

# Do no harm: do thyself no harm

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## INTRODUCTION

Dr Lee Pheng Soon, President of the Singapore Medical Association (SMA), Professor Goh Lee Gan, my esteemed colleague and friend since school days in the Anglo-Chinese School, Council members, friends, ladies and gentlemen. I feel unworthy of this honour, seeing I am neither retired nor seemingly aged enough to have acquired the wisdom necessary to give this prestigious lecture of the SMA, which is centred usually on medical ethics. I congratulate the SMA on establishing the Centre for Medical Ethics and Professionalism some years back, and I have tried to attend the many lectures it has since organised.

The process of making ethical decisions in clinical practice is not easy. Ethics must be understood within a historical and cultural context. Physicians have both moral and legal obligations and the two may be discordant. Medical and professional ethics often establish positive duties (that is, what one should do) to a greater extent than the law. Current understanding of medical ethics is based on the principles from which positive duties emerge. These principles include beneficence (a duty to promote good and act in the best interest of the patient and the health of society) and non-maleficence (the duty to do no harm to patients). But have we failed?

I have therefore chosen my topic – Do No Harm: Do Thyself No Harm. I wish to examine why patients are harmed (and as a result the doctor has to pay more for his medical protection), and why the profession is harmed. What can we do better for our patients without harming them, harming ourselves (as doctors) and harming our beloved noble profession?

## THE PHYSICIAN AND SOCIETY

Society has conferred professional prerogatives on physicians with the expectation that they will use their position for the benefit of patients. In turn, physicians are responsible and accountable to society for their professional actions. Society grants each physician the rights, privileges, and duties pertinent to the patient-physician relationship and has the right to require that physicians be competent and

knowledgeable and that they practise with consideration for the patient as a person.

Society expects us to “Do no harm”. Hippocrates said this long ago. And at that time, the medical armamentarium was small and less lethal. Today, scientific advances and medical technology have given us a two-edged knife: to do immense good as well as inflict tremendous harm. “Prior to 1900, seeking a physician’s help for a serious illness did little to change the course of the disease”<sup>(1)</sup>. At the turn of the 20<sup>th</sup> century, William Osler, Harvey Cushing and other clinical leaders restructured hospital organisation, established scientific research as the foundation for clinical practice, formalised clinical education (we are celebrating 100 years of medical education in Singapore this year), and set and enforced high ethical and personal standards of performance among physicians and nurses<sup>(2)</sup>.

Yet, by the end of the 20<sup>th</sup> century, society was informed that healthcare in the USA was unsafe. The Institute of Medicine (IOM) in 1999 published its report, *To Err is Human: Building a Safer Health System*<sup>(3)</sup>. It reported that as many as 98,000 people die annually as a result of medical errors and called for a national effort to make healthcare safe.

## UNSAFE CARE

This is where patients sustain injury from their care rather than from their disease. Some of these injuries may be preventable, some may be the result of omission rather than commission, and some injury may not be known by patients or even most members of the healthcare team. How hazardous is healthcare? Going by total lives lost per year, healthcare is dangerous at a risk of more than one in 1000. This is the same risk as is for bungee jumping and mountain climbing. At the other end of the scale, considered ultra-safe at a risk of death of less than one in 100,000 are scheduled airlines, European railroads and nuclear power stations<sup>(4)</sup>.

I believe we are no different in Singapore. Maybe we are worse since we are neither the UK National Health Service (NHS) system nor the American

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system of healthcare but a hybrid of both. Somehow, the rising Medical Protection Society (MPS) premiums year on year tell us we are not that safe?

### IMPROVING SAFETY

What is America doing about the IOM report? Plenty. For one, there is a dramatically expanded level of conversation and concern about patient injuries in healthcare. Second, small but consequential changes have gradually spread through hospitals, due largely to concerted activities by hospital associations, professional societies and accrediting bodies. All US hospitals have implemented some new practices to improve safety. But building a culture of safety is proving to be an immense task and the barriers are formidable.

