1st College of Physicians Lecture: The Role of Internal Medicine as a Specialty in the Era of Subspecialisation

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Abstract

This paper is divided into 4 parts. The first deals with the definition of specialties and traces its roots from the early 20th century in the United States of America with the formation and growth of Specialty Boards. The second is a reflection on the scene in Singapore from the 1960s to the present, describing the change from public healthcare institutions run by the civil service to the autonomous restructured public service hospitals towards the end of the 20th century. The third section deals with what the 4ps have expressed about changes necessary to the Singapore system in the 21st century. The 4ps are the politicians, the payers, the patients and the public. It is about value for money, better coordination and better communication. Finally, just what is Internal Medicine – its competencies and its practice. A review of the systems in Australia, New Zealand, and the USA is presented. The idea of the "hospitalist" is discussed. Concluding remarks deal with the viability of Internal Medicine because of low reimbursement, administrative burdens and brief patient visits.

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Good Morning Ladies and Gentleman

Mr President, College of Physicians, Academy of Medicine, Singapore; Council Members; distinguished overseas guests and speakers; and fellow colleagues: It humbles me to accept the invitation to give this lecture, the First College of Physicians Lecture, titled "*The Role of Internal Medicine as a Specialty in the Era of Subspecialisation*". I believe I am given this honour as I am one of the few of a seemingly dying breed of physicians – the general physician – and because I have passed the age of 50 years, having practiced now for over 30 years in this field in the public health sector. Yes, I do no private practice and will probably retire from public service in due course.

My topic today is a serious one for, if we continue with the status quo, the general physician will indeed go the way of the dodo and the dinosaur. I doubt if the technology of cloning, stem cells, and DNA genomics can resurrect the general physician once he is dead and buried. We are not alone in facing this challenge. Many taskforces in well-developed countries have been at work on the future of Internal Medicine.[1] In the April 2004 issue of the *Annals of Internal Medicine*, a set of editorials was dedicated to the issue of the future and survival of Internal Medicine.[2-7]

This article is divided into 4 parts dealing with the history and definitions of specialty and subspecialty; the local scenario of Internal Medicine practice in Singapore; what politicians, payers, patients, the public and the profession want of internists in Singapore, and finally how the internist can fit this role appropriately because the fundamental strength of internal medicine is breadth and depth. The internist's skill at connecting, interpreting, personalising and customising medical care to the individual patient bridges the interface between patient needs and the awesome medical capacity and capability available today.

The Origin of Specialties

The growth of specialties is directly linked to the advancements of medical science and the resulting improvements made in medical care delivery since the early 1900s. During this period of growth, there was no system to assure the public that a physician claiming to be a specialist was indeed qualified. Until the development of the specialty board movement, each physician was the sole

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assessor of his or her qualifications to practise a given specialty.

No doubt physicians did this as best as they could and with whatever help local medical societies could give them. Specialty societies and medical teaching institutions encouraged and helped the development of boards to define specialty qualifications and to issue credentials that would assure the public of the specialist's qualifications.

The concept of a specialty board was first proposed in 1908 by Dr Derrick T Vail in his presidential address to the American Academy of Ophthalmology and Otolaryngology. After further consideration by the American Ophthalmologic Society, recommendations were made for the development of a training and examination programme in ophthalmology. In 1915, a joint committee which comprised the American Ophthalmologic Society, the Section of Ophthalmology of the AMA (American Medical Association), and the American Academy of Ophthalmology drafted a report recommending the establishment of a board "to arrange, control, and supervise examinations, to test the preparation of those who design to enter in the special or exclusive practice of ophthalmology".[8]

This report was subsequently approved by each of the 3 organisations represented. The first meeting of the newly created American Board for Ophthalmic Examinations, the first specialty board, was held on May 8, 1916. The board was incorporated in 1917, and in 1933 its name was changed to the American Board of Ophthal-mology. It established the guidelines for training and evaluating candidates desiring certification to practise ophthalmology.

The second specialty board, the American Board of Otolaryngology, was founded and incorporated in 1924. It developed along the same path as its predecessor and, like many other boards that were eventually established in the 1930s, its original objectives were quite comprehensive:

> *To elevate the standard of otolaryngology, to familiarize the public with its aims and ideals, to protect the public against irresponsible and unqualified practitioners, to receive applications for examinations in otolaryngology, to conduct examinations of such applications, to issue certificates of qualification in otolaryngology and to perform such duties as will advance the cause of otolaryngology*

The third and fourth boards, the American Board of Obstetrics and Gynecology and the American Board of Dermatology and Syphilogy, were established in 1930 and 1932, respectively.

