Physicians and patients, then and now

The history of medicine is an epic catastrophe, Dr Ross argued in his Listerian Oration to the Victoria Medical Society in April 2006. Dr Ross suggested five reasons why bad medicine—like bloodletting, practised for 2000 years—is so resilient, and how we can use this knowledge to improve our own practice. Here is an edited version of his talk.

Dr Ross received his initial medical training from the University of Liverpool before moving to Vancouver for an internship at Vancouver General Hospital. He was in family practice in Victoria for 7 years, then went into otolaryngology, which he practiced in Victoria for 33 years. He was chief of surgery at Royal Jubilee Hospital for 3 years and president of the Victoria Medical Society for 2 years.
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being told that they have a life-threatening or life-altering disease, and this requires cautious control. I described healing as the management of disease and the management of the fear of disease. If a patient has headaches which to the physician are clearly tension generated, but there is insufficient trust in the relationship, an MRI will be needed. Consequently waiting lists and costs escalate ruinously. For example, 22% of females have migraine (peaking to 30% in their mid thirties) and 11% of men suffer from migraine. MRIs on all these people would bankroll the system. Anxious patients will demand antibiotics for every viral upper respiratory infection and we will squander our antibiotic shield. Without some scientific guidance, patients will accumulate a grand retinue of useless and sometimes deleterious vitamins and supplements that will harm at least their pocketbook. The best medicine is the cheapest medicine, and we are set to lose this.

In 2004, 48% of Americans tried some alternate therapy. They would not trust an unlicensed pilot in a commercial aircraft, yet it is the same life they are risking with these placebos. Due to the benefits of immunizations, parents are not seeing the destructive effects of measles, whooping cough, polio, and so on, so one-third of young children in parts of Ontario are not being brought in for their immunizations. In one-and-a-half generations we have moved from a collective endeavor to protect our children to parental neglect. We believe we are living in a scientific culture, but we are not disciplining our behavior in a scientific manner. In fact, we are living in a technical age, but using an electric toothbrush does not transform us into scientists.

What are the reasons for the failure of primary care? The most important is lack of time as a result of the billing scenario. The more conscientious the physician is, the more difficult it is to make ends meet. This was brought home to me by a very competent, hard-working, and dedicated family practitioner who received a repayment from the GST department because she was in the poverty bracket. I then realized the depth of the underfunding. So walk-in clinics started up; they are fine as an ancillary to family practice, but cannot replace it. As walk-in care increases, so do the ranks of the elderly walking wounded, who are the most unsuited for the fast-food format. Arriving by cab, to have one or two of their multiple dysfunctions discussed, they leave discouraged, realizing that this is not the type of care they need. Those barely able to leave home are even more abandoned by our failing family practice and house calls are rare. The numbers of the elderly are increasing and the numbers of family practitioners are diminishing, so there is a lot of darkness to the end of life.

Happily, the work of the family practitioner has been helped recently by the understanding of the bureaucracy that chronic disease needs continuity of care and the new BCMA agreement may be worthwhile. Because family doctors are being marginalized from tertiary care hospitals we are losing the collegiality of practice. Social exchange corrals the outliers in therapy and standards encourage immediate access to one’s colleagues for an opinion, improving the speed and quality of patient care and benefiting the doctors who provide it.

Medical tragedy

When I read the history of medicine, I was surprised at the mountains of misery, maltreatment, and professional murder that our predecessors wrought. In 1799, George Washington, under the supervision of three eminent physicians, was bled, purged, and blistered until he died 48 hours after complaining of a sore throat. I was surprised that some of the best brains of every country continuously applied themselves to medicine with rare progress. I was surprised that these intelligent people could not see that the maternal death rate in the teaching hospitals of Vienna and elsewhere in Europe was 24%. One in four women died after giving birth in hospital, while their cousins in the country might deliver 6 to 16 children and survive. I was surprised that kind and smart professionals would kill many of their patients by bleeding them, purging them, and poisoning them with elegant detachment throughout their practical lives. The history of medicine is not justifiable when held up against the suffering of the sick it countenanced, aggravated, or terminated inappropriately over the centuries. It is startling to realize that physicians with a higher intelligence than ours did so many senseless things for so long. Even more startling is the realization that if they did it, we are doing it today. The history of medicine is an epic catastrophe and became a Greek
tragedy after the exit of the ancient Greeks. Explaining this immense tragedy of our profession became important to me. I settled on five reasons to account for this miracle in reverse of the aggravation of disease.

