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THE FUTURE OF FAMILY MEDICINE IN SINGAPORE:

The inaugural meeting of the FAmily Medicine for Our Singapore (FAMOUS) Project Committee

by Dr Low Lian Leng, Council Member, College of Family Physicians Singapore

On 9th January 2016, CFPS organised an inaugural meeting to develop a vision for the future of Family Medicine in Singapore. The meeting was attended by College Council, Censors Board, past Presidents and Council members who will also form the taskforce for the Family Medicine for Our Singapore (FAMOUS) Project.

Singapore's population is one of the most rapidly ageing in Asia. An estimated one million or one in five of our population will be in the elderly group by 2030. The healthcare challenges associated with an aging population are enormous including a rising prevalence of chronic disease burden and accelerating demand for expensive healthcare services. The demand for elderly care will nearly triple compared to current needs. Declining old-age support ratios will create societal burdens and further strain our finite finances to cope with the increasing healthcare demand. While we have done very well so far in keeping healthcare costs affordable for Singaporeans, it is increasingly evident that a hospital-centric healthcare model is unsustainable in the long term. Care is also increasingly fragmented when medically complex patients are seen by multiple disease/ organ specific specialists without a family physician to coordinate this care.

The World Health Organization (WHO) in 2004 defined Family Medicine as a "discipline concerned with the provision of personal, primary, preventive, comprehensive, continuing and coordinated healthcare of the individual in relation to his family, community and environment". Person-centered care is emphasised instead of disease specific care. In 2008, Dr Margaret Chan, Director General of WHO affirmed that a primary healthcare approach is the most efficient, fair, and cost-effective way to organise a health system. Moreover, primary healthcare produces better outcomes, at lower costs and higher patient satisfaction. Professor Robert Taylor, author and editor of Family Medicine: Principles and Practice stated in his article "The promise of family medicine: history,

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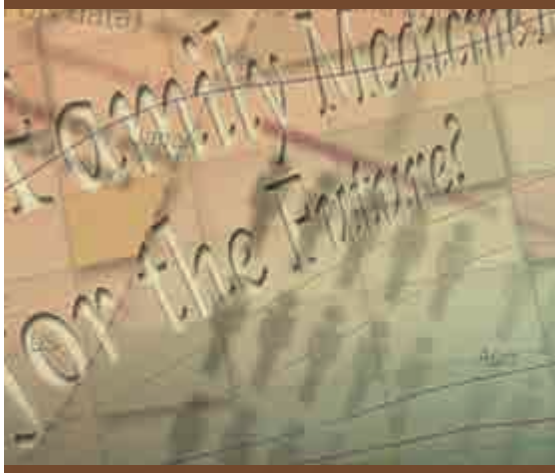

Everything You Know About Cholesterol Is Wrong!

by Dr See Toh Kwok Yee, MCFP(S), Editor

Allow me to explain myself before you cry foul and ditch this newsletter. The title is adapted from the Season 4 Episode 63 of the immensely popular and multi-Emmy win-ning Dr. Oz Show. The show is hosted by cardiac surgeon, Dr. Mehmet Oz, of the Columbia Uni-versity. In this episode, available on YouTube (1) and on the show website, Dr. Oz has declared it to be the game changer and the most important show he has ever done on the topic of cholesterol. His guests are, cardiologist, Dr. Stephen Sinatra and, nutritionist, Dr. Jonny Bowden, authors of "The Great Cholesterol Myth" (2). The authors in the show make declarations like "cholesterol causes heart disease is a lie" and "the higher your cholesterol, the longer you live". In concluding, Dr. Oz has advised his audience that the bottom line regarding cholesterol should be: "if you don't have a heart problem and your doctor wants to give you a statin, especially if you are a woman, I want you to push back" and that LDL Cholesterol particle size test should be demanded of your doctor.

The Dr. Oz Show was introduced to me by a patient who watches the program everyday without exception. The show is available on our free-to-air Channel 5 and is screened three times daily on weekdays (5am, 9am and 3pm) and twice a day on weekends (5am and 7am). Yes, Dr. Oz is in, seven days a week!

The TV is but just one of patients' sources of medical information and the other is, no doubt, the ubiquitous Internet. There is little wonder then that our patients become befuddled by the deluge of conflicting messages; if the eminently qualified Dr. Oz and guests are right, what do I make of my earnest GP's recommendations?

Therein, the uphill task faced by GPs in our daily practice when our patients seek our clarifications and assurances regarding their treatment. We risk sounding like an old and broken record if we have scarce idea how to look for new information to keep our knowledge up to date and new skills to correct misinformation that seek to undermine mainstream practice. I am doubtful we can han-dle the curve balls hurled at us by the mass media and the social media just by attending the oc-casional CMEs and reaching for that outdated CPG.

An answer probably lies in each of us learning how to find EBM articles and how to appraise and apply them. Another must be acquiring techniques to motivate our patients to continue their treat-ment with us. This issue hopes to offer some help in these respects.

So, is Family Medicine ready for the future? A pertinent question indeed and befittingly addressed by our College President in this issue.

A Must-Read in this edition is the feature Q&A, Acyclovir Toxicity In Patients With Chronic Kidney Disease, in which our NUHS specialist colleagues share their expert opinions.

A Happy and Healthy Year of the Monkey from the Editorial Board to all our readers.

Reference:
1. Everything You Know About Cholesterol Is Wrong
https://www.youtube.com/watch?v=_dltdsxeoQk
https://www.youtube.com/watch?v=DCY5Bzs11W4
https://www.youtube.com/watch?v=Ts5ZBBnPN2Q

2. Cholesterol Facts vs. Myths | The Dr. Oz Show
http://www.doctoroz.com/article/cholesterol-facts-vs-myths

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College of Medicine Building
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leadership and the Age of Aquarius" that the initial promise of family medicine was that it would rescue a fragmented healthcare system and put it together again, and return it to the people.

A new model of primary care that can deliver on this promise in Singapore is urgently needed. While 80% of primary care is provided in the private sector by family physicians and general practitioners, 80% of chronic disease care is provided by publicly-funded polyclinics. Misalignment in healthcare financing contribute to congested polyclinics and hospital specialist outpatient clinics; and an inability to sustain continuing care for complex chronic diseases management in private primary care. Hence, a new model of primary care that is patient-centered, multi-disciplinary, with 24/7 access to care will be needed to provide and coordinate the increasing complex healthcare needs of an aging population. To address the chasm between a patient-centered primary care and primary care capacity, more financial and manpower resources should be dedicated to primary care. Healthcare financing framework may need fine-tuning to ensure quality and affordable chronic disease care in primary care. Rigorous evaluations of these new models of primary care are also required to ensure cost-effectiveness. Most importantly, a healthcare financing framework that emphasises value–based primary care should be proposed.

To ensure family physicians' competence to play an enhanced role in various Family Medicine settings, the goals and objectives of training must deliver to these desired end states. A review of our training programmes at the undergraduate, postgraduate and continuous professional development levels should highlight current challenges. Lengths of Family Medicine training, curricula and evaluation requirements are different in our local medical schools. At the postgraduate level, CFPS trains family physicians via a nationwide Graduate Diploma in Family Medicine (GDFM) program. The Master of Medicine in Family Medicine [MMed(FM)] College Route allows doctors who have attained the GDFM to enrol into a one-year programme leading to the MMed(FM). Residency training programmes are provided by National University Health System, National Healthcare Group and SingHealth as the three Sponsoring Institutions (SIs). Inevitably, the diversity of training programs may lead to duplication of effort while compromising on exposure to Family Medicine settings available only in some SIs. The lack of prestige and commonly misunderstood public perception of family physicians as "cough and cold" doctors affected Family Medicine as a choice of specialty for medical students and junior doctors. Without an enhanced role in the healthcare system, family physicians may not find it worthwhile to enrol in higher Family Medicine training programs.

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(continued from Page 3:The Future of Family Medicine in Singapore)

Practicing at the top of their license, family physicians must also embrace evidence-based medicine and engage in research on Family Medicine practices. Enhancing the standing of Family Medicine in academia and communication of an enhanced role of family physicians to the public and within medicine are important to improve perception and raise the prestige of Family Medicine.

At the inaugural meeting of the Family Medicine for our Singapore project committee identified three core themes:

i. New models of primary care to meet the healthcare needs of an aging population
ii. Education and training to prepare family physicians for an enhanced role
iii. Research in Family Medicine that supports our mission

For each core theme, the taskforce identified key questions that must be answered if we were to create a better future for family medicine in Singapore. Pre-existing and future challenges in each core theme were also identified and possible solutions were explored during the meeting. The project committee is expected to complete the preliminary fact findings and submit an interim report to the College by October 2016. Extensive studies and surveys will be carried out to support this inquiry into the future of family medicine. Based on the findings and recommendations of the committee, the College will publish a white paper on the future of family medicine in Singapore in May 2017.

