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*Nurturing Tomorrow's
Family doctors*



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PLENARY LECTURE

PL01

Doctors at the Frontline: Clinician, Manager, Leader or More

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The practice of medicine has changed tremendously over the last 50 years or so. From the humble beginnings of a doctor working very much on his own, depending solely on his own clinical skills, a doctor then could only provide basic care to the sick patient but would get in return eternal gratitude.

However, just providing care, even when done with empathy and compassion, is no longer enough in the 21st century. Patient expectations nowadays are high. With better education and the advent of internet being available to almost all individuals, patients are much more empowered and demanding. Thus the primary care doctor needs to be very knowledgeable and has to be on the top of his game. Furthermore technological advances in diagnostic ability and availability of more therapeutic options, the demand for these newer tests and treatment will be even more pressing. The frontline doctors need to be knowledgeable in all this. In short the frontline doctor needs to be a very very competent clinician.

Additionally, as the population ages, patients have much more complex diseases whereby the primary doctor no longer can work alone. He needs to have a team and be able to organise other health care professionals so that the patient benefits from this co-ordinated care. However in the light of limited resources, both in terms of manpower as well as finances, the frontline doctor needs to be able to manage these resources well so that whatever is done is cost-effective. He would need to be able to manage his practice and at the same time take on a leadership role as well.

Above and beyond being a clinical manager and leader, he needs to be much more. He has to be a trainer as well whereby he may even need to re-train existing staff to take on new roles. He also needs to be innovative and be able to provide expanded services that are more and more frequently required. Doing all this is still not quite enough. He also needs to put into place quality measures to ensure that the care given to patients is up to standards that are expected of a primary care doctor. In this era of evidence of evidence-based medicine, particularly in primary care where the evidence that is much needed is lacking, the primary care doctor needs to conduct research as well so that the delivery of care is appropriate and does not bring harm to patients.

Doctors in the frontline may face many challenges. To practice in the 21st century, they need to be not only a clinician but a manager, leader and much more.

PL02

Are Our Universities Nurturing Our Future Family Doctors?

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This is the beginning of a new 'golden age' for family medicine. In countries all around the world, and especially in the Asia-Pacific region, the message is getting through to our governments about the importance

of strong primary care and the role of family doctors in ensuring universal access to healthcare and equitable healthcare outcomes for all people.

There is clear evidence that health systems based on strong primary care, which includes strong family medicine, are the most efficient, equitable and cost-effective. Strong family medicine is the best way to improve the health of individuals, families and communities, and every family should have a family doctor who the family members can trust for their medical care and advice.

But are our universities doing all that they should do to nurture our future family doctors? We need to work with our universities to develop greater clarity around how we should educate our future family medicine workforce to ensure that we meet the future healthcare needs of the people of our nation. We need to strengthen the experience of family medicine provided to our medical students. We need to better support our family medicine trainers and teaching practices and provide incentives and motivation for those who do not teach at present to join us.

It is also clear that there are challenges in the ways we have traditionally trained our medical students. Family medicine training must allow our students to develop into what they need to be to best meet the future healthcare needs of their patients and communities.

The training that we provide to our family medicine trainees must be based in primary care. Effective training for family medicine does not take place in the medical and surgical wards of hospitals. The training of our future family doctors must be based in our communities, with our students as members of primary care teams.

Keywords: education, family doctors, family medicine, primary care

PL03

Men's Health in the World – The Way Forward

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President, International Society of Men's Health

To understand the way into the future of gender medicine and men's health, it would be helpful to handle the issues of the definition and scope of men's health and the underlying medical science and social determinants. The general consensus is that men's health refers, at a minimum, to health issues specific to the male anatomy, such as male internal and external genitalia or to conditions caused by hormones specific to, or most notable in, males. Consequently, substantial emphasis was placed in the past on the urological and andrological aspects of men's health. However, several urological and andrological diseases are closely linked to common men's health issues, such as erectile dysfunction, cardiovascular disease, hypogonadism, metabolic syndrome, type 2 diabetes, lower urinary tract symptoms and obesity. In addition, studies suggest that the shorter life expectancy in men compared to women may be due to risk behaviours more common in men, such as smoking, substance abuse and low utilisation of healthcare services. Furthermore, there are certain social situations that involve a majority of men and result in health issues common to these situations. The International Society of Men's Health (www.ISMH.org) and the Foundation for Men's Health (www.foundationformenshealth.org) adopted the following definition and scope of men's health. Men's health includes male gender-specific diseases and conditions related to the male anatomy, such as prostate diseases, male sexual dysfunctions, male hypogonadism, and testicular and scrotal diseases; non-gender-specific diseases and conditions with a higher prevalence or special impact in men, such as cardiovascular disease, metabolic syndrome, chronic obstructive pulmonary disease (COPD), cancers of the lung, colon, bladder and liver, schizophrenia, obsessive compulsive disorder, and suicide; behaviours that are more common in men and impose health

risks, such as smoking, substance abuse, violence and low utilisation of health services; and social situations, involving a majority of men, who may have a negative impact on their health, such as the armed forces, wars, incarceration and construction, mining and shipping industries. This ISMH definition places men's health into a multi-disciplinary context. Going forward, multi-disciplinary collaboration will be essential to address men's health needs and cover the broad scope of men's health across the lifespan. This new field of gender medicine cannot be claimed or served by one specialty or a single discipline. Men's health centres are envisioned to include primary care and various specialties.

PL04

Training Family Doctors in Men's Health

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Understanding the key issues with regards to men and their health is becoming a priority for many family practitioners. With an ageing population, many men are presenting with complex needs. With advances in diagnostics and therapeutics, we have to ensure that the education and training opportunities for doctors and other health professionals are available to meet these new demands. From undergraduate to post-registration, doctors and other health professionals must learn the importance of gender medicine and in taking a gender-based approach to practice.

Training and accreditation is needed in areas such as sexual medicine, andrology, urology and other male-specific conditions as well as acute and chronic conditions where men are either at a heightened risk or have a need for particular support. These include men's mental health, cardiovascular disease, cancer and new areas of concern such as osteoporosis.

The case for training to be focused on communication strategies for working with men and on support in finding practical ways to approach men in clinical consultations will also be discussed. Consideration will also be given to how to prepare health professionals in reaching out to men in the general population to ensure that more preventative work is undertaken so that successful health promotion can occur. Furthermore, it is important to consider how inter-professional approaches to training family practitioners can help manage men's health problems most effectively. The session will explore how curricula are being developed to deliver men's health training programmes as international organisations, such as the International Society for Men's Health (ISMH), prepare to train family practitioners. Becoming an accredited practitioner in men's health will be the way forward for many family practitioners.

PL05

When East Meets West – The Challenge of Cross-Cultural Research

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The context within which a piece of research is undertaken differs in different countries. This context includes variations of the same general issues that all researchers face – such as research quality. For example, to ensure research rigour, all studies need to employ data collection and analysis methodologies that are appropriate to the research question being asked.

Research quality has been supported traditionally by the peer-

review process and by generally accepted reporting standards (e.g., CONSORT or STROBE criteria). However, there is also the issue of context that needs to be considered before a robust judgement of the quality of the research can be made. This issue of context needs to include a consideration of the impact of culture on the research. Culture may be defined as encompassing the totality of different ways of life within any group of people linked by common characteristic activity, belief or circumstance. For example, a reader from a western culture may not be familiar with the eastern context in which research has been undertaken and the impact this may have had on the choice of data collection methodologies. It may be thought that descriptions of context (culture and setting) and their potential impact on results are only important in qualitative research. However, this is also important in quantitative research where data collection may be influenced by the 'cultural sensitivity' of the research team and the willingness or otherwise of participants to divulge sensitive information. For example, in the development of complex interventions in primary care, there may be a 'cross-cultural' component in data collection when researchers from a majority ethnic group are interviewing members of minority ethnic groups. Discussion of the findings from both qualitative and quantitative research in general practice should include some acknowledgement of the potential impact of context, methods and culture on the results.

PL06

Clinical Service Models in Type 2 Diabetes Care

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The prevalence of type 2 diabetes is increasing worldwide, especially among Asia-Pacific populations. This condition imposes a health and economic burden on individuals and communities, while consuming increasing health dollars. There is no doubt that improving disease control improves long-term health outcomes in type 2 diabetes, slowing the development and progression of vascular complications and reducing the use of healthcare resources. Developing innovative clinical service models in type 2 diabetes care requires an organised proactive multi-component patient-centred approach to healthcare delivery. Wagner's chronic care model specifies that there needs to be a framework to redesign daily medical practice and transform the healthcare system from acute and reactive to proactive and planned care, based more on evidence about populations and less on habit, guide national and regional quality improvement efforts, and the model-based interventions help medical practices make clinical changes to redesign how they deliver healthcare. To be effective, six system changes are required: effective multi-disciplinary team care, planned interactions, self-management support, develop and utilise community resources, integrated decision support and patient registries (database) and other supportive information technologies.

In Australia, 80% of type 2 diabetes care is provided in the general practice and primary healthcare settings. Over the last decade, a number of government initiatives and funding models have resulted in changing the way diabetes and other chronic diseases are being managed by GPs and practice nurses in the community. A number of clinical service models were also trialled such as voluntary patient registration, shared care, integrated care with co-location of services, and the use of patient-controlled electronic health record and other self-management tools. GPs supported by practice nurses, diabetes nurse educators, endocrinologists and allied health professionals can provide holistic and continuity of care to their patients with type 2 diabetes to improve their health outcomes.

SYMPOSIUM

S01

Primary Care Delivery in the Thai National Health System: A New Quality Approach

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Thailand's health system, dating back to the 1880s, was traditionally anchored in hospital medicine. Thus, when the family medicine concept was introduced in the 1980s, it was immediately perceived as relating to a hospital-based doctor without a specific specialisation. When the push for universal health coverage gained political momentum, started in the Ayutthaya province in the 1990s, primary care reform then became necessary and urgent – it was within this context that person-centred care, family medicine and community-based care finally made headway in Thailand's hospital-centred medical culture. Strategies that proved to be instrumental in facilitating the reforms were those of 'demonstration' and 'diffusion'. The idea behind 'demonstration health centres' was to develop and demonstrate the family practice concept in a few selected areas to stimulate interest and demand for person-centred and primary healthcare towards people-centred care. When the universal coverage policy was adopted some years later, family practice as a cornerstone for health sector development had already proven its worth and was therefore taken up as a tested model of care.

Workforce is a crucial issue for the reform. It is not overall shortage of human resources, only. In each facility should be made available to the staffs who, at the moment, are the best fit for it. The question of human resources can indeed only be tackled once there is an agreement on what is expected from first line or the services that are close to the population.

S01

Primary Care Delivery in National Health Systems – The Indonesia Experience

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The National Health Insurance Scheme launched on January 1, 2014, strengthens the position of family doctors/primary care physicians as gatekeepers of the healthcare system. In Indonesia, family physicians have not received the recognition that they deserve. Awards and the attention of stakeholders are limited, so the welfare of family doctors/primary care physicians is not good. On the other hand, knowledge, skills and professionalism of family doctors/primary care physicians are found to be sub-standard, so it is difficult to compete with other health professionals. The momentum of the National Health Insurance Scheme can be a trigger for the development of the profession through education and the role of family physicians in quality system, so that the existence of family doctors can be accepted in accordance with the functions. Welfare will come later.

What will this symposium/workshop cover?

The role of family physicians in Indonesia has not been established yet, although the National Health Insurance Scheme has been launched, and recognised a gatekeeper function in primary care facilities. Improving the quality of family physicians in terms of knowledge, skill and professional behaviour, expect acknowledge from all of stakeholders and could improve family physician welfare.

What are the main take home messages?

To be a good gatekeeper in the health system, family physicians should improve their knowledge, skill and professional behaviour. Welfare is not a goal, but a consequence of good performance.

S02

Updates on Diabetes Management

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The past 5 to 6 years have seen major changes in the way type 2 diabetes mellitus (T2DM) is managed. The UKPDS paved the way with evidence that improving glycaemic control achieves a reduction in microvascular complications in the short term and that macrovascular benefits can be expected in the long term. However, the more recent cardiovascular outcome trials, such as ACCORD, ADVANCE and the VADT, have helped refine glycaemic strategies; HbA1c targets are no longer rigidly set at <6.5% ('one size does not fit all') and more flexible HbA1c targets are accepted for individuals with co-morbidities. The most important message to clinicians is to achieve glycaemic control while minimising the risk of hypoglycaemia.

To help patients achieve glucose targets, multiple classes of anti-diabetic agents are available, including both oral and injectable agents. The incretin agents have arrived at an appropriate time – filling an important treatment gap, as the mechanism of action of this class of agents allows safer achievement of glycaemic targets, while being neutral with regards to weight with oral DPP 4-inhibitors or weight loss with GLP-1 agonists. However, sulphonylureas (SUs) remain an important part of our armamentarium due to several factors: some T2DM patients (especially Asian patients) have a more predominant β -secretory defect, cost and affordability of SUs and the reassuring data from the ADVANCE trial showing the ability to achieve glucose control with less hypoglycaemia risk and minimal weight gain. Unfortunately, with the increasing duration of T2DM, many patients will require initiation of insulin. Here again, the advent of newer insulin analogues with safer pharmacokinetic profiles will allow initiation of insulin with less risk of hypoglycaemia.

Finally, management of T2DM is no longer glucose-centric; a '3-in-1' therapeutic strategy to control glucose, hypertension and dyslipidaemia will reduce macrovascular complications, which is the major cause of mortality/morbidity.

S03

Teenagers at Risk: High-Risk Behaviours, Media Influence and the Role of Family Physicians in Prevention of High-Risk Behaviours in Teenagers at Risk

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Adolescence is a period of rapid physical, psychosocial and cognitive changes. It is also a period of adolescents experimenting with high-risk behaviours, which may cause adverse outcomes to their health and well-being. These high-risk behaviours include self-injurious behaviours (e.g., illegal motorbike racing and reckless driving), violence (e.g., fighting), substance abuse, sexual behaviours and

unhealthy dietary behaviours. Peculiar family factors such as family structure, family functioning and parenting behaviours place some of the adolescents at risk of these unsafe behaviours.

Approximately 60% of the Malaysian population constitutes internet users and it is known that Malaysians spend nearly 20 hours per week browsing the internet. About 90% of Malaysian internet users visit social media sites and 21% of Facebook users are in the age group of 13–17 years. Studies have shown that media exposure will influence teenagers' beliefs and behaviours, which will lead to potential adverse well-being and health risks in young people. The impact of media in adolescents' violence and aggression, sexual activity, substance use, unhealthy eating and other health effects will be discussed.

A family medicine specialist is the best healthcare provider who can collaborate with other stakeholders in optimising adolescent health in the community. It is essential that primary care doctors become aware of the prevalence of these behaviours, their risk factors and participate in the prevention strategies. Primary care doctors can help reduce these problems by integrating preventive services into routine medical care. Preventive services include screening, counselling to reduce risk, providing immunisations and promoting healthy lifestyle.

S04

Handling the Elderly With Dementia and Fall in Primary Care

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This symposium will cover three main geriatric topics: • Diagnosing dementia in primary care; • Can mentally stimulating activities prevent dementia? • Fall prevention programme in the community. Dementia is a worldwide problem, with a global prevalence of 6.1% for those over 65 years of age. The incidence and prevalence of dementia is expected to increase several fold in the coming decades in view of the ageing population in all developed and developing countries. Participation in mentally stimulating activities may offer protection from cognitive decline and hence reduce dementia risk. However, multi-domain/multi-component intervention is important to prevent dementia by reducing the modifiable cardiovascular and lifestyle risk factors.

Dementia is said to occur when there is a progressive loss of higher mental function. However, in the primary care setting, several factors may confuse the diagnosis. The process of memory decline may be attributed to 'old age' resulting in delayed diagnosis. Tests that are used for screening may not be generalised to the population at hand. As diagnosis of dementia is clinical, a good clinical history is essential and more importantly the trajectory of illness and symptomatology will help in determining the possible subtype.

As for fall and fall-related injuries, it is also common in the elderly. Nearly one-third of the elderly people aged 65 years and above experienced a fall. It can be devastating, fatal and costly. Falls in the elderly are preventable. Effective fall prevention strategies can be offered in the community setting. By doing so, fall and fall-related injuries can be prevented and reduced, thus helping the older adults to live better and longer.

Keywords: prevention, diagnosis, dementia, fall, elderly

S05

Handling Substance Use and Abuse in Primary Care Setting

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The use of various substances has been increasing and alarming throughout the world, especially due to their positive reinforcing effect on the reward centre in the brain. Substances are classified into licit substances such as tobacco and alcohol and illicit substances such as cannabis, heroin, amphetamine and ketamine. Tobacco, alcohol and illicit drugs are among the top 20 risk factors for ill health identified by the World Health Organization and are responsible for 8.8% of all deaths. Screening for tobacco smoking and alcohol consumption has been proven to increase rates of clinician intervention, resulting in significant reduction in morbidity and mortality. Screening for illicit substances use might apply to certain high-risk groups and can still be considered in primary care settings in view of its major impact towards users and their surroundings. Primary care settings can play an important role in identifying and intervening with patients having issues with these substances. Patients may come to primary care due to toxic effect of the substances, troubling withdrawal symptoms or complications related to the substances. Pre-existing medical conditions such as diabetes and hypertension can be worsened by the use of licit or illicit substances. Dependency towards these substances is normally accompanied by various medical implications such as mood disorders and cardiovascular and neurological complications. Hence, it is crucial for primary care providers to be equipped with sufficient knowledge and skills to manage patients having issues with various substances so that intervention can be given early. This symposium will provide a general overview and guidance for primary care providers on handling patients having issues with licit and illicit substances.

S06

Practicing Family Medicine in Rural Sarawak: Opportunities and Challenges

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Sarawak is known as the 'Land of Hornbills'. As Malaysia's largest state, Sarawak covers an area of 124,450 square kilometres. Geographically, Sarawak is as diverse as the many hornbills that are found in abundance here. There are large swatches of unexplored tropical rainforest, a long coastline of 750 kilometres, steep mountainous ranges and meandering rivers that form the main vein of transport in the interior. Due to its vast and challenging terrain, providing healthcare to the rural population is a challenge. In 2012, the doctor–population ratio was only 1:3561. To counter this problem, there are currently 193 rural health clinics that function as 'one-stop' family health centres. They provide an integrated service comprising maternal and child care, general outpatient care and environmental sanitation. All clinics have birthing facilities to encourage safe delivery among rural mothers. Many of these clinics are managed by trained allied health personnel. In addition to these static facilities, the Sarawak Health Department also provides mobile clinics via village health teams,

flying doctor services and mobile boat clinics to serve those in the less accessible areas. As of 2013, there are 18 family medicine specialists working in health clinics throughout Sarawak.

This symposium aims to highlight the challenges and limitations as well as the opportunities and impact experienced by family medicine specialists in the field of rural health in Sarawak. Topics include 1. An overview of healthcare services in rural Sarawak by Datu Dr Zulkifli Jantan (20 min); 2. Shunned but not forgotten – Leprosy outreach services in Baram, Miri, by Dr Maurice Steve Utap (20 min); 3. In touch with 'Indu' – Women's health along the Rejang by Dr Jean-Li Lim (20 min); 4. Crossing bridges, building bridges – Providing best healthcare practices to a rural population by Dr Kong Sie Zin (20 min).

Keywords: family medicine, rural health, Sarawak

S07

Continuing Saga of Women Family Physicians in Different/Difficult Situations

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More than 50% of family physicians are women. They definitely do more than 50% of the work in various settings, including their own homes. The compassionate and continuing care they give to patients they see every day, every mentoring/tutorial session they conduct for students and trainees, every research they carry out and publish given the limited time and resources, every meeting they attend as participants or even as presiding persons, every natural and man-made disaster they encounter necessitating humanitarian efforts, time spent away from their families, especially their young children and ageing parents – these are the continuing challenges in their professional and personal lives. The Asia-Pacific region is in the ring of fire and is visited by natural calamities and disasters every year.

Women family physicians are invited to share their experiences in difficult situations, how they coped and from where they got the strength to continue with the art of living and art of caring.

Strategies: Lectures/presentations (for 10 min), Aileen Espina (Philippines, experiencing Typhoon Haiyan), Rima Semiarty, MARS (Indonesia, experiencing the 2009 earthquake in Padang)

Soraya Abubakar (Philippines, experiencing armed conflict which necessitated the transfer of hospital operations), Babylyn Sagum – Enad (Philippines, experiencing the effects of eruption of Mount Pinatubo) and Tsunami as experienced in Japan and Sri Lanka

At the end of the session, there will be synthesis and commonalities in coping mechanisms highlighting the strengths. In addition, lessons learnt and the need for disaster preparedness and management not only for all family physicians but also for the member organisations/institutions of WONCA will be highlighted.

S07

Experiences of Mother and Indonesian Doctors During Earthquake in West Sumatra in 2009

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Introduction: West Sumatra as a region lies along the Indian Ocean and at the equator area. The province also has a large number of

volcanoes, of which several are active. Sometimes the volcanoes cause a small thrill, which we consider as a small earthquake. Due to this, the inhabitants of the province frequently face this experience and constantly worry about the possibility of a big volcano earthquake. At the same time, the Sumatra island is also situated between Eurasian and Indo-Australian geological plates. The geological condition contributes to vulnerability of the region to natural disaster, which may be risk of tectonic earthquakes. A big tectonic earthquake occurred in 2004 in the Aceh province, which caused tsunami, and in West Sumatra province in 2009. As doctors in Padang, the capital of the province, we experienced the moment in 2009, both as inhabitants of the city and medical professionals. This paper will describe those experiences from both sides. The paper will benefit for implementing better preparation during disasters in the future.

Methods: This report has been developed using qualitative inquiry. Data were primarily obtained from government reports, personal observations and experiences. As the nature of qualitative methodology, this report does not have any intention to make generalisation people experience during the disaster in Indonesia or in the Sumatra region. However, this report aims to provide a deeper understanding of the situation after the earthquake in West Sumatra in 2009 and our experiences during the moment.

Situation and Experience: The West Sumatra province had about 5 million people, of which nearly one-third of them lived along the coastal area. After the Aceh tsunami in December 2004, many West Sumatran people were afraid of the Megatrast earthquake that might happen near Mentawai Islands. Moreover, the first big earthquake with a magnitude of about 6 RS happened in the West Sumatra province. The tectonic earthquake also triggered the volcanoes to be more active and cause thrills. This experience made many people more anxious and worried and believed that the Megatrast is inevitable. Finally, the biggest ever earthquake in West Sumatra occurred on 30 September 2009 in the late afternoon at 4:30 PM. The earthquake magnitude was 7.9 RS as officially reported. This big earthquake caused many life casualties and damages in seven districts and municipalities in the province. It was reported that 1117 people died, 1214 were severely injured and more than 135,000 houses and buildings collapsed. The big quake was followed by countless medium and small quakes during the night and within 24 hours. Major building collapses and fire also occurred in Padang, the capital city of the province, where we experienced the moment. Despite having a negative impact, the authority had to stop electricity supply to stop more devastating effects. The situation was worsened as the water treatment plant of the city collapsed, shutting down the water supply. Soon after the first shock, many people ran onto the roads and tried to find the highest location possible due to fear and possibility of tsunami. The situation in the hospitals in the city was also the same and all people panicked. Even Djamil General Hospital, the main referral hospital in West Sumatra, faced major devastation. The four-level outpatient building of the hospital collapsed to the ground. As mother (Dr Rima), all experiences of that moment will give me more value of family strength and role of mother. As doctors, we joined the health volunteer coordinators the next day by opening many field clinics for emergency treatments. In the following days during the week, we also contributed by receiving and distributing donations through 'Ropanasuri Care' on behalf of Dr Rima's own private hospital, Emergency Team of Faculty of Andalas University and coordinating with the local people.

Recommendation: The big earthquake taught the lesson that, as a region in 'Megatrast', disasters may come at any time. The inhabitants and especially doctors must be prepared. One of the methods to improve knowledge and awareness of people towards this

situation is to do a disaster simulation. Social relationships within the neighbourhood have to be maintained and improved, which will be very crucial during critical moments and disasters. Improving family strength, trust and harmony is very important to face hard times and for resilience.

S08

PSA-Based Population Screening for Prostate Cancer in Japan

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Prostate specific antigen (PSA)-based screening is widely used for the early detection of prostate cancer, and the high rate of PSA testing among middle-aged men may have contributed to the continuous decrease in prostate cancer mortality rates in several countries. However, in the Asia-Pacific region, including Japan, the rate of screening is still very low compared with the USA and western Europe.

Since 2000, PSA-based population screening has been performed in men aged 54–69 years in Kanazawa city, Japan. From 2000 to 2011, 19,620 men participated in this screening programme. A total of 59,019 screenings were performed and 422 prostate cancer patients were detected. The annual serum PSA level of all participants was 2.64 ng/mL in 2000 and gradually decreased to 1.30 ng/mL in 2006. After starting the population screening, the rate of prostate cancer patients with high serum PSA levels decreased; however, there was no change in serum PSA levels in men without prostate cancer. Of all 422 screen-detected patients, 186 patients were detected at repeat screening, and the rate of patients with favourable cancer features was significantly higher among patients detected at repeat screening than at first screening. Survival outcomes of 242 patients, who were detected in 2000 to 2006, were defined, and the probabilities of 8-year cause-specific and overall survival were 97.5% and 93.3%, respectively. Only four patients, all of whom had advanced disease at diagnosis, died from prostate cancer.

Our results demonstrated the favourable trend of prostate cancer detection after the introduction of PSA-based population screening and supported the promotion of PSA-based population screening in the countries in which PSA testing had not been spread. In future, individualised and natural history-adjusted screening systems should be established using these population-based screening cohorts in the Asia-Pacific region.

What will this symposium/workshop cover: PSA-based screening and prostate cancer detection

What are the main take home messages: PSA-based population screening brought the favourable trend of prostate cancer detection in Japan.

Keywords: prostate cancer, PSA-based population screening, serum PSA distribution, clinical outcome

S08

Current Patterns of Androgen Deprivation Therapy in Men With Advanced Prostate Cancer

Johannes Vieweg

In the United States, mortality rates from advanced or metastatic prostate cancer have stabilised or modestly improved in recent years, primarily due to increased awareness and early detection. Despite these trends, 5-year survival for men with metastatic prostate cancer is approximately 30%, and even lower for those men developing hormone-refractory disease. Hormonal ablation

remains the mainstay of therapy for these men, but disease progression will inevitably occur. Recently, novel compounds that target androgen synthesis or androgen receptor signalling have been introduced into clinical practice. In phase III trials, these second- or third-line hormonal interventions have shown to prolong survival, yet long-term risks and impact on quality of life have not yet been rigorously evaluated. In this presentation, we will discuss the rapidly expanding spectrum of hormonal interventions against prostate cancer and critically appraise outcome benefits, quality of life and long-term risks associated with androgen ablative therapies. We contend that despite the undisputable benefits of hormonal therapy in controlling tumour growth, long-term risks and impact on quality of life may have been underestimated, thus highlighting the need for developing new treatments with androgen-independent action profiles.

S08

Managing Early Prostate Cancer

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Introduction: Localised early prostate cancer defines a group of patients with disease confined to the prostate, with no evidence of spread. However, its management poses a challenge to the clinicians and patients as there are many management options to choose from. There is no single solution that fits all patients.

Diagnosis: Prostate specific antigen (PSA) measurement, prostate biopsy (using Gleason grading) and staging scans (MRI and bone scan).

Decision-making: Risk stratification is used to classify patients into low-, intermediate- and high-risk groups. D'Amico classification is the most commonly used method of risk stratification. This stratification is useful in advising patients during decision-making.

Management options: Surgery (radical prostatectomy) and radiotherapy (external beam radiotherapy or brachytherapy) offer a chance for cure for localised prostate cancer. The 10-year disease-specific survival rates for both modalities of treatment are above 90%. However, significant treatment-related side effects are common. Therefore, active surveillance has been advocated to delay definitive treatment until disease progression. This is especially applicable to patients with low-risk disease. For patients with poor general health and of advanced age, watchful waiting would be appropriate.

Conclusion: A multi-disciplinary approach is best for the management of localised prostate cancer as there are numerous factors to be considered. The management plan should be individualised to suit the condition of each patient.

S09

Community 5678 Diabetes Education and Management Model

Wu Ji Xiang

Recent epidemiological studies show that diabetes may have reached an alert level in the Chinese general population, and the diagnosis and control rates of diabetes in the general Chinese population may be disproportionately low, with the potential for a major epidemic of diabetes-related complications and economic burden.

Studies show that China with a rapid economic growth of direct medical costs for diabetes is much higher than the global growth. Meanwhile, the prevalence of pre-diabetes has rapidly increased,

and IGT patients without intervention may translate into a greater epidemic of diabetes in the near future.

Along with the deepening reform of the medical and health system kick off, strengthening primary health service functions, standardising chronic disease management process and investigating the chronic disease model with the basis of community/grassroots medical and health centre will become the focus of the China medical reform. Community is becoming the important territory of chronic disease prevention and management, which will provide basic medical healthcare.

The Community 5678 Diabetes Education & Management Model is the gatekeeper of China Community Service Centre prevention. This model can help standardise community diabetes management; strengthen the systematicness and professionalism of diabetes education and management; improve and standardise the community chronic disease screening; consummate the achieve setup, follow-up and education of community residents; improve diabetes health education from the duck-feeding model to the project management model; and improve the screening rate and management rate of diabetic patients, train their diabetes self-management behaviour, help the patients to improve their quality of life and reduce the risk of complications. Along with the promotion of this model, people's knowledge about the disease and its prevention will be enhanced, and they can enjoy a better lifestyle.

S09

DAWN2 Study

Soren Eik

DAWN2™ is a global Novo Nordisk study initiative conducted in collaboration with the International Diabetes Federation (IDF), the International Alliance of Patient Organizations (IAPO), the Steno Diabetes Center and a range of other national, regional and global partners.

The DAWN2™ study responds to the fact that even today far too many people with diabetes do not achieve optimal health and quality of life, and there is an urgent need for innovative improvements in diabetes healthcare delivery, self-management and psychosocial support. The three main objectives of the DAWN2™ study initiative are to advance understanding and awareness of the unmet needs of people with diabetes and their families; facilitate dialogue and collaboration to strengthen patient involvement and improve self-management and psychosocial support in diabetes care; and establish a multi-national scientific benchmarking system for person-centred diabetes care and health policy.

DAWN2™ represents the voice of more than 15,000 people living with or caring for persons with diabetes in 17 countries across four continents. The DAWN2™ results will be used internationally and nationally to facilitate dialogue among patient organisations, healthcare professionals and other key stakeholders to develop ambitious action plans to improve the lives of people with diabetes.

The DAWN2™ study reveals that diabetes can be a major psychosocial burden for people with diabetes and their family members. The findings are grouped into six themes. These themes encompass specific unmet patient needs and areas for improvement within healthcare and patient support. The six themes are (1) the impact of diabetes on emotional and physical well-being, (2) new perspectives on family burden, (3) involvement and support for active self-management and support, (4) availability and use of educational and information resources, (5) access to quality diabetes care, including psychosocial support and (6) community resources and attitude of the society.

S10

Best Practice in Multiple-Choice Question Assessment

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What will this symposium/workshop cover?

This symposium will expose participants to the best practice in designing MCQs. The first part is allocated for discussion on the general concepts and principles of assessment. The second part is devoted to discussion on the basic structures, strengths and weaknesses of different MCQ types. Lastly, participants will be exposed to recent guidelines to construct and review MCQs. At the end of this symposium, the participants will be able to outline:

- General concepts and principles of assessment;
- Basic structures of different types of MCQs, their strengths and requirements;
- Best practice guidelines in designing MCQs.

What are the main take home messages?

Each MCQ type has its own format, strengths and weaknesses.

- Constructing and reviewing items for MCQs require following some guidelines to ensure their quality.
- Best practice in MCQ construction and review will prevent irrelevant content be asked during assessment.

Keywords: assessment, multiple-choice questions, best practice

S10

How to Construct Good Single-Best-Answer Questions for Family Medicine?

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The single-best-answer question (SBAQ) is increasingly being used in medical schools worldwide for assessment. SBAQs, if well-constructed, can test for higher cognitive learning beyond knowledge recall and understanding. Family physicians are often faced with undifferentiated problems and several diagnostic and management possibilities. The aims of this workshop are to guide examiners on how to set and vet high-quality SBAQs for assessments in family medicine. An SBAQ contains a stem, lead-in question and four to five options, of which one is correct. The stem of a well-constructed SBAQ must be a clinical vignette. There should be a succinct lead-in question and options that are preferably short, homogenous and plausible. SBAQs should not be ambiguous or negatively worded. Imprecise and absolute terms should not be used. There should be no grammatical errors or use of non-standard abbreviations. The workshop begins with a short half hour lecture on the principles of a good SBAQ construct and the pitfalls to avoid. Each participant is expected to make or bring at least two SBAQs. Participants are then expected to actively discuss and vet the questions. For high stake examination, vetting with a checklist as a guide must be performed to ensure that only well-constructed items are selected. By the end of the workshop, participants should be able to produce quality SBAQs set at an appropriate level commensurate with training requirements. Good SBAQs must address core family medicine curriculum and be able to differentiate weaker from better candidates.

Keywords: single-best-answer questions, assessment, family medicine

S11

Travel Medicine: Malaysia Pilgrims

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Topic 1: Malaysia Pilgrims: Preparing for the Journey

Azah Abdul Samad, Poliklinik Tanglin, Kuala Lumpur, Malaysia

The Hajj is a one-in-a-lifetime obligation upon adult Muslims whose health and means permit it. About 3 to 4 million Muslims gather at the holy land during Hajj. Although mass gatherings are planned events, they pose several health challenges, mainly non-communicable diseases, accidents and communicable diseases. Like any journey, being prepared in advance will help deal with challenges. Pilgrim health screening is an important activity carried out by the Ministry of Health Malaysia on each prospective pilgrim. The objectives of the screening are to ensure that all the pilgrims are in optimal health so that they can perform the pilgrimage without facing any health complications. It is also an opportunistic health screening as we will be able to detect any new disease at the earliest stage and provide appropriate treatment or referral to a specialist if necessary.

A guideline for pilgrim health screening is made available for the doctors. The health assessment includes a complete systemic physical examination, mental health screening and assessment for dementia. Prospective pilgrims who are diagnosed with chronic diseases such as diabetes, hypertension, heart disease, asthma and kidney disease should be treated and stabilised before being approved. The meningococcal vaccination will be administered if the pilgrim is certified fit to perform Hajj. Those who fail the medical examination can appeal to the State Haj Appeal Committee. The committee comprises of specialists in the related fields, the Hajj officer and the religious advisor.

Every prospective pilgrim will be given the Pilgrims Treatment Record Book. The health status, medications and vaccination will be recorded in the book. This book is very important as it contains valuable health information and it acts as a 'communicator' between Malaysian and Kingdom of Saudi Arabia healthcare providers.

The primary care physicians play a very important role as they have to screen, treat and vaccinate the prospective pilgrims. They have to ensure that the health screening complies with the results of the Malaysian Fatwa Council Discussion Committee for Islamic Religious Affairs. Most important of all is to comply with the requirements of health regulations issued by the Health Authority of Saudi Arabia and the International Health Regulations.

Keywords: pilgrims, Hajj, medical problems, health screening

Topic 2: Medical Problems Among Malaysian Pilgrims During Hajj in Saudi Arabia.

Noraini Jali, Klinik Kesihatan Sungai Besar, Selangor, Malaysia.

Every year about 3 to 4 million Muslims from all over the world gather in Makkah and Madinah, Saudi Arabia, to fulfil the 5th 'Rukun Islam' during the Hajj season (Syawal to Zulhijjah). Of the total number of Muslims, 28,000 are Muslims from Malaysia. The annual Hajj pilgrimage is among the largest mass gatherings in the world. Because of the large crowds, mass gatherings are associated with unique health risks.

The Hajj ritual not only involves spiritual strength but also requires physical strength. Most of the activities such as movement from one place to another are by walking.

Respiratory infections, cardiovascular disease and chronic disease complications are the common medical illnesses among Malaysian

pilgrims in Saudi Arabia. The other medical conditions include upper gastrointestinal bleeding, mental illness and musculoskeletal disease.

Malaysian pilgrims will be assisted by the medical team for their health problems. During the Hajj season, Malaysia sends about 200 medical personnel from various categories, including doctors (from various specialities), dieticians, physiotherapists, pharmacists, assistant medical officers, nurses, medical laboratory technicians, health inspectors, radiographers and health attendants. They work at the clinics located at pilgrim hotels or in Malaysia hospitals, two hospitals in Makkah and one hospital in Madinah. Apart from treating outpatients and inpatients, they also provide regular health education and room visits. Pilgrims with critical medical conditions or who require surgical procedure, ICU or CCU care, or CT scan will be sent or admitted to Arab hospitals for further management.

Keywords: pilgrims, Hajj, medical problems

Topic 3: Psychiatric Problems Among Malaysian Pilgrims

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All the prospective pilgrims are required to go through thorough medical examinations prior to Hajj. These medical examinations comprise of complete physical and psychological assessments. The potential pilgrims from Malaysia mainly comprise the elderly (50%). Many of our pilgrims fail to appreciate that Hajj is physically demanding. The Hajj journey has very complex rituals involving walking long distances and camping in the desert tents with most basic sanitation. Therefore, it is very important for the prospective pilgrims to prepare themselves physically and spiritually.

The Ministry of Health Malaysia has strict guidelines on allowing the prospective pilgrims who have a history of mental disorders to perform Hajj. Although screenings are done prior to the journey, there are pilgrims who develop psychiatric disorders as a result of maladjustment or inability to cope with the stress during the journey. The risk group is the elderly who have multiple medical comorbidities. The assessments done on these elderly, besides clinical assessment, are Mini-Mental State Examination, Elderly Cognitive Assessment Questionnaire and Geriatric Depression Scale.

The most common psychiatric disorders are delirium, insomnia, dementia, depression and acute psychosis. It is very important that prospective pilgrims are thoroughly evaluated to rule out major psychiatric disorders and to adhere strictly to the Ministry of Health guideline. The prospective pilgrims will not be able to perform Hajj rituals once their disorders relapse or they develop psychiatric disorders in Mecca. These conditions require longer time to be treated whereas the Hajj period is only 5 days.

In conclusion, prospective pilgrims have to be referred to a family medicine specialist if they have a history of psychiatric disorders or to a psychiatrist if further assessment is needed.

Keywords: pilgrims, Hajj, psychiatric disorders

S12

The Growth Path of China GPs**Juan Shou**

Medical practices around the world indicate that community health service with GPs as the backbone will become the foundation of a low-cost and high-efficiency medical system. The knowledge, skills and service quality of GPs is directly linked with the survival and development of community health service. Currently, Mainland China has formed a more consummate general medical education system, the core of which is the standardised training of resident GPs,

and the key method is on-the-job training (job rotation training), which will help community doctors transit to GPs. We hope that we can train up to 300,000 GPs by the year 2020. During the process, we need to develop hand in hand but with slight focus regarding the general medical training to medical students, the continuous medical education of GPs and the training of general practice teachers. Only by doing these, we can step by step consummate the training of GPs, and finally implement the first GP training system.

S12 Standardised Vocational Training for Family Medicine in Hong Kong

John Chung

Primary care is an important constituent of the healthcare system in Hong Kong, among which standard and comprehensive family medicine (FM) training programme has played an essential role in promoting and developing good-quality FM practice. In Hong Kong, a registered practitioner must have completed 6 years of vocational training in FM of the Hong Kong College of Family Physicians (HKCFP) and passed both the intermediate and the exit examinations before he/she is eligible for election to Fellowship of the Hong Kong Academy of Medicine. The objective of the HKCFP is to establish and maintain high standards of learning, skill and conduct in the general/family practice and the aim of the FM training programme is to prepare doctors to provide high-quality specialist care to the community as a family physician. The 6-year vocational training programme in FM consists of 4 years of basic training and 2 years of higher training. A minimum period of 4 years is considered necessary for the basic training in FM because this discipline has a broad knowledge and skill base. It also requires extensive clinical exposure in order to develop the necessary attitudes appropriate for a primary care physician. Of the 4 years, 2 years are hospital-based and 2 years are community-based. The Conjoint HKCFP and Royal Australian College of General Practitioner (RACGP) Fellowship Examination can be taken after satisfactory completion of basic training. The higher training consists of at least 2 years of supervised independent practice. The exit examination can be taken after satisfactory completion of higher training. The exit examination consists of three parts: consultation skill assessment, practices assessment and clinical audit/research segment. The trainee has to keep a training logbook, which records all his/her training and structured educational activities and working experience.

