The Hot Gallbladder

Text by Dr Lo Hong Yee

Scientific laws are conclusions based on repeated experiments and observations over many years and which have become universally accepted within the scientific community. Some attributes of scientific laws include "true", "simple", "stable", "universal" and "absolute".[1]

Medicine is a science in many ways, but it is peculiar that there are very few laws in medicine.[2] In physics, there are plenty of laws, but there are far fewer in medicine. Medicine abounds with observations. When these observations are replicable and consistent, we call them "evidence". These can then be translated into rules, best practices or standards of care. But few of them endure the test of time to earn themselves the stature of a "law". What was once held as the best or only way to treat a disease can easily be displaced by new observations. And these changes can take place over decades (Halsted radical mastectomy, for example) or just days or weeks! Remember the many rule changes we had to deal with during the COVID-19 pandemic?

New protocols and fresh methods

After retiring from the Singapore Armed Forces, I returned to clinical practice in general surgery. My sojourn in healthcare leadership and management gave me a broader perspective of the landscape, complete with numbers, charts, policies and inventories. Returning to the hospital wards and OTs allows me a closer look at each of those statistics in flesh and blood, literally. What also struck me was how much the practice of surgery has changed within the span of a few years. Previously accepted practices are now frowned upon. For example, inserting central catheters using surface landmarks alone without ultrasound guidance is no longer considered an acceptable standard of care. Performing a rigid sigmoidoscopy prior to haemorrhoidectomy is also no longer routine; I was told that the rigid sigmoidoscope is no longer part of the OT inventory and may soon be consigned to the museum of antiquated surgery as a piece of curiosity from yesteryears. What was once deemed good patient care is being overtaken by advances in technology and new evidence.

Thereby enters the hot gallbladder.

It was before my time, but not that long ago, that cholecystectomy was routinely done through a large, muscle-cutting, subcostal incision. The first laparoscopic cholecystectomy was performed in the 1980s.[3] Soon after, it became the gold standard procedure for cholecystectomy the world over. One question that remained was the timing. There was previously a "rule" for "interval cholecystectomy" (ie, to let the cholecystitis "cool down" and await the abatement of inflammation). Surgeons were to attempt laparoscopic cholecystectomy only after six to eight weeks. About a decade ago, the interval cholecystectomy "rule" was challenged, jeopardising its ascension into a "law".

There was nascent evidence for doing the surgery early within the first 72 hours of symptom onset because the acutely inflamed gallbladder was oedematous, and the oedema would provide a natural dissection plane for the surgeon.[4] The early adopters of this technique were either labelled as "brave" or "foolhardy". Fast-forward ten years, operating on the "hot gall-bladder" during the index admission has become almost a standard of care. Even the 72-hour "rule" did not last very long. While it is still a consideration, it is no longer an absolute prerequisite; patients with up to ten days of symptoms are still being offered

"early laparoscopic cholecystectomy".[5] Another "rule" bit the dust.

Reliable constants

While many of the "rules" and "best practices" have changed in a mere decade, there was also much about clinical practice that has remained constant. When a person does something, it is known as a behaviour. When repeated, it becomes a habit. When many people do the same things, it is called a phenomenon. And when persistent over time, a culture is formed. The scientific part of medicine is supposedly more rigorous, but it can be fickle and can change with time. In contrast, the artistic part of medicine – the culture of the practice in any locale, often dubbed the woolly portion – is more enduring and faithful.

Diligence

One attribute that has remained constant over the years is the diligence of junior doctors. By junior doctors, I refer mainly to the house officers (HOs) but also to the medical officers (MOs), residents and senior residents (aka registrars). Parents of newly minted doctors often mistake a "call" for a "shift", the latter connoting an eight to 12-hour work duration. Junior doctors going on "call" are not exactly working a typical "shift". Strictly speaking, a "call" is more like two to three "shifts" merged into one. Depending on the institution, juniors still do between four to six calls per month, with variations where manpower is adequate, eg, the "float system", "8 am post-call", etc. Apart from calls, the typical workday also starts incredibly early. Despite prevailing rules, juniors often arrive much earlier than me to review the events that transpired overnight, so that senior doctors can have the information at their fingertips during rounds. When I feigned ignorance and asked the HOs what time they arrive at work, I was often greeted with shifty eyes. Don't ask, don't tell? But suffice to say, it is early enough to claim transport allowance via Grab. By 8.30 am, when the rest of the corporate world are just stepping into the office or logging into their first Zoom meetings, our rounds are almost complete and the rest of the clinical activities are in full swing, such as surgeries, endoscopies and clinics.

For generations, juniors have been turning up at work with a spring in their steps and a sparkle in their eyes. One reason is that they never age. The HOs are (almost) always in their mid-twenties. What they lack in experience is more than made up for by their energy, dedication and industry. They also know that things get worse before they get better. There is a finite term to their hardship and many simply grit their teeth and soldier on. Over generations, we have normalised a rather non-physiologically compatible way of working – I struggle to find another industry that sanctions a 24-hour, much less 27- to 30-hour, "shift". While in some professions, occasional bursts of intense work are expected, such as for book closings, deadlines or Army Training Evaluation Centre evaluations,[6] in medicine, these 24- to 30-hour work durations are often sustained for months and even years. I am grateful for the culture of resilience and hard work, but I am also a strong proponent for a more sustainable way of working. Wistfully, I want to have my cake and eat it too.