Profile of taskforce members for the Future of Family Medicine Singapore Project

A/PROF LEE KHENG HOCK

JOB TITLE
Senior Consultant

PLACE OF WORK
Family Medicine and Continuing Care, Singapore General Hospital

APPOINTMENTS
- President, College of Family Physicians Singapore
- Associate Professor, Duke NUS Graduate Medical School
- Director (Medical), Bright Vision Hospital
- Director, Office of Integrated Care, SGH
- Co-Chair, JCFMS

DR LEE SUAN YEW

JOB TITLE
Family Physician

PLACE OF WORK
S. Y. Lee Clinic

APPOINTMENTS
- President, College of Family Physicians Singapore (1985 to 1988)
- Censor-in-Chief, College of Family Physicians Singapore (1985)
- Examiner, Diplomate Examination of the College leading to the award of the MCFP (1978 to 1988)
- Examiner, Master of Medicine (1993 to 1995)

A/PROF GOH LEE GAN

JOB TITLE
Professorial Fellow and Senior Consultant

PLACE OF WORK
Division of Family Medicine, Department of Medicine, National University Health System

APPOINTMENTS
- Associate Programme Director, NUHS Family Medicine Residency
- Attending physician, Clementi Polyclinic
- Attending physician, FMSOC, Department of Medicine, NUHS
- Liaison Physician, AIC HOME Program – Home care of advanced renal, respiratory, cardiac, and liver disease
- Course instructor, Undergraduate FM Elective posting, Yong Loo Lin SOM
- Advisor, Graduate Diploma of Family Medicine (GDFM) Examination Committee, Graduate School of Medical Studies; Advisor, Master of Medicine in Family Medicine (MMedFM) Examination Committee, Graduate School of Medical Studies. (MMedFM) Examination Committee, Graduate School of Medical Studies

DR TAN TZE LEE

JOB TITLE
Principal Partner

PLACE OF WORK
The Edinburgh Clinic

APPOINTMENTS
- Vice President, College of Family Physicians Singapore
- Council member, Singapore Medical Association
- Member, Asia Pacific Association of Medical Editors (APAME)
- Honorary Secretary, Singapore Association of Medical Journal Editors (SAMJE)
- Peer reviewer, Singapore Medical Journal and the Singapore Family Physician Journal
- President, COPD Association, Singapore
- Member, General Practice Asia Pacific Respiratory Board
- Board member and Director of the International Primary Care Respiratory Group (IPCRG)
- Visiting Consultant in the Family Medicine Division, Department of Medicine (National University Hospital)
- Adjunct Assistant Professor, Yong Loo Lin School of Medicine for Family Medicine, and the Duke-NUS Graduate Medical School for Family Medicine and Continuing Care

DR PAUL GOH SOO CHYE

JOB TITLE
Director and Senior Consultant

PLACE OF WORK
SingHealth Polyclinics - Tampines

APPOINTMENTS
- Censor-in-Chief, College of Family Physicians Singapore
- Past founding CEO of SingHealth Polyclinics
- Deputy Chair, Centralised Institutional Review Board E, Singapore Health Services
- Co-Chair, Primary Care Advisory Council, Eastern Health Alliance
- Adjunct Asst Professor, Yong Loo Lin School of Medicine, NUS
- Adjunct Asst Professor, Duke-NUS Graduate Medical School
- Examiner in GDFM, MMed (Fam Med), FMCP, FCFP(S) Examinations

A/PROF TAN BOON YEOW

JOB TITLE
Medical Director & Senior Consultant

PLACE OF WORK
St Luke's Hospital

APPOINTMENTS
- Honorary Secretary, College of Family Physicians Singapore
- Censor-in-Chief, College of Family Physicians Singapore (2009 - 2015)
- Vice Chairperson, Chapter of Family Medicine, AMS
- Programme Director, NUHS FM Residency
- Adjunct Associate Professor, Dukes-NUS Graduate Medical School
- Adjunct Associate Professor, Yong Loo Lin Medical School, National University of Singapore

DR LIM FONG SENG

JOB TITLE
Head and Senior Consultant

PLACE OF WORK
Division of Family Medicine at the University Medicine Cluster in National University Health System (NUHS)

APPOINTMENTS
- Honorary Treasurer, College of Family Physicians Singapore

DR S SURAJ KUMAR

JOB TITLE
Family Physician

PLACE OF WORK
Drs Bain & Partners

APPOINTMENTS
- Honorary Assistant Secretary, College of Family Physicians Singapore
- Associate Programme Director, MMed(FM) College
- Tutor, Graduate Diploma in Family Medicine
- Adjunct Instructor, Duke-NUS Graduate Medical School Singapore
- Adjunct Lecturer, Department of Medicine, YLLSoM, NUS

DR NG LEE BENG

JOB TITLE
Consultant

PLACE OF WORK
Family Medicine and Continuing Care, Singapore General Hospital

APPOINTMENTS
- Honorary Assistant Treasurer, College of Family Physicians Singapore
- Programme Director, FM Fellowship Programme, College of Family Physicians Singapore
- FM faculty for Duke-NUS Graduate Medical School, Yong Loo Lin School of Medicine, National University of Singapore and Singhealth FM Residency programme

DR THAM TAT YEAN

JOB TITLE
CEO & Family Physician

PLACE OF WORK
Frontier Healthcare Group

APPOINTMENTS
- Executive Director, College of Family Physicians Singapore
- Adjunct Assistant Professor, Dept of Medicine, NUS Yong Loo Lin School of Medicine
- Associate Programme Director, NUHS Family Medicine Residency Programme
- Visiting Consultant, Dept of Medicine, National University Hospital
- Co-Chairman, National General Practitioner Advisory Panel, AIC

DR VINCENT CHAN

JOB TITLE
Family Physician

PLACE OF WORK
Drs Lim & Chan Clinic

APPOINTMENTS
- Council Member, College of Family Physicians Singapore
- Editorial board of College Mirror
- Tutor for Graduate Diploma in Family Medicine
- Adjunct Instructor for Duke-NUS Graduate Medicine School, Singapore

DR ENG SOO KIANG

JOB TITLE
Family Physician

APPOINTMENTS
- Fellow of CFPS
- Associate Programme Director - Graduate Diploma in Family Medicine Programme
- Supervisor, MMed(FM) College Programme
- Associate MD, NTUC Health

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Family Medicine Review Course 2016

Organised by:
Academy of Medicine, Chapter of Family Medicine Physicians &
College of Family Physicians Singapore

The Chapter of Family Medicine Physicians (FMP) was officially inaugurated within the Academy of Medicine Singapore (AMS) in January 2015 to recognise colleagues who have attained the Fellowship of the College (FCFP) through a structured programme and have attained mastery in the discipline of Family Medicine. To date 78 FCFPs, have been conferred FAMS in the FMP Chapter.

The Chapter and the College are now jointly organising the first Family Medicine Review Course on 14th May 2016 for family physicians undergoing advanced FM training and also other family physicians who wish to be so updated. The review course would cover a panoply of subjects important for family practice delivered authoritatively by colleagues who have attained mastery in the subject and well known to be effective teachers.

We hope that you would give this first FM review course the full support it deserves. Thank you.

Prof Lim Shih Hui
Master
Academy of Medicine

A/Prof Lee Kheng Hock
President
College of Family Physicians Singapore

Organising Committee:
Dr Hwang Ern Huei Joel
Dr Kwek Sing Cheer
Dr Su Shengyong
Dr Tan Chee Wei
Dr Wang Mingchang

Advisors:
A/Prof Cheong Pak Yean
A/Prof Tan Boon Yeow
Dr Chng Shih Kiat

It is with great pleasure that we invite you to attend the inaugural Family Medicine Review Course 2016 to be held on **14 May 2016 (Saturday)** at **NUSS Kent Ridge Guild House**.

We will be putting together a programme comprising lectures and practical clinical approaches in Family Medicine.

The course aims to cover important conditions commonly encountered in Family Medicine, focussing on utilising evidence-based approaches to deliver effective and holistic care.

It will be useful for Family Physicians, FM Trainees or Doctors interested in Family Medicine. Trainees, in particular, will find this course useful in their learning and preparations for examinations.

There will be four clinical tracks which are relevant to family medicine, namely respiratory, cardiology, musculoskeletal and dermatology. There are 3 lectures for each track. Two tracks will run concurrently and participants can choose which ones to attend.

We look forward to your attendance.

FM Review Course Organising Committee,
FCFP(S) Batch 2015-2017

FAMILY MEDICINE REVIEW COURSE 2016

14 May 2016, Saturday 12.00pm – 5.30pm

Academia SGH, Level 2

20 College Road, Singapore 169856

Registration slots are limited to the first **120** applicants

Categories & Fees	Early Bird Fees (before 29th Feb 2016)	Standard Fees
College Members / FAMS	~~S$21.40~~ N.A.	S$32.10
Non-College Members / Non-FAMS	S$42.80	S$64.20

All prices stated are inclusive of 7% GST. Registration fees includes lunch & tea-break.
Cheque payment must be made payable to **College of Family Physicians Singapore**.

Closing date for registration is **15 April 2016**.
Track allocations are on a first come first served basis.

Venue	Academia SGH	
Time	Programme	
1200 to 1345	Lunch & Registration	
1345 to 1400	Welcome address by Chairman, Chapter of Family Medicine Physicians, AMS Opening address by President, College of Family Physicians Singapore	
Track	Respiratory	Dermatology
Venue	L2-S3	White Space (Level 2)
Time	Topic	Topic
1400 to 1430	Managing a child with recurrent breathlessness *-Prof Chay Oh Moh*	Rashes not to be missed in children *-Dr Chan Yuin Chew*
1430 to 1500	Managing an adult with recurrent breathlessness *-Dr Gerald Chua*	Approach to an elderly patient with generalised pruritus *-A/Prof T. Thirumoorthy*
1500 to 1530	CXR pitfalls for a Family Physician – An internist viewpoint *-Prof C. Rajasoorya*	Common cutaneous manifestations of medical illnesses *-Dr Colin Theng*
1530 to 1600	Tea break	
Track	Cardiology	Musculoskeletal
1600 to 1630	Management of common ECG abnormalities *-Dr Hsu Li Fern*	Approach to joint pain in children *-Dr Elizabeth Ang*
1630 to 1700	Updates in diagnosis and management of ischaemic heart disease *-A/Prof K. Gunasegaran*	Managing common joint pain in adults—OA, RA, gout *-A/Prof Bernard Thong*
1700 to 1730	Screening and preventing sudden cardiac death in exercise *-A/Prof Tong Khim Leng*	Managing osteoporosis in primary care *-A/Prof Lau Tang Ching*

Thank you for your support of the **Family Medicine Review Course 2016**.
Due to the overwhelming response, we regret to inform that registrations are closed.
If you'd wish to withdraw from the waiting list, please drop us an email at fmrc2016@cfps.org.sg
We look forward to your continuing support in our future events and courses.

