Wisdom and a Skillful Hand

Revisiting Our Past – Reshaping Our Future

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by

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(Fig.1)

My Dear Colleagues and Visitors,

At the outset let me say that I am greatly honoured to have served as President of our Association and, when I survey the list of distinguished surgeons who have preceded me in this post, profoundly humbled. (Fig. 2)

The title of my address -

Wisdom and a Skillful Hand:

Revisiting Our Past – Reshaping Our Future

includes, of course, the motto of our Association.

WISDOM is the product of JUDGEMENT tempered by EXPERIENCE.

Sir William Osler (1849 – 1919) said:

The value of experience is not in seeing much, but in seeing wisely.

(Fig.3)

I intend to consider the future of our specialty in the context of a brief history of the profession given the realities of the modern day.

Where I come from, geographically, clinically and philosophically is germane to my argument. My journey has not been a solo one. I acknowledge the love and encouragement of my parents (Fig.4) and that of my wife, Trudy, (Dr. M.G. O'Keefe) at once my soul mate, my colleague, my closest friend and harshest but most perceptive critic. (Fig.5) Our 4 children (Fig.6) remain our proudest accomplishment and I know you will forgive me if I exercise bragging rights and show you a picture of our 2 grandchildren. (Fig.7)

I might have called my talk ***The View from the Edge*** (Fig.8) for I have lived and worked virtually all of my professional life in St. Anthony, Newfoundland. This places me:

• on the edge of the continental shelf of North America and, some would maintain,

• on the edge of sanity and certainly

• sufficiently removed from what are generally considered centres of academic excellence to give me, if not an edge, then at least a novel perspective.

I was, in fact, born, raised, and educated in Toronto and am a proud graduate of the Gallie Surgical Training Programme. As a medical student I had the opportunity and good fortune to spend the summer months between the third and fourth years at The Charles S. Curtis Memorial Hospital in St. Anthony. (Fig.9) There I met and was immensely influenced by Dr. Gordon W. Thomas, consummate surgeon and a sensitive humanitarian, who became my mentor and, in time, my colleague and my friend (Fig.10). I was that summer introduced to a demanding and eclectic surgical practice in a sub-Arctic environment (Fig.11) serving a population living in small communities scattered over a vast area, the north-south extent of which is equivalent to the distance between Toronto and Quebec City. (Fig.12)

The Grenfell Mission, as it was then called, was founded by a young London (England) trained doctor, Wilfred Grenfell, a dynamic, charismatic ‘‘muscular Christian’’ of the Victorian era who in 1892 was

sponsored by the Royal National Mission to Deep Sea Fishermen to bring medical aid and spiritual succour (and, I might add, tobacco—but not the demon rum) to the seasonal fishing fleet plying the waters off northern Newfoundland and the Labrador.(Fig.13) Grenfell had been a ‘‘dresser’’ (as residents were then called) to the famous Sir Frederick Treves of The London Hospital, who on the eve of Edward’s coronation in 1902 had the temerity, when such operations were not fashionable, to operate on the future king for acute appendicitis, thereby delaying the ceremony but probably saving his life. Much to the chagrin of my own students, I am reminded of the Treves / Grenfell connection every time I do an appendectomy and encounter the ileocolic fold of Treves. Treves’ other most famous patient was the John Merrick, The Elephant Man.

It was never intended that the seasonal fishermen would over winter on the coast of Newfoundland and Labrador; however, many chose to do so, preferring these deprived circumstances with all their uncertainty to the certain hardship of the British slums. (Fig.14) It was the plight of these ‘‘settlers’’ and the indigenous peoples of the region that prompted Grenfell to return the following year and to establish the

first hospital on the coast at Battle Harbour on the Labrador. From this modest beginning grew a system of hospitals and nursing stations that provided comprehensive, integrated, interdisciplinary health care and social services including schools and orphanages, a dry dock, a fishermen's cooperative, and an industrial / handicraft department (roughly equivalent to occupational therapy where the injured and other challenged individuals could learn skills that translated into a means of making a living). (Fig.15) My current practice is a collaborative one and includes daily communication with doctors and nurses working in community health clinics and nursing stations scattered along the coast that depends on mutual trust and respect. Attempts to introduce similar regional integrated comprehensive care elsewhere in Canada today often are met with considerable resistance largely based on protection of ''turf,'' which is unfortunate given the stresses on the system.

