



# THE SINGAPORE FAMILY PHYSICIAN

College of Family Physicians Singapore

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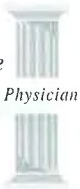
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\* Term of office ends 23 May 1999



## Noah And The Professional Ark

The cycle goes on. I remember in my first editorial for this journal, I commented about the economic downturn and now there is an economic upturn. In the words of King Solomon in Ecclesiastes of the Old Testament "What has been will be again, what has been done will be done again". So now there is yet another cycle, terms come and go, a new president replaces an old one in the College (and in Singapore), an old editor leaves and a new editor takes on the mantle.

The only permanent thing in this world is change so we are told. The changes in knowledge are amazingly fast in our world of instant access. Just as it increased efficiency it can also increase inefficiency by reflex responses which would have petered out in a slower system. An epidemic in a far off city can cause panic and mass reaction in other parts of the world; witness the Belgian dioxin saga - are all the reflex actions in so many countries necessary? In the slow world when news takes days rather than seconds, reaction takes weeks and sometimes there is no reaction because it was just a scare that had petered out before it spread.

The late Professor Brian Abel Smith, a notable health economist in the London School of Economics wrote that, sickness funds, mutual benefit societies and friendly societies were established in England in the late 18th century. At the turn of the 19th century there were about a million members of a voluntary sickness insurance movement which provided medical insurance cover. At that time the doctors were not effectively organised and the British Medical Association only came about in the 1830s. The consumers of medical care were organised before the doctors were effectively organised and they were in a position to dictate the terms of service to the doctors whom they engaged to provide services. Perhaps the association was the ark that some medical 'Noah' built. I would like to think of the College of Family Physicians as an ark that a medical 'Noah' built. And of course there were always those who laughed at people

who join the ark because the sea was so far away. You are just wasting your time, so they may say.

A clear impression from Prof Smith's lectures when he was in Singapore was that the cycles of health financing were not exactly new. HMO and managed health care were established long before, only to be replaced by other forms of health financing as the cycle goes on. So there is nothing new under the sun as we go through the phases. High tech may be indeed be tempered by high touch. Health financing goes through the cycles but the cycles may have become much faster. Another notable person who has seen the changes, Dr John Fry the late editor of the Practice Update, spoke about the transition from the age of mainly solo practices to mainly group practices. During a stopover in Singapore about eight years ago, he predicted that countries with the majority of practices that are single handed will move to mainly group practices. We are seeing the fulfilment of that observation in Singapore.

What does all this mean for the Singapore GP? Sure, we are not shielded from events; the big moves; the turbulence that can hit us in more ways than one; economic crises, changes in healthcare financing or the entry of the large practices or healthcare alliances, but care of whatever remains must go on. So we have to learn to live and move with the changes; to see the opportunities, take on new challenges and continuously build up skills rather than lament about the past because the world has moved on. There is this story about a young man who threw starfish into the sea so that they can live. He was asked why he should do this when there are millions of starfish that will die on the beach anyway. His answer was "It makes a difference to this one". In such times, the changes may appear daunting, but to be in tune with the times, we may have to lift up our heads from the practice and be involved in our professional organisations and in its activities. Be involved, serve instead of being served, be 'chap' rather than 'boh chap' (mix around and know what is going on). It is time to be flexible, keep our

## Editorial

ears to the ground and our heads above water and join the ark before the deluge sweeps in. But in our practices, there is always the immediate satisfaction, the little starfish that makes life as a doctor worthwhile when "it makes a difference to this one". But of course it is always nicer to throw starfishes whilst on the deck of the ark and

you would not be on the ark if you never bothered to listen to Noah in the first place.

***Dr Lau Hong Choon***  
*Honorary Editor*

## **A Message from the New President**

Moving into the next millenium with complacency and without focus is disastrous, espescially for primary care doctors.

The college will have to address the role of family physicians in the next millenium. We cannot remain at the periphery of the health care delivery system and allow it to be dominated by other players. Family Medicine must gain recognition as a distinct discipline, the public must be educated to accept Family Physicians who have acquired new skills, updated their knowledge with continuing medical education and practise ethical medicine.

Singapore is fast moving into an ageing society and primary care doctors will be attending to growing numbers of the elderly. Here we have to work in tandem with the Government with assurances that Family Physicians have the expertise and the organisational back up to treat the elderly, especially in the provision of domiciliary care to the elderly and aged.

With these in mind, the College Council has organised it's 7<sup>th</sup> Scientific Conference and 8<sup>th</sup> Meditech Exhibition with the theme: Family Medicine: Facing Demographic Change.

We will have to convince relevant organisations, including institutions and hospitals of the expanding role of Family Physicians in the care of in-patients before and after discharge. We have to educate the public to accept the family doctor concept, thus erasing the low prestige and lack of recognition as compared to specialists.

Finally we have to explore the role of Family Physicians in the face of increasing numbers of Managed Health Care providers.

***Dr Lim Lean Huat***

*President*

*17th Council (1999-2001)*

*College of Family Physicians, Singapore*





## **Health it in the 21<sup>st</sup> Century**

### **Health IT in the 21<sup>ST</sup> Century**

*Address by Mr Moses Lee,*

*Permanent Secretary for Health and Community Development at the Opening of the*

*MOH Health IT Seminar 1999 on 24 July 99 at 9.00 am at KK Women's and Children's Hospital*

I am very happy to be here this morning at the opening of the first MOH Health IT Seminar. The Seminar has been organised by the Ministry and its institutions to provide a forum for healthcare professionals and administrators to be updated on the latest development in the use of IT in healthcare, and to promote sharing and exchange of experiences among our institutions. I am also happy that our friends from the Kaiser Permanente Group are here today to share their experiences.

#### **Ministry Mission and Challenges**

The Ministry's mission is to promote good health and reduce illness, and to ensure that Singaporeans have access to good and affordable healthcare that is appropriate to needs. The Ministry is committed to achieve good clinical outcomes in the pursuit of medical excellence.

As Singapore moves towards the 21<sup>st</sup> century, the healthcare sector will be faced with challenges of rising demand for and expectation of healthcare services, a fast ageing population, and the need to contain healthcare costs.

There are tremendous opportunities to innovate and exploit Information Technology in the delivery of care and services. Besides enhancing operational efficiency and effectiveness, IT could be also be a key enabler in providing holistic patient care, higher quality clinical outcomes and in addressing the healthcare challenges in the next millennium.

#### **Pervasiveness of IT, Internet and national goal towards KBE**

We live with Information Technology everyday. Sometimes, we use IT deliberately - such as when we surf the net, or use email. But often, we are not conscious of how IT creeps into our lives - such as when we ride in lifts, or use a washing machine, or drive a car.

In the last 2 decades, IT has moved beyond specialised computing devices into appliances and systems we use everyday. IT is very much a part of our lives today. With the explosion of Internet worldwide, virtual communities have formed overnight and new opportunities for exploiting Internet are being explored relentlessly.

The Committee on Singapore Competitiveness (CSC) report has mapped out our national goal towards a Knowledge Based Economy (KBE). Healthcare providers, whether doctors, nurses or other paramedical staff, are knowledge workers who rely on information and knowledge to provide treatment and care.

In fact, the practice of medicine is one of the most information and knowledge-intensive profession. Therefore, healthcare delivery will benefit significantly from IT innovations that allow the healthcare providers to create, use and exchange medical information without the limitation of physical location, time or affiliation.

#### **Exploitation of IT in Healthcare (E-Commerce and EMR)**

##### Internet and E-Commerce

In the last few years, we have seen tremendous growth in the Internet. Some 112 million people worldwide are now reachable by the Internet. US\$43 billion of goods was transacted over the Internet last year. In Asia alone, there are about 12 million users and the value of Internet commerce transactions is expected to grow from US \$700 million to US \$2.6 billion this year. It is estimated that there will be 300 million users in 2002, and electronic commerce transactions are expected to reach US\$1.3 trillion in 2003.

The healthcare industry must exploit the Internet and E-Commerce. Some possible applications include :

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## Health it in the 21<sup>st</sup> Century

- Share Care Referrals, ie sharing of information to support better patient care across the continuum of care;
- Teleconsultation both locally and overseas;
- Supply-Chain Management, for example procurement of drugs and medical supplies;
- Continuing Medical Education (CME) for professionals and Public Health Education for the general public; and
- Access to Medical Knowledge Databases

On the Internet, health information is the most sought after personal information. Major surveys have shown that health information is sought 34% of the time. Indeed, IT and the Internet are becoming an important part of the national infrastructure for healthcare delivery around the world.

### EMR

I would now touch on Electronic Medical Records. Although IT has been widely exploited to support patient management and financial systems, there has been less extensive application of IT in the capturing and sharing of patient health information to improve clinical outcomes. While the practice of medicine has changed rapidly over the years, recording and storing medical information using pen, paper and files have remained essentially unchanged.

Health information consists of past medical records which capture the diagnoses, medications, allergies, surgeries, infections, and other data. For most people, this information is stored in paper records unique to the care provider resulting in scattered pieces of the individual's health history.

### A Vision of Healthcare in 2005

In the United States, a white paper was published in 1998 by the Healthcare Open Systems & Trials (HOST) Consortium entitled "A Vision of Healthcare in 2005 : Continuing the Evolution and the Revolution." The vision was drawn up by the consortium with contributions from healthcare providers, like Massachusetts General Hospital, academic and research institutions, like Harvard Medical School and the Los Alamos National Laboratory, and software companies, like IBM.

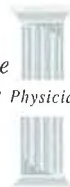
Their Vision is "We need a healthcare system that works better and costs less."

Let me quote the general concepts emerging from their Vision :

- Information technology offers the best opportunity to make healthcare less expensive, more efficient, of higher quality, and more patient-centric
- The future structure of healthcare organisations is unpredictable and subject to rapid change; thus, information systems must operate independently of organisational structure and be extremely flexible.
- Physicians will transition from being information sources to being problem solvers and information processors; the amount of information sharing and collaboration among practitioners will increase.
- More emphasis will be placed on wellness and prevention as a means of decreasing treatment needs.
- Non-intrusive computer systems will capture relevant information and actions taken by the providers during an encounter, storing the results in a secure, life-long record. This data will be appropriately available for individual care, collaboration, research, administration, and policy making.
- Individual patients will be encouraged to become more involved, helping to increase the focus on wellness and making reliable, broadly available healthcare information ever more important.

### Exploitation of IT in Public Healthcare Sector

The public healthcare sector institutions have done well in leveraging on IT to improve internal operational efficiencies and service levels to patients. The hospitals have recently completed the implementation of new enterprise-wide systems to support patient management, patient accounting, financial management, material



## **Health it in the 21<sup>st</sup> Century**

management etc. Some of the hospitals are in the process of implementing Order Entry and Results Reporting functions.

A small number of cross-institutional IT initiatives were implemented, including:

- The Hospital and Emergency Ambulance Link (HEAL) which transmits pertinent patient information from the ambulance to the receiving hospital before the patient arrives at the hospital; and
- Central Appointment and Referral System (CARES) which is an Internet-based system which allows GPs or polyclinics to book appointment electronically with Specialist Outpatient Clinics, without the need to go through an operator.

MOH strongly supports such innovations on the use of IT to improve patient care and outcomes, as these will help us to better achieve our national healthcare goals.

However, our healthcare institutions should look beyond current incremental levels of improvement and aim to achieve a quantum leap to reap the full benefits of IT. This can be realised with the implementation of Electronic Medical Records Systems.

As an illustration, I would like to quote a specific example provided by our friends from the Kaiser Permanente Group. In the Washington area, the average foot amputation for diabetics is 4 to 5 per 1000 diabetic patients per year. The Kaiser Permanente Group has implemented a Population Care Registry under their Clinical Information System (CIS) Masterplan. This electronic Registry proactively tracks and manages the care of patients with specific health conditions, including diabetes. With the implementation of the registry, the number of foot amputations has been reduced to 2.6 per 1000 diabetic patients per year. In addition, the system has reduced the number of hospital admissions for this group of patients.

Public sector healthcare providers must work towards the creation of an electronic patient-

centered medical records (EMR) systems. The Ministry will collaborate with the private sector and other related agencies to ensure that their IT goals and systems are aligned with our national goal of establishing a Longitudinal Medical Records (LMR) system, to support our long-term vision of a national life-long health record for all citizens, accessible anytime, anywhere.

In a KBE, quality people are necessary but are not sufficient. Innovation and systems to capture and share knowledge will become our core asset and competitive advantage. In the case of healthcare, the challenge is not in technological limitation, but the need for a paradigm shift in how the care delivery process can be enhanced to improve patient satisfaction and achieve better outcomes.

There are challenges and barriers to be overcome in implementing an EMR system. Changes to the care delivery process and complex issues such as medico-legal concerns, patient health data privacy and confidentiality will need to be addressed. These are daunting challenges which we have to overcome.

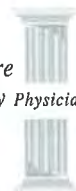
### **MOH IT Blueprint for Healthcare**

To better position the Singapore Healthcare sector in the next millennium, MOH has been exploring opportunities to exploit fully the potential of IT and the Internet in Singapore's healthcare delivery system. Besides improving the efficiency and effectiveness of the sector, it will also enable us to address some of the challenges and barriers in achieving MOH's mission and objectives.

MOH has been working with the NCB, the public and private healthcare institutions on defining our national IT vision for healthcare and setting the national IT directions and guidelines for the Singapore Healthcare sector.

We will be forming an IT panel, comprising medical and IT professionals and the IT industry, to further refine the IT Blueprint for the sector. This IT Blueprint will guide the development and use of IT in the healthcare sector over the next 5 years.





### **Closing**

With our progress into a knowledge society in a border-less world, IT and the Internet are progressively being exploited as strategic tools to manage the massive flow of information and communication within and beyond our connected society.

Our healthcare sector will need to keep abreast of and exploit the use of IT in healthcare. Only then can we continue to excel in our care delivery and outcome and position Singapore in the forefront of medical excellence.

In closing, I would like to congratulate the seminar organising committee for putting together an excellent seminar programme and exhibition. In particular, I would like to thank Dr Richard Kirchoefer and Dr Lance Lang for coming here today to share with us Kaiser Permanente's wide experience in using IT to achieve their healthcare objectives. With that, let me end by wishing all participants a very fruitful and stimulating seminar.

## The Singapore Family Physician – The Past Decade

Moti C Vaswani

In his article “The Singapore Family Physician – A Brief Historical Sketch” in the Singapore Family Physician 1987, Vol XIII No. 2, Dr Leong Vie Chung, who had retired as Honorary Editor of the Singapore Family Physician (SFP) after six years, questioned whether the people responsible for publishing the SFP had come full circle – from the “pioneers” through the “settlers” to the “ruler/citizens”, their pioneering spirit abated, not too eager to change. As I review the last decade or so of the SFP, I am extremely gratified to be able to answer him, finally, with an emphatic “No”. Since his article, many changes have been introduced and the College journal has grown from strength to strength.

### The Honorary Editor

The first four Honorary Editors came from the “pioneers” of the College. In mid-1987, a stalwart from the “second echelon”, Dr Goh Lee Gan, took over the editorship. After four years, he was appointed Censor-in-Chief of the College, and handed the baby back to me. During the next four years, Lee Gan helped me produce the journal together with different members of the “third generation” of College leaders, and finally helped me identify one of them, Dr Hong Ching Ye, who was capable of and willing to take over from me. Dr Hong was the Honorary Editor for two years, 1995-1997 and has done a great job of it.