Three important areas need to be addressed for this culture to occur.

(A) The first is viewing the task of error prevention. The IOM report profoundly changed the way many healthcare professionals and managers think and talk about medical errors and injury. Few individuals now doubt that preventable medical injuries are a serious problem; e.g. nosocomial infections alone, most of which are preventable, account for more than 90,000 deaths per year<sup>(5)</sup> and hospital-acquired blood stream infections alone rank as the eighth leading cause of death in the United States<sup>(6)</sup>.

The IOM report categorically stated that bad systems, not bad people, lead to the majority of errors and injuries, which is a crucial scientific foundation for improvement of safety in all successful high-hazard industries. Blaming individuals is neither fair nor effective as a mainstay approach in pursuit of safety. Interest in technologies to support safer care has increased, most especially with respect to computer-assisted physician order entry systems. The decade-old stalled discussions about electronic healthcare records have acquired new life.

The IOM Roundtable on Quality Care categorised threats to quality in three broad families: overuse (receiving treatment of no value), underuse (failing to receive needed treatment) and misuse (error and defects on treatment)<sup>(7)</sup>. Mistakes by caregivers that lead to physical injuries are much less acceptable to patients than overuse or underuse, and cause far more emotional reaction. The focus on harm may help explain the intense public interest in safety compared with quality improvement in general. Healthcare professionals too, may feel

far worse if they harm a patient directly than if they provide inappropriate care. That said, it is clear now that the most effective method to improve either safety or quality overall is to change the systems.

(B) The second area to address is enlisting the support of stakeholders. In the US, the federal government in 2001 appropriated USD 450 million annually for patient safety research. It enabled the launching of the academic base for new investigators making research in error prevention and patient safety a legitimate academic pursuit. The Veteran's Health Administration quickly emerged as a bright star in the constitution of safety practice, with system-wide implementation of safe practices, training programs and the establishment of four patient safety research centres<sup>(8,9)</sup>.

Non-governmental organisations have also made safety a priority. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has led the way, tightening up accountability within healthcare organisations and requiring hospitals to implement new safe practices. The National Quality Forum, a public-private partnership to develop and approve measures of quality of care, developed a consensus process that generated standards for mandatory reporting and a list of high-impact evidence-based safe practices. The National Patient Safety Foundation, originally housed by the American Medical Association, has become a major force in increasing awareness. It has gained a national following and the annual conferences are a well spring of education and research findings in patient safety<sup>(10)</sup>. The Accreditation Council on Graduate Medical Education and the American Board of Medical Specialties are engaged in a massive effort to define competencies and measures in each speciality, both for residency training and continuing evaluation of practising physicians<sup>(11)</sup>. Over 20 surgical organisations are involved in programs to reduce surgical complications<sup>(12)</sup>.

The Institute for Healthcare Improvement has helped hospitals redesign their systems for safety. The original list of medication safety practices for hospitals was disseminated in 1999 by the Massachusetts Coalition for the Prevention of Medical Errors and later adopted by the American Hospital Association. Several large integrated healthcare systems, notably

Kaiser-Permanente, Ascension and the Veteran's Health Administration, have been leaders in implementing new safe policies and practices.

Purchasers and payers have entered the arena, particularly the Leapfrog Group, formed by a number of major US corporations. The Leapfrog Group has strongly encouraged the adoption of a number of safer practices in hospitals including computerised physician order entry (CPOE) systems, proper staffing of intensive care units, and the concentration of highly technical surgery services in high volume centres.

But the most important stakeholders now mobilised are the physicians, nurses, therapists and pharmacists in hospitals and clinics who have become much more alert to safety hazards. Most are making changes, not primarily in response to mandates, but rather to improve the quality of care for their patients.