The medical records of the ''Mission,'' which now span more than a century, are a rich source of social commentary. The following are entries from the early 1900s.

• Father died of gangrene following a wound to the leg.

• Father drowned.

• Father died of paralysis, having been struck by a ship's boom.

• Mother died during childbirth.

• Has five brothers and five sisters, three of whom died in infancy of whooping cough.

• Mother died of a gathering in the bowels, an abscess or tumour with foul suppurative discharge following a blow received from the horns of a cow.

• Mother paralyzed for six years; has cough and spits blood all the time. Father is crippled in the knee with ‘‘rheumatism.’’ One brother and one sister died of consumption.

Although in the early days every doctor was expected to turn his hand to surgery as circumstances required Dr. John Mason Little was the first surgeon to arrive on the coast. (Fig.16) Little was trained at the Massachusetts General Hospital and subsequently toured the clinics of Europe, as was then fashionable. He spent 10 years in St. Anthony, from 1907 to 1917. In January 1909 he was confronted by a teenaged girl with Jacksonian epilepsy. Her seizures began as an ‘‘aching queer feeling in

the right index finger'' and progressed in time to full-blown generalized convulsions. She had experienced episodes of status epilepticus lasting up to 28 hours. ''Owing to the increasing severity and frequency of the attacks and their localizing character, operation was strongly advised and accepted.'' (Truly a sterling example of ''informed consent!)

Little went on to perform a craniectomy under chloroform and local anesthesia and attempted, unsuccessfully, to identify the epileptogenic focus by stimulating the surface of the brain. He nonetheless removed a divot of motor cortex. The patient recovered ''uneventfully'' and when seen up to 2 years later had had no further seizures. All this is meticulously documented in the chart complete with a diagram of the home-made electrode. (Fig.17) Two other similar cases are on record. These probably represent the first such cases ever attempted in what is now Canada. (Fig.18 St. Anthony Hospital, 1910)

By the time of my arrival in St. Anthony during the late 1960s, tuberculosis was definitely on the wane, and the pattern of disease was beginning to reflect that seen elsewhere in Canada. What was emerging was an astounding number of, often young, patients with chronically

infected draining ears. Occasional visits from ear, nose & throat (ENT) surgeons were not satisfactorily addressing the problem. Typically, the specialist would arrive, see a hundred patients, operate on a dozen of them, and disappear at the end of the week leaving " holding the bag"—itinerant surgery at its worst. I, at the completion of my general surgery training, would have recognized blood behind the eardrum in a trauma victim but knew precious little else about the ear.

Fortunately, the hospital had an enlightened sabbatical program that allowed one to reflect, refresh, and renew and acquire new skills elsewhere provided one was prepared to return to St. Anthony's for at least 1 year thereafter.

Accordingly, I spent a year studying ENT surgery with Dr. Jim Baxter and colleagues at McGill in Montreal. They were at that time providing ENT services to the Baffin Zone and were familiar with the problems we were confronting. I have passed many fascinating hours doing mastoidectomies and other ear surgery. (Fig.19 Ear Surgery, Dr. J.D. Baxter in foreground)

In St. Anthony we have an interest in Hereditary Non Polyposis Colon Cancer (HNPCC) going back some thirty years. The journey from clinical recognition of the phenomenon to collaboration with the molecular biologists at Memorial in the application of increasingly sophisticated genetic testing has been a fascinating one that has benefited literally hundreds of patients and their families. There are some 35 families in the region who fulfill the Amsterdam Criteria for HNPCC and many other families of clinical concern.[1] This is a fine example of collaboration between a community hospital and a University Centre at its best. (Fig.20)

Academia is more a state of mind than a place of residence. Research in the community or rural setting is likely, however, to be case based and focused on local problems rather than basic science or bench research.

Sabbatical leave is most often associated the Ivory Towers. I have demonstrated how the concept was used to advantage in my practice and suggest, with the emphasis of current generations on balanced lifestyle -

and rightly so - that sabbatical time will increasingly figure in contract negotiations. This I applaud.