(continued from Page 5:The Future of Family Medicine in Singapore)

DR GOH LAY HOON

JOB TITLE
Family Physician

PLACE OF WORK
National University Health System
Family Medicine Division

APPOINTMENTS
- Council Member, College of Family Physicians Singapore
- Lecturer, NUS Yong Loo Lin School of Medicine

DR KWONG KUM HOONG

JOB TITLE
Family Physician

PLACE OF WORK
Princeton Family Clinic

APPOINTMENTS
- Programme Director - Graduate Diploma in Family Medicine Programme
- Examiner in GDFM, MMed(FM) and FCFP(S) Examinations

DR JULIAN LIM

JOB TITLE
Family Physician

PLACE OF WORK
Newlife Family Clinic & Surgery

APPOINTMENTS
- Programme Director - MMed(Family Medicine) College Programme
- Adjunct Lecturer - Duke-NUS and NUS Medicine
- Member, FPAB
- Member, FMRAC

DR LIM HUI LING

JOB TITLE
Family Physician

PLACE OF WORK
International Medical Clinic

APPOINTMENTS
- Council Member, College of Family Physicians Singapore
- Tutor, CFPS Graduate Diploma in Family Medicine Programme
- Examiner, CFPS Graduate Diploma in Family Medicine Programme
- FM CME Advisor

(continued on the next page)

DR DORAISAMY GOWRI

JOB TITLE
Senior Consultant

PLACE OF WORK
National Healthcare Group Polyclinics

APPOINTMENTS
- Council Member, College of Family Physicians Singapore
- Teaching (MMed and GDFM trainees)
- Regional Director (North), Primary Care Transformation Office (PCTO)
- Member of the Family Medicine Board, NHGP
- Member of the Family Medicine Examination Committee
- Family Medicine Residency Program Core Faculty

FAMILY PRACTICE SKILLS COURSE

Emergency Medicine (Re-run)

The College of Family Physicians Singapore would like to thank the Expert Panel for their contribution to the Family Practice Skills Course #63 on "Emergency Medicine (Re-run)", held on 16 – 17 January 2016.

Expert Panel:
Dr Kanwar Sudhir Lather
Dr Chua Mui Teng
Dr Dawn Lim
Dr Tay Sok Yan
Dr Sohil Pothiawala
Dr Nausheen Edwin
Dr Lim Jia Hao

Chairperson:
Dr Sorinder Singh
Dr Marie Stella P Cruz

Self-Care Techniques

The College of Family Physicians Singapore would like to thank the Expert Panel for their contribution to the Family Practice Skills Course #64 on "Self-Care Techniques", held on 30 – 31 January 2016.

Expert Panel:
Dr Lawrence Ng
Dr Tan Wee Chong
Janet Chang Wei Ee
Dr Jean Cheng
Dr Tan Wee Hong
Lim Hui Khim

Chairperson:
Dr Lawrence Ng
Dr Peh Lai Huat

DR LOW LIAN LENG

JOB TITLE
Associate Consultant

PLACE OF WORK
Family Medicine and Continuing Care,
Singapore General Hospital

APPOINTMENTS
- Council Member, College of Family Physicians Singapore
- Associate Honorary Editor, Singapore Family Physician
- Supervisor, MMed (FM) College Programme
- Chief Resident, Singhealth Family Medicine residency
- Clinical Teacher, Family Medicine, Duke-NUS Graduate Medical School

DR ALVIN ONG

JOB TITLE
Senior Staff Registrar

PLACE OF WORK
Sengkang Health @ Alexandra Hospital (SKH@AH)

APPOINTMENTS
- Council Member, College of Family Physicians Singapore
- Appointed Tutor for the Graduate Diploma in Family Medicine (GDFM) Programme 2014-2016

DR TAN NGIAP CHUAN

JOB TITLE
Director

PLACE OF WORK
Department of Research, SingHealth Polyclinics, Singapore

APPOINTMENTS
- Honorary Editor, Singapore Family Physician
- Member, SingHealth Research Council
- Adjunct Assistant Professor, Duke-NUS Medical School Singapore
- Examiner, Graduate Diploma Family Medicine Programme, NUS Post Graduate Medical School
- Examiner, MMed (Family Medicine)

Programme, NUS Post Graduate Medical School
- Faculty, Fellowship of College of Family Physicians Singapore training program
- Faculty, SingHealth Family Medicine Residency Program
- Associate Editor, Proceedings of Singapore Healthcare - a publication of SingHealth Academy
- Member, Chapter of Family Physicians, Academy of Medicine, Singapore
- Grant reviewer, Health and Medical Research Fund, Govt of the Hong Kong SAR

DR LOW SHER GUAN LUKE

JOB TITLE
Consultant

PLACE OF WORK
Department of Family Medicine,
Sengkang Health @ Alexandra Hospital (SKH@AH)

APPOINTMENTS
- Council Member, College of Family Physicians Singapore
- Editor, College Mirror
- Supervisor, MMed(FM) College Programme
- Supervisor, Fellowship of Family Medicine Programme
- Tutor, CFPS Graduate Diploma in Family Medicine
- FM CME advisor for Singapore Medical Council (SMC) - CFPS
- NUS YLLSOM clinical tutor (part time)
- Duke-NUS graduate medical school clinical teacher (part time)

DR JONATHAN PANG

JOB TITLE
Medical Director

PLACE OF WORK
- Everhealth Medical Centre
- Everhealth Family Clinic & Surgery

APPOINTMENTS
- Council Member, College of Family Physicians Singapore
- Past Hon Secretary & Executive Director, CFPS
- Programme Director, FMTS Conditional Registration Doctors in Polyclinic
- Tutor, CFPS Graduate Diploma in Family Medicine
- Examiner, CFPS Graduate Diploma in Family Medicine
- Examiner, MMed (Family Medicine)
- Adjunct Assistant Professor, Duke-NUS Graduate Medical School
- Preceptor, James Cook University, Medical Students
- Member, FM CME Assessors Board (2015 - 2018)

DR SWAH TECK SIN

JOB TITLE
Senior Consultant

PLACE OF WORK
SingHealth Polyclinics

APPOINTMENTS
- Member, Censors Board, College of Family Physicians Singapore
- Examiner, GDFM, MMed(Fam Med), FMCP, FCFP(S) Examinations
- Core Faculty, Accreditation Council for Graduate Medical Education (ACGME)
- Adjunct Assistant Professor, YLLSoM, NUS

CM

Reviewing the Membership Structure
of the College of Family Physicians

by A/Prof Cheong Pak Yean, FCFP(S), Past President of CFPS

In the 2015 Annual General Meeting, a constitutional amendment to add a category of 'student membership' was stood down after discussion. It was felt that the amendment though important should be introduced again in the 2016 AGM in the context of a review of the entire membership structure.

The existing constitution of the College Article IV Section 5 defines seven categories of membership viz. Associate, Ordinary, Collegiate, Fellowship, Overseas, Life and Honorary. Of these seven categories, three are based on the professional development of family physicians using a framework of vocational training milestones viz. GDFM & MMed(FM), number of years in family practice and professional development programmes conducted by College. These criteria are added as Family Medicine (FM) training developed through the years.

A framework to unify these criteria, the Dreyfus model of skills development has been proposed by A/Prof Goh LG and Dr Ong CP in a 2014 Singapore Medical Journal (SMJ) paper [1] titled 'Education and training in Family Medicine: process and a proposed national vision for 2030'. This framework is graphically represented in Figure 1 from the paper. The implications of this framework are further elaborated in a commentary [2] by A/Prof Cheong PY in the same SMJ issue. If this framework is applied to only new members of the College (with existing members remaining in their present categories), the membership structure would in time represent the professional development attainments of family physicians in Singapore.

THE CURRENT MEMBERSHIP STRUCTURE

Ordinary membership is open to registered medical practitioners (RMPs) engaged in family practice who has GDFM/ MMed(FM) OR is a registered medical practitioner (RMP) with the Singapore Medical Council (SMC) for not less than five years. **Associate** Membership is defined by exclusion for RMPs who are ineligible for ordinary or collegiate membership.

Collegiate Membership & Fellowship each has specific requirements to recognise attainments in family practice. **Collegiate membership** is for Associate or Ordinary members who are engaged in family practice for not less than three years, completed an approved two-year programme relevant to family practice and passed the MMed(FM) or equivalent College examination. **Fellowships** are awarded to Collegiate members who after having been assessed and approved by the Censor Board are recommended by the Council by resolution to the AGM. The constitution does not specify the requirements of FM training and examination - a legacy of the past when fellowships were conferred by honour.

Overseas members must have acceptable medical qualifications registrable with the SMC (but not actually registered) and residing overseas. They must also have seven years with acceptable qualifications, five years in family practice and testimonials from two RMPs.

A summary of the current requirements of membership are tabulated in table 1. The number of members in each of the above category as of the 2015 AGM is presented in table 2.

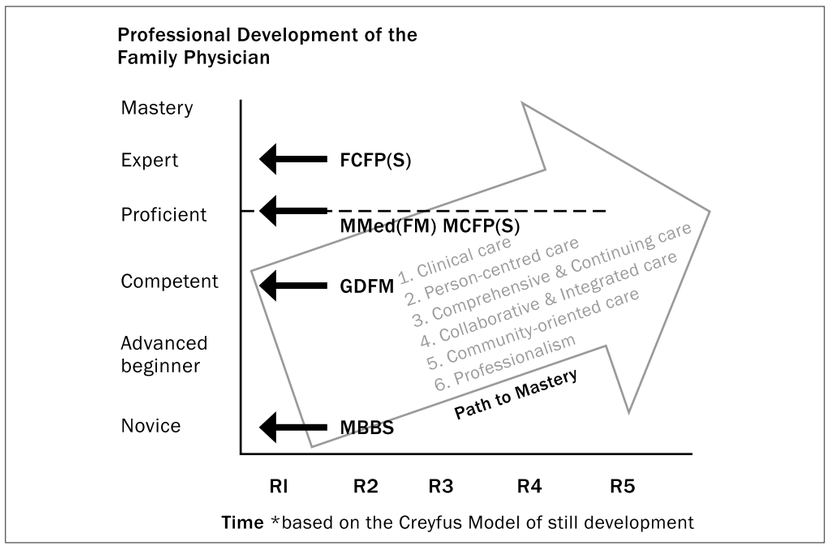

Fig 1. Levels of mastery of family medicine [Source: CFPS, 2013].

