 2.5 million admissions each year. Of these, 7.5 percent (185,000 admissions) suffered an adverse event, which extended their stay in hospital or resulted in death. In addition to the human carnage, the financial waste is staggering.

Acute care hospitals represent only one slice of the total health business. Procedures performed in clinics, diagnostic centres, physicians' offices, nursing homes, psychiatric institutions, and an array of other health centres, were not included in the study, and represent a far bigger area of concern. No one has the slightest idea how many iatrogenic errors might be uncovered if the entire field of medicine were to be studied, particularly if the same forensic intensity were applied that is accorded highway accidents and crime scenes. A controversial American paper entitled *Death by Medicine* (Null et al.) assembled all of the data from respected research agencies covering the full gamut of health care, including senior citizens' homes. The paper concluded that adverse events currently cause 783,000 deaths per year. All official U.S. sources admit to 100,000 deaths per year as a result of medical mistakes and over 100,000 as a result of drug interactions.

What is most shocking is that this epidemic surprises no one who works within the health system. Managers of the best long-term care facilities now routinely perform thorough examinations of their residents before they go to acute care hospitals. It is standard practice to count any bruises, wounds, or abrasions before they depart. One executive of a multiprovincial long-term care corporation said in an interview that patients invariably have "more wounds on their body" after a hospital visit than before they went. Regular complaints seem to do little to improve the situation. These minor cuts and bruises may be the result of careless handling in hospitals or even self-injury as a result of insufficient monitoring. But they do demonstrate indifference and a system that too often regards patients as merchandise, something to process and accommodate.

Following the May release of the Canadian report, media scrambled to interview doctors and hospital administrators across the country. The interviewees made all the right noises about it being a "wake up call," and the "need to be more vigilant," and so on, but there was not the slightest sense of surprise, shame, or embarrassment. The indifference was overwhelming: "Germs go with the territory," some said. "It's because government doesn't provide sufficient funding," was heard in some quarters.

It is not unreasonable to estimate that mistakes within the entire Canadian health system may be inadvertently or negligently killing 50,000 people a year or more, rivaling heart disease and cancer as the greatest threats to life. No one knows the exact number, because the formal adverse events investigation focused only on a narrow slice of total medical-pharmacological care in the country. If documented American numbers can be used as a guide, 50,000 may be conservative. This compares to 3,000 deaths due to car accidents and about 500 as a result of crime. Yet, despite this high fatality rate, iatrogenic errors receive the least investigative attention of any other cause of death. The reason for this is that the evidence and motivation required for a thorough investigation must come from the same culture as the one that made the errors in the first place.

Only in the relatively rare instances of formal inquests or malpractice actions is there any independent investigation of cause, and then only a considerable time after the event. In these instances, the investigators are dependent upon the formal records maintained by those who, in all likelihood, were party to the misadventure.

Medical nightmares

Among the first to sound the alarm in Canada was Penticton, B.C., coroner Susan B. McIver, whose 2001 book *Medical Nightmares: The Human Face of Errors*, estimated 10,000 Canadians die as a result of medical errors in hospitals. She argued that medical errors usually result not from one person's recklessness, but from communication breakdowns, fragmented care, inadequate supervision of medical staff, and the fact that when family members raise concerns, they are too often ignored.

The Kansas-born McIver, who has a PhD in entomology, was a professor at the University of Toronto for 17 years with appointments to the Faculty of Medicine. Her book lets patients tell their own stories, a sad

litany of confusion, inefficiency, tunnel vision by doctors, and outright incompetence. Exhaustively outlining 33 different case histories, Dr. McIver dramatically personalized what the health system attempts to write off as an institutional quality control statistic.

The most important part of her title is the phrase "The Human Face of Errors." Publicity about the all too frequent medical horror show portrays the "inadvertent and unfortunate" as being the result of a third-party conspiracy of extraterrestrial spirits. The reality is that every case represents the legislatively enshrined responsibility of one doctor in a relationship with one patient. No matter whose blunder it was that resulted in tragedy, one doctor is responsible, and if that physician's patient was hurt by other caregivers or technical failures, it is the absolute duty of that doctor to become the patient's advocate. The doctor should take the view that he or she has been victimized along with the patient, and fight like hell to find out the truth, hold the perpetrators to account, and seek justice.

What becomes obvious when researching incidents of medical error is that the interests of patients come dead last — and the word "dead" is all too appropriate. "Shoddy medical care has been shrouded in secrecy," Dr. McIver said. Doctors, medical associations, the lawyers they hire, hospitals, and an impenetrable wall of health bureaucrats who passionately "see no evil," conspire to protect the perpetrators of all but the gravest and most obvious calamities. Self-regulation and self-policing, the prerogative of the medical establishment, is used to systemically suffocate thorough investigations.