Year	Volume	Numbers	Hon. Editor
1987	XIII	3, 4	Dr Goh Lee Gan
1988	XIV	1, 2, 3, 4	
1989	XV	1, 2, 3, 4	
1990	XVI	1, 2, 3, 4	
1991	XVII	1, 2	
1991	XVII	3, 4	Dr Moti Vaswani
1992	XVIII	1, 2, 3, 4	
1993	XIX	1, 2, 3, 4	
1994	XX	1, 2, 3, 4	
1995	XXI	1, 2	
1995	XXI	3, 4	Dr Hong Ching Ye
1996	XXII	1, 2, 3, 4	
1997	XXIII	1, 2	
1997	XXIII	3, 4	Dr Lau Hong Choon
1998	XXIV	1, 2, 3, 4	
1999	XXV	1, 2	

Table 1. The Singapore Family Physician and the Honorary Editors

### Editorial Content

The practice of an essay-form Editorial continued, with discourses on a wide variety of contemporary topics, written with candour, probity and judiciousness. With the first issue of 1992, the Theme Section was introduced – a section consisting of a few articles devoted to a particular theme (the first theme was ‘Emergency Medicine’) which dealt with a topical subject. With this Theme Section came the Theme Editorial, which gave an overview of the subject in relation to Family Practice.

In 1995, the Editorial Board decided that each issue of the SFP would definitely include a Theme Editorial, but that a composition-type Editorial would be inserted only when a current matter or question had to be addressed.

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Family Physician  
Drs Fernandez & Partners  
9 Penang Road  
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Volume	Number	Editorial Topic
XIII	3	Tripartite Relationship, Two Events, One Common Goal
	4	Vocational Training for Future Family Physicians
XIV	1	Measuring Medical Manpower Adequacy
	2	The Prevention of Liver Cancer
	3	Research in General Practice
	4	The Gap in Healing
XV	1	Medical Records – Rites and Rights
	2	Our Tasks in Medical Education
	3	Urinary Incontinence in the Elderly
	4	Absenteeism and Sick Certification
XVI	1	To Cure or To Care
	2	Private Medicine and Gatekeeping
	3	Change – Bane or Boon?
	4	CME Local Networks for the 1990s
XVII	1	The Family in Family Medicine
	2	Family Medicine as a Speciality
	3	Housecalls and Family Doctors Revisited
	4	Winds of Change
XVIII	1	Postgraduate Family Medicine Education and Training
	2	From College to Academy ?
	3	Be Malaria Wise
	4	Healthcare Costs and the Family Physician
XIX	1	The Doctor-Patient Relationship
	2	Behavioural Problems in Family Practice
	3	The Family Life Cycle, Family Dynamics and the Family Physician
	4	Preventive Medicine and Primary Care
XX	1	Skills in Family Medicine
	2	Research in Family Medicine
	3	Quo Vadis Primary Healthcare Strategy?
	4	Family Values in Family Medicine
XXI	1	The Advance Directive – What is the Family Practitioner's Role ?
	2	The Next Lap
	3	The Singapore Family Physician – Looking Ahead
	4	The Role of the Family Physician in Paediatric Care
XXII	1	Gynaecology, Economics and Screening in Primary Care
	2	The 'Bread and Butter' of Family Practice
	3	Neurology in Family Practice
	4	Infectious Diseases – A Thing of the Past or a Scorch of the Present?
XXIII	1	The Eye in General Practice
	2	25th Anniversary Commemorative Issue
	3	The New Singapore Family Physician
	4	The Role of the GP in Stroke Care
XXIV	1	A Tale of Two Countries: Managed Care
	2	Prevention of Type II Diabetes
	3	Focus on Neurology

Table 2. Editorial Topics in the last decade

## Invited Articles

### The Cover

With the introduction of the Theme Section, the cover of the SFP, which used to be a different colour for each year/volume and displayed at its centre, the College crest, against a backdrop of a map of Singapore island, was changed to a constant blue, with a colour picture of the College of Medicine Building, which houses the College of Family Physicians, in the centre. The College crest was moved to the top portion of the cover, while the bottom portion was used for a box within which were highlighted the Theme and the Theme articles inside that issue.

### 'Theme' Subjects

The various themes covered since 1992 are shown below (Table 3)

Year	Volume	Number	Theme Subject
1992	XVIII	1	Emergencies in General Practice
		2	Terminally Ill Patients
		3	Diabetes Mellitus I
		4	Diabetes Mellitus II
1993	XIX	1	Medico-Legal and Ethnical issues
		2	Common ENT Problems
		3	Cardiology in Practice
		4	Family Practice Dermatology
1994	XX	1	Family Practice Rheumatology
		2	Psychological Medicine in Family Practice
		3	Family Medicine Cardiology
		4	Common Gastrointestinal Problems
1995	XXI	1	Family Practice Geriatrics
		2	The Doctor, His Patient and His Family
		3	Occupational Health
		4	Family Medicine
1996	XXII	1	Office Gynaecology
		2	Respiratory Medicine
		3	Update in Neurology
		4	Infectious Diseases
1997	XXII	1	Ophthalmology Update
		2	25th Anniversary Commemorative Issue

Table 3. Subjects covered since 1992

### Other Contents

While the Original Papers, Research Papers, Review Articles, the Home-Study Section and ECG/Xray Quiz continued as before, the last decade saw two important developments. Firstly, more and more contributions were authored by Family Physicians, either individually or in co-authorship. Secondly, the initiation of the Annual College Scientific Conferences in 1988 opened up a whole new source of papers, or ideas for papers, for publication.

### The Future

With 22 years past, the SFP has still room to grow and much more needs to be done. Future Honorary Editors will have to inculcate fresh ideas to increase the quantity and quality of published material. Possible inclusions would be excerpts from other Family Medicine journals, and even the occasional



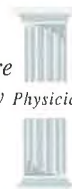
## ***Invited Articles***

sample questions from the M Med (Family Medicine) examination to stimulate readers. The problems of increased costs of production and how to increase advertisement revenue will also have to be looked into.

As more of our College members sit the M Med (Family Medicine) examination each year, we will soon have a core group of Family Physicians who can contribute to the College journal and help raise its standards so that the Singapore Family Physician can take pride of place among leading Family Medicine publications.

### ***Editor's Note:***

Dr Moti Vaswani was Honorary Editor from 1991-1995



## Invited Articles

# Useful Tips For Pain Relief In The Terminally Ill

Pang Weng Sun

## Introduction

Terminal illness is not restricted to cancers, but includes end-stage organ failures like chronic renal failure, intractable heart failure, the respiratory cripple, hepatic failure, end-stage neurodegenerative disorders, and HIV infections. Pain, however, is a more common symptom in cancer and HIV infections than in the other terminal illnesses. In this paper, only management of pain in advance cancer will be discussed.

It should be remembered that not all cancer patients have pain and the majority of those with pain do respond to treatment. Pain is not an inevitable feature of dying from cancer. Many patients can be treated in an outpatient setting without the need for admission to hospital. Hospitals are often not the best places for managing terminally ill cancer patients, many of whom prefer a home environment where their families can be constantly with them.

## Pain assessment

The first and most important step in pain management is accurate pain assessment. This is achieved by meticulous history taking and detailed examination, supplemented where appropriate with investigations. In the history, one should explore the onset of the pain, the site, radiation, character, frequency, associated symptoms, aggravating and relieving factors, history of previous medications. The examination helps in localising the pain and identifying a cause.

At the end of the assessment, the following questions should be answered:

1. What is the cause of pain?
  - is it due to the cancer or unrelated to it? (e.g. tension headache, pain from pressure sores, gastritis are not directly due to cancer)
  - is it due directly to the tumour, bone metastases, infiltration or compression of a nerve?

2. What type of pain is it?
  - is it nociceptive or neuropathic pain?  
Different pains respond to different treatments.
  - remember that a patient may have more than 1 type of pain e.g. metastases to the spine may cause pain from compression fracture, from tumour infiltration into surrounding soft tissues, from tumour compression of root(s) causing lancinating pain along a nerve or nerve root distribution.
3. What is the severity, and how has the patient been affected?
  - This establishes a baseline for assessing response to treatment. One way is to use the visual or verbal analogue scale, where a patient is asked to give a score from 0 to 10 according to the severity of pain. In elderly patients, such scores are difficult to elicit and descriptive terms like mild, moderate or severe may be more helpful. Severity could also be gauged by the effect on function, i.e. whether sleep was affected, or to what extent did pain affect normal activities.

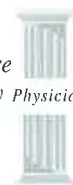
Knowledge of the type of pain enables more specific treatment. As a general rule: radiotherapy is the treatment of choice for pain from bone metastases. NSAIDs are useful in pain from bone metastases as it is thought to be prostaglandin mediated. Antidepressants and anticonvulsants are useful for neuropathic pain.

## Prescribing for pain control

The following principles should be adopted:

1. An oral route is preferred as it is convenient for the patient and does not necessitate difficult or expensive procedures, and can be maintained at home. Parenteral analgesics should be used for patients in a pain crisis necessitating urgent pain relief or in those who are unable to take orally.

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2. The World Health Organization recommends a step ladder approach, with analgesics like paracetamol or NSAIDs for mild pain, weak opioids like codeine for moderate pain and strong opioids for severe pain. Depending on the severity of pain at presentation, the family physician may not need to follow each step in that order.
3. Doses should be given round the clock rather than "PRN" so as to maintain a steady state and keep patient painfree. Unlike acute pain, cancer pain is not likely to improve but will worsen with time as the cancer progresses, unless definitive treatment for the cancer is given. Giving analgesics "PRN" would mean that the patient will be intermittently in and out of pain.
4. Breakthrough doses should be prescribed even in patients who are stable on a pain regime, additional doses may be required as patient may still have occasional episodes of "breakthrough" pain.
5. Review response and treatment regime regularly and frequently.
6. If there is no improvement, consider the following points: a) is the treatment regime being adhered to? b) are doses adequate? c) are adjuvant drugs like anticonvulsants, antidepressants needed? d) is there psychological or spiritual pain?  
Pain is not just a physical symptom but a emotional experience, and psychological and spiritual factors influence the experience. A person who is depressed or has a lot of family conflicts may experience more pain, while someone with excellent family support may "tolerate" pain better. Unless the physician deals with these issues, he may not be able to control pain.
7. Consider other modalities of pain control - physical therapy, nerve blocks, etc.

### Commonly Used Analgesics

Paracetamol remains the simplest analgesic and is still useful in mild pain. Paracetamol

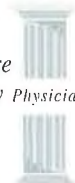
and chlormezanone combinations (Beserol, Trangesic) give an added benefit of muscle relaxation. In the elderly, doses are limited by chlormezanone, which has a sedative effect. Paracetamol and codeine combinations (Panadeine, Paradeine) usually combine 500 mg paracetamol with 8 mg codeine. Doses are limited by paracetamol (maximum recommended usually 1g qds), which effectively allows only 64 mg codeine a day. It may thus be better to use codeine phosphate 30 mg tablets instead, which provides greater analgesia.

NSAIDs are effective especially when there is an inflammatory component. They should be avoided in those with peptic ulcer disease or renal failure. In patients at risk, most clinicians will prefer to add on H<sub>2</sub> antagonists or proton pump inhibitors. It should be borne in mind that bleeding diatheses are not uncommon in patients in terminal cancer (prolonged PT from liver dysfunction; disseminated intravascular coagulation; thrombocytopenia from marrow involvement). There are not much differences between the various NSAIDs in practice. However, the newer NSAIDs which are predominantly COX2 inhibitors have lower risks of adverse effects.

Tramadol, an opioid derivative, can be used for moderate to severe pain. Starting dose 50 mg tds, titrating to 300-400 mg a day. Elderly patients generally do not tolerate higher doses well. Side effects are similar to that of morphine. It is more readily available in general practice than morphine.

Buprenorphine (Temgesic) is a useful opioid. Its sublingual formulation allows for rapid onset of action but it should not be used in combination with other opioids as it has antagonistic effects. There is also a ceiling effect above which higher doses will not achieve further analgesia.

Morphine remains the most useful analgesia though not all family physicians keep it in stock. Starting doses are 2.5-5 mg 4 hourly in the opioid-naive. Frail elderly patients and those with renal impairment may require even smaller doses or longer dosing intervals initially. The doses can be stepped gradually day by day (e.g. 2.5 mg to 5 mg, then to 7.5 mg, then to 10 mg, 15 mg, 20



## Invited Articles

mg, etc). Higher doses may be used if the patient is in severe pain and reduced as necessary. There is no limit to the dose; the main limiting factor is the patient's tolerability. As morphine is short acting, patients often have to wake up in the night to keep to the 4 hourly regime. One way of avoiding this is to give a larger dose at night e.g. 5 mg 4 hourly (8am, 12 noon, 4pm, 8pm) and 10 mg at night (12MN).

Morphine is also available in a sustained release acting formulation. This should be used only when patients have arrived at a stable dose as it is difficult to titrate using long acting morphine. Its advantage is that it provides better analgesia overnight without the patient having to wake up for late night doses. It is available in 10 mg and 30 mg tablets (higher doses are less commonly available). To prescribe, add up the total dose of morphine required and give in two divided doses (e.g. a patient stable on 10 mg 4 hourly needs a total daily dose of 60 mg. Sustained release morphine is prescribed as 30 mg bd.) It should be remembered that sustained release morphine should not be given to patients on nasogastric tube feeding as crushing would negate the long acting effect.

Constipation is an invariable side effect of the opioids and laxatives should be routinely prescribed for patients on morphine. Stimulant laxatives like senna or dulcolax are the most appropriate. Nausea is commonly experienced when morphine is first started. This can be relieved by use of haloperidol, which blocks the emetic effect of opioids. Drowsiness may also occur. Both nausea and drowsiness will improve over a few days as tolerance develops.

The use of methadone has previously been avoided in the management of cancer pain as it is long acting and tends to accumulate. Recently it is making a comeback and has been used for neuropathic pain as well.

Transdermal fentanyl and subcutaneous morphine are alternative ways of delivering opioids in those who are unable to take oral opioids.

## Adjuvant analgesics

These drugs are not analgesics themselves but have been proven useful in pain control. Antidepressants like amitriptyline and anticonvulsants like carbamazepine, sodium valproate, gabapentin and lamotrigine are useful in the treatment of neuropathic pain. Their usage will not be discussed further here.

## Hospice services

It may be difficult for the family physician to manage pain in the terminally ill patient as other symptoms and psychosocial issues need to be addressed as well. One should therefore be aware of available hospice services. There are three inpatient hospices: Assisi Hospice, Dover Park Hospice and St Joseph's Hospice. Home hospice care is provided by Hospice Care Association, Assisi Hospice, Singapore Cancer Society and Methodist Hospice Fellowship.

The family physician can seek assistance from these services in the management of their patients.

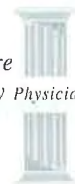
## Conclusion

Pain can be reasonably controlled in the majority of patients with advance cancer. It should be further emphasised that not all cancer patients have pain and not all terminally ill patients need morphine. Morphine should therefore not be routinely prescribed in all terminally ill patients but only in those who are deemed to benefit from it.