On June 11, 1933, at a conference attended by representatives from the 4 specialty boards and the American Hospital Association, the Association of American Medical Colleges, the Federation of State Medical Boards, the AMA Council on Medical Education and Hospitals, and the National Board of Medical Examiners, it was resolved that:

> *The examination and certification of specialist is best carried out by the National Boards (specialty boards); second, that the efficacy of these boards will be brought to their best level by the formation of an advisory committee or council created by two delegated representatives from the official specialty boards now in existence or in the process of formation and the other organizations at the meeting.*

From 1933 to 1969, the Advisory Board operated as a forum of individual specialty boards. Between the years 1943 and 1949, the Board met each February annually to discuss items of mutual concern, in addition to conducting conference. In 1949, a suggestion was made to reorganise the Advisory Board and hire a full-time staff to better serve its constituency and the public. Up to the time, it had functioned primarily as a forum for discussion without the benefit of a full-time director or a central office from which to conduct its daily operations. On February 13, 1970, the membership voted to reorganise the Advisory Board as the American Board of Medical Specialties (ABMS). This change became official with the amendment of the Articles of Incorporation on April 10, 1970.

By 1948, 14 new specialty boards had received approval, bringing the total number to 18. A revision of the Bylaws in 1961 recognised these new boards and also provided for the representation (though without voting privileges) of affiliate boards. Between 1949 and 1969, no new boards were approved by the Liaison Committee for Specialty Boards.

In the next decade from 1969 to 1979, the Boards of Allergy and Immunology, Emergency Medicine, Family Practice, Nuclear Medicine and Thoracic Surgery were approved. In 1991, the American Board of Medical Genetics was approved, making a total of 24 ABMS Member Boards.

During the 1940s, 7 subsidiary boards for subspecialty certification were formed under the aegis of existing specialty boards. By 1970, areas of recognition for subspecialists had doubled and, by 1980, they had quadrupled. In an attempt to discourage the further proliferation of specialty and subspecialty boards, the ABMS imposed a 1-year moratorium on its approval of new subspecialties (1972 to 1973). During this time the ABMS formed the Committee on Certification, Subcertification and Recertification (COCERT).

In 1976, the ABMS proposed that no new sub-boards be approved and that a committee of the appropriate Primary Board should perform the functions in an area of special competence. Currently, the 24 Member Boards of the ABMS issue certificates in 36 areas of general specialisation, and subspecialty certificates in 90 areas. New medical science and practice patterns call for consideration of additional types of certification and subcertification and proposals for such change are received by all members, the COCERT and the Executive Committee prior to action by the Assembly.

So the American Boards were first developed for Ophthalmology in 1917, followed by Otolaryngology in 1924, Obstetrics and Gynecology in 1930 and Dermatology and Syphilogy in 1932. These 4 Boards constituted the founding members of the ABMS. The American Board in Internal Medicine was founded in 1936, after Psychiatry and Neurology (a combined Board) had started the year before. ABMS grew and reached 24 Boards by 1991 and stopped there.

However, subspecialty boards in Internal Medicine proliferated, with the first 3 being Cardiovascular Disease, Gastroenterology and Respiratory Medicine in 1937. There was a long lapse till 1972 when 5 subspecialty boards were formed – Endocrinology, Haematology, Infectious Diseases, Nephrology and Rheumatology. The following year Medical Oncology was started. From 1986 to 1988, Clinical and Laboratory Immunology, Critical Care Medicine and Geriatric Medicine were formed. And in the 1990s, the subspecialities listed were Clinical Cardiac Electrophysiology, Sports Medicine, Adolescent Medicine and finally in 1999, Interventional Cardiology.[8]

In Singapore, when the Specialty Register was born in 1997, there were 35 specialties. Within Medicine, there were 15 specialties with the subspecialties mentioned above designated as specialties on par with Internal Medicine. In part, this had to do with the existence of full-fledged Departments within the public hospitals, which may have been even bigger than the Department of Medicine, as well as the existence of the Roll of Specialists under the Academy of Medicine before the Specialty Register was mandated by a revision of the Medical Registration Act.