Other sabbaticals I have spent in Toronto and Halifax and in Nigeria and Uganda. The African experience was an education in every sense of the word, and I highly recommend it. You learn far more than you teach—often about yourself—and that sometimes not very flattering. I went for altruistic motives but also because an increasing number of students and young doctors coming through our facility intended doing overseas work and I wanted to learn first hand what they most needed to know. (Fig.21)

My own introduction to St. Anthony was as a student and over the years literally hundreds of students and young doctors from Canada and around the world have rotated through our facility. Our affiliation with Memorial University ensures this experience is formally recognized. I would not be practicing in St. Anthony today were it not for my continuing interaction with the bright young inquiring minds of our students and residents. (Fig.22) There are physicians and surgeons across Canada and indeed around the world who cut their teeth in St.

Anthony. This is a great source of satisfaction and, when they have become my teacher, the greatest compliment. There are many community surgeons who would feel similarly. They are a valuable but under utilized teaching resource and could be of greater assistance in the training of students and residents and in the assessment of International Medical Graduates and their integration into Canadian practice.

I have related how Treves promoted Grenfell who recruited Little who passed the baton to another Bostonian, Charles Curtis after whom our hospital is named and who himself mentored Thomas who so influenced me . (Fig.23) One may find a mentor anywhere – indeed sometimes in the most unlikely of places – but only if one visits that place and does so with an open mind. I had intended to become a neurosurgeon. My summer in St. Anthony as a medical student changed the course of my career. I no longer crack heads except in the most dire of circumstances but believe every community surgeon should be prepared to do so. I do, however, routinely perform excision of prolapsed lumbar discs and lumbar decompression for spinal stenosis.

“ If I have seen further it is by standing on the shoulders of giants”

Sir Isaac Newton 1642 – 1727

This quotation is very apropos. Surgery is a profession in which apprenticeship continues to play a very significant role. We all have our mentors and with this advantage comes the responsibility to mentor others. Indeed the very word *doctor* means *teacher.* We teach our students, our colleagues, our patients, ourselves, our communities. We teach often formally but we teach best by example.

Well So What??!

I have spent some time detailing the history of organization for which I work. Contrary of oft touted opinion, Canada is rich in history. Every hospital and every community in this country has a history worth knowing. Making that history your own gives you ownership of that place and deepens your appreciation of your role of its unfolding story.

The history of our surgical craft extends into antiquity predating recorded history by thousands of years. Widely dispersed archeological

excavations have turned up evidence of surgical interventions like the burr holes in skulls recovered from Peru, the Middle East and Europe. The smoothed margins of the defects confirm that the patient survived the procedure and went on to heal the wound. It is amazing to me in some cases that the operator avoided entering the venous sinuses! The intent of such a procedure was probably more to let out demons than to relieve intracranial pressure and, perhaps, finds its natural extension in the frontal lobotomy. Obviously from antiquity there have been individuals recognized by their community as having healing powers. In Nigeria, bonesetters lived in a community some miles from the University Hospital of Sokoto where I spent nine months with my family in 1986. These individuals were often consulted by the local population for fractured limbs. The invariable remedy was to splint the limb with split cornstalks tightly bound by dense cotton cloth. Unfortunately, the six cardinal signs of an ischaemic limb were not recognized and gangrene was all too often the result whereupon amputation was the only option.

In present day Newfoundland there exist individuals such as the seventh son of a seventh son endowed with the power to charm warts and cure other ailments. One woman in a nearby community is consulted for her ability to stop hemorrhage through the power of prayer, an ability passed down through her family for generations. She also works in the hospital as a lab tech and I must confess there have been occasions when confronted by severe hemorrhage I have been tempted to consult her myself. Canada's First Nations, like aboriginals everywhere, turn to individuals in their own communities with healing powers and who are very much attuned to the healing properties of various plants and natural substances in the environment. Many of these plants have yielded drugs that have eased the plight of suffering humanity. The sweat lodge ceremony to this day is practiced for its ability to ameliorate physical, psychological and social ills.