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## Original Articles

# A Survey on Diving Medicine and the Family Physician

G C T Chan, E C T Low, J C M Wong

## Abstract

**Introduction:** The role of diving and hyperbaric medicine in Singapore is not well established. This may be due to the lack of awareness and accessibility to training in this discipline. Currently the expertise lies mainly with the medical officers in the Singapore Navy. This paper discusses the relevance of diving medicine to general practitioners.

### Study objectives:

1. To determine the prevalence of encounters with diving related conditions
2. To identify the knowledge base of diving with respect to performing 'Fitness to Dive' examinations
3. To discuss the role of the Singapore general practitioner in diving medicine

## Method

A prevalence study employing a self-addressed questionnaire was sent to the doctors listed with the College of Family Physicians Singapore over a 2 month period.

## Results

There were 191 responses (response rate 23.8%). The respondents showed that 116 (61.1%) had done a diving medical assessment for recreational divers; 20 (10.5%) had done examinations for commercial divers; 7 (3.7%) knew the absolute contraindications to diving; and 173 (91.1%) felt they lacked adequate knowledge to manage diving related problems. With respect to hyperbaric oxygen therapy (HBOT), 167 (87.8%) were aware of HBOT; 32 (16.8%) were aware of the proven indications for HBOT; and 171 (90.0%) felt they did not have enough knowledge about HBOT to advise the patient. 146 (76.8%) expressed the need for CME in diving and hyperbaric medicine.

## Conclusion

There is a role for GPs in the prevention and management of diving accidents. The answers to the questions suggest that the current knowledge base in diving medicine may be inadequate to evaluate fitness to dive and to manage diving accidents. It would be useful for CME in diving and hyperbaric medicine to be developed for GPs.

## Keywords

General practitioners, diving medicine, knowledge base

## Acknowledgments

The authors would like to express their thanks the College of Family Physicians Singapore and the general practitioners for their support in this project.

## INTRODUCTION

With the increasing number of recreational divers<sup>1</sup>, primary health care doctors, especially general practitioners (GPs), will likely do more pre-diving assessments to determine fitness to dive and encounter diving related problems in their practice. As information in this area was lacking it was felt that a survey among the GPs in diving medicine may contribute towards the development of diving safety and health in Singapore.

## OBJECTIVES

The aim of this survey was to determine whether diving medicine was relevant to the GP.

## MATERIALS AND METHODS

At the time of the survey there were about 1200 General Practitioners in Singapore of which 800 were registered with the College of Family Physicians<sup>2</sup>. A self-addressed questionnaire was sent to the doctors listed with the College and the

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responses were collected over a 2 month period in November and December 1997. There were a total of 191 responses or 23.8% response rate.

The objective of the questionnaire was to gain an understanding of the knowledge base of GPs in assessing fitness to dive by asking about the absolute contraindications to diving. It also included a section for them to identify what the recognised indications for hyperbaric oxygen therapy (HBOT) were. The respondent had to indicate the appropriate choice of answers; this was usually more than one answer. The correct responses were based upon the policies of three international bodies for diving and hyperbaric medicine: the Undersea and Hyperbaric Medicine Society (UHMS),<sup>3</sup> the European Committee for Hyperbaric Medicine<sup>4</sup> and the South Pacific Undersea Medicine Society.<sup>5</sup> It should be mentioned that the response to the questions requires a basic understanding of diving hyperbaric medicine.

There were also direct questions on diving-related encounters i.e. doing fitness to dive examinations or treating diving related conditions. The respondent also gave their opinion on whether they had adequate knowledge to manage diving accidents and to advise patients about HBOT. Finally, they were asked whether there was a need for Continuing Medical Education (CME) in diving medicine for GPs.

## RESULTS

(Refer to Table 1 for a summary of the survey results)

### Assessing fitness to dive

One hundred and sixteen (61.1%) respondents had done a diving medical assessment for recreational divers; while 20 (10.5%) had also done examinations for commercial divers.

### Encounters with diving related problems

Fifty-six (29.5%) respondents had encountered patients with diving related problems. Table 2 shows the range of conditions seen by the respondents and the percentage of respondents who have seen such conditions.

	Frequency (% of respondents)
Done a diving medical assessment for recreational divers	116 (61.1%)
Done examinations for commercial divers	20 (10.5%)
Knew the absolute contraindications to diving	7 (3.7%)
Lacked adequate knowledge to manage diving related problems	173 (91.1%)
Aware of hyperbaric oxygen therapy	167 (87.8%)
Aware of the proven indications for hyperbaric oxygen therapy (HBOT)	32 (16.8%)
Felt they did not have enough knowledge about HBOT	171 (90.0%)
Felt the need for CME in diving and hyperbaric medicine	146 (76.8%)

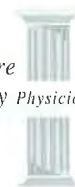
Table 1. A summary of the survey results

Condition	Frequency (%)
Decompression sickness/ bends/ Caisson Disease	15 (26.8%)
ENT problems	12 (21.4%)
Musculoskeletal aches and pains	8 (14.3%)
Barotrauma	7 (12.5%)
Sinusitis/Epistaxis/ Sinus barotrauma	4 (7.1%)
Otitis media	3 (5.4%)
Asthma	1 (1.8%)
Jelly fish/ sea urchin stings	1 (1.8%)
Hyperbaric neuralgia	1 (1.8%)
Subconjunctival haemorrhage	1 (1.8%)
Aseptic necrosis	1 (1.8%)
Hallucination	1 (1.8%)
Dyspnoea	1 (1.8%)

Table 2. Types of diving related conditions seen by respondents

### Knowledge of diving medicine

The respondent had to indicate what he felt were absolute contraindications to diving based on a list of medical conditions. The most appropriate answers required were: 'sickle cell anaemia', 'respiratory tract infections' and 'asthma'.<sup>3,4,5,6</sup> Table 3 shows the number of responses given for the various proposed conditions. The other conditions such as 'hypertension', 'diabetes mellitus' and a 'previous history of decompression illness' were generally relative contraindications



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Contraindication	Frequency (%)
Respiratory tract infection*	120 (63.2%)
Diabetes mellitus	21 (11.1%)
Previous history of DCI	94 (49.5%)
Hypertension	45 (23.7%)
Asthma*	101 (53.2%)
Sickle cell anaemia*	119 (62.6%)
Over 45 years of age	6 (3.2%)
*indicates the true absolute contraindications	

**Table 3.** List of perceived absolute contraindications to diving by respondents

(according to the severity of the condition - only the most severe and poorly controlled cases, as well as insulin-dependent diabetes were absolute contraindications to diving). An upper age limit of 45 i.e. chronological age is not a contraindication at all.<sup>3,4,5,6</sup> Only seven respondents (3.7%) indicated all the appropriate answers.

In response to a scenario where a diver presents to the physician with symptoms suggestive of decompression illness, 48.4% would refer to a diving physician for management. One hundred and seventy-three (91.1%) respondents felt they lacked adequate knowledge to manage diving related problems.

### Hyperbaric Oxygen Therapy (HBOT)

One hundred and sixty-seven (87.8%) respondents indicated an awareness of HBOT.

The questionnaire tested the physicians on their knowledge of HBOT applications. This question was felt to be relevant to GPs because they would be the contact person for patients inquiring about HBOT and its applications. The recognised indications listed were 'carbon monoxide poisoning', 'radiation tissue damage' and 'diabetic ulcers'.<sup>7,8,9,10</sup>

1. Air/ gas embolism
2. Carbon monoxide poisoning and smoke inhalation
3. Clostridial myonecrosis
4. Crush injury, compartmental syndrome and other acute traumatic ischaemias
5. Decompression illness
6. Enhancement of healing in selected wound problems
7. Exceptional anaemia resulting from blood loss
8. Necrotising soft tissue infections
9. Refractory osteomyelitis
10. Radiation tissue damage
11. Compromised skin grafts and flaps
12. Thermal burns

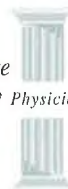
**Table 4.** Recognised applications of Hyperbaric Oxygen Therapy (approved by Undersea Hyperbaric Medical Society)

(Table 4 shows a list of approved indications for HBOT) HBOT has not been found useful for 'cancer' and 'cosmetic uses in intact skin'.<sup>7,10</sup> Thirty-two (16.8%) respondents were able to provide the required answers, while 6.3% believed that HBOT has use in 'cosmesis' and 'cancer'. One hundred and seventy-one (90.0%) respondents felt they did not have enough knowledge about HBOT to explain to patients regarding its benefits, application and side-effects. It was also found in response to a direct query

Condition	Frequency (%)
Decompression Illness/ Caisson Disease/ Diving related injuries or complications	50 (26.3%)
Diabetic wounds	25 (13.6%)
Carbon monoxide poisoning	13 (6.8%)
Gas gangrene/ gangrene	5 (2.6%)
Radiation optic neuropathy/ post radiation visual problems	2 (1.2%)
Bed sores	2 (1.0%)
Non-healing ulcers	2 (1.0%)
Tissue ischaemia	2 (1.0%)
Breathing problems	2 (1.0%)
Burns	1 (0.5%)
Barotrauma	1 (0.5%)
Circulatory problems	1 (0.5%)
Poisoning	1 (0.5%)
Wound with anaerobes	1 (0.5%)

**Table 5.** Conditions which respondents would refer for HBOT





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that 118 (62.1%) respondents would refer patients for HBOT for the following conditions listed in Table 5.

### Need for CME

One hundred and forty-six (76.8%) respondents felt the need for CME in diving and hyperbaric medicine for GPs.

## DISCUSSION

The number of cases referred for the treatment of diving emergencies and hyperbaric oxygen therapy has been increasing over the years in the Naval Medicine and Hyperbaric Centre, Republic of Singapore Navy.<sup>11</sup> It was also significant to note that in the case of diving treatment patients, about 75% were recreational divers.<sup>11</sup> Although statistics were not available for Singapore, diving appears to be increasingly popular as a leisure sport among its population.

61.1% of the respondents had conducted diving medicals for recreational divers, of which 10.5% had also conducted them for commercial divers. However, the biggest limitation in this study was the low response rate. Of the 800 questionnaires sent, 190 respondents replied, making a response rate of 23.8%. This may suggest that the doctors only had an interest in diving medicine if it was related to the nature of their practice.

### Knowledge of diving and hyperbaric medicine

Although 61.1% of the of the respondents had done diving medicals for patients, only 3.7% of them could correctly indicate (the 3 responses required) the absolute contraindications to diving. Based on the respondents' answers, 53.2% and 37.4% could be hypothetically clearing fallaciously asthmatics and those with sickle-cell anaemia fit for diving. Asthmatic attacks may be precipitated by a number of factors, including physical exercise, salt-water aspiration and the breathing-in of cold, dry air from the breathing apparatus.<sup>6,12,13,14</sup> An asthmatic attack underwater is extremely dangerous and may induce panic. Pulmonary barotrauma could also result from a combination of air-trapping and rapid ascent.

Sickle cell disease predisposes to a sickling crisis under hypoxic conditions. It will be catastrophic in remote localities or under hyperbaric conditions. It may also complicate the management of decompression illness.<sup>13,14</sup> Thus candidates with sickle-cell disease or trait should be discouraged from diving.

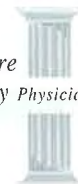
Conversely, not certifying the candidate fit to dive for reasons of 'hypertension' and 'being over 45 years of age' may be inappropriate.<sup>12,13</sup> A patient with mild or well controlled hypertension (uncomplicated) need not be excluded from diving. Chronological age is a significant selection criteria in military diving,<sup>15</sup> but it need not be in recreational diving. It is difficult to determine what the upper limit for recreational diving is, and in the examination of the elderly diver, it is more important to identify the effects of ageing and the presence of underlying disability.<sup>12,13</sup>

Where a diver presents to the physician with symptoms suggestive of decompression illness, only 48.4% indicated that they would refer the patient to a diving physician for management. The definitive treatment for decompression illness is recompression treatment and the use of hyperbaric oxygen.<sup>3,4,7,10</sup> It is thus advisable that all cases of suspected decompression illness be referred to a hyperbaric chamber facility for management. Although HBOT awareness was present in 87.9% of the respondents, there appeared to be a lack of understanding about its applications which could be due to the lack of information on HBOT locally. This need for CME on Diving and Hyperbaric Medicine was recognised by the doctors themselves. In 91.1% and 90.0% of the respondents, the survey indicated that they did not have sufficient knowledge about diving and hyperbaric medicine respectively; and 76.8% recognised the need for CME for doctors in this field.

### The role of GPs in diving medicine

It is compulsory for compressed air workers to undergo pre-employment and periodic examinations by law in Singapore.<sup>17</sup> Professional divers in the navy also require similar examinations. There is currently no legislative requirement for medical screening for recreational divers.





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This, however, does not exclude the relevance of basic diving medical knowledge for GPs. It is the opinion of the authors that family practitioners do have a role in the Singapore diving community. The respondents in the survey have shown significant encounters with diving cases, but their answers have also revealed a gap in the knowledge in assessing fitness to dive and management of decompression illness. Whether GPs are deficient in the other aspects of diving medicine such as the management of dangerous marine animal bites or stings and management of barotrauma, will probably require further evaluation.

The main role of GPs in diving medicine is largely in the prevention and management of diving accidents and diving related conditions.<sup>18</sup> They should also have a responsibility in the follow-up of these patients post-treatment.

### The prevention of diving related conditions/accidents<sup>18</sup>

There is usually a requirement for potential divers to have a medical examination prior to starting diving lessons. This is usually on the diving school's own initiative to prevent diving incidents (and perhaps liability claims). GPs thus have a role in screening diving candidates to assess for contraindications to diving (examples include psychological immaturity in young divers to manage a diving emergency and poor cardiovascular fitness to overcome work in diving) and for medical conditions which may be aggravated by the diving environment (a good example is that of asthma, which may be aggravated by multiple triggering factors). The risk of an accident is reduced by certifying them unfit or giving the appropriate medical advice and precautions during diving. He will also moderate various drug usages in divers to minimise adverse drug effects or interactions which may compromise the diver's performance and safety.

It is therefore necessary for GPs to be aware of diving illnesses and to be able to prescribe with care for divers to avoid harmful side effects. Local knowledge of diving sites (such as geography, nearest recompression chamber facility, modes of evacuation) can also be useful when advising

novices and preparing them for a diving emergency. As some dive sites in South East Asia have a risk of communicable diseases such as malaria and typhoid, preventive medicine advice and immunisation is a relevant area for the diver in Asia.

### During a diving incident/accident.<sup>18</sup>

Divers get into trouble at sea or in lakes and GPs on-site or who take a call are often involved in the first aid treatment and the making of a correct diagnosis. The GP would need to be able to contact expert advice about further treatment and decide how to act on further advice. This usually involves organising transport, stabilising the patient's condition for transfer, arranging for recompression therapy, giving oxygen and fluids and keeping clinical records of the patient's condition, drugs and fluids administered.<sup>18,19</sup>

In general, recreational divers from Singapore would dive in sites outside the country due to the lack of 'exciting' diving spots locally. These divers would often present late and it may be difficult to elicit a past history of diving (days before) and diagnosis becomes more challenging.<sup>18</sup> A high index of suspicion is warranted to avoid missing diving-related problems. The lack of diving medical awareness could also result in the GP referring a case of diving accident to the hospital when the patient would probably have benefited more from a referral directly to the diving physician.\* This delay could affect the prognosis in decompression illness even with definitive recompression therapy.<sup>14</sup> It is thus important that the family physician needs to recognise a medical condition related to diving; and even if he does not have the means to manage the condition, he should be able to seek advice and make the appropriate referral.