Table 1: Requirements of membership

Category	Requirements
Associate	RMP but not eligible for ordinary or collegiate membership
Ordinary	In family practice: RMP with GDFM /MMed(FM) OR RMP for 5 years;
Collegiate	Associate/ Ordinary member in family practice for not less than 3 years, completed 2-year FP programme and passed MMed(FM) or college exam.
Fellowship	Collegiate Member assessed and approved by Censor Board and recommended by Council
Overseas	Not RMP. Acceptable qualifications for 7 years, residing overseas and practising FP 5 years, 2 referees

Table 2: Categories and numbers as of 2015 AGM

Category	Number of active members	Number of Life members	Total
Associate	248	1	249
Ordinary	1,012	194	1,206
Collegiate	95	60	155
Fellow*	98	27	125
Overseas	2	1	3

** 80 Fellows of College are concurrent Fellows of the Academy of Medicine*

A REVIEW OF MEMBERSHIP CATEGORIES

The categories of life and honorary membership have been reviewed in recent AGMs and as the definitions are clear, no further comments need to be made.

(1) Reviewing the requirements of Ordinary membership

The Family Physicians Accreditation Board (FPAB) set up in 2011 accepts GDFM/ MMed (FM) and other qualifications deemed equivalent and sets criteria for what is deemed family practice. RMPs meeting these requirements are placed in the Register of Family Physicians legislated in the Medical Registration Act.

The College should accept all such registered family physicians for ordinary membership and if eligible, collegiate and fellowship membership and the reference to 5 years of registration as RMP removed. Existing ordinary members would remain unchanged.

In addition, the College Censor Board may also wish to establish equivalence of qualifications and alternative definitions of family practice for RMP not in the register. The constitution recognises that family medicine is a discipline that spans a plethora of domains in many settings.

(2) Clarifying the requirements of Collegiate Membership

The College awards Collegiate membership to RMPs with Masters of Medicine (FM) presently by interview and to those with GDFM after they have successfully completed a 2-year Collegiate programme. With the training experience of the vocational training programmes undergoing revision, the Censor Board may have to continually review the requirements of the various routes of entry to bring those aspiring for collegiate membership to equivalent standards of professional development.

(3) Elaborating on the requirements of Fellowship

The award of Fellowship through successful completion of the College Fellowship training programme was established since the year 2000, and the award of Fellowship by honour (on the recommendation of Council and resolution in AGM) was discontinued. The current Constitution needs to be updated to reflect these processes.

(4) Rethinking the place of Overseas Membership

The criteria for doctors from overseas joining the Singapore College may need to be reviewed as only 3 out of the 1800 members belong to this category. We could examine the criteria and requirements of other Colleges as to what is current practice and rethink its place.

(5) Adding a new category of student membership

A new category to admit students in the three medical schools in Singapore as term student membership is timely. The term should start from acceptance of applications to a year after the scheduled completion of their SMC qualifying examination after which on SMC registration, they are eligible for associate membership. These student members do not have the right to vote in AGM, to hold offices and are exempted from paying annual dues.

THE WAY AHEAD

The FPAB currently maintains a single register of all registered family physicians. The College through awards of MCFP and FCFP recognises more highly trained family physicians in this register. The Academy of Medicine (AM) through conferment of its Fellowship (FAMS) further recognises eligible FM physicians in this register as practising the specialty of family medicine on par with the other clinical specialties.

In the journey to further formal recognition of FM as a specialty in Singapore, it is important that the different professional attainments of FP in the College constitution be explicit. Appropriately crafted constitutional amendments should be presented in the 2016 AGM for consideration and adoption. In time, the manifests in the Register of Family Physicians, the College Constitution and the AM Constitution would then severally inform on the level of attainments of FM practice in Singapore.

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CM

Is Family Medicine Ready for the Future?

by A/Prof Lee Kheng Hock, President, 25th Council, College of Family Physicians Singapore

Is our healthcare system ready for the future? The answer is no. More precisely the answer is not yet. Not in its present structure and using present models of care. What about family medicine? Are we ready for the future?

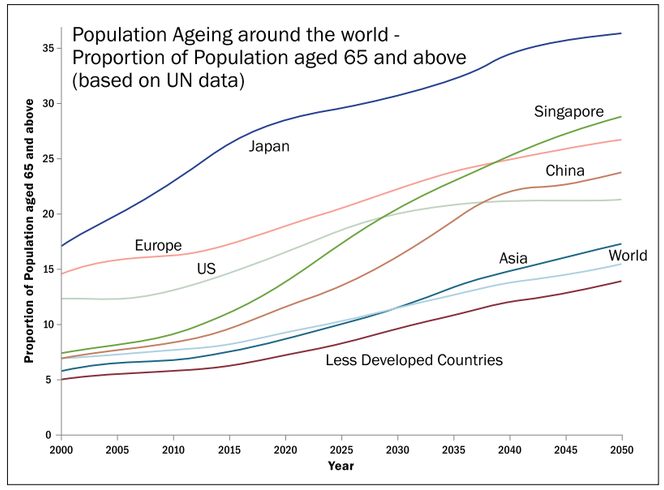


Fig. 1

Source: Keynote Address by Dr Vivian Balakrishnan, Minister for the Environment and Water Resources at the 15th KPMG Global Real Estate & Construction Conference on 29th September 2014

Predicting the future is fraught with dangers. More often than not, one ends up with egg on the face. Fortune tellers had learned to couch their predictions in vagueness and speak in riddles that allow interpretations that hedge for different outcomes. Even in the new field of predictive analytics, data scientists who arm themselves with voluminous data and massive computing power will hedge with margins of error and other mumbo jumbo to cover for eventualities. Ultimately it still boils down to common sense and recognizing that the present depends on the past and the future is shaped by the present. So what does common sense and the present trends tell us?

How is Our Population Ageing?

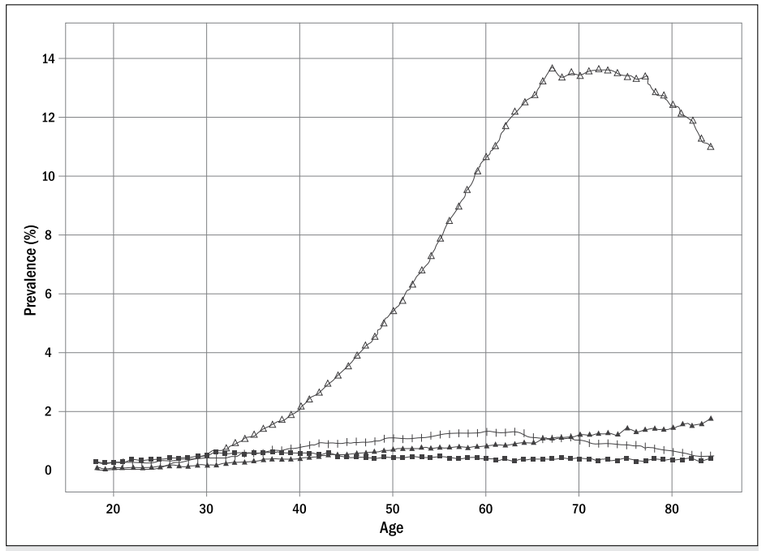
Among all the trends that had revealed themselves, the big game changer in healthcare is the ageing of the population. Singapore's population is among the fastest ageing in the world, a result of increasing life-expectancy and falling fertility rates.

*(See **Fig. 1**)*

Effect of Ageing Population on Healthcare Needs

As practicing physicians we are only too aware of the increasing complexity of care as the patient ages. An ageing population is associated with increasing prevalence of chronic diseases, co-morbidities and disabilities and increased utilization of health care resources.

The study done by Davies et al clearly showed that prevalence of chronic diseases such as diabetes, hypertension and hyperlipidemia converge as the patient ages. All these in turn predisposes to other diseases such as stroke, ischemic heart disease, peripheral vascular disease and organ failures like heart failure, renal failure and dementia. The stricken elderly become frail and disabled. With increasing co-morbidities, single disease programs and chronic disease management programs are not adequate. Such patients with complex care needs are not well served by our present model of primary care. As a result, they crowd into hospital emergency room, specialist outpatient clinics and get repeated hospitalizations. This will eventually push healthcare cost to unsustainable levels. We are in dire need of a new type of primary care that can support such patients in the community and keep them out of the hospitals.



Prevalence with age among patients with hyperlipidemia, hypertension, and diabetes (Δ - Δ); hyperlipidemia and diabetes (+ - +); hypertension and diabetes (▲ - ▲); and diabetes (▪ - ▪) alone

Fig. 2

Source: Davies JW et al. Prevalence of Comorbid Conditions with Aging Among Patients with Diabetes and Cardiovascular Disease. Hawaii Med J. 2011 Oct; 70(10): 209–213

*(See **Fig. 2**)*

Effect of Ageing on Resource Consumption and Healthcare Costs

With the preceding trends in place, it is quite intuitive that utilization and cost of healthcare will increase with age. This is supported by the survey carried out by Forbes in 2012 which show a very rapid increase in healthcare cost after age 60.

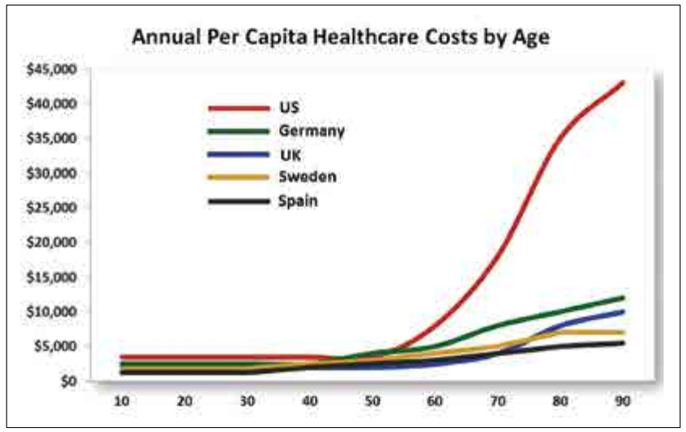


Fig. 3

Source: http://www.forbes.com/sites/danmunro/2012/12/30/2012-the-year-in-healthcare-charts/#6cb29182458f

Very interestingly, you will find that in countries that invest in family medicine and primary care, this age related increase is very much moderated. Germany, Sweden, Spain and the UK are all European countries with well developed primary care systems with a strong emphasis on family medicine. The escalating cost of caring for the elderly may be inevitable but with good primary care, it can be mitigated.