The CIHI-CIHR study

In May 2004, the Canadian Institutes of Health Research (CIHR) and the Canadian Institute for Health Information (CIHI) published their study called *Adverse Events in Canadian Hospitals*. The report received intense media coverage, which focused on the same startling statistics in story after story — medical errors are responsible for as many as 23,750 deaths in Canadian acute care hospitals every year. Since media stories require the distillation of large volumes of text and data into relatively few words, the process ensures that statistics emerge out of context. Therefore, the highly credentialed people who conducted the investigation would view excerpts from their text and the use of numbers without context, as misleading. This important effort is worthy of a closer examination.

In 2002, Dr. John Millar, CIHR vice-president of research made the following remarks as he announced the beginning of the study:

> We have very limited reliable data on adverse events in Canadian hospitals and there are no systems in place to routinely collect data that are necessary for ongoing monitoring. This study will provide us with baseline data on the extent of this problem in Canada. . . . We are hopeful that the study's results will provide the impetus for action to seriously address the quality of care. . . . There is an urgent need to develop indicators, data definitions, standards and systems to collect data on adverse events (which should also include near misses, hospital-acquired infections and the adverse effects of drugs).

The adverse events study was led by Dr. Ross Baker, Associate Professor, Health Policy, Management and Evaluation at the University of Toronto and Dr. Peter Norton, Professor and Head of the Department of Family Medicine at the University of Calgary. Seven universities participated.

Highlights of the Report

- an "adverse event" is defined as an unintended injury or complication resulting in death, disability or prolonged hospital stay caused by health care management rather than the patient's underlying condition.
- 3,745 adult patient charts — not including pediatric, obstetric or psychiatric admissions — were randomly selected from 20 acute care hospitals across five provinces (B.C., Alberta, Ontario, Quebec and Nova Scotia).
- the overall rate of adverse events in the year 2000 was 7.5 per 100 patient admissions (185,000 out of 2.5 million medical and surgical admissions).
- the majority of adverse events resulted in temporary disability or prolonged hospital stay.
- five percent of patients (9,250) who experienced adverse events were judged to have a permanent disability.
- adverse events were associated with death in 1.6 percent of patients admitted to acute care hospitals (40,000).
- surgical care accounted for the largest number of adverse events.

- expert reviewers considered 37 percent of adverse events (70,000) to be "highly preventable."
- most patients recovered from adverse events within six months, but between 9,250 and 23,750 people across the country died, possibly as a result of the event.
- teaching hospitals had a higher rate of adverse events than other hospitals. The authors concluded that patients with more complex illnesses may be treated in teaching hospitals and that the complexity of care in teaching hospitals means patients may be attended by several providers, increasing the potential for adverse events relating to communication and co-ordination of care.

Upon release of the study, Baker said, "The good news is, this study gives hospitals a clearer picture of the scope and nature of this issue and will help them to determine why these problems are occurring and to develop strategies to address them." Norton added: "It would be a mistake to focus on the performance of individual health care providers when interpreting these findings. We recommend that hospitals and health providers focus on system-wide changes — such as ensuring that medications don't look or sound alike — to reduce the number and likelihood of adverse events."

However, the true bottom line is far worse than anything contained in this report. The CIHI/CIHR study focused on a narrow segment of medical care, which did not include pediatric, obstetric, or psychiatric admissions. Research from other jurisdictions demonstrates that only a fraction of iatrogenic errors are ever reported in the first place and no detached professional investigator would have much confidence in records kept only by those involved in the situation. They would be skeptical about potential omissions and the "spin" given negative incidents on medical charts.

Another world

Among the impressions Canadians often have after spending time in the central cores of major American urban centres, is how frequent and cacophonous are the sirens. It's as if some kind of bizarre musical score had been written for that moment's urban tapestry. Because we watch so much American film in theatres and on television, we naturally assume that this must be a reflection of crime and violence.

Not so. The noise is often the sound of competition among local hospitals, many of them private for-profit hospitals. Ambulances play a role in acquiring business. Anecdotal evidence suggests that many hospitals encourage their ambulances to look for business. Every city and state is different and almost every one of them has suffered the embarrassment of fights among ambulance drivers at the scene of a tragedy. There have been scandals concerning police officers being paid a commission for directing emergency business to certain hospitals. As a result, each city has developed a system to achieve order out of the mayhem, so it is not quite as wild and woolly as what is described here. Nevertheless, patient prospecting by ambulance attendants at the scene of crimes, fires, and accidents is standard operating procedure and a business gamble. *The New York Times* and many other journals have exposed "steering" by private ambulances, which is a term used to describe bypassing the nearest hospital in order to get the most profitable patients, or dumping uninsured patients elsewhere.

The gamble is this: 45 million Americans, including 20 million working people and 8.5 million children, currently do not have health insurance of any kind. U.S. Medicaid (uninsured poor) and Medicare (handicapped and the elderly) cover large segments of the population with basic services and everybody with good jobs has medical coverage ranging from adequate to the best in the world. The problem for hospitals is the other population of 45 million people who are uninsured. The law in most states obligates hospitals to treat all patients that arrive at their door.