### After the diving related condition/accident<sup>18</sup>

After a diving incident, the patient needs to be followed up to detect residual disease, its recurrence and sometimes delayed complications of the disease (eg personality changes and dysbaric osteonecrosis in decompression illness).

If the patient wants to return to diving, he should be assessed on his fitness to dive. In this respect, referral to a diving physician may be necessary.

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## Confidential Enquiry of Stillbirths in Current Obstetric Practice – How Does it Concern Family Physicians?

Benjamin Tham Wai Lum, George Yeo Seow Heong

### Summary

*Audit, in the form of confidential enquiry, serves to identify flaws and weaknesses in our clinical practice so that medical care can be modified to anticipate, minimise and prevent tragedies.*

*In this study, over half of the stillbirths are results of sub-optimal antenatal care in pregnancy and many have identifiable and avoidable factors. A notable reduction in the stillbirth rates can be achieved if these factors are anticipated and corrected. The family physician can play a pivotal role in the reduction of stillbirths.*

### Keywords:

*Audit, confidential enquiry, stillbirth, sub-optimal care.*

### Introduction

In recent years, there has been widespread interest in the role of confidential systemic enquiries into mortalities related to medical care, including stillbirths and neonatal deaths<sup>[1,2,3,4]</sup>. The KKH Stillbirth Working Group was formed to analyse the stillbirths in the KK Women's and Children's Hospital. Two of the objectives of the group include:

1. Examination of sub-optimal factors, aetiologies and reasons relating to stillbirths.
2. Recommend management changes which might help to reduce the incidence of stillbirths.

### Material and Method

121 stillbirths that occurred in KKH over a 2-year period from 1995 to 1996 were examined. The case records from each death were summarised into a pre-prepared structured format. The patients were identified by a serial number and the names of the doctors were omitted to maintain confidentiality of the inquiry. The summarised

records were peer-reviewed by three practising obstetricians. The assessors reached panel consensus for each case after working independently, and then as a group.

The persons, grade of sub-optimal care factors related to the stillbirths and reasons leading to the foetal deaths were identified. Sub-optimal care is defined as the level of medical care given to the patients which is below the reasonable standard as expected from the majority of the practising obstetricians within the hospital setting. Sub-optimal care relating to clinical practice, staffing, structure, equipment and patient or her family were identified in each case and were graded as follows:

Grade 0	No sub-optimal care
Grade I	Sub-optimal care, but different management would have made no difference to the outcome
Grade II	Sub-optimal care – different management <b>might</b> have made a difference to the outcome – an avoidable factor or uncertain clarity of influence on outcome
Grade III	Different management <b>would reasonably be expected</b> to have made a difference to the outcome – a clearly avoidable factor implying that any adverse outcome could have been prevented

### Results

The stillbirth rates for the Chinese, Malays and Others were 2.93, 5.28 and 4.85 per 1000 deliveries respectively. The overall stillbirth rate for the population was 4.04 per 1000 deliveries. The stillbirth rates for Malays and Others were statistically significantly higher than the Chinese.

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## Original Articles

In the study, 76 cases (62.8%) were found to have grade II & III sub-optimal factors. Of these, 57 had single and 19 had double sub-optimal factors (Table 1).

Patients themselves contributed to the sub-optimal management of their own pregnancy in 52.9% of the stillbirths. Primary healthcare givers are involved in sub-optimal care in 8.3% of cases. Specialist caregivers and antenatal care system account for 12.4% and 4.1% of sub-optimal care respectively (Table 2).

Table 1: Frequency Distribution of Sub-optimal Factors

Personnel	Sub-optimal factor grade	Frequency	Percentage of grade 2 & 3 sub-optimal care related to the Total Number of Stillbirths
Primary physicians	1	3	8.3%
	2	5	
	3	5	
Specialists	1	1	12.4%
	2	9	
	3	6	
Patients	1	1	52.9%
	2	44	
	3	20	
System	1	0	4.1%
	2	3	
	3	2	

Table 2: Percentage Frequency of Sub-optimal care according to Personnel

Personnel	Percentage frequency of sub-optimal care related to the Total Number of Stillbirths
Patients	52.9%
Primary physicians	8.3%
Specialists	12.4%
System	4.1%

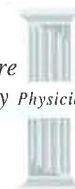
Some of the patients factors behind sub-optimal care included:

1. Default or postponement of appointments by patients themselves without the notice or approval of the concerning physicians and obstetricians.
2. Failure to realise the significance of absent or decreased foetal movement, or bleeding per vagina, and their inappropriate response to them.
3. Late or no antenatal booking.
4. Non-compliance with treatment and doctors' advice.

Primary healthcare givers are involved in sub-optimal care in the following areas:

1. Failure to counsel parents appropriately with regards to antenatal diagnostic testing such as amniocentesis for advanced maternal age for groups at risk.
2. Failure to date pregnancy accurately.
3. Deficiency in the appropriate employment of screening ultrasound scans at 20 weeks gestation.
4. Failure to recognise high risk obstetric patients, leading to late referral of these patients to tertiary centres for further management.





## Original Articles

### Discussion

An important finding highlighted by this study is that over half of the stillbirths had sub-optimal factors of grade II and III. This implies that a notable reduction in the stillbirth rates can be achieved if these factors are anticipated and corrected. This study is in agreement with other studies that perinatal mortality can be reduced by optimal application of existing methods of antenatal care <sup>[5,6,7]</sup>.

### Learning points for family physicians from this audit study and their roles in reducing stillbirth rates.

There are several aspects of antenatal care that some family physicians may have overlooked in the management of a pregnancy.

#### 1. Deficiency in the use of screening ultrasound scans at 20 weeks gestation

Major anomalies are present in 2%-5% of newborns <sup>(8)</sup> and it is the single leading cause of infant mortality, accounting for more than 20% of all perinatal death <sup>(9)</sup>. Other malformations are non-lethal but nevertheless may cause significant physical or mental handicaps. Moreover, 90% of infants with congenital anomalies are born to healthy women with no identifiable risk factors.

In experienced hands, sonographic detection of foetal abnormalities may be as high as 82.64%. The Helsinki Trial showed that there is significant reduction of perinatal mortality in screened than in control group (4.6/1000 versus 9.0/1000) due to improved early detection of major malformation, which led to induced abortion. They also found that second trimester ultrasound screening was cost effective when all significant costs and effects were taken into account <sup>(10)</sup>.

While it is true that those babies who are severely handicap would, by natural selection, present as stillbirths and abort themselves, prolonged carrying of the baby fosters close feeling of mother to the baby and this would

induce more psychological trauma when mishaps occur. In the absence of knowledge that the baby is abnormal, the sudden shock of having a stillbirth, or worse, unnecessary surgical intervention to deliver a non viable baby can be devastating. In this study, conditions that were detected late included Anencephaly, Dandy Walker syndrome and babies with multiple foetal abnormalities.

Hence, a screening ultrasound scan at 18 to 22 weeks gestation by experienced centres is recommended as a routine antenatal investigation.

#### 2. Failure to date pregnancy accurately

The gestation of the pregnancy is extremely important in obstetrics, particularly so when dealing with foetal abnormalities and intra-uterine growth restriction. Up to 40% of women cannot remember the first day of her last menstrual period correctly and up to 20% of women have irregular periods. Symphysis-fundal height measurement has an error margin of 2 weeks. This can be grossly inaccurate especially in women who are well endowed.

Measurement of the Crown Rump Length (CRL) of the baby in the first trimester by ultrasound scan estimates the dates with an error margin of 3-4 days. In the second trimester, measurement of the Biparietal Diameter (BPD), Head Circumference (HC), Femur Length (FL) and Abdominal Circumference (AC) estimate the baby's age to the nearest 7-10 days. The margin of error increases with the gestation. Hence, most obstetricians regard first trimester ultrasound dating scan an essential process in the prenatal care of every pregnant woman. For patients who seek antenatal services late, an ultrasound scan should be done as soon as possible to date the pregnancy and screen for foetal abnormalities.

#### 3. Failure to counsel parents appropriately with regards to antenatal diagnostic testing such as amniocentesis for advances maternal age and groups at risk

## Original Articles

Advance maternal age is the most common and yet forgotten indication for amniocentesis testing, apart from foetal abnormalities detected on ultrasound scan and past history of genetic disorder. Knowing the genetic make-up of the baby facilitates proper counselling and decision-making toward managing the pregnancy. The gestation for legal termination of non-lethal foetal abnormalities is 24 weeks.

### 4. Failure to recognise high-risk obstetric patients, leading to late referral of these patients to tertiary centres for further management

In this study, some of the antenatal medical problems that were unrecognised, managed inappropriately or referred late included intra-uterine growth restriction (IUGR), pre-eclampsia, gestational diabetes, multiple pregnancies, SLE in pregnancy and anti-phospholipid syndrome.

### What can we do to provide better care to antenatal patients?

1. The realm of obstetric care has changed radically within a short period of time over the last decade and completely new ideals and management standards have been introduced. Family physicians have to keep abreast with the latest progress in antenatal management by periodic reading of obstetrics articles or journals, and regular attendance of seminars and lectures. Diploma degree in obstetrics (currently not available in Singapore) may be a good way to accredit, monitor and improve the general quality of doctors involves in obstetric care.
2. Better communication between primary health physicians and hospital doctors, and proper integration of family physicians and hospital-based care in shared antenatal care programs can also help to improve the delivery of obstetrics services and reduce the number of avoidable deaths. The benefits of Shared Antenatal Care include:

- a) Elevating patients' antenatal care to "specialist" level, yet maintaining the established patient-doctor relationship with their primary physicians. Family physicians' care is also frequently more accessible to the pregnant mothers.
  - b) Accessibility to family physicians of the investigation modalities available in the tertiary institutions.
  - c) Better accessibility to hospital-based multidisciplinary care when the needs arise. Example: antenatal classes, prenatal diagnostic tests such as amniocentesis or screening ultrasound scans, gestational diabetic care services etc.
3. Patients themselves are the major contributors to the sub-optimal management of their own pregnancy. In many cases, the sub-optimal care stems from ignorance and poor compliance to medical care. Hence, management strategies should aim to improve patients' education and compliance to antenatal care.

Apart from public forums, mass media publicity and educational pamphlets, family physicians play a pivotal role in patients' education by virtue of their better understanding of the needs, concerns and the social backgrounds of the patients through the many years of doctor-patient interactions. Being able to better communicate with patients puts the family physician in a better position to advise on antenatal care management plans. This can reduce the number of default, non-compliance to medical treatment and improve antenatal outcome.

### Conclusion

Through audit, there is much that we can learn about incidence, trends, aetiologies and sub-optimal factors behind stillbirths. Audit is a necessary part of a clinical practice. It is a systematic and critical analysis of the quality of medical care, and serves to identify flaws and weaknesses in our clinical practice so that medical care can be modified to anticipate, minimise or prevent tragedies.

Many clinicians have been cautious about participating in an enquiry process where judgements on substandard care with resultant deaths are passed. The fear of possible repercussions and legal litigation are some of the reasons behind such reservations.

However, the importance of audit cannot be re-emphasised if we desire to improve medical care. If confidential enquiries can be conducted properly with the correct level of confidentiality, the right professional attitude and with the overall aim of improving perinatal care, such forms of audit can be pivotal in the progress of medical care as we move into the next millennium.

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## Assessment Of The Elderly Patient

*Ian Leong Yi Onn, Philip Choo Wee Jin*

### Introduction

Comprehensive assessment of the elderly patient is one of the most difficult areas in clinical geriatrics. This is compounded by time constraints and competing problems in the primary care setting. In this paper, we shall attempt to lay out the principles of geriatric assessment, the scope of such an assessment and a simple method of performing it in an outpatient setting.

### Mindset Shift in when Managing Elderly Patients

Unlike the young, the elderly patient is more likely to have multiple illnesses, most of which would be of a degenerative or neoplastic nature. Common ones would be arthritis, hypertension, ischaemic heart disease and hearing impairment. Polypharmacy is a common phenomenon because of this, not forgetting the frequent use of proprietary medications for complaints such as constipation and lethargy. All too frequently, patients mix occidental medications with other alternative therapies. Disease-disease, drug-disease and drug-drug interactions can then arise and increase the complexity of the medical problems.

Functional consequences of illnesses and complications vary from one patient to another. It may also determine the nature of further treatment, if any. For example, a patient who develops severe behavioural problems from Alzheimer's disease should be treated very differently from a patient who only has difficulty counting money but is otherwise still functioning well in the community. Function may take a longer time for recovery than the acute illness. A person who becomes bedbound from an acute illness may take many months before he regains his feet.

The elderly may not present in a "classical" manner. Altered response to illness is common. A patient presenting with confusion may not have a problem in the neurological system, but rather

have an infection. Social and psychological factors may further obscure this "classical" presentation. Frequently the presentation is that of the "geriatric giants": confusion, falls, immobility and incontinence. Each of these "giants" is an indication for a more detailed assessment. Presentation may also be delayed because of various fears (such as that of hospitalisation), loss of faith in the health care system, denial or depression. Illness response to even appropriate treatment may not always show the same dramatic recovery as in the young, thereby also impacting on the functional status.

The socioeconomic environment impacts heavily on the management of patients. Aspects such as place of residence, financial independence and the presence of carers determine to a certain extent the optimal placement of the patient, and may even determine the need for institutionalisation.

Depression is more common in the elderly as compared to the young. It is frequently undiagnosed. Unlike the young, there is seldom reporting of mood changes. The elderly would more often have weight loss, agitation and even cognitive loss, a state known as pseudodementia.

### Components of a Comprehensive Assessment

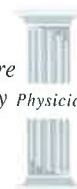
The geriatric assessment is aimed at these unique characteristics of the elderly. It is frequently multidimensional and multidisciplinary in nature. The assessment in the primary care setting frequently cannot achieve the same depth as that of an inpatient geriatric care team; nevertheless, it can be just as comprehensive in scope. Essentially, it comprises an assessment of the physical health, functional status, mental health and socioenvironmental status. Direct questioning is often required, as information may not be volunteered.

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## Evaluation of the Elderly Patient

A complete medical assessment in the elderly patient needs to be a forward-looking process, not only addressing the "chief complaint" as is done in traditional practice. A systems review is also frequently required as this may point towards the diagnosis; for example, an elderly person who apart from having frequent falls, also has chest pain, breathlessness, orthopnoea and lower limb oedema, would point towards a cardiovascular diagnosis instead of a neurological one. The sequence in which events develop is also important; for example, urinary incontinence that results from immobility because of undiagnosed Parkinson's disease requires a very different treatment from one that was preceded by constipation because of poor fibre intake.

A thorough drug history is also required. All medications should be listed down, including over-the-counter medications. It is also important to capture who prescribed the various medications. Drug allergies and compliance must be noted.