Learning

Another culture which has not changed is that of teaching, or rather, learning. Besides the formal education sessions (morbidity and mortality conferences, journal clubs, resident teachings, multi-disciplinary meetings, clinico-pathological conferences, etc), one scarcely gets to walk through the hospital without seeing some elements of education going on. It is common to see a senior explaining the syndrome of inappropriate secretion of antidiuretic hormone to the juniors, or the resident scoping under the watchful eyes of his/her consultant, or professors grilling their students. Even the interning student makes an effort to teach the third-year students! Frequently, the education goes in the other direction too: juniors would also be teaching the seniors during ward rounds. The HO who has just completed his posting in general medicine is frequently a great asset to the surgical team. He would teach us the latest on acute myocardial infarction, anticoagulation therapy and even the run-of-the-mill diabetes mellitus and hypertension. In the OT, across the blood-brain barrier, I also eavesdrop on the anaesthetists' banter that takes place while the anaesthesia MOs assist the seniors in administering gas. It is through such interactions that technical know-how, as well as pearls, nuggets and culture about the practice, are transmitted from one generation to another. Lay people often think lowly of the quality of care in teaching hospitals, because of the many junior doctors who are learning. Little do they know that evidence has shown that the quality of care is actually higher in teaching hospitals.[7] The culture of learning is not isolated to junior staff in such an environment. Even seniors, egged on by their juniors or simply pressured to sound intelligent, have to constantly keep up with the latest in medicine!

Why does the culture of learning endure in this environment? Learning is one of the first instincts we acquire. We do not need to be taught how to learn. Just watch a toddler put a square peg into the round hole. He sits there by himself and, without prompting, will eventually learn to put all the

correct pegs into the correct holes. And while there are places where the daily drudgery extinguishes such learning instincts early in one's career, the clinical environment seems to beat the odds. I posit that the students and juniors among us play the crucial role of the "stupid question asker", throwing into disarray long-held beliefs, forcing seniors to rethink, go back to the drawing board and continue learning. That is possibly the secret sauce for a thriving culture of learning.

Kindness

The last aspect which has remained constant is kindness, both to patients and colleagues. In public hospitals (aka restructured hospitals), the bulk of the patient load comes from a segment of society who may not necessarily be paupers, but are certainly not well heeled. People who choose to work in medicine are self-selected. There is a tendency to want to help, to relieve and to comfort. In public hospitals particularly, where clinicians are somewhat shielded from the financial aspects of the practice, I continue to witness much kindness in the way doctors treat and communicate with patients and their families, regardless of their ability to pay. While clinicians have to treat both "private" and "subsidised" patients in the course of their work, the resource allocation and triaging considerations are based on disease acuity, rather than on "ward classes". This ranges from CT scan priority, ICU admissions and even the time spent by the patients' bedside or with their families, explaining the disease and treatment plans. It is subjective, but from my vantage point observing colleagues, I also do not see a difference in the degree of "nice-ness" whether the patient is in an A class or C class ward. In fact, it is often the C class ward *Ah Pek* or *Makcik*, the illiterate but sweet, endearing (and unfortunately, long-staying) patients who are the most doted on.

Kindness to colleagues is another constant and understated attribute in the practice. I am heartened by how stronger HOs would cover for the weaker ones, especially for the junior staff embarking on their first year of practice. It is after all a bell-shaped population, but unlike in the corporate world, I see in the juniors this generous spirit which I hope will carry on for the rest of their careers. It is common to see stronger HOs voluntarily do more "changes", stay back or turn up "furtively" even when on their scheduled off-days.

It is also a culture of "step down" kindness. At every level, whenever the work gets overwhelming, the higher-level colleagues would roll up their sleeves to help. MOs, sacrificing their rest time or precious OT time, come to help the HOs. Registrars/senior residents chipping in to help run busy clinics. I once saw a HO volunteering to help a weaker colleague with the menial task of obtaining a blood gas sample. Not wanting to make a big deal out of it, the HO gave the excuse that it was for accruing more hands-on experience with arterial blood sampling. This and multiple other anecdotes peppered my return journey to the clinical environment, giving me much optimism that despite the rapid changes in the science of healthcare, kindness in the art of medicine remains constant.

Final thoughts

Plunging back to clinical practice was exhilarating in many ways and for my first few months, I did not have the time to reflect on my patients, colleagues and the practice (read: too tired, cannot think!). The hot gallbladder triggered me to share some of my thoughts which I hope will resonate with colleagues who are currently in the practice or, at least, who have gone through the system. I have also noted a few other interesting observations, such as the disappearing art of the gridiron access,[8] over the span of a mere few years. But that will be a story for another day, the tale of a cute appendix. ◆

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