- (C) The third and final important effect arising from the IOM report is changing practices to make healthcare safe. First voluntary, then in response to recommendations for medication safety, hospitals sent teams to the Institute of Healthcare Improvement programs that trained them in rapid cycle improvement and in the application of human factors principles in the redesign of their processes.

In 2002, the National Quality Forum published a list of 30 evidence-based safe practices ready for implementation which JCAHO in 2003 required hospitals to implement 11 of these<sup>(13)</sup>. The results showed substantial improvement in safety, with surgical site infections down by 93%, 81% reduction in medication errors with CPOE implementation, ventilator-assisted pneumonias decreased by 62% using ventilator bundle protocol etc.

In 2003, in all teaching hospitals, residency training programmes implemented new residency training work hour limitation, based on strong evidence on the relationship between fatigue and errors at work, and the effect of sleep deprivation on resident performance<sup>(14,15)</sup>.

## LOCAL SCENE

So what have we done in Singapore?

We have begun learning from the various American bodies as mentioned earlier – the Institute for Healthcare Improvement, the National Patient Safety Forum, as well as the British NHS National Patient Safety Agency. Many of their key officials have been

invited to Singapore and have interacted with Ministry of Health officials as well as leaders of the two clusters. In matters of patient safety, there are no secrets. Both clusters cooperate and do their best to effect changes in practices and behaviour of their staff and patients. The goal is clear – no deaths from harm in the healthcare system. The National Healthcare Group is an unofficial participant of the IHI's initiative – save 100K lives campaign and the seven practices it recommends are being implemented in our hospitals<sup>(16)</sup>.

It is a challenging and daunting task. The culture of medicine is deeply rooted, both by custom and by training, in the high standards of autonomous individual performance and a commitment to progress through research. It was this culture that in the latter half of the 20<sup>th</sup> century brought profound advances in biomedical science and delivered unprecedented cure to millions of individuals. This culture is technically audacious and productive. The advances created challenges to safety not faced by other hazardous industries that have succeeded far better than medical care in becoming safe, even ultrasafe. But we will continue to pursue the path to do our patients no harm, using the might of new technologies to design systems that make it easy to do the right thing at the right time for the right individual.

I would now turn to the second part of my lecture – Do Thyself No Harm. As mentioned earlier, nosocomial infections kill patients. But little did we know in March 2003 that the nosocomial infection, severe acute respiratory syndrome (SARS) was to result in the deaths of healthcare professionals. It served as a grim reminder that as doctors we do not work in a safe environment. Yes we can design great buildings with good sewage systems, excellent ventilation with air-conditioning and have a physically safe building, but one unknown germ like SARS let loose in the hospital caused havoc and death.

## MEDICAL RISK TO PHYSICIAN AND PATIENT

Traditionally, the ethical imperative for physicians to provide care has overridden the risk to the treating physician even during epidemics. Potential occupational exposures such as HIV, multi-drug resistant tuberculosis, severe acute respiratory syndrome, and viral hepatitis necessitate reaffirmation of the ethical imperative<sup>(17)</sup>.

Physicians should evaluate their risk for becoming infected with pathogens, both in their personal lives and the workplace, and implement appropriate precautions. Physicians who may have been exposed to pathogens have an ethical obligation to be tested and should do so voluntarily. Infected physicians

should place themselves under the guidance of their personal physician or the review of local experts to determine in a confidential manner whether practice restrictions are appropriate on the basis of the physician's specialty, competence with infection control precautions, and physical and mental fitness to work. Infection does not in itself justify restrictions on the practice of an otherwise competent healthcare worker.

Because the diseases mentioned may be transmitted from patient to physician and because they pose significant risks to physician's health, some physicians may be tempted to avoid the care of infected patients. Physicians and healthcare organisations are obligated to provide competent and humane care to all patients, regardless of their illness. Physicians can and should expect their workplace to provide appropriate means to limit occupational exposure through vigorous application of infection control methods. Physicians have several obligations concerning nosocomial risk for infection. They should help the public understand the low level of this risk and put it in the perspective of other medical risks while acknowledging public concern.

