Canadian Anesthesiologists' Society, Archives and Artifacts Committee Presidential Interviews
Dr. Anthony Boulton, interviewed by Archives & Artifacts Committee Member Dr. Garrett Barry
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Dr. Anthony Boulton was the president of CAS from 1998 to 1999. He is a clinical professor emeritus at the University of British Columbia, having practiced anesthesia in Vancouver for almost thirty years. During his career he has also been involved in the British Columbia Anesthesiologists' Society and the World Federation of Societies of Anaesthesiologists.

Garrett
Dr. Boulton, could you introduce yourself and tell us where you're from and where you practiced?

Tony
Well, I am officially named Anthony but most people call me Tony. I live in south False Creek in Vancouver. I retired from Vancouver General Hospital (VGH) in 2015. I also worked at UBC Hospital [University of British Columbia], a smaller hospital that only does somewhat less complex elective surgery in low-risk patients. Our department tends to send anesthesiologists nearing retirement there more often, and that worked out well for me.

Although I sound like I'm from Manchester, England, I was actually born in Montreal in 1950. My father was sent there in 1949 to help build a tile factory, since he was an engineer. I was born when my father was in the hospital for several months having developed insulin-dependent diabetes. My mother didn't know anybody and moved into a basement apartment in Lower Westmount. My parents became good friends with the couple who owned the house and they became my godparents, so I always maintained that connection [with them].

When I was two, they brought me back to Manchester, where we lived until I was five, when we moved to Wales where my father managed another tile factory for four years before again returning to Manchester. I went to Altrincham Grammar School and then Manchester University Medical School. Coincidentally, Dr. John Cowan, who was the previous president of the Canadian Anaesthetists' Society [1997 to 1998], attended the same medical school. He was the last President of the Canadian Anaesthetists' Society and I was the first President of the Canadian Anesthesiologists' Society, the following year.

After medical school, I worked as a junior house officer in Blackburn, Lancashire and Hastings in Sussex. Then, I was a senior house officer in the Accident and Emergency Department at Salford Hope hospital. When I was a medical student I did an elective in St. John's, Newfoundland. After my time in Salford, I then decided to return to Canada.

I was actually recruited by a clinic in Edmonton to work in general practice, via an advert in the back of the British Medical Journal. During my time in general practice in Edmonton I worked part-time for the Alcohol and Drug Abuse Agency and also for an industrial nursing company that placed registered nurses on oil rigs in the Mackenzie delta. I would go up to Inuvik in the oil company plane to visit the nurses on the rigs and occasionally to bring back people who had been injured to the hospital in Edmonton, because the surgeon at the Inuvik hospital turned out to be an impostor, previously a hospital orderly in Italy, so the companies brought their people down to Edmonton to be treated there.

I should say here that there were no cocktail cabinets in the planes on those long flights up and down to Inuvik.

Garrett
That's funny!

Tony
I acted as backup on the phone for the male nurses on the rigs when they had problems and needed to administer antibiotics, etc. It was quite an interesting time. However, after two winters in Edmonton, I decided it was too cold for me. The second winter was just too much, and I decided to move to BC [British Columbia], but I could not do that without passing the LMCC exam and they wouldn't let me take it without completing a rotating internship which was the requirement at the time. I had six months of medicine, six months of surgery, and six months of casualty [emergency] so I still had to do two months of pediatrics and two months of obstetrics, which I did as an unpaid intern at the Misericordia hospital in Edmonton where I had hospital privileges as a GP.

It was actually a good thing because I was able to do a lot of deliveries. I had already been in practice and knew that I needed to learn a lot more about obstetrics and pediatrics. Then my friend Dr. Mike Bale, who I had met as a medical student in St. John's when I did the elective, suggested I go and practice with his group of GPs in Abbotsford, BC where he had gone into practice after leaving Newfoundland.
I determined to do that, but first I had to take the LMCC.

He also suggested that I do six months of anesthesia as he thought it would be useful.

Just 6 months – based on the British Diploma in Anaesthesia – and then you could go out into practice and give anesthetics!

Garrett
Oh, I see.

Tony
Anyway, I managed to arrange to do the six months anesthesia training at Saint Paul's Hospital in Vancouver and it was a great experience. I also took the LMCC but I still had to wait for the results, as the BC College [of Physicians] would not allow me to practice in Abbotsford before passing it. So, for six months, I went to Dawson Creek where they would allow me to go as it was an under serviced area.

That was where I gave my first anesthetic as a GP anesthetist, and I remember it well.
On my first day there, a recently qualified ENT surgeon was visiting for the day and the first three cases were small children for tonsillectomies. I was very nervous because I had done no pediatric anesthesia at Saint Paul's but I had spent a few days at the old Children's hospital in on West 59th in Vancouver working with Dr. Hanson, an anesthesiologist from New Zealand who was the chief of Anesthesia there. We were using uncuffed tubes in small children and he impressed upon me that I should never extubate a child but just let them wake up and pull it out themselves. He was a very experienced, excellent teacher and my few days working with him proved to be invaluable.

Having completed the first three tonsillectomy cases uneventfully – although nerve wracking for me – the last patient was the 19-year-old daughter of a local dentist, for an adenoidectomy. A pretty easy case after the young children, or so I thought, and I relaxed a bit. Then in the middle of the procedure she developed angioneurotic edema! Her tongue and lips swelled up to the extent that there was no space around the ETT in her mouth, so we had to leave her intubated and ventilated. I had to get the [Bennett] MA-1 ventilator out of the cupboard where it was stored and sit with her, sedated with diazepam and fentanyl, all afternoon. We gave her steroids and antihistamines and by early evening, the swelling appeared to have subsided so we went back to the OR and examined the inside of her mouth and pharynx. It looked

normal and she had a satisfactory leak around the tube so were able to extubate her.without any problems. Then, after we were certain she was okay, we handed over her care to one of the other GP anesthetists and went to the pub for dinner and a drink [laughs]. Skin testing later revealed that she was allergic to succinylcholine.

That was my first day giving anesthesia on my own and I will never forget it.

Altogether it was a great time in Dawson Creek and I had great admiration for the doctors who practiced there.

When I first went to Abbotsford, there were quite a few GP anesthetists and just one certified specialist: Dr. Paul Forrest. I enjoyed my time there and Paul was very supportive, but I began to realize my limitations and how little I really knew. I decided to go back to finish my anesthesia training. Dr. Brian Saunders was the director of the UBC residency program and he was very accommodating taking me back into the following year's program.

After four years, I finished the program and returned to Abbotsford where I joined Paul Forrest in the hospital as a certified anesthesiologist. Then, as the hospital was growing quickly in size, Dr. Norm McCurdy came from VGH to join us. Over the next year or so we negotiated mostly amicably with the remaining GP anesthetists for them to stop doing anesthesia so that we had room for another certified anesthesiologist. Dr. Grant Burnell came to join us so that we were then four certified specialists. We were a good team and I think we advanced the quality of patient care significantly in the hospital as it grew into a regional centre.

We had very capable surgeons and very good anesthesiologists but we still had to send some patients to Vancouver for their surgery because they were too high risk for us to provide the anesthesia and post op care safely with the facilities we had. After four years there I decided I wanted to be in a bigger tertiary care teaching hospital where these cases were being done. I called up my friends Drs. Ed Gofton and Mats Tholin at Vancouver General Hospital who arranged an interview with the Professor and Dept Head Dr. Len Jenkins. Within six months I was working at VGH.

It was initially quite a challenge after Abbotsford, but it turned out to be a very good move for me. I stayed there for 26 years!

During that time, I was a member of the cardiac and neuro divisions, and also went to Addenbrooke's Hospital in Cambridge [United Kingdom] for four months to learn about liver transplant anesthesia. On my return, three of us – Drs. Terry Waters, Tom Randall, and I – started the liver transplant anesthesia program, although they were very much the driving force and remained so for many years as the group grew to include about eight anesthesiologists. I spent some time as the medical manager of the pre-admission clinic and subsequently a while as the medical director of perioperative services.