So, when an ambulance arrives at an affluent, often doctor-owned, private hospital, fingers are crossed that it is not one of those folks. The hospital is required to treat and stabilize the patient but, while that is going on, wallets are checked to determine insurance coverage and whether there are a few gold and platinum credit cards. By the time the patient knows where he is, he's either being treated like royalty or, if the condition permits, he's back in the ambulance on the way to a local charity hospital. Everybody in the U.S. can get care at no cost, but the resources at the state, county, and charity hospitals — often the largest in the region — can be hit or miss.

As the world's most affluent nation, the United States invests more per capita in health care than any other country (14 percent of Gross Domestic Product, compared to 10 percent in Canada). Despite enjoying a disproportionately high percentage of top health facilities and professionals, Americans are the only people in the industrialized world who

do not benefit from universal health care. Even working families with good health plans live in constant fear of a catastrophic event. Coverage has been progressively cut back by Health Maintenance Organizations (HMOs) as costs have soared for drugs, diagnostic services, hospitals, and health providers, and when a person changes jobs, medical coverage for any chronic ailment diagnosed during the last employment is usually not transferable to the new plan. This means that as workers age and acquire arthritis, diabetes, high blood pressure, chronic back pain, or any one of a long list of common conditions, care for them and their families might be exempted under a new plan. This often forces people to cling desperately to bad jobs, and makes downsizing and the elimination of redundancies more difficult, emotionally and financially, for employers.

Soaring drug prices have, for the first time in years, brought some of that terror back to Canada. Those diagnosed with chronic illnesses requiring the most expensive of drugs could face bankruptcy. A subdued, but persistent tremor is rocking the foundation of all insurance plans, private and public, and drugs have become the top policy priority for government leaders.

National health care is always near the top of the political agenda in U.S. elections, but the American Medical Association, the Health Maintenance Organizations, the major insurers, the hospital corporations, the pharmaceutical companies, and equipment suppliers, eventually purchase whatever decision they wish the politicians to make. There are never any substantive changes. This wealthiest of nations with the most abundant of health resources, is invariably quite a few pegs down the list when the health of its citizens is compared to other countries. The U.S. is far behind in every category and dramatically so when comparisons are drawn between rich and poor, and among ethnic groups. Perhaps the most revealing statistic is in its rate of infant mortality (death within the first year of life): the U.S. ranks 24th among developed countries, just ahead of South Korea, with 6.69 infant deaths per 1,000. Canada is 15th at 4.95. But the damning American statistic is the infant mortality among blacks at a rate of 14 per 1,000, 77th in the world, right with Belarus and Bulgaria.

Death by Medicine

When one studies the tragedies in the U.S. caused by needless surgery or operating room mistakes, pharmaceuticals, and the other misadventures of medicine, it would appear that there is a silver-lining to the lack of

equal access to health care for the American poor. Those who cannot afford either drugs or surgery, at least have the benefit of avoiding being either exploited for profit or mishandled. The negative outcomes of vanity medicine such as breast implants, for example, have not been big issues in the ghetto. But there are other dreadful American statistics: studies in 1995 and 1997 concluded that 115,000 people die each year from bedsores; and a year 2000 investigation pegged malnutrition as the cause of 108,000 needless deaths per year. Both statistics involve predominantly the poor and the elderly, indicating a lack of basic nursing and domestic care in the United States which has produced an annual death toll 70 times worse than the World Trade Center catastrophe — and the kind of data one might expect from Third World nations.

These are among the findings in a paper entitled *Death by Medicine*, which is often cited wherever iatrogenesis, adverse health events, and the frailties of medical science are discussed. The most cursory of Internet searches into any of these terms will deliver multiple addresses in which this paper is featured, often a listing within other health professional sites.

The authorship of this classic reference title is a list of nutrition-oriented and orthomolecular physicians and PhDs, led by author, media host, and relentless fitness promoter, Gary Null, PhD, founder of the 30-year-old New York nonprofit organization, the Nutrition Institute of America. Critics of *Death by Medicine* seem to delight in trashing Null's academic credentials and, for entertainment purposes, it is worthwhile for anyone to check two web sites: *www.garynull.com* and *www.quackfiles.com*. The first web site demonstrates Null's talent for self-aggrandizement and his enthusiasm and passion for flagellating the establishment. The second website is a response to Null's criticisms written in an even more inelegant and less credible fashion. The rhetoric on these sites is irrelevant to the key issue. What becomes obvious, however, is that Null et al.'s detractors are unable to attack the content of this paper, so they are assaulting the authors instead.

What makes *Death by Medicine* an astounding document is the meticulous assembly of peer-reviewed literature by distinguished authors with impeccable credentials, under the auspices of Harvard University, the *Journal of the American Medical Association*, the Center for Disease Control, the *New England Journal of Medicine*, the World Health Organization, *Psychiatric Times* and many other prestigious addresses.