The final point about SARS in Singapore is the huge positive impact it has had on the public perception of healthcare professionals. Initially the hospitals and the staff were shunned but as knowledge of SARS increased and the public was convinced of effective preventive measures at work, staff who continued their ethical and moral obligation to patients and themselves by reporting for work, became the heroes and heroines of the day.

I turn now to the last part of this lecture – Do Thy Profession No Harm. I wish to revisit three specific areas – end-of-life care, financial arrangements and legal suits.

In April this year, we learnt about Ms Terri Schiavo and how the Court in the USA allowed her feeding tube to be removed (against the wishes of her parents but in agreement with her husband's petition). She had survived 15 years, was in a persistent vegetative state (but not brain dead), was not terminally ill, but was severely disabled. Without commenting on the right or wrong of what happened, what should our stand be?

#### **MAKING DECISIONS NEAR THE END OF LIFE**

Informed adults with decision-making capacity have the legal and ethical right to refuse recommended life-sustaining medical treatment<sup>(18)</sup>. The patient has this right, regardless of whether he or she is terminally or irreversibly ill, has dependants, or is pregnant. The patient's right is based on the philosophical concept of

respect for autonomy, the common-law right of self-determination and the patient's liberty interest under state law<sup>(19)</sup>.

If no evidence shows that a specific treatment desired by a patient will provide any benefit from any perspective, the physician need not provide such treatment. More commonly, a much more difficult circumstance occurs, when the treatment will offer some small prospect of benefit at a great burden of suffering or financial cost, but the patient or family nevertheless desires it. Consultation with an ethics committee or with colleagues may be helpful. Referring to the courts should be the last resort.

#### **ADVANCE CARE PLANNING**

This should be done before a healthcare crisis. Discussion about patient preferences should be documented in the medical record. We should ask if the patient has an advance directive, provide information about advance directives, and incorporate advance directives into the medical record, the way allergies are routinely documented. Advance planning takes place in conversation with the physician (with documentation in the medical record) or through written advance directives, such as a living will or durable power of attorney for healthcare<sup>(20)</sup>. Living wills enable persons to describe the kind of treatment they would like to receive in the event that they lose decision-making capacity.

#### **WITHDRAWING OR WITHHOLDING TREATMENT**

Withdrawing and withholding treatment are equally justifiable, ethically and legally. Treatment should not be withheld because of the mistaken fear that if they are started, they cannot be withdrawn. This practice would deny patients potentially beneficial therapies. Instead, a time-limited trial of therapy could be used to clarify the patient's prognosis.

#### **DO NOT RESUSCITATE ORDERS**

Intervention in the case of a cardiopulmonary arrest is inappropriate for some patients, particularly those with terminal or irreversible illness whose death is expected and imminent. Because the onset of cardiopulmonary arrest does not permit deliberate decision-making, decisions about resuscitation must be made in advance.

#### **ARTIFICIAL NUTRITION AND HYDRATION**

Artificial administration of nutrition and fluids is a medical intervention subject to the same principles of decision making as other treatments. Despite research findings to the contrary, there remain understandable

concerns that discontinuing use of feeding tubes will cause suffering from hunger or thirst.

### **PHYSICIAN-ASSISTED SUICIDE AND EUTHANASIA**

Physician-assisted suicide occurs when a physician provides a medical means for death, usually a prescription for a lethal amount of medication that the patient takes on his or her own. In euthanasia, the physician directly and intentionally administers a substance to cause death. Physicians and patients should distinguish between a decision by a patient or authorised surrogate to refuse life-sustaining treatment or an inadvertent death during an attempt to relieve suffering, from physician-assisted suicide and euthanasia.