1. **Fearsome authority.** The intellectual giants Hippocrates and Galen established a fearsome, unquestionable authority.

2. **The bondage of belief.** The education we receive formally, through our culture, through our religion, or through our experience, provides a working explanation to guide decisions in daily life. Once these beliefs and convictions are in place, it is easier for us humans to selectively revise reality than to remodel our explanatory systems.

3. **Answers stifle creativity.** An answer to a query, right or wrong, inhibits further creative thought and imagination.

4. **The precedent effect.** A line of action that has been promoted in the past or practised in the present is permissible—however ineffective it may be.

5. **The placebo effect.** Seventy percent of nonterminal conditions will show some improvement either without treatment or with any nondescript pill supported by a little encouragement and a modest fee.

I would like to put in a plug for the fee, which always does somebody some good.

**Fearsome authority**

Hippocrates was born into an age of Greek intellectual supremacy, achieved by uninhibited and muscular questioning of the universe and our place within it. This pervaded every aspect of Greek thought and art. Culturally Hippocrates was also engulfed in the Homeric poems of the *Iliad* and the *Odyssey*, a sort of practical bible of the behavior of the heroes and gods and thereby lesser mortals. As Professor Peter Potter has pointed out, they prepared Hippocrates for the profession of a physician on two counts. First, they are alive with an unbounded enthusiasm of the sensible world, which encouraged accurate observation and description of everything from the stars and clouds to the plants and animals to the works of art, all viewed with a kind of wonder, tinged with religious awe. The second lesson of the Homeric writings is that life and death are very complex, and although events may influence our fate, they are rarely the entire causation. Medicine is not just the logical mathematics of Pythagoras and Archimedes, and we must recognize and question everything we see.

Hippocrates in Western medicine is revered for his emphasis on treating the patient rather than the disease, on relying on observation rather than theory, and recognizing nature’s strong healing force, encouraging physicians to stand back rather than intervene. He observed that health and disease could be affected by climate, social institutions, religion, and government and, if he had lived long enough, by hospital administrators. Doctors are dismayed that the number of administrators and their assistants balloon while hospital bed counts and productivity appear to diminish. Hospital administrators have a tendency to ignore medical input, even though this comes from professionals in the trenches directly caring for the community. When their recommendations are repeatedly ignored, physicians cease attending hospital staff meetings and the pressing needs of the community are neglected. Hospital administrators should monitor voluntary attendance at hospital staff meetings and perhaps when attendance declines, so should their incomes, as their value to the community has diminished. At the very least, the community should be provided with an annual report from a medical staff overview committee rating the performance of administration in each hos-

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I am certainly not going to tell you which of these three aphorisms applies to me (it would stifle salacious speculation as answers do). I read these aphorisms 50 years ago in the medical library of the University of Liverpool and I remember to this moment the awe I then felt at their authority and clarity. This has not changed. Notice that he is not speaking just of disease, but of patients of various sexes and ages. None of us see enough gout these days to make such comprehensive observations, so presumably the attacks of the disease were then much more common. Acute attacks are characteristically triggered by trauma to the foot which would certainly have occurred with people walking everywhere over stony goat trails wearing unforgiving, primitive sandals. One can imagine the misery of a gouty Roman centurion marching on those marvelous Roman roads, desperately trying to be transferred to the cavalry and wondering if a eunuch’s existence was really that unfortunate.

The next giant was Galen, who was born in 200 AD. He was a brilliant anatomist and showed, by tying off the ureters, that urine was produced not in the bladder as had been thought, but in the kidneys. He encouraged people to examine the body, as the body was a reflection of the soul and God’s handiwork, and he was monotheistic, which cemented his appeal to Judaism, Christianity, and the Muslim world, to the extent that questioning Galen was akin to questioning a part of one’s religion. This likely was a major obstruction to medical progress until the Renaissance. Galen, like Hippocrates, felt that disease resulted from an imbalance of the four humors; blood, mucus, yellow bile, and black bile. The only way to readjust this imbalance was by bleeding the patient or giving various enemas or purges. This concept and these treatments devastated medical progress for 20 centuries. Wrong answers are ruinous, especially from giants.