Hospitals Restructured

Singapore public healthcare institutions underwent a restructuring exercise when, starting in 1986, the newly built National University Hospital relocated its Departments of Medicine I and II to Kent Ridge. These two Departments were established at the Singapore General Hospital (SGH), and remained there till NUH was ready for occupation. At NUH the two departments became one Department of Medicine with subspecialists (following the earlier definition) outnumbering internists. In subsequent years, the Department of Haematology-Oncology and the Cardiac Department (including surgery) were formed. All the other major subspecialties of Internal Medicine contribute to the clinical work in the Department of Medicine, NUH.

In 1989, the SGH was next to be restructured. So, from its 3 original Medical Units, these were reformed as the Departments of Endocrinology, Gastroenterolgy, and Respiratory and Critical Care Medicine. Existing within SGH at this time were already separate departments of Cardiology, Renal Medicine, Neurology and Haematology/ Transfusion Services. Later were added the Departments of Medical Oncology, then Dermatology and Rheumatology. In the late 1990s, the Department of Internal Medicine was restarted. So for close to 10 years SGH operated without a Department of Internal Medicine.

In 1990, the Toa Payoh Hospital was restructured and it retained its Department of Medicine, manned almost totally by subspecialists. When it relocated to become the Changi General Hospital, it slowly recruited internists and geriatricians. Its internists, however, have dual accreditation in Internal Medicine and a subspecialty (akin to the model in the United Kingdom).

Finally, in 1992, the Tan Tock Seng Hospital restructured itself. From its 4 Departments of Medicine, came the Department of General Medicine, the Department of Geriatrics, the Department of Respiratory Medicine and the Department of Rheumatology (later renamed Rheumatology, Allergy and Immunology). There were also existing Departments of Neurology, Cardiology, Infectious Diseases and Rehabilitation Medicine.

There was one other smaller general hospital, Alexandra Hospital (AH), which remained a government hospital until 2000 when it was decided that it too be restructured. It retains its one Department of Medicine, but staffed by subspecialists mainly in Endocrinology and Respiratory Medicine. There are no other subspecialty medical departments.

So with this scenario, different hospitals have put different emphases on the role of the Department of Medicine. Some retained the name Medicine (to differentiate it from Surgery, Paediatrics, etc) but in substance there were no full-time internists in the department. Against such odds, TTSH retained its Department of General Medicine staffed by 4 full-time internists and supplemented with endocrinologists, gastroenterologists and intensivists, who also did general internal medicine in addition to their subspecialty. Later nephrologists joined the Department.

It can therefore be seen that as the needs of patients reached some critical volume, departments employed the relevant subspecialists to meet that need. And when there were enough such subspecialists with appreciable

workloads, the inevitable next step was to start a division or subunit within the Department, or to totally break away from the Department of Medicine to start another Department of that subspecialty. So if this is taken to its logical end, what is left is a department of "residual medicine". The pressure for this type of action was probably greatest in our largest hospital, SGH, and the fact that it had to re-establish a Department of Internal Medicine meant something. However this was an additional department, existing side by side with its original big 3 (subspecialities) and the other subspecialty departments.

Why are there so many models for the practice of medicine in public hospitals? Why the differences, and how has increasing fragmentation of the delivery of care affected patient care within each of these hospitals?

Back to Basics

Plato, in 342 AD, in book one of *The Republic* said, " No physician, in so far as he is a physician, considers his own good in what he prescribes, but the good of his patient…". Is increasing fragmentation in the delivery of medical services causing harm? Has our prescription for more and more departments and divisions within Internal Medicine been detrimental to patient care? I state my stand: I am not against specialisation and subspecialisation. It is inevitable that an enlarging body of knowledge, skills and technology cannot rest on the shoulders and in the mind of one person.

The load is too large to handle effectively and efficiently. So we split up the body into different parts to study it better, affect it positively for good health and benefit all of humankind. Plato had also this to say, "For the part can never be well unless the whole is well – this is the great error of our day, that physicians separate the part from the whole…". Amazing, his day was nearly 2000 years ago and we have not learnt the lesson? This is where I feel the internist has to make his mark – the coordination of the whole – if only the system would allow it, and not penalise the effort. I shall elaborate further. But first, let us examine what the 4ps have articulated in various ways before we decide how the fifth p, the profession should respond. The 4ps refer to the politicians, the payers, the patients and the public.

What our Politicians Say

In the Ministry of Health's budget debate on 17 March 2004 in the Parliament of Singapore, our Minister of State for Health delivered his speech on "*An excellent and cost effective healthcare system*". He was speaking as a politician as well as a payer, since the government provides subsidies to the people for healthcare.