S12 Family Medicine Specialist Training and Its Contribution in Chronic Disease Management in Taiwan

Hsien Cheng Chang

There are several chronic disease management programmes in Taiwan. Shared care for diabetes is the most historic and important one. It was first established in Yi-Lan, a county in northeast Taiwan, in 1996. All counties launched a similar programme in later years. It is covered by the National Health Insurance since 2001 for the significant improvement in quality of diabetes care. Key components of this programme include certification and cooperation of medical professionals, treatment and complications monitoring according to standard guidelines, and regular audit.

In 2012, it covered 36% of all diabetic patients in Taiwan. Primary care physicians provided more than one-thirds of the care. Compared to diabetic patients without shared care, patients covered by the

programme have a higher annual follow-up rate of HBA1c (99.12 vs. 89.32), fundus examination (68.35 vs. 32.83), microalbuminuria (76.49 vs. 41.64) and lipid profile (90.30 vs. 75.74).

In Yi-Lan, there is a much higher programme coverage rate (70% of diabetic patients in 2012) than nationwide. The age-standardised diabetes mortality rate is also lower in Yi-Lan.

S13 How to Incorporate American Post-graduate Training Experience into Local Family Medicine Training Programmes?

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This symposium (90 min) aims to share our experience in implementing the ways of American residency training into our local post-graduate training programmes, respectively. The content of the symposium consists of three short presentations: overview of American family medicine residency (20 min), overview of advanced training programme (ATP) in Malaysia and barriers in implementing American ways of training (20 min) and overview of post-graduate family medicine training programmes in Japan and experience in implementing the American ways (20 min). After the short presentations, there will be an interactive session for the participants to share their views and ask the presenters for further questions.

Keywords: American residency, family medicine, post-graduate training

S14 Breast Cancer – Why Not Screened Earlier – the Do's

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Breast cancer management in Malaysia provides unique challenges. Delayed presentation of breast cancer can range from 15% to 75% in a typical surgical practice in urban and rural settings in Malaysia. The factors that contribute to this phenomenon include poor symptom recognition, help-seeking behaviour, knowledge and values placed on diagnostic procedures and treatments, coping skills, financial stability and access to early detection, diagnosis and treatment. Other factors include fatalism and fear of cancer treatment, hostile hospital environment and utilisation of alternative treatment.

Awareness of screening recommendations and early symptoms of breast cancer is equally important in the patients as well as healthcare providers. The clarity of the issues can provide clinicians in the primary care setting insights into providing care to women to encourage early presentation.

The presentation will also provide insights into important themes to be covered when providing health education to women in the community.

What will this symposium/workshop cover?

What are the main take home messages?

- Reasons why women present with advanced breast cancer;
- Early detection of breast cancer

S14

Cancer Screening – Do's and Don'ts**Goh Lee Gan**

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As cancer is the leading cause of death in most countries, screening people with cancer at the asymptomatic stage makes sense. Delayed presentation of cancer due to failure to screen is still a societal problem. On the other hand, there is wrong use of screening tests. Hence, for effective use of limited health resources, we need to know the do's and don'ts of cancer screening as medical practitioners and disseminate such information to individuals and organisations as part of general health literacy initiatives.

We, as medical practitioners, need to be conversant with the principles of cancer screening and help the public know and understand these principles as well so that everybody is on the same page. The use of cancer markers for cancer screening, with the exception of a few markers, are of no use and create unnecessary anxiety and risks from unnecessary interventions.

What about screening for risk factors for cancer? There is a clear link between obesity and breast cancer, for instance. And is it useful to teach patients the warning signs of cancer?

What will this symposium cover: This is a two-part symposium on cancer screening: (1) breast cancer – why not screened earlier – the do's; (2) this presentation – cancer screening – do's and don'ts

What are the main take home messages?

- Principles of cancer screening – do's and don'ts; • Cancer markers that are useful for screening; • A walkthrough on cancers to screen and not screen based on evidence to date • Warning signs of cancer – to teach patients on these or not?; • A case study to wrap up.

S15

Update on Diagnosis and Management of Testosterone Deficiency**Michael Zitzmann**

Clinical Andrology/Centre for Reproductive Medicine and Andrology, Muenster, Germany

In men, testosterone is essential for the development and maintenance of various specific tissues with reproductive and non-reproductive tasks. In general, testosterone exerts a wide-spread pattern of effects on metabolism, psyche and body composition. This is most obviously seen in the difference between men and women. Testosterone deficiency is associated with a magnitude of pathophysiological symptoms, clinically known as hypogonadism. Physicians define this condition by adverse traits in physical appearance, disturbed mental and cognitive traits, shifts in body composition, namely, increased body fat content and reduced muscle mass. Physical abilities in androgen-deficient men are further attenuated by lower oxygen supply due to decreased haemoglobin concentrations and by poor glucose utilisation. Additionally, bone tissue is subject to strong regulation by testosterone and its aromatisation product, estradiol. Testosterone and its metabolite dihydro-testosterone exert their effects on gene expression and thus affect maleness via the androgen receptor (AR). A wide range of clinical conditions starting with complete androgen insensitivity are related to mutations in the AR. Senescence in males as such does not imply the necessity for testosterone substitution, whereas male hypogonadism is a prerequisite for testosterone substitution.

Unlike the impressive somatic character of symptoms encountered with diseases associated with 'classical hypogonadism' such as Kallmann syndrome or conditions after bilateral orchiectomy, complaints of older men may be attributed to be 'normal ageing processes' or illnesses accumulating with advancing age, such as diabetes mellitus or atherosclerosis. The effects of these nosological entities on libido, reactive erectile function and nocturnal erections are well known, but low testosterone levels represent an additive negative factor. Furthermore, androgens have psychotropic effects so that a deficiency may result in depressed mood and general fatigue and a decrease in cognitive functions and intellectual activity. Older men in a hypogonadal state may also present with anaemia, since testosterone acts positively on erythropoiesis. Hypogonadism represents a risk factor for the loss of bone mass and can thus cause osteoporotic fractures in men. Androgen substitution in hypogonadal men has been demonstrated to reverse many or most of the pathologies.

The current standard opinion according to the guidelines of the European Urology Association (EAU 2012) to diagnose hypogonadism in need of substitution treatment is the combination of symptoms as mentioned above (presence of metabolic syndrome already counts as a symptom) in the presence of either total testosterone concentrations below 12.1 nmol/L or free testosterone concentrations below 243 pmol/L. Treatment options are manifold and include topical/transdermal testosterone preparations for daily application and injections of long-acting intramuscular testosterone undecanoate for use every 3 months. Monitoring should be performed every 3 months for the first year, then every 6–12 months. Special attention has to be paid to haematocrit and PSA levels. Controlling HbA1c levels, lipids and bone density are optional but recommended as they are very likely to improve within months.

S15

Male Sexual Medicine: Update on Management of Erectile Dysfunction**Eric Chung**

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Over the last decade, significant advances have been made in the field of erectile dysfunction (ED). Major guidelines now advocate the screening for cardiovascular risk factors and to rule out hypogonadism in men with ED. The concept of penile rehabilitation to facilitate men to achieve erections sufficient for satisfactory sexual intercourse during the rehabilitation phase and return to pre-treatment erectile function has been introduced in men, to protect and/or prevent corporal endothelial and smooth muscle damage following radical pelvic surgery and/or radiation therapy.

The advent of phosphodiesterase type 5 (PDE5) inhibitors have revolutionised the treatment of ED, while the introduction of modern-day penile prosthesis has almost completely replaced the need for vascular surgery. Despite the efficacy of current therapeutic options for ED, they are not without limitations and remain insufficient to address the growing patient population and various underlying medical conditions. Newer and novel ED therapies aspire to treat underlying microvascular abnormalities, prevent cavernosal fibrosis, promote endothelial revascularisation, modulate neuro-hormonal pathways and regenerate new penile tissue.

S15**Lower Urinary Tract Symptoms (LUTS) and Sexual Dysfunction****Ridwan Shabsigh***International Society of Men's Health*

When an ageing man presents with LUTS, especially with frequency, urgency and nocturia, a diagnostic dilemma arises along with therapeutic confusion. Are these symptoms related to benign prostatic hyperplasia (BPH) or overactive bladder (OAB)? Epidemiological studies show a high prevalence of OAB in men, remarkably similar to women. Could the diagnosis be nocturia as a recent recommendation indicates that nocturia should be a condition in its own right? What is the role of bladder outlet obstruction and the magnitude of its contribution to the causality of symptoms? While LUTS, OAB and nocturia are patient-reported diagnosis, bladder outlet obstruction remains a urodynamic diagnosis and BPH a histological diagnosis. A voiding diary is an important diagnostic tool for LUTS, OAB and nocturia. For patients with LUTS, there are currently multiple competing first-line treatments, including alpha blockers, 5 alpha reductase inhibitors and anti-muscarinics. Studies are underway to investigate desmopressin for the treatment of nocturia. With or without co-morbid ED, the phosphodiesterase 5 inhibitor tadalafil is also indicated for LUTS. A recent publication showed that testosterone therapy in patients with LUTS and hypogonadism did not worsen LUTS. Another long-term study showed that LUTS might improve with testosterone therapy in patients with LUTS and hypogonadism in addition to improvement of sexual dysfunction. Another potential therapeutic approach may be improvement of obesity and metabolic syndrome to improve both LUTS and sexual dysfunction. An intriguing recent report on the combination of tadalafil and finasteride showed significant additive efficacy in patients with LUTS and an enlarged prostate >30 g, in addition to efficacy in co-morbid ED. It is expected that in the foreseeable future, an algorithm for the diagnosis and treatment of men with LUTS will emerge. Such an algorithm would address the differential diagnosis and choice of monotherapy or combinations, in addition to the sequencing of treatments.

S16**Lipid Management in 2014: Updates, Changing Mindsets and Confusions****Gim-Hooi Choo***Ramsay-Sime Darby Medical Centre Subang Jaya
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One of the main life-saving interventions in cardiovascular medicine has been the management of dyslipidaemia.

The statins have for decades dominated the therapeutic landscape. Their benefits in improving clinical outcomes and modifying plaque progression and anatomy are irrefutable. To achieve these goals, physicians are familiar with the recommended LDL-C targets. However, these have shifted with time. New guidelines have also suggested doing away with absolute LDL-C levels as targets. In addition, there appears to be a decreasing emphasis on non-LDL-C intervention. Is the so-called residual atherogenic risk a mistaken target or we just do not have the right therapeutic agent to address them?

Lipid therapy continues to break new grounds with multiple new therapeutic agents. Can we foresee any of them available for clinical use in the near future?

This presentation will provide an overview of the current status of

lipid management and address recent updates in guidelines and their attendant controversies. Glimpses of the future advances will also be highlighted.

S16**Cardiovascular Risk Scores – Still Relevant?****Liew Su May***Department of Primary Care Medicine, University of Malaya, Kuala Lumpur, Malaysia*

Cardiovascular risk scores predict an individual's risk of developing cardiovascular disease. Many were developed and validated in study cohorts on risk-factor lowering treatment – a cause of inaccuracy. In addition, risk scores are criticised as being biased towards the elderly due to the prominence of age as a risk predictor. Although present guidelines advocate the use of short-term (5–10 years) absolute risk scores, other approaches to redress this perceived imbalance such as lifetime risk scores are being considered.

A systematic review of cardiovascular risk scores in primary prevention was conducted. The findings show that existing risk scores do not take treatment effects into account. This significantly affects their application in clinical practice. In addition, there is little difference in potential life-years lost between ages at the same risk level because of higher case fatalities in older people. When time preference is considered, any residual case for treating the same level of short-term risk differently at different ages is abolished.

The overall conclusion is that the 5- to 10-year absolute cardiovascular risk score is the most appropriate approach to primary cardiovascular disease prevention. By overestimating risk in the young, other approaches benefit a few at the expense of many.

S17**The Rajakumar Movement – Looking to the Future****Moran L¹, Harris N¹, Vergara E²***¹The Rajakumar Movement, Melbourne, Australia; ²GPRA, Melbourne, Australia
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Over the past 9 years, the WONCA junior groups have been emerging across the world and have proven themselves a valuable resource in networking and education to drive up standards in general practice for young GPs. In the Asia-Pacific region, we have the Rajakumar Movement, which was launched in 2009. Elsewhere, we have the Vasco da Gama Movement (Europe), Afriwon (Africa), The Spice Route (South Asia) and Waynakay Movement (Iberoamericana region).

The Rajakumar Movement has grown well since its launch and now has 251 members in the online group. But we are now expanding!

This workshop will be hosted by the Rajakumar core team and it is aimed at connecting young doctors across the Asia-Pacific region who are keen to expand their knowledge about general practice across borders. Discussions will focus around how both training and work in general practice functions in different countries, and what opportunities lie in connecting through the WONCA network. The opportunities of social media interactions will also be discussed.

Currently, the Rajakumar Movement provides a network for young GPs across the Asia-Pacific region and supports those wishing to attend conferences. We will shortly be expanding this remit to include setup Rajakumar groups in each country to establish themed working groups and to grow the roles within the committee. We hope to be

able to promote the work of the Rajakumar Movement and enthuse trainees and new GPs to sign up. We will also discuss the work in other WONCA groups worldwide and how we can collaborate to improve general practice.

Ultimately, we know that good general practice improves the health of our nations and better informed GPs are able to deliver better care and that is what we strive for.

S18

Empowerment of Women for Health by Family Physicians

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The United Nations Millennium Declaration clearly acknowledges women empowerment and gender equality as pillars of social justice in any society. Empowerment of women for health means making women understand the needs of their own health and family members' health, which encourage them to seek treatment and support actively by themselves. In the Asia-Pacific region culture, men have a leading role and are dominant in their family, which vigorously affect the decision-making power of their wives on family matters, including seeking healthcare. Although there is empirical evidence that empowering women for health has countless benefits for their own health and their family's health, the barriers imposed by cultural and traditional values of family, support of community and accessibility and facilities of health services still exist. Empowering women and improving their health status requires concerted efforts by the state, external donors, NGOs and women's health groups. In this workshop, Malaysia's experience on the role of women family physicians in empowerment of women for exclusive breastfeeding in Temerloh, Pahang; Philippines' experience on poverty reduction through conditional cash transfers; the need for cultural competence in antenatal care services in urban, rural and remote areas of Indonesia; and empowerment of health cadre women to spearhead health development in Cinunuk, West Java, Indonesia, will be presented by family physicians from Myanmar/Malaysia, Philippines and Indonesia. A brainstorming session will be conducted with the workshop participants after a short presentation of 30 minutes by four facilitators regarding how to support women empowerment particularly for health via family physicians. Outputs of the brainstorming session will be shared with all workshop participants.

S18

Empowerment of Health Women Cadres to Improve Health Development Programme in Cinunuk, West Java

Susi Oktowaty

Pos Pelayanan Terpadu or Integrated Health Services Post is a good media to communicate and transfer knowledge in public health services and family planning from the community, by the community and for the community, with the support from a health officer as a method to develop human resources from early childhood. Its

activities are carried out by women volunteers (health women cadres) with the support of family physicians and public health centre officers. The impact is that more and more women are joining a cadre of mothers. Health information, especially on the health of mothers and toddlers, gradually spread to nearby residents. Thus, the health status of the population increased gradually as more people began to maintain their health better.

S19

Healthy Ageing

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The first presentation will discuss the various healthy ageing conceptualisations from different perspectives. Healthy ageing and its related concepts have been adopted as research concepts and as policy responses to demographic ageing in many countries. Most researchers agree that healthy ageing and its related concepts are multi-dimensional. However, across disciplines, there is no universal definition and this is reflected in the diversity of domains used to measure healthy ageing. There is a need for comprehensive models of healthy ageing that recognise the role of diversity in the experience of ageing and aspirations for healthy ageing.

The second presentation aims to discuss the importance of physical activity as part of chronic disease management in the promotion of healthy ageing. Regular physical activity is a cornerstone in the management of type 2 diabetes mellitus (T2DM). Increasingly, recommendations suggest that older people with T2DM benefit from regular physical activity, with better disease control and delay in complications. Many strategies have been studied to encourage adults with T2DM to be physically active but few have focussed on older people. This presentation will also describe a randomised controlled trial that promotes physical activity among older Malays with T2DM in a primary care clinic.

The third presentation will discuss the quality of life and mental health issues in older people, specifically addressing depression, anxiety and stress among urban older people in Malaysia. Quality of life should be assessed to evaluate the general well-being of individuals especially older people. Quality of life encompasses four main domains: physical health, psychological well-being, social relationships and environmental factors. The presentation will also highlight any correlation between the quality of life and mental health states among the elderly populace in the urban areas in Malaysia.

Keywords: healthy ageing, older people, physical activity, diabetes mellitus, mental health, quality of life

S20

Assessing and Managing Children With Behavioural Problems in Primary Care

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Family practitioners are usually the first healthcare professionals to be consulted for a variety of behavioural concerns in children such as breath-holding attacks, toddler tantrums, feeding difficulties and school refusal.

This workshop will discuss the evaluation and practical management of some of these problems commonly encountered in family practice. Participants will be invited to work together on case histories that illustrate important learning points.

Understanding the context in which behavioural problems arise is a crucial step towards identifying appropriate solutions. Exploring information regarding caregivers, composition of the household, dynamics of interaction between family members, medical problems and significant life events at the current time as well as the past may yield important clues. It may also be useful to learn about the family's approach towards parenting, together with their specific cultural values and inter-generational experiences, which may shape parenting styles. Important steps in management include helping parents to understand the reasons for their child's behaviour from a developmental perspective as well as providing practical suggestions on how to avoid reinforcement of problem behaviour and promote desired behaviour. In cases where the behaviour is developmentally inappropriate, there may be a need to initiate referral to a paediatric developmental clinic for further evaluation of a possible developmental problem. In some instances, parents may also benefit from concurrent supportive measures to address and relieve parental stress.

S21

Counterfeit PDE5-I

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The World Health Organization (WHO) has pointed out that a significant fraction of the supply of drugs in the world is counterfeit or falsified. This is estimated to be about 10%–15% of the total world's drug supply and can be as high as 25% in the developing world. Drug counterfeiters not only defraud consumers but also deny patients from therapies that can alleviate suffering and occasionally save lives. In certain cases, such unregulated falsified drugs may result in severe adversities and even deaths. One study has estimated that total loss of lives due to counterfeit drugs can be as high as 1 million each year. Despite the obvious risks counterfeiting represents, little is known about the true prevalence, impacts, existing intervention strategies and challenges, especially the falsification of the lifestyle medications such as PDE5 inhibitors. This presentation will provide an overview of the current knowledge of the counterfeit drug trades in Asia, with the aim to generate awareness and discussion on this increasingly worsening problem.

Keywords: counterfeits, PDE5 inhibitors, falsified medications

S22

Exercise: Indeed the Best Medicine!

Sutha Nanthan

Obesity, diabetes, hypertension, dyslipidaemia and cardiovascular diseases are all modern diseases running rampant throughout the developed world and practically endemic in the developing nations.

Most of research grant is spent on medications and methods of halting the progress of this scourge. Exercise is the only "free", easily available and proven "medicine" to achieve success in reducing mortality and morbidity especially in non-communicable diseases and simultaneously increases the health-related quality of life (HRQOL) as an added outcome.

Most doctors do not know how to prescribe exercise appropriately.

This course adds to the doctor's competence on how exercise as a non-pharmacological treatment is prescribed routinely in appropriate doses and the way it uses appropriate techniques that suit the patient and that a proper prescription is therapeutic, thus, improving the metabolic and cardiovascular health and prevent diabetes.

The American College of Sports Medicine along with some major sponsors, through the program "Exercise is Medicine", have come up with a curriculum that is simple, efficient and that can be applied to the community. This is especially applicable to Malaysia where obesity is a leading crisis. We, as the AFPM partner (the OCM), deliver this course to the Malaysian doctors and to the fitness instructors in order to certify them in their respective functions. Our seminar/workshop here outlines the basics of proper prescription of exercise by family physicians.

S23

Transforming to Electronic Health Record – What to Expect?

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Electronic health record is essential in any clinical service. As paper base records are turning obsolete in near future, every health care facility has to transform sooner or later. But transformation from manual to electronic record can be tedious. Failure to overcome the obstacles may result in unsuccessful implementation and not achieving the beneficial outcomes. Common barriers such as staffs' readiness, change in management and older record incorporation need to overcome. The success of implementation results in better access of clinical information, less duplication of records, better utilisation of resources, abundant data for research and the most important being improved clinical outcomes. This presentation describes 8 years of experience in implementing Teleprimarycare System[®], an electronic health record that was mainly pertaining to three primary care clinics in the state of Perlis, Malaysia.

S24

Update on Chronic Kidney Disease

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Chronic kidney disease (CKD) has been increasing worldwide. The prevalence of CKD in Malaysia is 9% and the incidence of new end-stage renal disease (ESRD) is about 200 per million. Early screening and treatment of CKD is necessary to reduce the burden of disease. Diabetes is the most common cause of CKD. In Malaysia, diabetes was the cause of ESRD in nearly 60% of new dialysis patients. This remains one of the highest in the world and underscores the importance of diabetic control in the prevention of CKD. Primary care plays a key role in optimising the care of patients with diabetes and the early detection of diabetic kidney disease. Strategies to slow the progression of renal disease include the optimal control of blood pressure and proteinuria with the use of ACE inhibitors or angiotensin receptor blockers, restricted protein diet and other general measures. Although previous studies have suggested that dual RAAS blockade may be useful to control proteinuria and retard the progression of CKD, recent trials such as ONTARGET, VA-Nephron D and ALTITUDE have shown that the risk of complications such as hyperkalaemia, hypotension and acute kidney injury are higher with the dual agents in patients with diabetes and CKD. Newer agents for CKD are undergoing clinical trials.

Keywords: chronic kidney disease

S25**Men's Health Status in Europe – Findings From the European Men's Health Report****Alan White***Leeds Metropolitan University*

The State of Men's Health in Europe report was published by the European Commission in 2011. This paper will present the main findings from the report. This substantial report covered the health of 290 million men across 34 countries in Europe and incorporated analysis of current and projected demographic changes, men's lifestyles, health service usage and mental health as well as mortality and morbidity data.

There are marked changes in age profiles across all the countries covered, with large increases in their old and very old male population, with some countries also seeing a reduction in the working age population as a result of lowering birthrates and migration. This is putting new demands on the society and on the healthcare professions.

The report found a worrying level of avoidable premature deaths in men that was apparent across a wide range of disease conditions and external factors that went beyond the male sex-specific illnesses. Large differences were seen between countries that suggest that socio-cultural factors are as important in determining male vulnerability as the man's anatomy and physiology. Some countries emerging from post-Soviet Russia are experiencing the worst health overall, although all societies see men who live in deprived environments having much poorer health.

Analysis of health service usage suggests that men are missing out on preventative care and are more likely to need hospitalisation across all the major disease states. Unless action is taken to help men avoid the high impact of illnesses, we will continue to see men's lives lost needlessly.

SS25**The Status of Men's Health in Asia and Policy Recommendations: Findings From the Asian Men's Health Report (AMHR)****Hui Meng Tan**

Introduction: Globally, men have a shorter life expectancy and a higher morbidity compared with women. Men's health reports from the West have documented this. However, there is no systematic documentation of the status of men's health in Asia. The Asian Men's Health Report (AMHR) is the first document to present the status of men's health in Asia and to include the policy recommendations from the key opinion leaders.

Methods: We extracted the data on men's health from the WHO database, governmental website of the respective country and individual studies. A total of 47 Asian countries and two regions (Hong Kong and Taiwan) were included. We chose the most recent data and included relevant men's health topics including sex ratio, life expectancy, lifestyle, communicable and non-communicable diseases (NCD) and cancer. In addition, we conducted a Delphi consensus survey to collate men's health key opinion leaders' consensus on men's health policy recommendation in Asia.

Results: In Asia, the life expectancy at birth for men ranged from 59 (Afghanistan) to 83 years (Qatar). Male-to-female population ratio was the highest in Qatar (3:1), whereas in Russia, it was the lowest (0.86:1). Mortality rate due to NCD was about threefold higher in Afghanistan compared with Qatar. Cancer mortality was higher in developing countries (e.g. Mongolia and Armenia) compared with

younger and richer countries (e.g., Kuwait and UAE). Suicide rate was the highest in Kazakhstan (55.6 deaths per 100,000), whereas Syria recorded the lowest (0.5 deaths per 100,000). Mortality from road traffic accidents ranged from 3.9 (Maldives) to 73.9 (Thailand) deaths per 100,000 population. In terms of NCD risk factors, 35 to 50% of Asian men were smokers. Male diabetes prevalence was particularly high in the Middle-East, whereas for hypertension, the highest male prevalence was observed in Mongolia (51.5%), Georgia (49.9%) and Armenia (49.8%).

Conclusion: The AMHR showed significant gaps in the status of men's health across Asia. A concerted effort from all countries as well as the international societies is essential to improve men's health status in Asia.

S26**Transforming Chronic Disease Management in the Malaysian Primary Health Care**Safurah Jaafar¹, Anis Safura Ramli², Vicky Ayadurai³

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Chronic disease management (CDM) presents enormous challenges to the primary care work force due to the rising epidemic of cardiovascular (CV) risk factors, namely type 2 diabetes mellitus (T2DM) and hypertension (HPT). In Malaysia, majority of these chronic diseases are being managed in the public primary care system where resources are often stretched thin. This symposium features three speakers who would discuss and dissect pertinent issues related to CDM in primary care. The first speaker would highlight the implementation of policies in the bid to transform CDM in the Malaysian primary healthcare system, including the future role of public-private partnership. The second speaker would share the findings of EMPOWER-PAR, a pragmatic cluster randomised controlled trial, conducted in 10 public primary care clinics in Selangor and Kuala Lumpur. This study aimed to evaluate the effectiveness of the EMPOWER-PAR intervention (a multifaceted CDM strategy based on the Chronic Care Model) in managing patients with T2DM and HPT, using readily available resources in the Malaysian public primary care setting. The EMPOWER-PAR intervention consisted of creating/strengthening a multidisciplinary CDM team; and training the team to utilise the Global CV Risks Self-Management Booklet to support patient care and reinforcing them to utilise relevant clinical practice guidelines to aid management and prescribing. For T2DM, primary outcomes were the change in the proportion of patients with higher levels of HbA1c. The results from this study would provide evidence of the effectiveness of a multifaceted intervention in a resource constraint public primary care setting. The third speaker would share her experience and challenges in managing chronic diseases in public primary care clinics, and discuss the realistic goals and the way it would be carried forward.

Keywords: chronic disease management, chronic care model, primary care, Malaysia

SS27

Training Family Doctors Worldwide: Methods, Models, and Comparisons

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Major efforts are underway to efficiently and effectively educate and train the family doctors worldwide. This presentation highlights Family Medicine (FM) as an important specialty for educating the physicians with respect to knowledge, skills, and attitude.

The presentation first summarises the historical development of FM and essential contributions of the international guidelines and statements. Later, it focuses on those programmes that specifically offer training for physicians already in practice and also for the new graduates. Several methods of instruction and delivery are highlighted.

Subtopic 1: Training and practicing family doctors worldwide

1) Example of distant-learning in Uganda: Teledermatology Web Consultation and E-Learning Project; 2) Continuing Medical Education systems in Haiti: International Medical Corps and Physicians for Haiti; 3) Train-the-Trainer in Shenzhen China: The International Primary Care Educational Alliance (IPCEA) project in Shenzhen, China, using a “Train the Practicing Family Doctor” system evolving into a “Train-the-Trainer Method”. This is a longitudinal programme with on-site physician preceptors-educators.

Subtopic 2: Training modes for practising family physicians and new family medicine graduates in Shenzhen, China

1. Rapid Training Mode. It is a 3-month intensive FM training programme for specialists transferring to become Family Physicians (FPs); 2. Transforming Training Mode. This replaces the Rapid Training Mode and is a 1-year programme that has been introduced since 2013, for specialists transferring to become FPs in the future; 3. Standardised Training Mode. This is a 3-year training method since 2008, mainly used to train the new graduates.

The advantages and disadvantages of each method will be reviewed. The presentation proposes best practices for promoting FM training programmes that incorporate medical education competency standards while recognising the need for adaptation to the local context and environment.

SS28

The Malaysian HPV Vaccination Programme**Safurah Jaafar**

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In Malaysia, cervical cancer is the third most common cancer in women after breast and colorectal cancers. Delay in seeking treatment contributed to the mortality and exorbitant medical cost. Paps smear screening has been initiated in Malaysia since 1980s. However, the number of women undergoing the screen test is still below what has been targeted.

With the introduction of the new HPV vaccine, an opportunity opens for Malaysia to launch a new approach in the prevention of cervical cancer through a school-based HPV vaccination programme in the country. The introduction of this Free National HPV Immunisation Program carries the objective of reducing the incidence of cervical cancer among the vaccinated population over the next 20 years. The target recipients of the HPV immunisation in 2010 were Form One

(year 7) girls studying in public, private and international schools, irrespective of students' age and citizenship.

The outcome of this first cohort was more than encouraging, with coverage of 99.8%, 99% and 95.8%, respectively, for the first, second and third dose. The overall completion rate for three doses of HPV vaccination was 97.9%. To date the coverage maintains at more than 95% for the third dose. Such high uptakes are the result of meticulous planning and execution at all levels from the national headquarters to the state health and district health offices. The strong political will and commitment provided the solid support for the sustainability of this initiative. Monitoring of these cohorts will be carried out in Malaysia and hope that in the next 5-year time, these young adults are protected from HPV and thus reduce the incidence of cervical cancer.

SS28

HPV Vaccination – Controversies and Updates**Woo Yin Ling**

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Human papillomavirus (HPV) is causally associated to 5% of all cancers and 13% of all female cancers globally, with cervical cancer accounting for more than 85% of female cancer deaths in developing countries. For decades, secondary prevention with organised population cervical cytology was the most effective way for cervical cancer prevention. However, primary prevention with HPV vaccine is now being implemented in more than 40 countries. There are now two prophylactic HPV vaccines (Gardasil and Cervarix) being marketed, with more than 2 million doses administered showing reassuring postlicensure safety profile. In addition, there are population-based data showing vaccines effective in preventing cervical abnormalities and genital warts (quadrivalent vaccine). For example, in Australia, where organised vaccination with the quadrivalent HPV vaccine was introduced in 2007, a reduction of more than 90% of new cases of genital warts was observed in the targeted female population, whereas this was effective in 46% against high-grade cervical intraepithelial neoplasia. Health economic assessments in various settings have also demonstrated the cost-effectiveness of HPV vaccination in cervical cancer prevention. Despite the effectiveness of the HPV vaccines, the uptake and completion of three doses is still highly variable. Besides the high costs, dispelling doubts/rumours and gaining public confidence is one of the biggest challenges. Good communication and advocacy of the HPV vaccine can only happen when the practitioner is equipped with not just an understanding of the pharmacological behaviour of the vaccine but also the social and cultural views in the local setting. Other controversies affecting the primary healthcare provider include vaccination after the treatment of cervical abnormalities, administering two doses instead of three, including boys into the vaccination programme that need to be discussed.

Helpful resources:

hpv-vaccines.net

Description: HPV vaccine global community who share in interest in preventing cervical cancer through vaccination
www.gavialliance.org/support/nvs/human-papillomavirus-vaccine-support/

Description: Important resources for HPV vaccination including fact sheets, statistics and information on other partners for effective delivery of the vaccine
www.eurogin-hpv-cancers-diseases-prevention.com/v9r6/portal/custom/eurogin

Description: Free access COME course on HPV-related cancers and diseases

SS29

Plasmodium knowlesi*, the Fifth Cause of Human Malaria*Balbir Singh***Malaria Research Centre, Universiti Malaysia Sarawak, Sarawak, Malaysia*

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Until recently, malaria in humans was considered to be caused mainly by four species of *Plasmodium*, namely, *P. falciparum*, *P. vivax*, *P. malariae* and *P. ovale*. Naturally acquired simian malaria infections were thought to be extremely rare until we reported a large focus of human *P. knowlesi* malaria cases in the Kapit Division of Sarawak, Malaysian Borneo in 2004. Cases in humans have since been described in other parts of Malaysia and also in Thailand, Myanmar, Vietnam, Singapore, the Philippines, Cambodia, Indonesian Borneo and in the Andaman and Nicobar Islands of India. This has resulted in the recognition of *P. knowlesi* as the fifth species of Plasmodium causing malaria in humans. Most of the human *P. knowlesi* infections has been diagnosed by microscopy as *P. malariae*, since these two species are morphologically identical and can only be correctly identified using molecular detection methods. It is important to distinguish between the two species because *P. knowlesi*, unlike the benign *P. malariae*, has a 24-hour erythrocytic cycle and can lead to fatal human infections. Presenting signs and symptoms of knowlesi malaria are non-specific, with fever, chills and rigour as reported by all patients followed by headache, myalgia, anorexia, arthralgia, cough, abdominal pain and diarrhoea. Thrombocytopenia is a universal laboratory finding and infections in humans can be fatal, involving hepatorenal dysfunction and hyperparasitaemia. Uncomplicated cases of knowlesi malaria respond rapidly to treatment with chloroquine but severe cases require management and treatment as for severe falciparum malaria. The molecular, entomological and epidemiological data indicate that knowlesi malaria is a zoonosis in Southeast Asia, with long-tailed and pig-tailed macaques as the main natural hosts. The widespread distribution of human cases and the high proportion of knowlesi malaria admissions in certain hospitals in Malaysia, some resulting in fatal outcomes, underscore the public health importance of human *P. knowlesi* infections.

SS29

Leptospirosis and Its Challenges**Andrew Kiyu***Sarawak Health Department, Sarawak, Malaysia*

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Introduction: Leptospirosis is presumed to be the most widespread zoonosis in the world. Most mammalian species are natural carriers of pathogenic leptospires. Humans are incidental hosts and develop the disease, unlike natural hosts. Leptospirosis presents many challenges to both clinicians as well as public health doctors.

Preventing (re)emergence: Preventing the emergence of leptospirosis and limiting its geographical spread is a challenge because of human domination of Earth's ecosystem, resulting in biodiversity loss and subsequent increase in the number of outbreaks of infectious diseases over the last decades. Furthermore, increasing international travel to tropical countries and participating in recreational activities there have led to the subsequent introduction of leptospirosis cases to the developed countries, and the emergence of leptospirosis as a recreational disease.

Improving clinical diagnosis: Leptospirosis has protean manifestations with symptoms ranging from mild flu-like illness to a more severe and sometimes fatal disease. Leptospirosis is often misdiagnosed as influenza, hepatitis, dengue, typhoid fever, etc., thus leading to a cycle of underdiagnosis, underreporting and consequent lack of awareness of the disease.

Suspecting leptospirosis: Primary care physicians in developed countries may encounter leptospirosis in its various guises in patients presenting with pyrexia of unknown origin, who had a history of recent travel to the tropics and who had a history of recreational activities there. Physicians in the tropics, of course, have to consider leptospirosis as one of the differential diagnoses of patients with pyrexia of unknown origin.

Estimating disease burden: Realising the importance of leptospirosis and its status as a neglected zoonotic disease, the WHO, in 2006, convened informal consultation to discuss how to assess the burden of disease associated with human leptospirosis. This led to the establishment of the Leptospirosis Burden Epidemiology Reference Group. The Group has had two meetings so far.

Prevention and control: In view of leptospirosis having a complex and dynamic epidemiology, no general rules for the prevention and control of leptospirosis can be laid down, hence for each situation, specific solution must be found. Current measures to reduce the source of infection and prevention of penetration of leptospires into incidental host may not always be practical. Leptospires cannot be eradicated as rodents and insectivores form major natural reservoirs.

Keywords: leptospirosis, emerging diseases, zoonoses, neglected disease

WORKSHOP

W01

Responding to Family Violence in Asia Pacific: What are the Priorities for Family Doctors?

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 WONCA Women's Working Party for Women in Family Medicine;
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Introduction: Violence is now recognised as a major contributor to poorer mental and physical health across the world.

Workshop Objectives: 1. To discuss the challenges family doctors of the Asia Pacific face in recognising and responding to family violence in different contexts and to develop recommendations, strategies and solutions that can be used in practice; 2. To prioritise the resource and training needs of family doctors in the Asia Pacific to improve the care given to those who experience family violence in the region.

Methods: The workshop will be introduced with a presentation on the importance of understanding the impacts of violence in the context of international family practice drawing on experiences of family physicians from Australia and Pakistan.

The workshop participants will then brainstorm the challenges faced by family physicians in the Asia Pacific in recognising and responding well to violence. Small group work will then be undertaken to develop recommendations, strategies and solutions for the family physicians. The whole group will then work together on a list of strategies to facilitate better care in their area of practice and useful resources to share. Three priority areas of need will be identified and reported to the WONCA SIG Family Violence to inform their work.

Results: The findings, strategies and resources identified in the workshop will be summarised and inform the priorities of the proposed WONCA SIG Family Violence for the next three years. A report will be available publically on the WONCA Working Party on Women and Family Medicine

<http://www.womenandfamilymedicine.com/>.

W02

Quality and Safety in Family Medicine in Asia Pacific Region

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Presentation of quality and safety programmes in each of the countries represented by the authors.

This workshop session will showcase quality and safety programmes in five countries in Asia Pacific Region. Each of the presenters will highlight features of motivating general practitioners into the culture of quality and safety in their practices, introducing indigenous culture of practices in their countries, identifying challenges, reviewing accomplishments and putting forward issues for discussions. It is intended that both presenters and participants in this workshops may be able to resolve to develop initiatives to spread the concept of quality and safety into the practices in member organisations. These resolutions will be compiled and submitted to the World WONCA

Working Party on Quality and Safety in Family Medicine to be endorsed and published in the WONCA website.

W03

How to Get Published? A BMJ Workshop

Anita Jain
 BMJ India Editor

This symposium is designed to help researchers for the better understanding of what editors are looking for when they review manuscripts and improve their chances of publication. The following topics will be covered: The research question – don't start your study without one, Author's guide to different study designs, Transparency and accuracy in reporting research, The four main sections of scientific research articles, Publication ethics and Choosing the right journal and the peer review process.

W04

Developing Family Medicine Multidisciplinary Home Care Teams

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The rising prevalence of complex chronic diseases and the shortage of beds in high cost acute hospitals had led to the increasing demand for home based care in many countries. Home care provides comfort and a sense of security to the patients. With appropriate measures in place, the home environment can be safer than the hospital environment, especially in the context of infection control. In the past, home care had been considered expensive relative to institutional based care. The ability of home care to prevent repeated readmissions and long stays in high cost institutions had lead policy makers to rethink the value proposition of home care programmes.

In this workshop, participants will learn the key concepts of family medicine multidisciplinary home care. Success factors will be explored. Participants will also learn how to enhance collaboration with the multidisciplinary team through key areas such as scheduling, information management, inter professional communications, development of care plans, training and the logistics involved in providing a cost-effective service.

A successful model of family medicine multidisciplinary home care will be demonstrated during the workshop. Participants will be taken through a planning exercise on developing similar services that will meet the needs of their community and care setting.

W05

Evidence-Based Interventions in Mental Health – the Family Doctor's Role

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This workshop will be presented in two parts. The process will be interactive.

Part 1 will focus on major psychiatric disorders, schizophrenia and bi-polar disorder. In these conditions, the delay between the onset of symptoms and commencement of treatment, the 'duration

of untreated psychosis' (DUP) appears critical in determining the patient's longer-term course and outcome. In this context, a key role has been identified for primary care doctors in the recognition of early symptoms and rapid referral to specialist services. The workshop will provide practical guidance in (a) how to recognise and respond to at risk mental states and the prodromal symptoms of schizophrenia (b) how to screen for bipolar disorder, which is easily missed in primary care settings (c) how to facilitate effective two-way communication at the interface between primary and local psychiatric services.