I had an interesting career and was treated exceptionally at VGH and by the UBC Department.

I was made a clinical professor in 2006 at UBC and, to my surprise, an emeritus professor in 2016.

That basically sums up my story.

Garrett
Let's go back again, where were your parents from originally?

Tony
My father was originally from Stoke-on-Trent, about an hour south of Manchester by car, which they call the "Potteries" in England. There were many ceramic factories making china, tiles, and pottery. Royal Doulton, Wedgewood and many other makes were produced there. Then my grandfather went to work at Pilkington's tiles in north Manchester so the family moved up there. My father went to Grammar school there and then to Manchester University on a scholarship during the war. After he finished university, he also went to work for Pilkington Tiles in North Manchester. My mother was born in Manchester, the youngest of ten children, left school at 14, and a few years later they were married.

Soon after that, Pilkington's sent him to Montreal. After returning from Canada, he went back to work at Pilkington's and we lived in Swinton in Manchester, just down the road from my grandparent's cottage. My mother was the youngest daughter and, as my father was often working overseas, when I was very young we used to go to their house most days. My grandfather was a very nice man very well known locally as a talented cornet player in the brass bands that played in the parks on weekends. He was also a keen gardener and had a beautiful walled garden at their cottage. Those were good memories, except that my maternal grandmother was a no-nonesense lady renowned for making rice pudding. I was forced to eat it every day and a result I have quite a phobia about rice pudding. Thank goodness my father eventually got a job managing a tile factory in South Wales, so we moved there where we spent about four years, away from the rice pudding.

Garrett
What was your childhood like and what led you towards medicine?

Tony
Well, as I said, after Swinton we moved to Merthyr Tydfil in south Wales. It used to be a centre for coal mining and iron production. The ruins of the famous Tredegar Iron Works were next to my father's factory. Interestingly 'The Tredegar Ironworks' in Richmond, Virginia that supplied the confederate army with canons was set up by men from this Welsh ironworks and named after it. By the time we moved there the town had already fallen on hard times although we lived one of the older big houses left over from more prosperous days. On weekends we used to go for picnics in the Brecon Beacons where there were lots of wild ponies which our boxer dog liked to chase, or at least until they kicked him.

I had a very enjoyable time in Wales and so did the dog.

After moving back from Wales to south Manchester, my father was employed to build and manage a much bigger factory that made 'Polycell' tiles. These were the first tiles to have little bumpers on the side so that you could easily install them yourself (i.e., DIY [do it yourself] tiles).

By now we lived in a fairly posh house by a golf course in the countryside and I had to ride the bus for about eight to Altrincham Grammar school. I mostly enjoyed school and it was really the only place that I met my friends.

At school, my favourite subject was history. I would probably have pursued artistic subjects except that my father insisted I do sciences and so I had to drop history to do the science subjects.

One reason I decided to do medicine was that, apart from being reasonably good at biology and interested in it, I didn't like maths. I was able to just do biology, chemistry, and physics in the sixth form [end of secondary school] to get into medical school.

The main reason though [for being interested in medicine] was a very popular program on TV [television] called *Dr. Finlay's Casebook*. It was a bit like the program with the vets - you know, *All Creatures Great*

and Small? Well, they had a similar program about two GPs and their housekeeper in Scotland. It was great program and they seemed to have a very interesting life. I thought, "Well, that's what I want to be – a Dr. Finlay."
That's why I decided to go to medical school.

I went when I was just seventeen. My school was doing an experiment with a class that skipped a grade. My birthday was on June 25th so I went a year earlier than most people. I really wanted to go to Bristol medical school because I liked the west country in England where I had been each summer with the school camp, but you had to be eighteen to go there. My next choice was Edinburgh and I was accepted there but my father refused to let me go. He was determined to have me go to Manchester where he had been, so I would be able to live at home and he could keep an eye on me, not to mention having me handy to mow the lawn every weekend! My father was a very strong character with rather Victorian ideas and it was difficult to go against his wishes.

Anyway, I ended up in Manchester.

Nevertheless, I was able to conspire with my mother so that I could live in Woolton Hall, a university student residence. I was delighted to get away from home. I became the social secretary in my second year which was very useful. We were well known for our dances and, being the organizer, I got free beer. I played rugby for the medical school and we went all over the country playing other medical schools which was great fun. We also played the Manchester and Salford police and I remember being in the police bar afterwards drinking beer when I was only seventeen and underage. I think they thought everybody at university must be eighteen! In my third year, I spent five months doing the night first-aid attendant's job at Wall's pork sausage factory. This was a much-coveted job that was passed on from one rugby club treasurer to another. The ladies in the factory shop gave me mis-shapen meat pies and sausage rolls for free, as well as out of date sausages and bacon – all of which my flat mates helped me eat.
In my third and fourth years I was vice president of Medical Student's Representative Council, which represented medical student's social and academic interests instead of the larger student's union – which it predated, because the medical school itself in Manchester predated the university! I met a lot of interesting people because of that, and I got to organize the Medical Students' Ball. Then, at the beginning of my fifth and final year, I did a four month elective in St Johns, Newfoundland. They paid my airfare, full board, and $150 a month! It was a very lucky break for me, as I was pretty well broke again by then.

Overall, I had a very good time at medical school, and still managed to pass the final exams!

Garrett
I have a question for you. I think it came up in your story, and I noticed it as a theme in the CAS newsletter at the time of your presidency term as well. It was a feature of the way physicians were trained, which might still be the case in the UK – not so much in Canada. It used to be that after medical school, you would spend some time in general practice before specializing. Some would go back and do further specialized training.

What do you think about that training? How does your perspective as a [practicing general practitioner] affect your approach to your anesthesia career, and how do you apply what you learned during your time in general practice?

Tony
I think we're discussing re-entry into the residency program after being in general practice for a while which seems to be very infrequent now. It wasn't really done much in the UK, if at all, but here in Canada it used to be quite common.

I'm a big supporter of it, and many of the people I mentioned earlier, like Simon Baker , Terry Queree, and John Crosby were all in general practice in Canada prior to doing their residency training at UBC. Some of the best anesthesiologists at VGH came from South Africa and, as a condition of coming to Canada, they had to work [as a] GP in under serviced areas for a while.

Even though we persuaded the GP anesthetists in Abbotsford to retire from giving anesthesia to make way for certified specialists in that regional hospital, I've always been a supporter of GP anesthesia in rural areas where there's little possibility of getting a certified specialist in anesthesia to work. To that end, I started the GP anesthesia refresher course in Vancouver shortly after going to VGH. I enjoyed doing it immensely and it was very successful. Now, there have been several very enthusiastic and capable directors since me, and it remains contemporarily relevant and successful. When I started the course, there was a certain amount of antipathy from some of my specialist colleagues about supporting GP anesthetists. But if we don't want nurses anesthetists – which I'm absolutely against – we have to support our general practice anesthesia colleagues in rural areas. And, if they wish to come back into the residency program after a few years (i.e., reentry) to become certified specialists we should support that.

Experience in general practice gives you greater contact with patients and their families than our shorter exposure in the hospital. It allows you to understand the difficulties that patients from rural areas have in accessing health care. It reminds you that you are first and foremost a physician, and that you need to treat patients with compassion.

You also get a wider perspective on what the rest of the profession does out in the real world outside of the ivory tower, as well as an appreciation of the difficulties your colleagues in smaller hospitals have without access to all the resources that we have in big hospitals. In Dawson Creek if the patient was too sick for us to deal with, which was fairly frequent, we had to call a plane to transfer them to Edmonton or Vancouver, and we usually had to accompany them. Sometimes it couldn't come because of the weather. It can be very lonely out there in tough situations with critically ill patients. I think that [experience] is very helpful. Mine certainly was.