Laws concerning, or moral objections to, physician-assisted suicide and euthanasia should not deter physicians from honouring a decision to withhold or withdraw medical interventions in appropriate situations. In the clinical setting, all these acts must be framed within the larger context of good end-of-life care. Many patients who request assisted suicide are depressed, have uncontrolled pain, or have potentially reversible suffering or fears<sup>(21)</sup>. In the setting of providing comfort to a dying person, most physicians and patients should be able to address these issues. For example, with regard to pain control, the physician may appropriately increase medication to relieve pain, even if this action inadvertently shortens life (“the double effect”)<sup>(22,23)</sup>.

### **THE CHANGING FISCAL PRACTICE ENVIRONMENT**

Physicians have an obligation to promote their patient’s welfare in an increasingly complex healthcare system. This entails forthrightly helping patients to understand clinical recommendations and to make informed choices among all appropriate care options. It includes management of the conflicts of interest and multiple commitments that arise in any practice environment, especially in an era of cost concerns (and now block budgets). It also includes stewardship of finite healthcare resources so that as many healthcare needs as possible can be met, whether in the physician’s office, the hospital, or the long-term care facility or at home.

The patient-physician relationship and the principles that govern it should be central to the delivery of care. These principles include beneficence, honesty, confidentiality, privacy, and advocacy where patients’ interests may be endangered by arbitrary, unjust or inadequately individualised institutional procedures.

The physician’s first and primary duty is to the patient. Physicians must base their counsel on the interests of the individual patient, regardless of the insurance or medical care delivery setting. Whether financial incentives in the fee-for-service systems prompt physicians to do more rather than less, or managed care arrangements encourage them to do less rather than more, physicians must not allow such considerations to affect their clinical judgment of patient counselling on treatment option, including referrals<sup>(24)</sup>. The physician’s professional role is to make recommendations on the basis of their medical merit and to pursue options in line with the patient’s unique background and preferences<sup>(24)</sup>.

Physicians have a responsibility to practise effective and efficient healthcare and to use healthcare resources responsibly. In making recommendations to patients, designing practice guidelines and formularies, and making decisions on medical benefit review boards, physicians’ considered judgments should reflect the best clinical literature, including data on the cost-effectiveness of different clinical approaches. And for all doing all this, the physicians should charge a proper consultation fee. All this takes time and as a lawyer would charge based on a per hour fee, we should do the same. I can do no better than quote the headlines of two letters to the Editor of our SMA News, April 2005 issue. The first was written by our SMA President, “GP consultation: Are we deluding ourselves that ‘cheaper is necessarily better for our patients?’” And the second by Dr Hia addressed to the Straits Times Forum Editor was entitled, “Quality care comes at a price”<sup>(26,27)</sup>.

### **FINANCIAL ARRANGEMENTS: CONFLICTS OF INTEREST**

The physician must seek to ensure that the medically-appropriate level of care takes precedence over financial considerations imposed by the physician’s own practice, investments, or financial arrangements. Thus, the profession is undermined when there is even the appearance of impropriety.

Physicians should not sell products out of the office unless the products are specifically relevant to the patient’s care, offer a clear benefit based on adequate clinical evidence and research, and meet an urgent need of the patient. For example, a splint or crutches would be acceptable products but vitamin supplements and cosmetic items are neither emergent forms of treatment nor unlikely to be available elsewhere, and so the sale of such products is ethically suspect. Physicians should make full disclosure about their financial interests in selling acceptable products and inform patients about

alternatives for purchasing the product. Charges for products sold through the office should be limited to the reasonable costs incurred on making them available. The selling of products intended to be free samples is unethical.

### WHY PATIENTS SUE DOCTORS

The physician's primary commitment must always be to the patient's welfare and best interests, whether the physician is preventing or treating illness or helping patients to cope with illness, disability and death. The relationship has mutual obligations. The physician must be professionally competent, act responsibly, seek consultation when necessary and treat the patient with compassion and respect, and the patient should participate responsibly in the care including giving informed consent or refusal of care as the case might be. Effective communication is critical to a strong patient-physician relationship.