Part 2 will address Common Mental Disorders (CMDs) in primary care. These disorders, including major depressive disorder and anxiety disorders, often co-present with chronic medical conditions such as diabetes and cardiovascular disease and greatly worsen the overall medical prognosis. There is increasing research evidence on how CMDs can be more effectively managed in primary care settings using Stepped Care and Collaborative Care models. The practical application of these approaches will be outlined. The Collaborative Care model will be further illustrated through the example of a recent initiative where psychiatrists from Penang Medical College provide on-site liaison/consultation and medical student teaching to two government health clinics (Klinik Kesihatan) in Penang. Early experiences will be reported from the psychiatrists and primary care teams' perspectives. Discussion with workshop participants will explore the challenges and opportunities in adapting this approach in the workshop participants' clinical practice.

W06

Case Study: Diet and Lifestyle Management of Obese Type 2 Diabetes with Hypertension and Dyslipidaemia

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Participants in this workshop will examine a case of a 45-year-old man who has been diagnosed with type 2 diabetes 6 months ago and followed up at a private GP clinic. He has also been diagnosed with borderline hypertension and dyslipidaemia. His BMI is 32.8, HBA1c 7.5%, FBS 6.0 mmol/L, post-meal 9.4 mmol/L, BP140/90, T Cholesterol 6.8, LDL-C 2.8 and HDL-C 1.0 mmol/L. Participants will assess the social, medical, behavioural and environmental factors for metabolic syndrome and make recommendations for diet and lifestyle changes to improve his condition.

W07

Helping Your Patients to Make an Informed Decision: A Shared Decision-Making Approach

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There is an increasing recognition of the importance of shared decision-making in primary care worldwide. It involves clinicians and patients discussing, negotiating and agreeing on a screening or treatment option during a consultation. Involving patients in decision-making has been shown to improve patient satisfaction and adherence to treatment.

The incidence of type 2 diabetes is increasing worldwide, especially in the Asia Pacific region. Although it is well established that good glycaemic control reduces micro- and macrovascular complications, the glycaemic control of patients in many countries remains poor. Insulin is often necessary to achieve satisfactory glycaemic control when oral glucose-lowering drugs and lifestyle modification no longer work. However, insulin therapy has been underutilised due to various patients, clinicians and system barriers.

A patient decision aid booklet and self-navigated internet e-learning module have been developed in Malaysia to help patients to make an informed decision about starting insulin. Using these resources with participants, this workshop will define the concept of shared decision-making, present the evidence available for its use in clinical practice and demonstrate how patient decision aids can be used as a tool to facilitate clinical decision-making between patients and clinicians in a primary care consultation.

Goals and objectives: At the end of the workshop, the participant will be able to: 1. Understand the concept of shared decision-making; 2. Understand and know how to use a patient decision aid

Outline of the workshop: 1. Short lecture on shared decision-making and patient decision aids (20 min); 2. Demonstrating the insulin patient decision aid (Show and tell) (20 min) 3. Introducing the insulin patient decision aid e-learning module (10 min); 4. Hands-on session on how to use the patient decision aid (20 min); 5. Conclusion (10 min) 6. Feedback (10 min) Total: 1 hour 30 min

Keywords: shared decision-making, patient decision aids, diabetes, insulin

W08

Searching for Evidence

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Clinicians are confronted daily with questions dealing with patient care. Yet, the explosion of research and publication has made searching for evidence to answer these clinical questions increasingly difficult. This workshop aims to teach participants to develop answerable questions and conduct a quick but efficient search. The method of delivery will be through a mixture of short interactive lectures and hands-on small group sessions. Participants should bring along laptop computers or tablets (with Wi-Fi or Internet connectivity) as this will allow them to participate fully in the search session. They will be guided and given the opportunity to practice the first 2 steps in evidence-based practice, namely ASK (clinical question formation) and ACQUIRE (acquisition of medical evidence from the literature). The workshop facilitators have extensive experience in teaching and practicing evidence-based medicine. As advocates of EBM, they have spent the last 5 years pushing for the greater use of this approach in clinical practice in their respective countries.

W09**Use of Recorded Consultations in Assessing, Teaching and Learning of Clinical Practice****Jennie Kendrick***Northern Sydney Local Health District*

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Background: How do we know that a GP trainee is able to utilise the knowledge and skills they have in an effective way during a consultation? Recording real life consultations can be an effective tool in assessing, teaching and learning of the clinical consultation process by allowing both trainees and supervisors to observe what actually took place in a consultation. It is also an effective adjunct to distant supervision where opportunity for direct observation of clinical encounters is limited.

Objectives: Increase awareness of the role and benefits of recorded consultations in assessing, teaching and learning of consultation skills. Gain an understanding of the practical aspects of recording consultations in real clinical practice. Develop skills in review of recorded consultations, including provision of relevant and constructive feedback.

Structure: The workshop will begin with interactive discussion on the role and benefits of recorded consultations, practical aspects recording in real life consultations together with a brief review of the principles of constructive feedback and opportunity for participants to share their experiences of the process.

W11**The Management of Chronic Pain through Clinical Hypnosis**Peter Mabutt¹, **Sheila Menon**², Alan Soh³*¹London College of Clinical Hypnosis, UK; ²London College of Clinical Hypnosis Asia Region; ³Clinical Hypnotherapist & General Practitioner, Kuala Lumpur, Malaysia*

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This hands-on workshop offers an introduction to pain management through the use of clinical hypnosis. It is open to all medical specialists and healthcare professionals working in the field of pain management. Along with demonstrations there will be an opportunity to gain an understanding of how clinical hypnotherapy can be used to effectively augment and enhance pain management (90 minutes).

The content will cover a brief introduction to clinical hypnosis (10 minutes), the biopsychological model of pain and how hypnotic interventions fit into this model (10 minutes). Participants will gain a clear understanding in using clinical hypnosis for chronic pain. Reference will be made to the research clinic in pain management conducted by the London College of Clinical Hypnosis with the University Malaya, Orthopedic Department (10 minutes).

This will be followed by experiential learning by participants with the use of analgesic phenomena induced under hypnotic trance for pain management (40 minutes). An interactive discussion with participants on how clinical hypnosis can increase pain threshold by manipulating cognitive factors and to allow a better understanding of the mechanisms of secondary gain and locus of control and how this can be otherwise effective pain management (10 minutes).

Further avenues for participants to develop the hypnotherapy skills in enhancing their patients' quality of life and outcome in modern day clinical practice are presented (10 minutes).

Keywords: pain management, clinical hypnotherapy

W12 & 16**Case Report of a Scientific Communication Method****Seng Fah Tong***Academy of Family Physicians of Malaysia*

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In primary care, we often encounter patients who have interesting and challenging clinical problems. Some of them have unusual clinical presentations of a common problem; common presentation of an uncommon problem; management issues that are unique to general practice.

All these are of great interest to the medical community and one way to share this knowledge is through writing a case report. Although case reports are considered the 'lowest level' of evidence, they are important both in terms of education as well as a trigger for further research. Historically, case reports had resulted in identification of new clinical syndrome.

This workshop runs over two 1.5-hour sessions, focusing on 'How to write case reports?'. It will take the participants step-by-step through the process of writing a case report. You do not need to have any research experience to join this workshop. The first session takes you through the technical steps in writing and the second session takes you through appraisal and publishing in case reports.

W13**Communication Skills in Men With Sexual Dysfunction****Michael Zitzmann***Clinical Andrology/Centre for Reproductive Medicine and Andrology, Muenster, Germany*

Sexual dysfunctions in men have a major impact not only on their personal life but also on their partnership as well as their wife's sexual well-being. As these topics are of marked personal matter, patients tend to be shy and evade direct questions about sexual dysfunction. Nevertheless, these dysfunctions might be the specific reason why they visit their family physicians, using some other complaints as an introduction and hoping the physician to address the real problem underneath.

It is therefore essential for family physicians to facilitate effective communications skills in managing men with sexual dysfunction. Physicians have to acquire practical techniques in starting and maintaining the conversation with the patient and his partner.

These are simple open questions that cannot be answered by "yes" or "no" but require a more specific answer detailing the problem. This will open the patient's mind. Usually, these questions start with the letter "W".

"Why do you think you are here today?"

"When did your problems start?"

"What do you think should be different in your family life?"

"What do you believe to be responsible for your problems?"

"Who else could be affected by your problems?"

It is always necessary to shortly summarise the patient's answer in order to make clear that the physician understands him. This is providing the patient a feeling of comfort and he will open more.

Other more conventional diagnoses can also be signs that are important to look at for sexual dysfunctions; these are type 2 diabetes mellitus or cardiovascular diseases, as they are related to erectile dysfunction. Depression can be related to premature ejaculation (PE) (low serotonin levels promote PE). Low libido can be an indicator of testosterone deficiency.

Sexual problems can be treated efficiently only when the partner is involved. Along with medication use, which has to be monitored for compliance, empathic exploration of the progress is inevitable.

W14

Sexual Health Matters: Conversations With the PE Man and His Partner

Angela Ng

Although premature ejaculation (PE) is a very common male sexual dysfunction, its prevalence being 31% in the Asia-Pacific region, most men with this condition do not seek treatment. They have low esteem, are less satisfied with their sexual life, and their partners are also similarly affected. But sexual health is an integral part of general health. Therefore, primary care physicians should take the initiative to engage patients in a conversation about PE in order to be able to help those who have this problem.

The doctor should be non-judgmental, relaxed and sincere. Unless the patient is acutely ill, the doctor can make use of most consultations to blend in the questions about PE with the patient's complaints. Common situations include when the patient comes for physical check-up, having complaints referable to the urogenital system, infertility and marital discord. The doctor should explain to the patient that sexual health is very important for general health and happiness and if the patient is willing, the Premature Ejaculation Diagnostic Tool can be used to screen this condition.

Since the partner is also adversely affected, the doctor can also initiate a conversation about PE with the woman even when she comes alone for gynaecological check-up or for other complaints. The male partner can then be invited to come for treatment. If there is resistance or ambivalence to treatment, the technique of "rolling with resistance" can be used. If both partners are present, besides screening for PE, the doctor can also make use of this opportunity to educate the couple on communication skills and ways to enhance their relationship.

W14

The Burden of Premature Ejaculation: How to Stay in Control?

Eric Chung

Premature ejaculation (PE) is the most common male sexual dysfunction in men. The Asia-Pacific Premature Ejaculation Prevalence and Attitudes Study is the largest study to date designed to investigate the prevalence and attitudes towards PE in Asia-Pacific. It showed that PE affects nearly 1 in 3 men (31%) in Asia-Pacific, whereas erectile dysfunction affects just 1 in 5 men (20%). However, PE remains underdetected and undertreated. Men with PE experience poor control over ejaculation, negative personal consequences, and short latency time to ejaculation. PE may be lifelong or acquired and it is distinct from erectile dysfunction with different symptoms and treatments.

In order to effectively diagnose PE and rule out other causes, a thorough clinical diagnosis is the key. Patient evaluation should include a detailed medical and sexual history, a physical examination, as well as an assessment of the level of their partners' distress and sexual satisfaction. The premature ejaculation diagnostic tool (PEDT) is a simple validated five-question tool to facilitate the diagnosis of PE. The PEDT can be a useful conversation starter in the waiting room or clinic. Furthermore, the premature ejaculation profile (PEP) can be useful for assessing baseline measures and monitoring treatment responses. Recent guidelines recommend pharmacotherapy as the basis of treatment for lifelong PE. Dapoxetine is the first and the only

drug specifically developed and approved for the treatment of PE. It is well tolerated and significantly improves all measures of PE, including control over ejaculation and sexual satisfaction for the couple. PE is associated with lower levels of serotonin; dapoxetine quickly increases the synaptic levels of serotonin, improving the symptoms of PE. It is quickly absorbed, reaching peak plasma concentrations within 1–2 hours. Dapoxetine is also rapidly cleared (<5% at 24 hours), avoiding accumulation, with a pharmacokinetic profile suitable for on-demand use. Control over ejaculation is the key determinant of PE. Poor perceived control over ejaculation is reflected by a short intravaginal ejaculation latency time (IELT). This lack of perceived control leads to negative personal consequences such as reduced sexual satisfaction, personal distress and interpersonal difficulties for the couple. In an Asia-Pacific study of a population of over 1000 men with PE, these consequences of PE were highlighted. It was found that 90% of men with PE reported poor or very poor control of their ejaculation, 75% of men with PE reported "quite a bit" to "extreme" personal distress related to ejaculation and 78% reported "poor" to "very poor" satisfaction with sexual intercourse.

Phase 3 clinical trials of dapoxetine have been conducted in over 16,000 men globally, including over 1000 men in Asia-Pacific. In the multicentre study conducted in Asia-Pacific, dapoxetine was shown to improve all measures of PE. At baseline, "good" or "very good" perceived control over ejaculation was reported by 1.6% of men, which improved to 33.5% of men at study end point after receiving dapoxetine 30 mg ($p < 0.001$ vs. placebo). Similarly, 4.3% of men reported "good" or "very good" satisfaction with sexual intercourse at baseline, which improved to 41.3% at study end point ($p < 0.001$ vs. placebo). Additionally, over 65% of men reported an improvement in interpersonal difficulty and interpersonal distress, with improvement observed from the first follow-up at Week 4 and continuing through to study end point. Significant improvement in all measures of premature ejaculation were also observed with dapoxetine 60 mg versus placebo. These results were consistent with those observed in an integrated analysis of five phase 3 clinical trials: dapoxetine significantly improved control over ejaculation in over 70% of men. Dapoxetine is effective from the first dose and its efficacy improves with continued use.

PE Treatment: How to Get the Best Results?

The selection of a treatment plan for premature ejaculation (PE) depends on physician judgment and patient preference, but the primary goal of therapy is to achieve sexual satisfaction for the men and their partners. Common treatments for PE include behavioural techniques and oral pharmaceutical therapies; some men may benefit from combinations of these options. Behavioural therapies include relaxation therapy and techniques to increase control of ejaculation. Although they may yield short-term success, their long-term efficacy is low and their benefits decline over time. Such treatments may be time-consuming and expensive, and demand significant sustained effort from both men and their partners.

Evaluation of real-life clinical case study to evaluate the benefits of dapoxetine's use and how to achieve the best treatment results.

W15

Managing Stress and Burnout With Clinical Hypnosis

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This interactive workshop is designed to provide practical insight into the benefits of clinical hypnosis and practical skills in reducing

the risk and symptoms of burnout by using self-hypnosis and deep relaxation. It is open to all medical specialists and healthcare professionals, therapists and other professionals (90 min).

The content will cover recognising and dealing with common stressors and the burnout risk factors of occupational burnout and workplace and life stress (10 min). How to use self-hypnosis and deep relaxation in coping with stress and burnout (10 min).

This will be followed by experiential learning by participants on the use of clinical hypnosis to induced deep relaxation that allows the body, mind and emotion to integrate and regain their (the patient's) sense of balance (40 min).

An interactive discussion with participants on how clinical hypnosis helps to alleviate stress and burnout in their clinical practice and how to enhance patient's outcome (10 min). Included are simple techniques such as ego-strengthening, mental imagery and (health) locus of control factors designed to enhance patients' quality of life as well as improve adherence and compliance (10 min). Further avenues for participants to develop clinical hypnotherapy skills to enhance their patient outcome in modern day clinical practice will be presented (10 min).

Keywords: managing burnout and stress, clinical hypnotherapy

W17

The Practical Application of Cognitive Behaviour Therapy (CBT) in GP Clinical Practice

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The National Institute for Clinical Excellence (NICE) has stated that, for the common mental health problems that present to general practitioners, cognitive behaviour therapy (CBT) is the main evidence-based psychological treatment recommended.

Studies have shown that depression and anxiety account for 93% of the mental health issues seen by general practitioners/primary care physicians. Unfortunately many GPs have medication as their only resource.

Evidence shows that a simple CBT model can be as effective as the full CBT package and NICE recommends training for GPs in brief CBT techniques, which can be used within the constraints encountered in a busy primary care setting.

This workshop will focus on providing participants with an insight into how CBT works in practice along with the demonstration of practical skills that can be used by GP/primary care physicians in the treatment of panic attacks, anxiety and depression.

Participants are invited to bring with them case histories of patients who suffer from anxiety and depression for discussion both at the workshop and afterwards with the presenter.

The workshop is fully interactive and designed to encourage lively discussions and debates.

W18

The GP Guide to Social Media: An Introduction to Professional Life on the Web

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Background/rationale: The new frontier of social media presents a fantastic opportunity for GPs to expand their professional networks,

keep up to date with the latest news and developments in primary care and provides an exciting interactive vehicle for communicating with the community.

This workshop will be a taster for GPs who are interested in social media but don't know where to begin and will provide them with the confidence and tools to get off to a flying start. Our goal is not simply to inform people about the benefits of social media, but instead to get them active and involved so they can experience it for themselves. Variations of this presentation have been well received in Australia at the RACGP GP13 Conference, General Practice Education & Training 2013 Conference and at the ACRRM RMA13 Conference.

Workshop structure and content: David will be presenting about how Australian and international social media pioneers have used their blogs, Twitter and Facebook accounts to develop networks across the world while providing a valuable public health resource for their patients. He will be sharing his experience helping to run the recent successful Australian social media political campaigns such as #ScrapTheCap and the #interncrisis both of which grew out of the medical community. He will also be sharing how to keep safe online and balance the risks to ensure you, protect your professional reputation. This will be a hands-on workshop with all participants expected to give social media a go!

Learning objectives: The workshop will be based on a 60% practical and 40% theoretical mix. At the end of this workshop, participants will be able to: 1. Sign up, sign in, follow hashtags and start interacting on Facebook, Twitter and LinkedIn. 2. Establish a Facebook page and blog to start interacting with their community. 3. Protect their professional reputation online

Interactive learning strategies: David will be sharing his social media experience. However, the majority of the time will be made up with practical walkthroughs on how to sign up and speak up on social media networks. He will also be providing a printed "how to" guide for use on the day and will be directing participants to the social media GP website (www.socialmediapp.org), a website specifically developed for GPs with more advanced information on social media for use after the event. Social media GP has been developed by David and a team of GPs, GP registrars and medical students.

W19

Standardisation and Quality Control in Multi-Centre OSCE Exams

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This workshop would be of interest to delegates who are involved in OSCE exams. The OSCE clinical component of the FRACGP exam is delivered simultaneously in 12 centres across the Australian continent to approximately 800 candidates. Standardisation and quality control are major considerations.

In 2013, the Australian Medical Council specialist college accreditation team was "universally impressed by the organisation of these examinations" and commended the RACGP on its efforts in examiner training, quality assurance and preparation of stations.

This interactive workshop draws on what the RACGP has found effective in standardising OSCE exams. It discusses quality control in: 1. Writing and construction of OSCE cases; 2. Reviewing and quality control of developed OSCE cases; 3. Examiner training and update training; 4. Running of OSCE stations.

W20**Too Much Medicine****Anita Jain**

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The BMJ campaign on ‘Too Much Medicine’ aims to spread awareness about the harmful effects of overdiagnosis and overtreatment, resulting in unnecessary care.

In this session, participants will go through case studies and recent guidelines for conditions such as chronic kidney disease, dementia and ADHD among others to identify how inadvertently, they may be medicalising symptoms into disease conditions and subjecting patients to unnecessary care. The session will aim to be participatory with discussions on how evidence-based medicine translates into the different practice settings of family physicians across the globe, determining factors in decisions made by doctors and patients, the role of pharmaceutical and diagnostics’ industries, the effects of overdiagnosis and overtreatment, and the role of the medical community in preventing these.

In 2014, the BMJ will bring out a special edition on ‘Too Much Medicine’ and article submissions may be encouraged at the conference.

W21

Improving Clinical Competency in the Evaluation and Treatment of Spinal Pain: An Osteopathic Medicine Training Approach

Kenney B

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Improving Clinical Competency in the Evaluation and Treatment of Spinal Pain: An Osteopathic Medicine Training Approach

Spinal pain is one of the most common reasons that patients seek medical care. However, the musculoskeletal system and associated pain is one of the least understood topics by medical educators, learners and providers. Osteopathic medicine brings a unique contribution to this underserved area of medicine. It is based on the following osteopathic principles:

Humans are a holistic unit made up of mind, body and spirit. The body is capable of self-regulation and healing; structure and function are reciprocally interrelated. The role of an osteopathic physician is to assist the body’s self-healing, using osteopathic manipulative treatment (OMT). This is a step-by-step workshop to improve the knowledge and skills necessary to assess and manage spinal pain. Video medium will assist the learning process.

Objectives: Participants will improve competence in: Understanding the essential anatomy, neurology, and pain mechanisms. Conducting a spinal pain history, including “red flag” question. Performing an accurate neurological and structural spinal exam, including posture, range of motion, ergonomics, stretch-strengthen-exercise, stress reduction and mindfulness. Assessing the strength and conditioning of the trunk, spine, and lower extremities. Creating a differential diagnosis and rational assessment of common spinal pain etiologies. Learning to create a specific basic conditioning program as a

“prescription”. Understanding factors that reduce or prevent spinal pain such as posture, ergonomics, exercise-stretch-strengthen, stress reduction and mindfulness.

The final important component of this workshop is teaching and practicing several basic, safe and effective OMT methods to: reduce muscle spasm, reduce spinal imbalance and pain, balance the autonomic nervous system to reduce organ system dysfunction, like small bowel ileus.

This workshop will enhance the participants’ clinical confidence through skills acquisition for this important medical topic.

W22 & 26

Qualitative Research for Primary Care: A Hands-on Workshop on Focus Group Discussion, In-depth Interview and Data Analysis

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Qualitative research has gained interest among primary care researchers because of its advantage in in-depth study of the problems encountered in primary care settings. However, many of us struggle in upholding scientific rigour of qualitative research. The rigour relies on the quality data gathered and the credibility of analysis. These skills depend very much on the researchers who themselves serve as the data collection and analysis tools. Focus group discussions and in-depth interviews are two most common data collection methods, whereas thematic analysis is the basis of qualitative data analysis. These two hands-on sessions aim at strengthening the skills of conducting focus group discussions, in-depth interview and performing thematic analysis for novice researchers. The contents include short didactic sessions on introducing qualitative research, data collections, thematic analysis and computer-assisted qualitative data analysis. Each of the sessions is followed by interactive hands-on session.

W23**Practice-Based Assessment**

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What does this workshop cover?

Practice Based Assessment (PBA) is an important educational activity in developing the practice skills of the doctor in training. This workshop forum is meant for veteran and novice trainers and has the objective of sharing experience and best practices gleaned from the literature and video clips.

This workshop consists of three parts: (1) Overview of underpinning principles of Practice Based Assessment (20 min): (A) the seven habits of effective trainers – always a good teacher (focuses on students’ learning, responds to students’ content requests, conveys knowledge and skills), always a good supervisor (stimulates students’ growth[motivator], shares what it is like to be a doctor [mentor], shows how things are done [coach]), and always an ELEPHANT (Encourage Learning, Entertain People, Having a Nice Time); (B) role modelling – as physician, teacher, supervisor, person; (C) practice one-minute precepting (engage and get a commitment, probe for reasoning and supporting evidence). (2) Two video clips

(20 min each) Hone consultation skills – the Mini-CEX – what was done well, what can be improved, joint action Manage the resident (trainee) in difficulty – (a) define the area(s) of concern [academic, professional, personal]; (b) early detection, check insight, evoke answers from the resident, (c) keep the training faculty informed, seek faculty advice and support (3) Questions and answers from the floor (30 min) – Sharing experiences and available resources.

What are the main take home messages?

Know and apply the seven habits of effective trainers, be a role model, and practice one-minute precepting, Hone consultation skills and Manage the resident (trainee) in difficulty.

Keywords: practice-based assessment, effective habits of trainers, role model, one-minute precepting, consultation skills, resident in difficulty

W24

Workshop on Point-of-Care Testing: How to Set Up and Manage Point-of-Care Testing in Your Family Practice

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In June 2013, WONCA established a new Special Interest Group on Global Point-of-Care Testing that has open membership to family doctors from all countries. Point-of-care testing (POCT) refers to pathology testing performed in a clinical setting at the time of patient consultation, generating a test result that is used to make an immediate informed clinical decision. POCT has particular applicability to rural and remote family practices and indigenous medical services, with limited access to laboratory services. The scope of POCT now covers the prevention and management of chronic, acute and infectious diseases.

There is often a perception among health professionals that one simply needs to buy a POCT device from a vendor 'off the shelf', take it to the location where it is to be used, turn it on and start testing. The reality is that there are many aspects to consider when setting up a POCT service and there needs to be a logical and systematic approach to the organisation and management of POCT.

This Workshop (90 min), presented by the Chair and Secretary of the WONCA Special Interest Group, aims to provide participants with an overview of the common key principles that should be applied when establishing and maintaining a POCT service (20 min). These principles relate to all POCT devices across all clinical applications and across countries.

Working together in small facilitated groups, participants will have the opportunity to utilise these learnings to develop a framework for introducing POCT for a specific clinical need relevant to their WONCA region (50 min).

The workshop will also provide an opportunity for the SIG on Global Point-of-Care Testing to discuss its current and planned activities for 2014-2015 (10 min) and to present the results of a survey that identified the major POCT priorities for the different WONCA regions (10 min).

Keywords: point-of-care testing, rural health, family practice, organisation and management

W25

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The work of family physicians typically involves patient care from cradle to grave. With advances in medicine, patients are now living longer, coping with the impact of non-communicable diseases. An understanding of palliative care principles and approaches to management is essential for any family physician.

This workshop is an introduction to palliative care. It will look at the needs of patients with life-limiting illness, and the role of family medicine practitioners. The topics to be covered are: Identifying patients with palliative care needs, Advanced care planning, Symptom management and clinical decision-making at the end of life and Communication and ethics.

What are the main take home messages?

A holistic approach is essential in family medicine. Using palliative care principles in defining patient outcomes is central to holistic practice.

W27

Preparing Teaching Cross-Cultural Communication in Medical School

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Good communication when the message was well received and the recipient responded correctly. Communication involves not only verbal and non-verbal interaction but also observing each other. Therefore, special skill sets are required to implement good communication. The skills include active listening, questioning, conveying information, inspiring others to speak, and so on. As clinicians we are often required to communicate with patients who have very different backgrounds. Moreover, doctors in Asia-Pacific countries have diverse ethnicity, religious beliefs and social levels. Communication with people of different backgrounds is called cross-culture communication. Cross-culture communication is a part of cultural competence, which has been taught in many medical schools. How to prepare teachers to become trainers of cross-culture communication? This workshop will introduce how to prepare you to be able to get insights of medical students and help them develop cross-culture communication skills. By the end of the workshop, participants will be able to: (a) explain the difference between diversity, cultural awareness and cultural competence, and cross-cultural communication, (b) look introspectively, identify where they are in the cultural awareness continuum and think of ways to progress to the next level and (c) identify the specific skills in cross-cultural communication.

W28

Dermatology Potpourri

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This symposium would cover three 30-minute presentations: Dermatology Quiz – 20 Slides; Pediatric Dermatology Quiz – 10 Slides; Cutaneous Drug Reactions – Allopurinol

These presentations would cover simple not to be missed common dermatological conditions with an emphasis of what's new in dermatology. All patients listed are seen at our centre and we would emphasise an approach to diagnosis and simple tests that can be done at the bedside or clinic.

A presentation on cutaneous drug reactions with an emphasis on allopurinol is included as this is one of the most common prescriptions in general practice. We need to learn how to use this medication to avoid unnecessary complications, especially Steven Johnson's Syndrome and toxic epidermal necrolysis. Approximately 10% of prescriptions for allopurinol would result in dermatological side effects with SJS and TEN the ones with fatal outcomes.

Lesson: Asymptomatic hyperuricaemia must not be treated.

W29

Research Learning Workshop – Experience From Fiji

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What does this symposium/workshop cover?

This workshop is a forum to share the experience of a research learning workshop conducted in Fiji in 2013. This research course had a special mission. It was a social experiment to prove a concept, namely, that a research course workshop style of 2 days can be useful. This social experiment is multi-staged. We intend to present its progress to study design and research proposal in this workshop.

This workshop consists of 3 parts: (1) What we did? – Fashioning of the roadmap (programme and time table); engine (course notes show and tell sessions, workshops), and fuel of the course (research questions, leadership, participation and shared vision) [15 min]; (2) Some work in progress of projects conceived - Research question, study design and what has been done. [10 min - 3 presentations]; (3) Toe dipping group work – Asking answerable research questions [45 min – made up of 20 min plus 5-min presentations].

What are the main take home messages?

To run a research learning course, we need the roadmap, engine and fuel. The progression is research question, study design and research proposal; execution, write-up and dissemination. A good beginning is half the ending – What is your research question? Is it answerable?

Keywords: road map, course notes, research questions, leadership, participation, shared vision, workshop

W30

Intensive Primary Care for Family Physicians

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The world is experiencing an unprecedented escalation of the prevalence of chronic diseases. Health care systems around the world are not prepared for this tectonic shift in disease pattern. The present state of training, education and competencies of the healthcare workforce are inadequate for the task at hand.¹ The need to re-design the health care system had been well enunciated. However, the reforms needed in training physicians to take on this role had been lacking. The call for more training along tradition lines of specialisation by diseases or age group will not work and may actually aggravate the situation through further fragmentation of care. Patients with complicated chronic diseases and complex care needs a new kind of care that had been described as “intensive primary care”. This requires multidisciplinary teams that are competent in providing personal and continuing care for such patients as they navigate the health system from the hospital to the community and back to home. The value system and the competencies of family medicine are uniquely suited to provide this kind of care. Family physicians around the world will face this new challenge and the opportunity to provide a new kind of primary care that will restore family medicine as the generalist discipline that reintegrates a fragmented health care system.

This workshop will present an intensive primary care model where family physicians provide continuing care to patients with complex care needs as they traverse the continuum of care between the hospital and the home. Participants of the workshop will learn how to apply their clinical skills to develop intensive primary care plans for the sickest patients who live in the community. They will also be able to appreciate the structure, processes and training that are required to equip multidisciplinary teams to provide such care.

¹Preparing a healthcare workforce for the 21st Century. WHO Publication 2005.

ORAL

OP1

Primary Care Physicians' Views and Experiences on Blood Pressure Telemonitoring: The Question of Trust

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Introduction: The availability of blood pressure (BP) telemonitoring devices presents primary care physicians (PCPs) with a novel approach to manage patients with hypertension. BP telemonitoring empowers patients and allows doctors to monitor their patients' home BP. However, acceptability of BP telemonitoring by PCPs is largely unknown. This study aims to explore PCPs' views and experiences in using a BP telemonitoring service for patients with uncontrolled hypertension in view of future implementation into routine care.

Methods: A BP telemonitoring service to manage primary care patients with uncontrolled office BP was trialed in August 2011. Twenty patients and ten PCPs were involved in the trial. All ten PCPs subsequently participated in two face-to-face focus group discussion (FGD) sessions. The interviews were audio-recorded and transcribed verbatim. Thematic analysis was used to analyse the data.

Results: The central theme that emerged from the data was regarding trust. PCPs trusted BP readings transmitted by the telemonitoring service and more than home BP readings were brought in by patients. PCPs felt more confident in diagnosing patients with white-coat hypertension and to check the efficacy of their management. They believed that patients felt watched-over thus encouraging compliance and patient empowerment. However, PCPs were concerned about the large amount of BP readings to be reviewed and medico-legal implications of telemonitoring. PCPs perceived that such service might not be suitable for all patients. The PCPs remain guarded about the future implementation of BP telemonitoring into routine care because of these barriers.

Conclusion: PCPs views on BP telemonitoring is influenced by their level of trust in three areas – accuracy of BP readings, their ability to interpret and act on the home BP readings, and the ability of telemonitoring to improve patients' well-being. Successful implementation of a BP telemonitoring service would require a structured framework that addresses these concerns and develops trust.

Keywords: hypertension, primary care, qualitative research, home blood pressure monitoring

OP2

Home Blood Pressure Monitoring Among Hypertensive Patients in a Primary Care Clinic of Hong Kong: A Cross-Sectional Survey

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Introduction: Numerous international agencies have recommended home blood pressure monitoring (HBPM) in their published guidelines. However, HBPM is often used without proper medical advice and these measurements can be inaccurate and adversely influence clinical management.

Methods: A cross-sectional survey involving adult Chinese patients

with hypertension was conducted in a regional primary care clinic of Hong Kong, with the objectives of evaluating the prevalence of HBPM and assessing the competence of self-BP measurement among hypertensive patients in primary care settings.

Hypertensive patients from a randomly generated list were invited to complete the questionnaire, and those patients performing HBPM were tested on knowledge and competence of self-BP measurement with an automatic BP machine.

Results: 57 male and 71 female patients completed the questionnaire. 65.6% of patients owned a BP machine of any type at home and 58.5% of them conducted HBPM. 71.9% of patients had never learnt how to measure BP. Among patients who did not own a home BP machine, 36.4% claimed that the BP machine was too expensive and 36.4% claimed that they did not know how to measure BP. 56.6% of respondents strongly agreed that HBPM can help patients to achieve better BP control. Multiple regression analysis did not show any patient characteristics statistically significantly associated with performing HBPM.

Sixty-five patients completed the competency test in self-BP measurement, of which 97% of them passed the written test, while 55.3% of them passed the practical test. In the practical test, 30.7% of patients failed to put the cuff in the proper position, while 10.7% did not put the arm at the heart level.

Conclusion: 58.5% of hypertensive patients conducted HBPM, while 55.3% of them were concluded as competent in performing self-BP measurement.

Keywords: hypertension, home blood pressure monitoring, primary care

OP3

Home Versus Office Blood Pressure: Doctors' View and Decision in Managing Patients with Hypertension

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Introduction: There are two main methods of blood pressure (BP) monitoring, office and home blood pressure. Many patients do their own BP monitoring at home, but whether the doctors are using their measurements for management is uncertain. This study aims to explore doctors' view and decision on using home or office BP in managing patients with hypertension.

Objectives: To explore doctor's view and decision on using home or office blood pressure in managing patient with hypertension.

Methods: This is a qualitative study involving 24 doctors from a hospital-based primary care clinic. The study was conducted over a period of 2 months. The participants were identified through purposive sampling and consent was obtained. A semi-structured topic guide was used to explore the experiences and practices of these participants. The data were collected using focus group discussion (FGD) sessions. Data reached saturation after the 4th FGD. The interviews were audio-recorded, transcribed verbatim and analysed for content and coded into themes. The transcripts were managed using the NVivo 8 software. The transcripts and were used as data for thematic analysis.

Results: Doctors viewed home blood pressure monitoring (HBPM) as a useful method for BP monitoring that could empower patients in their disease management. Home blood pressure monitoring (HBPM) was used to diagnose and guide the doctors in the management of patients with hypertension. However, office blood

pressure monitoring (OBPM) still has its role in managing patients with target organ damage in spite of good HBPM. Doctors were uncertain of the target of HBP[M2] reading and the number of measurements needed to be recorded at home for monitoring.

Conclusion: Doctors' view of HBPM to be useful and use it to diagnose and as a guide to manage patients with hypertension. However, not all patients were considered suitable for HBPM. Office blood pressure monitoring (OBPM) was preferred to HBPM in certain groups of patients. However, doctors' knowledge about HBPM was still lacking.

OP4

Comparison Between Case-Finding Questionnaire and Handheld Spirometer in Detection of Airflow Limitation in a Primary Care Clinic in Malaysia

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Introduction: Early diagnosis of chronic obstructive pulmonary disease (COPD) in primary care settings is difficult to achieve partly due to the lack of availability of spirometers. This study aimed to compare the prevalence of airflow limitation among chronic smokers by using the Canadian case-finding questionnaire and the gold standard spirometry in a primary care clinic.

Methods: This is part of a cross-sectional study performed on consecutive patients aged ≥ 40 years with ≥ 10 pack-years of smoking history. The Canadian 20-item case-finding questionnaire was used to ascertain the likelihood of airflow limitation in all subjects. Total scores ranged from 0 to 5. A score ≥ 3 was defined as 'at risk' and a score < 3 was considered as 'not-at risk'. Spirometry tests were performed using handheld (COPd-6TM device) and gold standard spirometers according to the standard protocol. Airflow limitation was defined as the ratio of forced expiratory volume in 1 second to forced expiratory volume in 6 seconds < 0.75 or the ratio of forced expiratory volume in 1 second to forced vital capacity < 0.70 .

Results: Of 416 patients, 251 were recruited into the study. The prevalence of airflow limitation based on the Canadian case-finding questionnaire and handheld spirometry was 14.7% (n=37) and 10.8% (n=27), respectively. However, among those who underwent confirmatory spirometry measurements, 6% (n=15/251) were found to have airflow limitation. The Table below compares the sensitivity and specificity of these tools in detecting the presence of airflow limitation.

Conclusion: This study found that a handheld spirometer (COPd-6TM) is more useful in detecting the presence of airflow limitation in primary care settings compared to the case-finding questionnaire.

Keywords: prevalence, COPD, questionnaire, spirometry, Malaysia

OP5

Cross-Cultural Adaptation of the 24-Item Diabetes Knowledge Questionnaire for Patients With Type 2 Diabetes in Indonesia

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Introduction: Diabetes is a global public health problem, which can cause serious disabling complications. Indonesia has been among the top four countries with the highest number of diabetes cases. Although there are various diabetes instruments to evaluate diabetes care in international literature, adequate Indonesian language instruments are scarce. Therefore, suitable Indonesian diabetes-related instruments need to be developed or adapted for the Indonesian population. This study aimed to cross-culturally adapt an English/Spanish version of the 24-Item Diabetes Knowledge Questionnaire (DKQ-24) for use in an Indonesian population.

Methods: The first three steps of the study included translation to Indonesian language, back-translation of the Indonesian version to English and content validation by an expert panel. There were minor revisions to suit the Indonesian context. The Indonesian version of the instrument was then distributed to a convenience sample of 101 adult patients with type 2 diabetes at two community health centres in Yogyakarta City, Indonesia. The last step was reliability testing of the adapted instrument for internal consistency using Cronbach's alpha.

Results: The internal consistency reliability of the instrument showed a satisfactory coefficient alpha ($\alpha = 0.723$).

Conclusion: The 24-Item Diabetes Knowledge Questionnaire was determined to be valid and reliable for use in the Indonesian population. Some items were slightly modified based on the Indonesian context.

Keywords: cross-cultural adaptation, type 2 diabetes, diabetes-related instruments, internal consistency reliability, Cronbach's alpha

OP6

Validation of the Malay Version of the Quality of Life Questionnaire of the European Foundation for Osteoporosis (QUALEFFO-41) in Malaysia

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Introduction: Quality of life (QoL) assessment in patients with osteoporosis plays an important role as an adjunct measure in clinical management. However, only the English version of the QoL questionnaire of the European Foundation for Osteoporosis (QUALEFFO-41) has been validated in Malaysia. Therefore, the aim of our study was to assess the validity and reliability of the Malay version of the QUALEFFO-41 in Malaysia and to assess the QOL in patients with osteoporosis.

Methods: The QUALEFFO-41 was translated from English to Malay according to guidelines and administered to 215 postmenopausal osteoporotic women aged ≥ 50 years who could understand Malay. To assess convergent validity, the Malay version of the SF-36 was administered concurrently at baseline. The QUALEFFO-41 was administered at baseline and 4 weeks later. Patient demographic data were collected at baseline.

Results: 133 patients with back pain and 82 patients without back pain were recruited. Factor analysis showed that the QUALEFFO-41 had five domains. Overall Cronbach's alpha was 0.929 and 0.916 for the patient and control groups, respectively. High internal consistency was seen in all domains (0.752-0.925) except for the social domain (0.692). Test-retest reliability showed significantly high correlation coefficients for all items (0.752-0.964, $p < 0.001$). Patients with back pain had a significantly worse QoL (i.e., a higher score) compared to the control group (back pain=41.8; no back pain=31.0, $p < 0.001$).

Conclusion: The Malay version of the QUALEFFO-41 was found to be reliable and valid to evaluate the QoL of patients with osteoporosis in Malaysia. Patients with back pain had poorer QoL than those without back pain. Further studies should look into validating the Mandarin version of the QUALEFFO-41 so that the QoL of all osteoporotic patients in Malaysia can be assessed.

Keywords: Malaysia, osteoporosis, QUALEFFO, QoL, validation

OP7

An Exploratory Study of Burnout Among Postgraduate Doctors in UMMC

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Introduction: Burnout is prevalent among postgraduate doctors. Studies on burnout among postgraduate doctors have been conducted in Western countries. However, there have not been any published data in Malaysia on burnout among postgraduate doctors. This study aimed to determine the prevalence and the associated factors of burnout among postgraduate doctors in University Malaya Medical Centre, Kuala Lumpur.