I also think it's foolish to make medical students – who often still don't know what type of practice they want to pursue – decide in their second or third year what they wish to do. It's too early. You can see how long it took me to decide. I don't really remember any anesthesiologists until I went to St. Paul's.

A few years as a GP was very useful from a financial point of view as well. The College of Family Practice now say that you are not competent to go out into General Practice unless you complete three years of Family Practice residency. However, generations of doctors did exactly that. They finished their rotating internship, which I think was better than the British system of just six months of surgery and medicine, and then went into practice, usually joining a group practice and learning on the job from more experienced practitioners. If you weren't sure, you asked for help from a colleague. Patients were not harmed. And you could spend a year or two deciding what you wanted to do while also being paid well enough to get out of debt and then start the residency in a reasonable financial position.

So, yes, spending time in general practice is very useful.

Garrett
Can you tell me a bit more about your mentors during training?

Tony
When was at St Paul's hospital, the first person I worked with was Dr. Murray Robinson. He was a consummate anesthesiologist and a mentor to many residents over the years as well as me. I spent my first

week with him and I gave my first anesthetic with him. He was friendly, very smart, and had a nice way of teaching people. By the end of two weeks with him, I could give a pretty simple anesthetic under supervision. He was just a great guy and I had great respect for him. We remained good friends until he died prematurely many years later.

Dr. Bill Doll was the department head and he took a great interest in my progress. In fact all the anesthesiologists at St. Paul's were very good and it was there that I first realized what anesthesiologists really did and how much they knew. They were a very pleasant, impressive group of people.
It was not until a few years later that I decided to specialize in Anesthesia, but it was in no small part due to my exposure to the group in St Paul's.

There were several other people who I consider to have been mentors.

When I went back into the residency program, I went to the Royal Columbian Hospital (RCH) for six months. The anesthesiologists there were another particularly agreeable and skillful group. Dr. Terry Queree was in charge at RCH then and he had been very active as a previous residency program director. He was a straight-talking New Zealander who took great interest in the residents and became a good personal friend of mine. Dr. Simon Baker was another great role model who I always admired. Then, there was Dr. John Crosby who recently passed away. He was a very charming man and a talented theatrical performer. Everybody loved John and there were hundreds of people at his funeral.
These three individuals were first class anesthesiologists and along with the rest of the group at RCH, had a profound influence on me in the early days of my residency.

By then Dr. Edward Gofton had taken over from Dr. Brian Saunders as program Director. Ed is an outstanding individual, a superb clinical anesthesiologist, but first and foremost a physician with tremendous empathy and compassion for patients. He helped me throughout my residency, including some difficult times, and he remained supportive of me as a colleague and friend throughout my career at VGH, and now into retirement. He has always been my idea of what a really great physician should be like.

At VGH there were many very good anesthesiologists but there were two who taught me a lot in the early days of my career when I was learning about some of the more specialized areas of anesthesia. The first was Dr. Ken Turnbull. Ken was a qualified engineer, a ham radio operator, and flew a Seabee amphibious plane just like James Bond in the movie. For six months as a resident I worked with him doing a research project comparing fentanyl and sufentanil in cardiac anesthesia. I learnt a great deal about cardiac anesthesia during this time and also many other things. It was the best six months of my residency.

The second was Dr. Roy Schofer who was in charge of neuroanesthesia at VGH at the time. He patiently taught me all of what I know about neuroanesthesia. Both these gentlemen were very good teachers and excellent anesthesiologists. I was fortunate to work alongside them for many years until they retired.

Finally, Dr. Mats Tholin was perhaps the most influential of them all. A charismatic personality, initially trained in Sweden, he was another superb clinical anesthesiologist. A Royal College examiner, he was exceptionally knowledgeable. Always calm and organized, he made giving anesthesia look deceptively easy even in the most difficult circumstances. I on the other hand was not the most academically adept person and needed a lot of help as a resident. Mats, who was larger than life in many ways, always imbued me with confidence when I was experiencing doubt, not just when I was a resident but later in life as a colleague and friend. He remained a very close friend until he died a few years ago and I miss him dearly.

There are others that I have not mentioned. Many became very good friends and remain so.

I certainly had a lot of help all along the way. In truth I've been always very well treated by my anesthesia colleagues and surgical colleagues as well, for that matter.

Garrett
What was it like giving your first anesthetics? What were your experiences when learning to give anesthetics?

Tony
Well, it wasn't particularly scary with Murray Robinson standing over me, but it was much scarier on that first morning starting in Dawson Creek. Anesthesia in those days was quite a bit simpler with much less monitoring. At St Paul's in 1977 they had ECG [electrocardiogram] monitors, but they were one short. The last person into work had to use a pulsemeter [not a pulse oximeter] and no ECG. Everyone had their own personal anesthesia machine which were of various different types. When they arrived at work they went and got their own machines and took them to their OR for the day.

I believe there was an anesthetic mishap in St. Paul's some years before I arrived there. An anesthesiologist had had to use somebody else's machine for a radiology case, I believe. It was dark in the room. On this particular machine, the nitrous and oxygen flow meters were reversed from the one they normally used. At the end of the case, it was thought that instead of 100% oxygen, 100% nitrous oxide was given to the patient, with devastating consequences. As a result of this incident, and perhaps others, the flow meter position on machines was standardized, and fail-safe devices were added that turned the nitrous oxide off if you turned the oxygen off. And, the knobs on the flow meters were made a completely different shape so that you could feel which flow meter you were turning in the dark.

So in St. Paul's hospital in 1977, the machines were of several different types, patients had an ECG monitor, a portable blood pressure cuff on the arm with a stethoscope taped on the brachial artery so you could manually take blood pressures, disconnect alarms, failsafe flowmeters, and an in-line oxygen monitor on the inspiratory limb of the circuit which was a fairly recent innovation. You had to calibrate it and then insert it into the circuit. If you wanted to measure tidal volume accurately you had to insert a Wright respirometer into the circuit. I think the department had one. Some anesthesiologists had their own. Some people taped a flat stethescope over the apex in adults and everybody did this with children using a special pediatric stethescope that stuck on with two-sided tape. There were no oximeters, skin colour was observed closely, and no end-tidal CO_2 monitoring. People frequently placed a finger on the patient's pulse.

There was a combination drug called Innovar. 1 ml was 2.5 mg of droperidol and 50 mcg of fentanyl. Many people administered this in the OR before induction. I can't remember if we insisted on preoxygenation, but I believe most of us did it. We gave a 1 ml of Inovar, pre-oxygenation, along with a pre-curarizing dose of D-tubocurarine. Then, it was pentothal and sux [succinylcholine], followed by bagging the patient until they were relaxed, and then intubation. Occasionally we used cricoid pressure if needed. We were still giving pre-op sodium citrate in those days. We observed the chest movement and listened for correct tube placement, but there was no end-tidal CO_2 monitoring at the time. Sometimes, the patient turned blue, indicating the need to get a move on! As I said, there were no oximeters. Most people intubated with sux and then gave pancuronium after securing the airway if required. Maintenance was usually with nitrous and oxygen, with enflurane. Narcotics used were fentanyl, alphaprodine, and morphine, depending on the case or anesthesiologist's preference. And, reversal with neostigmine and atropine. That's just a brief description but obviously there were variations.

Everybody got an IV and an IV induction. But, when I went to BC Children's Hospital as a resident, they would breathe the children down first with halothane and then start the IV. Later on, Dr. David Steward

from Sick Kids in Toronto came to BC Children's and changed the practice to starting an IV first with IV induction.