I was comparing our MPS subscription rates for the years 2000 and 2005. The rates have risen thus. Cosmetic practice from \$5,250 to \$22,875. Obstetric practice from \$5,250 to \$20,250. Super high risk Neurosurgery from \$4,500 to \$16,350. Very high risk Orthopaedic and trauma surgery from \$4,500 to \$15,750. High risk practice from \$1,650 to \$4,945. Medium risk practice from \$1,200 to \$2,925, Low risk practice from \$700 to \$1,560, and General Practice from \$700 to \$1,400-\$1,740. So the increase has been two to four times over the last five years. I chose these years because the IOM Report was released in late 1999 and it became public knowledge that healthcare is not safe. I read these increases as increase in payouts and settlements by the respective speciality practitioners to patients who have been harmed and were willing and able to seek redress through the legal system.

Why is this so and can we do anything to address the situation other than telling our colleagues to be more careful, more vigilant and not make mistakes?

The Dean of safety researchers, Professor James Reason has observed that healthcare is more complex than any industry he knows in terms of relationships with more than 40 different types of medical specialities and subspecialties interacting with each other and with an equally large array of allied health professionals. The more complex any system is, the more chances it has to fail. A second reason is medicine's tenacious commitment to individual, professional autonomy. Creating cultures of safety requires major changes in behaviour, changes that professionals easily perceive as threats to their authority and autonomy. The horrendous mortality data published by the IOM did not

undermine public trust in the healthcare system but it did create disbelief and concern among doctors and healthcare institutions. An understandable fear of malpractice liability inhibits willingness to discuss or even admit errors.

The combination of complexity, professional fragmentation, and a tradition of individualism, enhanced by a well-entrenched hierarchical authority structure and diffuse accountability, forms a daunting barrier to creating the habits and beliefs of common purpose, teamwork and individual accountability to successful interdependence that a safe culture requires.

A critical component of a safe culture is transparency and full disclosure to patients about their care, and more so, following injury. Medical records should contain accurate and complete information. Ethically and legally, patients have the right to know what is in their medical records. Legally, the actual chart is the property of the physician or institution although the information in the chart is the property of the patient. Information may not be withheld because of non-payment of medical bills. Physicians should retain the original of the medical record and respond to a patient's request with copies or summaries as appropriate unless the original record is required. To protect confidentiality, information should be released only with the written permission of the patient.

Full disclosure does not increase the risk of being sued. So let us do the right thing; which is: tell the patient everything they know when they already know it.

### WHICH DOCTORS ARE SUED?

If you were working for an insurance company selling doctor's medical malpractice protection and were asked to find out who among all physicians covered by the company, is most likely to be sued, which of two options would you choose? The first is to examine the physician's training and credentials and then analyse their records to see how many errors they have made in the past few years. The other option is to listen in on very brief snippets of conversation between each doctor and his or her patients.

You would choose the second option? The risk of being sued for malpractice has very little to do with how many mistakes a doctor makes. Analysis of malpractice lawsuits show that there are highly skilled doctors who get sued a lot, and doctors who make lots of mistakes and never get sued. The overwhelming numbers of people who suffer an injury due to the negligence of a doctor never file a malpractice suit at all. Patients file lawsuits because they have been

harmed and at the same time received poor personal attention. Shoddy medical care by itself does not lead to lawsuits. People do not sue doctors they like. When a patient has a bad medical result, the doctor has to take the time to explain what happened, and to answer the patient's questions – to treat him like a human being. The doctors who do not are the ones who get sued. It is not necessary then to know about how a surgeon operates in order to know his likelihood of being sued. What you need to understand is the relationship between that doctor and his patients.