From antiquity "individual healers" attracted students and followers and the equivalent of medical schools emerged. In the west medicine finds its beginnings in the cultures surrounding the Mediterranean. As Europe awoke from the dark ages church run

universities arose. These initially focused on the reading of Latin texts rather on thinking than doing. The word “chirurgien” comes from the Greek “chier”, meaning hand and “ergon” meaning work. This of course is anglicized to “surgeon”. Surgeons of medieval Europe were thus considered manual labourers and largely excluded from the universities. In this regard perhaps we’re in good company. For example, Rodin’s sculpture ***Hand of God*** , itself a masterpiece, depicts the hand of the Creator.

From as early as 1505 the surgeons of Edinburgh were formally incorporated as a craft guild of that city. Charged with the maintenance and promotion of the highest standards of surgical practice the Seal of Cause ratified by King James IV of Scotland (1506) states in part ***that no manner of person occupy or practice any points of our said craft of surgery … unless he be worthy and expert in all points belonging to the said craft, diligently and expertly examined and admitted by the masters of the said craft and that he know anatomy and the nature and complexion of every member of the human body … for every man ocht to know the nature and substance of everything that he works or else***

he is negligent . Quite a mouthful and, I might add, not a bad definition of a general surgeon! It is noteworthy, however, that the language does not extend to the admission of females to the profession. It is noteworthy as well that the canny Scots Surgeons managed to have included in the Charter of 1505 the right to produce whiskey for its well known medicinal powers, of course. (I am in possession of a sample of the water of life commissioned by the Royal College of Surgeons of Edinburgh on the occasion of its 500th Anniversary in 2005 - so the tradition persists!) (Fig.24)

In 1567 Mary Queen of Scots in ***her*** Royal Charter formally relieved members of the incorporation from the obligation to bear arms in defence of the realm, but obliged them to treat sick and wounded soldiers in the Queen's armies. This is the first formal statement of the noncombatant role of the army doctor and perhaps one of the earliest explicit examples of the contract between the profession and society. Over time this covenant has evolved and is embodied in the World Health Organization's statement re: social accountability of medical schools identified as the obligation "to direct their education and service

activities towards addressing the priority health concerns of the community ….. they are mandated to serve.” [2]

Community is an interesting word. Toronto, St. Anthony, Red Deer and Old Crow are all *communities*. The patient with the acute undifferentiated surgical problem may present in any of these settings and each community requires a different formal surgical capability. The trick is to organize the system so as to provide reasonable and timely access to competent surgical care as guaranteed under Medicare. In practical politics versatile “generalist” surgeons, the individuals who are the workhorses of our “Community”, rural and remote hospitals have been squeezed out of our teaching centres by the growth of subspecialty interests. In some instances, I am told, it is difficult in these settings to find a surgeon willing, and able to take on the patient with the acute undifferentiated problem. (Sub-specialists and others who have limited their practices state “I wouldn’t feel comfortable dealing with that…”)

General Surgery dates from the earliest historical roots of the craft of surgery and is the trunk from which every other branch of surgery is an offshoot. Access to general surgery is essential in every hospital

which purports to provide any surgical services or other subspecialty services such as cardiac, neuro or orthopaedic surgery. I submit that the "generalist" surgeon has a role in our teaching centres just as legitimate as any subspecialty designation (e.g. hepatobiliary, colorectal, minimally invasive surgery). It is the capable generalist who enthusiastically steps up to the plate to take charge of the undifferentiated acute abdominal disaster, the trauma victim or the patient with surgical sepsis. It is the enthusiastic capable generalist who most appropriately can mentor students and young residents – the life blood of our specialty. It is the enthusiastic, capable generalist working in our teaching centres who can most easily relate to similarly talented individuals in "community" hospitals facilitating collaborative case management, teaching and research – building what may truly be considered a University without walls. Failure to honour the generalist's role in the tertiary setting devalues all community surgeons, tacitly sends the message that they are second class citizens and threatens to further Balkanize general surgery. I personally have reservations about a 2 streamed approach to general surgical education (academic vs community). Residents early in their

careers should be exposed to the breadth of general surgery and ultimately given the opportunity to acquire the skills they require to function effectively in the communities in which they choose to live. Such skills may be mastered during residency or "on the job" with supervision by senior mentors or through formal fellowship or during sabbatical study as part of one's continuing professional development - in keeping with the tenets of life long learning.