Of course, oximetry and capnometry revolutionized things, but the first monitors to stop prevent serious mishaps were disconnect monitors. Previously you could disconnect the patient from the circuit and there would be no alarm. Some connections were between plastic and metal which would slip apart when they were moist. The ventilator bellows descended by gravity, so they would just keep going if there was a disconnect, and there would be no alarm. As you know, disconnects happen quite often and we have to be vigilant to fix them straight away! So, the simple idea of putting an alarm on when the pressure in the circuit didn't go up to a certain amount saved lives. Not long after that they changed all the bellows on the machine ventilators to ascend during expiration so that if the patient doesn't breathe out, the bellows don't move.

In those days we had to insert an oxygen monitor in-line with the circuit which measured the FiO2. Now it is just part of the gas monitoring but then it was a separate thing that you had to plug in and calibrate.

All those things we take for granted now.

Now, we have oximeters, capnometers, volumeters, automatic blood pressure monitors, spirometry, inspiratory and expiratory oxygen and anesthetic gas monitoring and more, all displayed on one large screen. And I'm sure we're all hooking up our nerve stimulators before we start the case! Preoxygenation, maybe a little midazolam, maybe some fentanyl pre-induction. Propofol, of course. Rocuronium. Probably air and no nitrous anymore. Hopefully we are still looking at the chest moving and listening for breath sounds, but we are also constantly checking the end tidal O_2 monitors, oxygen saturation, anesthetic vapor concentration, et cetera. Maintenance is usually with sevoflurane or desflurane, and narcotics: fentanyl, sufentanil, remifentanil, morphine depending on the case. Or, it could be just TIVA [total intravenous anesthetic]with propofol and narcotics administered with increasingly more sophisticated pumps. Reversal, of course, if muscle relaxants have been used. I was using neostigmine and glycopyrrolate but I am not sure of the present situation with sugammadex Now we often extubate people when they're completely awake on their back, but if you'd extubated patients on their back in '77, it would have been frowned upon.

Of course, I am already 8 years out of date so there have been quite a few changes since then.

Garrett
Right. Did you say you would extubate them asleep on their side or awake on their side? I might have heard wrong.

Tony
When I first started, there were lots of people who extubated patients on their side asleep. They thought that it was a nice and smooth. But people like Murray Robinson said, "We're not extubating anybody asleep." His patients usually had enough narcotic on board to still allow for a smooth awake extubation on their side but, yes, quite a few people extubated patients asleep on their side because they thought it was a nice smooth emergence. Nobody ever extubated patients on their back.

As I said previously, when I went to the old Children's hospital they *never* took the tube out of the child. You know they were cuffless tubes. Their philosophy was "Let them pull it out themselves."

When I went to Dawson Creek there was another GP anesthetist there, with several years of training as an anesthetic registrar, who used to take the ETT out with the child on their side and still asleep. I had to

agree it was much smoother than my technique of letting the child wake up, cough and thrash about, then eventually pull the tube themselves. This anesthetist had a tendency to be rather scornful of my rough emergences. Then one day while I was in the OR I was forced to leave my case to run into the recovery room, and reintubate a child that was in severe laryngospasm and very blue. They had been extubated deep as usual by the aforementioned anesthetist but had gone into laryngospasm. This colleague had already left the hospital and it would have been a catastrophe if I hadn't still been in the OR.

I carried on letting the kids pull their own tubes out.

There was quite a bit of discussion in those days about extubating awake versus asleep on your side, but never on your back.

Garrett
Right, yeah.

Tony
Of course, I had certain incidents during the course of my career. But, I was lucky not to have any serious incidents. Nevertheless, you know it's always by the grace of God. This is a high-risk specialty. Nobody can kill somebody as quickly and easily as the anesthesiologist – possibly an obstetrician in a delivery with the baby, but nobody else. I don't think our colleagues outside anesthesia understand really the stress involved with the practice of anesthesia. You know, serious anesthesia mishaps can happen at any time even in low-risk minor cases like D&C's [dilatation and curettage]. It's a high stress occupation which is one reason why it should be paid well. It's a great thing to do though, and very rewarding.

Garrett
It's a rewarding job to do for sure. But it does come with its stress at times.

Tony
We know it's rewarding [but] not many people know what is involved with what we do, not even other physicians. That's why I got involved with our Image campaign when I was on the executive of the CAS.

Garrett
So, how did you get involved with the CAS [and become the CAS president]?

Tony
When I went back into the residency, I was at the Royal Columbian Hospital in New Westminster. Dr. Terry Queree and Dr. John Crosby went off to the CAS [annual meeting] in Quebec City. I had some further education money from my time in general practice, so I went off with them on the same plane. That was the first time I ever went to a CAS meeting. It was all very friendly and pleasant. Because Terry Queree was soon to become the president, I met a lot of people at the President's Reception including the executive and the then-president who was from Quebec, a very charming French Canadian.

Then, after I went back to practice to Abbotsford as a specialist, Simon Baker asked me to take over from him as the economics chair of the BC Anesthesiologists' Society (BCAS), which I did and I remained on the executive of the BCAS for several years, during which time they decided that I should be the BC delegate to the CAS board or council, as it was then called.

Every province had at least one delegate, even Prince Edward Island, and I think Quebec and Ontario had several. Anyway, we had one and I was it for a while. So, I was there as the BC delegate for a number of years and then Council decided I should be on the CAS executive. Eventually I became president from '98 to '99. Serge Lenis followed me in 99 to 2000 so we could have a president from Montreal to host the

2000 World Congress there. Before that, when I was on the executive, I was on quite a number of different committees: finance, membership, and the international education fund. But, my main job was as chair of the newly formed communications committee, which we initially called the image committee because had decided that we had this poor image problem.

Nobody in the general public seemed to know who we were. Many patients apparently did not know we were doctors and expressed surprise that we were.

"Why do you need to be a doctor just to put me off to sleep?"

It was quite frustrating to a lot of us. Meanwhile the Australians had addressed this problem and had a very successful Anesthesia Day campaign, so we decided that we would employ PR consultants to tell us what the problem was with our image. The consultants did a lot of research. One of them even came to Vancouver and spent a week with me in the OR at VGH. We also went back to Abbotsford and spent a day in the OR there to see what anesthesiologists did in a smaller regional hospital.

They looked at the problem in depth and confirmed our view that nobody in the general public in Canada really knew what an anesthetist was or did. According to them, most people couldn't even pronounce anaesthestist correctly. Patients generally didn't know we were doctors. They discovered that in the vast majority of North American – including Canadian – TV, films, literature, books, magazines, newspapers, et cetera, anesthetists usually appeared to be nurses.

On the other hand, when anesthesiologists were mentioned they were understood to be physicians specializing in Anesthesia. This was also the case in many other parts of the world like Thailand [the Royal College of Anesthesiologists of Thailand) and Brazil (the Brazilian College of Anesthesiology). And, the WFSA is the World Federation of Societies of Anaesthesiologists. Anesthetist was used as a term for nurses or physicans practicing anesthesia in Britain or British Commonwealth countries. Of course, there are exceptions but there was definitely confusion in Canada.

Neither were they impressed with our logo which was a depiction of the Greek god Hypnos and had our motto was written at the bottom "*We watch closely those who sleep"* in ancient Greek. Nobody knew what it was.

Garrett
Right, yeah.

Tony
That was just not sensible in modern times. They recommended that we needed to: go and explain who we are and what we do, to the press and to the public; start calling ourselves anesthesiologists; get a position statement to use when talking to the media; and, get a new motto and logo.

It was all discussed at the council. There were a few people who didn't like the idea of the old logo going and a number of people didn't like changing the name, but the majority of Council approved the changes and we decided to do follow the recommendations.