Methods: This was a cross-sectional study involving all clinical postgraduate trainees from 17 specialties in Faculty of Medicine, University of Malaya. Three questionnaires used were the study questionnaire, abbreviated Maslach Burnout Inventory questionnaire and DASS-21 questionnaire. Questionnaires were distributed and collected from September until November 2011. The main outcome measure was burnout. Each component of the study questionnaire and DASS-21 subscale was analysed to study its association with burnout. Data were analysed by chi-square test, t-test and multivariate logistic regression analysis to achieve a final model of burnout. A p-value of < 0.05 was considered significant.

Results: The overall response rate was 50%. Burnout prevalence among postgraduate trainees was found to be 29.9%. The prevalence of depression was 24.3%, anxiety 33.3% and stress 17.2%. A slightly higher proportion of trainees in the surgical speciality were burnt out (31.2%) compared to non-surgical speciality (29.7%). Trainees in paediatric surgery had the highest burnout (50%), followed by oncology which had a burnout of 45.5% as well as the highest mean score for all three DASS-21 subscales. There was a significant association between trainees' self-assessment of burnout, depression, anxiety and stress with both the abbreviated Maslach Burnout Inventory and DASS-21. The final model of burnout showed that

depression and stress were significant factors of burnout among postgraduate trainees.

Conclusion: Burnout appeared to be present among postgraduate doctors in training and this was significantly associated with depression and stress. This finding requires vigilant attention to reduce depression, stress and burnout among postgraduate doctors in training to become specialists.

Keywords: burnout, postgraduate doctors, stress, depression

OP8

Prevalence and Factors Associated With Internet Addiction Among Medical Students in Universiti Putra Malaysia

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Introduction: Internet is important to university students, especially for medical students, for literature search, completing their assignments and finding latest information. However, some of the students are experiencing a gradual loss of the ability in cutting down the duration and frequency of internet activities despite the negative consequences. There is little data on this, particularly among medical students in Malaysia. This study aims to determine the prevalence and factors associated with internet use among medical students in University Putra Malaysia (UPM).

Methods: This was a cross-sectional study performed among all year 1 to year 5 medical students in UPM in 2013. Students were assessed on their internet activities using the internet addiction test (IAT) questionnaire. Total scores ranged from 0 to 100. If the score was ≥ 43 , it was defined as 'at risk' of internet addiction. Multiple logistic regression was used for data analysis.

Results: Of the 426 students who participated (response rate 69%), 156 were male (36.6%) and 270 were female (63.4%). The mean age of the participants was 21.6 ± 1.5 years. The majority of the participants were Malay (55.6%), followed by Chinese (34.7%), Indian (7.3%) and others (2.3%). According to the IAT, 36.9% of the study participants were addicted to the internet. In multivariate logistic regression analysis, the use of internet for entertainment purpose (odds ratio [OR] 3.5, 95% confidence interval [CI] 1.05–12.00), male students (OR 1.8, 95% CI 1.01–3.21) and increasing frequency of internet use were associated with internet addiction (OR 1.4, 95% CI 1.09–1.67).

Conclusion: Internet addiction is a relatively frequent phenomenon among medical students in Universiti Putra Malaysia. Pathological internet user is associated with presence of suggestive symptoms of psychological difficulties.

Keywords: prevalence, internet addiction, medical student, Malaysia

OP9

Sexual Health History Taking: The Attitude of Malaysian Medical Students

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Introduction: Sexual health is an important global health issue. Undergraduate exposure and training in sexual history taking is essential to prepare future doctors in dealing with sexual health problems. This study aims to describe their attitude towards sexual history taking.

Methods: A cross-sectional study was conducted among all final-year medical students from three medical schools. The attitude of students towards sexual history taking was evaluated using a self-designed questionnaire with good internal consistency (Cronbach alpha 0.73). There were 13 items on a Likert scale with responses ranging from strongly disagree (1) to strongly agree (5). In this report, we combined responses (1) and (2) as disagree and (4) and (5) as agree. Ethical approval was obtained from the respective universities.

Results: A total of 375 students completed the questionnaire: 40.1% from IMU, 32.7% from UiTM and 27.2% from UM. Their mean age was 23.58 ± 0.65 years. Half of them were Malays (56.5%) and the remaining were Chinese (31.7%), Indians (8.4%) and others (2.9%). The majority of students (76%) were interested to learn about sexual health, 95% felt it was important for doctors to know how to take sexual history and 93% felt being non-judgemental was important. Students were neutral (50%) about nurses being better at taking sexual history. Interestingly, only half (48%) of the students felt comfortable in taking sexual history with 33% being neutral and 16% disagreed. About half (51%) of them felt that cultural differences were a barrier in discussing sexual history and 47% felt religious differences were a barrier.

Conclusion: Malaysian medical students have a positive attitude towards sexual history taking and acknowledge its importance. However, they felt uncomfortable in discussing sexual health problems with patients. Future teaching on sexual history should address these barriers, in particular, those related to culture and religion.

Keywords: sexual history taking, medical student, attitude

OP10

Medical Students' Conception of Professionalism: The Impact of an Early Family Doctor Attachment

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Introduction: The goal of the medical curriculum is to nurture the development of doctors who possess professional attributes required for quality patient care. Previous studies have shown that role modelling by clinical teachers and early clinical contact have

a powerful influence on such learning. In 2012, a longitudinal programme structured around early attachment to family doctors was initiated to make the learning of professionalism explicit in the undergraduate medical curriculum at The University of Hong Kong. This study aimed to evaluate the impact of the "Professionalism in Practice" (PIP) programme on medical students' conception of professionalism after the first year of the programme.

Methods: This was a semi-qualitative study conducted from October 2012 to 2013 in which data were triangulated from (1) a questionnaire survey regarding views on professionalism; (2) student written assignments, which included a reflection on the family doctor attachment and a personal oath articulating the tenets of professionalism that befit a first year medical student, and; (3) focus group interviews, which were audio-recorded and transcribed verbatim. Thematic analysis of the written material was conducted independently by at least two investigators with differences resolved by consensus.

Results: In forming their conceptions of professionalism, students identified three main areas: (1) individual personal characteristics such as being 'knowledgeable', 'respectful' and 'responsible'; (2) characteristics of patient care in family practice, including 'holistic care', 'long-term doctor-patient relationships', 'health education' and 'communication'; and (3) awareness of care for oneself such as maintaining a 'work-life balance'.

Conclusion: This study suggested that early attachment to family doctors helped medical students form a personal conception of professionalism that is consistent with generally described frameworks of medical professionalism. Further structured reinforcement of positive professional attitudes and behaviours, building on the first-year experience, should continue over the duration of medical school.

Keywords: professionalism, family doctor, role model, undergraduate medical education.

OP 11

Evaluation of a Master of Family Medicine Distance Learning Programme in Laos

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Introduction: In 2006, the Laos Ministry of Health and University of Health Sciences partnered with Boston University Global Health Collaborative to design and implement a model of primary care retraining with the goal of enhancing the quality of rural generalist physicians in disadvantaged communities in Laos. A Master in Family Medicine training course was developed based on the ASEAN-EU University Network Programme (AUNP) Family Medicine Curriculum, and located at LuangPrabang Family Medicine Training Center. The programme was designed as a modular part-time training model combining classroom and distance learning. Physician trainees, representing five districts in Laos, followed a cycle of 3 months training in LuangPrabang, and then returned to their rural district hospital and continued distance learning for 3 months. The first class of five trainees completed the programme and received their degrees in 2013.

Methods: We undertook a rigorous evaluation to assess the clinical competency of the graduates and compared them with their non-trained physician peers. We also aimed to identify areas for further refinement of the programme, barriers faced by trainees for implementing new skills in district hospitals, the impact of training on referral patterns and the ability of

trainees to transfer their new knowledge to the other health staff. We collected quantitative data by administering questionnaires to the five trainees and to five untrained physicians, and by conducting 360-degree evaluations including surveys of medical colleagues (n=12), supervisors (n=5), and patients (n=7). We also collected qualitative data by interviewing the trainees, the instructors at the LuangPrabang Training Center and the principal stakeholders at University of Health Sciences.

Statistical Analysis: Since we hypothesised that the trained physicians would score higher on the family medicine self-assessment questionnaire than the untrained physicians, we used a one-tailed T test for statistical comparison between the two groups and a p-value lower than 0.05 to allow us to reject the null hypothesis. Descriptive statistics were used to analyse and report 360-degree evaluation data including frequencies, percentages, means and ranges. Qualitative analysis of interviews with key stakeholders was analysed using NVIVO software. RB approval was obtained from Boston University Medical Campus.

Results: Preliminary analysis of self-assessment questionnaires shows significant improvement in scores in trained physicians in the treatment of 19 common illnesses including asthma, cardiovascular disease, peptic ulcer, anaemia, diarrhoea, depression, vaginal delivery and gynaecological disorders. Multiple stakeholders expressed great value of the programme. The findings of the 360-degree evaluation analysis show that 80% of evaluators (n=16) 'completely agree' that trainees are able to care for more types of diseases since training, and 86% (n=18) 'completely agree' that they are better at caring for common diseases. 82% (n=18) 'completely agree' that trainees are more appropriate in prescribing antibiotics, while 86% (n=18) 'completely agree' that they are more appropriate in prescribing other medications, >80% of all evaluators 'completely agree' that trainees are better working with community health workers (82%), hospital nurses (82%), physician colleagues (91%), and supervisors (88%) since training. Qualitative analysis of interviews will also be included.

OP12

Undergraduate Medical Students' Attitudes Towards Learning Communication Skills

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Introduction: Communication is an essential skill for establishing physician-patient relationships and effective functioning among healthcare professionals. This skill can be learnt effectively during the undergraduate medical students' training program and help students to practice in patient care efficiently. Teaching and learning communication skills at the Oman Medical College are an integral part of clinical teaching. The Family Medicine Department organises special communication skills sessions to help the students communicate with their patients. This study aims to assess the attitudes of undergraduate medical students towards learning communication skills at the Oman Medical College.

Methods: This cross-sectional study was conducted among final-year medical students. Data were collected using the communication skills attitude scale (CSAS) that consists of 26 items, 13 indicative of positive attitude and 13 indicative of negative attitude towards learning communication skills, a self-filled questionnaire. The second part of the questionnaire measured the affective and cognitive aspects of learning communication skills.

Results: The CSAS questionnaire was distributed to 68 final-year

students and 52 students returned the filled questionnaire (response rate: 76%). The positive attitude scale (PAS) had a mean score of 4.0 and the negative attitude scale (NAS) had a mean score of 2.6 out of 5.

Conclusion: Final-year medical students have a more positive attitude towards learning communication skills. Although the affective component is quite low, this can be improved by ensuring that students get a better and more coordinated experience in learning this skill.

Keywords: communication skills, undergraduate medical students, learning style.

OP13

Findings of a Longitudinal Cohort Study on Depressive Disorders in Hong Kong's Primary Care

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Introduction: The primary care setting is the entry point for most people into the health system, and primary care physicians are ideally placed to serve as the central service provider for patients with depression. Unfortunately, there are many challenges in identifying and managing depression in primary care, and long-term outcomes and factors affecting prognosis remain unclear. To make recommendations regarding mental health policy, it is necessary to have current knowledge of the epidemiology and outcomes of depressive disorders in patients presenting to primary care.

Methods: A cross-sectional study followed by a longitudinal cohort study was conducted. Adult patients recruited from the waiting rooms of 59 primary care doctors completed a questionnaire that screened for depression. Doctors provided clinical information about the patient. Consenting patients were followed up by telephone at 3, 6 and 12 months.

Results: A total of 10,179 subjects were recruited at baseline (response rate 81.0%), of which 4358 subjects entered the longitudinal study (response rate 42.8%). The cross-sectional prevalence of Patient Health Questionnaire-9 (PHQ-9)-screened depression was 10.69%, 12-month incidence was 6.67% and 12-month remission rate was 60.31%. Detection rate by doctors was 23.1%. Over 1 year, the health-related quality of life scores improved by 10% (SF-12v2 PCS) and 30% (SF-12v2 MCS). Patient-reported medication and primary care service use increased; however, mental health service use was low. The most common patient-reported mental health service used was psychiatrists; the most common referral service used by doctors was for counselling.

Conclusion: Most cases of depression encountered in primary care are mild and self-limiting, but are associated with significant impairment to health-related quality of life. Diagnosis of depression by a doctor does not appear to have any significant effect on

resolution of symptoms and physical health-related quality of life after 1 year, but is associated with greater improvements in mental health-related quality of life.

Keywords: Primary care, epidemiology, depression, cohort, health-related quality of life.

OP14

Validation of B-Type Natriuretic Peptide As a Prognostic Marker in Elderly Patients with Pneumonia

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Introduction: Pneumonia is the leading infectious cause of death, especially amongst the elderly, in developed countries. To date, no systematic assessment has used B-type natriuretic peptide (BNP) levels as a prognostic marker for pneumonia.

Methods: A total of 208 patients diagnosed with pneumonia and admitted to our hospital were enrolled in this study. Their pneumonia was categorised as community-acquired pneumonia (CAP), aspiration pneumonia (AP), nursing healthcare-associated pneumonia (NHCA), pneumonia with acute heart failure (PAHF) or hospital-acquired pneumonia (HAP). The BNP levels in patients were determined within 1 month of admission. Data on age, sex, outcome (dead or alive), and BNP, C-reactive protein (CRP), creatinine and fasting plasma glucose levels were also collected from all patients. A two-sample t-test was used to relate each parameter and outcome for all pneumonia categories.

Results: The mean age of all patients (127 males and 81 females) was 81.3±9.9 years. A total of 74 patients had CAP, 66 AP, 42 NHCA, 23 PAHF, and 3 had HAP. The two-sample t-test was not performed for HAP patients because the number of patients was too small. BNP, CRP, creatinine and fasting plasma glucose levels were significantly higher in non-survivors than in survivors for CAP ($p=0.0000$, 0.01, 0.03 and 0.0002). No significant difference was observed with respect to the other markers.

Conclusion: BNP levels were the most powerful and independent predictors of death in patients with CAP. As such, systematic screening of BNP in hospitalised elderly patients with pneumonia may help identify those with a poor prognosis.

Keywords: pneumonia, B-type natriuretic peptide (BNP), prognosis

OP15

Short-Term Change in Body Mass Index and Cardiovascular Disease in Korea

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In this study, we examined the association between body mass index (BMI) in a short-term and cardiovascular disease in Korean individuals. Initial data from 2002 to 2003 and after-2-year surveys from 2004 to 2005 were used. Weight change over a 2-year period in 63,583 men and 35,356 women, aged 30-70 years, with no history of cardiovascular disease or cancer, who had health insurance from the National Health Insurance Corp. and who had a biennial medical evaluation, was calculated.

Then, the subjects were followed up from the 2004-2005 survey to the end of 2010, and hazard ratios (HRs) of estimated BMI levels and weight change for coronary heart disease (CHD) and stroke were estimated using Cox proportional hazard models adjusted for potential confounders.

During the follow-up period (median 6.4 years), there were 16,157 incident ischaemic heart disease cases and 3624 strokes. Multivariable-adjusted HRs for cardiovascular events by BMI levels of subjects in the obese group (BMI ≥ 25) versus the normal weight group were 1.52 (95% confidence interval (CI) 1.44, 1.60) for CHD and 1.26 (1.13, 1.42) for stroke in men and 1.45 (1.36, 1.55) for CHD and 1.16 (1.01, 1.33) for stroke in women, respectively.

A weight reduction of 5%–9.99% in the previous 2 years in obese men was associated with decreased CHD risk (HRs = 0.83 [0.71, 0.98] and 0.87 [0.78, 0.97]).

In contrast, a weight gain of $\geq 10\%$ in the previous 2 years was associated with increased stroke risk in obese men (HRs = 2.36 [1.34, 4.15]) and obese women (HRs = 2.07 [1.12, 3.83]).

It can be concluded that a mild-to-moderate weight reduction in 2 years might decrease CHD risk in obese men but a weight gain of $\geq 10\%$ in 2 years was associated with an increased risk of stroke in obese men and women.

OP16

Risk of Prostate Cancer in Men with Benign Prostatic Hyperplasia: A Population-Based Cohort Study

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Introduction: Benign prostatic hyperplasia (BPH) and prostate cancer (CaP) share similar risk factors such as age. This retrospective cohort study investigated whether BPH is associated with increased risk of CaP.

Methods: From claims data of the universal National Health Insurance of Taiwan, men aged 50 years and above with BPH diagnosed from 2000 to 2006 were identified. Men without BPH were randomly selected into non-BPH cohort. Each cohort consisted of 23,746 men. Both cohorts were followed up until subjects were diagnosed with CaP, censored because of death or withdrew from the insurance programme, or until the end of 2009. The incidence and hazard ratio (HR) of CaP were calculated.

Results: The incidence of CaP was 29-fold higher in BPH cohort than in non-BPH cohort (40.8 vs. 1.4 per 10,000 person-years). In Cox model, compared with men aged 50-64 years, adjusted HR of CaP increased from 2.40 (95% confidence interval (CI) 1.92-3.00) for men aged 65-74 years to 4.30 (95% CI 3.43-5.41) for men aged 75 years or older. BPH patients without surgery had an adjusted HR of 23.8 (95% CI 15.0-37.7) for CaP. Adjusted HR increased to 108.7 (95% CI: 66.8-176.8) for those with transurethral resection of prostate surgery for BPH.

Conclusion: Men with a history of BPH were associated with increased risk of CaP in Taiwan. The risk increased further for those with transurethral resection of prostate surgery.

Keywords: benign prostatic hyperplasia, epidemiology, prostate cancer, risk, retrospective cohort

OP17

A Comparison Study of Tuberculosis Cases Between Locals and Foreigners in Malaysia

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Introduction: Tuberculosis cases are increasing in Malaysia. One of the factors contributing to the epidemic is immigration from countries with a high prevalence of tuberculosis. This research aimed to compare the differences in frequencies and disease profile between local and foreign cases.

Methods: Data were extracted from the Malaysian tuberculosis surveillance database as on 3 November 2013 for the January to December 2012 cohort.

Results: Of the 20,372 confirmed tuberculosis (TB) cases reported during this period, 2708 (13.3%) were foreigners, of which 998 (4.9%) were from Indonesia, 967 (4.7%) from Philippines, 372 (1.8%) from Myanmar, 107 (0.5%) from Nepal and 99 (0.5%) from Bangladesh. Gender-wise, 1031 (38.1%) of the foreigners were female compared to 6093 (34.5%) of locals. The mean age of foreigners was 33.61 ± 13.18 years compared to locals, which was 44.03 ± 18.10 years (p<0.001).

There were significant associations in education level and citizenship, with foreigners having more likelihood of no or lower education compared to locals. Among locals, 17.7% had diabetes whereas only 3.4% of foreigners were diabetic. 35.2% of locals were smokers compared to 30.7% of foreigners. There were more new TB cases in foreigners than in locals (96.5% vs. 92.9%). Smear-negative cases were 28.2% in foreigners compared to 31.9% in locals. The number of HIV-positive cases was higher in locals than in foreigners (6.6% vs. 2.4%). Multi-drug resistant (MDR) TB was significantly associated with citizenship; 67.2% of locals were MDR negative compared to 72.3% of foreigners. 20.1% of foreigners moved or were lost to treatment compared to 1.1% of locals. All data reported are significantly associated (p<0.001).

Conclusion: Foreigners with TB were significantly younger, more likely to be females, had lower educational level, more likely to be sputum positive, more likely to present as new cases and to be MDR negative. It appears that locals who had TB were more likely to have concomitant risk factors in comparison to foreigners.

Keywords: tuberculosis, Malaysia, registries, risk factors

OP18

Going Up in Smoke: The Rising Prevalence of Smoking in Indonesia – Socioeconomic Factors Associated With Smoking and Development of Culture-Specific Smoking Cessation Interventions

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Introduction: Indonesia is one of the top five tobacco-consuming countries in the world, with up to 84% of males estimated to be current smokers. Of concern, this number is on the rise, which will have important knock-on effects on the development of secondary diseases and the health of the nation. There is limited evidence on the demographics of smokers, and this is essential to effectively target and implement smoking cessation initiatives. This study aims to identify socioeconomic factors associated with smoking in Indonesia to identify high-risk groups and guide development of culture-specific stop-smoking interventions.

Methods: Data were collected on 54,913 individuals (9306 males and 45,607 females) across Indonesia as part of the World-Bank Demographic and Health Survey (DHS) 2012. Information on age, location, literacy and education, occupation, wealth and healthcare coverage was analysed using backwards-stepwise logistic regression to identify factors associated with smoking. In individuals who smoked, access to and frequency of use of different types of media was compared.

Results: In our population, 71% of males and 3% of females smoked. There has been a progressive increase in the percentage of men and women who smoke between 2003 and 2012 (p).

Conclusion: Intervention is needed at both a public health and primary care level. There is currently a lack of government tobacco control policies and general practitioners (GPs) feel inadequately trained in smoking cessation. Young males and older females in lower socioeconomic classes are at greatest risk and should be targeted for stop-smoking interventions when seen in primary care. Increased GP training and development of smoking cessation tools that include visual aids and are accessible to those with no healthcare cover are key to preventing a national epidemic.

OP19

What Makes Women See a Doctor for Their Menopausal Symptoms?

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Introduction: Although menopausal symptoms are prevalent among women in peri- and post-menopausal stages, few of these women seek medical advice. We studied the prevalence of menopausal symptoms among these women and what factors made them see a doctor.

Methods: This was a questionnaire survey of a convenience sample of female patients aged 40-60 years at a public health center. The questionnaire consisted of the Menopause Rating Score (MRS), the

Menopause Attitude Scale (MAS), socio-demographic data, and having consulted a doctor or not. The MRS contains 11 menopausal symptoms categorised into somatic, psychological and urogenital subscales. The MAS tested for positive and negative attitudes towards menopause. Regression models were used to test the association between variables and seeking medical advice.

Results: Of 275 women recruited, 124 were in the peri-menopausal stage and 151 in the post-menopausal stage. The mean age was 51.8±4.09 years. Of the 274 (99.6%) women who were affected by menopausal symptoms, 105 (38.2%) had visited a doctor for their symptoms independent of the menopausal stage ($p=0.081$).

The factors significantly associated with consulting a doctor were education ($p=0.038$) and odds ratios (0.68) for lower education, negative attitudes towards menopause ($p=0.013$), odds ratios (1.13) and the somatic ($p=0.001$) and psychological ($p=0.005$) subscales of the MRS. Of the menopausal symptoms, joint and muscle discomfort was the only significant factor ($p=0.030$); anxiety was the only other symptom, $p<0.10$ ($p=0.083$).

Conclusion: Menopausal symptoms were very common in peri- and post-menopausal women but few of them consulted a doctor. Women did consult for psychological reasons and doctors should not focus only on their somatic symptom.

Keywords: help-seeking behaviour, menopausal symptoms, MRS, MAS, Macao

OP20

Factors Influencing Decision-Making in Weaning Diet: Asian Mothers' Perspectives

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Introduction: Proper selection of infant weaning diet is of utmost importance as it provides babies with needed nutrients for growth and development. Mothers' decision-making in weaning diet are often determined by sources of information available to them and socio-cultural beliefs of relatives and friends as reported in international studies. This study explored factors influencing the decision of multi-ethnic Asian mothers in Singapore in selection of weaning diet for their children.

Methods: This is a qualitative study. 30 Singaporean mothers from nine SingHealth Polyclinics participated in three focus group discussions (FGDs) and 17 in-depth interviews (IDIs). A topic guide was developed to facilitate the discussions, which were audiotaped, transcribed and analysed to identify emergent themes.

Results: A total of 17 Chinese, 8 Malays and 5 Indians were recruited. They were mostly in their 30s, educated and worked full time. Various themes were identified. The Internet was the most common source of information to guide mothers' decision-making in weaning diet. Print materials and advice from healthcare workers were less common sources. Mothers verbalised the importance of attending programmes on weaning diet to aid decision-making, but felt constrained by time to attend such programmes. They preferred web-based platforms to gather information.

Advice from relatives and family were commonly respected and sometimes translated into practice to avoid conflict. Decision-making was also influenced by mothers' previous experience and perception of babies' behaviour as cues to weaning. Nonetheless, mothers relied

on their own judgement when there was conflicting information from various sources.

Conclusion: Internet, family interaction and observations on their infants' response were major factors influencing mothers in their decision on weaning diet. Web-based portals should be developed for them to access appropriate information and to select suitable weaning diet for their infants.

Keywords: infants, decision-making, weaning diet

OP21

Introduction: Warfarin is a high-risk medication. Over- or under-warfarinisation can have a significant impact on patients. A guideline on management of patients on warfarin therapy was introduced by the Family Medicine Department of New Territories East Cluster (NTEC FM) of the Hospital Authority of Hong Kong in 2013. The guideline included the following: (1) set reminder in the computer clinical management system regarding the clinic issuing warfarin, indications and date of initiation; (2) issue warfarin education booklet with information on indication, target INR, proposed period of treatment, and adjustment record; (3) refer high-risk patients to pharmacists for education; (4) check INR before each consultation; and (5) titrate warfarin according to a standardised titration table. The audit aims to review the current practice and identify deficiencies for improvement.

Methods: Audit criteria were set according to the management guideline. All 108 warfarin users followed up in eight government outpatient clinics of NTEC FM from January to April 2013 were recruited. Clinical notes were reviewed in October 2013 and data were analysed.

Results: All 108 warfarin users had set a reminder. One hundred and two users (94.4%) had been issued with warfarin education booklets. Four (3.7%) had not been referred to pharmacists even if they belonged to the high-risk group. Two (1.9%) patients had not checked INR before consultation. Twelve (11.1%) patients should have dosage adjustment according to the titration table but was not performed. Among these users, six (50%) had previous INR within the target range, two (16.7%) were not titrated because of advanced age with a history of fluctuating INR and four (33.3%) were not titrated without documentation of reason in the clinical notes.

Conclusion: It would be a good practice to follow the management guideline to improve medication safety. Further training and improvement in titration of warfarin would be beneficial to patients.

Keywords: warfarin management review, outpatient clinic

OP22

Do Patients Want Their Doctors and Family to Make Decisions for Them? A Cross-Sectional Study in a Malaysian Primary Care Clinic

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Introduction: Shared decision-making has been advocated as a useful model for patient management. In developing Asian countries such as Malaysia, there is a common belief that patients prefer a passive role in clinical decision-making while the doctor and family play a more important role. This study aims to determine the Malaysian patients' role preference in medical decision-making and the associated factors.

Methods: A cross-sectional study was conducted at an urban primary care clinic in Malaysia in 2012. Patients aged >21 years were chosen using systematic random sampling. Consented patients answered a self-administered questionnaire, which included their demography, role preference (pre-consultation), actual role (post-consultation) and family's role in decision-making. Patients' role preference was assessed using the Control Preference Scale (CPS) questionnaire. The CPS was modified to determine patients' actual role, family's role and doctors' perception of patients' role preference. Chi-square test was used to determine the association between patients' role preference and associated factors.

Results: The response rate was 95.1% (470/494). 51.9% of patients preferred to play a shared decision-making role with their doctors, followed by passive (26.3%) and active (21.8%) roles in decision-making. Higher household income was significantly associated with autonomous role preference (shared and active roles) ($p=0.018$). The doctors overestimated that 39.4% of patients preferred a passive role in decision-making. Almost half (49.1%) of the patients preferred to have shared decision-making with their family, followed by active role in decision-making (44.0%). A few (6.8%) patients wanted the family to make decisions for them.

Conclusion: The majority of patients attending the primary care clinic preferred to share their decision with their doctors and family. The doctors should engage the patients and their family more actively in making decisions about their health.

Keywords: primary healthcare, decision making, patient preference, physician-patient relationships.

OP23

When the Phone Rings: A Qualitative Study on Its Effects on Patient's and Healthcare Worker's Experiences During Primary Care Consultations

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Introduction: Primary care consultations are commonly interrupted, with the phone being one of the common causes. Studies have reported consequent negative experiences among 20% of the affected patients but little is known about the experience of healthcare workers (HCWs). Consultations are referred to as interactions between patients and physicians, nurses or pharmacists. This study aims to explore perceptions and experiences of HCWs and patients when their consultations are interrupted by phone calls.

Methods: This qualitative study was conducted in a Singapore cluster of public primary care polyclinics. 15 patients and 16 HCWs participated in five focus group discussions and their interviews were audio-recorded, transcribed, and analysed using standard content analysis to identify emergent themes.

Results: The main themes were safety, professionalism, respect, efficiency and experience. HCWs and patients felt apologetic when their interactions were interrupted by phone calls. Most would keep the phone conversations short as a display of mutual respect. Most patients perceived that calls from the desk phone were important to healthcare services, found them acceptable and described a neutral experience. However, patients expected HCWs to be professional and not answer incoming personal calls.

HCWs perceived patients' phone calls to be important and were generally tolerant of the interruptions. Both parties valued the time devoted to the consultation and reported negative experiences if the phone-call interruptions were prolonged. HCWs emphasised the need to focus their attention on key reasons for patient encounter. They were adverse to phone calls interrupting such tasks and thinking processes, due to their concerns about potential medical errors and elevating their stress level. Conversely, phone calls were viewed favourably when they resulted in interventions that improved patient safety or allowed retrieval of additional information relevant to the encounter.

Conclusion: Contextual factors affected primary care consultations when phone interruptions occurred. Understanding these factors will guide us in implementing measures to improve patient's and HCW's experiences.

Keywords: phone, primary care, consultation

OP24

Users of a Personalised Phone Application to Support Asthma Self-Care: What Are Their Views? A Qualitative Study

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Introduction: Asthma is characterised by periodic exacerbations in which early intervention can avert bronchoconstriction. Thus, self-management using an asthma action plan has been shown to reduce patients' asthma exacerbations and unscheduled clinic visits, but their ability to recall details of the plan during exigency restricts its use. To overcome these limitations, a smartphone application (app) called 'AsthmaCare Buddy' was developed by SingHealth Polyclinics to support asthma self-management.

This free phone app provides asthma education on the disease, triggers and treatment; allows asthma control evaluation using symptoms or peak flow measurement; incorporates a personalised action plan based on physician's prescribed medications in relation to control status, videos on proper inhaler use, reminders of preventative measures such as trigger avoidance and influenza vaccination and GPS locator of GPs in the proximity. This study aimed to explore the views of asthma patients about the functionalities and the use of this phone app.

Methods: This qualitative study employed in-depth phone interviews based on a topic guide to capture data from patients (or caregivers of paediatric patients) who had used the app for at least 8 weeks. The interviews were recorded, transcribed, audited and analysed to identify emergent themes.

Results: Users were generally satisfied with the usability and functionalities of 'AsthmaCare Buddy', with several highlighting its portability compared to the printed version of the action plan. They reported that the app 'did not hang', had clear instructions, was fast,

educational and uncomplicated to use. They found the charting of asthma control via graphs and reference to the current haze index useful. One user suggested incorporating a vaccination reminder for enhanced compliance to therapy.

Conclusion: The smartphone app was perceived to be user-friendly, supported asthma control and was well accepted by asthma patients. They would recommend it to other asthma patients.

Keywords: asthma, self-care, smartphone, application

OP25

Views of Primary Care Doctors Regarding Provision of Their Personal Mobile Number to Patients: A Qualitative Inquiry

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Introduction: Advances in communication technology have dramatically improved direct accessibility of patients to their healthcare providers via mobile communication; however, specific concerns are involved. This study aims to explore the views of primary care doctors regarding provision of their personal mobile number to patients.

Methods: This study was conducted in a hospital-based, academic primary clinic in 2013. A total of 23 postgraduate trainees participated in three focused group discussions. A semi-structured topic guide, based on the theory of planned behaviour (TPB), was used to capture the views and experiences of participants. The discussions were audio-recorded, transcribed verbatim and checked for accuracy. Data were analysed by two independent coders using NVivo 10 by thematic analysis.

Results: The participants were 29-36 years of age. The level of clinical experience spanned from 4 to 11 years. There are mixed practices on the provision of personal mobile number. None of the participants provided their personal mobile number as part of routine practice. Of those who provided their numbers, it was given to selected patients only. Participants perceived providing personal mobile numbers to patients as a complimentary service, enhancing doctor-patient relationship and allowing continuity of care. Difficulty in decision-making, challenges in multi-tasking and intrusion of their private time led to negative attitudes towards provision of numbers. The decisions in providing direct access to their patients were affected by factors such as lack of policy, colleagues' related experiences, learning from external policy and spouse disapproval for after-hours disturbances. Participants reported several coping strategies to deal with the issues in practice.

Conclusion: Doctors differed in their views regarding provision of their personal mobile number to patients. Their decisions are influenced by various factors including their intention to provide better service to patients, intrusion of personal privacy and other possible negative consequences. There is a need for a specific policy to support primary care doctors on this matter.

Keywords: primary care doctors, telephone consultation, focus groups, theory of planned behaviour

OP26

What Are the Medication Experiences of Older People with Chronic Diseases? A Qualitative Study

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Introduction: Studies have found that patients' knowledge about their medications can improve adherence and reduce medication errors in chronic disease management. However, what happens in the 'real world' remains unknown. This study aims to explore older patients' experiences in taking medications for chronic diseases.

Methods: Twelve patients with chronic diseases were interviewed individually between January and April 2013 in a hospital-based primary care clinic in Kuala Lumpur, Malaysia. Participants were selected purposively based on their age, number of medications and educational level. A topic guide was used to conduct the interviews, which were audio-recorded, transcribed verbatim and analysed using a thematic approach.

Results: Older patients obtained information regarding their medications from different sources: hospital pharmacy technicians, community pharmacists, doctors and relatives or friends working in the healthcare sector. However, none sought advice from hospital outpatient pharmacists.

When asked in detail regarding their medications, some patients were not able to tell the name, strength or indications of their medications. Some were not given any information about their medications or changes in their medication regimen. These patients did not seek clarifications from the healthcare professionals because they felt that the doctor 'knew best' and that it was rude to question the doctor.

Patients' lack of knowledge and awareness regarding their medications may have led to aberrant medication-taking behaviours such as self-adjusting medication doses. Some stopped taking their chronic medications as they believed that their disease has been cured, or that lifestyle changes could 'cure' their disease. There were also instances where patients substituted prescribed medications with health supplements following advice from relatives or friends.

Conclusion: This study revealed an important information gap in older patients with chronic diseases in primary care. This has significant implications on patient safety. Urgent measures should be taken to rectify this gap.

Keywords: patient medication knowledge, chronic disease, primary health care

OP27

Primary Care Research in Malaysia and Family Physicians' Contribution: A 20-Year Review

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Introduction: This study aims to assess the trend of publications arising from primary care settings and by family physicians over the past two decades.

Methods: An electronic archive of Malaysian health-related research

is created by a comprehensive electronic search of major databases (PubMed, Web of Science, and Scopus) and internet searches using Google Scholar. This archive is queried for 'primary care research' and 'family physicians' by year. 'Primary care research' is defined as a journal article in which clinical research was conducted in public or private primary care clinics. Conference abstracts, case reports, programme description, reports and reviews are excluded. 'Family physicians' refer to Malaysian authors possessing MAFP/FRACGP, MMed (Fam Med) or their equivalent qualifications.

Results: During the 1994-2013 period, a total of 655 publications are included (450 primary care research publications, 399 family physicians' publications and 194 primary care family physicians' publications). Comparing the second to the first decade, the number of primary care research and family physicians' publications has increased by 3.7 and 6.4 times, respectively. Overall, 47% of family

physicians' publications were conducted in primary care settings. This percentage showed a drop between the two decades (65% to 46%). Possible reasons for this reduction are: more family physicians' research being conducted in the community, schools, hospitals and other locations and collaboration of research between family physicians and other disciplines.

Conclusion: Primary care is a favourite location for research by family physicians and those from other disciplines (notably public health). It is gratifying to note that family physicians are actively contributing to research in Malaysia and, in recent years, half of all primary care research is performed by family physicians. The varied locations of family physicians' research suggest broad interest among practitioners and active collaborations with other disciplines.

Keywords: primary care research, family practice, publication, Malaysia

POSTER

PP001

Youth and Sexual Desire: A Qualitative Study Among Malaysian College Students

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Introduction: Sexual desire in youths is a normal physiological process. Some succumb to high-risk sexual activity, while some remain abstinent. This study aimed to explore how youths manage their sexual desire and request for sexual activity if any.

Methods: This qualitative study involved 15 youths aged 18–22 years who volunteered to participate from colleges in Klang Valley. Seven of them were sexually active. All of them underwent semi-structured individual interviews. The interviews were digitally voice recorded and transcribed verbatim. The transcribed data were imported to the Atlas.ti software for thematic analysis.

Results: To control sexual desire, both sexually active and non-sexually active youths would try to ignore the feeling, keep themselves busy or spend time with friends (playing sport, eating out, karaoke or watching a movie). Approaches that were specific to non-sexually active youths were avoiding pornographic viewing, avoiding sexually active peers, keeping their faith in religion and performing religious activities. They would talk to their partner, demand for marriage, walk away or terminate the relationship whenever faced with partner's sexual request. The specific approaches by the sexually active youths were spending time on their own (sleeping, singing or watching television) or performing sexually related activities (pornographic viewing, masturbation or dating their partner). Often, they could not control their sexual desire whenever with their partner and ended with unsafe sexual intercourse.

Conclusion: Structured activities may help the youths in effective time management. Thus, lesser time for them to focus on sexual desire or sexually related activities. The sexually active youths may benefit from negotiation skills training, to be able to say no to unsafe sexual practices, and hence lessen the risk of complications.

Keywords: youths, sexual desire, unsafe sex, activity, qualitative

PP002

Marital and Educational Status of Pregnant Teenagers: Does It Affect Their Outcome?

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Introduction: Studies shown that teenage pregnancy is associated with increased risk of adverse pregnancy outcome. However, there is inadequate local data involving clinical and social outcomes of teenage pregnancies as cross-reference. By providing population level data, we would like to investigate the role of marital and educational status of teenagers on their pregnancy outcome.

Methods: This is a retrospective study on pregnant adolescents aged <20 years in 2012 attending government health clinics in Johor Bahru district. Information gathered from antenatal card, KIK/1(a)&(b)/96, delivery notification record and antenatal/postnatal care record book (KIB 201a), using a structured questionnaire. A total of 488 subjects detected in 2012 and came to one of the 12 clinics for antenatal care. Total sample size allocated was 250 subjects calculated by random sampling. Adequacy of antenatal care assessed, using the Kessner Index. Outcome calculated using Chi-square test for both exposure variables followed by binary logistic regression to determine whether both variables when combined affect adequacy of antenatal care and pregnancy outcome.

Results: Of 250 subjects, majority 56.4% were Malays, 17.6% Indians, 9.2% Chinese, 8% Eastern-Malaysian and 8.8% others. 65.6% of teenagers were married prior to antenatal booking. For adequacy of antenatal care, only 18.4% had adequate care, 54.4% had intermediate care, 25.6% had inadequate care and 1.2% had no antenatal care at all. There was no significant difference between teenagers from different educational levels affecting adequacy of antenatal care. However, there is a significant difference in the adequacy of antenatal care among married teenagers ($p < 0.005$). From the Chi-square test and binary logistic regression, it was found that there was 'no significant difference' in both marital status and educational level affecting the outcome of both mother and baby.

Conclusion: There is significant difference in adequacy of antenatal care among married teenagers; however, educational level does not affect the adequacy of care. Both marriage and education level does not affect the clinical outcome of mother and baby.

Keywords: teenage pregnancy, mother, baby, marital status, educational level

PP003

The Validity of the Parental Bonding Instrument to Assess Maternal Parenting Among Malaysian Youths

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Introduction: The Parental Bonding Instrument (PBI) measures parenting style perceived by the children. It has 25 items with a two-factor structure: parental care and control (over-protection). Recent studies have shown that the PBI has a three- or four-factor structure. This study aimed to assess the validity of the PBI in measuring maternal parenting style among Malaysian youths.

Methods: The original English version of the PBI underwent double back-to-back translation and content and face validity to produce the Malay version (PBI-M). A total of 248 college students aged 18–22 years answered the PBI-M. Exploratory factor analysis (with principal axis factoring and direct oblimin rotation) and reliability testing were carried out using SPSS version 19.