A search for common chronic conditions in the elderly, in particular the presence of the "geriatric giants" is essential. Certain chronic conditions do occur more commonly in the elderly. These would be hypertension, diabetes mellitus, hypercholesterolemia, heart disease, hearing loss and arthritis. An often forgotten aspect is that of nutrition. The BMI (Body Mass Index) can be measured by  $\text{Weight(Kg)}/\text{Height}^2(\text{m}^2)$ . A value of less than 20 indicates that the patient is underweight.

Evaluation of the senses would comprise the evaluation of sight, hearing and the oral cavity. The elderly frequently under-report hearing loss. They also frequently do not report defective hearing aids and furthermore, under-use hearing aids when prescribed. The oral cavity and dentures, if any, should be looked at. Ill-fitting dentures are not an uncommon cause of poor nutrition.

One clinical sign that is often missed is that of postural hypotension, which may be due to diseases like diabetes mellitus, ischaemic heart

disease, hyponatremia or any hypovolemic state; it may also be iatrogenic from drugs like antihypertensive medications and levodopa.

## Functional Status

Function can be divided into Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL.) The ADL can be remembered as a simple mnemonic **DEATH**: Dressing, Eating, Ambulating, Toileting and Hygiene. The mnemonic for IADL is **SHAFT**: Shopping, Housekeeping, Accounting, Food preparation and Transportation. Simple questions regarding each of these abilities would be sufficient. When impairments are detected, ascertaining the timing and the reason for them can help determine the underlying cause and the potential for reversibility. Acute and subacute losses are frequently signs of diseases and treatment may restore function.

As a part of the testing for ambulation, the joints of the lower limbs need to be assessed for their range of pain-free motion; balance and gait should also be tested. Balance can be tested by the use of the "Functional Reach Test". Mount a ruler at the patient's shoulder height. The patient then raises his arm parallel to the ground. He then leans forward as far as possible without losing his balance. If he cannot reach beyond 6 inches without losing his balance or taking a step forward, the patient is at high risk for falls within 6 months. Gait can be tested with the "Get-up-and-go Test". Observe the patient getting up from a chair, walking a distance of 3 metres, turning around and sitting back on the chair.

Upper limb function can be tested by asking him to go through some simple maneuvers.

## Mental Health

Mental state examination would revolve around cognition and depression. Although there are other aspects of cognition like abstract thinking and judgement, it is only practical to test memory and orientation in the clinic. One simple method would be the use of the Abbreviated Mental Test (AMT). This is a 10-point assessment scale:

## Original Articles

1. Age
2. Date of Birth
3. Recall of an address given by the tester
4. Address
5. Where are you now?
6. What year is it?
7. What time is it?
8. Recognition of 2 persons
9. Who is the current Prime Minister?
10. Serial subtraction of 1 starting from 20

Depression is usually not reported. A direct question like, "Do you often feel sad or depressed?" may be useful. If the patient has symptoms that suggest depression like weight loss or deteriorating function, a more detailed interview may be required. Drugs like digoxin, benzodiazepines, antihistamines can also cause depressive symptoms.

### Socioenvironmental Status

A social assessment would include a history of the carers, the patient's financial status and his home environment. Though not commonly done, home visits are immensely helpful. A simpler assessment would involve asking the carers, "Do you feel overwhelmed?" A question for the patient would be, "Who is available to help you in event of an emergency?"

### Investigations

In the well elderly, frequently only a clinical assessment is required. Some simple laboratory investigations that may be helpful are a Full Blood Count, a Renal Function Panel, a Chest X-Ray, an Electrocardiogram and a Lipid Panel. In a frail patient, a Thyroid Function Test, a Vitamin B12 level, a Folate level and a serum Calcium may be helpful.

### Putting It Together

Table 1 (overleaf) shows a clinical assessment model that can be completed within 10 minutes. This may not have to be done in one sitting. A checklist can be used to see if any of the aspects of an assessment have been missed.

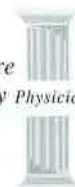
Through such an assessment, it is hoped that asymptomatic illnesses may be detected and a health maintenance programme planned for. An accurate diagnosis and problem list can be formulated. Rational therapy can then be initiated. Referral to institutions, physiotherapists, medical social workers and the home nursing foundation may be required.

### Conclusion

A comprehensive geriatric assessment is not out of the realms of a primary care practice. With widespread practice of assessments among the primary practice population, the hope of a healthy elderly population would not be an impossibility.

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History	Physical Examination
<p><b>Medical Assessment</b></p> <p>Take a history of present illness, especially the time sequence, history of chronic illnesses, drug history and look specifically for "geriatric giants".</p>	<p>Conduct a general medical examination including looking for postural hypotension. Check the BMI.</p>
<p><b>Vision</b></p>	<p>Check visual acuity with a handheld snellan chart or the headlines in the newspapers</p>
<p><b>Hearing</b></p>	<p>Assess by whispering a simple question out of direct view. Do an otoscopic examination to clean out any ear wax.</p>
<p><b>ADLs, IADLs</b></p> <p>Ask the patient about dressing, eating, ambulating, toileting and hygiene; shopping, housekeeping, accounting, food preparation and transportation. Institute appropriate medical, social, and environmental interventions.</p>	
<p><b>Urinary Incontinence</b></p> <p>Ask: "Do you ever leak urine?" If yes, look for infection, obstruction and drug side effects. Consider a urological or gynaecological referral.</p>	
<p><b>Upper and Lower Limb Function</b></p>	<p>Ask the patient to touch the back of his head with both hands. Look for tremor and rigidity. Do the "Functional Reach Test" and the "Get-up-and-go Test".</p>
<p><b>Cognition</b></p>	<p>Do the AMT.</p>
<p><b>Depression</b></p> <p>Ask: "Do you often feel sad or depressed?" If the answer is yes or there is other evidence of depression, a more detailed interview and a psychiatric referral should be done.</p>	
<p><b>Socioenvironmental Assessment</b></p> <p>Ask the carer if she feels overwhelmed; ask the patient if he knows how to get help in an emergency.</p>	

Table 1 Clinical Assessment model

## Points of View

### The MMed (Family Medicine) Examination - A personal experience

*D Gowri*

It may have been two years since I prepared and sat for the MMed (Family Medicine) examination the memories are as vivid as before.

When I was approached to give my account of what the MMed examination meant to me, I gave it considerable thought. I did not want my reflections to echo the usual sentiments on what references to look up, when one should start going to the hospitals to brush up their clinical skills and which journals to start reading.

Every doctor who is about to sit for a post-graduate examination has already acquired a basic system of revision that is best left undisturbed.

What I thought would be more useful was if I shared the intangible aspects of the examination.

Feeling prepared for any exam is already half the battle won. The best time to commence studying seriously for this examination is at the beginning of the final year. Reading a chapter a day will set a very comfortable pace for most of the relevant topics to be covered by the time the exams draw near.

I realised that the breadth of subjects to be covered is simply far too wide to dogmatically follow a time-table and be lulled into a false sense of security that the preparation is adequate. It would be more prudent to complement the reading with what can be learnt from actually managing our patients well in the polyclinic.

The vast majority of patients that we see each day have a simple upper respiratory tract infection that can be dealt with briskly. More time should be spent for patients with other medical complaints (especially those with chronic medical conditions). We should learn to crystallize their problems and create a logical plan of management for them. By doing so, we would be given an excellent opportunity to realise our own deficiencies. This is enough motivation to go

home and read up what we are lacking in our knowledge. It is much easier to learn more about a particular medical problem a patient might have if we can visualise him in our mind. It gives body to what we are learning.

Many Family Medicine trainees feel that the last two to three months before the exam should be sufficient time to brush up on clinical skills. This is not entirely true. Good clinical skills cannot be acquired over a short period of time. We can only brush up on our skills shortly before the exam but the acquisition of good practical skills should have been achieved long before.

The one thing that I have learnt painfully is never to take any short-cuts when it comes to examining a patient. The moment we compromise once, we will always compromise again. Good clinical skills must become second nature to any doctor.

It does not matter if a trainee decides not to take the MMed examination. It should not be considered a failure on the part of the trainee if he decides to withdraw from the examination for whatever reason. Doctors have family obligations like any other individual and sometimes there may be extenuating reasons why a trainee wants to pull out. The trainee who decides to withdraw however, should not feel that this is the end of the learning process. Upgrading of a doctor's skills should be a life-long commitment regardless of whether he sits for the examination.

Coming back to the trainees who are planning to sit for the examination, the fear of failure is the main factor that drives them to rush to the hospitals and arrange for tutorials to upgrade themselves shortly before the exam. This last ditch effort would not help if a trainee has not been conscientious before.

The reason I say this is because the stress that one experiences during the examination is usually mind-numbing. Any final burst learning (either

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## Points of View

theory or practical related) would most definitely be forgotten. What would pull us through however is what we have been practising consistently in our work every day...It is therefore important to get the basics right.

The day of the practical examination would usually herald the unmistakeably familiar feeling of anxiety and uncertainty. There would be countless thoughts that cross our mind- 'Would my patient be able to give me a good history? Would I need a translator? What if the translator cannot translate well? (not an uncommon situation, might I add) What if I get an uncompromising examiner? What if my mind draws a complete blank?'. There are simply too many 'what if's'.

I felt the same way right up to the final hour before the practical examination. Moments before I went into the examination room, I happened to remember what a renowned visiting professor in Family Medicine from Canada once said during the MMed course prior to the exam:

"You are a not a medical student sitting for the MBBS where you would be assessed by a doctor. You are a now a doctor in your own right being assessed by your peers. Do not feel threatened. Be confident that you are a good doctor to have made it on your own this far. Share with your peers what you know and what you have learnt. This is what a post-graduate exam should ultimately mean to you."

Upon looking back, I realise now that this was exactly what the examination was about. The examiners were not out to fail the candidates. There were not ugly surprises waiting for us. The examiners merely wanted to know if our basic knowledge was sound.

My parting advice for the trainees sitting for the upcoming examination is to be focused in what you are doing. Convince yourself first that you are a sound doctor. Then convincing the examiners would be easy.

Editor's Note: Dr Doraisamy Gowri passed the 1997 Master of Medicine (Family Medicine) Examination with distinction. She is the first recipient of the College of Family Physicians, Singapore, Gold Medal

## Tips In Management – Sharing My Experience In Terminal Care

Patrick Kee Chin Wah

### Introduction

Managing a patient with a terminal illness is regarded by many doctors as depressing and a reflection of their failure to cure the patient. This is due to the death denying culture of modern society which is fostered by the advances in modern medicine.

To be able to manage a patient with terminal illness, doctors need to come to terms with the reality of death and to make the paradigm shift that death is not a failure but inhumanity is. With the development of hospice care, many doctors have found that their dying patients have in fact much to teach them about coming to terms with death and dying.

Cassidy observed that if we dismiss people because their bodies are disfigured, their voices weak or their minds a little clouded, we will miss those last fruits of human experience which are theirs to share and ours to receive. From her experience, the hospice movement teaches us not just about information on pain and symptom control but also wisdom about what it means to be a human being. To quote:

*"By being alongside sick people we learn our kinship with the frail and the wounded, our shared humanity and our common worth. We the strong have much to give to our weaker brothers and sisters, but we also have much to receive, important lessons to learn. The world is not divided into needy sick and gracious carers: we must all take our turns in playing these roles. Once we have grasped this truth, we are much freer because we are able not only to accept one another but to value our own vulnerable humanity."*<sup>1</sup>

In this article, the lessons learnt from caring for a dying child and a dying adult in a family practice are shared.

### Caring for a dying child

Caring for a dying child is not a common problem in general practice for two reasons. Firstly, fewer children die from chronic illness than from acute illnesses or accidents. Secondly, those with chronic illnesses are often diagnosed and treated in hospital.<sup>2</sup>

A three and a half year old girl was seen with a history for having an unsteady gait when she runs and a recent onset of urinary incontinence. Clinical examination revealed bilateral Babinski response and she was referred to the hospital for further investigation.

She was found to have a brain stem glioma and was treated with radiotherapy. She was then well for a year and was seen only for minor complaints. However, she developed paralysis of her right upper limb and both lower limbs and was also unable to speak or swallow. She was discharged from hospital with a nasogastric tube and a referral to the Hospice Care Association for home care.

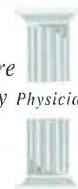
Three weeks after discharge, she developed stridor and was carried to the family practice clinic by the mother and grandmother. The Hospice Care Association was contacted and support was given to the mother to care for the patient at home.

The patient was subsequently readmitted to the hospital two weeks later and a tracheostomy was done. The parents were then informed that no treatment was possible. The patient was then cared for at home until the day of her death when the parents decided to send her to another hospital. She passed away a few hours later.

### Problems Encountered

Caring for a dying child is a potentially draining experience and the care givers need much support

Dr Patrick Kee Chin Wah  
MBBS (Singapore)  
MMed (Int Med) Singapore  
FRACP, FAMS



## Point of View

to cope with the medical, financial, emotional, social and spiritual problems.

The support given by the home care team of the Hospice Care Association empowered the family to provide much of the nursing care for the totally bedridden child including the care of the tracheostomy. The team of nurses and doctors provided the family with 24 hour support to deal with the medical problems such as constipation, fever, urinary and chest infections.

One of the major problems in this case was the strong denial of the mother of her daughter's terminal illness. She was desperately looking for a cure and this resulted in a considerable drain in her family finances as they insisted on medical intervention at all cost. Her denial also led to some family conflicts and her being alienated from the rest of the family towards the end of the illness.

Another issue was the question as to whether they should let the child die at home. As the grandmother was still alive, the traditional Chinese belief is that the child should not die at home. The grandmother was therefore torn between this belief system and her desire to let the child die at home.

The desperate search for healing by the mother also created a few spiritual problems. The parents were non Christians and one of the aunts had been healed of cancer by a Christian healer. The mother expressed anger at her god for her daughter's illness. She decided to baptise the child in the hope that the child will be healed.

However, when it was apparent that the child was not going to be healed, she began to put her hope in reincarnation and was told that she could arrange for her child to be reincarnated. This resulted in confusion and conflict in the family.

### Lessons Learnt

The greatest reward in caring for the above child was being able to help the family overcome their grief and to get on with their lives. Dawson noted that effective care of dying children is a shared responsibility. Family physicians, families and all

health care workers can help a child to have a peaceful death. Furthermore, the caring of dying children and their families is an experience rich in personal and professional satisfaction.<sup>2</sup>

And most important of all, the devoted care given by the family was a reminder that a dying child is a living child we care for until death.

### Caring For A Terminally Ill Adult

This is often an enriching experience as the dying has so much to teach us about living as well as the reality of life after death. One of the most important thing I have learnt is the importance of the art of listening carefully to our patients who are dying. This will help us to recognise the phenomenon of nearing death awareness and help us to understand and communicate better with the dying so that the process of dying can be a time of personal growth for all involved.

### Case History

A 57-year old storekeeper who was married with three grown-up sons developed backache and pain in his right hip and right chest for three months. He was subsequently found to have a carcinoma of the liver with multiple nodules and involvement of the portal vein.

When told of the diagnosis, the family struggled over the question as to whether they should tell the patient. They were advised to do so and the patient was much relieved that the doctors have found a cause for his pain.

The next problem was the issue of whether to start chemotherapy in view of the poor prognosis. A family conference was held and the patient and family were encouraged to ventilate their fears and feelings about death. They then decided against chemotherapy.