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Physicians should not feel that it is only they who are resistant to new ideas. The devotees of the creative arts are peculiarly affected by intolerance to new influences when by their very nature one would expect new creativity would be lauded. The Theatre des Champs Elysees in Paris erupted into riots at the premiere of Stravinsky’s “Rite of Spring” in 1913. And to protest against a ballet, an art form where unreality, folly, and the tutu are the magic, is stingingly absurd. History has already declared Stravinsky the greatest composer of ballet music of the 20th century.

Bondage of belief

Why has medical practice and thought resisted change so doggedly over the past 20 centuries? Every conviction we have is an obstruction to thought. As Sir Francis Bacon observed, “Man prefers to believe what he prefers to be true.” So our beliefs are autohypnotic and self-sustaining. It has been said that mankind could not survive without belief and it is known that believers in a communal religion are healthier, live longer, and have a higher pain threshold. One prays that the martyrs were divinely indulged in analgesia. During the time of the Inquisition, many Jews in Spain were deported to Costa Rica. Upon arrival they were given the choice of becoming Christians or being barbecued. We must hope that they earnestly reviewed the foibles of humanity and chose the viable alternative. The same reluctance to change our beliefs occurs in the scientific world. As Thomas Kuhn points out in his book *The Structure of Scientific Revolutions*, in the intellectual world, once an organized system of looking at things becomes established, a scientific theory is declared invalid only if an alternative candidate is available to take its place. Partial truths are supported, no matter how intellectually disreputable or craven, to avoid abandoning the belief.

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Ask the Impressionist painters about the fluidity of thought of their critics. We see what we expect to see and once humans believe that the way they perceive things is eternally correct, they lose the freshness and beauty of their world, which is what the Impressionists rediscovered for all of us.

The bondage of belief has plagued medicine from the start—don’t think it will go away, as it is part of our basic survival mechanism, the path through the forest. It is unwise to give up a known path through the forest even though there may be better ones. The winner of the Nobel Prize for medicine last year discovered that peptic ulcers were caused by the bacteria *Helicobacter pylori* but was laughed at for 15 years because most of us believed that the acid in the stomach would be inhospitable for bacteria.

Scurvy, the disease of the absence of vitamin C from fresh fruits and vegetables, could kill up to 80% of a ship’s crew in a long voyage. James Lind, a naval surgeon, reported its cure by fresh oranges in 1747, and the British Navy started providing lemon juice on voyages of more than 6 weeks 42 years later and a year after his death. The Americans followed 15 years later.

Another example of the obstruction of belief is in the use of quinine, which was known to be effective in controlling malaria. Orthodox medicine declared it to be an irrational remedy because no disease could be cured by excessive blood and it was impertinent to question the matters of greatest concern to us. Possibly any piece of knowledge we acquire has an inhibitory effect on related thought. How many people who use a light switch ever think of its scientific excuse or clinical benefit. Answers stifle creativity Answers to medical progress are too many wrong answers or partial answers. As suggested earlier, an intelligent question is superior to most answers in addressing life or science. A question is everybody’s business, but an answer, right or wrong, brings closure. Answers are the assassins of creative thought and imagination. Ideally in science, answers should be the building blocks of understanding, but partial answers may build an opaque wall that blocks the view of an alternative reality. The wise speak in parables. It is probable that any conviction or firmly held opinion is inhibitory to creative thought. Unfortunately as doctors, we acquired most of our convictions in medical school and our creative reasoning has likely been suppressed in the matters of greatest concern to us. Possibly any piece of knowledge we acquire has an inhibitory effect on related thought. How many people who use a light switch ever think of its scientific excuse or clinical benefit.

**Precedent effect**

One would wonder why physicians of the past kept on with repeatedly useless therapy such as bloodletting and enemas. This is the danger of the precedent effect. In reviewing the scene, they were really restricted to the choice of doing nothing, or doing something. The dogma of bleeding patients persisted for at least 2500 years into the 20th century and had no scientific excuse or clinical benefit.