Results: The PBI-M items for mothers were loaded into three distinct factors: care (items 1, 2, 4-6, 8, 11, 12, 14, 16-19 and 24), over-protection (items 9, 10, 13, 19 and 20) and autonomy (items 3, 7, 15, 21, 23 and 25). These three factors explained 33.1% of the variance with Cronbach's alpha ranging between 0.55 and 0.79. In the original PBI, item 8 "want me to grow up" and item 19 "tries to make

me feel dependent on her/him” were control items. However, in this study these items (8 and 19) were loaded into the care factor instead. The items of the control factor were subdivided into autonomy and over-protection.

Conclusion: The PBI-M for mothers confirmed the three-factor structure, namely, care, autonomy and over-protection. Maternal efforts to make their youths to be adults (“want me to grow up”) and maintain their connection with the youths (“tries to make me feel dependent on her/him”) were viewed as a form of care instead of control in the Malaysian youths.

Keywords: Parental Bonding Instrument, Malaysia, validation, parenting, youths

PP004

Healthy Buddies Y&S (Youths and Seniors): An Innovative Health Promotion Programme for Adolescents and Patients With Chronic Diseases

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Introduction: Chronic diseases are the principle cause of disability, the major reason for seeking healthcare and account for 70% of all healthcare expenditure. Chronic diseases are causally related to unhealthy lifestyle or behaviours. Data from various sources have revealed that unhealthy dietary habits, physical inactivity and overweight/obesity are common at different life stages of the local population starting from school age. The aims of this study were to empower patients with chronic diseases to sustain interventional lifestyle modification to achieve better disease control; to educate secondary school students on healthy lifestyle and increase awareness in chronic disease prevention; and to encourage both youths and seniors in adopting healthy attitudes and behaviours in three key areas of health, including regular physical activity, healthy diet and mental wellness.

Methods: Two secondary students and one senior were paired to form a healthy buddy, and underwent a series of health workshops, focusing on chronic diseases, physical activity, healthy diet and mental wellness. Interaction, mutual support and life sharing were facilitated and encouraged as the buddies had to complete several health-related discussions, tasks or quizzes throughout the workshops and a walkathon along a beautiful lakeside.

Results: A total of 60 secondary students and 30 patients with chronic diseases completed the programme from September to November 2013.

According to reflection from students, they found the programme to be a highly rewarding experience. Despite knowledge gained on healthy lifestyle and chronic disease prevention, they also enjoyed the opportunity and sharing with seniors. From the senior’s perspective, they were not only empowered on chronic disease management, but also enhanced their psychosocial well-being. Both seniors and adolescents had learnt mutual caring for each other, which broke the generation gap.

Conclusion: This innovative model of a health promotion programme achieved a synergistic beneficial effect for both patients with chronic diseases and adolescents.

Keywords: health promotion programme, chronic disease patients, adolescent health

PP005

The Effect of Alcohol Use Disorder on the Quality of Their Spouse’s Life

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Introduction: The studies of the physical and psychological effects of alcohol use disorder on patients have been conducted many times. However, not much has been known about the impacts on their spouse. In this study, we investigated how alcohol use disorder influences the quality of their spouse’s life.

Methods: This is a cross-sectional study on 342 married couples registered in family cohort from April 2009 through September 2011. For the criterion of alcohol use disorder, alcohol use disorder identification test (AUDIT) was used and the high drinking risk group and the low drinking risk group were split at the cut-off point of 7. For the quality of life, SF-36 was used. For statistical analysis, we used t-test as univariate analysis. Multivariate analysis was conducted with age, gender, education level, and current smoking status was adjusted.

Results: The number of the alcohol use disorder cases was 179 (26.2%). When univariate analysis was applied to the quality of spouse’s life based on whether they have alcohol use disorder, the average points of physical functioning and vitality were significantly different ($p=0.028$ and 0.020 , respectively). With age adjusted, the average scores of the quality of spouse’s life were significantly different in physical functioning and vitality ($p=0.001$ and 0.014 , respectively). However, when age, gender, education level and current smoking status were adjusted, no significant difference was shown in each of eight specific analyses.

Conclusion: When age was adjusted, the quality of spouse’s life was shown to be bad in the case of alcohol use disorder. However, in multivariate analysis, significant relationship was not shown. This is because there are various factors affecting the quality of life, and the number of cases in this study is not large enough. It seems that additional studies are needed with these considerations reflected.

PP006

The Relationship Between Spouse’s Alcohol Consumption and Family Functioning, Family Communication

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Introduction: It is known that alcohol use disorder (AUD) affects not only patient’s health but also marital functioning and family communication. This study was conducted to examine effects of spouse’s problem drinking (PD) on family functioning and family communication.

Methods: We conducted a cross-sectional study using data of 890 subjects (445 couples) in the FAmily CohorT Study in Primary Care (FACTS) study, that is, the study of patients who visited Korean family physicians in general/university hospitals. Alcohol consumption level was categorised by two groups using AUDIT-K, and the cut-off score was 8. Family functioning was classified into three groups by FACE-III questionnaire. Family communication was classified into three groups using family communication scales of FACES-IV questionnaire. The relationship between spouse’s alcohol consumption, family functioning

and family communication was analysed by Chi-square test and multivariate logistic regression analysis. We did covariate adjustment for smoking, age and family income.

Results: In male subjects, age, income, smoking and presence of depression were significantly different between two groups. In female subjects, age and smoking were significantly different between two groups.

By Chi-Square test, there was no significant difference in adaptability, cohesion, family type, communication between two groups in male subjects.

However, in female subjects, there was a significant difference in family communication between two groups ($p=0.003$). By logistic regression analysis adjusted for smoking, age, income, there was no significant difference in family functioning and communication between two groups in males. However, in females, there was a significant increase in odds of lower family communication in the group of spouse's PD compared to spouse's low-risk drinking group in logistic regression analysis [adjusted 2.246 (1.363–3.702), $p=0.002$].

Conclusion: In case of females, family communication was significantly lower in the group of spouse's PD. This result implies male's alcohol consumption may have negative effect on family communication.

Keywords: alcohol use disorder, family functioning, family communication

PP007

Knowledge on Colorectal Cancer Screening and its Associated Factors for Knowledge Among Private General Practitioners in Kelantan

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Introduction: Colorectal cancer is the second most common cancer after breast cancer in Malaysia for the year 2007. Mortality and morbidity related to colorectal cancer can be prevented with early screening. General practitioners (GPs) are in the best position to perform colorectal cancer screening. Thus, the knowledge of colorectal cancer screening is important for them to deliver the service to the community that they are providing. The objective of this study is to determine the level of knowledge and associated factors among private general practitioners in Kelantan.

Methods: This is a cross-sectional study involving all GPs in Kelantan from February 2013 to June 2013. The questionnaires used are validated questionnaires on knowledge among primary healthcare providers. The knowledge regarding risk factors for colorectal cancer, symptoms of colorectal cancer and recommended screening modalities in high risk group were assessed.

Results: The knowledge score ranging from 53% to 86% was normally distributed with the mean SD of 69.8 (7.9%). The percentage of good knowledge was 21.3%. Most of the respondents correctly answer the questions on the risk factors for colorectal cancer except knowledge on diabetes as a risk factor for colorectal cancer. The low percentage of good knowledge also contribute by the majority choose FOBT as screening modalities in high risk group of patients. Gender is the only significant associated factor for knowledge.

Conclusion: Majority of the private general practitioners in Kelantan have inadequate knowledge about colorectal cancer screening. The associated factor for a good knowledge is gender whereby female GPs were found to have scored better than their counterparts.

Keywords: colorectal cancer, general practitioners, knowledge

PP008

The Role of Patient Insight in Alcohol Dependence

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Introduction: Patient insight is a major target in patient education for chronic diseases or mental illness. This study aimed to investigate the clinical role of insight in patients with alcohol dependence.

Methods: Twenty-seven studies (8 from PubMed & Cochrane Library, 19 from KoreaMed) that focused on alcoholics' insight using the same objective instrument, the Hanil Alcohol Insight Scale, were selected and reviewed. The total subjects were 2378 patients with alcohol dependence or pathological drinking. Data collected from individual studies were synthesised, and descriptive analyses were performed for each topic.

Results: Among patients with alcohol dependence, who get in touch with therapy, 49.3% had poor insight, 39.8% had fair insight, and only 10.9% had good insight. Patients with poor insight showed significantly ($p<0.05$) higher rate of false-negatives on alcoholism screening tests. Patients in the pre-contemplation stage had a significantly ($p<0.01$) lower insight score than do those in the contemplation or the action stages. The degree of patient's insight was a significant ($p<0.05$) predictor for abstinence after treatment. Alcoholics' insight was significantly ($p<0.05$) improved by group treatment programs or brief individual counseling focused on insight.

Conclusion: Above results suggest that, clinically, insight of patients with alcohol dependence would be associated with various roles, and that clinicians should consider providing support more focused on insight in patient education and counseling for alcohol problems.

Keywords: alcohol, alcoholism, alcoholics, awareness

PP009

Colorectal Cancer Screening Using Faecal Occult Blood Test: Does Physician Education and Recommendation Result in Increased Uptake?

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Introduction: Colorectal cancer (CRC) is the most common cancer in Singapore. Regular screening with Faecal occult blood test (FOBT) has been proven to be a useful screening tool to decrease mortality. In Singapore, only 3.8% of the target population undergoes FOBT at the correct frequency. It has been reported that physician recommendation and knowledge of screening tests are significant predictors of CRC test uptake.

The aim of this study was to study if the physician education and recommendation resulted in increased uptake of FOBT.

Methods: This was a randomised controlled trial conducted in a polyclinic. Adults aged ≥ 50 years and asymptomatic for CRC were included in this study. Patients were excluded if they had received an FOBT within 1 year, received a flexible sigmoidoscopy or colonoscopy within 5 years, a personal history of CRC or polyps, a family history of colorectal cancer or polyps; or a personal history of inflammatory bowel disease. Stata was used to generate a random

allocation sequence. Allocation and concealment was having different staff perform participant recruitment, study group allocation and participant assessment. The intervention group received a standardised education protocol conducted by the attending physician. After education, the physician recommended FOBT and ordered the tests if the patient accepted the offer. Both groups were followed up for 6 months after recruitment to determine if a FOBT was performed at the polyclinic.

Results: Each of 24 participants were recruited for both control and intervention groups. During the 6 month follow up, participants in the intervention group were twice as likely as those in the control group to undergo a FOBT (OR 2.0, 95% CI 1.34-2.99).

Conclusion: Primary care physicians play a very important role in educating and promoting CRC screening in the community.

Keywords: colorectal cancer screening, faecal occult blood test, physician education, primary care

PP010

Management of Cancer Patients in Primary Care

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Introduction: Cancer is the most common cause of death in Korea. Due to early diagnosis and advancement in therapeutic modality, about 100,000 people survived for 5 years after treatment in 2011. In our hospital, we opened a cancer prevention clinic at the Department of Family Medicine in November 2012. We provide appropriate cancer screening programs, counsel and manage various cancer-related health problems for cancer patients, cancer survivors referred from cancer specialists.

Methods: This study surveyed patients who visited the cancer prevention clinic more than two times between August 1, 2013 and August 31, 2013. The survey results about age, gender, disease status, the reason for visits, satisfaction and expectations of the clinic visit were analysed. Based on the survey, the status about management of the cancer patients in primary care was also assessed.

Results: A total of 102 patients participated. The mean age was 61.9±11.4 years old. 32 (31.4%) patients were men and 70 (68.6%) were women. The percentage of patients on treatment and cancer survivors were 36.3%, 55.9% and 2.0%, respectively. The top five cancers were stomach (31.3%), breast (29.4%), lung (6.9%), liver (5.9%) and thyroid (4.9%). The common co-morbid diseases were dyslipidemia (39.2%), hypertension (34.3%), diabetes mellitus (16.7%) and osteoporosis (11.8%). The reasons for visits were screening for cancer prevention (43.1%) and other cancer-related health problems (54.0%). Their expectations to clinic were cancer screening (76.5%), other disease management (35.3%), lifestyle counseling (28.4%), consistent health management by a family doctor (28.4%) and counselling about cancer-related stress, depression and sexual dysfunction (8.8%).

Conclusion: Cancer patients, cancer survivors and their family members have various healthcare needs. Family doctors should take an important role as a concept of "A shared cared model" when managing them. Therefore, there is a need for the primary physicians to understand the cancer care trajectory for continuous health promotion.

Keywords: cancer patients, cancer survivors, primary care

PP011

The Clinical Meaning of Elevated CA 19-9 and Survival Rate in Male Healthy Screenees

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Introduction: Carbohydrate antigen 19-9 (CA 19-9), not recommended as a screening test for cancer, has been used for health screening in Korea recently. This study aimed to determine the causes and related factors of elevated CA 19-9 in male healthy screenees and to elucidate the effects on the long-term survival rate.

Methods: Among a total of 31,069 male healthy screenees, 306 had CA 19-9 levels above >34 U/mL. A retrospective observational study was conducted using medical records of these subjects. Until death or last follow-up visit, the mean follow-up duration was 44.05±46.11 months. The causes of elevated CA 19-9 levels and survival rates of those followed up for longer than 3 years were analysed.

Results: Among the 306 subjects enrolled, 31 (10%) were diagnosed with malignancies, such as gastric cancer (n=9), pancreatic cancer (n=5), hepatocellular carcinoma (n=4) and lung cancer (n=4). 68 (22%) subjects were diagnosed with chronic liver diseases, 52 (17%) with lung diseases and there were 150 (49%) cases in the unknown cause group for which authors could not explain the reasons with imaging studies. For the unknown cause group, as the repeated CA 19-9 level became lower, the paired fasting glucose, triglyceride and liver function levels also became lower. The 3-year survival rate of each groups were CA 19 <90 U/mL and non-cancer group (91.6%), ≥90 U/mL and non-cancer group (66.7%), <90 U/mL and cancer group (38.5%), ≥90 U/mL and cancer group (0%) in descending order.

Conclusion: The causes of elevated CA 19-9 levels include malignancy, chronic liver disease, pulmonary disease, newly diagnosed diabetes mellitus, severe hepatic dysfunction and high triglyceridaemia. A high CA 19-9 level is related to a high mortality rate.

Keywords: carbohydrate antigen 19-9, cancer screening tests, survival rate, liver function tests, triglycerides, diabetes mellitus

PP012

Immunotherapy in Cancer

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Cancer immunotherapy is enhancing the human body's immune system to overcome cancer. The premise is that it can be achieved by stimulating the patient's own immune system to attack naturally the malignant tumour cells that are responsible. Autologous (meaning self) cell-based immunotherapy is a new modality of cancer treatment. This involves extracting from a cancer patient approximately 60 mL of blood from which immune cells, such as the natural killer cells and cytotoxic T lymphocytes, are separated and treated in vivo with certain cytokines such as interleukins, while being isolated, enriched, activated and then transfused back into the patient to fight against cancer. Autologous immune enhancement therapy (AIET) is the abovementioned treatment method in which whole blood is

extracted from the patient's body, the immune cells are separated and cultured, activated until their resistance to cancer is strengthened and then transfused back into the body. They are effective against almost all types of cancer. Researchers have found that these cells mainly target the cancer cells and not the healthy cells unlike in chemo- and radiotherapy where the healthy cells are also destroyed. Chemotherapy has profound toxic side effects and has limitations in efficacy. Radiotherapy is an effective mode of treatment in only certain types of cancer. This procedure can be accomplished in any general practice setting by well-trained family medicine physicians, hence its potential for widespread application.

I wish to share my experience of using this technology, which has been used in Japan since 1990 (Malaysia since 2009) on my own patients, over the past 1+ years, all in the fourth stage, regarded as terminal but have responded to this treatment in my clinic.

Cancer immunotherapy is enhancing the human body's own immune system to overcome cancer. The premise is that this can be achieved by increasing the patient's immunity to attack the metastatic malignant tumor cells naturally.

Autologous (meaning 'self') cell-based immunotherapy is a new modality of cancer treatment. This involves extracting from a cancer patient approximately 60 ml of blood from which immune cells, such as the natural Killer cells and Cytotoxic T lymphocytes are separated out from the serum and treated in vitro with certain interleukins. After isolation and enrichment these two types of cells are massively expanded in numbers, activated by cytokines and then transfused back into the patient to fight the cancer colonies wherever they are in the body.

Autologous immune enhancement therapy (AIET) is the above-mentioned treatment method in which whole blood is extracted from the patient's body, the immune cells are separated and cultured, activated until their resistance to cancer is strengthened and then transfused back into the body. They are effective against almost all types of cancer.

Researchers have found that these cells target only the cancer cells and not the healthy cells unlike in chemo- and radiotherapy where the healthy cells are also destroyed.

Chemotherapy has profound debilitating toxic side effects and has limitations in efficacy rapidly producing chemo-resistance.

Radiotherapy is an effective mode of treatment in only certain types of cancer and radiation itself is carcinogenic to human organs.

This procedure can be accomplished in any general practice setting by well-trained family medicine physicians, hence its potential for widespread application. This Poster shares the experience of using this Nobel prize winning innovative technology, (used in Japan since 1990 and in Malaysia since 2009) on local patients, over the past few years, all considered terminal end - 4th stage who have responded significantly to this modality in a General Practice setting.

PP013

Lifestyle Cardiovascular Risks: Prevalence and Association With Cardiovascular Risk Screening Among Apparently Healthy Government Servants in Kuala Terengganu, Malaysia

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Introduction: Cardiovascular disease is the leading cause of death and disability among men and women in nearly all nations, including Malaysia. Lifestyle cardiovascular risks such as dietary habits, physical inactivity and smoking are considered fundamental risk factors for

cardiovascular disease. Thus, it is imperative to address the issue of lifestyle cardiovascular risks in patients and promote cardiovascular risk screening as secondary prevention for the disease. However, adherence to recommended clinical preventive services is found to be under desirable levels in the higher risk group of certain populations. Thus, besides determining the prevalence of lifestyle risks, this cross-sectional study was done to determine the association between lifestyle cardiovascular risks and cardiovascular screening activities in government servants in Wisma Persekutuan, Kuala Terengganu, Malaysia, from May to July 2013.

Methods: A questionnaire consisting of a case report form, International Physical Activity Questionnaire (IPAQ) and the dietary component of WHO STEPs were used as tools. Cardiovascular screening practices such as blood pressure, blood glucose, serum lipids and BMI screening were done for each subject. 110 questionnaires were analysed.

Results: The prevalence of smoking, physical inactivity and unhealthy diet were 20%, 50% and 87%, respectively. The prevalence of optimal screening of risk factors according to age was 49%. There was a significant association between clustering of lifestyle cardiovascular risks and non-optimal screening of subjects ($p=0.004$). Other significant factors associated with non-optimal screening were female gender, younger age and longer lapse of time from the last visit to the medical practitioner.

Conclusion: Further approaches should be identified for synergistic action of public health and primary care to promote healthy lifestyle behaviours and emphasis should be given at the primary care level to screen those with multiple lifestyle cardiovascular risks to optimise cardiovascular disease prevention.

Keywords: cardiovascular disease, lifestyle cardiovascular risks, cardiovascular risk screening, IPAQ, WHO STEPs

PP014

Prevalence of Lifestyle Cardiovascular Risks and Factors Associated With Non-Optimal Cardiovascular Screening in Apparently Healthy Government Servants in Kuala Terengganu, Malaysia

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Introduction: Cardiovascular disease is the leading cause of death and disability among men and women in nearly all nations, including Malaysia. Lifestyle cardiovascular risks such as dietary habits, physical inactivity and smoking are considered fundamental risk factors for cardiovascular disease. The study objectives are to determine the prevalence of lifestyle cardiovascular risks and factors associated with non-optimal cardiovascular screening activities among government servants in Kuala Terengganu, Malaysia.

Methods: This was a cross-sectional study conducted between June and September 2013. International Physical Activity Questionnaire (IPAQ), a self-administered questionnaire consisting of demographic data and smoking status, and the dietary component of WHO STEPs were used as tools. The questionnaires were distributed to 121 government servants aged ≥ 20 years without any established cardiovascular disease. Cardiovascular screening for a history of blood pressure, blood glucose, serum lipids and BMI measurement were done for each participant.

Results: The study response rate of 90.9% (110 of 121). The prevalence of smoking, physical inactivity and unhealthy diet were 20%, 50% and 87%, respectively. The prevalence of optimal cardiovascular screening for age was 49%. Significant factors associated with non-

optimal screening were female gender, age and duration of last visit to a medical practitioner.

Conclusion: A more effective approach should be identified for synergistic action between public health and primary care providers to promote healthy lifestyle behaviours. Screening individuals with multiple lifestyle cardiovascular risks should be emphasised at the primary care level to optimise cardiovascular disease prevention.

Keywords: dietary habits, physical inactivity, smoking, cardiovascular risk

PP015

Socio-Demographic and Injury Profiles Among Brain-Injured Children in the North East Coast of Peninsular Malaysia

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Introduction: Traumatic brain injury leads to a significant degree of temporary or permanent impairment that can cause partial or total functional disability including psychosocial maladjustment. Hospital Universiti Sains Malaysia is the only referral centre for all traumatic brain injury cases in this region. The objective of this study is to describe the socio-demographic and injury profiles among brain-injured children in the North East Coast of Peninsular Malaysia.

Methods: This is a cross-sectional study involving 208 children, below 18 years of age, with alleged traumatic brain injury from April 2010 to March 2011. A set of guided questionnaires was used to obtain the socio-demographic profiles from the caregivers. The medical records were reviewed for injury profiles. A descriptive analysis was carried out using SPSS 18.0.

Results: The age of the children ranged between 1 month and 17 years [median=13.0 (7.00) years]; 71.6% were male patients. The median number of household members was 6.0 (3.00). The income per capita was RM 106.6 (120.00). About 22% sustained severe injuries with a Glasgow Coma Scale of less than 8; 79.3% had a good outcome with a Glasgow Outcome Scale of 5; 56.7% were involved in motorbike accidents, and other modes of injury included pedestrian (17.3%) and car accidents (6.7%). The mean (SD) age of the caregivers was 44.4 (8.76) years with more than half of the caregivers being unemployed (51.0%). The elementary occupation constituted 37.0% of those employed. Among the caregivers, 61.5% had received secondary education.

Conclusion: Majority of traumatic brain-injured children were early adolescent boys who sustained motorbike accidents. They also belonged to poor financial background families and lived in an extended family structure. Although most of the caregivers received secondary occupation, most of them were unemployed or having elementary occupations.

Keywords: socio-demographic, injury profile, children, traumatic brain injury

PP016

Exploring Parents' Perceptions and Attitudes Towards Child Restraints

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Introduction: Child restraints have been shown to prevent injury and death in child passengers. In Malaysia, there is no legislation enforcing child restraints. Little effort has been made to study child passenger safety and the use of restraints locally. This study aimed to explore parents' perceptions and experiences towards the use of child restraints.

Methods: This qualitative study involved parents with young children. Parents were identified through purposive sampling in a day-care centre and a pre-school. Data were collected through audio-recorded focus group discussions and in-depth interviews. Thematic analysis was done based on Fishbein's integrative model of behaviour change. The five main domains were attitude and beliefs, perceived norms, self-efficacy, environmental factors and skills and ability to use child restraints.

Results: There were mixed perceptions and attitudes among parents towards the use of child restraints. Positive self-efficacy and early training of children to comply with restraints facilitated child restraint use. Bad experiences that resulted from non-use of child restraints and positive spouse influence had contributed to prolonged use. There was a perception of invulnerability or an unlikelihood that accidents could happen when parents travel with children unrestrained. Some believed the children were safer held than restrained. Parents valued their children's comfort over safety. Generally, parents felt that they lack knowledge regarding child restraints. Parents viewed that legislation was not the best method to improve child restraint use in Malaysia, mainly due to socioeconomic background and the perceived size of a family.

Conclusion: Parents' perception of invulnerability hinders use and compliance to child restraints. They perceived child restraints necessary when there is a need to transport young children alone. Parents regard their children's comfort important during travelling, which precedes restraining for safety. Parents viewed that there was a lack of responsible bodies that addressed education and provided information regarding child restraints.

Keywords: child restraints, injury prevention, child health

PP017

"Kid Doctors": A Communication-Provoking Project With the Public

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Introduction: Public recognition of family medicine is low in Japan compared with other countries. In order to make the public better understand the role of family physicians, we created a participatory learning programme for children named "Kid Doctors".

Methods: We initiated the programme in 2009 in Iwaki city, Fukushima prefecture, Japan. Every year we invited about 30 primary school children through open recruitment. This study included 158 children (71 boys and 87 girls). They visited our clinic to be "doctors for a day" during the summer vacation. They dress up in white coats, learn how to perform physical examinations, and use an AED, as well as other BLS techniques. They also simulate seeing adult patients portrayed by our staff, and complete medical records that are submitted for their school assignments. Later they are asked to evaluate their performance and experience of the programme by filling out a questionnaire, as their parents and grandparents do.

Results: 98.1% of the children answered that the experience was “fun and exciting”. Some of the children stated that the experience inspired them to be doctors in the future. The parents’ responses were also positive.

Conclusion: This programme has become a very popular event in Iwaki city. Through this programme the public could understand what family physicians do and it also helped to improve communication between healthcare professionals and the public.

Keywords: communication, community, public, education

PP018

Infant Weaning Practices in a Fast-Paced Society: A Qualitative Study

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Introduction: Infant weaning is a critical period in infant development affecting later feeding patterns and overall health. Literature has reported inappropriate infant weaning practices in many countries. This study explored the current weaning practices in Singapore, providing insight into the appropriateness and safety of such practices.

Methods: This study employed focus group discussions (FGDs) and in-depth interviews (IDIs) to collect qualitative data from mothers from nine polyclinics in Singapore. The investigators used a topic guide to facilitate discussion among mothers on their weaning practices for their infants aged 3 months to 1 year. The interviews were audiotaped, transcribed and analysed to identify emergent themes.

Results: 30 mothers (17 Chinese, 8 Malays and 5 Indians) were recruited in 3 FGDs and 17 interviews. They were mostly in their 30s, educated and worked full time. Most mothers adhered to recommended weaning practices such as weaning at 6 months and commencement of appropriate type, consistency and amount of food. Inappropriate weaning practices included shorter than recommended interval between new foods and use of seasonings in infant food.

A common theme was that mothers generally preferred home cooked infant food over those commercially prepared. However, they also highlighted the need for convenient and time-saving methods of food preparation using appliances such as combined steamer–blender. Mothers also reported preparing infant food in large batches and freezing for later use, although they had mixed opinions about the quality and nutrient retention of frozen food.

Conclusion: In contrast with earlier research, weaning age and most other weaning practices in this study were concordant with recommendations. Convenience in home food preparation was of importance, reflecting the needs of busy working mothers. Further research is needed to review the safety of freezing baby food. Guidelines and programmes for weaning diet should be updated and enhanced in tandem with new practices.

Keywords: infant weaning diet, appropriate weaning practices, convenient infant food preparation, freezing baby food

PP019

Under 5 deaths in Batu Pahat District Over 5 Years

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Introduction: The millennium development goal (MDG) 4 target for child mortality is to reduce the rate by two-third between 1990 (17%) and 2015 (5.6%). However, the death of below five has been static for the past 5 years (7%). The objective of this study is to determine the socio-demographic characteristics and causes of ‘Under 5 Deaths’ based on ICD 10 (modified) from 2008 to 2012 in Batu Pahat district.

Methods: This is a cross-sectional, retrospective study by analysing secondary data from Maternal Child Health record office using SPSS 15.0.

Results: Deaths among boys were slightly higher than girls (53.5% vs. 44.8%); majority were Malays (78.5%) followed by Chinese (18%) and then by Indians (2.3%). 51.1% of total deaths over 5 years were contributed by early neonatal death, followed by toddlers’ death (20.9%). The main causes of deaths are conditions originating from perinatal period (44.4%) and congenital malformation (40%) in early neonatal period. Common causes of toddlers’ death are certain infectious and parasite infection (22%), diseases of respiratory system (19.4%) and injuries, poisoning and external causes (16.6%).

Conclusion: Improvement in antenatal care is crucial to reduce the incidence of early neonatal death. Knowledge of disease transmission, home safety and the importance basic life support should be strengthened to both parents and health staffs to reduce infant and toddler death rate in order to achieve the MDG 4.

Keywords: under 5, deaths, to reduce.

PP020

Effects of Hepatitis B Immunisation in Newborn Infants of Mothers Positive for Hepatitis B Surface Antigen: A Macau Experience

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Introduction: Most hepatitis B (HBV) infection occurs in early life and the risk of chronic infection is highest in infants. HBV vaccination is the most effective measure to prevent the infection and its consequences. Macau was used to be hyper-endemic for HBV infection before the universal HBV vaccination for infants in 1989. The infants of hepatitis B surface antigen (HBsAg) positive mothers, being at a higher risk of infection, are also given hepatitis B immunoglobulin (HBIG) immediately after birth. A Follow-up Guideline was launched by the Health Bureau of Macau in 2007 to test the HBsAg and hepatitis B surface antibodies (anti-HBs) of these infants 9–15 months after birth. The infants without protective anti-HB titre will be given a booster vaccination. This study evaluated the efficacy of the HBV vaccine plus HBIG and the compliance with the 2007 Follow-up Guideline.

Methods: A retrospective study was conducted by reviewing the computerised medical records of the infants born between 01/01/2007 and 31/12/2010 in Macau, whose mothers were HBsAg positive. The seropositive rates for HBsAg and anti-HBs after primary and booster vaccinations were evaluated, respectively.

Results: There were 1018 infants born within the study period. The

seropositive rates for HBsAg and anti-HBs were 1.6% and 90%, respectively, in those after the primary HBV vaccination. Anti-HBs were not detectable in 8.4% but 93% of them presented high levels of anti-HBs after the booster vaccination. The final protective rate was 92.7%.

Conclusion: This study demonstrates the tremendous effect of the primary and booster HBV vaccines on HBV infection in Macau infants. Routine tests for HBV seromarkers after primary vaccination in high-risk infants increase the protective rate and identify the infected infant for future management.

Keywords: hepatitis B, immunisation, newborn infants, Macau

PP021

Management of Osteoporosis: A Pilot Study in a Primary Care Clinic in Hong Kong

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Introduction: A tertiary primary care (TPC) clinic was set up in 2010 in the Department of Family Medicine & GOPC in Hong Kong for the management of osteoporosis patients,

Methods: This was a retrospective case series study. Osteoporosis patients who were followed up at the TPC clinic from 1/7/2011 to 30/06/2013 receiving Fosamax 70 mg once per week with calcium supplement and had baseline DEXA and at least one post-treatment DEXA reports were recruited. Osteopenia cases, osteoporosis patients with a history of osteoporotic fracture, cases receiving other treatment or cases without FU DEXA scan were excluded. The changes in lumbar and femur T-score before and after the treatment were compared.

Results: 169 cases were identified from the TPC osteoporosis registry. Among them, 74 cases were excluded. The remaining 95 cases fulfilling the inclusion criteria were recruited into data analysis. Most of the patients were female (87, 91.6%), non-smoker (89, 93.7%) and non-drinker (92, 96.8%). Their mean age was 63.95±8.97 years. Most of them were of normal body weight (BMI 22.2±3.13 kg/m²) and 41 cases (43.2%) had a positive family history of osteoporosis. Their pretreatment blood haemoglobin, calcium, phosphate, ALP and creatinine levels were normal. Significant improvement in bone mass density was found after bisphosphonate treatment. For the lumbar spine DEXA analysis, maximum improvement was found after 2 years of bisphosphonate treatment (pre-treatment T score: 3.0±0.69, post-treatment: 2.18±0.78; p<0.001). For the total femur DEXA analysis, maximum improvement was found after 3 years of treatment (pre-treatment T score: 2.41±0.78, post-treatment: 1.76±1.02; p=0.02). Two cases developed osteoporotic fracture during the study period.

Conclusion: Family physicians could provide effective, comprehensive care to osteoporosis patients managed in the primary care setting. Combined bisphosphonate and calcium supplement treatment improved the DEXA score of lumbar spine and femur after 1 to 3 years of treatment.

Keywords: osteoporosis, primary care, management

PP022

Relaxation Therapy in Patients With Knee Osteoarthritis

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Introduction: Osteoarthritis is the most common arthritis found in the elderly. Despite the usage of pharmacotherapy in managing this disease, psychological therapy such as guided imagery relaxation (GIR) has been shown to reduce stress and pain in various types of chronic diseases.

Methods: A randomised controlled trial with two-arm parallel comparative study for relaxation therapy versus control among patients with knee osteoarthritis was carried out to study its efficacy in improving pain, symptoms and physical function. A total of 60 patients with knee osteoarthritis were recruited for this study. Knee injury and osteoarthritis outcome score was used to measure pain, symptoms, sports and recreation, activity of daily living and health-related quality-of-life scores among these patients. Analgesic consumption was calculated throughout the intervention period to observe the difference between the intervention and the control groups. The treatment consisted of listening to 12-minute MP3 recording with pre-recorded GIR therapy. ANCOVA test was used to compare the score differences between the intervention and the control groups after the intervention.

Results: A total of 60 patients enrolled into the study; however, only 59 patients completed the study (98.3%). The mean age of the patients was 52.2 (7.08) years. There was a significant improvement in pain (p<0.004), activity of daily living (p<0.02), sport score (p<0.005) and quality-of-life score (p<0.01) in the intervention group compared with the control group.

Conclusion: GIR therapy has shown positive effects in managing patients with knee osteoarthritis. This intervention has significantly reduced pain, improved activity of daily living and also health-related quality of life. These results further justify the investigations of GIR therapy as self-management in patients with knee osteoarthritis.

Keywords: osteoarthritis, guided imagery, relaxation therapy

PP023

Rheumatology Shared Care Programme Is a Safe and Sustainable Model in Managing Patients With Rheumatoid Arthritis

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Introduction: Rheumatoid arthritis (RA) is a chronic inflammatory disorder that can lead to significant morbidities. Current management guidelines emphasise early diagnosis and use of disease-modifying anti-rheumatic drugs (DMARDs) to induce remission or low disease activity. Family physicians can play an important role in management and monitoring. The Division of Rheumatology of the United Christian Hospital has established the largest Rheumatology Shared Care Programme (RSCP) in Hong Kong in collaboration with the Department of Family Medicine and Primary Health Care (FM&PHC). This study evaluates the effectiveness and safety of the programme in RA patients.

Methods: All RA patients under the RSCP in November 2011 were recruited and evaluated until the end of October 2013 or the date they exited the programme. Patient demographics, disease control, follow-up duration and medication use were recorded. Disease control was assessed by the number of flares that required adjustment of DMARDs. The latest C-reactive protein (CRP) result was used as a surrogate marker of ongoing inflammation.

Results: There were 149 RA patients under the RSCP. The female-to-

male ratio was 3.4:1 and the mean age of the patients was 59.6 years. The mean follow-up duration under the RSCP was 2.3 years. Patients were taking the following DMARDs: methotrexate (96, 64.4%), sulphasalazine (68, 45.6%), hydroxychloroquine (19, 12.8%), low-dose prednisolone (19, 12.8%) and combination DMARDs (35, 23.5%). Patients on average had 5.7 clinic visits in FM&PHC and 2.5 clinic visits in the rheumatology clinic within the study period. 88 (59.5%) patients had CRP <3 mg/L at the last follow up. A total of 81 flares developed in 51 patients, representing a rate of 0.2 flare per patient-year of follow up. Majority (139, 94.0%) of patients remained in the RSCP at study end. **Conclusion:** Shared care by family physicians and rheumatologists is a safe and sustainable model to manage patients with RA.

PP024

Knowledge, Attitude and Practice of Noise-Induced Hearing Loss Among Automobile Industry Workers

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Introduction: The prevalence of occupational noise-induced hearing loss shows a pronounced upward trend worldwide. It has doubled over the past decade. The aim of this study was to determine knowledge, attitude and practice of noise-induced hearing loss among automobile industry workers.

Methods: A cross-sectional study was conducted in an automobile industry. The minimum sample size required was 10. Universal sampling was adopted. A total of 203 workers participated in the study. Questionnaires were distributed to the workers to extract information regarding socio-demographics, knowledge, attitude (behaviour, feeling and judgment) and practice in relation to noise-induced hearing loss. The disseminated questionnaires were collected on the same day. A total of 39 participants took part in test-retest reliability, whereas 116 subjects participated in evaluation of internal consistency reliability and factor analysis of the questionnaire.

Results: The mean percentage scores of knowledge, behaviour, feeling, judgment and practice were 36.3 (25.64), 74.1 (16.85), 73.9 (16.29), 77.0 (15.46) and 64.8 (18.47), respectively. Acceptable internal consistencies were obtained; Cronbach's alpha values were 0.879, 0.723, 0.747 and 0.737 for the knowledge, behaviour, feeling and judgment domains, respectively, and internal consistencies for the practice domain was 0.849. Exploratory factor analysis was performed with acceptable Kaiser-Meyer-Olkin measures; 0.879 for the knowledge domain whereas 0.500, 0.525 and 0.601 for behaviour, feeling and judgment, respectively, and 0.791 for the practice domain.

Conclusion: The knowledge scores of the workers were poor. The prevalence of noise-induced hearing loss was also high due to poor practice among them towards preventing this occupational malady. This study recommends a more regular health education programme than the current 2-yearly programme recommended by Factories and Machinery (Noise Exposure) Regulations, 1989.

Keywords: hearing loss, noise-induced, knowledge, attitude, practice, noise

PP025

Enhancing the Management of Hypertension by Family Physician Led Hypertension Clinics in a Public Primary Care Setting in Hong Kong

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Introduction: As part of the Risk Assessment and Management Programme–Hypertension (RAMP-HT), family physician led RAMP-HT clinics were set up in the general outpatient clinics of Kowloon East Cluster (KEC) in October 2011. The clinics receive patients who are traditionally referred to medical outpatient departments (MOPDs), including those with suspected white-coat or refractory HT. After detailed assessments by family medicine specialists and HT nurses, patients are offered a tailor-made multi-disciplinary management plan encompassing patient education and empowerment, medication adjustment, investigations to exclude secondary causes and ambulatory blood pressure monitoring (ABPM).

Methods: The study evaluated the outcomes of all patients who attended RAMP-HT clinics in KEC from November 2011 to December 2012. A before–after study design was employed to study the effects on the clinical outcomes. Relevant clinical data retrieved from the Hospital Authority database were analysed.

Results: The clinics served 911 patients. The mean age was 65 years and 62.7% of patients were female. Their cardiovascular disease (CVD) risk levels as assessed by the Joint British Societies (JBS) CVD risk calculator were low (15.4%), medium (34.4%) and high (50.2%), respectively. Most patients (69.8%) were referred for suspected white-coat HT and 23.7% and 6.5% were referred for refractory HT and suboptimal BP control, respectively. 282 patients (31.0%) received ABPM, with 66.8% diagnosed to have HT with a white-coat component and 3.4% confirmed to have white-coat HT. The clinics discharged 420 (46.1%) patients after an average of 2.2 visits. The mean systolic and diastolic BP have been reduced by 20.1 mmHg and 8.3 mmHg, respectively ($p < 0.001$). A higher proportion of patients (increase from 5.2% to 43.5%) can attain the BP targets on discharge ($p < 0.001$). Only 15 (1.6%) patients were referred to MOPDs for further management.

Conclusion: RAMP-HT clinics have successfully managed hypertensive patients with uncontrolled BP and reduced secondary referrals.

Keywords: hypertension, family practice, Hong Kong, blood pressure monitoring, ambulatory

PP026

Doctors' Approach to Decision Support in Counselling Patients With Prostate Cancer

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Introduction: Prostate cancer is common in men and its treatment varies according to the disease stage as well as patients' preference. In Malaysia, doctors are usually the key people in helping patients to make decision on treatment options. This study aims to explore how doctors support patients in making decisions about prostate cancer treatment.

Methods: Four in-depth interviews and three focus group discussions were conducted with healthcare professionals from government (6 urologists, 5 urology trainees, 1 policymaker and 3 oncologists) and private hospitals (4 urologists) in Malaysia between December 2012 and March 2013. There were 16 male and 3 female participants. A semi-structured interview guide was used to guide the interviews. The interviews were audio-recorded, transcribed verbatim and used as data for thematic analysis.