This is what *Death by Medicine* claims to be the estimated annual mortality as a result of mistakes by conventional medicine in the U.S.:

■ Adverse drug reactions	106,000
■ Medical error	98,000
■ Bedsores	115,000
■ Infection	88,000
■ Malnutrition	108,800
■ Outpatients	199,000
■ Unnecessary procedures	37,136
■ Surgery-related	32,000
TOTAL	**783,936**

The authors estimate the annual cost related to the above numbers, both in the creation of the problem and the management of what follows, to be a waste of $US 282 billion per year. In fact, they believe these numbers understate the issue. Despite efforts to write off Null and associates as "health nuts" and zealots, obsessed with bashing the medical establishment, their conclusions get solid support from official agencies, such as health research libraries nation-wide and the National Institutes of Health. Each of these report worrisome statistics involving medical mistakes, hospital deaths, overuse of pharmaceuticals, incorrect prescriptions, fatal interaction of drugs and access delays for emergency cases. While every number is subject to debate, no one doubts the enormity of the problem.

One of the most noted authorities in the world on iatrogenesis is Harvard's Dr. Lucien L. Leape, who is an expert on the subject of truth in reporting medical mistakes. He claims that 5-20 percent are reported and all the others are quickly forgotten. If Leape's calculations were used, the figure of 783,000 annual deaths by error reported in *Death by Medicine* would become closer to one million. During the late 1990s, Leape estimated that 420,000 deaths occurred each year due to iatrogenic errors.

Dr. Leape, a surgeon and former Professor of Surgery at Tufts University, is not as condemnatory as the numbers he researched would indicate. He said the following in a 2001 interview with *Managed Care Magazine*.

> Until recently, health leaders didn't know how bad the situation was, and health care was locked into the wrong paradigm for ensuring

safety. People seem to think this issue has been around forever, but the first research results were published just 10 years ago. . . . That study showed 3.7 percent of people had an adverse event or injury caused by treatment, nearly two thirds of which were caused by errors. But that was just a single study, so it didn't receive a lot of attention.

Leape cited several celebrated cases: a chemotherapy overdose, a wrong leg amputation, brain surgery on the wrong side of the head . . . .

These cases came out just about the time we started talking about a different way to look at safety. That raises the second point. Until recently, we in health care thought that we had an effective way to ensure safety. The concept was that if you're well-enough trained and careful enough, you won't make mistakes. If you do, we'll punish you and then you'll be more careful the next time.

People had never really questioned that approach. Eventually that was called into question and we said, "Look, industries that are much safer than we are don't do it that way." The concept that errors are always with us but can be minimized by looking at systems rather than just focusing on punishing people who make mistakes was a brand-new idea in health care. That approach has been adopted only in the last six years, so I think we've moved very rapidly, all things considered, during that period.

Many of us think that the punitive mindset is the biggest obstacle that still exists in most health care institutions. It's very hard to overcome. The theory behind a nonpunitive approach is very straightforward: It's inappropriate to punish people for making mistakes because very few are due to misconduct. Errors are almost always caused by systems failures, and those are not under the control of the individual who makes the error. Punishing people is counterproductive, because if you punish people for making errors, they will report only the errors they can't hide. Several studies show that when there is a punitive environment, 95 percent or more of errors do not get reported. We also know that when the system changes, reporting goes up dramatically. We've seen that happen in a number of hospitals. If you're serious about safety, you need to know what's going on, and you're not going to find out what's going on if you punish people. The two cornerstones of safety are, one, creating an environment where it's safe for people to talk about their errors and, two, leadership.

Statistics would indicate that Dr. Leape's forgiving tone and compassion among doctors toward each other is embedded in the medical culture, but so is malpractice. Public Citizen Health Research Group analyzed the data and came to the conclusion that repeat offenders are rarely ever disciplined: "A small percentage of doctors are responsible for the bulk of malpractice in the United States, and better oversight by state medical boards could drastically reduce the damage they cause. . . . about five percent of the doctors in the United States are responsible for half the malpractice." Public Citizen said this meant that 40,118 doctors have paid two or more malpractice awards to patients, were responsible for 51 percent of all reports and paid out nearly $US 21 billion in damages, more than 53 percent of the total damages paid since 1990. An additional 14,293 doctors have paid three or more malpractice awards, totaling $US 11 billion. The study cited 6,000 doctors who had each paid out six or more claims and all of them were still practicing!

"Rather than a random, lottery-like pattern, this distribution very much resembles the pattern of drunk driving recidivism," Public Citizen said. "Negligent doctors are rarely disciplined with loss or suspension of their license for inferior care. Instead, state medical boards focus on more easily documentable offences such as prescription drug violations and fraud convictions or disciplinary action in another state as potential indicators of substandard care."

One Pennsylvania surgeon with 24 separate malpractice claims for incompetently hacking patients, has never been disciplined by the State of Pennsylvania and, in fact, is still performing his dubious services. Every health professional in the area knows this ongoing disaster, but few patients ever get warned before it is too late. During a recent criminal prosecution of a gynecologist in England, it became known that he had practiced in different cities in Canada and the U.K., leaving a trail of devastation, maimed patients and malpractice suits behind him, everywhere he had been.