*(See **Fig. 3**)*

In Singapore, the per capita expenditure on healthcare had increased rapidly. In a short span of 5 years from 2009 to 2014, the per capita government expenditure on health increased from $749 per person to $1374 per person, a whopping 83% increase.

*(See **Fig. 4**)*

This is a matter of great concern for our country. In the budget debate in Parliament in 2014, Finance Minister Mr Tharman Shanmugaratnam said that healthcare financing for an ageing population will be a key challenge that our country will face in the near future. The governments health care spending is expected to triple from $4 billion in 2011 to $12 billion in 2020. This increase will happen in a backdrop where revenue growth in the future is expected to be moderate at best.

As an ageing population drives up consumption of healthcare resources, the ability to generate resources diminishes.

This is clearly demonstrated in the changes to the old age support ratio over time.

Production is dependent on having sufficient numbers of economically active individuals who tend to be in the 20 to 64 age group. Therefore the ratio of people 65 and older to those who are in the 20 to 64 age group is good indicator of the level of economic support for older persons in a country. In 1970 the ratio was 13.5. In 2015 it was 5.7. In 2020, it is projected to be 2.1.

*(See **Fig. 5**)*

What will the Future Be?

The future, thankfully, is not all doom and gloom. Singapore's healthcare system remains highly cost-effective. In the latest international survey on efficiency of healthcare systems conducted by Bloomberg, Singapore emerged top of the list overtaking Hong Kong which was top in 2014. MOH is restructuring our healthcare system, centering care around patients and shifting the focus of care from the hospital into the community. There is serious effort to invest in primary care and support the development of family medicine in Singapore. The focus on primary care is universally accepted and validated by evidence as the way to provide cost effective care with good outcome for the population.

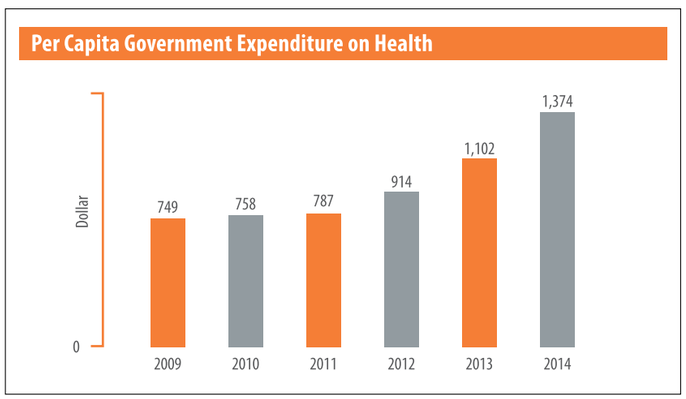


Fig. 4

Source: Singapore in Figures 2015. Department of Statistics Singapore. https://www.singstat.gov.sg/docs/default-source/default-document-

Central to this strategy is the need to increase capabilities and capacity of primary care and community care. More importantly, we need think of a way to provide primary care to an ever-increasing number of elderly patients with complex care needs. Under our present system, they are trapped in a revolving door syndrome where they are constantly shunted between the acute hospitals and their home. We need a new kind of primary care that can keep them safe and optimize their care within the community.

Is Family Medicine Ready for the Future?

If we want to remain in the status quo, then we are ready. Status quo is comforting. Many colleagues had told me the same thing over and over.

"I am happy as I am. Just leave me alone for another 10 years. By then I will be ready to retire." There are times when I feel the same way. Change is anxiety-provoking and as a leader advocating for change, it can be doubly excruciating. However, deep inside we know that the status quo is not sustainable. Family medicine must change

(continued on Page 15)

(continued from Page 13: Is Family Medicine Ready for the Future?)

in order to bring on a better future for our patients, our loved ones and ourselves.

In his speech delivered at the SG50 Appreciation Dinner for Pioneer GPs on 30 Oct 2015, Minister of Health Mr Gan KimYong exhorted the College to help our nation. He said the following.

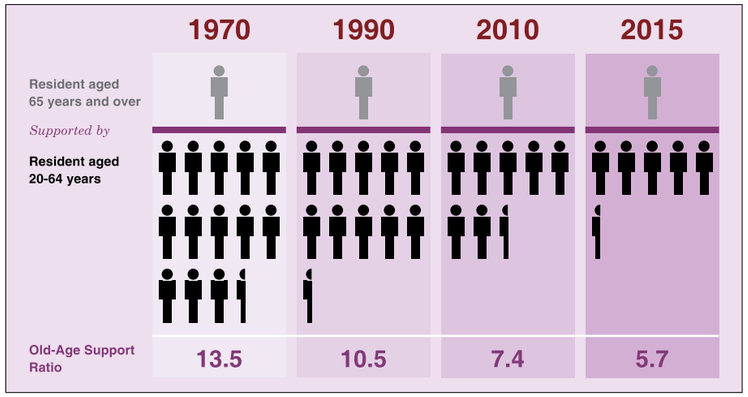


Fig. 5

Source: Singapore in Figures 2016. Department of Statistics Singapore. http://www.singstat.gov.sg/docs/default-source/default-document-library/statistics/visualising_data/old-age-support-ratio2015.pdf

"The changing needs of our population reaffirm the importance of a regular family doctor for the family. In this regard, I applaud the efforts of our College in leading the charge by training our GPs to become highly competent, preferably with home care and transitional care training and experience, as well as equipping them with the skills to work with other healthcare professionals across an integrated healthcare system."

In this issue of the College Mirror, you will read about the ground breaking project that our College had embarked upon. The FAmily Medicine for Our Singapore (FAMOUS) project is a deep dive to understand the present state of family medicine and primary care in the context of future trends. It will give us a roadmap of the things that must be done to gear up family medicine for the future. We will be carrying out a series of in-depth interviews and discussions with members and stake holders. We will also be studying international developments and consult with our family medicine counterparts in the family medicine colleges and academies in other countries. A detailed survey of the current state of family medicine will be carried out later this year. Our College will be releasing an interim report in October 2016. A final white paper will be published in mid 2017.

On the 14th May 2016, our College will be marking World Family Doctor Day with an inter-professional conference co-organized with our family medicine colleagues from Japan. The theme of the conference is on the development of a sustainable healthcare system through community based care integration. We hope to exchange ideas and learn valuable lessons from our Japanese colleagues who had made significant advances in providing good healthcare to an ageing population.

These are important steps that will help us clarify our vision. At the same time our College must work doubly hard to increase our training activities. Our new model of care will need large numbers of highly trained family physicians across the continuum of care. Our College is committed to mobilize all our members and our resources to meet this challenge. Together, we will co-create a better primary care that will make our healthcare system future ready.

CM

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*A reader has written to us in response to A/Prof Lee Kheng Hock's President's Forum titled "**Train For What? ... might as well just make a living**" (College Mirror, Vol. 41 No. 4, December 2015). Here is the letter from Dr Goh Tiong Jin.*

Dear editor,

I agree with Prof Lee on the issue of "depersonalization of medical education".

I think the problem may be that medical examination boards are trying to collect discrete data from a non-discrete (i.e. continuous) source, i.e. from humans and physician-patient interactions.

Perhaps we can strike a compromise.

The final marks of a candidate can be a combination of discrete data and continuous data (i.e. discretionary points awarded by examiners) - the proportions of which can be debated later.

Discrete data might be whether the candidate asks for LMP in women in child-bearing age with abdominal complaints, whether he had considered the possibility of angina in an elderly with dyspepsia, etc.

Non-discrete data can be whether the candidate showed courtesy to the patient, whether there was eye contact during his interaction with the patient, or just a general feel of the examiners.

A related point is that in having a standard "patient", we are ignoring the inherent nature of the real world and life in general, i.e. many things are unpredictable. We may be depriving ourselves a chance to see how a candidate improvises and copes with an encounter with real patients, who can be uncooperative, fickle, forgetful and confused. If a candidate indeed gets a difficult patient and copes relatively well, the examiners can award her enough discretionary points to pass, even though eventually she does not get the correct diagnosis.

Thanks for your attention.

Dr Goh Tiong Jin
MCR No. 04788J

An Approach to Evidence-Based Medicine in a GP Practice

by Dr Soh Soon Beng, MCFP(S)

"Doctor, I am already 65 years old, surely my blood pressure needs not be so low as 120/80? I think 150/90 is good enough for me based on what I have read on the Internet and what all my friends say."

This was the response that I got when I told my patient that his current blood pressure of 150/90 was not optimal. In order to convince him, I had to use evidence-based data to show him his current blood pressure level was not on target.

I was lucky the SPRINT study (1) which compares the merits of standard (<140/90mmHg) and intensive (<120/80mmHg) treatment, published end of 2015, was available to me. I was able to make my case for a lower blood pressure target more convincingly and the patient was eventually persuaded to optimise his BP control.

I am sure all of us have come across similar situations where we have to advise patient on the best way forward based on current evidence. If such evidence is not available then we have to fall back on expert opinions and good clinical practice endorsed by our peers.

If a doctor's decision is not based on rigorously scrutinised peer reviewed evidence then he is no better than the snake oil charlatan. From a medico-legal perspective, a doctor's standard of care is judged against that held by a respectable body of fellow peers and any deviation would be difficult to defend.