Results: Doctors facilitated the treatment decision by explaining about the disease and the treatment options, which included monitoring, side effects and complications of the procedures. Paper-based (charts and diagram drawings) or electronic (ipad apps and websites) illustrations and models were used as patient education aids. Reading materials from the Internet and books were often provided to patients. Moreover, assessing patients' emotion and establishing a trusting relationship with patients were perceived as important in decision support. Patients were given time to decide on the treatment and family involvement was encouraged. Referral to other healthcare professionals (oncologist, radiotherapist or other urologist) for second opinion was offered to patients. The doctors would recommend patients to speak to prostate cancer survivors for peer support but official support groups were not easily accessible.

Conclusion: Doctors used a comprehensive range of strategies to support patients in making decisions on prostate cancer treatment. Patients' emotional, physical and social needs were considered during the counselling process.

Keywords: prostate cancer, decision making, doctors' approach

PP027

Case Study of a Young Mother With Endometrial Hyperplasia Scheduled for Hysterectomy: Basis for the Development of a Decision Support Tool for Its Management

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Introduction: Medical decision-making is getting increasingly complex with the rapidly expanding medical literature. With increasing focus on patient-centric care, doctors today have to reconcile between evidence-based practices and their patients' preferences to reach a mutually agreed shared decision. This case study aims to illustrate the issues revolving around decision-making for a patient who has been advised to undergo a radical surgery for a currently benign disease. This forms the basis for the development of a potential decision support tool to facilitate decision-making in the management of endometrial hyperplasia.

Methods: Mdm A is a 34-year-old mother of two young children who presented to her gynaecologist with polymenorrhoea. Both endometrial sampling and subsequent endometrial curettage showed simple and complex endometrial hyperplasia without atypia. Her gynaecologist informed that she had a 25% chance of developing endometrial cancer. She was treated with norethisterone (progestin) as interim therapy for endometrial hyperplasia. Mdm A was offered two treatment options: hysterectomy or endometrial surveillance once

in 6 months. She opted for hysterectomy and reported her decision to her family physician. A medical literature search was conducted on the management of simple and complex endometrial hyperplasia, with and without atypia, and these findings were collected to form a decision support tool.

Results: A preliminary algorithm guided by Ottawa Decision Support Framework was drawn. Clinical effectiveness of the various options for the management of endometrial hyperplasia and areas of gaps were presented to her, followed by mutual discussions on risks and benefits. Mdm A did not change her initial decision.

Conclusion: An Ottawa decision can be constructed in the future for patients with endometrial hyperplasia who need to decide whether to undergo hysterectomy or not. However, challenges remain due to gaps in medical literature.

Keywords: endometrial hyperplasia, hysterectomy, Ottawa decision aid, decision-making

PP028

Factors Influencing Decision-Making in Men With Early Prostate Cancer: Malaysian Healthcare Professionals' Perspectives

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Introduction: Men with early prostate cancer often face difficulty in making a treatment decision because there is no single best treatment option. In this study, healthcare professionals (HCPs) identified factors that influenced patient treatment decision-making in early prostate cancer.

Methods: We conducted four in-depth interviews and three focus group discussions with HCPs in Klang Valley, Malaysia, from 2012 to 2013. Urologists, urology trainees, oncologists and a policymaker (n=19) were interviewed. Trained researchers used a semi-structured interview guide to facilitate the interviews, which were audio-recorded, transcribed verbatim and checked. The transcripts were used as data, which were analysed using a thematic approach.

Results: The study identified five key themes that influenced patient decision-making: patient, HCP, social, system and disease factors. Patients' emotion played an important role; anxious patients preferred to get rid of the cancer by surgery, whereas those who were less concerned wanted to wait and see. Patients' awareness about prostate cancer treatment facilitated the decision-making process. Those who had lower health literacy would delay their decision and asked their doctors to make the decision for them. The HCPs recognised that their own treatment preference influenced patients' decision. Cost was another important consideration for patients seen at the private sector. Finally, when making the decision, patients considered the chance of cure and avoidance of side effects, such as incontinence.

Conclusion: The HCPs in this study highlighted multiple factors that influenced treatment decision-making in men with early prostate cancer. The HCPs should provide accurate and balanced information as well as identify and address patients' concerns and expectations in order to help them make an informed decision.

Keywords: prostate cancer, decision-making, Malaysia

PP029

Factors Influencing Patients' Decision in Managing Their Dyslipidaemia: A Qualitative StudyVHH Chan¹, YJ Chee², XY Tan³, CC Goh³, NC Tan⁴¹Pasir Ris Polyclinic, SingHealth Polyclinics, Singapore; ²Yong Loo Lin School of Medicine, National University of Singapore, Singapore; ³Pasir Ris Polyclinic, SingHealth Polyclinics, Singapore; ⁴Director, Department of Research, SingHealth Polyclinics, Singapore
vincent.chan.h.h@gmail.com**Introduction:** Dyslipidaemia is an important cardiovascular risk factor. Lifestyle and drug therapy have been shown to reduce dyslipidaemia but compliance to such treatment is often suboptimal due to patient factors. This study aimed to explore factors influencing patients' decision in managing their dyslipidaemia.**Methods:** The study, approved by the Institutional Review Board, used focus group discussions (FGDs) to gather qualitative data from adult patients who are currently being treated in primary care for dyslipidaemia, either alone or with other diseases. Those who satisfied the inclusion and exclusion criteria were invited by the investigators to participate in FGDs. 18 adult participants were recruited in four FGDs, after which ideas were saturated. The FGDs were audio-recorded, transcribed and coded using the NVivo (v9) software. Standard content analysis was performed separately by two independent investigators, who then deliberated the results to reach a consensus on the emergent themes.**Results:** Participants had adequate knowledge of the major complications of dyslipidaemia but lacked understanding of its basic etiology. They attributed dyslipidaemia to indiscriminate consumption of rich food and considered dietary control as their premier method of treatment. Participants considered exercise as the panacea to their disease but were not able to commit to exercise regularly. They could not discriminate between the types and amount of exercise that would be effective to reduce their lipids. While participants generally reported adherence to their lipid-lowering drugs, most perceived risks of adverse effects after long-term treatment with these medications. Participants reported variable treatment advices from different doctors. They were keen to obtain clear and concise information to guide them in their management plan.**Conclusion:** Participants' understanding and perception of the benefits and risks of dyslipidaemia and its treatment influenced their treatment plan. They desired clear information from their doctors to guide them in decision-making on their management.

PP031

Barriers to Ophthalmic Screening for Diabetic Patients in General Practice: A Malaysian PerspectiveNurdiana Abdullah¹, Sajaratulnisa Othman¹, Haireen Hadi¹, Moyez Jiwa², Nurliza Khaliddin³¹Department of Primary Care Medicine, University of Malaya Primary Care Research Group (UMPCRG), Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia; ²Curtin Health Innovation Research Institute, Faculty of Health Sciences, Curtin University, Perth, Western Australia; ³Department of Ophthalmology, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia
nurdiana@ummc.edu.my**Introduction:** Diabetic retinopathy is a known cause of preventable blindness in adults. As visual loss from diabetic retinopathy can be prevented by appropriate and timely treatment, early detection of

the condition is essential. Various guidelines recommend annual ophthalmic screening for those with type 2 diabetes mellitus. Research suggests that only 32.8% of diabetic patients in Malaysia had their eye examined in the past 1 year and there is a delay by general practitioners (GPs) in detecting diabetic retinopathy among their patients. The aim of this study is to explore barriers and facilitators to diabetic retinopathy screening among GPs.

Methods: Eleven GPs participated in focus group discussions to obtain the relevant factors that facilitate or hinder diabetic retinopathy screening. Clinical vignettes of various diabetic retinopathy presentations were used to prompt discussion. A structured summary of the discussion was circulated in a questionnaire format to a wider group of GPs to seek additional views or comments on specific factors that impact the practice of diabetic retinopathy screening in primary care settings in Malaysia.**Results:** Various factors at different levels influenced GPs' effort in screening diabetic retinopathy. These include limited access to the fundus camera, lack of confidence in identifying diabetic retinopathy using direct fundoscopy, direct and indirect costs involved with screening services, poor organisational support with priority towards other diabetic complications such as nephropathy, and inefficient referral process.**Conclusion:** GPs require support for diabetic retinopathy screening in view of the barriers faced. Screening for diabetic retinopathy can be facilitated through skills training, presence of a checklist and an alert system to enable timely screening, clinical support from improvement in specialist-GP network and providing incentives to acknowledge their effort.**Keywords:** diabetic retinopathy, general practitioners, screening, barriers

PP032

A 12-Week, Single-Arm, Open-Label Clinical Study to Evaluate the Influence of 'GlucosCare Herbal Tea' on Glycaemic Control in Patients With Type 2 Diabetes Mellitus Not Adequately Controlled With Oral Hypoglycaemic AgentsSiti Suhaila MY¹, Nani D¹, Faridah MZ¹, Wan Mohd Zahiruddin WM²¹Department of Family Medicine, Universiti Sains Malaysia, Kubang Kerian, Malaysia; ²Department of Community Medicine, Universiti Sains Malaysia, Kubang Kerian, Malaysia
alayusoff@gmail.com**Introduction:** GlucosCare Herbal Tea consists of the dried leaves of two plants, namely *Gymnema sylvestre* and *Camellia sinensis*. The tea has a glucose-like structure that blocks the attachment of glucose molecule to the intestinal sugar receptors, thus leading to a reduction in sugar absorption. The objectives of this study are to determine the effect of "GlucosCare Herbal Tea" on fasting blood sugar (FBS) and HbA1c levels in patients with type 2 diabetes mellitus not adequately controlled with oral hypoglycaemic agents (OHAs).**Methods:** This is a single-arm, open-label, clinical study conducted from February to August 2013, involving 67 participants. Subjects were patients with uncontrolled type 2 diabetes mellitus who were solely on OHA(s), and attended the Outpatient Clinic of Hospital Universiti Sains Malaysia. The tea was given three times per day for 3 months, with five scheduled monitoring visits. FBS was measured at every visit. HbA1c was measured pre-treatment and post-treatment. Patients were not allowed to change their medication doses as well as taking any other supplement.**Results:** A total of 64 patients participated until visit 5 with a mean age of 50.6 (SD 7.3) years. Majority of them were Malay (98.4%) and female (64.1%). The mean baseline HbA1c and FBS values were

8.7% (SD 0.90) and 9.3 mmol/L (SD 2.90), respectively. HbA1c at the end of the study was significantly reduced to 7.6% (SD 1.12), $p < 0.005$. The mean FBS difference for each visit was also statistically significant, especially during visits 4 and 5.

Conclusion: GlucosCare Herbal Tea has the potential to reduce HbA1c and FBS levels of patients on OHA(s) with uncontrolled type 2 diabetes mellitus.

Keywords: GlucosCare Herbal Tea, glycaemic control, type 2 diabetes mellitus

PP033

Barriers to Implementing Chronic Care Model in Type 2 Diabetes Management at Public Primary Care Setting: Perspectives of Primary Health Care Providers

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Introduction: The Chronic Care Model (CCM) is a widely accepted framework for chronic disease management. The essential elements in CCM that need to be incorporated in a changed health care delivery include overall health care organisation, delivery system redesign, decision support and clinical information systems, self-management support for patients and link to community resources. A pragmatic multifaceted chronic disease management trial (the EMPOWER-PAR study) adapting the CCM using existing resources in the public primary care clinics was conducted to assess the effectiveness of CCM. However, it is unknown how CCM would be perceived, adapted and implemented. Hence, this study aims to explore the barriers faced by public primary health care providers in implementing the CCM to manage patients with type 2 diabetes mellitus (T2DM) at their clinic settings.

Methods: Semi-structured qualitative focus group discussions were conducted with primary health care providers at public health clinics involved in the EMPOWER-PAR study. Twenty-nine primary health care providers involved in diabetes care participated in the study, consisting of primary care doctors (n=9), family medicine specialists (n=6), pharmacists (n=4), nurses (n=8) and medical assistants (n=3). A topic guide was used to facilitate the interviews that were audio-recorded, transcribed verbatim and analysed using a thematic approach.

Results: Three themes were identified as barriers: patients, staff and system factors. Health-seeking behaviour, patient empowerment and individuality were contributed by patient's factor, whereas knowledge and skills, perceived capabilities, beliefs about consequences, social influences and emotions were identified to be the main barriers faced by staffs. System factor that included policy setting, chronic disease set-up and budget were repeatedly mentioned.

Conclusion: The findings from this study highlighted specific barriers perceived by the public primary health care providers in implementing CCM in the management of T2DM. Effective strategy development in tailoring CCM to the local setting is crucial for successful implementation.

PP034

The Progression of Microalbuminuria or Proteinuria in Diabetic Patients

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Introduction: Microalbuminuria (MAU) or proteinuria is a risk factor for diabetic patients. The objective of this study is to identify the progression of MAU or proteinuria among diabetic patients.

Methods: Between March 2010 and February 2013, 3593 records were recruited in the Nantou Diabetes Shared Care Program. Albumin to creatinine ratio (ACR) of urine examination was recorded. The linear regression was used to analyse the progression of MAU/proteinuria.

Results: Only the first data during the 3-year period were preserved, whereas the data thereafter from the same people were abandoned. The patients without any data of ACR or duplication were also excluded. Six hundred and thirty two patients were enrolled in the final study. Microalbuminuria was found in 28.2% of patients and overt proteinuria was found in 7.6% of patients. The linear regression showed the disease progression from normoproteinuria to MAU or overt proteinuria was 1.38% per year. It was poor correlation between prevalence of MAU/proteinuria and duration after diagnosis ($R=0.19$).

Conclusion: Our study showed the disease progression from normoproteinuria to MAU/proteinuria was 1.38% per year. Early detection and prompt intervention may effectively decrease deterioration of renal function for diabetic patients.

PP035

Prescription Pattern of Lipid-Lowering Agents Among Type 2 Diabetes in an Urban Primary Healthcare Clinic

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Introduction: Coronary heart disease, cerebrovascular disease and peripheral vascular disease are the most frequent causes of morbidity and mortality in patients with type 2 diabetes mellitus (T2DM). A study states that 90.9% of diabetic patients in Malaysia have concomitant hypercholesterolaemia. Pharmacological treatment is concomitantly used with therapeutic lifestyle changes to achieve the recommended LDL-C goal according to the updated dyslipidaemia guidelines. This study shows the prescribing patterns of medications for dyslipidaemia in the health clinic setting.

Methods: A cross-sectional data collection done involving 600 patients' medical records was included within the 5-week study period. Inclusion criterion was medical records of T2DM patients with dyslipidaemia on pharmacological treatment who have been followed up at least twice in the past 1 year. Data analysis was done using SPSS version 16.0.

Results: The mean age of the study subjects was 59.55 ± 10.76 years. 377 (62.80%) females and 223 (37.20%) males participated. 266 (44.33%) participants were Malays, 209 (34.83%) were Chinese and 125 (20.83%) were Indians. In the sampled population, 476 (79.30%) had hypertension, 31 (5.20%) had retinopathy, 16 (2.70%) had cardiovascular disease and 15 (2.50%) had nephropathy.

Conclusion: There was a marked shift in prescription of simvastatin during the patient's last follow-up appointment compared to lovastatin during initiation of therapy. This provides evidence that primary healthcare providers are abiding to the recommendations provided by the evidence-based guidelines.

Keywords: type 2 diabetes, dyslipidaemia, medications, primary care

PP036**Using LEAN Concept to Increase Efficiency Service in Diabetic Clinic, Public Health Centre****Saritsiri S***Board of Internal Medicine, Board of Preventive Medicine Epidemiology, Health Department, Bangkok Metropolitan Administration*

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Introduction: This was a descriptive survey study. The purpose of this study was to assess efficiency service in a diabetic clinic and to accommodate the service with increasing number of patients every year but with personnel constraints. LEAN concept is a process that reduces loss of time, resources, budget, personnel work and focuses on timely standards to reduce the risk of potential instability; checks for errors and finds the source quickly; and emphasises on quality of service, timelines, particularly by eliminating waste that occur in the work process and the giving importance to quality. The research tools were questionnaires to evaluate diabetes mellitus clinic by SWOT analysis, desires of personnel (Internal customer) and diabetic patients (External customer) and satisfaction of service from both the groups. Next a comparison was carried out between pre-LEAN and post-LEAN and the data were analysed by calculating the frequency, percentage, mean using an unpaired t-test.

Methods: The following steps were carried out: 1. SWOT analysis in a diabetic clinic. 2. To survey the internal and external customer desires. 3. To survey the satisfaction in service of a diabetic clinic (pre-LEAN), February 2012. 4. To use LEAN concept to manage the problems. 5. To survey the satisfaction in service of a diabetic clinic (post-LEAN), March 2013. 6. To assess the efficiency in service and compare the pre-LEAN and post-LEAN. 7. To share the conclusion of this study in other public health centres.

Results: After using LEAN concept, the efficiency in service has been increased to 32.6% (from 36.3% to 65.9%). The number of service points included eight procedures and were as follows: cue, search record, draw blood, screen, consult a doctor, counselling, finance and prescribe medicine. The service procedures decreased to 11.1% (from 27 to 24 steps), the average time of service decreased to 55.9% (from 141.2 to 62.2 minutes), the length of service reduced to 30.6% (from 111 to 77 meters), the satisfaction of diabetic patients in high to highest level increased by 8.5% (from 84.7% to 93.2%). The convenience of service was statistically significant with a p-value of.

Conclusion: This study suggests that the application of LEAN concept can increase efficiency service in diabetes clinic. The key success factor of this study is teamwork. The personnel can perform together by sharing the responsibility, monitoring and evaluating the services.

Keywords: LEAN concept, diabetes clinic, increase efficiency service

PP037**HbA1C As a Tool for Diagnosing Type 2 Diabetes Mellitus****Didi S Ramang,** Imam Subekti*Department of Internal Medicine, Faculty of Medicine Universitas Indonesia, Jakarta, Indonesia*

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Introduction: Diabetes mellitus is a chronic disease that has several complications if it is not treated properly. Therefore, early detection efforts and more accurate diagnosis of diabetes mellitus are needed.

Methods: A literature search was conducted through PubMed and Cochrane databases using various keywords, such as 'plasma glucose',

'HbA1C' and 'diabetes mellitus'. A number of articles were then screened by title/abstract. After screening the titles/abstracts and full-text reading, 7 full-text articles were obtained. For the selected articles, the seven critical appraisals were performed by using the criteria of the Oxford Centre for Evidence-Based Medicine, which include assessing validity, importance, and applicability.

Results: All of the 7 articles conclude that the value of HbA1c as a tool for diagnosing diabetes has high specificity. By setting the HbA1c cut-off value of 6.5%, the specificity obtained were 98% (Kim et al.), 99% (Ginde et al.), 99% (Rohfling et al.), 98% (Zemlin et al.), 100% (Greci et al.), 85% (Hajat et al.), and 98% (Bao et al.), respectively.

Conclusion: The use of a HbA1C cut-off value of 6.5% can be a tool to diagnose diabetes with a specificity of 85-100%.

Keywords: HbA1C, diabetes mellitus

PP038**Why Do Patients With Type 2 Diabetes Have Poor Glycaemic Control Despite Using Insulin? A Qualitative Exploration of Dietary Influences****Tong WT¹,** Shireene Vethakkan², Ng CJ¹¹*Department of Primary Care Medicine, Faculty of Medicine,**University of Malaya, Kuala Lumpur, Malaysia;*²*Department of Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia*

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Introduction: Patients with type 2 diabetes using insulin face challenges when trying to balance between optimising glycaemic control, avoiding hypoglycaemia and achieving a good quality of life. This study explored dietary factors influencing glycaemic control from the perspective of patients with insulin-requiring type 2 diabetes.

Methods: This was a qualitative study conducted at the Primary Care Clinic, University Malaya Medical Centre, Malaysia, in 2013. Individual interviews were conducted with 17 type 2 diabetes patients with chronic hyperglycaemia (HbA1c $\geq 9\%$ for >1 year) despite insulin use for more than 1 year. A trained researcher interviewed patients using an interview guide. The interviews were audio-recorded, transcribed verbatim and analysed using a thematic approach.

Results: Three main themes emerged from the analysis: personal, treatment and dietary advice factors. Among personal factors, patients often had difficulty in controlling their craving for food. This is particularly challenging in Malaysia where food is an important part of the culture. Some patients 'gave up' trying to control their diet after repeated failures to reduce their blood glucose level. Treatment factors, such as insulin-induced hypoglycaemia and barriers to self-monitoring blood glucose (SMBG), also influenced dietary control in these patients. Patients tended to overeat after experiencing hypoglycaemia, while some were unable to monitor their blood glucose level before or after a meal because they did not possess a meter or found it expensive to perform SMBG. Finally, patients found the dietary advice given by healthcare professionals too inflexible or ineffective in controlling their blood glucose level. Hence, they did not bother to control their diet resulting in poor glycaemic control.

Conclusion: This study provides insight into problems with dietary control that contribute to poor glycaemic control in insulin-requiring type 2 diabetes from the patient's perspective.

PP039

Cross-Sectional Evaluation of the Diabetes Risk Score to Identify Undetected Type 2 Diabetes in PT Jasamarga Employees

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Introduction: PT Jasamarga is the largest toll road operator company in Indonesia that conducts annual medical check-up for its employees throughout all branches in Indonesia. However, only few branches used the data to predict the risk of degenerative diseases especially type 2 diabetes (T2D) and the Belmera Branch is one of them. As we know, T2D not only has health impacts but also social and economic impacts for the company that has already invested much on the employees as future leaders of the company. The aim of this study was to estimate the risk of T2D and pre-diabetes in the employees.

Methods: This was a cross-sectional study conducted using the Finnish Diabetes Risk Assessment Form in November 2012. The laboratory results were based on PT Jasamarga medical check-up reports. There were 91 completed laboratory reports and questionnaires included in the study.

Results: The results of the fasting blood glucose showed that 13.2% (12) of employees had pre-diabetes and 12.1% (11) were developing diabetes. The Finnish total risk score showed that 60.4% of employees had a low score (meaning that estimated 1 in 100 will develop the disease in 10 years), 34.1% had a slightly elevated score (estimated 1 in 25 will develop the disease), 4.4% had a moderate score (estimated 1 in 6 will develop the disease), and 1.1% had a high score (estimated 1 in 3 will develop the disease).

Conclusion: PT Jasamarga need to develop prevention programmes that focus on lifestyle modification for its employees.

Keywords: type 2 diabetes, pre-diabetes, Finnish risk score

PP040

Accuracy of HbA1c for Diagnosing Diabetes Mellitus Among Hong Kong Chinese

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Introduction: Since 2010, HbA1c $\geq 6.5\%$ was recommended as a diagnostic criterion for the detection of diabetes mellitus (DM) by the American Diabetes Association (ADA). This new diagnostic criterion has quickly gained popularity among clinicians in Hong Kong for detecting DM among patients with impaired fasting glucose (IFG) in place of the 75-g oral glucose tolerance test (OGTT) for its convenience and stability, because HbA1c is not affected by fasting, acute stress or short-term lifestyle changes. However, its accuracy compared to the conventional plasma glucose tests remained controversial in the Chinese population. This study evaluated the accuracy of HbA1c by calculating its sensitivity and specificity for diagnosing DM among Hong Kong Chinese patients with IFG compared to the diagnosis by OGTT as the gold standard.

Methods: This was a cross-sectional study piloted in two public outpatient clinics in Hong Kong from 30 May to 30 September 2013.

Convenience sampling was employed. 238 non-diabetic Chinese adults with IFG (i.e., fasting blood glucose level between 5.6 and 6.9 mmol/L) who attended the two participating clinics within the study period were recruited to receive a paired 75-g OGTT and HbA1c test to determine their glycaemic status.

Results: An HbA1c cut-off of $\geq 6.5\%$ had a sensitivity of 22.9% and a specificity of 94.4% in predicting the presence of DM diagnosed by OGTT among Hong Kong Chinese adults who had IFG. The optimal cut-off threshold of HbA1c was 6.1%, with a sensitivity and specificity of 70.8% and 76.3%, respectively, and an area under the curve of 0.76.

Conclusion: Among Hong Kong Chinese adults who had IFG, HbA1c $\geq 6.5\%$ was highly specific for detecting undiagnosed DM, but its accuracy as a diagnostic test was sub-optimal because it missed 77.1% of the cases. An HbA1c threshold of $\geq 6.1\%$ might be more suitable than $\geq 6.5\%$ for predicting the presence of DM.

Keywords: accuracy, Chinese, diabetes mellitus, HbA1c, impaired fasting glucose

PP041

Longitudinal Study of Multi-Ethnic Asian Patients With Type 2 Diabetes Mellitus Managed in Primary Care: Would They Be Able to Achieve Their Glycaemic Control?

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Introduction: Maintaining normoglycaemia retards complications among type 2 diabetes mellitus (T2DM) patients but achieving it is challenging due to multifactorial influences. This study aims to determine the glycaemic control in T2DM patients who were managed in a Singapore public primary care polyclinic and to determine the factors associated with their glycaemic control.

Methods: Patients who met the enrolment criteria were enrolled from 2009 to 2010 in Pasir Ris Polyclinic, a study site within the Singapore Consortium of Cohort Studies (SCCS)-Diabetic Cohort. They were managed as per clinical practice in primary care without any intervention. Clinical data were collected retrospectively from their medical records since 2004. After describing the demographic and clinical variables for the cohort, univariate analyses were performed to test the association between the risk of deteriorating glycaemic control (defined as absolute 1% increase in HbA1c from year to year) and each variable. Next, multivariate models were generated to identify the independently associated variables. The Generalized Estimating Equation (GEE) was used to analyse HbA1c over time.

Results: A total of 1256 patients (54% Chinese, 25% Malays, 12% Indians and 9% others) were recruited. Overall glycaemia was controlled in the first 3 years of the study, but deteriorated thereafter. 12% of them had absolute 1% increase in HbA1c in the first year; 22% over 5 years. Those at risk of poorer glycaemic control after 2 years were younger and of Malay or Indian ethnic origin. Those treated with alpha-glucosidase inhibitors were independently associated with the risk of glycaemic deterioration (OR=1.89, $p=0.007$). HbA1c showed an average absolute decline of 0.04% over the years ($p=0.001$), independent of other factors. Patients treated with insulin were associated with higher HbA1c (1.13%, $p<0.001$).

Conclusion: Glycaemic control was maintained in majority of T2DM patients in primary care, but they required additional attention to their management after 3 years as control started to deteriorate.

PP042

Prevalence of Poor Diabetic Control and Its Associated Factors in Patients With Type 2 Diabetes Mellitus in Primary Care Clinics

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Diabetes is a common chronic disease. However, the glycaemic control in Type 2 diabetes has not been satisfactory from studies in some public centres in Malaysia and other countries. Studies have shown that associated factors of poor glycaemic control were age, ethnicity, duration of diabetes, occupation group, number of treatment patients were on and patients' perception of their diabetes control.

Objectives: To determine the prevalence of poor glycaemic control and its associated factors in patients with Type 2 Diabetes Mellitus in Primary Care Clinics.

Methods: This was a cross-sectional study done in 4 primary care clinics. Poor diabetes control is defined as a HbA1c level of $\geq 7\%$. The study was conducted using a self-developed structured questionnaire. Height and weight were measured and body mass index (BMI) was calculated. Blood samples for HbA1C were obtained if it was not done in the last 3 months. A pilot study was carried out.

Results: A total of 187 patients with Type 2 Diabetes Mellitus participated with a response rate 91.6%. Mean age was 49.87 ± 10.50 years, and mean duration of diabetes was 6.1 ± 5.7 years. Overall, 74.9% of patients with Type 2 diabetes had poor diabetic control. There was no significant difference between public and private clinics for control (76.6% from public clinic and 74% from private clinics had poor control).

Significant associated factors with glycaemic control were ethnicity (33.3 % Chinese, 73.9% Malay, 81.6% Indian had poor control, $p=0.013$), occupational group (blue collar 82.9%, white collar 65.1% had poor control, $p=0.048$), number of diabetic treatment received by patients (monotherapy 56.3%, combination therapy 88.8%, combination with insulin 95.7%, $p \leq 0.001$) and patients' perception on their glycaemic control ($p=0.002$). All who perceived themselves to have poor control had indeed poor glycaemic control. However, 116 (71%) who perceived themselves to have good and moderate control had poor glycaemic control. Age and duration of diabetes, setting (public vs private) were not found to be associated with glycaemic control. 23.5% of patients never had any HbA1c done before.

Conclusion: Nearly three quarters of patients with type 2 diabetes had poor glycaemic control. Ethnicity, occupation group and treatment regimes were associated with glycaemic control. Better practice has to be reinforced among the doctors.

Keywords: glycaemic control, type 2 diabetes mellitus, primary care, prevalence, associated factors

PP043

Management of Dyslipidaemia in Type 2 Diabetes Mellitus Patients in Public Primary Care Clinics: Is It in Accordance to the Guideline?

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Introduction: In Malaysia, cardiovascular (CV) disease is the leading cause of death in both men and women. The management of dyslipidaemia, a modifiable risk factor among patients with type 2 diabetes mellitus (T2DM), is pivotal in the multi-factorial approach to prevent CV events. The majority of T2DM patients in Malaysia have concomitant dyslipidaemia and achieving control has been proven to be a challenge. This study aims to evaluate the management of dyslipidaemia among T2DM patients in public primary care clinics.

Methods: All T2DM patients aged ≥ 18 years attending two public health clinics for follow-up were randomly selected. A questionnaire was used for data collection based on the recommendations in the Clinical Practice Guideline on the Management of Type 2 Diabetes Mellitus (4th Edition) May 2009, Ministry of Health Malaysia. Data were obtained from patients' medical records and laboratory results and were analysed using SPSS version 20.0.

Results: A total of 600 T2DM patients were included, that is, 300 from each clinic. There were 300 males and females, respectively, with a mean age of 58.9 ± 11.8 years. 42.7% of patients were Malays, 35.7% Chinese, 20.8% Indians and 0.8% were of other races.

Although 98% of patients had at least one component of lipid profile done, only 34% had complete lipid profile done (total cholesterol, LDL-C, HDL-C and triglycerides). 487 (81.2%) patients were on anti-lipid drug therapy and 89.9% were on statins as first-line therapy. Among all patients with T2DM, only 9.8% achieved the target total cholesterol, LDL-C, HDL-C and triglyceride levels, and 10.4% of those on anti-lipid drug therapy.

Conclusion: The management of dyslipidaemia among patients with T2DM in public healthcare clinics remains suboptimal. A comprehensive strategy is needed to ensure the availability of investigations and patients are treated according to the guideline to reduce CV events.

PP044

Awareness About Diet and Its Association With Dietary Self-Care Practice Among T2DM Patients in a Primary Care Clinic

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Introduction: Dietary self-care practice plays a crucial role in successful diabetes management and it is associated with the patients' awareness about the recommended diabetic diet. This study aimed to examine the association between the awareness about diabetic diet and practice of dietary self-care activities among type 2 diabetes mellitus (T2DM) patients attending Klinik Kesihatan Sungai Buloh, Gombak.

Methods: This cross-sectional study involved 360 T2DM patients

selected through systematic random sampling. The data were collected using a self-administered questionnaire assessing patients' awareness about diabetic diet and their dietary practice using the summary of diabetes self-care activities (SDSCA). The data were subsequently analysed using SPSS version 21.

Results: Most of the respondents were aware about general healthful eating plan (85%). Almost similar proportion of them (81.9%) knew about high fat food other than red meat and full-fat dairy products. However, only a half of them knew about carbohydrate spacing in a day. About four-fifths of those who were aware about healthful eating plan knew about high fat food (85.6%) and recommended serving of fruits and vegetables (77.1%), but a lower proportion of them knew about meaning of carbohydrate (70.3%), recommended quantity of high fat food (65.4%), and particularly carbohydrate spacing (59.2%). Surprisingly, two-thirds of those who were not aware about healthy eating plan admitted that they knew about high fat food. Awareness of the assessed specific diet was found to be significantly associated with practice of the related dietary self-care activities except for the association between the patients' awareness about high fat food and their intake of high fat food in a week ($p=0.02$).

Conclusion: In general, the respondents had reasonable awareness about diabetic diet. However, their knowledge about diabetic diet may be superficial and patchy, and education reinforcement is needed to improve their awareness especially on carbohydrate spacing. Furthermore, awareness of diabetic diet influences the respondents' practice of dietary self-care activities.

Keywords: type 2 diabetes mellitus, diet, awareness, self-care activities, primary care

PP045

Non-alcoholic Fatty Liver Disease and Diabetes Type 2 in Costa Rica

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Introduction: Non-alcoholic Fatty Liver Disease (NAFLD) is currently the most common cause of chronic liver disease and there is increasing evidence that it progresses to cirrhosis, liver failure and hepatocellular carcinoma. This condition is very common in diabetics. Nowadays, diabetes type 2 is a highly prevalent chronic disease in the Costa Rican population (10% in adults), generating a high negative impact on its health system. Therefore, it was considered important to determine its prevalence and steatohepatitis (NASH) in this specific population.

Methods: A representative sample of diabetic patients ($n=268$) of an urban health area at primary level was characterised with its socio-demographic profile, metabolic control and comorbidity. NAFLD was documented by a liver ultrasound, and liver enzymes were performed to diagnose NASH.

Results: The participants were characterised predominantly as females (66.5%) with a mean age of 65.4 years, low education and low and middle income. The prevalence of NAFLD was 72.3% and 14.1% for NASH. The prevalence also increased significantly with the degree of obesity.

Conclusion: In Costa Rica, there are no data on the prevalence of NAFLD. This study has revealed that there is a high prevalence of this disease as comorbidity in diabetic patients and its strong association with obesity. Intervention should be considered for prevention of obesity as a first step in addressing this entity as well as for type 2 diabetes mellitus (T2DM).

PP046

Participatory Action Research: A Trial of Multidisciplinary Preventive Intervention to Decrease Emergency Aeromedical Transfer of Elderly Patients

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Introduction: The participatory action research methodology is an effective tool in identifying and implementing risk reduction interventions. Aguni is a rural remote island with a population of 800 in Okinawa, Japan. There is only one medical office without hospitalisation facilities. Only one doctor and one nurse work there. Patients with serious acute illness have to be transported to the main island. 38 to 53 emergency cases were medically evacuated annually by helicopter from 2008 to 2011.

Methods: We hypothesised that emergency transport could be reduced by preventive measures and used the participatory action research methodology. Elderly people living alone or cared by an elderly caregiver were identified from the residence registry. Homecare workers visited them and assessed medical needs of the elderly every 1 to 3 weeks. A physician or a nurse visited them to encourage regular medical follow-up. We conducted a monthly multidisciplinary conference and launched an online system to share health information with the vulnerable elderly. If they needed social support, the village office, homecare helpers, care managers, nursing homes and daycare centres were involved.

Results: Compared to 2011 when 75% (38 out of 53 patients) of emergency medical evacuation was for the elderly, the proportion of elderly patients decreased to 61% (19 elderly patients out of total 31 transports) in 2012. While 22 out of 38 were either living alone or cared for by an elderly caregiver in 2011, there were only six such patients in 2012.

Conclusion: Multidisciplinary community intervention in community-dwelling elderly people is an effective way to prevent emergency aeromedical transport.

PP047

Effect of Ramadan Fasting on Emergency Walk-in-Clinics, Jordan

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Introduction: Increasing demands on health services have resulted in a number of innovations in delivering care. In November 2005, a unique new care model was started in the Emergency Department of Al-Bashir Hospital, the largest government hospital in Amman, Jordan. Family medicine physicians (specialists and residents) started working and are still working in newly added clinics to the Emergency Department, providing 24-hour primary care services to non-urgent patients; 'inappropriate attenders', on a non-appointment basis, with the aim of decreasing the pressure on the overburdened Emergency Department. The aim of the study was to evaluate the effect of fasting in the holy month of Ramadan on walk-in-clinics workload and pattern of patient attendance.

Methods: Reviewing emergency registration books in the Holy Month of Ramadan 2010, August 11 to September 9, 2010. A total

of 7770 patients were identified according to age, sex, main complaint and time of attendance.

Results: The total number of patients was 7770, of whom males were 4198 (54.02%) and females were 3572 (45.97%). The male to female ratio was 1.17:1. 1 to 5 years - 1951 (25.1%). 1 to 30 years - 5318 (68.44%). The main presenting complaint was upper respiratory tract infection in 1889 patients (24.3%), followed by acute simple gastroenteritis in 1313 patients (16.8%), abdominal pain in 726 patients (9.34%), skin problems in 456 patients (5.8%), renal problems like urinary tract infection and renal colic in 443 patients (5.7%) and sick leave in 224 patients (2.88%). 724 (9.3%) referred back to on call teams. Shift C (23:00–8:00) was the busiest - 3080 (39.6%).

Conclusion: Young patients with upper respiratory tract infections were the main attendees, similar to non-fasting months. Main patient attendance and workload was in shift C. Shift B is the busiest in non-fasting months.

Keywords: emergency department, family medicine

PP048

Presentation, Prescription Pattern and Time Taken to Discharge From an Emergency Department of Eastern Nepal

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Introduction: It is a great challenge for a doctor to provide proper care and discharge because of overcrowding in emergency ward specially south Asian countries like ours. The clinical records in emergency are essential document that reflect the quality of care which is given to the patient.

Methods: A retrospective descriptive hospital based study was carried out on all emergency discharged patients' case sheet record from Medical Record Department of B P Koirala Institute of Health Sciences (BPKIHS) Dharan Nepal from 14th April to 14th May 2013.

Results: Out of 1022 discharge file, mean age was 34.56 (SD 23.36) with range of 003–99.00. Predominant age group is 20–70 years, which is approximately 72%. Females were 429 (42%) and male were 593 (58%). Australian triage score (ATS) analysis was done and found that maximum patients were included in ATS 3 (72%) and ATS 4 (17.9%) is approximately 90%. ATS scoring versus duration of emergency stay was analysed and found that mean duration 24 hours was found for patients with ATS 5, whereas ATS 2, 3, 4 had mean duration of stay 10.10, 8.75 and 5.48 hours, respectively.

Out of 1022 patients, 504 (49%) were treated with antibiotics. The common antibiotics were second-generation cephalosporin (24.7%), penicillin (7.5%) and amoxicillin+clavulanic acid (5.6%). Combination of antibiotics was around 1%. Out of 1022 patients, 506 patients received analgesic, mostly diclofenac (30.8%) whereas 79 patients received antispasmodic drugs, mostly hyoscine bromide. The common antipyretics were paracetamol and 594 (58.1%) patients received proton pump inhibitors (PPI); pantoprazole (47.2%) was mostly used.

Conclusion: Proper discharge plays an important role in giving quality care to the patients in the subsequent visits. Analysing discharge summary helps in formulation of strategies to improve care in the emergency department of BPKIHS, Dharan, Nepal.

PP049

Relation Between Access to Primary Care Physician and Use of Emergency Care

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Introduction: With the ageing of the population, emergency care utilisations are increasing. Unnecessary emergency visit, ineffective preventive care and inappropriate management of chronic care worsen this problem. The time duration from the patient's house to the medical facilities might exacerbate the condition. The objective of this study is to investigate the relationship between the time duration and the medical care utilisation.

Methods: We conducted a cross-sectional study including 6286 residents in Mie, Japan from 2012 to 2013. We collected data using a questionnaire. Data included the resident's age, sex, consulting a primary care physician, emergency call, emergency visit, ambulance, hospitalisation and time duration from the patient's house to the primary care physician.

Results: Two-thirds of residents consulted primary care physicians. We assessed the relationship between the time duration to reach the primary care physician and the use of emergency care by regression analysis. Longer time duration was associated with the low use of primary care physician, emergency call and emergency room significantly. In return, it was related with the high use of ambulance and hospitalisation.

Conclusion: In order to reduce the burden of huge medical care use, we might encourage primary care function more.

PP050

Association Between Proximity to a Healthcare Facility and Incidence Rate of Ambulance Use in Rural Areas in Hiroshima Prefecture, Japan

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Introduction: Whether remoteness in rural areas influences the use of emergency medical services has not been well investigated. This study aimed to evaluate the association between proximity to a healthcare facility and incidence of ambulance use in rural areas.