Our position statement became: "Seeing you through your most critical times. Canadian Anesthesiologists: Specialist Physicians in Perioperative Medicine, Critical Care and Pain Management". There were three different logo designs done by our graphic artist and we sent them all out to the membership to vote on their preference. The votes were fairly evenly matched, like a third, a third, a third. but that problem was solved for us because the printer said they couldn't do any of them due to technical difficulties. Then our graphic artist and I had to had to come up very quickly with a logo that

would work. I just thought. We want to show people we're Canadian and we want to show people that we're physicians, so we superimposed Aesculapius on a maple leaf and wrote the new name of the society in both languages around it. The executive liked it and so that become the new logo.

The motto was difficult. We wanted it to be short and the same in English and French. We had agreed on the first part of the motto early on, "Science, Vigilance," but it took a long time to come up the last word. We were stumped. Then Dr. Jean-Francois Hardy, who was the professor and head at the University of Montréal, came up with the elusive third word, "Compassion," which everybody thought was brilliant. These decisions were put to the membership to vote on. More than 80% of the membership were in favour of changing the name. At the CAS meeting when I was made president, we adopted the changes

Then during my presidency year, we organized the first Canadian Anesthesia Day in the spring of 1999. To start with, I visited the CEO of every major anesthesia-related company in Canada to ask for their help with funding. They were very generous and we were able to finance the Image campaign with their contributions.

We produced an interesting eye-catching poster representing their products for each company and we sent all six of them to every hospital that had a CAS member along with two large 'Canadian Anesthesia Day' banners, to use in their 'Canadian Anesthesia Day' displays. CAS members across the country put together public demonstrations, often in the hospital lobby entrance, to explain what we do. Local press and TV media were invited to participate. In Vancouver, we were on the BCTV evening news with Dr. Ray Grant putting in an epidural for a thoracic case followed by an interview with a very happy patient a few days post thoracotomy claiming that with the epidural he had had no pain at all post op. A photo of him placing this epidural also appeared in the Vancouver Sun with a full-page article about anesthesia and anesthesiologists. The Georgia Straight newspaper in Vancouver used a photograph from our OR on the front page and accompanied it with a lengthy article. Similar TV coverage and newspaper articles occurred right across Canada. I still have the tape from BCTV News. People started to talk about us. Some of the most interested people in our demonstration in the VGH lobby – where we had a lot of equipment, mannequins, et cetera, and many of our residents as well as staff explaining what we do – were nurses who had no idea what anesthesiologists did.

There were one or two colleagues who thought it was a waste of time and money, and that we didn't need to do it. But many, many other CAS members made a big effort. Because of them, it was very successful.

There was a lot of office reorganization both in the year preceding and also during my presidency, when the executive director left the society, followed by her assistant soon after. Then, our very talented graphic artist was head hunted and left to go to greener pastures. Dr. John Clark, our exceptionally capable secretary also stepped down. Fortunately, Dr. Barry Finnegan from Edmonton took over from him and Dr. Linda Nugent from Winnipeg became our treasurer. Both these individuals were highly capable and together with the past president Dr. John Cowan and the president-elect Dr. Serge Lenis, we had a very strong congenial executive. The managing editor of the CJA [Canadian Journal of Anesthesia], Angela Fritsch, took over as acting director. We survived these changes but it was a difficult time.

Garrett
It's a lot of changes, all in a short period of time.

Tony
It was a little controversial. There was a small minority of high-profile CAS members that were unhappy with the changes made by the executive. Nevertheless, Angela Fritsch was a smart, amenable person, fluent in three languages, and very well qualified to do the director's job. She knew everything about the

society and the production of the journal so she was given the director's job. She was efficient, respected and well-liked by the staff, and the reorganized office was a great improvement.

The staff had to contend with the Y2K computer problem in the year 2000 when it was believed that computers might all crash on New Years Day, 2000, due to a glitch in the formatting and storage of calendar dates in the software of computers. People thought it was going to be the end of the world. [laughs].

It caused significant worry and expense, however the computers were upgraded and the world didn't end.

We were also dealing with the issue of Anesthesia Assistants They were just coming online in larger hospitals but some of our colleagues did not support the concept and didn't want them. Most however realized the benefit of having appropriately trained assistants in the OR as was already the case in Quebec. There were some difficulties to be overcome. because although respiratory techs were the obvious ideal candidates to be trained as Anesthesia Assistants, ORNAC [Operating Room Nurses Association of Canada) wanted nurses to be part of any training program. CSRT [Canadian Society of Respiratory Therapists] were very supportive of the Anesthesia Assistant role and actively promoted it. ORNAC was not so easy and designing the training program to include nurses and appropriately train them was more difficult. We were also finding it hard to persuade provincial ministries of health to fund another category of health professional. There was a lot of negotiation and delays but with help from several committed CSRT members progress was gradually made in the direction of the situation that we have today.

The Rural Society of General Practitioners were pushing for more GP anesthesia training. I had started the GP anesthesia refresher course in Vancouver in the early nineties and had significant empathy with their position but many certified specialists back then were not particularly supportive of GP Anesthesia. They thought it should be certified specialists only. The SRPC thought this was unrealistic and they were trying to provide more surgical services in rural communities, particularly for emergencies. I agreed with them but not everybody did.

So, Anesthesia Assistants, the Society of Rural Physicians of Canada, and the by-then clearly established critical shortage of anesthesiologists in Canada, those were the political issues of the day.

Another problem the CAS faced was diminishing revenues. There had previously been a postal subsidy for the CJA from the government but it was discontinued thus costing $50,000 more per annum to mail the journal to members. Concomitantly the office rent went up by $16,000 because of the Ontario government's new property tax. Advertising revenue in the journal was going down. Even the membership was slightly decreased. Fortunately Dr. Finnegan with his reorganized secretariat and the CJA editor Dr. David Bevan were able to adapt, realize efficiencies and stabilize the bottom line.

During my years on the CAS executive I was also on the 2000 Montreal World Congress committee and I went to quite a few places around the world advertising the Congress. Air Canada were initially our airline sponsor but were offering very little in return, so I went to see the Canadian Airlines VP of marketing. He offered us 16 – I think – business class tickets anywhere in the world to promote the Congress. Not surprisingly, we changed our sponsor to Canadian. The Congress committee sometimes sent me on my own to places and the first place I went to was went to Cordoba, Argentina, when the Asociacion Argentina de Anestesiologia had their meeting. Not many people spoke Englsih. At the President's dinner, which started at 10 PM in an old palace, I sat next to Dr. Archie Brain who invented the Laryngeal Mask Airway (LMA). He of course was very refined but the party was noisy and raucous. At 2 AM, I was interviewed by their local TV station on the stairs so that I could ask the crowd to come to Montréal in Spanish. At 3 AM, they served steak sandwiches to everyone. At 4 AM, we went home but

the crowd were still dancing, loud and wild. It was quite an eye opener for me. Not at all like our rather sedate President's dinners.
Later, I went to meetings in Thailand, Malaysia, Brazil, and Argentina. I used to take a suitcase full of photographic posters of Canada, about fifty stuffed moose and a six-foot folding cardboard Canadian Airlines Boeing 747 with the Canada goose on the tail. Our booth was very popular. If you came to see it, you got a moose raffle ticket, then we would get mobbed when we drew the winners at the end of the day!

Lots of South Americans came to our Congress. Quite a few people from Thailand came as well. Several of them visited Vancouver on the way home, spending a day in VGH. As a result of that, we developed a fellowship program for young Thai anesthesiologists at VGH. There were about 12 who came over the years to work for two years with us, sponsored by their hospitals. When I was back in Bangkok recently, I had dinner with them all again.

The World Congress in Montréal was very well attended and a huge success.

That was it really. We had a good team, and I was just a part of it, which is how it worked at the CAS when I was there.

Garrett
With a lot of the things you were involved, the theme was related to establishing anesthesiologists as physicians, having not only colleagues but also the public be aware of that and the role. It's still important today. Right now, we have the same kind of conversations about nurse anesthetists and other non-physician anesthetists or anesthetic providers.