"Our challenge is to maintain this high quality system at an affordable cost. To do this, our healthcare delivery must be as efficient as possible. Healthcare is an expensive service. More than half the cost in healthcare involves paying for the services of skilled people – doctors, nurses and paramedical professionals. Our healthcare system can be more effective if we use the services of healthcare professionals in an efficient and appropriate manner. Many patients are seeing specialists when a primary physician can take care of the problem. This is why our specialist clinic attendances are growing at a rate of 6%. This is also driving the cost of healthcare upwards. This does not mean that patients don't need specialists. At times they do need to see a specialist but the problem that the public faces sometimes is that they may not know when and which specialist to consult."

The thrust of his speech was to emphasise the role of the generalist primary care physician in the community i.e. the family physician. He was encouraging the people to have one family physician each to help them navigate through the specialty and subspecialty minefield where seeing the wrong one meant unnecessary costs with maybe poor outcome. In the hospital setting versus the community setting, the same reasoning can apply and a mistake is even more costly. Let the internist play this role – that of helping the patient navigate the use of specialist and subspecialist expertise depending on the thorough assessment of the patients' needs and with his agreement.

What did the Minister for Health say in the same debate? His speech was titled "*Affordable Healthcare. Let's Stretch*". For hospitals, his message was to stretch the budget dollar. "These hospitals are going all out to eliminate waste, the Toyota way. Why is waste seen as the root of all evil? For hospitals, wasteful steps add to cost, increase the time to respond to patients, and multiply the opportunities for errors. For patients, waste means long waits, having to move from pillar to post, unnecessary suffering and higher cost".

For Singaporeans, his message was to stretch the medisave dollar and we (all of us including providers and professionals) should help Singaporeans stretch their Medisave dollar.

"The reason why premiums are increasing is that costs and volumes have run wild. Because of the way they structure their health insurance system, there is little incentive for patients or doctors to save. As a result, over-consumption by patients and over-servicing by doctors are common".

How to achieve these stretchings? In another speech titled "*Quality Healthcare, Putting Patients at the Centre*", he said: "At the end of the day, it is values that count. If a doctor is solely interested in maximizing his income, the public health sector is not the right place for him. We need to gather around us, like-minded people who share a common objective to serve. They will be rewarded

adequately but their passion must be towards their patients. Then they are qualified to join the Fellowship of the Ring. Our job is to expand the Fellowship. I therefore spend a considerable time sharing my thoughts and values with the staff. My advice to both clusters is simple. Put patients at the centre of our focus, not clusters or hospitals or doctors, but patients. At the same time, bear in mind the need to keep healthcare affordable, which means doing more with less without compromising clinical quality. At the most fundamental level, there must be the key performance indicators."

Doing more with less and cutting out waste is easier said than done. Better coordination, good information flow, removing rework, reinvestigating and repeating laboratory tests and procedures – these would lead to cost savings and even saving of lives from reduction in error. The more complex the process, the higher the error rate. So simplifying helps. Having one person in charge of each patient's total care helps. Contrast this with multiple persons (specialists/subspecialists) taking charge of different parts of a patient, with no one coordinating the total management plan.

Stop the Fragmentation

There is no halting the progress of scientific knowledge. Science steams ahead. Organisational structures to deal with these advances, and how best to use them to benefit humankind, lag behind. Between 1949 and 1969, no new American Specialty Boards were approved. That is, for 20 years, fragmentation of Medicine stopped. It restarted again only after criteria for approval of new examining boards were worked out. These are:-

A. The establishment of a new specialty board signifies the differentiation of a new specialty, which much be based on major new concepts in medical science.

B. A new medical specialty board must represent a distinct and well-defined field of medical practice. It may entail special concern with the problems of patients and their environment. A new certifying board must be based on substantial advancement in medical science. The needed training must be sufficiently complex or extended that it is not feasible to include it in established training programmes.

C. A specialty board must require evidence that its diplomates have acquired capability in a stated area of medicine and will demonstrate special knowledge in that field.

Singapore needs to decide how fragmented the medical scene can be. Someone somewhere should review the negative aspects of fragmentation on patient care and outcome and balance this against all the hype surrounding each and every new technology and scientific breakthrough. Should this person be the politician, payer or professional? Or should it be society at large – the patient and the public?