In each case, the local College of Physicians and Surgeons seemed to be content to send him packing, leading media editorialists and other critics to suggest that they were more worried about the public relations damage than patients. These cases are extreme and - mercifully - rare, but what is true of every hospital is that the professionals who work within them know that the skill levels and success rates vary greatly among doctors and there are some who should be avoided at all cost. Patients are invariably kept in the dark.

The double standard

When there is the slightest hint that any individual health professional, other than a physician — nurse, midwife, physiotherapist, podiatrist, naturopath, dietician, optometrist, pharmacist — has been responsible for a harmful outcome, the medical profession pumps itself up like a Goodyear Blimp with sanctimonious, derogatory judgments. Here is where the Canadian Medical Association, the American Medical Association, and the limitless number of derivative specialized professional organizations attempt to prove how hard they work to protect the public, and why society must give them the powers of a god and the wealth of Midas. The best salvos are saved for chiropractic. This is the profession that poses the greatest threat to their business. Most of the five million Canadians who regularly see a chiropractor had previously been unsatisfied patients of medical doctors, who are consistently unable to successfully treat the neuro-musculoskeletal problems upon which chiropractic education is focused.

The principal battleground chosen by the medical doctors is the subject of neck manipulation, the chiropractic treatment for problems of the upper cervical spine. Millions of patients worldwide have obtained help for whiplash, neck pain, migraine headaches, and ancillary issues stemming from the central nervous system. Some neurologists believe this practice is dangerous and can cause strokes. They suggest that neck manipulation runs the risk of damaging arteries going to the brain, ignoring the fact that chiropractic doctors spend years in training for all the procedures they perform.

Before continuing upon this theme, it should be noted that the most conservative scientific study of chiropractic neck manipulation established that the risk of stroke from the treatment is one out of every 400,000 patients. A study in the October 2, 2001 issue of the *Canadian Medical Association Journal* put this risk at one patient in 5.85 million. Contrast that to the facts presented earlier in this chapter — between four and nine out of every 1,000 patients entering an acute care hospital in Canada will die because of a preventable medical mistake. The risk factor for chiropractic neck manipulation shows that it is safer than taking Aspirin. The risk of stroke caused by birth control pills is one in 24,000. This means the birth control pill is from 16 to 240 times more dangerous than chiropractic neck manipulation.

Other scientific studies have documented the high rate of deaths and disabilities that result from common medical procedures, including a one out of 200 mortality rate for laminectomies and a two in 100 mortality

rate for spinal fusions. One out of every 145 cervical neck surgery procedures end in death. And in a study of 1,000 workers' compensation patients who received lumbar fusions, 71 percent of single-operation patients had not returned to work four years after their operation, and 95 percent of multiple-operation patients had not returned to work. They remain disabled.

No one in the chiropractic profession has ever denied the potential risk associated with the procedure and ethics require the patient to be fully informed. Strokes have occurred. There are many risk factors for stroke including blood clotting problems, hypertension, smoking, high cholesterol, use of birth control pills, heart disease, and trauma such as sport injuries or blows to the head from an accident. All carry a greater degree of risk than spinal adjustment. Strokes or stroke-like symptoms are also associated with many normal everyday activities such as cradling a phone between your ear and shoulder during a prolonged conversation, having your hair washed at a beauty salon, dental procedures, painting a ceiling, and turning your head while driving. They can also occur spontaneously in some people for no apparent reason. The physicians' routine approaches are far more threatening. Death as a result of long-term use of nonsteroidal anti-inflammatory drugs (NSAIDs) such as Aspirin, Naproxen, Ibuprofen, or Motrin is one in 1,200 persons. Surgeries for neck and back pain cause 15,600 cases of paralysis or stroke and 700 deaths per million.

Insurers are the ultimate referees of risk. Malpractice insurance premiums for chiropractors in Canada average $1,000 a year, while the medical doctors average about $5,000. Most surgeons, particularly in high risk areas such as cardiology, neurology, obstetrics, and orthopedics, pay $25,000–$90,000 a year each. Rates are cheapest in Quebec where claims are low and are the most expensive in Ontario. The argument is moot since the provinces reimburse the MDs for most of this cost, a benefit awarded no other health professional. This inexplicable subsidy amounts to a free pass in view of the high costs of litigation faced by aggrieved patients. But the premium rates and claims statistics demonstrate to insurance actuaries the source and extent of risk. They must sit back with amusement wondering that physicians have the gall to condemn other health professionals.

Is the concern money or patients?