Tony
If the general public don't know what you do, they don't know it's important that you provide their anesthesia. Nurse anesthetists in the US may be capable depending on the training they have received. Having them work with anesthesiologists under supervision is maybe acceptable if they are well trained but having them work ***instead*** of you as is happening in some places in the US is absolutely not as far as I am concerned.

In Canada anesthesia is a physician-provided service and should stay that way. It's the same in Britain, Australia and New Zealand. If your Minister of Health correctly understands the difference between a nurse anesthetist and an anesthesiologist, who do you think they would want to give their anesthetic, or their five year old child's? You know what they would say. However, despite that, it still might be politically expedient for them to try and force a lower standard on the general public for economic reasons, but that is completely unacceptable and must not be allowed to happen.

It's difficult to educate people to the extent of what we do and its critical nature. We could take them into the operating room to observe but, you know, we don't do that much even with our hospital administrators and certainly not politicians. Even if we do, we tend to take them in the OR for routine cases and make what we do look easy. We don't usually show them difficult, life-threatening situations like awake fibreoptic intubation in a trauma case with a smashed up face or trying to keep up with massive blood loss.

When we took the BCTV lady into the OR to watch a thoracotomy, obviously with the patient's permission. We showed her the insertion of the epidural, the central line and art lines and double lumen endotracheal intubation. The surgeon was very helpfully complimentary about anesthesia and then we interviewed a different post-thoracotomy patient afterwards who said he had been miraculously pain-free post-op because of the epidural as compared to a previous surgery. This lady was very good and produced

an excellent segment for the 6 PM news. It's a great tape actually and I still have it. This is, was, something we could do more of, but don't seem to do it much at all.
The press doesn't respond if you just call them up and say, "Well, you know we're important. You should write about it" They need to have something to make it interesting. They need some drama, I guess.

We could produce a decent [patient education] booklet and give it to all our patients. We wrote one for the CAS. It was criticized by some people for being too long and too complicated, but I thought most patients were smart enough to understand a more detailed explanation of what we do and why, with some answers to common questions. It is 12 pages long, but it had all the information patients needed on it. The front page was eye catching with a photograph of a young child and our motto and positioning statement, immediately giving people an idea of who we are and what we do. It was sponsored and we produced 50,000 copies. I think it was very well received and appreciated by patients but, after the sponsorship ran out, we didn't print any more. I know that now there is patient information on the website, but most patients don't go on the website. It's good to have something in your hand that you can look at later. The nurses give people piles of stuff but rarely give them anything telling them much about what we do. If they do, it tends to be very simplistic.

I also used to give everybody my business card. Colleagues used to laugh at me but that business card told them that it was a doctor that was giving their anesthetic which a lot of patients don't know. They also usually forget the name of the anesthesiologist. Hardly anybody remembers the name of their anesthesiologist. Business cards are cheap.

Garrett
Can you talk more about the critical shortage of anesthesiologists around the time of your presidency?

Tony
Absolutely. All the time I had been on the council, right through the '90s it was an issue. Dr. Neil Donen had been tracking this for a while. Then Dr. Homer Yang and Dr. Bob Byrick, the head in Toronto – I think Bob is retired and Homer is in London – they pulled out some of the latest figures in Ontario and it got everybody's attention. Previously some quite well-known individuals had been saying that we had too many anesthesiologists but Bob and Homer stopped all that and it was accepted that there was a real shortage across the country, worse in some provinces than others.

Garrett
What led up to the shortage? What caused that?

Tony
As I said I think for some years before that some influential members of our profession had been saying that we had too many anesthesiologists and there weren't enough jobs for people.

This was incorrect and the figures should have been taken more seriously sooner and the residency programs expanded as the need was recognized.

Another thing that didn't, and still doesn't, help is making medical students decide in their third year what specialty they want to go into. We weren't a very high-profile speciality in those days. Many students going into their third year have never seen an anesthesiologist. How are they to decide whether or not they want to be one? That together with the virtual abolishment of re-entry after a few years in general practice was a problem.

Those are things that spring to mind from back then, which were wrong in my opinion and where nobody wanted to listen. Now at least it is accepted that there aren't enough residency programs for anesthesia and many other medical disciplines, particularly family practice.

Garrett
These things are still kind of ongoing now, right? It's interesting how 20 years later, we're still kind of dealing with another shortage. Maybe, I don't know if it got better for a little while and then got worse again? It was before my time.

Tony
Well, fee schedule disparity can exacerbate regional shortages. In the past there was a big shortage in BC, of anesthesiologists, and in fact all doctors, were paid quite a bit more in Alberta. For a while we lost a number of people to those greener pastures. If anybody wanted to move from back east they went to Alberta, not BC. If you're the lowest paid fee schedule in the country, it's not a big draw, right? There should be more commonality in payment across Canada but, if you live in very expensive places like Toronto or Vancouver, you need more money to live. I don't know the answer to that. At one time, there was a big shortage in BC, but not elsewhere. Then, it seemed to spread to the rest of the country.

When I was started at VGH, there were about forty anesthesiologists. Now, there more than seventy. So why is that? The scope of work increased but it didn't almost double. Well, now many of them are working four days a week rather than five. I wouldn't say part time because with call that's still full time by most standards.

One reason is that we have more female anesthesiologists. When I was in medical school, only about 10% of doctors were female and now quite rightly it is about 50%. Just as we have more female doctors, we have more female anesthesiologists, and most females tend to have children. If and when they do, obviously they need to have time off work, and this must be appropriately supported so of course we need more anesthesiologists to do that.

But it's not just female anesthesiologists who need time away for family responsibilities. We also now have more and more young male anesthesiologists who have families who only want to work four days so they can be more available to spend time with their young children, or even just to have a more reasonable lifestyle.

In the past, financial constraints would have prevented doing this for most of us but fortunately anesthesiologists are better paid than they used to be thanks to the efforts of some of our politically active anesthesia colleagues over the years who have succeeded in getting better recognition by both governments and our medical colleagues of what anesthesiologists are worth.

In addition to these more appropriate rates of pay, there are now many more doctors, and therefore anesthesiologists, that are in a partnership, marriage or otherwise, with other doctors and therefore have two medical incomes, which I think it's safe to say are significantly higher than the average income that most other people have. This was much less common when I was at medical school, fifty years ago. When the ratio of males to females in my class was about 10:1 the majority of females married males in our class, so those couples had two medical incomes but the rest of the males generally speaking did not. Now, the ratio in medical school is appropriately about 50:50 and understandably, after 4 years, many people choose partners in the same class. Now there are many more doctors with partners who are also doctors and therefore have two medical incomes compared to 50 years ago.

For various reasons, I think many anesthesiologists may be more financially secure than in the past and therefore able to work a little less and have a healthier work life balance.

These sociological changes are important and long overdue but are some of the reasons why you need more anesthesiologists just to do the same amount of work. In fact, it's not the even just the same amount of work, because now our scope of practice has also expanded greatly.

That's why you need more anesthesiologists. If you need more and there aren't any, there's going to be a shortage, unless you train more! Again, it still all comes down to needing more residency positions, which requires more funding from government.

Then, we should mention the issue of foreign medical graduates (FMGs) which we all know is not being addressed adequately. FMGs, Canadian citizens or not, should be able to have their skills, including language and training, assessed even if it requires time in a supervised position. It could be called an FMG assessment residency position. Competence and previous training can be evaluated and, when they are judged to be ready, they should be able to take the appropriate exams and enter the system. We are wasting this resource at present just when we need it because governments need to fund this assessment and don't, or won't.

Meanwhile, the government has no problem bringing over a million new people a year into the country from overseas. I have no problem at all with immigration, but it's not rocket science to know that if you do that you will need to provide a whole lot more infrastructure to deal with the influx. Teachers, doctors, nurses, police, schools, hospitals, houses, and so on. And, yes, more anesthesiologists

What really bothers me is governments applying political pressure to try and force licensing of FMGs without assessing them to ensure that they have the same level of training and competence as Canadian graduates, either as specialist physicians or in family practice.