Lessons from Business

Building up specialty and subspecialty capability and capacity is akin to building "silos" of knowledge, skill and expertise. Each silo has its core competencies but for the whole to succeed, there is the need to coordinate the diverse skills and integrate multiple streams of technology.

Core competence is communication, involvement and a deep commitment to working across organisational boundaries. It involves many levels of people and functions. The skills that together constitute core competence must coalesce around individuals, whose efforts are not so narrowly focused that they cannot blend their functional expertise with others in new and interesting ways.[9] Operational effectiveness is not strategy. Operational effectiveness is necessary but not sufficient. Good strategy rests on unique activities. The essence of strategy is choosing to perform activities differently to your rivals.

A good fit drives both competitive advantage and sustainability. Fit locks out imitators by making a chain that is as strong as its strongest link. The competitive value of individual activities cannot be separated from the whole. The whole matters more than any individual part. Competitive advantage grows out of the entire system of activities. Strategy is creating fit among a company's activities. The success of a strategy depends on doing many things well – not just a few – and integrating them well. If there is no fit among activities there is no distinctive strategy and little sustainability. Management reverts to the simpler task of overseeing independent functions, and operational effectiveness determines an organisation's relative performance.[10]

Earlier I alluded to the different models of practising General Internal Medicine in our hospitals. There are competent doctors in all the specialties and subspecialties within each hospital. But are they performing in silos of care and pushing patients from one silo to another? Where is the strategic fit between their different skills so that the patient is the beneficiary? Is there no such service available? Does the hospital system facilitate the practice of such properly and meticulously coordinated care to save patient's time, life and money?

Customer Satisfaction Survey

The Ministry of Health periodically conducts customer satisfaction surveys. Accepting that these are professionally done and the data robust, results of a recent survey showed that, in the category of care coordination, for most of our general hospitals, the customer (i.e., patient and public) ranked them as unclassified, whereas Woodbridge Hospital (WH) and the Polyclinics were ranked as world class. The

National Cancer Centre (NCC) and Alexandra Hospital were ranked as excellence class. The grading in ascending order is unclassified, excellence class and world class. So we can infer that for those dealing with one illness e.g. psychiatric disease, cancer, or in the polyclinic, at which all the doctors are family physicians, the care coordination is excellent or better. But in the large general hospitals (except for the small AH), there exists unsatisfactory or insufficient care coordination.

Does this mean our doctors and healthcare professionals are no good? In the category of care and concern of doctors, the survey results showed world class for AH, WH, NCC, NHG (National Healthcare Group) Polyclinics and excellence class for SHS (Singhealth) Polyclinics and 3 of the 5 hospitals. So patients appreciate individual doctors, each providing the best care in his or her silo of expertise. Yet when placed in a general hospital with excellent doctors, care coordination still suffers.

So we see a critical role for the internist in the hospital setting. Can he or she fulfill this role with excellence and be world class?

What is General Internal Medicine? (GIM)

The core values of General Medicine can be listed as follows:

1. Expertise in adult patient care.
2. Acquiring and sharing knowledge. In terms of teaching, GIM is very dominant and very important (In terms of dollars, the subspecialists are very dominant in bringing in money)
3. Leadership and professionalism
4. Effective communication and personal relationships
5. Providing comprehensive, longitudinal, coordinated patient-centred care.
6 Encompassing everything from preventive care and health promotion to caring for complex and chronic diseases in all ages from adolescents to geriatrics

Professionalism includes patient safety, prevention and planned outcomes.

The work of the General Internist includes:

1. Disease screening and disease prevention
2. Reviewing often conflicting information in the medical literature
3. Discussing it with a patient in understandable language
4. Looking at the patient's symptoms and concerns and deciding if this is yet another presentation of a non-life-threatening, non-serious disease or if it is the harbinger of a very serious disease.

The patient can bring up dozens of symptoms in a single appointment. Trying to decide which symptoms need thorough attention and which ones can be quickly reassured is really a skill of the general internist that is becoming more (not less) important all the time.

The buck stops with the generalist. The patient is responsible for his health but the generalist primary care physicians are responsible for how the healthcare is being delivered. This means screening. It means evaluating symptoms. It means:

1. returning innumerable telephone calls/emails;
2. getting lab results to patients in a timely manner;
3. listening to their priorities;
4. understanding their social framework and priorities;
5. obtaining specialty or subspecialty consultation and translating what they said;
6. helping them find an affordable medication.