Based on the evidence, the attack on chiropractic is fraudulent nonsense,

unless the motive is something other than health. Paranoid chiropractors suggest a conspiracy purely based on money, a fear campaign to drive patients away from their profession. If that is the purpose, then the neurologists can pat themselves on the back. In every jurisdiction they seem able to attract as much media attention to chiropractic complaints as is usually reserved for mass murder. The fact that there is one death remotely related to chiropractic care in contrast to thousands on the other side of the equation, seems to be of no concern to gullible reporters.

This brings us to the mystifying case of Lana Dale Lewis, a 45-year-old from Toronto who died of a stroke in 1996. The mystery is why members of the Canadian Stroke Consortium — another physicians' lobby — chose this specific case as the line in the sand? Ms. Lewis was overweight, a heavy smoker and drinker, who suffered from what was described as "uncontrolled hypertension." She had, over the years, been treated with various drugs. There was a history of heart disease in her family. She suffered from severe arteriosclerosis. Her medical doctor was unable to help her manage migraine headaches so she sought the services of a chiropractor. For 18 months she received chiropractic care and consistently reported fewer and less severe headaches, but 17 days after one of these sessions, she died. Her family, encouraged by local medical doctors, blamed the chiropractor.

Nothing much happened until another Canadian case made the news in 1998. For the first time in the 103-year history of chiropractic in Canada, a patient had died as a result of an event during the course of treatment. An artery ruptured and the 20-year-old Saskatchewan patient was rushed to hospital — too late to save her. An inquest heard evidence that this woman ignored her chiropractor's advice, and would routinely give herself neck adjustments. (In order for patients to do this themselves, more physical contortion is required, leading to a less accurate process and a more severe physical jolt than what is administered by professionals.) In the end, the jury determined only that the cause of death was a rupture of the left vertebral artery, but did not address causation. They made a number of useful recommendations for the further study of neck treatments.

One outcome of the Saskatchewan case was the motivation it provided to the Lewis family and those determined to attack chiropractic. This was the case upon which they would build a media circus. They demanded an inquest. Unfortunately, in 2000, the local coroner did not agree. He determined that the facts of the case were self-evident and that an inquest would be a waste. But the Consortium, the family, neurologists,

and others continued to lobby the media, public servants, and politicians for an inquest. It was rejected a second time, before finally, in 2002, an inquest was announced by the Chief Coroner of Ontario. Through various stops and starts, often dictated by the schedules of expert witnesses from other countries, it took until January 2004 before a final verdict was announced. The jury of lay people concluded that the death was an accident set in motion by the chiropractic treatment 17 days earlier. This inquest also announced recommendations for the study of neck treatment by all health professions.

It was a pyrrhic victory at best for the critics, including the Canadian Stroke Consortium. Frequently at the centre of anti-chiropractic fervor over the years has been Dr. Murray Katz, a Montreal pediatrician. Katz has traveled the world for more than 25 years lecturing and testifying as an "expert" wherever he feels needed. The regularity of his travels and the inexhaustible availability of his professional time have raised questions about who must be paying the bills. In 1978, his testimony before a New Zealand commission — which concluded in favor of chiropractic — was totally repudiated. The commission said about Katz: "It is disappointing to find that a practicing medical practitioner could think it right to indulge in a deliberate course of lies and deceit of that kind."

In fact, the New Zealand Commission was so appalled by Dr. Katz's performance it devoted an entire chapter to him in their final report presented to Parliament by the Governor General.

> We think the kindest thing to say is that Dr. Katz has become so emotionally involved in his self-appointed role as a 'concerned advocate of consumer rights' that over a period of some years he has allowed his enthusiasm to override his judgment, his sense of reality, and his sense of what is proper. In his evidence in chief he was voluble, and we are satisfied that he found it difficult to distinguish between the role of expert witness and that of an advocate. In cross-examination he tended to be evasive. . . . Having regard to the matters we have specifically mentioned, and to Dr. Katz' general demeanour as a witness as we observed him during the three days of his submissions and evidence, we are abundantly satisfied that it would be quite unsafe to rely on his opinions, or on any of his evidence on matters of fact which were not completely verified from an independent and reliable source.

Although helpful in fanning the fires that led to the Lewis inquest, he was discredited right at the start. Katz acted as the Lewis family's legal

agent and attempted to get status before the inquest in that capacity. After this was denied, Coroner Barry McLellan blocked a subsequent attempt by Katz to gain legal standing as an individual, separate from the family. In support of his decision, McLellan referred to earlier behavior by Katz. Katz had warned a specific coroner that there would be dire personal consequences if an inquest was not approved. The coroner said he was upset by Katz's "threatening letter to a public official," and "behavior inconsistent with what the public should expect of an agent of a party with standing." Katz would ultimately express his opinions as a witness in the inquest.

But the key figure for the Canadian Stroke Consortium was its past-Chair, Dr. John Norris, a neurologist from Sunnybrook Health Centre in Toronto. Dr. Norris had a habit of saving his best material for the media, with far more colorful language and alarming statistics than he was able to present at the inquest. Katz and Norris were among 60 doctors — most of them neurologists — whose names were on a study warning about the dangers of neck manipulation. Some of these doctors later protested that they had not endorsed the paper and had not agreed to let their names be used. Contrasting the critics, lawyers representing the chiropractic profession and the Ontario coroner's service brought in a battery of expert witnesses, each of whom had outstanding credentials.