Bleeding was performed even for battlefield injuries because it was thought to promote clotting, despite blood already pouring out of the wounded body. It was done on the basis of theory, not practicality, and a French general in the Napoleonic wars said that the only way to discourage this was to hang the next physician he saw, taking blood with his right hand and administering a purgative with the left hand. Throughout the Western world, only two physicians seem to have seriously seen the folly in all of this, and both were French. Van Helmont in the early 1600s recommended dividing 500 poor patients into two lots. He would treat half of them without bloodletting and the others could be treated by any doctor taking blood and they would settle the matter by the number of funerals in each group. Nothing happened. Two hundred years later in the early 1800s, Pierre Louis did a statistical analysis of large numbers of hospitalized patients in Paris to show no benefit from taking blood for pneumonia. The world consensus at that time was that disease was caused by excessive blood and it was impertinent of Pierre Louis to challenge this hallowed medical tradition. The British observed that all the patients were French and therefore unreliable. The Americans liked the statistics but felt that they demonstrated that Pierre Louis was not taking enough blood to make a difference, so they began taking even more blood on their country’s patients.

**Placebo effect**

Placebo is from the Latin “I will please,” the opening line of the Ves...
pers for the Dead. In the 12th century, it had come to mean “the flatterer,” probably as a result of the disdain for the paid professional mourners who spared the bereaved from having to give up their dinner to attend church. This unseemly deceit was then transferred to therapeutics where a placebo was identified as a medication intended to please the patient rather than treat the disease. As it has no pharmacological potency, it was used in blinded studies to compare the effectiveness of drugs by providing pills, both with and without the constituent being studied. It was found there could be up to a 70% benefit from the use of placebo for some medications, and surprisingly, 30% for fake surgical operations such as laparoscopy for nonspecific lower abdominal pain, and 100% for a fake angina operation. Placebos are the mirage of medicine, and it is easy to see how they misled the ancients (and us) to this day. Because of this observed benefit, ways to harness placebos have been examined. First impressions are so important that the medical office assistant should protect the physician’s image in a courteous manner. Obviously the office itself should have positive emotional impact. Magazines should be current and diplomas should be proudly framed, as patients do take some confidence from them. Referring doctors and specialists should make the patient aware of their respect for each other.

Another way in which physicians and nurses may have diminished their comforting authority in society is the casualness of their dress. There is an inherent respect for work-related uniforms—from the bus driver to the shaman. We have good historical records of the very precise dress of physicians in ancient Persia and until recently professionals dressed professionally. This is important as a placebo. A policeman blowing his whistle does not stop traffic if out of uniform. Those of us who dress formally establish a respectful bond with their patients and incidentally do so to the benefit of us all. IBM Canada introduced Casual Friday in 1992. Mike Quinn, head of media relations, told me that this had helped staff morale, but even on Fridays their representatives dressed for their clients’ expectations. Often we do not see such sensitivity in the attire of doctors and nurses.

**One final thing**

The most merciless thing a healer can say is “I cannot do anything more for you,” as he or she immediately ceases to be a healer. This is particularly offensive in terminal conditions, as the physician can always do something to support the patient’s comfort or their morale. I must confess to an early failure in this regard when I started in general practice in Victoria at the age of 25 and I did a house call on a man with pain from end-stage multiple myeloma. He told me that a well-respected internist in the city had promised that research on multiple myeloma was in progress and the patient felt that he just needed a little more pain medication until the cure was found. I felt it was my duty to tell him the truth, that help would likely not come in time. I only hope that he thought I was too young to know what I was talking about. I certainly was.

What of the future? There is always the opportunity for betterment, at least in what we ourselves do. The sciences feeding into medicine are constantly providing fresh questions and ideas, and in every profession the greatest stimuli to progress have been external discoveries. For you doctors in training, you are acquiring a fractious flock, the product of a Triple-E Generation of entitlement, expectation, and egocentric attitude. Your blessing will be a better insight into disease and smart technology providing finer tools and treatments. People, your patients, will remain unexpectedly enigmatic. The medical convictions we now hold must be seen as evolving answers, so questioning everything as ruthlessly as the ancient Greeks. Be generous to the past, as it has not been easy or always commendable, but it is our only guide. Mingle with your colleagues for learning and enriching the standards of our collegiality. Support and share your knowledge and patient concerns with nurses, the most giving of professionals. Medicine is a spiritually rewarding vocation and the trust of your patient is paramount. Give it your all.

**Suggested reading**