Methods: We analysed 151 rural communities in Hiroshima Prefecture where 57,981 persons dwelled in 2010. Data on all ambulance dispatches were obtained at non-physician communities (NPCs) that were designated as medically underserved in Japan (n=76), adjacent communities to NPCs (n=52) and municipal centres (n=23) during 2010 to 2012. The travel time was calculated from each community to the nearest healthcare facility of primary or secondary care facilities (n=2,636) and tertiary care facilities (equal to

tertiary emergency care centres) (n=6). The effect of travel time on the incidence rate (IR) of ambulance use at a community was evaluated using Poisson regression models. We also evaluated the effect among each specific subgroup of accident, sickness level and season.

Results: A total of 933 emergency dispatches were recorded, and the average IR was 1.6% during the study period. The mean travel time was 11.4 min to a primary or secondary healthcare facility and 82 min to a tertiary emergency care centre. The IR of ambulance use was significantly increased by 0.32% (95% confidence interval: 0.09, 0.56) per increase in interquartile range (7.1 min) to a primary or secondary health facility. The positive associations were more pronounced among the patients who had mild, critical or death level of accident and sickness and during cold season (fall and winter). No significant association was observed in travel time to a tertiary medical care facility.

Conclusion: The proximity of a primary or secondary healthcare facility may be a key factor in modest use of emergency transport services.

PP051

Strengthening Emergency Medical Services: Initiatives at Health Clinics in Malaysia

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Introduction: Access to fast, reliable emergency care has direct consequences on morbidity and mortality, and emergency medical service is one of the components of the integrated primary healthcare services delivered at the Ministry of Health's primary care clinics in Malaysia. It provides the initial response to urgent healthcare needs in a community, encompassing a continuum of care ranging from pre-hospital care to emergency services.

Methods: Over the years, Ministry of Health Malaysia has developed various strategies to improve and upgrade these services, including infrastructure and human resource. Monitoring of response time has evolved from a paper-based to an emergency alert system. A hallmark in the Malaysian primary healthcare delivery system is its strong networking with secondary care, and for emergency services this has translated into the primary care clinics being a part of the Medical Emergency Coordination Centres' network. In the rural clinics, where the population is entirely dependent on the public system, the on-call system in government health clinics provides the only access to emergency services.

Results: The strengthening of pre-hospital care at the primary care level has resulted for ambulance service to respond more efficiently with expeditious transportation of patients, associated with appropriate care by competent health personnel, realising the expected fundamental components of this service.

Conclusion: The provision of quality emergency care in government health clinics is an ever-evolving challenge that faces myriad barriers. Nevertheless, because lives are at stake whenever there is a medical emergency, providing every patient with the right care, at the right time, by the right provider remains the important overarching goal of a primary healthcare delivery system's intent on providing equitable access to emergency primary healthcare services.

Keywords: emergency medical service, primary healthcare, pre-hospital care

PP052

Accidental Methadone Ingestion in Children: A Case Report

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Introduction: One of the treatment options for opiate-dependent patients is providing medical assisted therapy (MAT) using opiate substitutes such as methadone. Methadone is a full opiate agonist that has a dose-dependent effect towards respiratory depression. A single dose of 70 mg (~14 mL) in an opiate naïve adult and 30 mg (~6 mL) in an opiate naïve child can be potentially fatal. Malaysia has been providing free MAT to patients attending government health facilities including primary care clinics since 2005. The harm reduction steps were found to be successful in terms of expansion of MAT service and reduction in HIV transmission among intravenous drug users in this country. Many patients retained on treatment are able to sustain a better life and showed stability. However, improper storage of methadone at home may result in serious implications as illustrated in these two cases.

Methods: Case reports on accidental ingestion of methadone by children in the district of Tampin, from 2006 to 2012.

Results: Two cases were identified. Case 1 was a four-year-old boy who accidentally took his father's methadone syrup that was placed on the car dashboard while his father got off from the car to collect something. An hour after that the child was found to be 'too sleepy' and was admitted to hospital for observation. He recovered without naloxone reversal. Case 2 was a two years and 8-month-old girl who allegedly took 1 teaspoon of methadone that was kept in a fridge. The child was noted to be drowsy and was admitted with a GCS of 8/15. The child was intubated and naloxone was given and later discharged well.

Conclusion: Methadone is a good option for MAT, but it is crucial to ensure proper storage at home to avoid unnecessary trauma.

Keywords: methadone, accidental ingestion, children

PP053

A Qualitative Study on Advance Care Planning in Japanese Elderly Patients

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Introduction: Advance care planning (ACP) is still at a stage of implementation in Japanese medical practice based on the knowledge obtained by Western literature. However, considering a patient's social and cultural context is important for ACP. This study aimed to clarify the difficulties faced by Japanese patients in ACP.

Methods: Participants aged above 65 years were recruited from a rural clinic in Shizuoka, Japan. An orientation session which consisted of a 25-minute stimulating video and a 30-minute group discussion on end-of-life wishes and documenting advance directives was conducted. Each group had six to ten participants. Discussions were recorded, transcribed and analysed using Steps for Coding and Theorisation.

Results: Four group discussions that included 32 participants were analysed. Most participants did not wish to receive life-sustaining

treatment at the end of their lives. These participants mentioned the possibility that their families would not accept their wishes for the following reasons: families' own values and feelings, which included love, adhesion, hope for recovery, anticipatory anxiety of regret and feeling guilty due to abandonment. In order to lessen the families' inner conflicts and fulfil their wishes, participants were aware of the necessity of documenting advance directives based on repetitive discussions with their families, and participants were waiting for the right time to have the discussion.

Conclusion: The patients' group discussions on ACP were qualitatively analysed. Most participants recognised ACP as a tool to avoid undesired life-sustaining treatment. However, they were also concerned about their families' opposition based on their families' own values and feelings. These data implicate ways to improve ACP in Japan, including suggesting to patients that they focus on the wishes of both parties' values and feelings and the appropriate timing for such discussion.

Keywords: advance care planning, surrogate decision-making, life-sustaining treatment, end-of-life care

PP054

Practice and Attitude Regarding Advance Care Planning in Geriatric Health Services Facilities in Japan: A Nationwide Survey

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Introduction: In Japan which the population of elderly people is growing rapidly, palliative care units are insufficient. Therefore it is expected that needs of the end-of-life care in geriatric health services facilities increases. The aim of this study is to clarify nurse's practices and attitudes regarding advance care planning (ACP) in geriatric health services facilities in Japan.

Methods: Participants were responsible nurses from 3437 geriatric health services facilities. We conducted a nationwide cross-sectional survey by mailing self-completed questionnaire about ACP to a responsible nurse in each facility. The questionnaire examined each participating nurse's practices before or after a patient's admission to a geriatric health services facility, their recognition of the importance of ACP and their difficulties towards palliative care.

Results: A total of 843 responsible nurses participated in the survey, with a response rate of 24.5%. The percentages of nurses who confirm the goals of treatment and care with the patient's family, the goals of treatment and care with the patient, understanding of the patient's disease conditions by patient's family, patient's understanding of his/her disease conditions and the place of treatment or rest desired by the patient were relatively high (82.5%, 80.2%, 76.5%, 69.7% and 74.2%). Although most nurses recognised the importance of ACP, many failed to implement the aspects of patient-directed ACP. The percentage of nurses who implemented asking the patient about existing advance directives (ADs) was only 28.3%, whereas the percentage of nurses who recognised its importance was 81.3%. In the same manner, the large discrepancies were found in recommending

that the patient completes an AD (only 18.5% of nurses practiced it, although 69.7% recognised its importance) and asking the patient's designate a health care proxy (31.0% vs. 78.4%). Many nurses had difficulties in getting support and consultation of a palliative care expert.

Conclusion: The 'Gaps' between nurse's practices and their recognition of the importance of ACP suggests an opportunity to improve end-of-life care. To fill the gaps, basic palliative care education for nurses and specialist outreach/consultation services may be effective for quality palliative care in Japanese geriatric health services facilities.

Keywords: advance care planning, advance directive, end-of-life care, attitude, geriatric health services facilities

PP055

Obtaining Advance Directives Is Not an Impossible Task at a Family Medicine Clinic

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Introduction: Although discussions about advance directives satisfy patients in primary care, it is not easy to talk about advance directives. Realising the importance of advance directives, Matsumura made it a routine to discuss about advance directives every 6 months. We reviewed the status of advance directives of the patients at a family medicine outpatient clinic.

Methods: A retrospective chart review was conducted in outpatients who attended a regular outpatient clinic from 1 Apr 2012 to 31 Dec 2013. The main outcome measures were the status and changes in advance directives.

Results: 174 charts were reviewed and 129 (74.1%) had advance directives. 112 (64.4%) did not wish resuscitative effort when being critically ill, 11 (6.4%) wished resuscitative effort, 2 (1.2%) did not answer, 1 (0.6%) left it to the will of the spouse, 2 (1.2%) wished resuscitative effort and changed it to not to wish resuscitative effort, 1 (0.6%) did not answer and changed it to not to wish resuscitative effort and 1 (0.6%) did not wish resuscitative effort and did not change even in the hospital.

Conclusion: Obtaining advance directives after a lapse of 6 months is not an impossible task. Most of the patients did not change their advance directives and did not wish CPR.

Keywords: advance directive, life-prolonging treatment, life-support treatment, life-sustaining treatment

PP056

Asia Pacific WONCA 2014 Abstract

Family physicians (FPs) provide primary, personalised, comprehensive and continuing care as personal doctors to their patients through the ages in terms of their family, community and culture. With good knowledge of the family dynamics and significant events occurring in the family, FPs are well positioned to initiate and facilitate discussions on advance care planning (ACP) with their patients. Patients are welcomed and they have higher level of satisfaction when their FPs discussing ACP with them appropriately. We describe three case studies of ACP discussion—a young healthy gentleman whose father recently suffered a catastrophic left middle cerebral artery stroke; a bedbound elderly lady with chronic inflammatory demyelinating polyneuropathy on home ventilator; and an ill gentleman with metastatic squamous cell carcinoma of the forearm, in whom his

personal values, meaning of 'living well', health preferences during crisis situations and choice of substitute decision maker in the event of mental incapacity were explored. The case studies illustrated the increasing complexities of care in patients managed by FPs, the growing importance of ACP as a consultation task, and to advocate for training of FPs as ACP facilitators.

PP059

How Far Is the Medical Institution? – Descriptive Study Using Health Insurance Claims Database

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Introduction: Patients can freely choose healthcare facilities in Japan; however, this choice is restricted by the proximity of these facilities. The geographical distribution of healthcare facilities visited by patients has not been clarified. This study aimed to elucidate the geographical distribution of facilities visited by patients with five major diseases, including neoplasms, diabetes, psychiatric disorders, ischaemic heart disease and cerebrovascular disease. Mandatory provision of healthcare for these five diseases should be included in the Japanese medical plan.

Methods: This is a descriptive research study using health insurance claim records. The health insurance claim records of patients with the five diseases and the records billed in May 2010 in Ibaraki Prefecture were analysed. The analysed variables included the disease type, municipalities of patients' residence and location of medical institutions. Geographical distance was calculated from the municipal center of patients' residence to the healthcare facilities by using the geographic information system and compared among diseases.

Results: Of the 168,244 records analysed, 29,658 records were for neoplasms, 51,615 were for diabetes, 37,403 were for psychiatric disorders, 17,385 were for ischaemic heart disease and 32,183 were for cerebrovascular disease. Geographical distances (median) were 7.7 km for all five diseases, 10.8 km for neoplasms, 6.0 km for diabetes, 10.6 km for psychiatric disorders, 6.1 km for ischaemic heart disease and 6.7 km for cerebrovascular disease. We found that more than 75% of patients visited healthcare facilities situated within 20 km from their residence.

Conclusion: The geographical distribution of healthcare facilities visited by patients with five major diseases was clarified. Patients with diabetes, ischaemic heart disease or cerebrovascular disease visited facilities closer to their residence compared with those with neoplasms or psychiatric disorders. Most patients visited facilities situated within 20 km from their residence.

Keywords: access to healthcare, health seeking behaviour, geographical distribution, non-communicable diseases, catchment area

PP060

Patient Perspective on Primary Care Management of Lifestyle Changes: Obstacles and Facilitators

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Introduction: Lifestyle modifications are an essential component of any diabetes management plan conducted in primary care practice. This study aimed to explore the obstructing and facilitating factors for lifestyle changes among type 2 diabetic patients attending primary care outpatient clinics.

Methods: This was a cross-sectional study conducted in 383 type 2 diabetic patients above 18 years, who have been followed-up at least for 6 months by one of the 55 randomly selected primary care centres representing two districts of Istanbul. Patients were asked to fill a questionnaire prepared by researchers after their physician visit. From each practice, the first nine diabetic patients attending the clinic on the same day were enrolled.

Results: Among the 383 participants, 62.7% were female, 13% were above 65 years. Depressed feelings (37.3%), former nutritional habits (31.4%) and thinking that the illness is unfair (30.8%) were the most frequently mentioned obstacles for dietary changes, whereas encouragement by the family doctor (63.7%), fear created by doctors related to adverse outcomes of diabetes (59.4%) and experiences of other diabetic family members (58.6%) were the facilitators. As far as exercise compliance was concerned, working hours (29.4%), and depressed feeling (26.3%) were the most frequent obstacles, whereas experiences of other diabetic family members (62.5%) and encouragement by the family doctor (58.6%) were the most frequent facilitators. Women (43.8% vs. 32.2%, $p=0.023$) and participants below 65 years (70.4% vs. 50%, $p=0.006$) showed better compliance to dietary changes. Additionally, longer relationship with the same physician (>1 year) facilitated dietary changes ($p=0.007$).

Conclusion: Encouraging and longstanding attitude of family doctors, social support and family experiences were the facilitators; depressed mood, perception of unfairness related to diabetes and inappropriate working hours were the obstacles for lifestyle changes. These findings are beneficial for future research in developing tools to provide a desired lifestyle change in primary care settings.

Keywords: type 2 diabetes mellitus, lifestyle, primary care physicians, health attitude

PP061

ICPC-2-Code: Malaysian Clinical Research Centre's Experience!

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Prior to 2010, there was very little information at national level on the morbidity pattern and processes of care in the Malaysian primary care setting. Hence, the National Medical Care Survey (NMCS) was conducted by National Clinical Research Centre in collaboration with the Family Health Division, Ministry of Health.

It was during data coding that the shortcomings of the International Classification of Disease-10 (ICD10) was realised. The NMCS team painfully discovered that classifications were difficult in primary care, especially for symptom-based and vague conditions, administrative tasks, referrals and procedures. During this time, the team stumbled across the International Classification of Primary Care (ICPC).

The experience of using ICPC has fostered new associations with the World Organization of Family Doctors (WONCA) and the University of Sydney. The team has successfully coded data from the survey to ICPC-2-plus after WONCA granted a free research licence in 2011 and the University of Sydney permitted the use of ICPC-2-plus. A data entry web application with ICPC-2-plus features was built from scratch, and data coders were trained.

In this presentation, we would like to share our experience, focusing

on benefits and limitations of using ICPC-2-code. Coding for processes of care which include reasons for encounter, investigations, procedures and referrals was made easier using ICPC-2-code. The limitations of ICPC-2-code however, include not having specific chapters for infectious diseases; hence making data extraction and analysis difficult. Besides that, terms that are exclusive to Malaysian healthcare such as pre-marital screening could not be coded. Having acquired the knowledge of using ICPC-2, the team has published NMCS 2010 and 2012 reports and the ongoing NMCS 2014 will follow suit. All these publications and others that are in the pipeline are expected to expose Malaysian primary care practitioners and researchers to the advantages of ICPC-2 coding.

Keywords: ICPC code, primary care, survey

PP062

Can GP-Led Care Planning of High-Risk Patients Reduce Unscheduled Care Episodes and Improve Patient Management?

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Introduction: The global population is ageing with increasing health and social care needs. Is proactive care planning the answer? Many models exist hoping to improve patient care and reduce expensive hospital admissions; most are nurse-led and proforma-based. Evidence of efficacy is mixed. We developed an innovative, holistic, GP-led, care planning model to explore factors that affect care planning in the community.

Over a 1-year period, we developed strategies to identify those who would benefit, streamlined care planning processes and developed strategies to modify health-seeking behaviours.

Methods: Two care planning GPs developed a model for delivering personalised care to 100 patients from four diverse London GP practices over 1 year. Clinician, patient and carer feedback allowed iterative improvements to be made.

Methods to identify 'high-risk patients' were triangulated: Department of Health risk stratification tool (Combined Predictive Model [CPM]), clinician input (GPs, community nurses) and unscheduled care episode data.

Patients seen at home/surgery by the care planning GP were given a bespoke, written care plan focusing on personalised self-care strategies and crisis management. Appropriate follow-up visits were made.

Unscheduled care data and CPM scores were analysed. Anonymous questionnaires were used to evaluate clinician, patient and carer views.

Results: The following themes emerged: importance of clinician continuity, need for efficient communication between health and social care teams, need for proactive GP care after acute events, paper light services encourage engagement and the need for electronic sharing of care plans between primary and secondary care. Clinician identification of patients was most effective. Initial reductions in CPM scores could not be attributed to our intervention.

Conclusion: A longer time frame is required to evaluate effects on unscheduled care episodes, however themes noted can inform future service development locally and globally.

Keywords: care planning, case management, proactive care, primary care, unscheduled care episodes

PP063

Community Health Care and Family Physicians in Taiwan

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Taiwan measures around 36,000 km² in area, and has a population of 23.2 million with per capita income of about US \$16,000. Taiwan has a long history of community medicine from the traditional Chinese medicine of antiquity to the modern medicine of the 20th century. In the 1950s and the 1960s, community health centres were the main primary care facilities in most Taiwanese towns. The successful eradication of infectious diseases, including malaria and smallpox, and the generally longer life expectancy were achieved through the work of general practitioners at community health centres. In 1951, Dr. John B. Grant from the Johns Hopkins University advocated training of general practitioners at community health centres in Taiwan to help meet the health needs of those communities. By 1952, a total of 361 health centres had been established and each township had a community health centre to provide both medical and preventive care to its residents.

Taiwan experienced rapid socio-cultural change in the 1970s and was proud of its 'economic miracle'. However, about one-third of townships were still considered to have primary care physician shortage, and around 25 townships (7%) were considered underserved. Moreover, offshore islands, high mountains and natural disaster areas among others were lacking physician services. In response to the needs and demands, the first family medicine residency training programme began at the National Taiwan University Hospital in 1978; it used the community health centres in underserved areas as main ambulatory care training sites. Outreach community mobile clinics were organised to direct medical care services to the underserved and the underprivileged populations, including the elderly, the poor, the unemployed, the mentally ill and the foreign labourers. Several hospitals, medical centres and community hospitals combined their resources to open family medicine residency programmes. Many family physicians were trained mostly in the tuition-free medical education programmes in 1983 and through the late 1980s. With the financial support of the department of health (DOH), they established primary care group practice models at the community health centres to serve the underprivileged populations of underserved areas. Moreover, in 2003, the DOH required all postgraduate year-1 (PGY-1) trainees, regardless of their future specialisation, to complete 1-month community medicine rotations at one of the community health centres. In early 2006, the requirement increased to 2-month rotations for all PGY-1 trainees.

The DOH has also implemented medical care networks and instituted the National Health Insurance Program (NHIP) in 1995. Both programmes depend on family physicians to provide cost-effective, high-quality health care. In 2013, after the establishment of the Taiwan Association of Family Medicine in 1986, there were 83 qualified family medicine residency programmes in Taiwan, 5000 certified diplomats and 150 first-year resident positions open per year, equalling 12% of medical school graduates of Taiwan. A total of 4 months of required and 4 months of elective community medicine rotations at community health centres have become a part of all family medicine training programme curricula, and more than 80% trainees are serving at primary care settings after their 3-year residency, including community health centres as well as

private primary clinics to provide both preventive and medical care independently or affiliated together as community medical teams (CTMs). Beginning from 2004 till now, in Taiwan there have been about 400 CTMs with approximately 4000 primary care physicians (so called family-duty physicians, occupying 26.4% of all primary care physicians) under a special financial support by the NHIP for providing community residents a patient-centred, family as a unit and integrated community healthcare, including family registry, periodic health examinations, chronic diseases management and case management.

PP064

Research on Preferable Place for Daily Care: Gap Between Actual and Ideal Situation in Mie, Japan

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Introduction: Currently, the need for better care is increasing due to the increasing elderly population in Japan. However, the reality is that all the people cannot be given the expected and ideal care. This research tried to identify the gaps and reasons for differences between expected care and actual care that is provided.

Methods: A research activity was conducted in Mie, Japan, in 2013. 6037 community people participated and answered the questionnaire on care. This investigated the satisfaction of actual care and expected care with Likert scales and the reasons for differences between the two.

Results: 65% of people chose their own home for ideal daily care, while about 30% of people chose the nursing facilities. Most of the people are given actual daily care by families or relatives. Only 13% of people are living in nursing facilities. The most common reasons for the gap between actual and ideal daily care for the people who are given daily care at their own home are financial issues (22%) and burden for the family (21%). In contrast, the most common reason for the people in nursing facilities is burden for the family (34%), and 13% of people complained about inadequate healthcare if they are at home.

Conclusion: The results for a preferable place for daily care suggested a gap between actual and ideal situation. But not small number of people preferred nursing facilities to their own home for their daily care because they are not satisfied with the healthcare just in case with sudden sickness if they are given the daily care in their own home and also many social factors prevent homecare, including financial and familial issues.

PP065

Is Physician Home Visiting Care Service More Cost Effective Than Standard Care at the End of Life in Japan?

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Introduction: By 2050, senior citizens accounted to grow to 38.8% in Japan. Some reports show that people felt better to stay

at home at the later part of their life, but there are some roadblocks to overcome. To support the stay of home-bound people at home with medical and nursing cares, different types of home care services with medical programmes exist in different countries. To address ageing populations, the Japanese government introduced the long-term care insurance (LTCI) system in 2000. General physicians and primary care physicians generally conduct home care, and the team consists of visiting nurses, visiting rehabilitation staffs, visiting pharmacists, nursing aids (helpers), care managers and case managers using Japanese national medical insurance and LTCI. There is no research concerning cost benefit for end life care by physician home care in Japan. We performed cross-sectional research concerning cost benefits for home caring vs. hospitalisation at the last stage of life.

Methods: From September 2012 to August 2013, the chart review was performed for all patients who died with our physician home visiting care service and hospitalisation at the Kaita Hospital, Fukuoka, Japan. All the medical costs were calculated for them within 30 days before their death.

Results: A total of 72 people died in the Kaita hospital and 34 people died at their home with the physician home visiting care from the Kaita hospital from September 2012 to August 2013. The daily average medical costs were ¥23,907(72 cases) in the hospital and ¥52,611(33 cases) at home. The daily average medical costs within 2 weeks of home visiting care were remarkably higher (¥119,591, 11 cases) than longer care (more than 2 weeks, ¥19,121, 22 cases).

Conclusion: The result sheds the light on the physician conducting house visiting clinical team for the end of life care in Japan.

PP066

Customer's Behaviours and Satisfaction Towards Suranaree Medical Center Service

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Introduction: The objective of this research is to observe service behaviour of the Suranaree Medical Center staff.

Methods: The samples are collected from 400 customers of Suranaree Medical Center in 2012. The service evaluation is represented by customer satisfaction score, which measures the service behaviour in the aspects of personality, service behaviour, service processes, facilities and the surroundings of Suranaree Medical Center. The research instrument is the questionnaire that was reliability test. Statistical analysis was employed using frequency, percentage, mean and standard deviation. Hypothesis analysis was employed using t-test, and F-test or One-way ANOVA.

Results: The overall customer satisfaction score is in the scale of "High". The rating for service behaviour categorised by departments had the highest score of 84.95% satisfaction going to Registration and Medical Records department, followed by Pharmacy department with the score of 84.38%. The X-Ray department had the lowest satisfaction score of 17.85%. The satisfaction rating scores for staff equipment premises and facilities are in the scale of "Highest". For service convenience and time spent gained the rating scale as

“High”. The study showed that the customer group of 20-year age, the customers who used the services during 8 am to 8 pm and the customers with Suranaree University benefit of medical privilege rates the satisfaction score was statistically higher than other groups.

Conclusion: From the study results, some service areas need to be considered for improvement to suit the customer requirement. Further study on the areas that gained low satisfaction score should be focussed.

Keywords: service behaviour, Suranaree Medical center

PP067

Patient Perspective on Primary Care Management of Lifestyle Changes: Doctors Do Not Recommend, Patients Do Not Adhere

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Introduction: Lifestyle modifications are an essential component of any diabetes management plan conducted in primary care practice. The aim of this study was to explore to what extent patients with type 2 diabetes adhere to lifestyle changes recommended by their family physicians with respect to nutrition, exercise and prescribed medications.

Methods: This cross-sectional study was conducted in 383 patients with type 2 diabetes, aged above 18 years, who have been followed-up at least for 6 months by one of the 55 randomly selected primary care centres representing two districts of Istanbul. Data collection tools were questionnaires prepared by researchers and validated scales (European Quality of Life-5 Dimensions, Multidimensional Diabetes Questionnaire, and Constation and Relational Empathy Scale).

Results: Among the 383 participants, 62.7% were female, 13% were above 65 years of age and 79.6% had less than 5 years of education. Only 3.9% of participants did physical exercise as recommended by universal guidelines. Nearly half of the participants have not been advised about lifestyle changes by their family physicians during their last encounter (diet, 51.3%; exercise, 54.1%) and among the ones who were advised behavioural change, only 22% adhered to dietary changes and 19% to exercise recommendations. Physicians informed most of the patients (87.7%) about medication use, and 70.3% of participants reported that they use their medication as prescribed. Participants who have higher average scores on relational empathy, self-efficacy and quality of life scales comply better to lifestyle changes ($p < 0.000$).

Conclusion: Primary care physicians do not recommend lifestyle changes on every diabetic patient encounter and patients do not follow an appropriate diet and exercise regimen for type 2 diabetes. Higher quality of life, self-efficacy and relational empathy scores have a positive impact on compliance to healthy lifestyle changes.

Keywords: type 2 diabetes mellitus, lifestyle, primary care physicians, patient compliance

PP068

Willingness and Ability to Pay of High Income Community for Proposed Health Insurance Scheme in Bandung, Indonesia

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Introduction: Universal healthcare for Indonesian citizens, which provides comprehensive healthcare with low premium and cost sharing, has been implemented by 2014. The important key in health insurance is community as consumer. From the socio-economic perspective, there are three types of target communities: poor people, people who cannot afford and people who can afford and are expected to have a major contribution in the implementation of the health insurance scheme. The objective of the study was to investigate people's willingness and ability to pay to proposed health insurance scheme in Bandung, Indonesia.

Methods: The survey was conducted among 396 respondents from high-income communities. They were selected from different residences in Bandung. The data were analysed using coefficient contingency test. Logistic regression analysis was used to analyse factors related to willingness-to-pay (WTP) and ability-to-pay (ATP).

Results: Most of the respondents (64.7%) had health insurance and only 45.1% respondents were willing to participate in the proposed health insurance scheme. From 151 respondents who were willing to participate, the average premium that individual willing to pay was 25.000 rupiah (3 USD). In fact, this study found that 49.5% respondents were categorised as high ATP, that is, more than 2 million rupiah (210 USD). Many factors such as age, education, occupation, income, family size and disease experience contribute to WTP and ATP. In this study, family size has influenced 1.5 times to ATP when compared to others and statistically significant. As the number of family members increase, they may be willing to pay for health insurance.

Conclusion: The study showed that the high-income community was not willing to participate in the proposed health insurance scheme in Bandung. High ATP did not correspond to WTP.

Keywords: willingness to pay, ability to pay, health insurance

PP069

Early Detection Programme for Non-communicable Diseases Through Community Empowerment and Participation

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Introduction: Diabetes mellitus is one of the chronic progressive and degenerative diseases, which its prevalence is increasing. Nowadays, diabetes mellitus has become a pandemic worldwide. Although diabetes is becoming a threat, more than 50 % of people have not undergone blood glucose screening and there is minimal awareness in the community.

This study aims to raise awareness and participation in the community about the early detection programme for non-communicable diseases.

Methods: The Kayu Putih Family Medicine Clinic collaborates with Novo Nordisk through its community social responsibilities programme. We created early detection programme for non-communicable disease through community empowerment and participation. The steps are conducting socialisation to the head of the sub-district, health cadres and also some people in the community; training the health cadres and running routine monthly programmes in 4 sub-districts in Pulo Gadung District, East Jakarta.

Results: The responses from the local government, cadres and community were good. We trained 118 cadres and currently run this programme routinely every month in four sub-districts, started in the Kayu Putih sub-district in October 2012. This programme consists of five desks. Those are registration desk; weight, height and blood pressure examination desk; blood glucose examination desk; counselling and

making referral letters to public health services desk and administration desk. From the discussion, cadres are very enthusiastic about this programme, they were benefited from the training and it also increased their awareness about non-communicable diseases including diabetes mellitus. More than 1200 people in the four sub-districts have been screened under this programme.

Conclusion: Community empowerment and participation are very important especially in health promotion and early detection programmes. Such programmes should be started by health facilities to increase awareness in the community and continuing collaboration is required to facilitate this community empowerment.

Keywords: community empowerment, early detection, non-communicable diseases

PP070

Primary Health Care in Costa Rica

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Introduction: Costa Rica is a small (51,100 km²) developing Latin-American country, with a population of 4.5 million. Even though it is a developing country, it has an epidemiological profile of a developed country with a life expectancy of 79 years, a high prevalence of chronic diseases in its adult population such as dyslipidaemia (66%), overweight/obesity (66%) and diabetes type 2 (11.2%) and the first cause of death being cardiovascular diseases. This situation has a high economic burden on its health care system and it must incorporate new models of care to tackle it.

Methods: This study describes the health care system of Costa Rica, with special emphasis on its primary level.

Results: Its health care system has a strong primary health program. Its structure is based on the division of the country into health areas consisting of 40,000 individuals, with community-inserted health teams (EBAIS) that consists of a general doctor, an auxiliary nurse, a primary care technical assistant and a receptionist who are responsible for the promotion, prevention and medical assistance of a community of 4000 to 5000 individuals each. In 2012, there were 1014 EBAIS in 102 health areas under this model with coverage of 92% of the national population. The second level of care is provided by 10 major clinics, 13 rural and seven regional hospitals that provide specialised medical attention and carry out surgery with at least four of the basic specialties. The third level provides complex specialised medical and surgery attention in three general national hospitals and five national specialised hospitals (i.e., women, children, geriatric, psychiatric and rehabilitation). Family doctors are still not well adapted to the primary care setting they work predominantly in the second and third level.

Conclusion: Costa Rica has a universal coverage with a strong health care system and its primary care setting is obliged to consider preventive models in order to face the burden of chronic diseases.

PP071

Present Conditions of Decreasing Surgeons in Japan: Regional Disparity Is an Important Problem

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Introduction: Recent young physicians tend to avoid hard work. The School of Medicine graduates tend to choose to become a psychiatrist, a psychotherapist or a plastic surgeon instead of surgeon or obstetrician. We introduce the present conditions of the Japanese surgeons.

Methods: The change in the number of physicians according to the specialties from 1996 through 2010 referred to statistics (the 16th medical economic fact-finding, 2010 physician, dentist, pharmacist investigation) of Ministry of Health, Labor and Welfare in Japan. The income of the surgeons was obtained from the questionnaire results of a Japanese surgical society survey conducted in 2010.

Results: In 2010, the number of surgeons and obstetricians decreased by 5% and 3%, respectively, compared to 1996. In contrast, the number of psychotherapists, psychiatrists, cosmetic surgeons and plastic surgeons increased by 206%, 33%, 174% and 63%, respectively. The annual incomes of surgeons with an experience of ≥ 31 years, 21-30 years, 11-20 years and 1-10 years were \$16,000, \$15,300, \$12,400 and \$8,800, respectively. The mean annual income of physicians in a general hospital was \$13,000. In the uneven distribution of the resident by the population share, the concentration to the urban area was remarkable. In Japan, a practice act of almost all specialties is possible basically if we become a physician. Due to these, a physician drifted to the city from the district, and lack of local physician was manifested. Because the few physicians select that they become the surgeon from the bad labour circumstances, the local surgeon extremely decreases.

Conclusion: We do not increase the number of the physicians and break off the local uneven distribution of the physician, and it is the first thing to do to take the policy to improve the labour circumstances of the surgeon.

PP072

Sedative use in Thailand: Its Concurrent Use With Alcohol and Tobacco and Association With the Quality of Life in Healthcare Workers

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Introduction: Sedative use has been recognised as an important health problem due to the increasing trend of non-medical use of drugs. Non-medical use of prescription drugs such as sedatives can be associated with common substance abuse behaviours such as cigarette smoking and heavy alcohol consumption. This study aims to investigate the pattern of sedative use and its association with the quality of life in healthcare workers where potential access to sedatives maybe greater than the general population. We specifically determine the correlation of concurrent harmful use of sedatives with alcohol and tobacco use and its association with the quality of life.

Methods: A cross-sectional survey was conducted among healthcare workers at Maharaj Nakorn Chiang Mai Hospital from February to June 2013. Harmful use of sedatives, alcohol and tobacco was determined using the WHO ASSIST questionnaire. The quality of life was determined using the SF-36 questionnaire.

Results: Of the 5364 people, 3204 volunteered to participate. 441 (13.8%) participants were ever using sedatives. Older women and occupations with potentially easier access to medication were potential risk factors for sedative use in our study population. Increased risk of

harm from sedative use was found to be significantly associated with harm from alcohol use. Increased risk of harm from sedative use was independently associated with lower physical and mental quality of life even after adjusting for other substance use and depression.

Conclusion: Public health policymakers and practitioners should keep in mind the potential for abuse with commonly available substances such as alcohol and tobacco. The potential for abuse may lead to adverse health outcomes and lower health-related quality of life. While the primary goal of considering for harmful substance use primarily focuses on moderation or abstinence from use, our evidence also support the potential for harm reduction interventions and policies in the region.

PP073

Job Satisfaction Among Family Medicine Specialists in Malaysia

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Introduction: Job satisfaction is defined as a pleasurable or positive emotional state, which results from the appraisal of one's job or job experience. To date, there is no published data regarding job satisfaction among family medicine specialists (FMS) in Malaysia. This study aimed to determine the prevalence of job satisfaction and its associated factors among FMS in Malaysia.

Methods: A cross-sectional study was conducted between July and September 2012. Questionnaires were distributed to 117 FMS in Malaysia who are practising in health clinics under Ministry of Health, Malaysia. The response rate was 85.5% (100/117). The questionnaires consist of socio-demographic characteristics, professional and health clinic characteristics, and the Warr-Cook-Wall job satisfaction scale. Data were analysed using SPSS version 20.

Results: The prevalence of overall job satisfaction among FMS in Malaysia was 85%. The prevalence of satisfied FMS with facets of job satisfaction was highest with hours of work, colleagues and fellow workers, and freedom to choose own method of working. FMS were least satisfied with physical working conditions, rate of pay and recognition. Multiple logistic regressions revealed that gender and the number of health clinics in-charge were associated with overall job satisfaction among FMS. Female FMS was 4.1 times higher odds than male FMS to have overall job satisfaction. For every 1 unit increase in the number of health clinics, there was a 20% reduction in overall job satisfaction.

Conclusion: Despite dissatisfaction in some areas, FMS in Malaysia were generally satisfied with their job.

Keywords: job satisfaction, family medicine specialists, family physician, primary care

PP074

Reasons for Participation in Primary Care Research: A Qualitative Study

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Introduction: The clinical practice in primary care should be based on evidence generated from research conducted in primary care settings. Primary care doctors (PCDs) are in a strategic position to conduct such research. However, the participation of PCDs in research is often poor. This study aimed to explore the reasons for PCDs to participate (or not) in research in the Malaysian primary care setting.

Methods: A qualitative approach was used and purposeful sampling of private PCDs was done to ensure maximum variation. Five in-depth interviews and two focus group discussions with PCDs were conducted. Semi-structured open-ended questions were used in the interview. The interviews were recorded and transcribed verbatim for analysis. Open coding with thematic analysis was used to identify key issues from the interviews.

Results: Eleven PCDs were interviewed. The PCDs expressed a wide range of personal reasons for their participation (or not) in research. These ranged from a sense of clinical relevance and wanting to justify their practice with evidence to seeing research as irrelevant and unwillingness to share clinical data. The PCDs had to strike a balance between clinical work, practice revenue and research participation. Research was seen as demanding and time consuming. Having research skills and the confidence to undertake research facilitated their participation. Unless the PCDs were able to fulfil their core clinical responsibilities, participation in research would be difficult. The external factors that facilitated research participations include infrastructural and collegial support. Incentives, promotional rewards and peer recognition also motivated their research participation.

Conclusion: PCDs' participation in research requires them to consider many priorities against research interest and internal motivators. Besides providing research training, incentives and a conducive research environment, measures to help them in strategising their research interest would increase their participation.

Keyword: qualitative research, primary care, research, thematic analysis

PP075

The Study of General Practitioner's Willingness to Join Health Insurance Programme Towards Universal Coverage 2014

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Introduction: The Ministry of Health Republic of Indonesia declared that the Universal Health Coverage will be established in late 2014. Many improvements have to be made to achieve this, including health financing system reform. Financing system that will be used to realise this programme is health insurance. In this system, the role of general practitioners as providers of primary health care is very important. This study aims to know the willingness of general practitioners in Bandung to become primary health care providers in the health insurance programme that will be launched by the government as a financing system to realise the Universal Health Coverage in 2014.

Methods: This was a cross-sectional study and used a self-administered questionnaire involving 218 general practitioners by cluster sampling method in Bandung City.

Results: The results of this study indicate that the willingness of physicians to become primary care providers in the health insurance programme amounted to 68.55%, whereas the willingness to be primary health care providers in the health insurance programme developed by the Bandung City Government was about 68.25%. The majority of general practitioners in the Bandung City were willing to work in the health insurance programme. From this study, we also found that more than half of the respondents (about 54.08%) were not willing to be paid less than the rate in the current practice.

Conclusion: In conclusion, mainly general practitioners in the city of Bandung were willing to be primary health care providers in the health insurance programme for a fee that was not lower than the rates in the current practice.

Keywords: willingness, general practitioners, health insurance, universal coverage.

PP076

Characteristics of Japanese Physicians on Remote Islands – What Affects Their Willingness to Stay?

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Introduction: Japan has about 400 remote islands on which people live, and a compelling issue the residents face on these islands is the shortage of physicians providing medical care. To provide greater access to physicians on these remote islands, the objectives of this study were to identify the characteristics of physicians on remote islands and the factors related to their willingness to stay.

Methods: A cross-sectional study using a self-administered questionnaire was conducted. Physicians working in 122 governmental or public clinics on remote islands in Japan were asked to participate. Questions on age, years after graduation from medical school, the duration they had been working on remote islands, the educational activities they were engaged in, the level of satisfaction with their professional/private life and whether they were willing to extend their stay or not were asked. The factors associated with physicians' willingness to stay on the islands were analysed using logistic regression models.

Results: Among the 81 physicians who participated, 29 (35.8%) responded that they would not like to continue to work on islands after their terms of contract expired. Physicians with

Conclusions: Young physicians on remote islands were more actively engaged in educational activities and considered returning to mainland. To improve the supply of physicians on remote islands, it would be necessary to streamline the educational systems and career paths for the physicians working on remote islands.

PP077

Violence Against Physicians: Reasons, Solutions and Its Possible Reflections on Nurturing of Future Physicians

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Introduction: I was a very young doctor when I was threatened by a patient with a gun. Now I am in the 23rd year of my practice and violence is still on the agenda of my country increasingly like other countries all over the world. In the UK violence against GPs has been reported to be 10-11%. Is it the result of changing needs, demands of physicians and the society or are there any other reasons for it? It seems that there are some misunderstandings between physicians and the society detracting the 'social contract' between them. There is a need for exploring reasons, solutions and possible reflections of violence against physicians on nurturing of future physicians. The aim of this presentation is to discuss and create awareness in physicians and the society which will result in a kind of consensus platform about 'violence against physicians'.

Methods: As the first step of constructing this platform we need to review the literature. So in this presentation, we will present what was done in the literature. A systematic review in Pub Med in English on 15 December 2013 had been made.

Results: Although the exact incidence is difficult to determine, it is obvious that physicians are at risk. For example, workplace violence by patients or their relatives against healthcare staff reported for the past year was 36.4% in Japan and 56% in Israel. There is a wide range of reasons for violence against physicians from the age and experience of the physician to the prolonged waiting times or hospital policies.