How then can a busy Family Doctor gain easy access to good peer-review evidence-based medicine? And how can one decide which medical information is indeed reliable when there are literally thousands of studies and websites offering medical recommendations of one kind or others?
I would attempt to provide a guide through the maze:

A. Clinical Practice Guidelines
Guidelines are a good first source of evidence-based medical information. These are often the compilation of results and recommendations of significant or landmark studies that had been published. Data from such studies have been critically appraised and peer-reviewed. Where evidence is not available then a working consensus is reached. Guidelines are often released by governmental or professional bodies. The following is a list of good guidelines sources. This list is not by any means exhaustive.

1. **MOH Clinical Practice Guidelines**
(https://www.moh.gov.sg/content/moh_web/healthprofessionalsportal/doctors/guidelines/cpg_medical.html#2015)

The MOH CPG remains the main source of guideline for GPs as the recommendations are more tailored to the local population.

2. **National Institute for Health and Clinical Excellence (NICE) Guidelines**
(https://www.nice.org.uk/guidance published?type=guidelines)

NICE provide independent clinical guidance for the whole of England, Scotland, Wales and Ireland. Guidelines are listed in alphabet order, topics, date of release, in process of publication or consultation as well as date last updated.

3. **National Guideline Clearing House**
(https://www.guideline.gov/index.aspx)

This website by the US based Agency for Health Research and Quality allows one to search for evidence-based clinical practice guidelines issued by various professional bodies around the world. For example, search for 'hypertension' would return guidelines related to hypertension in adult, children and pregnant women, including treatment options from respective issuing professional bodies. Articles can be downloaded as PDF and signing up for a free account allows one to receive email alerts and saving articles to the 'my NGC favourite'.

4. **Scottish Intercollegiate Guideline Network**
(http://www.sign.ac.uk/guidelines/published/index.html).

There are also other websites which offer search engine for guidelines, clinical queries or topics. These searches can be further refined by year, clinical trial, systematic review, drugs and treatment.

For example, NHS Evidence (https://www.evidence.nhs.uk/) offers link to the NICE guideline and one can search by clinical topic or by the issuing professional bodies. Subscription based website TRIP Database allows user to login via Facebook account for free access, though there is a premium version which unlocks more features including the number and types of articles that are returned on the search engine. Other subscription websites include DynaMed and Essential Evidence Plus. Perhaps one of the most recognisable search engines is that of the Google Scholar. It is free to use and has features that allow refinement to the search parameters. It even offers email alerts for new article linked to the selected article.

B. Peer Review Journals or websites
Peer-review articles, especially systematic reviews or meta-analyses, are the next good source of evidence-based medical information.

Most of these are subscription based though there are still a number of websites that are free to use. Never be afraid to try as there are still a lot of good articles, including review articles, that are free to download and use.

Some websites need registration before one can use it or download articles. You will need a valid email address as well as to remember your login ID and password. Even if one cannot gain access to an important research study, one can often look up the editorial section which often highlights the salient points and offers good commentaries.

More websites are now offering apps for iPad, iPhone or Android devices. The format is more readable and makes for quick reference.

I had listed them under the following headings:

Family Medicine
1. Australian Family Physician *(www.racgp.org.au)*
2. American Academy of Family Physician *(www.aafp.org)*
3. Canadian Family Physician *(www.cfp.ca)*
4. American Board of Family Medicine *(www.jabfm.org)*
5. British Journal of General Practitioners *(http://bjgp.org/)*
6. Singapore Family Physician *(http://www.cfps.org.sg/publications/the-singapore-family-physician/)*

General Medicine and Speciality
1. The New England Journal of Medicine *(www.nejm.org)*
2. The Lancet *(www.thelancet.com)*
3. The British Medical Journal *(www.bmj.com)*
4. Circulation *(circ.ahajournals.org)*
5. Annals of Internal Medicine *(annals.org)*
6. CDC *(http://www.cdc.gov/)*
7. American Academy of Pediatrics *(http://pediatrics.aappublications.org/content/by/year.)*
8. Journal of the America Medical Association *(http://jama.jamanetwork.com/journal.aspx)*
9. Medscape *(www.medscape.com)*

This is a very useful website as it provides not only clinical information of diseases under the headings of etiology, pathogenesis, symptoms and signs, differential diagnosis, treatment, prognosis and complications but also includes the latest medical findings, a drug interaction checker as well as CME programs that can be used to score category 3B CME points. There is an iPad app which further enhances accessibility especially in clinic practices between patients. When you sign up for the app, you will be able to select your specialty (Family Medicine included) and you will receive updates and articles of your field of interest. The drug interaction checker is particularly useful when faced with prescription of multiple medications in patient already on medications for chronic diseases (statins, warfarin). Drugs can be checked for safety in pregnancy and lactation too.

Thus far, the two sources of medical information mentioned afore (Clinic Practice Guidelines and Peer Review Journals) are termed **Secondary Sources of EBM** (2). Simply put, the authors have done the legwork researching the available studies, assessing their quality, discussing the results and putting forth recommendations. The process employed is either a Systemic Review or a Meta-analysis.

On the other hand, **Primary Sources of EBM** refer to original published articles on studies conducted. Good examples of original articles are the papers that helpful pharmaceutical representatives offer to you when promoting their products. The doctor will need knowledge and skills to evaluate these studies and navigate through the numbers.

To obtain information from primary sources, one needs to develop a strategy to retrieve the relevant articles for a topic and knows how to critically appraised them. This is beyond the scope of this article but, simply put, involves the following principles:

- Acquire the information by asking relevant clinical question, conducting and retrieving relevant articles.
- Appraise the articles.
- Apply the result of clinical studies to actual patients.

The two commonly used databases are:
1. MEDLINE, the U.S.National Library of Medicine database, can be accessed through the free search engine, PubMed (http://www.ncbi.nlm.nih.gov/pmc/)

For those of you who wish to search for answer to specific medical queries, then this website is the ultimate source of

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information provided that you know how to frame your query and has the patience and time to scan through the multitudes of citations and abstracts that will be returned to you once you hit the search button. Obviously the more refined the search parameters the better matched are the articles returned. Some full texts are free to download and there are links to related articles to facilitate searching. If one does not have time to appraise each original research article, then one can select to search for systematic review articles.

2. Cochrane Library (http://onlinelibrary.wiley.com/cochranelibrary/search)

This is mainly a subscription-based database.

Medical Apps

No discussion of Internet based information is complete without any mention of the use of apps. As mentioned earlier, most websites listed above including professional bodies had taken accessibility one step further with the introduction of apps. Below are just a few apps that I have come across which can help the busy doctor in sourcing for good evidence-based medical information. The key feature is that these apps is not limited to one particular speciality or professional body but allows one to source for information from various journals, thus making it easier to read articles from different sources.

1. ***Docphin***

This app allows you to choose the journals that you are following from the drop-down list in the setting. This includes a number of the journals listed above. Once selected the app will push all the new articles of the various journals that you are following through the app. This saves time and effort and makes article reading easy. However if the article is subscription-based then you may not be able to read the full text, maybe only the abstract. One other good feature is that there is a landmark article section showing such articles for each speciality. This may either be guideline or important research article (e.g. SPRINT study for comparison of standard versus intensive blood pressure control). You can also save the articles for future reading or even save it to another app on your device.

2. ***GuidelineCentral***

This app showed all the available guidelines most of which requires payment before you can download and read them offline. There is also provision for you to search the Medline or PubMed by author, journal or keywords.

3. ***Uptodate***

This subscription-based app (PC online version available) provides 10500 evidence-based, practice-oriented topics across 23 specialities. Each topic is designed to allow easy access to the information, using link outline, appropriate graphics, tables as well as summary, recommendation and links to related topics. One can also easily tap on the reference links provided in the article to look up the actual article cited. The aim is to make such useful evidence-based information available at the point of care. Uptodate has been recognised by Singapore Medical Council as a category 3A online provider, allowing doctors to claim for CME points.

4. **Doctor's Companion by Medhand Mobile Library**

This app allows access to 161 book titles which makes checking up on information easy. One of the all time favourite is that of the 5 Minute Clinical Consult which is updated annually. This eBook provides information on medical conditions in an easy to read and accessible format. Unfortunately most are paying titles.

In conclusion, despite a busy clinic, it would be difficult to justify that one has no time to look for good medical information. With iPad, tablet and mobile computing devices becoming ubiquitous and more and more medical apps available, such evidence-based medical information should be available literally at your fingertips.

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(1) Systolic Blood Pressure Intervention Trial (SPRINT)
A Randomised Trial of Intensive Vs. Standard Blood Pressure Control, The SPRINT Research group, NEJM, Vol 373, No 22, p2103-2116, Nov 25, 2015.

(2) Primary vs. Secondary Sources of EBM, Dr. Sohail Bajammal, OCT 2011

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Q&A WITH THE EXPERTS:
Acyclovir Toxicity in Patients with Chronic Kidney Disease

by Dr See Toh Kwok Yee, MCFP(S), Editor

Herpes zoster is characteristically a medical affliction of the elderly and is commonly seen in General Practice. GPs usually start an antiviral agent to reduce the duration of active zoster, zoster associated pain, and to prevent postherpetic neuralgia. Acyclovir is the treatment of choice due to physician familiarity and cost.

Among the elderly, aside from the often-encountered co-morbidities like Hypertension, T2DM and Dyslipidemia, the presence of renal insufficiency should always be borne in mind and taken into consideration in prescribing drugs especially those with serious toxic efects.

Acyclovir has an oral bioavailability of 10 - 20% and is excreted in the kidneys. Patients with chronic kidney disease (CKD) are vulnerable to drug toxicity due to their reduced ability to eliminate unchanged acyclovir in the urine [1]. Therefore, its half-life elimination can increase from 2 – 3.5 hours in normal renal function to > 24 hours in anuric patients, leading to drug overdosage.

College Mirror (CM) is accorded the privilege of a Q&A session with the following distinguished panel of specialists to seek their expert opinions on the use of Acyclovir in elderly patients with CKD:

Dr. Clara Lee Ying Ngoh
Division of Nephrology, University Medicine Cluster, National University Health System, Singapore, Singapore

Dr. Joy Vijayan
Division of Neurology, University Medicine Cluster, National University Health System, Singapore, Singapore

Dr. Huma Jaffar
Division of Dermatology, University Medicine Cluster, National University Health System, Singapore, Singapore

Dr. Horng-Ruey Chua
Division of Nephrology, University Medicine Cluster, National University Health System, Singapore, Singapore

Q1.
Are there clinical or laboratory parameters the GP must be mindful of when prescribing acyclovir in CKD patients?