The primary medical problem was the management of pain. The backache and pain in the right hip was caused by secondaries to the bone. Control of this pain with morphine was not satisfactory. The patient was given up to 210 mgm per day resulting in drowsiness and with

## Point of View

inadequate control of the pain. It was only controlled after a course of radiotherapy and by Synflex.

Subsequently, the patient developed pain radiating down his thighs. This was due to a neuropathic pain which was controlled with epilim. After the course of radiotherapy and the addition of NSAIDS and epilim, it was possible to reduce the dose of morphine to 90 mgms per day without the patient becoming unduly drowsy.

The patient also experienced emotional pain arising from family conflicts, a fear of dying in the hospital and a fear of being paralysed. This was compounded by the stress of being ill over the two major festive occasions of Christmas and Chinese New Year.

Three weeks before his death, he was admitted to the hospital for a chest tap to relieve his breathlessness caused by a pleural effusion. However, the patient's condition deteriorated and it was decided to take him home in view of his wish not to die in the hospital.

A week later, the patient shared a vision he had experienced and felt that he was going to die in two to three days. This was just before the Chinese New Year and he was told to hang on for the Chinese New Year. He made a surprising recovery during the Chinese New Year and became more alert with an improved appetite. However, he was not able to sleep at all even with hypnotics.

Nine days later, he developed severe breathlessness and pain. He was restless, semi-conscious and picking on his clothing. He was given an intramuscular injection of voltaren 25 mgm, mist morphine 15 mgms orally and valium 10 mgm sublingually. This brought the pain under control and the patient went off to sleep. However, one hour later, he woked up for a few minutes, took a deep breath and died.

During the funeral wake one of the friends shared how he had told the patient that he cannot die before the 9th day of the Chinese New Year. The patient was told that most of his friends would not attend the wake because of their superstitious

belief that they will have misfortune if they attend funeral wakes during the Chinese New Year. On reflection, I wonder if he was not able to sleep during the nine days because he was trying to stay alive till then.

## Lessons Learnt

From the management of the above patient, a number of lessons were learnt. Firstly, disclosure of the diagnosis can be a positive experience as it can help to relieve anxiety about the cause of the pain. Secondly, morphine does not give adequate relief in skeletal or neuropathic pain even though it is a very potent analgesic. Radiotherapy and nonsteroidal anti-inflammatory drugs are more effective for pain caused by secondaries to the bone. For neuropathic pain, anti-epileptic agents like epilim can be very effective.

Thirdly, the experience of the above patient draws attention to the phenomenon of nearing death awareness and the control of the individual over the timing of his death. The improvement in his medical condition was remarkable as he was discharged home as it was thought that his death was imminent.

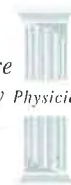
When he shared his experience of a vision, it was thought that he was having a hallucination from the drugs he was taking. On hindsight, the patient probably had a nearing death awareness.

## Nearing Death Awareness

From their many years of working with dying people, Callanan and Kelley have described a special type of communication which they called Nearing Death Awareness. They identified several recurring themes from their communication with the dying which fall into two categories.

The first group comprise attempts by patients describing what they are experiencing during the process of dying.<sup>3</sup> Such descriptions give us a glimpse of another existential reality after death. Callanan and Kelley found that some of their dying patients spoke with awe and wonder of the peace and beauty they saw in this other place.





Some of the dying shared their experiences of talking with, or sensing the presence of, people who cannot be seen by the others around them. And often, the dying also know that they are dying and may even give their care-givers clues as to when their death will occur.

The second group are requests for something which the patient needs for a peaceful death. This may be a desire to reconcile personal, spiritual, or moral relationships, or requests to remove barriers to achieving a peaceful death.

However, Callanan and Kelley noted that care givers often miss or misunderstand the dying person's attempts to communicate "Nearing Death Awareness". They noted that health care professionals and families often labelled dying people as "confused" without adequate assessment. While delirium, anoxia and metabolic disorders may be the cause of confusion, it is equally possible that such bewilderment or disorientation may also arise from the unfamiliar and unexpected experiences of dying.

Hence, learning to listen and paying attention to the symbolic language and gestures of Nearing Death Awareness will help to ease the transition from life through death to whatever exist beyond. This will bring comfort, peace and even joy to the dying and their families. Care givers themselves will also gain a sense of peace and comfort of their own as well as a greater awareness of the power of dying.

In their view, emotional, social and spiritual symptoms are not only more subtle and, therefore, more difficult to define and manage; they can also be complicated by a patient's personality and the family's lifestyle. Medicine has become highly specialised with its focus on a particular body system or illness. Doctors often forget that the patient and the family exist as a unit and that the interactions and struggles between the patient and family members can result in a perplexing maze of distress and anxiety.

Callanan and Kelley postulate that the solution to this maze is the ability to pay attention and the willingness to listen and understand. They have

found that their dying patients communicate in wondrous but sometimes strange ways and it takes persistence and insight to catch and decipher their messages which come by gesture, facial expression, by allegory or symbol.

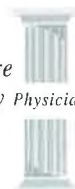
### Conclusion

Hospice, as Callanan and Kelley has rightly pointed out, is more than a place or a group of people; it's a concept of caring. Indeed hospice care is not a job but a philosophy that has a profound effect on our lives as well as the lives of our patients.

Caring for the terminally ill can therefore be an enriching experience and an opportunity for one's emotional and spiritual growth. Indeed, the dying have much to teach us about how we can live more fully as well as to prepare for our own deaths.

### Resource Readings:

1. Cassidy S: Foreword in *Final Gifts: Understanding and helping the dying*. Hodder & Stoughton, London, 1992
2. Dawson SA: A dying child. *Canadian Family Physician* 1995; 41:1534-1539
3. Callanan M, Kelley P. *Final Gifts: Understanding and helping the dying*. Hodder & Stoughton, London, 1992



## Point of View

### My Advice To Family Physicians

Lee Kng Swan

If in your practice, you take care of older patients, you are likely to see more of them with Singapore's rapidly ageing population. There are a few tips I would like to recommend to make this a rewarding aspect of your practice.

#### 1. Examine your own attitude toward your elderly patients

Do you find their complaints often vague and difficult to assess?

Do you tell your older patients not to expect much improvement because they are too old?

Do you diagnose ailments as related to "old age" and ask your patients to "live with it?"

If you say yes to any of the above - take heed as these are the tell-tale signs of an "ageist" attitude. Most ailments/complaints in old age are related to an underlying disease. Atypical presentation and "vague" complaints require accurate assessment to determine the cause. Knowledge and skills in Geriatric Medicine can assist in proper diagnosis of age related ailments and much can be done to improve the quality of life of the older person as many of these conditions once diagnosed can be managed if not cured. The satisfaction of a good geriatric practice comes when a "vague" complaint that affects the quality of life of an older person is no longer vague as you the practitioner arrives at an accurate diagnosis and institute a treatment that relieves the older person of the suffering.

#### 2. Increase your knowledge and enhance your skills in assessment and management of your elderly patients.

- i) Develop a working relationship with the Hospital Geriatric Unit near your practice. The government has divided Singapore into 3 zones for elderly care (West, Central and East), and each zone is served by a hospital with a Geriatric Unit (Alexandra Hospital, Tan Tock Seng Hospital and Changi General Hospital) respectively. Your elderly patients will from time to time require referral to a Geriatric Unit

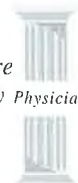
for a more comprehensive assessment. There is currently no geriatric assessment team available in the community. A close working relationship with such a unit will allow you to keep in touch with the progress of the patients thereby enabling you, the family physician, to provide more effective care when the patients are discharged back to you for follow-up. This will also be a good base to start learning about Geriatric Medicine. You will learn a lot of Geriatric Medicine by just following the outcome of your patient's hospital course. For example, you may have admitted your elderly patient for acute confusion. In the hospital, it may have been assessed that the confusion is related to faecal impaction and with proper bowel care, the patient returned to pre-morbid state. If this patient is referred back to you for follow-up, you would be more aware of her bowel habits, and the next time confusion takes place, you would definitely do a per-rectal examination and be able to treat the faecal impaction yourself.

#### ii) Enrol in the Diploma in Geriatric Medicine Course (DGM)

The Graduate School of Medical Studies, at the National University of Singapore now conducts a one-year Graduate Diploma in Geriatric Medicine course that involves home study, weekend work-shops, and field attachments. This will require more commitment on the part of the family physician, but it will be an intensive way to acquire knowledge and skills in basic principles of Geriatric Medicine.

#### iii) Join the Society for Geriatric Medicine as an Associate member. The Society for Geriatric Medicine of Singapore was set up in 1997 and its aim is to improve the knowledge and practice of good geriatric medicine. If you intend to devote a lot of your practice to elderly patients, being a member of the society will definitely be useful.

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MBBS, MMed (Int Med),  
FAMS  
Geriatrician  
Medical Director  
Hua Mei Mobile Clinic  
of the Tsao Foundation  
Visiting Consultant to  
Alexandra Hospital and  
National University  
Hospital



### 3. Develop a Screening Assessment for Your Older Patients

Family physicians are often the first line in preventive health care. Undetected medical illness is not uncommon in the elderly. For your elderly patients, make a point to screen for some of these common problems. Some common problems often missed in the elderly include depression, urinary incontinence, and early cognitive impairment.

### 4. Know Your Community Resources

Care for the elderly requires a multidisciplinary approach. The frail elderly patient often has multiple needs. To support families to continue the care of their older relatives at home, the family physician needs to tap the support of other service providers. These could range from simple home help tasks (e.g. meal delivery, laundry) to more professional services such as home nursing services, rehabilitation services, and counselling services. Caregivers of very disabled elderly may also require services such as respite services.

Services for the elderly are increasing by the day. Most are run by non-profit organizations. It is true that there is no consistent availability of all services and the charges also vary among the various service providers. It is important for you to know what is available in order to recommend them to your patients and the caregivers. The families and the elderly patients are often ignorant about the services that are available. The family physician is the most appropriate person to introduce them to the needed services. A directory of elderly services is available from the Ministry of Community Development as well as the National Council of Social Services. You can usually access such information from any Hospital Geriatric Unit.

After making a referral, follow through the outcome of your referral. This will increase your knowledge of the community services and allow you to make more appropriate referrals in the future. If you have a busy practice and have little time to follow up the outcome of your referrals, get your nurse to do it and maybe add a reply note to remind the agency that you

care about your patients and would appreciate a reply. I want to emphasize again that the standard of care provided by the different services vary and it will be up to you as a physician to be the gatekeeper. The patients will also feed-back to you their dissatisfaction of some of the services! Finally, there is still a lack of community resources to support our elderly and their families at home, but hopefully this will get better in the future.

There are 17 government polyclinics which cater to 32% of the elderly population while about 1,000 private clinics run by general practitioners cater to the rest (Report of the Inter-Ministerial Committee on Health Care for the Elderly, Feb 1999). These figures clearly show that our health care system has not fully tapped the contributions that family physicians can provide in elderly care. The integration of family physicians (considered as "private sector" by the government) into the public health care system will be a significant step in tapping this big pool of manpower to provide comprehensive care for our fast ageing population. Family physicians need to be more proactive for changes to take place. Our Health Minister, Mr Yeo Cheow Tong, said in his recent speech at the SMA's anniversary dinner that fresh ideas are needed on how health care in Singapore can be improved. Singapore, he said, has one of the fastest ageing population in the world and in time to come, doctors will have to decide the best ways of treating geriatric conditions as well as preventing these conditions.

Your personal effort to improve the care of your older patients will be one significant step in the exciting changes ahead for better health care for the senior citizens in Singapore.







# THE COLLEGE MIRROR

Issue: Apr - Jun 1999

MITA(P) No 385/03/99

## Keeping abreast of changes

The new Council, which is the 17th Council, was voted in at the College's Annual General Meeting on 23 May 1999. Dr Lim Lean Huat succeeds Dr Alfred Loh as the President. We look forward to working under Dr Lim's leadership. Read what he has to say about the future and role of the Family Physician in the President's Column.

Read about the launch of the College's Website at [www.cfps.org.sg](http://www.cfps.org.sg) in this issue of The College Mirror. This website enables the doctor to do continuing education on-line. This is distance learning at your convenience. In this Website, you can also learn about the history, milestones and functions of the College; read the full text articles from the Singapore Family Physician Journal, the Sreenivasan Oration which is a series of lectures on philosophy and on the direction of Family Medicine delivered by invited speakers; and participate in the Forum Page to exchange your views and ideas.

## FROM THE EDITOR'S DESK

The modular Family Medicine Teaching Programme (FMTP) has also migrated to the College website. The teaching programme now consists of 8 study sessions on the Web and 4 face-to-face teaching sessions which consists of workshops, discussions and case studies. So far, Module 5 has proceeded reasonably well notwithstanding some teething problems like logging into the website and getting the papers onto the website. Module 6 will begin in

September 1999 with the workshops being held in November.

In its drive to enable members to partake in continuing professional development, the College together with the Graduate School of Medical Studies, National University of Singapore, has developed and launched the Graduate Diploma in Basic Ultrasonography (Obstetrics & Gynaecology) on 18 July 1999. The course will impart knowledge and skills in handling the ultrasound machine as a diagnostic tool appropriately and competently at the primary care level. The College wishes to put on record its thanks to the many specialists who form the core teaching faculty. The programme has been designed to meet international standards for recognition as an ultrasound course, (see report on page M7).

With the changing demography in Singapore towards more elderly people in the years to come, the College has decided to focus on the elderly in its 7th Scientific Conference and 8th Meditech Exhibition. The theme for this biannual conference, Family Medicine: Facing Demographic Change, is explicit. The Conference includes topics of relevance to the care of the elderly: dementia, Parkinson disease, incontinence, osteoporosis, sexual dysfunction, musculoskeletal problems, skin problems, and health screening. We aim to increase awareness for the need for the doctor in the new millennium to sharpen and hone his/her clinical skills to manage the elderly competently.

■ Yvonne Chung

## New Council voted in at the AGM

The College's 27th Annual General Meeting on 23 May 1999 saw the election of the new Council.

Congratulations to the new office bearers of the 17th Council (1999-2001):

President:	Dr Lim Lean Huat
Vice President:	Dr Arthur Tan Chin Lock
Censor-in-Chief:	Dr Lau Hong Choon
Honorary Secretary:	Dr Lee Kheng Hock
Honorary Treasurer:	Dr Richard Ng Mong Hoo
Council Member:	Dr Alfred Loh Wee Tiong
Council Member:	A/Prof Goh Lee Gan
Council Member:	Dr David Lim Hock Kuang
Council Member:	Dr Kwan Yew Seng
Council Member:	Dr Tan See Leng
Council Member:	Dr Lawrence Ng Chee Lian
Council Member:	Dr Matthew Ng Joo Ming
Honorary Editor:	Dr Tan Chee Beng



left to right  
Dr Lee Suan Yew, Dr Alfred Loh & A/Prof Goh Lee Gan  
taking a break from the AGM discussions



Dr Wong Heck Sing (right) a Past President  
addressing members of the Executive  
Committee

Members at the AGM

We look forward to working under the leadership of the new President, Dr Lim Lean Huat, and we welcome the two new faces of Dr Lawrence Ng and Dr Mathew Ng. We also look forward to an injection of fresh ideas and enthusiasm from the new office bearers.