We have one of the highest standards of anesthesia in the world, and we need to maintain that.

We are wasting that FMG resource on our doorstep when we really need it but what we shouldn't do is take shortcuts and say, "Okay, we need more doctors! You're called doctor? Okay, off you go!" That's scary.

Neither should we say, "Well, we haven't got enough anesthesiologists so we will train nurses to give anesthetics."

I don't agree with either of those scenarios.

Garrett
It's kind of it kind of a catch-22 with what you're mentioning there. You want enough critical mass that anesthesia as a job as a specialty is attractive and has the flexibility for family and a reasonable work-life balance. It's a rewarding career, but it can be stressful. It's nice to be able to adapt and sometimes you might want to work more, sometimes a bit less to compensate. You kind of need enough people trained to be able to allow for that.

I have a couple of other questions. If you could describe what life has been like after your presidency […] what have you been up to?

Tony
I am very much a believer that when you've been there and you've done it, you should move on and let the younger people come in. When I finished my term as past-president I had thought that would be it for me, but then then the CAS board asked me to be the CAS delegate to the WFSA.

Back then, there were six regions and two delegates are elected in each region for two four-year terms. Our region was North America and, although the Americans could easily have claimed that they should send sent both delegates, they were always very collegial and allowed Canada to send one of them. There was some history there because Dr. Harold Griffith from Montréal was one of the original founders of the WFSA.

So, from 2004 to 2012, I was the Canadian representative on the World Federation of Societies of Anaesthesiologists. I served on the Foundation committee, which was supposed to raise money, but we didn't really get anywhere. In my second term, I was made vice-chair of the executive committee, but never actually had to do anything. The chair of the executive committee runs the meetings but there is a vice-chair who knows what's going on, just in case [the chair] is absent for some reason.

I was also on the venue committee to choose the venue for the 2016 WCA. It was a choice between Hong Kong and Singapore. It was controversial because we chose Hong Kong. The delegation from Singapore was very upset because they thought, not surprisingly, that it should have been awarded to them. Then, at the end of my second term, I became the chair of the venue committee for the 2020 meeting because the original chair was ill and they replaced him with me. When we chose Prague, that was very controversial. The Americans, British and New Zealanders were all very upset that they were not chosen, again understandably as they all had great presentations. The hugely charming Turkish delegates were also very upset although their presentation was perhaps not up to quite the same standard. The Indian delegation seemed to be somewhat less concerned. In addition to myself, we had six eminent anesthesiologists on the committee and a well-known industry representative [therefore, from Russia, Japan, France, Egypt, Brazil, Australia, Holland, and Canada]. After much discussion it was unanimously agreed that the Prague was the best place for 2020. I did not make the decision on my own but nevertheless I received a lot of pushback in the ensuing few days. The British, however, who had perhaps the best presentation, were very gracious and still welcomed us to their reception at the British Embassy!

It unfortunately ended up disastrously for them in Prague. It's a real shame that COVID-19 wiped them out. It would have been a great meeting, an easy and relatively cheap opportunity for many younger anesthesiologists from Europe, and particularly eastern Europe, to attend a World Congress [2020 Congress canceled due to COVID-19 pandemic].

I did write a brochure for the WFSA because they didn't have anything to give to people explaining who they were and what they did. I also went to a lot of meetings. Basically I was just representing what I though Canadian anesthesiologists would want regarding the various activities of the WFSA. We also had Dr. Angela Enright as chair of the education committee and later as President. Speaking English, French and Spanish fluently, she had a transformational impact on the WFSA. Particularly, its educational activities. So, the Canadian influence was very significant, but because of her not me.

I retired when I was 65. Initially, VGH had a rule that you had to retire at 65. Although that had been abolished fairly recently, I had always planned to go at 65, and so I did! I stopped doing anesthesia for cardiac and liver transplant cases when I was 60, so that our younger people could join those teams. I was allowed to stop doing call at 60 as well, which is sensible. It’s one advantage of being in a big hospital.

I travelled a lot up until COVID. Travelling of course is hugely educational, because it always reminds you of how incredibly lucky we are to live here in Canada.

My partner Louise and I live in False Creek in Vancouver, by the ocean. There is a marina just in front of the house where I dock my 1988 32-foot boat which I bought just before COVID and spent the two

COVID years fixing up. Since then, we have a spent a couple of summers with the boat up north on the inside passage at the top end of Vancouver island.
Then, earlier this year, thoroughly vaccinated, we were off travelling again and spent a month touring around Southeast Asia with our friends.

I've also improved my cooking.

That's what I have been doing, apart from spending too much time in front of the computer.

I've been very fortunate to remain reasonably healthy. I have had both my cataracts removed so I can still see. My right knee goes sideways when I walk but I don't have much pain, so I am putting off having it replaced but it's just a matter of time.

On a sad note, several of my friends have died. Roy Schofer and more recently Ken Turnbull. Dr. Peter McGinn who was a resident with me died after a long fight with myelofibrosis, and my very good friend and neighbour Mats Tholin, died of cancer of the pancreas several years ago which was a distressing and very sobering experience.

Fortunately, though, I still have a lot of good friends here, many of them being people I worked with for many years. Friends are very important as you get older.

Since I've retired, I've been able to reflect on how incredibly lucky I was to have such a fortunate career, working with a lot of nice people, and what a privilege it is to do what we do.

I do have a list of things that made a difference [in anesthesia practice] and I do have some advice for the future.

Garrett
Yes? I'd love to hear it.

Tony
Well, the changes that made a big difference – I already told you about some of them, the disconnect alarm, oxygen monitors, the ascending bellows – the difference they made is long forgotten now because of oximetry and capnography, and all the other monitors that we have that are all on one screen to see easily. Automatic blood pressure machines were very welcome. Intra-arterial catheters became more frequently used. Pulmonary artery catheters came and largely went with the advent of cardiac echo.
Then, I think the drug that made a huge difference is propofol. Night and day! You can use it for anything: sedation, induction, TIVA, and so on. It's a fantastic drug. It was like magic. There were other good new drugs like vecuroium, remifentanil, desflurane, sevoflurane, and now sugammadex, but propofol made the most dramatic difference in my opinion.

I didn't become expert in it myself, but ultrasonography has changed the practice of anesthesia in several ways. For example, intraoperative echo in cardiac cases. Now, more and more, in other critically ill patients undergoing other types of surgery. And, instead of injecting local anesthetic blindly into people according to our knowledge of anatomy, we now use ultrasound. Regional anesthesia has been revolutionized.

Fiberoptic intubation was another major advance, especially with the increasingly better scopes that became available over the years. Glidescopes and similar devices were very welcome, often obviating the need to use the fiberoptic scopes in many cases.

LMAs stopped us having cramped fingers holding a mask on the patients, case after case. Incidentally, the original masks were opaque black rubber and changing to clear plastic made it much easier to see any regurgitation.

Epidural analgesia and anesthesia, particularly thoracic epidural analgesia, is a miracle for patients. For obvious reasons.

I think acute pain services and preadmission clinics have both changed and improved the practice of anesthesia, or I should say, the practice of perioperative medicine by anesthesiologists.

And a well-organized acute pain service run by anesthesiologists with the assistance of appropriately experienced nurses provides a dramatic improvement for post-op pain management for patients. It's also very educational and beneficial for anesthesiologists see how their patients are doing, and in particular the results of their pain management.