Clinical

1. Consider if acyclovir is indicated

The Centre for Disease control and Prevention (CDC) guidelines recommend that antivirals should be started within 72 hours of onset of rash to be most effective. It has also been reported that antivirals are no longer helpful once zoster lesions have crusted.

However, CKD and ESRD patients are at higher risk for prolonged zoster associated pain, disseminated herpes zoster and post-herpetic neuralgia. As such, we suggest that acyclovir be considered in all CKD and ESRD patients with herpes zoster even beyond the 72 hours window.

Patients with kidney transplants are also at higher risk of morbidity and complications. The live vaccine which may prevent VZV primary infection and reactivation are also contraindicated in these patients on immunosuppressive therapy. Therefore acyclovir is indicated for herpes zoster in these individuals. Such patients should be asked to notify their respective specialists-in-charge as soon as possible.

2. In elderly patients especially with CKD, assess for risk factors which predispose to acute kidney injury (AKI)

- Hypotension or severe dehydration in relation to acute illnesses.
- Concurrent use of other nephrotoxins (NSAIDs, colchicine).
- Baseline high doses of renin-angiotensin-aldosterone system blockers including ACE-inhibitors or angiotensin-receptor blockers (ARB).

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Patients in a dehydrated state with poor urine output are at risk for precipitation of acyclovir crystals in the renal tubules, which can lead to an obstructive nephropathy. Other potential mechanisms of injury include acute interstitial nephritis and acute tubular necrosis. The above factors will contribute to development of AKI.

3. In advanced CKD or even ESRD patients, it is imperative to take a history for

- Severity of CKD. How advanced is advanced? The patient may be able to quote you the estimated glomerular filtration rate (eGFR). Common terms used include "percentage function left".
- Modality of dialysis, if any. This is important as acyclovir is cleared better with hemodialysis than peritoneal dialysis. The drug clearance is certainly even poorer if the patient has advanced disease not yet on dialysis.

4. Drug interactions

Few drugs interact with acyclovir. However, the following are examples where caution must be exercised

- Mycophenolate mofetil:
  This immunosuppressant is encountered in patients with post solid organ transplant and patients with rhematotoid arthritis. Acyclovir increases the serum concentration of mycophenolate, predisposing to cytopenias and gastrointestinal upset. Likewise, mycophenolate can increase the serum concentration of acyclovir, predisposing to toxicity
- Zidovudine:
  A antiretroviral medication used in management of HIV/AIDS, its central nervous system (CNS) depressant effect is enhanced by acyclovir and can result in cognitive impairment and drowsiness.

If gabapentin and opiate analgesics are prescribed concomitantly in a CKD patient with herpes zoster, dose adjustment must be made as all 3 drugs can cause neurotoxicity.

Laboratory

Serum creatinine and electrolytes should preferably be checked before starting acyclovir in every patient. If this is not practicable, taking a detailed history can be helpful.

For instance, patients with Diabetes mellitus (DM), which is the major cause of CKD in Singapore, risk factors for CKD should be sought for. These include the presence of neuropathy, hypertension, longer duration of DM, poor glycemic control, cardiovascular disease, proliferative retinopathy, and older age.

Q2.
What are the dose titrations that need to be made in CKD and is there a quick reference the GP can use?

Kidney Disease Improving Global Outcome (KDIGO) group guidelines recommend using the Cockcroft-Gault Equation or Modification of diet in renal disease (MDRD) equation to calculate estimated creatinine clearance or eGFR for drug dosing, respectively. The Cockcroft-Gault and MDRD calculators are available online.

- www.mdcalc.com

Clinicians are reminded to note the following limitations.

- The MDRD eGFR equation is also not valid for eGFR > 60 or < 10 ml/min/1.73 m2.
- The CKD stage is arbitrarily set based on a numerical CrCl cut-off, but elimination of acyclovir does not necessarily follow a linear decrement as CrCl falls.

Acyclovir is 60% dialyzable on regular haemodialysis (HD) but, on the other hand, peritoneal dialysis (PD), is very inefficient in removing the drug.

Based on available guidelines, we recommend the following dose adjustment [2,3]:

Oral acyclovir dosing

- CrCl > 50 mL/min/1.73m2: 800 mg 5 times daily
- CrCl 30 – 50 mL/min/1.73m2: 800 mg 8h
- CrCl 10 – 29 mL/min/1.73m2: 800mg 12h
- CrCl < 10 mL/min/1.73m2: 800 mg daily
- ESRD
  - o HD (assuming thrice weekly sessions): 800 mg daily, to be administered post-HD on dialysis days
  - o PD: 400 – 600 mg daily, higher doses of 500 – 600 mg can be administered if the patient has residual renal function of more than 500 mL/day

IV dosing is not covered in this discussion. If the patient is ill, he should be admitted.

Online guides to acyclovir dosing include

- UpToDate 2016
- www.drugs.com
- http://mims.com/

Q3.
A serious toxic effect of acyclovir is neurotoxicity. What are the salient features and what immediate steps should the GP take?

The GP needs to differentiate acyclovir induced encephalopathy from VZV associated encephalitis.

Clinical features	Acyclovir induced encephalopathy	VZV associated encephalitis
Fever and headache	Uncommon	Common
Mental status	Steady deterioration with a temporal association between symptoms and acyclovir use Vivid hallucinations, death delusions	Fluctuates
Focal neurological signs	Uncommon; myoclonus	Common
Seizures	Generalised	Can be focal
Basic laboratory investigations	Leucocytosis uncommon, but can occur.	Leucocytosis common Occasionally, lumbar puncture, electroencephalography (EEG) and magnetic resonance imaging (MRI) of the brain are required to make a definitive diagnosis.

It can be difficult to distinguish the two based only on clinical features alone as intercurrent sepsis can mar the picture. If the patient becomes confused, we advise temporarily stopping acyclovir and an immediate referral to the nearest Accident and Emergency department be made.

A memo must be provided detailing the patient's medications, including date of onset, duration of exposure, and dosing. This information is critical for the hospital colleagues receiving the patient.

Q4.
What are the sequelae and mortality rates with acyclovir induced neurotoxicity?

Sequelae include seizures degenerating into status epilepticus, coma and even death.

In patients with significant residual renal function, forced diuresis and IV hydration can be attempted for removal of acyclovir, but the efficacy is unclear.

The margin of error is small should we attempt to aggressively hydrate a patient with moderate to advanced CKD.

In patients with advanced CKD or ESRD, haemodialysis is the preferred treatment for severe acyclovir toxicity.

Mortality risks appeared to increase with age, co-morbidity and prior cerebral insults.

Q5.
Are the same precautions necessary with the use of other available antiviral agents such as valacyclovir and famciclovir?

The same precautions apply to valacyclovir and famiclovir.

Valacyclovir is a pro-drug of acyclovir, with markedly greater bioavailability than acyclovir (55% vs. 15%). Its subsequent pharmacology follows that of acyclovir.

Famciclovir is a pro-drug of peniclovir and undergoes extensive metabolism to peniclovir upon oral administration. Peniclovir is predominantly excreted by the kidney.

Q6.
How should a patient be followed-up after he has been prescribed acyclovir?

Neurotoxicity has been reported in CKD and ESRD patients even when dose adjusted acyclovir is prescribed[1]. Hence all patients need close clinical monitoring for the duration of acyclovir therapy.

Therefore, it is our opinion that a review of the patient after 2 – 3 days of therapy is advisable to look out for unusual symptoms. The repeat visit will also allow the clinician to adjust the dose according to the laboratory results which by now should have become available.

Q7.
Should the Zoster vaccine be routinely recommended to elderly patients with CKD?

CDC guidelines recommend that ESRD patients aged ≥ 60 years receive a single dose of the zoster vaccine, regardless of whether they report a prior episode of herpes zoster. This is a live vaccine and is contraindicated in allogenic transplant recipients who are on immunosuppression or who are HIV positive.

Studies have shown that the zoster vaccine reduces the occurrence of herpes zoster by approximately 50%, with the highest benefit (64%) in patients aged 60 – 69. For patients who were vaccinated but still developed herpes zoster, the duration of pain was reduced by approximately 10%.

CM thanks the panel for their insightful and informative contribution.

REFERENCES

1. Almond, M.K., S. Fan, and S. Dhilon, Avoiding acyclovir toxicity in patients with chronic renal failure undergoing haemodialysis. Nephro, 1995.69: p. 428-32.
2. Joint Formulary Committee 2015 62nd edition, British National Formulary, British Medical Association and Royal Pharmaceutical Society of Great Britain: London.
3. Aronoff, G.R., Prescribing in Renal Failure: Dosing Guidelines for Adults, in American College of Physicians, 4th Edition. 1999: Philadelphia.

CM

Family Practice Skills Course #65

Cardiovascular Disorders

Sat, 28 May 2016: 2.00pm - 5.30pm
Sun, 29 May 2016: 2.00pm - 5.30pm

College of Medicine Building, Auditiorium Level 2,
16 College Road, Singapore 169854

TOPICS

Unit 1: Cardiovascular Disorders: Updates from Singapore Perspective
Unit 2: Blood Pressure Variability, Morning BP surge and HBPM
Unit 3: Updates in "Lipids Management" guidelines
Unit 4: Use of Statins in patients with Chronic Kidney disease
Unit 5: What's new in Diabetes care
Unit 6: Heart failure - Symptoms, Causes and Treatment

WORKSHOPS

Day 1: Blood Pressure Variability & Updates in 'Lipids management' guidlines
Day 2: Use of Statins & Heart failure

SPEAKERS

A/P Goh Lee Gan
A/P Tan Ru San
A/P Tai E Shyong
Dr Reginald Liew
Dr Ester Yeoh
Dr David Sim

All information is correct at time of printing and may be subject to changes.