What are General Internists?

General Internists are Specialists in Adult Medicine. Internists are highly trained specialists who provide non-surgical healthcare to adult patients.

General Internists provide care to patients who may be affected by a spectrum of medical problems.

Subspecialists are internists who limit their medical practice to problems involving only one body system, or to a special area of medical knowledge. For example, a cardiologist cares for patients with diseases of the heart and blood vessels, while an allergist sees patients with allergy problems.

What makes General Internists special? A unique combination of knowledge, training and skills distinguishes general internists from other medical specialists and from family physicians. Through rigorous training programmes, general internists are:

1. Broadly educated to deal with the entire range of patients' problems;
2. Thorough, logical and scientific in their approach to providing expert diagnoses;
3. Able to assess and choose drugs and other medical therapies wisely to prevent and treat disease;
4. Able to care for patients as whole persons, not just body systems; and
5. Highly skilled in clinical decision-making and cost effective use of dwindling healthcare resources.

What do Internists do? Most general internists are consultants who see patients referred to them by other doctors – usually family physicians, surgeons or other specialists. They help with difficult or serious medical problems and continue to see the patient until these problems have resolved or stabilised. Much of their work takes place with hospitalised patients but many general internists also see patients in their offices.

Who are General Internists? General internists are consultants who assist other doctors in caring for patients with special or difficult problems. As such, internists see patients who are referred to them by other doctors – usually family physicians. Whether the referral identifies one health problem or many, the general internist's assessment is always thorough and searching. This global approach enables problems to be uncovered and diagnostic possibilities to be considered, which would otherwise be missed.

Complex Care

General internists are specially trained to care for patients with complex illnesses, in which the diagnosis may be obscure. The general internist's broad training provides special expertise in diagnosis and treatment of problems affecting different body systems in a patient. Regarding severe illness, general internists are trained to deal with serious and chronic illnesses, and situations in which different illnesses occur together. They are trained to carry out a variety of up-to-date medical procedures necessary for diagnostic and effective management of patients with severe and complex illnesses. They have special training in the usefulness, limitations and costs of most diagnostic tests. General internists use diagnostic tests logically, safely and effectively to investigate difficult diagnostic problems.[11]

They are trained in the critical analysis of research reports and drug industry claims about new treatments. They are knowledgeable about dangerous interactions given simultaneously to treat multiple system problems in a patient, and about the risks and benefits associated with potent medical treatments. The general internist has special expertise in making treatment decisions to help patients with complex and serious illnesses.

General internists are frequently asked to do preoperative assessments of patients who require surgery. They advise surgeons of a patient's risk status and recommend appropriate intervention to minimise risk.[12]

Outside Singapore

With a clearer idea of who internists are and what they do, how do Australia and the US utilise them in their systems of hospital care?

The scenario in Australia and New Zealand goes back to 1998, when the renaissance in general medicine was predicted, as well as a crisis in the supply of generalist physicians. The efficiency between general and subspecialty units was the same for inpatient care, and many Sydney hospitals which closed their general medical units could not cope with the large numbers of older patients with multiple problems, and could not properly manage them in a single specialty unit. The Australian Medical Council feels the current training programme with emphasis on subspecialty medicine is inadequate to meet the future healthcare needs of ageing populations.

So their remedy is that:-

1. All trainees will undertake dual certification comprising 2 years Basic, 2 years Generalist and 2 years Specialty;
2. Mandatory training will include emergency medicine, intensive care, geriatric and rehabilitation medicine, safety and quality improvement, clinical epidemiology and health economics;
3. General physicians will assume the role of case managers for more patients, including surgical patients, who have complex medical problems requiring the skills of a generalist consulting, as necessary, with other specialists; and
4. General physicians will have greater responsibility in operationalising clinical science frame works, medical information systems, and quality and safety improvement programmes.[13]

And in the US over 8 years ago, the "hospitalist" was created. The primary role of the hospitalist is to care for hospitalised patients, returning them to the care of their regular physicians upon hospital discharge.[14]

In May 2004, a review entitled "*Hospitalists in the United States – Mission Accomplished or Work in Progress?*" was published in the *New England Journal of Medicine*.[15]

The number of hospitalists has grown over 8 years from a few hundred to about 8000 with a projected growth to 20,000 (similar to the number of Cardiologists in the USA). With hospitalists at most major US teaching hospitals, students and residents now receive much of their inpatient training from attending physicians who are hospitalists. The growth of this movement shows that new forces in healthcare – cost pressures, the mandate to improve safety and quality, limits on duty hours for residents – can catalyse innovative organisational solutions. It appears that the society and the profession in the US, enamoured as they are of organ-focused and procedure-based subspecialisation, still value the coordinating role of site-based generalists.