Dr. Peter McGinn started the APS [Acute Pain Service] at VGH. A subset of the department agreed to do it for seven days at a time, including the nights. For a time, it was very arduous. We were exhausted at the end of the weekend, just when we had to complete all the rather time-consuming billing information. Nevertheless, it was just great to see what worked and what didn't, learn all about the delirium that we caused with our PCA [patient controlled analgesia] pumps and narcotic infusions, and the problems of inadequately working epidurals. But eventually everybody in the department took their turn and the in-house night call anesthesiologist dealt with any problems during the night. Then, finally, after some unsatisfactory false starts with nursing participation, two of our very good PACU nurses joined the team, accompanying us on rounds during the week. They were enthusiastic and became very expert at acute pain management, thus helping us to streamline our APS to the state-of-the-art situation that exists at VGH now.

Along the way, I became involved with our pre-assessment clinic (PAC). I was sent by our department head to sort it out at a time when it was dysfunctional and it took on average over four hours to get a patient through the clinic. The patients didn't like it and my anesthesiologists colleagues didn't like it. I arranged to work in the clinic every day for a while to see what was going on. Fortunately, shortly after that, the nurse manager "retired" and was replaced with a very positive "can do" individual called Leanne Appleton. She gradually reorganized the clinic and reduced the time for patients spent there to about to two hours. The clinic began to function smoothly and my colleagues started to enjoy their day there. Having our major surgery and high-risk patients efficiently assessed and appropriately optimized preoperatively in the PAC was another big improvement in perioperative care. Admitting the patient on the same day of surgery also saved the hospital a lot of money.

There were many other devices, drugs, techniques, et cetera, that helped improve things for patients and anesthesiologists. Too many to mention!

But one last seemingly small thing was the abolishment of sharps. Now, you've all got the needleless systems, right? We didn't always have them. Prior to that, we all used to constantly stick ourselves with needles. Now, you draw up everything with a blunt needle. But, for most of my career, all our needles were sharp. I mean, that's a small thing to change, but it made a big difference.

Garrett
It's something you don't think about. It's all these things that you take for granted.

Tony
I have a story about sharps.

We had just had grand rounds on what to do if you had a death in the OR. You know, you're psychologically in bad shape after a death in the OR. So, it was they decided you were to not give any more anesthesia that day if that happened to you. You were to be counselled, then sent home to recover. We had three of our nice anesthesiologists who were appointed the counselling.

Then, one of my colleagues stuck himself with a sharp, and the patient was potentially an HIV [human immunodeficiency virus] patient. So, off he went down to the emergency department, to have his blood test done, along with the patient's who had agreed to tested. He was started on anti-HIV meds and told he couldn't sleep with his wife until they got the test results. Apparently, he was very upset about it all so we had rounds on sharps injuries so we all knew what to do if it happened to us. It was decided if you had an sharps injury you had to be tested, started on meds, and sent home, but not to touch your partner.

Not long afterwards, I was back at work and I had had quite a busy week doing liver transplants and cardiac cases with some long days. By Friday, our scheduler Dr. Henry Smith had very thoughtfully given me an easy general surgical list So, I come in at about 7:00 AM and there are unusually no nurses in my OR. I walk around to the front desk where nurses are all changing over shift. But, in the operating room next to the nurse's desk I see that there's a person lying on a stretcher with a collar on and an RT [respiratory therapist] bagging [bag mask ventilating] them. None of the nurses are paying any attention to them so I go over to see what's happening. On the monitor, the heart rate's 140. I ask the RT what's happening and he says, "I know nothing about this person. It's a trauma and they just said to come straight up with her to the OR." I go back out to the nurses desk and ask if they knew anything about this trauma? "No, nobody called us about it." So, I go back into the OR and I feel for the femoral pulse. It's non-existent. As is the carotid. So, I press the cardiac arrest buzzer.

Garrett
Oh no.

Tony
Everybody comes rushing in and it turns out this lady had been in a MVA [motor vehicle accident] and the surgeons had sent her immediately to the OR. I never did find out why she came on her own with just an RT. The surgeon then came rushing in and we immediately opened her abdomen, which revealed that she he had completely transected the vessels to her liver – it was just floating free! She arrested two or three times and the surgeons opened the chest so we could do cardiac massage but, after about an hour and 25 units of blood, we were forced to declare that this 32 year old young lady was dead. In retrospect, there had been no chance that we were going to save her with this mortal injury. However, we tried and did what we could until it was obviously hopeless.

Well, I was a pretty experienced anesthesiologist. Although I felt badly for this lady, we had done all we could, and so I just carried on. There was blood everywhere and I hadn't even had time to write in the anesthetic record! So I got cleaned up, filled in the chart in retrospect as best I could, and then started to dictate the mandatory letter to our department head about the death in the OR. Around then, the surgeon whose list I was supposed to be doing came into the room to ask when I was going to get on with his list!

Then in comes Henry Smith, who is in charge and says, "Tony are you okay?" I say, "What do you mean?" Henry says, "You've had a death here and you know you're supposed to have counselling." I say, "Well, yes, but I think we did the right things. I think we did everything we could. No, I don't think I need counselling." He then says, "Well, we had rounds and, you know, you're supposed to not do any more cases and go home." I said, "Okay, Henry, if that's how it is, I guess I should go home, right?" Then, he says, "Well, actually, no. Sorry, we don't have enough people today." [laughs] I say, "Well, okay, please just let me finish here and get on with the next case!"

So, I rush off to my original room and get on with the original slate of cases, now late and under pressure of having the afternoon Whipple case cancelled for the second different surgeon who would then be annoyed.

Eventually I finish the first surgeon's cases and start the Whipple. I don't take a break as I am worried the case will be cancelled if I do because of the delay. So, we get this Korean gentleman in the OR. I put in the thoracic epidural, then induce induce anesthesia, start the art line, and am about to insert the CVP line, when the resident comes in and starts throwing drapes over the patient – and me! – while I'm putting in the central line. Normally I would have told him to stop until I'd finished, but we were late, so I carried on as best I could behind the drapes. Inevitably, under these less than ideal conditions, I stuck the suture needle in myself!

It's about 2:30 PM now and I have not stopped for a break since 7:00 AM. You've had days like that, no breaks, nothing. So, then a colleague comes into the room and says, "Oh Tony, would you like a break?" I said, "That would be great. Thank you very much." We discuss the patient situation and then I walk outside and who's coming down the corridor? It's Henry Smith. I say "Oh, Henry, I'm glad to see you! I just stuck myself with a needle!' Henry says "Oh no." And, I say," Oh yes, Henry, and you know what…it's your fault" He says, "what do you mean? I say, "Well, if you had sent me home after I had the death as we decided in rounds, I wouldn't have been doing this case, and so I wouldn't have stabbed myself with the needle!" Henry looks pretty sheepish. I say, "Anway, I'm here now. But, am I right that we also just had rounds saying that, if you stick yourself with a needle you have to go home?" Henry says "Yeah, we had rounds about that," I then say, "So, can I go home?" And, Henry says, "Oh no, sorry. I'm afraid you still can't go home. We still don't have enough people."

I just had to laugh!

So much for rounds. Anyway, that's my sharps story.

Garrett
That's funny.

Tony
Anyway, on to advice for future generations

I initially thought, no, I don't have advice.

Then I thought, why do we have a motto that says *Science, Vigilance, Compassion*? I think **that** actually could be my advice.

Science. We have to stay anchored in science. We can't go making stuff up. Science is the basis for our clinical practice and research is the basis of advancement in clinical practice.

Vigilance is crucial. I think most mishaps are from lack of vigilance, and perhaps poor judgement, not lack of knowledge. It is our absolute responsibility to be constantly vigilant whilst the safety and comfort of the patient is in our hands.

Compassion is why we became physicians in the first place. It's why we do what we do. Compassion for your patient is essential. It also extends in relation to your colleagues, as well.

That's my only advice, really.

And give your business card to every patient. Perhaps print a brochure. Old fashioned, maybe, but I don't think that a website replaces it.

Thanks for all your effort with these interviews.

Garrett
Thanks again for all of your time. Take care!