### LISTEN TO THAT FEELING

A researcher recorded hundreds of conversations between a group of physicians and their patients. Half of the doctors had never been sued. The other half had been sued twice. There were clear differences between the two groups. The surgeons who had never been sued spent more than three minutes longer with each patient than those who had been sued (18.3 minutes versus 15 minutes)<sup>(28)</sup>. They were more likely to make “orienting” comments like “First I’ll examine you, then we can talk the problem over” or “I will leave time for your questions”. They were more likely to engage in active listening and they were far more likely to laugh and be funny during the visit. Interestingly, there was no difference in the amount or quality of information they gave to their patients: they did not provide more details about medication or the patient’s condition. The difference was entirely in how they talked to their patients.

Analysing yet further, a psychologist listened to the same audiotapes, zeroing in on the conversations that had been recorded between just the surgeons and their patients. For each surgeon, she picked two patient conversations and from each conversation, she selected two ten-second clips of the doctor talking so her slice was a total of forty seconds. Finally she “content-filtered” the slices, meaning she removed the high frequency sounds from speech that enables us to recognise individual words. What is left after content-filtering is a garble that preserves intonation, pitch and rhythm but erases content! On this slice, she asked judges to rate for qualities like warmth, hostility, dominance and anxiousness. And based on these ratings, she could predict which surgeons got sued and which did not.

The judges knew nothing about the skill level of the surgeons; neither their experience: what kind of training they had nor what kind of procedures they tended to do. They did not even know what the doctors were saying to their patients. All they were

using for their prediction was their analysis of the surgeon’s tone of voice. It was even more basic than that. If the surgeon’s voice was judged to sound dominant, the surgeon tended to be in the sued group. If the voice sounded less dominant and more concerned, the surgeon tended to be in the non-sued group<sup>(29)</sup>.

So malpractice suits occur when patient respect is missing. The simplest way that respect is communicated is through tone of voice, and the most corrosive tone of voice that a doctor can assume is a dominant tone.

### CONCLUSION

Medical errors typically result from a series of small breakdowns in complex systems, not simply from the mistake or incompetence of one nurse or doctor (cheese model). The health system produces health, but it also produces harm.

Healthcare is a very complex system and complex systems are, by their very nature, risk-prone. The culture of healthcare must be one of everyone working together to understand safety, identify risks, and report them without fear of blame. We must look at ways to change the whole system when we manage to zero defects. Who can argue against a medication system that is 100% reliable?

Physicians should advocate for and participate in patient safety initiatives, including error, sentinel event, and “near miss” reporting. Human errors in healthcare are not uncommon<sup>(30)</sup> and many result from systems problems. Physicians should initiate process improvement and work with their institution and in all aspects of their practices, in an ongoing effort to reduce errors and improve care. As a physician performs his or her primary role as a patient’s trusted advocate, he or she has a responsibility to use all health-related resources in a technically appropriate and efficient manner. He or she should plan work-ups carefully and avoid unnecessary testing, medications, surgery and consultations.

We should not make healthcare more complex and costly. We should aim for zero or close-to-zero hospital infections (be it ventilator-associated pneumonia, surgical site infection or central line infection) for our patients and for ourselves, the staff working in the hospital. We should improve our communication skills and visibly show respect for our patients even as we implement full disclosure to patients following injury and stem the rise in malpractice claims. We should continue to stay clear of the slippery slope towards euthanasia by dealing more proactively with end-of-life issues. And finally, medicine is not a trade to be learned but a profession

to be entered<sup>(30)</sup>. Physicians must individually and collectively fulfil the duties of the profession without perverse fiscal incentives tempting us to betray our high ethical standards and bringing harm to our beloved profession.

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*The 2005 SMA Lecture was delivered on October 1st, 2005 at the SMA 9<sup>th</sup> Ethics Convention held at Tan Tock Seng Hospital. The citation of Professor Chee Yam Cheng was delivered by Associate Professor Goh Lee Gan, Department of Community, Occupational and Family Medicine, National University of Singapore. A copy of the citation has been published in the October 2005 issue of the SMA News.*