The chief of neurology at St. Michael's Hospital, Dr. Richard Moulton; neurologist Dr. Scott Haldeman of the University of California; pathologist Dr. Michael Pollanen, consultant to the Coroner's Office; and, prominent orthopedic surgeon Dr. Hamilton Hall, all testified that, in their expert opinion based on a review of all the medical evidence, Ms. Lewis died of natural causes completely unrelated to her chiropractic treatment.

But the most devastating contradiction of the critics' case came from internationally-acclaimed epidemiologist Dr. David Sackett, an officer of the Order of Canada and member of the Canadian Medical Hall of Fame. He described Dr. Norris as "incompetent" in scientific research and "irresponsible" with regard to the Canadian Stroke Consortium's work attributing strokes to neck adjustment. Dr. Sackett pointed out that Dr. Norris had publicly misrepresented the Consortium's study and that it was not a prospective study as Norris had claimed, but a series of cases which Dr. Sackett explained are highly prone to bias and "can't begin to address causation." A prospective study researches events that are going to happen, which is a more objective approach, as opposed to what Norris had done, which was to go find events which had already occurred

and then make claims on their reporting after the fact. Dr. Sackett characterized Norris's description of the study as "scientifically nonsensical . . . . he's incompetent as a scientist in the study of causation." Dr. Sackett added: "I think he has contributed nothing of scientific value . . . he has caused enormous confusion."

The quality, accuracy, and intent of the Consortium study were exposed under cross-examination. During the course of his own testimony, Norris was confronted with the remarks he had made to the media. He retracted, under oath, numerous statements about the risk of stroke from adjustment of the neck. In various comments, Norris used words such as "speculation", "sheer guesswork", "way-off", and "irrelevant" to describe the Consortium study. When asked to explain to the jury why he knowingly made public statements for which there was no scientific substantiation, he responded, "I can't explain that to the jury. I'm sorry."

Chiropractors were surprised and disappointed that the jury in the Lewis inquest determined that the treatment had led to the stroke. The inquest, however, had produced an indirect benefit for the profession. The experts testifying at the inquest were of different specialties, but their testimony publicly demonstrated their respect for one another as professionals and their mutual concern for truth and the advancement of patient care. Facts overwhelmed opinion and self-interest. The distinguished medical doctors and scientists who supported the chiropractic arguments stood in sharp contrast to the shabby performance of the detractors.

Yet there was a far more serious downside. The amount of media attention given to chiropractic neck manipulation was grotesquely disproportionate to the issue. Only a rare few complaints had surfaced over a period of many years, but each complaint was inflated into a headlining story by partisan doctors and ill-informed editors. Where was the perspective? Why don't the media report on the documented safety of chiropractic, the negligible malpractice insurance premiums, and the rarity of any complaints in contrast to the official statistics involving physicians, hospitals, and pharmaceuticals? The CTV flagship newsmagazine *W-5* gave the Lewis inquest "second coming of Christ" treatment on at least three separate occasions, but ignored all of the evidence put forward by the experts who spoke on behalf of chiropractic. It was as if the discredited doctors, Katz and Norris, had been writing the scripts. Media reports of the Lewis inquest demonstrated neither restraint nor accuracy, including one egregious Page One headline screaming, "Chiropractors Kill!"

Any negative impact to chiropractors because of this case was of

serious concern to them at the time, but it is insignificant in the long-term. The information age is being kind to chiropractic. Good, solid healthy information is being written for an Internet audience and is being shared around the world. As a consequence, the chiropractic profession continues to grow. So much so that panicked medical doctors are quickly trying to learn how to do spinal adjustments and to win legal approval for the therapy — a rather perverse irony in view of their historic opposition to chiropractic. Almost one-third of all visits to health care professionals concern back-related issues, for which physicians traditionally have little training.

The real concern is for patients. How many people have been improperly discouraged from seeking treatment that would get them better faster, without relying on either drugs or surgery? What has the cost been to Workers' Compensation Boards, auto insurers, extended benefit plans, employers, and even medicare billings, because people remained in pain longer and unable to work?

A New Jersey Superior Court decision in recent years has created a new legal concern for all health and insurance plan managers, as well as individual health professionals. The court found an orthopedic surgeon negligent because he did not inform a patient about alternate therapies, in this case chiropractic. The decision became an extension of "informed consent." What it means is that if evidence indicates that superior outcomes are achieved by one treatment or professional over another, the patient must be given that option. It is now anticipated by malpractice and class action lawyers that major damages will be sought against compensation boards and insurance plans that improperly place their clients into the wrong hands or facility.

Postscript

During the summer of 2004, the following story appeared in *Capital News*, a quality newspaper serving the city of Kelowna (regional population 150,000. This is presented precisely as it appeared.