Special thanks are accorded to Dr Alfred Loh, the out-going President who has served in that capacity for three consecutive terms of office (6 years), and to A/Professor Goh Lee Gan, the out-going Censor-in-Chief. Both Dr Loh and A/Professor Goh will continue to serve as Council Members.

Special thanks are also extended to Dr Soh Cheow Beng, our out-going Council Member, who has served continuously for some twenty years in the

Council, holding the positions of Honorary Secretary, Honorary Treasurer and Council Member throughout various terms of office.

Dr Soh has shared and contributed much to past College activities and has given much food for thought during the lively discussions at Council meetings. We wish him well as he continues in his private practice.

A big thank you to all those members who turned up on the Sunday afternoon to show their support at the Annual General Meeting, including two past Presidents, Dr Wong Heck Sing and Dr Lee Suan Yew.

■ Yvonne Chung

## Launch of the College Website



left to right (front row) Prof Tan Chorh Chuan, Prof SS Ratnam, Dr Wong Heck Sing, Dr Alfred Loh, A/Prof Goh Lee Gan, Ms Tan Swee Hua  
left to right (back row) Dr Lam Sian Lian, Dr Shanta Emmanuel

The College's Website was launched on 22 May 1999. This was the highlight of a half-day symposium that concentrated on Continuing Medical Education for doctors. Courses are now in place for Family Physicians to upgrade their skills in Basic Ultrasonography, in Family Practice Dermatology, and Psychotherapy.

In his keynote address, Dr Alfred Loh outlined the College's role in helping its members keep abreast of medical skills and knowledge:

*"Besides vocational training, CME, or more appropriately, Continuing Professional Development still remains a cornerstone of activities of the College. Continuing Professional Development has the very important role of empowering the General Practitioner/ Family Physician to function at a higher plane of medicine. This would enable patients to be more appropriately and efficiently treated at the Primary Care level for cases currently seen at the Secondary Care level. Thus, this empowerment*

*should mean more cost-effective medical care to the people as it would moderate the flow of cases to the secondary or hospital level."*

*"The advent of the internet has provided exciting possibilities for CME and Continuing Professional Development for the College. Distance Learning or home-study is now possible. The launch of the College Website testifies to the emphasis the College places on distance learning."*

*The highlights of the College Website include on-line CME, delivering a distance learning programme based on the entire Family Medicine Teaching Programme (FMTP) in 8 modules over a two year cycle. Each module lasting 3 months covers specific organ-systems and symptom-complex. Case studies and MCQs included in the programme would test the understanding of the study materials by the participating doctor.*

*In addition to learning on-line via the web, the College would also conduct workshops to focus*



*the application of the knowledge from the distance learning modules. This, together with the many diploma courses developed by the Graduate School of Medical Studies would provide General Practitioners/ Family Physicians with ample opportunities to enhance the scope of their medical practice."*

The College would like to thank Dr Lee Kheng Hock for spearheading the College Website Project, to Professor KC Lun and his staff at the Medical Informatics Programme at NUS, for helping the College to set up and maintain the website.



*Dr Lee Kheng Hock, instrumental in the College Website Project giving a 'guided tour' through the website*

The College Website is also supported by Singapore One. Thanks are accorded to Ms Tan Swee Hua, Director of Business Innovation, National Computer Board, who officially launched the website. Ms Tan was on hand to give the latest on NCB's visions of the how the internet could help in the provision of CME and health care delivery to doctors in Singapore. Her address is included below.

*Today we are here to witness a major milestone in the healthcare sector, which leverages on Information Technology and the Internet to provide continuing education to the healthcare professionals.*

*With advancement in IT and the pervasive use of the Internet, we are witnessing a paradigm shift*

*not only in the way medical and health education are provided but also in the way healthcare services are delivered. The advancement of information and communications technology opens up new opportunities for the healthcare community. This enables the community to do things differently, efficiently and effectively.*

## **INTEGRATED HEALTHCARE DELIVERY**

*The Ministry of Health and the National Computer Board, have been working closely with the healthcare community to harness IT, in particular the Internet, to build an integrated healthcare delivery system where healthcare providers, including hospitals, polyclinics and GP clinics will be linked up via the Internet and Singapore ONE. This will enable information sharing and communication among the community and with the patients. Patients' Information, and healthcare information to support the provision of care and electronic services such as appointment booking and notification of diseases can be made available to all healthcare providers, to enhance operational efficiency and improve the care process.*

## **THE SITUATION TODAY**

*Increasingly, doctors are facing well-informed patients who are able to suggest the latest treatment options as they tap into the vast amount of health information available on the Internet. Singaporeans are becoming better informed on health issues, including different treatment options for better care.*

*I believe some of you may have encountered patients or their family members who have shown you a page printed off the Internet on certain ailments they have and telling you the treatment they expect from you. Such demands on the level of care you give and the knowledge you possess will continue to increase. As such healthcare professionals, like you, will need to exploit the Internet as another effective channel to upgrade your knowledge and skills.*



## **HEALTHONE and MEDICAL EDUCATION**

*NCB has supported the development of HealthONE to provide multimedia and content rich healthcare resources to healthcare professionals and to the public on Singapore ONE. HealthONE has already made available useful health resources to the healthcare professionals since its launch. It has reached another major milestone with today's launch of CME On-line, which will help enhance the delivery of continuing medical education to the healthcare professionals.*

## **FUTURE OF MEDICAL EDUCATION**

*Traditionally, CME has always been classroom-based where you would physically attend a lecture or seminar and be awarded the CME points for your attendance.*

*With the pervasiveness of Internet world-wide and emergence of broadband technologies, we foresee the opportunity for medical education to be provided electronically and on demand, not only to professionals located in Singapore, but also to those located in the regional countries. Such electronic channels for education will constitute another form of distance learning and can be extended to local and regional under-graduate and post-graduate students. This of course will not replace entirely the traditional classroom-based teaching but will definitely complement and improve the provision of medical education on the whole. For example, a post-graduate medical student from one of our neighbouring countries*

*could pursue a course with NUS Medical School through Internet-based distance learning and then come to Singapore for the last leg to complete his course. This is a cost-effective means for a foreign student to pursue such courses with NUS, as he need only spend a short period of time in Singapore, and yet have sufficient time to prepare before coming here for the examinations. This would encourage more students from the region to pursue such courses from Singapore.*

*These initiatives will align us with our vision of making Singapore an education hub for the region. Technologies and infrastructure that support such a vision are already in place in Singapore. We have Singapore ONE, a high-speed network that allows the delivery of interactive, multimedia applications and services. Today, Singapore ONE can be accessed from almost every part of Singapore, and it has over 150 services ranging from simulation models such as HealthONE's virtual patient, to on-line materials such as journals and medical databases. There are more than 60,000 Singapore ONE users. The number is expected to increase to about 150,000 by end of this year. High-speed links have also been established to countries in the region and to some of the developed countries.*

*In the US, the move towards on-line and distance learning for CME is on the rise, simply because it is the most convenient and cost effective for healthcare professionals to upgrade themselves. For example, one can take an on-line CME course and answer questions on-line or via normal mail and be notified of the accredited points*



*Dr Alfred Loh (seated left) & Prof Tan Chorh Chuan (seated right) signing and exchanging the Memorandum of Understanding between the College and the National University of Singapore for the College Website Project*

## News

electronically or by mail. The Mayo clinic conducts some of its CME courses via live satellite broadcast and is planning to have its first video-conferencing on Cardiology using web-cast technology some time in August this year.

### CONCLUSION

Access to information, knowledge, and services on the Internet is the way to go for us to move towards a knowledge-based and global economy. With CME online, doctors can now take their CME courses anywhere, anytime - at their own convenience. With access to Singapore ONE and the Internet, doctors can also tap on the vast amount of medical databases, journals, expertise available locally and overseas.

On this note, let me wish NUS and the College of Family Physicians every success in embracing IT and seeking new innovative to deliver medical education to the healthcare professionals."

■ Yvonne Chung

## WELCOME TO NEW MEMBERS

A very warm welcome to the following members who joined the College between April to July 1999:

### Ordinary Member

Dr Sara Philip (in private practice)

### Associate Member

Dr Stroma Beattie (in private practice)

Dr Howe Wen Li (in private practice)

Dr Kan Boon Thaim (in private practice)

Dr Lee Kah Wai (in government service)

Dr Wong Teck Boon (in government service)

## Launch of the Ultrasound Course

The Course leading to the Graduate Diploma in Basic Ultrasonography (Obstetrics & Gynaecology) was launched on Sunday, 18 July 1999, by the College and the Graduate School of Medical Studies.

The event was held in the CRC Auditorium, Faculty of Medicine, National University of Singapore.

Special thanks go to the members of the Committee and the administrative staff of the Graduate School of Medical Studies and the College.



*The Ultrasound Committee with Prof SS Ratnam, Director of the Graduate School of Medical Studies, NUS.  
(left to right) Dr Chew Shing Chai, Dr Tan See Leng, Dr Lim Lean Huat, Prof C Anandakumar, Prof SS Ratnam,  
Dr Alfred Loh, Dr Arijit Biswas, Dr Ong Chiou Li, Dr Lawrence Ng, Prof Wong Yee Chee,  
A/Prof Goh Lee Gan. (Absent from photo: Dr George SH Yeo, Dr Douglas Ong and Dr Ann Tan)*

Course Director	Dr Alfred Loh
Deputy Course Director	Dr Chew Shing Chai
Faculty Directors:	Dr George SH Yeo A/Prof Anandakumar Dr Ann Tan
Committee Members:	A/Prof Goh Lee Gan A/Prof Wong Yee Chee Dr Arijit Biswas Dr Tan See Leng Dr Lawrence Ng Dr Douglas Ong Dr Ong Chiou Li
Course administrator:	Ms Yvonne Chung
Course Secretary:	Ms Angeline Ong
Administrative Assistance provided by:	Ms Kelly Tan



*Prof SS Ratnam & Dr SC Chew*



Congratulations to the 14 successful candidates on this inaugural diploma course.

In his welcome address, Dr Alfred Loh, Course Director, emphasized the importance of the Family Physician's competency in using ultrasound as a diagnostic tool and the subsequent interpretation of the scans, in Obstetrics and Gynaecology.

*"On behalf of the Committee for the Graduate Diploma in Basic Ultrasonography (Obstetrics & Gynaecology), I bid you all a warm welcome. In this era of the increasing use of technology in medicine, the ultrasound machine is regarded by many as a very useful equipment in the diagnostic workout during a consultation. Besides being non-invasive and harmless, the equipment is getting cheaper and with better resolution these days, thus making it affordable for most practices to one. Whilst owning such equipment would not require any special license as in the case of an X-ray machine, the College of Family Physicians had, for many years, felt that adequate competency in the technique of scanning and the interpretation of such scans was an absolute necessity. To this end, the College sought the assistance of the Graduate School of Medical Studies to jointly organise this Diploma Course.*

*We are very fortunate to have very senior members of the O&G departments of the NUH, SGH AND KKWCH and the Diagnostic Imaging department of KKWCH in the Core Teaching Faculty. There are also senior members of the O&G and Family Medicine Fraternity in private practice in the Teaching Faculty of the Course. The individual names of the various members of the Core Teaching Faculty can be found in the printed leaflet on the Graduate Diploma Course. There Faculty members have put in many hours and much thought into the objectives, syllabus, logistics and teaching methods of the Course. As Course Director, I would like to take this opportunity to especially thank all these persons for their contributions and commitment.*

*Special thanks must also be given to Prof S.S. Ratnam for his very encouraging support and guidance and guidance for the Graduate Diploma Course.*

*I shall not bore you with the details of the Course and its syllabus as these are found in the leaflet that you would already have received by post earlier. I would, however, like to stress that the requirement of 400 scans as a compulsory fulfillment before the award of the Graduate Diploma, has been insisted upon by the Teaching Faculty to place this Diploma at par with other internationally recognised courses in ultrasonography. The end of Course assessment or examination consisting of a Viva based on the logbook, a written paper and also skills assessment, would ensure that participants achieve a certain level of competence in the use and interpretation of ultrasound scans in O&G.*

*The initial small number of 14 participants accepted for the Course was a deliberate choice by the Teaching Faculty. This will enable us to monitor closely the progress of the Course and test the supporting logistics and teaching facilities as the Course progresses. I am sure that finer adjustments will be made to the various aspects of the Course as we go along. This will, I hope eventually result in a Graduate Diploma in Basic Ultrasonography (O&G) that is internationally well-regarded and much sought after. There are already several enquiries from overseas family physicians/general practitioners keen to come to Singapore for the Course. With careful planning and execution and with the help and co-operation of members of the Teaching Faculty, the College and the Graduate School could one day make Singapore the centre for ultrasound training for Primary Health Care in this part of the world. This will be an objective definitely worth striving for.*

*It now leaves me to again thank most sincerely all members of the Core Teaching Faculty for their contributions and to wish all 14 participants in this inaugural course a fruitful and pleasant experience."*

The new President of the College, Dr Lim Lean Huat, was keen to highlight the importance of the proper and ethical use of ultrasound in the Family Physician's practice. The rigorous nature of the course serves to place the Graduate Diploma on the same plane as other internationally recognised courses.





Dr Lim Lean Huat, President of the College, giving his opening address

"Today marks another important event in the milestone of the College of Family Physicians Singapore. Today's launch of the *Graduate Diploma in Basic Ultrasonography in Obstetrics & Gynaecology*, further testifies to the College's commitment to upgrading and maintaining academic excellence, clinical skills and expertise, including Continuing Medical Education for Family Physicians in Singapore.

With this in mind and also recognising the Family Physician's need for knowledge and skills in medical imaging in this age of technology, the College set out 3 years' ago to design a course in ultrasonography in Obstetrics and Gynaecology. The odds were against us, the problems appeared insurmountable and we even met resistance from certain quarters of the medical profession; but the forces and people against this course did not know who and what they have to do battle with and it is at this very point that the College today would like to acknowledge its gratitude to Emeritus Professor S S Ratnam, Director of the Graduate School of Medical Studies, National University of Singapore, for his unfailing support, encouragement, advice and guidance and whose vision for the course and faith in the College were twin pillars of strength for the College to lean on. At the same time, we recognise that without the

help of institutions like the Departments of Obstetrics & Gynaecology of the National University of Singapore, the KK Women's and Children's Hospital and the Singapore General Hospital, this course would not have come into fruition. Here, Faculty Director, A/f Prof C Anandakumar's commitment to ultrasonography, Dr George S H Yeo's wisdom and Dr Anne Tan's enthusiasm, were highly instrumental in providing the foundation, cementing the weak joints, providing the infrastructure and finally overseeing and fine tuning the course. Last but not least, we cannot and must not forget the many hours of toil and the mileage put in by the Committee members, Dr Alfred Loh, Dr Lawrence Ng and Dr Tan See Leng from the College, myself, and also A/Prof Y C Wong, Dr Arijit Biswas, Dr Ong Chou Li, Dr Douglas Ong and A/Prof Goh Lee Gan.

All I have said sounds very pleasant to the ears, drawing broad smiles all around, but before we become too complacent with success and throw caution to the wind, I must, with seriousness, address my concerns to the course participants.

