By Dr Chong Yeh Woei

CLINICAL MEDICINE OR THE CYBERNETIC ORGANISM

I am hopeful that our community can rally around these schools and commit resources to train our next generation of physicians and surgeons. After all, we are all part of a whole medical ecosystem, and we should take ownership of the propagation of this community.

I do teach at the University when the season comes round for the teaching of Elementary clinics. I often wonder why private practitioners like us are asked to teach, and the conclusion is that perhaps some of us have learnt some decent bedside manners and hopefully can impart them as well.

The students are usually befuddled and nervous as it is the first time they are in the wards. When I first started teaching Elementary clinics, I was also nervous and at a loss. In time I would realise that the way forward was just to go to the bedside of a patient with the students and take it from there.

Often I would explain the origins of clinical medicine to the newbies before I actually started. I would tell them that clinical medicine originated in the times of the Greeks who probably listened to the complaints of their patients.

I tell the students that medicine is a complaining science. If the patient does not complain to us about a symptom, we cannot help them. The ancients must have listened to the complainant or the patient and realised that the starting point of the practice of medicine began with the presenting complaint.

From the complaint, one could follow a train of thought and ask certain questions to arrive at a conclusion. An example here would be that of a headache. In my mind there are at least eight different types of headaches. (I beg the indulgence of my neurology colleagues.) We have all suffered from a headache and know the commonest type of headache would be a tension headache.

A tension headache would be usually across the forehead or at the back of the head. The headache would be described as a tight band across the forehead or a vice-like clamp at the temples. A leading question about the headache would go something like this, "Is the headache tight?" or "Is the headache like a vice across the temples?"

Now if the patient answers these questions that I term as "90 percent"* questions, the diagnosis will be a tension

headache 90 percent of the time. As such the practice of medicine or at least the history-taking would be to have an algorithm for a complaint like headache; and then have a series of "90 percent" questions to ask to determine the diagnosis.

I use a headache as an example because the diagnosis is based on history, and there is usually a paucity of clinical findings. From the history, one can have an idea of the diagnosis of the type of headache and conclude if a scan is necessary. For most headaches, a good history will point to a benign outcome or an outcome that may require the consideration of a scan.

Such is clinical medicine and I am sure the ancients had a pretty good algorithm for headaches. After observing the outcomes of some of their patients who had early morning headaches, they would have concluded that these early morning headaches were pretty sinister complaints. On the other hand, there were the tension headache types who came daily to complain but lived to a ripe old age.

I wrote about clinical medicine because with the H1N1 in mitigation phase, and DNA PCR testing limited to high risk and very ill patients, a lot depends on the doctors to figure out clinically when to order a swab to name the enemy.

The enemy needs testing to have a name, otherwise we treat clinically as for influenza and prescribe Tamiflu to the patient. It is interesting to note that it is not easy to diagnose influenza. I recall reading a monograph some time ago where a committee was formed to decide how to diagnose influenza. They came to the conclusion that you needed one main criterion and three sub-criteria.

The main criterion was that there was a sudden onset of a chill, fever or a feverish feeling. The three sub-criteria were myalgia, fatigue and a cough. I have found that you need to ask specifically for the suddenness of the onset; patients would usually remember the day and the estimated time when they felt a chill. This chill was actually the onset of a viremia. I have also found that the cough would usually arrive last among the four criteria. Now the committee found that if you had all four criteria, you have a 70 percent confidence of diagnosing influenza in a pandemic. Hence these are the "70 percent" questions.

Many members of the public are still convinced that a running nose and sore throat are definitive symptoms but this is not so. Hence the body of medicine as we practise it is a like a cyborg or a cybernectic organism. The "body" of the practice of clinical medicine started as a "biological" creature with science and technology inserted only in the last few decades. One might say that with the advent of penicillin, the insertion of science into the "body" of medicine started.

Today, we have a true cyborg where the content of science and technology far outweighs the original "body" of the practice of medicine. If we are not careful, we will become mere postmen and just send patients for a battery of technological advances to decide the diagnosis.

One need only look to the great clinicians, the likes of Prof Ransome and Prof Seah Cheng Siang, to remember that they practised the craft of medicine and did not have the benefit of the technology and science that we take for granted today. Perhaps the practice of medicine then was far simpler. The situation today is where in the case of my headache analogy, imaging can tell us if there is a tumour in the head. Or can it?

I remember a case where there was a recurrence of a tumour in the brain after previous surgery, and the doctor made a call to treat it based on imaging. The treatment involved the Gamma Knife and there were complications. The case ended up in court where a judge wrote in his judgement that there was no tumour. Now one simply cannot prove the existence of a tumour without a biopsy and in this case it was impossible to do so without harming the patient. All we had to go on was the imaging. Needless to say, the judgement was overturned on appeal and the Chief Justice called the judge "*the best 'doctor' who never graduated*". This merely shows how complex the practice of medicine or the "cybernectic organism" is.

As I teach my Elementary clinics, I cannot help but reflect on how difficult and complex the practice of medicine is at present. I can only think that we should focus on the body of the practice of medicine, teach the students how to develop algorithms or systems of thought on main complaints like headaches, breathlessness, chest pain or abdominal pain. The next step would be to read up on what sort of symptoms can diagnose a condition 90 percent of the time. It will be up to the students to develop these series of "90 percent" questions. Thereafter they will also have to think through how to examine a patient to find signs that will support their 90 percent hypotheses. Finally they can order tests, radiology or procedures that can diagnose, prognosticate or cure their patients.

I am hopeful that our medical schools are up to the challenge. I am hopeful that our community can rally around these schools and commit resources to train our next generation of physicians and surgeons. After all, we are all part of a whole medical ecosystem, and we should take ownership of the propagation of this community.

I must declare here that I have a vested interest; in the twilight years of my life, I will hope that the doctors who treat my loved ones or myself will be well-trained and well-versed in both the art and craft of medicine. SMA

** The "90 percent" questions can be an indication of the sensitivity or specificity of the question.*

Dr Chong is the President of the 50th SMA council. He has been in private practice since 1993 and has seen his fair share of the human condition. He pines for a good pinot noir, loves the FT weekend and of course, wishes for world peace...