So what are the key points in the evolution of the hospitalist movement in the US? They are:-

I. Hospitalists are site-defined specialists who serve as surrogates for the primary care physician in the hospital
II. Hospitalist models in the US have expanded from community hospital to academic medical centres, and the clinical and non-clinical roles of the hospitalists have evolved accordingly
III. Published data support the value of hospitalists in reducing hospital costs and length of stay without sacrificing quality or patient satisfaction
IV. Key challenges to the hospitalist include overcoming

the purposeful discontinuity of care created by the handover of patients at hospital admission and discharge, and identifying the skills and competencies that will define the specialty.[16]

So before we become carried away with this movement in the US, we should be aware of some of the dynamic and daunting trends in healthcare. These are:

1. Healthcare has fast become unaffordable (economic pressures),
2. Government and private payers are demanding more accountability for performance,
3. Value for money is fast replacing quality at any price,
4. Non-evidence based variations in the provisions and outcomes of healthcare are increasingly indefensible (legal and regulatory pressures),
5. Chronic unremitting illness is fast replacing acute episodic disease (epidemiologic transition in society-ageing),
6. Reducing medical errors and improving patient safety are non-negotiable demands, both morally as well as practically,
7. Advances in IT are vastly expanding medicine's potential reach,
8. Post-genomic prevention strategies will transform medicine from a retrospective to a prospective enterprise,
9. Patients will become increasingly well informed despite the disparities in that information overall. Much more information is available to patients and will continue to be so, and
10. Non-physician healthcare professionals are increasing both in numbers and in capability.

Conclusion

So, which model best suits us? In Singapore, General Internal Medicine is vulnerable to low reimbursement, administrative burdens that frustrate practitioners and the brevity of patient visits. If somebody will address these issues, the future is bright. Body parts cannot exist, however perfect each may be, on their own. They only function well when they are part of the whole. So said Plato. Let the internist ensure that the whole is well because each part is well. This is his paramount role in the era of increasing sub-specialisation.

REFERENCES

1. Larson EB. Health care system chaos should spur innovations: summary of a report of the Society of General Medicine Task Force on the Domain of General Medicine. Ann Intern Med 2004;140:639-43.
2. The Editors. Starting a conversation about the future of internal medicine. Ann Intern Med 2004;140:659.
3. Baron RJ. Generalism as intention. Ann Intern Med 2004;140:659-60.
4. Rabinowitz HK. Working together. That's innovation. Ann Intern Med 2004;140:660-1.
5. Copeland RB. Making it possible for general internal medicine to survive. Ann Intern Med 2004;140:661-2.
6. Wilensky GR. Reforming payment for primary care: making it happen. Ann Intern Med 2004;140:662-3.
7. Humphrey HJ. Customizing residency education. Ann Intern Med 2004;140:663-4.
8. Annual Report and Reference Handbook. US: American Board of Medical Specialties, 2003.
9. Pralahad CK, Hamel G. The core competence of the corporation. HBR May-June 1990.
10. Porter ME. What is Strategy? HBR Nov-Dec 1996.
11. Larson EB, Fihn SD, Kirk LM, Levinson W, Loge RV, Reynolds E, et al; Task Force on the Domain of General Internal Medicine. Society of General Internal Medicine (SGIM). The future of general internal medicine. Report and recommendations from the Society of General Internal Medicine (SGIM) Task Force on the Domain of General Internal Medicine. J Gen Intern Med 2004;19:69-77.
12. Canadian Society of Internal Medicine. Available at: http://www.csim.medical.org/. Accessed 18 November, 2004.
13. Scott J. Introducing the 'General Physician' of the 21st Century. RACP News. April 2004:10-11.
14. Wachter RM, Goldman I. The emerging role of "hospitalists" in the American healthcare system. N Engl J Med 1996;335:514-7.
15. Wachter RM. Hospitalists in the United States – mission accomplished or work in progress? N Engl J Med 2004;350:1935-6.
16. Baudendistel TE, Wachter RM. The evolution of the hospitalist movement in the USA. Clin Med JRCPL 2002;2:327-30.