I am sure that all of us are only too aware that the public has and always will expect the medical profession to be spotless and transparent and not forgetting that we are also the favourite "whipping" boy of the media press whenever there is any breakdown or failure in doctor-patient relationship resulting in malpractice or unethical practice.

In this context, you must understand that the ultrasound machine, like any other medical tool, can be put to ethical or unethical use. Again, we in the medical profession are only too aware that medical tools like the ultrasound machine can be used not only to the patient's benefit in arriving at a diagnosis, but also to the doctor's benefit, expanding his income unethically, and patients do not take to such practices without seeking redress from the right quarters. My advice is use your ultrasound machine ethically and you will gain the respect not only from your patients, but also from your brethren in the medical profession.

Another point related to clinical practice is that doctors today are relying more and more on

machines, from the simple X-rays to CT scan, MRI, laboratory investigations etc to the point that their clinical skills in the physical examination of their patients have deteriorated so badly to the extreme that patients have been seen, diagnosed and treated without even a physical examination or medically touching the patient. Very soon, our sense of touch in palpation, our sense of hearing in auscultation, even our sense of vision at looking medically at our patients - all will atrophy. This is very worrying - for healing is an art, healing is also doctor-patient relationship - don't forget machines have no feelings. Figures and graphs can be wrong, your own clinical skills are yours and only you know how accurate or inaccurate your clinical skills are. Think how satisfying it is to do a vaginal examination and feel an ovarian cyst and then using the ultrasound to further sharpen the diagnosis, whether cystic or solid and

then to do the CA125 for malignancy than to use the ultrasound routinely to tell you that there is an ovarian cyst and then inserting your finger to feel the ovarian cyst. I can go on and on pointing how the doctor uses the machine first again, like the chest x-ray picking out a pleural effusion when from the history and clinical percussion and auscultation would have given you the diagnosis and then fine tuning this with the chest x-ray.

Finally, I would like to congratulate each one of you for enrolling in this course which as you can see is very demanding, and tough but it has to be structured so that your diploma is credible and recognised by the relevant medical bodies.

I wish all of you, both the faculty and the course participants every success."



*Some of the Ultrasound course trainees taking a break*



*Dr George SH Yeo & Prof Anandakumar*

## Family Medicine Training Programme: Changes to the Structure

To introduce distance learning into the FMTP and to encourage more active learning, the FMTP modules have been restructured. Instead of the 8 lectures per module, the modules, beginning with Module 5, consists of two parts:

- **8 Distance learning lessons**, each with MCQs and assignments to be completed before the 4 face-face workshops.
- **4 face-to-face Workshops**

The material for the distance learning will be available on the internet at the College's website  
HYPERLINK <http://www.cfps.org.sg> <http://www.cfps.org.sg>



*Launch of the re-structured modular FMTP*

*(seated front row left to right) Dr Cheong Pak Yean, Trainer in the Private Practitioners' Stream (PPS),  
Dr Lam Sian Lian, Chairperson, Family Medicine Committee,  
Graduate School of Medical Studies, Dr Lim Lean Huat, President of the College*



*A/Prof Goh Lee Gan (standing) taking the Family Medicine Trainees through the new modular FMTP course*

For non-Family Medicine Trainees, doctors would need to register for the FMTP modules to be able to attend the workshops either on a per module basis or on an individual workshop basis. The fee structure is as follows:

- **College Members will be entitled to one free workshop out of the 4 workshops per module.**
- Registrations fees per whole module: S\$80 (College members)  
S\$100 (non-College members)
- Registrations fees per workshop within the module: S\$30 (College members & non-members)



## Announcements

### College of Family Physicians Singapore *4<sup>th</sup> Annual Surgical Update for Family Practice*

4 – 5 March 2000

#### Highlights

Saturday, 4 March 2000

##### **SURGICAL ONCOLOGY**

- **Cancer programmes in Singapore**
- **Genetics and Familial Aspects of Cancer**
- **Screening Symposium**
  - Breast Cancer
  - Colorectal Cancer
  - Cervical Cancer
  - Lung Cancer
  - Stomach Cancer
  - Liver Cancer
- **Reconstructive Options in Surgical Oncology**
  - Principles of reconstruction
  - Head and neck
  - Voice
  - Breast
  - Colorectal
- **New Technologies in Cancer Management**
- **Conservation in Cancer Surgery**
- **Conservation in Gynaecologic Surgery**

Sunday, 5 March 2000

##### **GYNAECOLOGIC SURGERY**

- **Advances in Infertility Treatment**
  - Sperm abnormalities
  - In-vitro fertilisation/ intracytoplasmic sperm injection
  - Cloning
- **Advances in General Gynaecology**
  - Management of abdomino-pelvic mass
  - Management of female urinary incontinence
  - Ectopic pregnancy and early pregnancy complications
- **Common Gynaecological Complaints and office Procedures**
  - Vaginal discharge and pruritis vulvae
  - Treatment of genital warts
  - Post coital bleeding and cervical polyps
  - IUCD and hormonal implants

**WATCH OUT FOR FURTHER FLYERS TO BE SENT TO  
COLLEGE MEMBERS THROUGH THE POST**



## **Announcements**

# **Graduate Diploma in Occupational Medicine**

### **Introduction**

The Graduate School of Medical Studies, NUS offered the first Graduate Diploma in Occupational Medicine in late June 1998, with the aim to provide comprehensive skills to doctors in general practice and specialists who wish to have a better understanding of the occupational aspects of their specialty.

A total of 21 doctors enrolled at the first intake. The School is happy that the intake achieved a 100% pass rate. We are also pleased that the second course, which commenced on 25 June 1999, was fully subscribed.

### **Eligibility and Course Modules**

This programme is available to Medical Officers or general practitioners possessing a recognised MBBS degree or equivalent with at least two years post-registration experience.

The programme follows the modular system to encourage the participation of medical practitioners who have difficulty in taking extended periods of time off from their work. In 1999, the School introduced an additional module on Practical Work to enable students to obtain maximum guidance from their portfolio supervisors.

Consisting of six modules now, the course can be completed over a maximum of three years. The modules offered are:

- Introduction to Occupational Health
- Clinical Occupational Medicine (Part 1)
- Clinical Occupational Medicine (Part 2)
- Occupational Medicine Practice
- Assessment of the Work Environment
- Practical Work

### **Assessments**

There are 2 written assessments and 1 oral examination yearly. Candidates are also required

to submit a written portfolio comprising two reports, one of which should be an assessment based on a visit to a workplace. The other report should be based on a clinical case seen by the candidate. Reports should demonstrate that the candidate is able to apply the principles of occupational health and safety in practice.

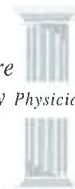
Students will be allowed to sit for assessments only if they satisfy at least 75% attendance at lectures and site visits. They will be allowed to proceed to the next stage of assessment only upon passing the previous one and will be awarded the diploma only if they pass all the assessments.

### **Course fees**

The course fee is \$2,206 for non-DFDs and \$1,406 for DFDs.

For enquiries, please contact:

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## GUIDELINES AND INFORMATION FOR AUTHORS THE SINGAPORE FAMILY PHYSICIAN

Authors are invited to submit articles for publication in *The Singapore Family Physician* on the understanding that the work is original and that it has not been submitted or published elsewhere.

The following types of articles may be suitable for publication: case reports, original research, audits of patient care, protocols for patient or practice management and review articles.

### PRESENTATION ON THE MANUSCRIPT

#### The Whole Paper

- Normally the text should not exceed 2000 words and the number of illustrations should not exceed eight.
- Type throughout in upper and lower case using double spacing, with three centimetre margins all round. Number every page on the upper right hand corner, beginning with the title page as 1.
- Make all necessary corrections before submitting the final typescript. Headings and subheadings may be used in the text. Indicate the former by capitals, the latter in upper and lower case underlined.
- Arrange the manuscript in this order: (1) title page (2) summary (3) text (4) references (5) tables and (6) illustrations.
- Send 3 copies of all elements of the article: summary text, references, tables and illustrations. The author should retain a personal copy.
- Their accuracy must be checked before submission.
- All articles are subject to editing.

#### The Title Page

- The title should be short and clear.
- Include on the title page first name, qualifications, present appointments, type and place of practice of each contributor.
- Include name, address and telephone number of the author to whom correspondence should be sent.
- Insert at the bottom: name and address of institution from which the work originated.

#### The Summary

- The summary should state the purpose of and give the main argument or findings.
- Limit words as follows: 100 words for major articles; 50 words for case reports.
- Add at the end of summary an alphabet listing of up to 8 keywords which are useful for article indexing and retrieval.

#### The Text

The text should have the following sequence:

- **Introduction:** State clearly the purpose of the article.
- **Materials and methods:** Describe the selection of the subjects clearly. Give references to established methods, including statistical methods; provide references and brief descriptions of methods that have been published but are not well known. Describe new or substantially modified methods, giving reasons for using them and evaluate their limitations. Include numbers of observations and the statistical significance of the findings where appropriate.

Drugs must be referred to generically; all the usual trade names may be included in parentheses.

Dosages should be quoted in metric units.

Laboratory values should be in SI units with traditional unit in parentheses.

Do not use patients' names, initials or hospital numbers.

- **Results:** Present results in logical sequence in the text, table and illustrations.
- **Disk & Electronic Production:** If your article is accepted for publication, we may invite you to supply a copy on a 3.5 inch disk, using Microsoft Word software.

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#### Circulation

*The Singapore Family Physician* is published quarterly. It is circulated to all Fellows, Diplomate Members, Ordinary Members and Associate Members of the College of Family Physicians Singapore, and to private and institutional subscribers.

The journal is also circulated to all relevant government, professional, medical and academic organisations in Singapore, sister Colleges overseas and to the World Organization of National Colleges and Academies of General Practitioners/Family Physicians (WONCA).

## **College of Family Physicians, Singapore**

### **17<sup>th</sup> Council (1999-2001)\***

Dr Lim Lean Huat	President
Dr Arthur Tan Chin Lock	Vice President
Dr Lau Hong Choon	Censor-in-Chief
Dr Lee Kheng Hock	Honorary Secretary
Dr Richard Ng Mong Hoo	Honorary Treasurer
Dr Alfred Loh Wee Tiong	Council Member
A/Prof Goh Lee Gan	Council Member
Dr David Lim Hock Kuang	Council Member
Dr Tan See Leng	Council Member
Dr Kwan Yew Seng	Council Member
Dr Lawrence Ng Chee Lian	Council Member
Dr Matthew Ng Joo Ming	Council Member
Dr Tan Chee Beng	Honorary Editor

\*Elected at the 27<sup>th</sup> Annual General Meeting on 23 May 1999



## Usefulness of Imidapril HCl in Patients with Hypertension

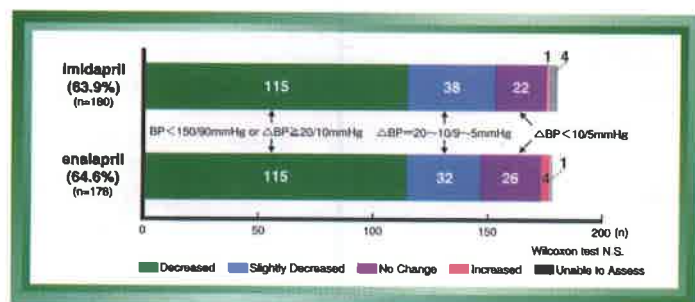
### A comparative study using enalapril maleate as a control drug

T. Saruta, et al: Journal of New Remedies & Clinics 47,249 (1998)

## Results

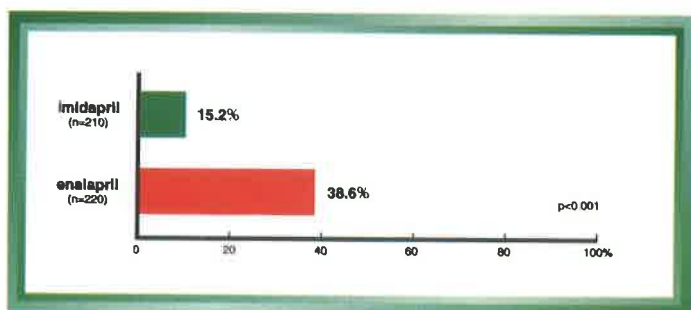
### ● Anti-hypertensive effects (Treatment Period I)

The anti-hypertensive effects during the treatment period I were equivalent between the two groups. Rate of the cases assessed as "Decreased" ( $\Delta$  BP = -20/-10 mmHg) in the imidapril-advanced group and the enalapril-advanced group were 63.9% and 64.6%, respectively, and no significant difference was observed in anti-hypertensive effect between the two groups.



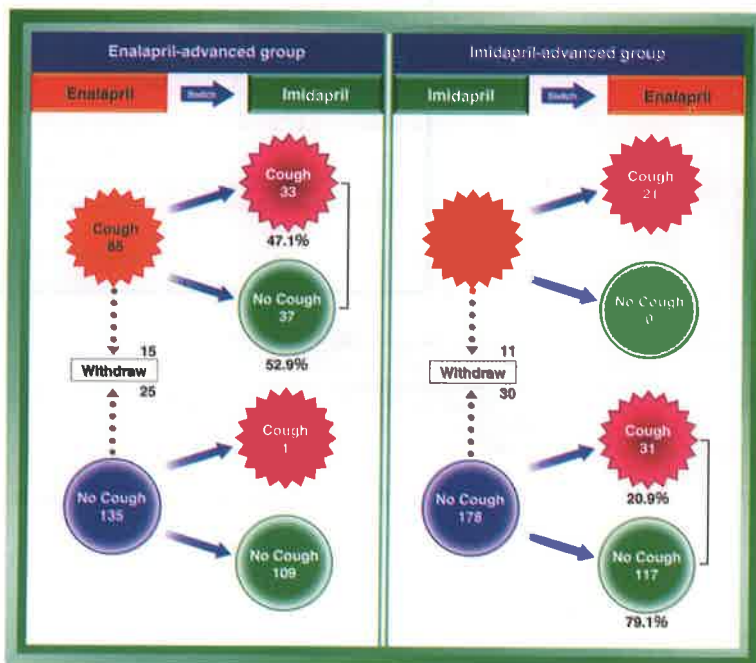
### ● Incidence of Cough

The incidence rates of cough of imidapril and enalapril in the treatment period I were 15.2% and 38.6%, respectively. The incidence of cough was 64% lower in the imidapril group compared to the enalapril group.



### ● Incidence of Cough by order of administration

Eighty five incidences of cough were reduced to 33 (47.1%) by switching to imidapril, and only 1 incidence of cough was observed in the imidapril group among 135 non-incidence with enalapril. On the other hand, out of the 178 incidences of non-cough among the group of imidapril starters, 31 (20.9%) incidences of cough were induced by switching to enalapril. Meanwhile, the main reason of withdrawal among the enalapril- and imidapril-starters group was "did not return to the hospital"



### ● Adverse reactions other than cough

Adverse reactions other than cough were observed in 27 cases of the imidapril-administered patients and in 19 cases of the enalapril-administered patients. The following are adverse reactions with imidapril; increased BUN (3 cases), increased total cholesterol (3 cases), increased GPT (2 cases), increased GOT (2 cases), eosinophilia (2 cases) and proteinuria (2 cases). The following are adverse reactions with enalapril; increased BUN, increased total cholesterol and increased serum creatinine (2 cases each), etc.

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