The word *community* is an elastic one indeed. In our interconnected and ***internet connected*** modern world, the word ***community*** stretches to include the global village we share with more than 6.6 billion others - one third of whom live on less than $1 a day.

In its 2006 report the WHO noted that Africa bears 24% of the global burden of disease yet has only 3% of the global health care workforce and 1% of the world's financial resources. (Fig.25) Fifty-nine (59) of the world's countries can not meet the most basic health care needs of their citizens. Thirty-six (36) of these critical countries are in Sub-Saharan Africa. It is estimated that these countries require 2.4 million doctors, nurses and midwives and 1.9 million other health care

workers at a cost of $136 million per country per year ($2.80 per person per year). These figures do not take into account the emigration of health care workers or the ongoing costs of salaries ($311 million per country per year or $9.20 /person/yr – my calculation) if the deficit is to be eliminated by 2015. [3]

Statistics like this leave one numb and serve only to disguise the obscenity of the situation. I am proud of the efforts of CAGS members working through our Committee on International Surgery and in collaboration with the Canadian Network for International Surgery to address some of these inequities. These efforts include support for residency training and the introduction of basic surgical skills in Guyana, South America and in East Africa. These largely “train the trainer” programmes promote local self sufficiency in obstetric care and trauma prevention and management. I am particularly heartened by the interest of our resident members in these initiatives. We must however do more. According to a current awareness campaign of the Canadian Network For International Surgery 13% of Africans die as a result of

trauma. One African woman in 13 dies as a result of the complications of pregnancy and childbirth. Shocking statistics indeed. (Fig.26)

A surgeon's judgment, skills and attitudes might be represented by one of the multipurpose tools so popular today (Fig.27). Here then are represented 2 general surgeons with obvious similarities and some differences – but both general surgeons nonetheless. The observant reader will note that the individual on the right enjoys a dram of the "water of life" now and then – on the side! Our technical skills will change over time depending on circumstances and the introduction of new techniques. Our clinical judgment matures with experience. Our attitudes are perhaps the most resistant to change. We spend years becoming expert and facile technical surgeons but the real challenge is to master the competencies in the petals of the CanMED's "daisy" that are the truly enduring legacy of our profession (Fig.28).

Wisdom dictates:

- That we uphold this legacy.

Wisdom dictates:

- That we remember and apply the lessons of our History.

Wisdom dictates:

- That we acquire the political savvy to become effective players in the organization and delivery of health care. Failure to fulfill our contract with society (and I mean society in the broadest sense) puts our status as a, largely, self - governing profession in jeopardy.

I believe Canada to be the best country in the world but Canada is an ongoing experiment in multiculturalism. Our future as a tolerant, liberal democracy based on fundamental justice and the rule of law and with a resilient social safety net is in no way assured. (Fig.29)

Wisdom dictates:

- That Canada become self sufficient in – **indeed a net exporter of** – Health Care Professionals. That we should be poaching surgeons from developing countries is unconscionable.

Wisdom dictates:

- That disadvantaged communities within our boarders, especially our aboriginal peoples, be treated justly, affirming their dignity and giving them reason for hope.

Wisdom dictates:

- That, in this troubled world, we extend our skillful hand in friendship across the 90/10 divide. To be sure this entails risk. Doing **nothing,** however, entails even greater risk. We as surgeons deal, mostly, with one patient at a time. That is the nature of our work. As such we are agents acting locally representing a profession that must increasingly think globally. The gratitude of the parents whose child has been restored to health by the skill of your hand is worth more in good will than can be bought by any amount of foreign aid dollars.

The American journalist, the late Norman Cousins (1915 – 1990) observed -

All things are possible once enough people realize that everything is at stake.

Well, Ladies and Gentlemen – *everything* ***<u>is</u>*** at stake**!**

I leave you with the immortal words of Hippocrates (c 460 – 357 BC) that have been a call to action for surgeons for nearly 2500 years –

Life is short and the art long,

the right time an instant,

treatment precarious and

the crisis grievous.

My grandchildren are running headlong toward the future alongside every other child on the planet. (Fig.30) Will their future be the legacy of broken promises, pollution, greed, intolerance and the ashes of war ***<u>or</u>*** a future reshaped with **<u>Wisdom and a Skillful Hand</u>** ?

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