Mom challenges medical system

By Kevin Parnell, *Capital News* contributor

Pam Rankel wasn't going to let it happen again.

Twenty years ago the Kelowna woman lost a son due to complications in childbirth.

Now she was in a fight to save her second born son, Ryan, who up until the age of 16 appeared to be a normal, healthy teenager.

But severe migraine-like headaches as well as nosebleeds were the first indication something was wrong with Ryan.

Rankel's fight would be waged within the conventional medical system.

Twice before, once when Ryan was an infant and once when he was 16, doctors had looked at complete head X-rays and found nothing abnormal.

In fact they missed something that stood out.

Ryan had a rare neck disorder called agenesis of the dens. The dens is a tooth-like piece of bone that holds the first two vertebrae in a person's neck together.

Ryan didn't have one. His neck was being supported by muscle and ligament alone.

The diagnosis was made by a chiropractor. It ultimately saved Ryan's life.

It also outlined a riff between conventional medical doctors and those practicing "alternative" health care.

Chiropractor Dr. Markus Thiel made the diagnosis on Ryan after seeing the young man for variable back pain.

After taking a history, Thiel ordered another round of X-rays. His finding would be nearly immediate.

"Based on my preliminary findings I knew this was going to be something exotic," said Thiel.

"When I saw the X-ray it was one of those times that you take a step back and go 'wow'. It was amazing that he had gone on this far without serious injury.

"His head was hanging off of two ligaments."

For Pam Rankel, finally, it was a diagnosis.

Ryan had been living dangerously, playing sports and all the things young men do.

But he was told to immediately stop everything. It was back to the family doctor and more frustrations for Rankel.

"The first thing my family doctor did was he started cutting down the chiropractor," said Rankel.

"I said, 'My son is very sick and the only reason I'm here is to get a referral to see a neurosurgeon.' They had missed this several times and I needed to see a neurosurgeon."

In a letter to Rankel's family doctor, Thiel wrote that "even the

most trivial of trauma could cause significant neurological damage, paralysis or death."

Letter in hand, Rankel got the referral she needed from her family doctor and went to see the neurosurgeon.

"He treated us very poorly," she said. "I was treated like a raving mother hen.

"We waited about two months and when the MRI came back the shit hit the fan.

"The neurosurgeon realized Ryan was very sick and told us they couldn't operate here, they didn't have the capabilities. Right away we were referred to Foothills Medical Centre in Calgary."

Two neurosurgeons in Calgary would operate for seven hours, placing two three-inch long screws in Ryan's neck along with a series of wires designed to act like the dens and support his neck.

The operation was a success but not without its effects.

Ryan has lost over 50 percent of the movement in his neck on each side of his body.

Now 18, he is otherwise healthy, readying to take a welding apprenticeship this fall at Okanagan University College.

While Pam Rankel fought to save her son, she also lost something in the process.

She lost faith in conventional medicine. But she's not bitter. She won't give out names of the doctors involved. She's not suing anybody.

But she wants people to learn from what she went through, learn to take responsibility for their health.

"Through everything I've learned I'm much more aware that I do have choices," she said.

"I think everybody should know they have a choice when it comes to health care. I'm not saying all doctors are bad. I have a new doctor and he's wonderful.

"But I don't have much faith in conventional medicine. I have Dr. Thiel to thank for saving my son's life."

It would be no more appropriate to conclude from this story that one should distrust family physicians and neurologists than it has been for the Canadian Stroke Consortium to seize upon individual chiropractic cases with negative outcomes and imply that they represent the norm. Given recent history, however, it is not hard to imagine what the medical associations would have done, had this Kelowna story been the reverse, with

the chiropractor seen as the villain who missed the obvious. The alarm would have sounded with all the usual bluster and bombast.

Patients and their families should never be afraid of a second opinion, particularly if they are dealing with a chronic problem that is not responding to current treatment. If you get the impression that your doctor is guessing, groping around in the dark for a cure that seems to be elusive, you are probably right. Try someone else.

And, if the problem is neuro-musculoskeletal (the spine and the central nervous system), the second opinion should be chiropractic. In fact, for a vast range of injuries, aches, pains and disorders, chiropractic should be the first opinion, because all treatments are non-invasive — no drugs or surgery. Yet if any form of care seems not to be working — including chiropractic — the second opinion is vital. If a doctor's first therapy fails and you sense that he or she is guessing, RUN!

"When there is the slightest hint that any individual health professional, other than a physician — nurse, midwife, physiotherapist, podiatrist, naturopath, dietician, optometrist, pharmacist — has been responsible for a harmful outcome, the medical profession pumps itself up like a Goodyear Blimp with sanctimonious, derogatory judgments. Here is where the Canadian Medical Association, the American Medical Association, and the limitless number of derivative specialized professional organizations attempt to prove how hard they work to protect the public, and why society must give them the powers of a god and the wealth of Midas."