■ SEMINARS (2 Core FM CME points per seminar)
Seminar 1 • Unit 1 - 3: Sat, 28 May 2016 (2.00pm - 4.00pm)
Seminar 2 • Unit 4 - 6: Sun, 29 May 2016 (2.00pm - 4.00pm)

■ WORKSHOPS (1 Core FM CME point per workshop)
Day 1: Sat, 28 May 2016 (4.30pm - 5.30pm)
Day 2: Sun, 29 May 2016 (4.30pm - 5.30pm)

* Registration is on first-come-first-served basis.
Seats are limited.
Please register by 23 May 2016 to avoid disappointment.

■ DISTANCE LEARNING MODULE
(6 Core FM CME points upon attaining a minimum pass grade of 60% in online MCQ Assessment)
• Read 6 Units of study materials in The Singapore Family Physician journal and pass the online MCQ Assessment.

This Family Practice Skills Course is organised by **College of Family Physicians Singapore** and sponsored by **Pfizer Pte Ltd., Singapore.**

REGISTRATION

FREE REGISTRATION for College Members!

Cardiovascular Disorder

Please tick (✓) the appropriate boxes

	College Member	Non Member
Seminar 1 (Sat)	☐ FREE	☐ $21.40
Seminar 2 (Sun)	☐ FREE	☐ $21.40
Workshops (Sat-Sun)	☐ FREE	☐ $42.80
Distance Learning (MCQ Assessment)	☐ FREE	☐ $42.80
	TOTAL	

All prices stated are inclusive of 7% GST. GST Registration Number: M90367025C

☐ I attach a cheque for payment of the above, made payable to: **College of Family Physicians Singapore** *

Cheque number: _____

Signature: _____

**Registration is confirmed only upon receipt of payment. The College will not entertain any request for refund due to cancellation after the registration is closed OR after official receipt is issued (whichever is earlier).*

Name: Dr _____

MCR No: _____

(For GDFM Trainee only) Please indicate: _____ intake

Mailing Address: (Please indicate: ○ Residential ○ Practice Address)

_____

_____

E-mail: _____

Tel: _____ Fax: _____

Note: Any changes to the course details will be announced via e-mail. Kindly check your inbox before attending the course. Thank you.

Please mail the completed form and cheque payment to:
College of Family Physicians Singapore
16 College Road #01-02, College of Medicine Building, Singapore 169854

Or fax your registration form to: 6222 0204

CFPS Academic Roadshow

Visit www.cfps.org.sg for more details

Registration Closes on: 16 May 2016

DATE
8 APRIL 2016 (FRIDAY)

TIME
6.00PM

VENUE
COLLEGE LECTURE ROOM
COLLEGE OF FAMILY PHYSICIANS SINGAPORE
16 COLLEGE ROAD, #01-02
COLLEGE OF MEDICINE BUILDING,
SINGAPORE 169854

Graduate Diploma in Family Medicine

GDFM

The GDFM is a structured training certification programme jointly organized by College of Family Physicians Singapore (CFPS) and The Division of Graduate Medical Studies (DGMS).

GDFM is a 2 years comprehensive and structured training programme for primary care doctors. It consists of Family Medicine Modular Courses (FMMC), Practice Management Course, Family Practice Skill Course (FPSC) and Clinical Revision Course. The aim is to train primary care doctors to practise Family Medicine at an enhanced level to meet the needs of the child, adolescent, adult and elderly.

Eligibility

The candidate must possess the following in order to be eligible to register for the GDFM programme:

- A basic degree of the MBBS or equivalent qualification registered with the Singapore Medical Council (SMC)
- Full or conditional registration with the SMC; temporary registered practitioners must support their applications with a letter of recommendation from their HOD. Provisional registration doctors are not eligible to apply
- Must fulfill CME requirements
- Must have 1 year working experience in Singapore at point of course registration
- Must hold a current and valid practicing certificate

*For enquiries or details, please contact College Secretariat at 6223 0606 or email **gdfm@cfps.org.sg***

Master of Medicine in Family Medicine

MMed(FM) College Programme

The MMed(FM) College Programme is a one-year structured training programme tailored for GDFM graduates who wish to proceed to Masters level training. The course consists of weekly evening tutorials, FM rounds, workshops and seminars, preceptorship sessions and a practice audit. Trainees will find the practice audit useful in helping them formulate quality improvement processes to enhance patient care outcomes.

Clinical attachments for various specialties are designed to provide the breadth of exposure for trainees to acquire the requisite competencies to practise as FPs in the local context. Each trainee is attached to a supervisor assigned by CFPS.

Aims & Objectives

The aim of this one-year course is to provide a comprehensive and structured training programme for doctors with at least 6 years' experience after graduation and have completed the 8 modules of the Family Medicine Modular Course (FMMC) to prepare them to sit for the MMed(FM) Examinations

Eligibility

Registration with SMC	To have full or conditional registration with the Singapore Medical Council (SMC)
Training	The satisfactory completion of all 8 modules of the Family Medicine Modular Course not more than 5 years prior to completion **OR** Have attained MRCGP(UK)
Work Experience	At least six years of experience after graduation of which at least one year must be in a Family Medicine setting. Make up attachments may be required to make up for the shortfall in this experience
Clinical Work during Training	The trainee is required to be in current practice of 24 clinical hours per week, of which 8 must be in an approved Family Medicine setting
Clinical Inspection & Interview	This may be conducted when required to assess the suitability of the practice and candidate for MMed(FM) training

*For enquiries or details, please contact College Secretariat at 6223 0606 or email **mmed@cfps.org.sg***

Family Medicine Fellowship Programme

FCFP(S)

The Fellowship [FCFP(S)] programme by assessment is a 24-month family medicine structured programme with the following aims:

- Provide structured advanced directed and self-initiated learning
- Provide supervision and mentorship for the advanced clinical practice of family/community medicine
- Provide a framework for the education and research in the practice of family medicine

Eligibility

The trainee must fulfil the following entry requirements:

1) Professional
- Collegiate Membership of the College of Family Physicians Singapore

2) Academic

Route 1
- Possess the MMed (Family Medicine), the MCGP (Singapore) or equivalent qualifications.

OR

Route 2
- Possess MMed (Internal Medicine) or MRCP (UK) or equivalent internal medicine training, and GDFM with at least 6 months experience working in a family medicine practice setting of which at least 3 months must be in primary care within the last 3 years.

OR

Route 3
- Possess MRCGP(UK) or equivalent overseas family medicine training and GDFM.

Trainees going through Route 2 and Route 3 may enrol into the Fellowship programme during their final year of GDFM programme. They must obtain their GDFM certificate and must attain the award of Collegiate Membership by Assessment before they are qualified for the Fellowship Summative Assessment.

3) Clinical Practice
- Currently in active clinical practice i.e. 24 clinical hours per week, of which 8 hours must be in a family medicine setting as defined by the College Constitution.

a) Ambulatory care in the community
b) Intermediate care in the community hospitals and rehabilitation centres
c) Long term care in the nursing homes, residential care and home based care
d) Hospice and home based end-stage diseases care
e) Interface care which is care within acute hospitals in the interface with the other settings

4) Letter of Good standing
- Submit a letter of good standing from a Fellow of the College of Family Physicians, Singapore together with the application form.

You may refer to ***http://cfps.org.sg/programmes/fellowship-programme-fcfps/*** for the eligibility criteria for the Summative Assessment.

Please note that the trainee must apply for and sit the Summative Assessment within 2 years from the end of his/her training period. If the trainee does not sit for the Summative Assessment within these 2 years, he/she is expected to re-apply and restart the FCFP(S) programme.

*For enquiries or details, please contact College Secretariat at 6223 0606 or email **programmes@cfps.org.sg***

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Demystifying Malaise and Giddiness

Treatment and Screening Options

GLENEAGLES HOSPITAL 18th ANNUAL SEMINAR

GP & Specialist Forum

Grand Hyatt, Grand Ballroom 1 & 2, Level 3
23 April 2016, Saturday, 12.30 pm to 4.55 pm

You Are Invited!
A Seminar for Doctors by Doctors

PROGRAMME

12.30 pm		**Registration & Lunch**
1.30 pm		**OPENING CEREMONY** **Welcome Address by Dr Vincent Chia** *Chief Executive Officer, Gleneagles Hospital*
		**Opening Speech by Dr Bertha Woon** *General Surgeon and Chairman of CME and Organising Committees*
		**Event Chairperson: Dr Loh Boon Kwang,** *Ophthalmologist*
1.40 pm		**When is Giddiness an ENT problem? ENT Causes, Diagnosis and Treatment** **Dr David Lau,** *Otorhinolaryngologist*
2.15 pm		**Endocrine Differential Diagnoses for Dizziness / Malaise** **Dr Richard Chen,** *Endocrinologist*
2.50 pm		**The "Civil War" within Your Body, What is It and How Can It Affect You?** **Dr Lui Nai Lee,** *Rheumatologist*
3.25 pm		**Tea Break**
3.45 pm		**Restless Hearts and Spinning Heads** **Dr Peter Ting,** *Cardiologist*
4.20 pm		**Is It All In the Mind? The Link between Psychiatric and Physical Symptoms** **Dr Calvin Fones,** *Psychiatrist*
4.55 pm		**End of Session**

REGISTRATION

Closing Date for Registration **15 April 2016 (Friday)**

To register, please email or fax your **Name**, **Address**, **Email**, **MCR** and **Contact Number** to:

Mun Yee: +65 6349 5762 | Email: munyee.ho@parkway.sg | Fax: 6738 9584
Jolene: +65 6349 5753 | Email: jolene.sit@parkway.sg

Please visit our website for more information : **https://www.gleneagles.com.sg/event-annualseminar**

NOTE:

- Programme subject to change without prior notice
- This event will be accredited with CME Points
- **Open only to doctors in active practice and accredited with SMC**
- Registration Fees: **Complimentary for doctors**
- Please bring along your **SMC Practising Certificate** *(blue card as shown on the right)* on the event day for verification and scanning of attendance