Conclusions: A need for more research and education of physicians and the society about violence against physicians are obvious to find a common understanding between the physicians and the society they serve. Otherwise, the cumulative effect of violence would harm the entire healthcare sector.

Keywords: violence against physicians, medical education, society, health care

PP078

A Survey on Satisfaction of Paediatricians

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Introduction: The paediatricians have difficult jobs. It is necessary for them to deal with both sick children as well as parents/relatives. The objective of this study is to investigate the satisfaction of paediatricians and identify the correlation of factors.

Methods: A satisfactory survey was performed by filling out a questionnaire by relatives of patients who came for consultation to our paediatric outpatient clinic in May 2013. The participants were selected by random sampling regardless of gender, age, race and education. Thirty-six questions were asked including 'general satisfaction', 'paediatricians-children' and 'paediatricians-parents/relatives'. The data were recorded using a Likert scale.

Results: A total of 73 participants agreed to answer the questionnaire. Fifty-six (76.7%) participants were mothers of patients. 35 (48%) patients were below 3 years of age. The general satisfaction was 4.34±0.66, the satisfaction between paediatricians and children was 4.44±0.64, and the satisfaction between paediatricians and relatives was 4.29±0.68. The 'interaction between paediatricians and children' was found to have a high correlation with 'paediatricians-children' (r=0.73). The 'disease explanation' had a high correlation with 'paediatricians-parents/relatives' (r=0.74). However, we found a higher education level in parents and a lower satisfaction in paediatricians.

Conclusion: Interaction with children is very important for paediatricians. Disease explanation to parents or relatives is another difficult task for paediatricians.

PP079

The Effect of Listening to Al-Quran Recitation Among Uncontrolled Hypertensive Patients Attending Primary Care Clinic, Hospital Universiti Sains Malaysia

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Introduction: Hypertension is a major world health challenge. In Malaysia, the prevalence of hypertension among adults aged ≥ 30 years increased from 32.9% to 42.6% within 10 years. Psychological distress contributes to the development and sustenance of essential hypertension. Many studies have been conducted to determine the effect of religiosity and spirituality on a person's well-being and health. The aim of this study was to determine the effect of listening to Al-Quran recitation on blood pressure (BP), heart rate and stress among uncontrolled hypertensive Muslim patients attending the primary care clinic at Hospital Universiti Sains Malaysia.

Methods: This randomised controlled trial (RCT) was conducted in 202 patient randomly allocated to either the listening to Al-Quran recitation group or the control group. BP, heart rate and stress score using Profile of Mood Score-brief (POMS-brief) were assessed at baseline and 30 minutes after the intervention.

Results: Change in systolic BP (SBP)/diastolic BP (DBP) was -5.9/-3.76 mmHg and heart rate was -4.06 bpm for the listening to Al-Quran recitation group after the intervention. For the control group, change in SBP/DBP was -1.68/-1.84 mmHg and heart rate was -1.39 bpm. Comparison of both the groups at the end of the trial using ANCOVA analysis showed that the Al-Quran recitation caused a significantly higher reduction in SBP ($p < 0.001$) and heart rate ($p < 0.001$), but not DBP (0.863). Significant improvements were found in total mood disturbance, anxiety and vigour.

Conclusion: This is the first RCT to demonstrate that a selected mind-body therapy incorporated with religious therapy, listening to Al-Quran recitation even in a single session, can result in decreased BP and psychological distress. This religious approach can be encouraged to be continually practiced by the Muslim population as an adjunctive therapy for hypertension.

Keywords: hypertension, blood pressure, Al-Quran recitation, mood

PP080

Influence of Patients' Medical History of Hypertension on the Effects of Disclosing Genetic Testing Results of the Risk for Salt-Sensitive Hypertension in Primary Care

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Introduction: Disclosing genetic testing results should contribute

to the prevention and management of common diseases. Whether the presence of a disease is a key factor that influences the effect of disclosing genetic testing results is unclear. The purpose of this study was to clarify the difference in the effects of disclosing genetic testing results of the risk for salt-sensitive hypertension on the salt-intake behaviours of hypertensive and non-hypertensive patients.

Methods: A cross-sectional study using a self-administered questionnaire was conducted in outpatients at six primary care clinics and hospitals. The main factors assessed were medical history of hypertension, salt preference, reduced salt intake and behaviour modification of reducing salt intake. Behavioural stage was assessed according to the five-stage trans-theoretical model. Behavioural modifications of participants were assessed using their behavioural stages before and after disclosure of the hypothetical genetic testing results.

Results: Of the 2,237 outpatients at the study sites, 1,644 (73.5%) [hypertensive: 558 (33.9%) and non-hypertensive: 1,086 (66.1%)] responded to the survey. After being notified of the result 'If with genetic risk', the non-hypertensive participants were more likely to make positive behavioural modifications compared to the hypertensive patients (adjusted relative ratio (ad-RR) 1.76; 95% CI 1.12–2.76 and ad-RR 1.99; 1.11–3.57, respectively). In contrast, no difference in negative behavioural modifications after being notified of the result 'If without genetic risk' between hypertensive and non-hypertensive patients was detected (ad-RR 1.05; 0.70–1.57).

Conclusion: The behaviour of modifying salt intake after disclosure of the genetic testing results differed between hypertensive and non-hypertensive patients. Disclosing a genetic risk for salt-sensitive hypertension was likely to cause non-hypertensive patients, especially those aged < 65 years, to improve their behaviour regarding salt intake. The disclosing genetic testing results could help prevent hypertension, but that patient-doctor risk communication of the genetic testing should be provided for patients with a medical history of hypertension.

Keywords: attitude to health, genetic testing, hypertension, outpatient, sodium-restricted.

PP081

Hypertension Self-Management Programme for Hypertensive Patients With Suboptimal Control: Experience Sharing From a Primary Care Clinic of Hong Kong

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Introduction: Hypertension and its related cardiovascular complications are the major cause of mortality and morbidity worldwide. Self-monitoring of blood pressure (BP) can lead to better BP control, better adherence to treatment and patients become more actively involved in the management of their BP. The aims of this study were to empower hypertensive patients' self-management knowledge, techniques and self-efficacy; to promote home blood pressure monitoring; and to achieve better hypertension control.

Methods: All hypertensive patients with suboptimal BP control, defined as BP $> 140/90$ for age < 80 years or BP $> 150/90$ for age ≥ 80 years, were identified. All patients were motivated to enrol in the programme, which included a self-BP management workshop, a patient BP machine correlation test, a BP machine loan scheme and a multidisciplinary health talk series. The cohort patient group was monitored and randomly sampled periodically to assess the progress of BP control.

Results: 29.8% (1480/4964) of hypertensive patients aged <80 years and 14.9% (198/1332) of those aged ≥80 years were identified with suboptimal BP control in December 2012. All these patients were motivated to participate in activities of the Hypertension Self-Management Programme. At 12 months, the suboptimal SBP control decreased to 35%, while the suboptimal DBP control decreased to 7%. Their mean BP was 135.4/76.5 mmHg. Among the patients who participated in the BP machine loan scheme, 62 were followed to review their BP control. Paired t-test showed that both their clinic and home BPs statistically improved.

In a survey involving 177 patients who participated in the programme, almost all of them agreed or strongly agreed that they were empowered, attained competence or realised its benefits in self-management of hypertension.

Conclusion: The Hypertension Self-Management Programme focusing on empowerment of self-BP monitoring showed significant beneficial effects and was able to achieve better BP control.

Keywords: hypertension, self-management, primary care

PP082

Enhancing the Management of Hypertension by Family Physician-Led Hypertension Clinics in Public Primary Care Clinics in Hong Kong

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Introduction: Family Physician-Led RAMP-HT Clinics, as a part of Risk Assessment and Management Programme – Hypertension (RAMP-HT), were set up in the general outpatient clinics of Kowloon East Cluster (KEC) in October 2011. The clinics receive patients who would traditionally be referred to medical specialist outpatient clinics (SOPCs), including those with suspected white-coat or refractory HT. After detailed assessments by family medicine specialists and HT nurses, the patients would be offered a tailor-made multi-disciplinary management plan encompassing education, medication adjustment, investigations to exclude secondary causes and ambulatory blood pressure monitoring (ABPM).

Methods: The study evaluated the results and outcomes of all the patients who attended the RAMP-HT Clinics in KEC from 1 November 2011 to 31 December 2012. A before–after study design was employed to study the effects on the clinical outcomes. Relevant clinical data retrieved from the hospital authority database were analysed.

Results: The programme served 911 patients. The mean age of the patients was 65.0 years and 62.7% were female. Their cardiovascular (CVD) risk levels as assessed by the JBS CVD calculator were low (15.4%), medium (34.4%) and high (50.2%). Most patients (69.8%) were referred for suspected white-coat HT, and 23.7% and 6.5% were referred for refractory HT and suboptimal BP control, respectively. 282 patients (31.0%) received ABPM, with 66.8% diagnosed to have HT with a white-coat component and 3.4% were confirmed to have white-coat HT.

The clinics discharged 420 (46.1%) patients after an average of 2.2 visits. The mean systolic and diastolic BP had been reduced by 20.1 mmHg and 8.3 mmHg, respectively ($p < 0.001$). A higher proportion of patients (increase from 5.2% to 43.5%) can attain the BP targets on discharge ($p < 0.001$). Only 15 (1.6%) patients were referred to SOPCs for further management.

Conclusion: RAMP-HT Clinics have successfully managed hypertensive patients with uncontrolled BP and reduced secondary referrals.

Keywords: hypertension, family practice, Hong Kong, ambulatory blood pressure monitoring

PP083

The Influence of Family History on the Desire of Outpatients to Undergo Genetic Testing for Salt-Sensitive Hypertension

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Introduction: It is unclear whether patients' medical histories influence their desire to undergo genetic testing. We clarified how the influence of medical history on the desire to undergo genetic testing for salt-sensitive hypertension differs between hypertensive and non-hypertensive patients.

Methods: In this cross-sectional study, 1,705 outpatients at primary care clinics and hospitals were surveyed using a self-administered questionnaire. The main characteristics measured were age, sex, education level, family history, concern about hypertension and the desire to undergo genetic testing for salt-sensitive hypertension. After the participants were divided into 578 hypertensive and 1,127 non-hypertensive patients, factors associated with the desire to be tested in each group were analysed using the logistic regression model.

Results: The mean (\pm SD) age of hypertensive patients was 69.6 \pm 12.4 years, and 323 (55.9%) patients had a desire to be tested. Data analysis revealed that this willingness was related to a high education level (adjusted odds ratio [ad-OR]: 1.81, 95% confidence interval [95% CI]: 1.12–2.93), a family history of stroke (1.55, 1.04–2.31) and concern about hypertension (2.04, 1.27–3.28). Meanwhile, in the non-hypertensive group, the mean age was 51.3 \pm 16.5 years, and 509 patients (45.2%) had a desire to undergo testing. This willingness was influenced by education level (ad-OR: 1.31, 95% CI: 1.01–1.71), a family history of hypertension (1.50, 1.15–1.94) and concern about hypertension (2.01, 1.52–2.66).

Conclusion: Family histories associated with the desire to be tested for a genetic risk of salt-sensitivity differed between hypertensive and non-hypertensive patients, suggesting that non-hypertensive patients desired to know their likelihood of developing hypertension, whereas hypertensive patients desired to know the risk of stroke (complications of hypertension). Counselling patients who have obtained their genetic test results would allow for consideration of the different medical histories of patients.

Keywords: hypertension, genetic testing, family, history, counselling

PP084

Barriers to Adherence of Malaysian Clinical Practice Guidelines (CPG) on Management of Hypertension

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Introduction: Blood pressure control in Malaysia remains suboptimal despite there being national guidelines on the management of hypertension since 1998. Studies have shown that compliance to guidelines results in better hypertension control in patients. However, gaps remain between recommendations and actual practice. The aim of this study is to explore the views of policymakers, doctors and allied health professionals on the barriers to adherence of CPG to of hypertension management.

Methods: The study design was qualitative, using in-depth interviews and focus group discussions involving policymakers and healthcare professionals (HCPs) at the University of Malaya Medical Centre in 2013. Purposive sampling was used. An interview topic guide was developed based on literature review. The discussions were audio-recorded and transcribed verbatim. Two researchers analysed the data independently using the framework analysis approach.

Results: We captured the views of 7 policy makers (hospital director, drug and therapeutic committee member, renal physician and nursing matron) and 28 HCPs (FMS, primary care trainees, pharmacists and nurses). Major barriers to CPG adherence that were identified include availability of medications, attitudes of HCPs, patients' choice and a healthcare system that is non-supportive of CPG use.

Conclusions: Numerous barriers to CPG adherence to hypertension management have been identified. These barriers tend to span across all stakeholders. Remedies to address these gaps must first overcome the borders between stakeholders.

Keywords: hypertension, barriers, clinical practice guidelines, qualitative

PP085

WHO Staging, Adherence to HAART and Abnormal Cervical Smears Among HIV-infected Women Attending Dr Yusuf Dadoo Hospital, South Africa

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Introduction: South Africa has more human immunodeficiency virus (HIV)-infected people than any other country in the world. Women infected with HIV have a preponderantly high risk in the development of cervical dysplasia and cancer of the cervix. The aim of the study is to assess the association of World Health Organization (WHO) staging and adherence to highly active antiretroviral therapy (HAART) with abnormal cervical smears amongst HIV-infected women attending Dr. Yusuf Dadoo Hospital.

Methods: A cross-sectional descriptive study was conducted in a district hospital. Three hundred and ninety cervical Pap smears were reviewed and classified according to the Bethesda system. Adherence was measured by the patient's report. Mean and median were used for continuous variables and a Chi square test for categorical variables.

Results: The mean age was 38±8.67 years. The most frequent age group of first sexual encounter was between 15 and 19 years and 92% (359/390) had two or more sexual partners. 84% (328/390) had stage 1 WHO-HIV classification. The median CD4 count in this study was 381 cells/mm³. 84% (330/390) were on HAART and the prevalence of abnormal Pap smears was 57%. Low grade squamous intraepithelial lesion (LSIL) was the commonest abnormality seen (142/390, 36%). The WHO stage 3 participants seemed to be three times more likely to have abnormal Pap smears than those with WHO stage 1 (OD 3.3, STD. error 1.70, p=0.018, 95% CI 1.23–9.04). CD4 count levels between 200 cells/mm³ and 349 cells/mm³ have more abnormal Pap smears.

Conclusion: A more immune-suppressed woman has the higher the risk of developing cervical cancer precursors. Cervical cancer screening is imperative in HIV-infected women, and guidelines considering the severity of immunosuppression should be provided to the healthcare workers.

Keywords: WHO staging, adherence to HAART, CD4 count, HIV viral load and abnormal cervical smears

PP086

Study on Knowledge, Attitudes and Beliefs Related to HIV/AIDS Among Secondary School Students in Batu Pahat District, Malaysia

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Introduction: An estimated 11.8 million young people aged 15–24 are living with HIV/AIDS worldwide. They are vulnerable to HIV infection because of risky sexual behaviour and substance use. This study aims to determine the knowledge, attitudes and risk behaviour related to HIV/AIDS among secondary school students in Batu Pahat district, Malaysia.

Methods: This cross-sectional study was conducted among Form One students from five randomly selected secondary schools between January and March 2013. Data were collected using a standardised pre-tested self-administrated questionnaire and analysed using SPSS version 15.

Results: A total of 1157 respondents participated in the survey. The majority were male (51.2%) and Malays (79.4%). The overall knowledge about HIV/AIDS transmission and prevention were low. Females had better knowledge compared to males (p<0.05).

The respondents have a misconception that HIV-infected persons will appear physically unhealthy (80.4%) and having sex with an infected partner will not transmit the HIV (63.4%). Sharing food (25.5%) and mosquito bites (25.2%) were incorrectly identified as routes of transmission. Television was the most important source of information about HIV/AIDS (73.8%). The overall attitudes were poor. The mean attitude score was 39.78 (95% CI 39.43–40.14). The differences in mean attitude scores were very small among gender (males: 40.32, 95% CI 39.8–40.83; females: 39.23, 95% CI 38.76–39.7) and school categories (urban: 41.16, 95% CI 40.67–41.65; rural: 38.5, 95% CI 38.03–38.98). 20 (1.7%) students had already experienced sexual intercourse. The rate was higher among Malay males from rural schools (p<0.05).

Conclusion: The level of knowledge related to HIV/AIDS among respondents was low. They also have an unsatisfactory attitude towards the prevention of HIV/AIDS and people living with HIV/AIDS. There is a need for comprehensive HIV/AIDS education, including promotion of safe sexual behaviour, to decrease disease transmission.

Keywords: knowledge, attitudes, HIV/AIDS

PP087

The Prevalence of Intimate Partner Violence (IPV) Among HIV-Positive Women Attending ID Clinics in UMMC and Sungai Buloh Hospital

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Introduction: Intimate partner violence (IPV) and human immunodeficiency virus (HIV) infection are both serious public health issues and there is growing evidence linking the epidemics of these two problems. However, data from Malaysia are lacking. This study aimed to estimate the prevalence and factors associated with IPV among HIV-positive women attending two infectious disease (ID) clinics in Klang Valley, Malaysia.

Methods: This was a cross-sectional study conducted among 143 women with HIV infection attending ID clinics in UMMC and Sungai Buloh Hospital from June to August 2013. Data were collected using a self-administered questionnaire, and exposure to IPV was ascertained using a validated Malay version WEB scale. Characteristics of the participants who reported IPV were compared with those who did not. Data were analysed using Chi-square and Fisher's Exact tests.

Results: The mean age of the 143 participants was 40 years (range 20–77 years); 33.6% were Chinese and 84.6% were on antiretroviral therapy. One in four women with HIV infection (23.8%) reported IPV in the preceding year and 27% reported it within 5 years. Among those experiencing IPV in the preceding year, the majority (67.6%) experienced psychological abuse, followed by 8.8% physical/sexual abuse, and 23.5% had experienced both types of abuse (psychological and physical/sexual) in the last 1 year.

Low-income level and partner's smoking status were significantly associated with IPV among HIV-positive women in the preceding year ($p < 0.05$). ART treatment was found to be a negative predictor and there was no significant association with socio-demographic, contraception use, high-risk behaviour and history of childhood abuse.

Conclusion: Almost one in four women living with HIV had experienced IPV in the preceding 5 years. In view of the prevalence, a larger study involving many different centres and larger participant recruitments would give a better picture of the situation.

PP088

Knowledge, Attitude and Practice About STD/ HIV/AIDS Among the Health Attendants of a Tertiary Level Hospital of Eastern Nepal

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Introduction: Knowledge, attitude and practice surveys are possibly the most frequently used studies in health-seeking behaviour research. In the study conducted in rural hospitals in South Africa among health workers showed that the majority of the sample had medium level of knowledge about sexually transmitted diseases (STD/ human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS). So our study tried to assess knowledge, attitude and practice towards such diseases among health attendant staffs (health aids and health attendants) of B.P. Koirala Institute of Health Sciences (BPKIHS).

Methods: A descriptive cross-sectional study was conducted among health attendant staffs working in different departments of B. P. Koirala Institute of Health Sciences in June/August 2013. A questionnaire in Nepali was developed focussing on knowledge, attitudes and practice related questions on STDs/HIV/AIDS. Both open and close ended questions were included. The data collected by researchers with interview techniques maintained total privacy and confidentiality.

Results: The expected sample size was 200 but only 180 were interviewed, 20 were not presented during study period with 90% response rate. About 86% had heard about STDs/HIV/AIDS, about

72% were willing to work with HIV positive infected co-workers. About 46.7% had heard about the standard precaution methods and most of these methods were practiced using gloves (36%), mask (33%) and boots and gown (19.4%). When knowledge, attitude and practice were correlated, it showed a negative relationship [($r = -0.183$), ($r = -0.042$), ($r = -0.025$) respectively] with the age of the respondent. When correlation was done during the years of work done with these attributes showed that it has positive relation with knowledge ($r = 0.004$) and attitude ($r = 0.159$) but negative relation with practice ($r = -0.068$).

Conclusion: The results of the research indicate that majority of the Study population had basic knowledge about the STDs/HIV/AIDS but with increased work of years, they are not applying the standard precaution method while working. Some of the participant hesitated to answers on STDs/HIV/AIDS.

Keywords: STD, eastern Nepal, HIV/AIDS, practices

PP089

The Current HTLV-I Mother-to-Child Transmission Prevention Status in Kagoshima

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Introduction: The human T-lymphotropic virus type 1 (HTLV-I) is known to be the pathogenic agent of adult T-cell leukemia-lymphoma (ATL). HTLV-I is endemic in Western Africa and Southern Japan. Kagoshima Prefecture is located in endemic areas in Southern Japan. Therefore, the prefecture-wide mother-to-child transmission (MTCT) prevention system plan was carried out beginning in 1997.

Methods: We investigated the rate of carrier pregnant women from obstetrics facilities in Kagoshima by mail in 2012 and compared our results with previous study results. We interviewed carrier pregnant women about their choices for infant nutrition, and we interviewed midwives about the follow-up system.

Results: A total of 8719 screening tests, covering 58.1% of all pregnant women in Kagoshima in 2012, were performed. The rate of carrier pregnant women was found to be 1.3%. The rate was 5.4% during 1986–1991, 1.7% in 1999, 2.2% in 2005, 2.5% in 2008 and 1.2% in 2009. Thirty-nine of 59 carriers chose short-term breast-feeding. Unsolved problems remain concerning the follow-up system after delivery.

Conclusion: The rate of HTLV-I carriers among pregnant women in Kagoshima has declined. The current HTLV-I MTCT prevention system in Kagoshima is effective, but it is not sufficient. The HTLV-I MTCT prevention manual was compiled by the Ministry of Health, Labour and Welfare in 2011. The nation-wide manual is different from the previous manual in Kagoshima. However, the nation-wide manual should be consistent in all prefectures to avoid confusion if HTLV-I carrier mothers move to other prefectures. To bring the nutrition methods to completion, economic, mental and social support is needed. Many problems concerning MTCT prevention are still unsolved. To resolve these problems, a prospective cohort study using the nation-wide manual, supported by Health and Labour Sciences Research Grants, is starting. It is expected that the problems described previously will be elucidated by this study.

PP090**Preparedness for Influenza Outbreak in a University Setting****Man K Cheung***University of Hong Kong*

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Introduction: In the past few years, Hong Kong and its vicinity have been threatened by a number of sporadic serious human cases of novel influenza viruses. A university is a place where scholars and students from all over the world come and meet. The health of a university's community is of crucial importance. Appropriate measures are needed to protect the health of the university community.

Methods: This study describes the strategies employed by a family medicine-oriented University Health Service to prevent an outbreak of influenza on campus.

Results: Leadership and effective communication are key success factors.

Conclusion: Given the versatile training and patient-oriented mindset, family physicians are well equipped to take the lead in preventing and managing influenza outbreak in a University setting, both as clinicians managing suspicious cases and as coordinators of efforts from different academic and service units.

Keywords: influenza, university, family physician

PP091**Diabetes–Tuberculosis Screening in Jakarta Urged the Alertness of Health Providers: A Preliminary Report****Trevino A. Pakasi**¹, Dhanasari V. Trisna¹, Dian K. Dewi², Dewi Friska³, Indah S. Widyahening¹

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Introduction: Comorbidity of diabetes mellitus (DM) and tuberculosis (TB) is a global concern currently, besides TB–HIV co-infection, as diabetes may impair the immune system and further develop the reactivation of TB. As Indonesia is among the countries with the highest number of patients for both diseases, we aimed to discover the problem of comorbidity in Jakarta.

Methods: A cross-sectional study was conducted in 10 primary health centres (Puskesmas) in Jakarta. Registered TB patients were screened for their blood glucose and diabetic patients were interviewed to find suspected TB. They were also questioned regarding further risk factors in the family.

Results: A total of 230 diabetic patients were screened for TB and 167 registered TB patients underwent fasting blood glucose examination. Approximately half (56.1%) of the DM patients had uncontrolled blood glucose levels, of which 19% had TB in the family. On the other hand, 26.5% of TB patients had fasting blood glucose ≥ 126 g/dL indicating diabetes. Moreover, among the TB patients more than 40% had already reported classical symptoms of diabetes. Compared to the national prevalence of diabetes (5%), diabetes among TB patients were five times greater. Similarly, with the national TB prevalence (>200 patients per 100,000 population), TB was more prominent among diabetes-registered patients. Further investigation found that 40 patients were diagnosed as TB–DM.

Conclusion: A preliminary screening of TB–DM comorbidity in 10 Puskesmas in Jakarta showed a bigger problem than what

was expected. Continuing the screening, especially in big cities in Indonesia, is suggested to discover whether the problem exists.

Keywords: tuberculosis, diabetes, comorbidity, screening

PP092**Pulmonary Tuberculosis Management in Gombak District, Malaysia: What Do We Know So Far?****Farnaza Ariffin**¹, Khairatul N Kamaruddin¹, Zati Sabrina Ahmad Zubaidi¹, Nurashikin Jamaludin¹, Hayatul Najaa Miptah¹, Nur Amirah Shibraumalisi¹, Siti Zakiah Mesbah², Rozlan Ishak²¹*Faculty of Medicine, Universiti Teknologi MARA, Selangor, Selangor;*²*Pejabat Kesihatan Daerah Gombak, Ministry of Health*

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Introduction: Tuberculosis (TB) remains a major global health concern and the WHO has set a target to reduce prevalence and death due to TB by 50% in 2015. The incidence of TB in Malaysia is rising and has reached 81.4 per 100,000 populations in 2010. The state of Selangor has the highest incidence of TB within Peninsular Malaysia, with pulmonary TB (PTB) being the most common form. The Ministry of Health Malaysia launched a revised 3rd edition clinical practice guideline (CPG) for TB in November 2012 to improve its management. The objective of this report is to assess TB management in Gombak district, Selangor, in relation to the new CPG.

Methods: This was a cross-sectional survey conducted in eight government healthcare clinics within Gombak district with known high TB cases. All newly diagnosed PTB patients within a 1-year period from 1 November 2012 until 1 November 2013 were identified from the TB registry. Patients aged <18 years or those transferred out were excluded. The appropriateness of patient management was defined according to the Malaysian CPG. Data were extracted from patient records and documentations and analysed using SPSS version 20.0.

Results: There were 545 notified cases of TB within Gombak district. A total of 117 patients were included in the study. The mean age of patients was 40.4 \pm 14.4 years. There were 63.2% men and 36.8% women. The majority (82.1%) were Malaysian and 17.9% were foreigners. Ethnic distribution was 65.0% Malays, 7.7% Chinese, 10.3% Indian and 17.1% others. When clinical features were assessed, 88.0% presented with productive cough, 32.5% had haemoptysis and 48.7% had night sweats (8.5%, 28.2% and 30.8% were not documented, respectively), and 58.1% had loss of weight, 57.3% had loss of appetite and 56.4% had fever (17.9%, 17.9% and 23.1% were not documented, respectively). For investigations, AFB sputum, chest X-ray and HIV results were mostly available with 99.1%, 89.1% and 82.1%, respectively. However, sputum culture results were only available in 27.4% of patients, with 54.7% documented as done but results were pending. All patients were started on the recommended treatment regimen. 94.0% were documented as under DOTS. Of 86 patients who were in the maintenance phase, 67.4% were identified as cured (two negative AFB sputum). All those who completed treatment were cured. The defaulter rate was 17.1%.

Conclusion: The management of PTB patients adhered to the CPG-recommended guidelines. However, improvement is required in documentation of patient's records in identifying clinical features and investigation results, especially in tracing sputum culture and sensitivity. The clinics should be commended for their implementation of DOTS and a high cure rate. Defaulter tracing can be improved.

Keywords: pulmonary tuberculosis management guidelines

PP095

Improved Interprofessional Collaboration to Spread Home Visit Care Service in Japan

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Introduction: Japan faces 'the Ageing Society,' where almost one-fourth of people are above 65 years of age. Almost 80% of them die in hospitals, although they want to spend time at home at the end of their lives. From May 2012 to March 2013, the Japanese government chose 105 main facilities of home visiting care to promote interprofessional communication and collaboration for spreading home visiting care service. Because home visiting professionals (medical doctors, nurses, pharmacists, dentists, rehabilitation therapists, care managers, social workers and administrators) work from different facilities, they often do not have good personal acquaintance with each other. The Kaita Hospital is located in Iizuka, Japan, where 130,000 residents live and selected one of these facilities because we had already provided home visit care about for 40 patients in 2011. To improve interprofessional communication and collaboration, we held three different conferences to know each job and promote mutual understanding.

Methods: Three conferences were held in the Iizuka city (October and November 2012 and February 2013). The first conference had a keynote speech and discussion about the goal of this project. The second conference was a panel discussion about mutual communication among professionals and the third conference was a workshop about collaborative care planning of home visit care. Questionary investigations, including usefulness of the conference and free comment styles, were held at these conferences.

Results: A total of 375 professionals participated in the conferences. More than 80% of participants answered that these conferences were useful. There were many comments regarding good mutual understanding and importance of interprofessional collaboration among different professionals. The number of monthly patients at the home visit care in Kaita Hospital increased from 84 in 2012 to 149 in 2013.

Conclusion: Interprofessional communication would be effective to know each job and promote mutual understanding to spread home visiting care services.

Keywords: interprofessional communication, interprofessional collaboration, home visit care, ageing society

PP096

The Mie Inter-Professional Education Project: The Result of Collaboration Between Five Departments Across Six Universities

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Introduction: With the increase in chronic diseases, there is a growing

need for collaboration among various medical professionals in the primary care setting. Despite this necessity, inter-professional education (IPE) has been insufficient in Japan. The purpose of this study is to quantify and evaluate the impact of our inter-professional programme for the treatment and management of patients with alcoholic hepatitis, which involved five departments across six universities.

Methods: We held an IPE workshop in February and May 2013. The participants were medical, nursing, pharmacy, psychology and social welfare students from partner universities. During the workshop, students were assigned to small inter-professional groups and asked to create a care plan for a simulated patient. Before and after each workshop, students were asked to complete a questionnaire that included items from the Readiness for Inter-Professional Learning Scale (RIPLS) and the Trait Emotional Intelligence Questionnaire Scale (TEIQue-SF). We then performed statistical analyses (paired sample t-tests) to evaluate differences between each workshop and whether there were significant differences between the various professional groups.

Results: Overall, there were significant improvements across all groups, particularly with 'teamwork and collaboration' (RIPLS $p=0.00$). There were also differences between the groups, for example, nursing students showed additional improvement with respect to 'self-control' ($p=0.00$) and medical students showed further improvement with respect to 'IPE opportunities' ($p=0.00$). In addition, pharmacy and psychology students' confidence with respect to 'uniqueness of profession' was also improved ($p=0.03$ and $p=0.01$, respectively).

Conclusion: Students were able to enhance and improve their inter-professional collaboration skills during the course of the workshop. Furthermore, we demonstrated that IPE may be necessary as a tool to enhance collaboration not only among multiple medical departments at a given university but also across multiple medical schools in a given community.

Keywords: inter-professional education, collaboration, community

PP098

Final Year Students' Performance in Communication Skills OSCE

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Introduction: Universiti Kuala Lumpur Royal College of Medicine Perak, Malaysia graduated its pioneer batch of medical students from its MBBS UNIKL programme in 2012. 'Communication Skills' (CS) is a core subject taught in primary care. To review CS teaching/learning, final year students' performance in the CS station in the Objective Structured Clinical Examination (OSCE) for the year 2012 and 2013 examinations was analysed.

Methods: CS components assessed in the OSCE included basic CS (courtesy, appropriate nonverbal and verbal CS); skills in information giving (stating intention of session, assessing prior knowledge), breaking bad news, recognising patients' emotional cues, checking and addressing patients' perceptions and concerns, checking coping skills and checking patient's understanding with opportunity for clarification. Students were also assessed on management (initial management, discussing referral and follow-up) and for maintaining a professional attitude. Results were analysed to determine the percentage of students obtaining satisfactory scores for each component and any significant difference (p value).

Results: There were 111 and 104 students who sat for the 2012 and 2013 OSCE, respectively. The majority of the students obtained satisfactory scores in all the CS components assessed except in the

following: assessing prior knowledge – 44.6% (2012), 48% (2013); checking patient's coping skills – 34% (2012) compared to 50.7% (2013), discussing management – 30.2% (2012), 45.2% (2013). The 2013 group performed significantly better than the 2012 group in basic CS, in checking and addressing patients' perceptions and concerns, checking patient's understanding and coping skills, discussing management and in maintaining an appropriate professional attitude.

Conclusion: Overall, the students' performance was satisfactory except for some areas of deficiencies that require improvement.

Keywords: communication skills, undergraduate training, OSCE

PP099

Walking Across the Country – The Angya Project in Japan

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In Japan, primary care is in its infancy when compared with many other countries. As not all medical universities in Japan have a Department of Family Medicine or General Internal Medicine, Japanese medical students have limited opportunities to be exposed to primary care.

To promote a better understanding of primary care among medical students, junior family physicians (FPs)/general practitioners (GPs) in Japan started The Angya Project in 2011. The project conducts teaching sessions in medical schools with few chances to provide education in family medicine. In each teaching session, one student or organisation hosts the session in cooperation with the project. The project teams help as organisers to search for teachers, publicise the events, and even help them financially. Each topic is decided by the organisers and teachers, and varies from the introduction of family medicine to women's health, palliative care and clinical inferences. Thus, any medical student can organise "tailor-made" teaching sessions for their colleagues supported by The Angya Project.

As of 2013, the project had been responsible for conducting 96 teaching sessions, with more than 2000 medical students attending these sessions. The project has been helping to continuously build networks among students, universities, and junior FPs/GPs, and also to expose students to primary care as a future career path.

Keywords: Japan, student education

PP100

Experiences of Patients Who Participated in Home Visits Conducted by Undergraduate Medical and Pharmacy Students

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Introduction: Conducting home visits is a useful teaching-learning methodology to expose the concepts of comprehensive healthcare in Family Medicine. Within the Comprehensive Healthcare module in

Universiti Kebangsaan Malaysia, undergraduate medical and pharmacy students conduct home visits in a group to patients with chronic diseases. This paper aims to describe the preliminary findings of a qualitative study looking into the experiences of patients who participated in home visits by the students in 2013.

Methods: Purposive quota sampling was used to select the patients. Researchers conducted in-depth interviews based on a semi-structured interview guide. The interviews were audio-taped and transcribed verbatim. The interview transcripts were analysed using interpretive thematic analysis. This paper reports the preliminary themes from the first six transcripts.

Results: The patients who were interviewed found the home visit experience beneficial in terms of physical health, psychological health as well as social health. The home visit was akin to a clinical consultation which led to perception of improved physical health. The home visit was an opportunity to contribute to students' learning which led to improved self worth. They also received emotional support from the visiting students. Therefore, their improved self worth and emotional support benefited their psychological health. Their positive impressions of the visiting students led to a positive social interaction. This positive social interaction contributed to improved social health.

Conclusion: In conclusion, the patients who received home visits found their experience to be beneficial to their physical, psychological and social health.

PP101

To Make Our Conferences More Smart!: The Approach of Young Doctor's Federation in Kansai

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Introduction: Young Doctor's Federation in Kansai (Kan-fed) is a graduate medical education network for young doctors. We have been holding regular conferences three times a year since 2008. We have challenged to improve the quality of our interactive conferences and workshops.

Methods: We prepared a manual for our conferences. The manual contains the setting up of the room, requirements, time schedule and guides for facilitators of small group discussions.

Conclusion: By using the manual, we can organise our conferences more smoothly and we can give more effective facilitation. It also helps our new members who might want to hold their own conferences by providing them with a time-lime of formalised steps aimed at reducing omissions and improving the overall organisational work-flow and thereby enabling them to host a more successful event.

PP102

Comparison of the Medical Students' Self-Assessment and Simulated Patients' Evaluation of Communication Skills of Students in the Family Medicine Objective Structured Clinical Examination

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Introduction: Communication is the act of conveying a message to another person, and it is an essential skill for establishing

physician–patient relationships and effective functioning among healthcare professionals. Effective communication can positively influence patient satisfaction and outcomes. Health professional communication skills do not necessarily improve over time but can improve with formal communication skills training. The aim of this study was to compare the medical students' self-assessment and the evaluation of students' communication skills by simulated patients in the Family Medicine Objective Structured Clinical Examination (OSCE).

Methods: This was a cross-sectional study done at Oman Medical College. All of the medical students who signed up for an OSCE in Family Medicine were included. As a part of the OSCE, the student's performance was evaluated by a simulated patient. After the examination the students were asked to assess their communication skills. The Calgary Cambridge Observation Guide formed the basis for the outcome measures used in the questionnaires. A total of 12 items were rated on a Likert scale of 1–5 (strongly disagree to strongly agree).

Results: 68 students participated in the examination, 88% (60/68) of whom responded to the questionnaire. The response rate for the simulated patients was 100%. Overall comparison showed that students marginally overestimated in few areas compared to simulated patients. Measures of reliability show that it is a reliable measure with Cronbach's alpha from the 12 items being 0.89. When comparing experienced and new simulators only one item (q12) showed a statistically significant difference, with $t(16)=3.08$, $p<0.05$, with experienced simulators giving a higher score 4.55, when compared with the new simulators 3.86.

Conclusion: Students' and simulated patients' assessments have some agreements. Self-assessment is guiding the future learning, providing reassurance and promoting reflection which helps to perform appropriately. Experienced simulators have higher intra-rater variance, and thus they are more willing to use a wider range scores in their assessments.

Keywords: self-assessment, communication skills, interactive education, undergraduate medical student

PP103

Involving Primary Health Care (Puskesmas) in Family Medicine Clerkship

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Introduction: The new competency-based medical curriculum in Indonesia had been implemented since 2006. The curriculum emphasised that graduated students from medical school must apply family medicine approach for patient management. Faculty of Medicine (Universitas Padjadjaran) adopted this curriculum and introduced family medicine principles in clerkship programme since 2010 in order to prepare medical students work in a primary care setting. As the family medicine is not a common approach applied in a health care setting, including Primary Health Care (Puskesmas) as a form of primary care is one way to introduce the principles to health care professionals and community. Apart from that including Primary Health Care would provide students with experience in patient management in a primary care setting. The objective is to illustrate the effort in including Primary Health Care (Puskesmas) in family medicine clerkship.

Methods: Document analysis and interviews of related resources were used for collecting data.

Results: While planning a programme, several steps should be carried out. First phase of developing family medicine clerkship programme included setting up curriculum and modules for family medicine clerkship, followed by advocating to related stakeholders regarding the programme. Second phase included socialising the programme to District Health Office and Primary Health Care (Puskesmas) followed by training a physician practicing in the chosen Primary Health Care (Puskesmas). The physicians were trained for family medicine principles and medical education. In the initial phase, there were 10 Puskesmas participating in this programme. The third phase included the implementation of the family medicine modules in Primary Health Care (Puskesmas).

Conclusion: In order to ensure that the family medicine principles be implemented in a health care setting, involving related stakeholders from the beginning is important. The implementation of family medicine principles would be beneficial if the related institution could implement the principles.

Keywords: Primary Health Care (Puskesmas), family medicine, clerkship

PP104

Involving Medical Students in the Management of Diabetic Patients in a Family Doctor Clinic

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Introduction: In the Medical Education Programme on Family Medicine, University of Padjadjaran, one of the competencies that should be achieved by the medical students was the management skills of health problems in individuals, families or communities in a way that is comprehensive, holistic, continuous, coordinated and integrated in the context of primary health care. One of the places of learning in the field was Mitra Sehati Family Clinic, a private clinic located in the middle of urban housing, West Java. To achieve the expected competencies, students were required to manage five patients, including patients with chronic diseases such as diabetes mellitus. International Diabetes Federation (IDF) and World Health Organization (WHO) has stated that the prevalence of diabetes in Indonesia is ranked fourth worldwide. This figure will continue to rise as we cannot prevent and control the increasing number of diabetes patients. Using a holistic and comprehensive approach toward patients with diabetes, their families also expected that the condition of diabetic patients would get better. The activities performed by the students of other health education programmes included patient grouping with diabetes, diabetes gymnastics every Saturday, the health examination, the laboratory and monitoring medication to patients every month, carry out a home visit on the patients with health issues and also new patients. The patient's family was expected to provide positive support and be protected from the disease despite having diabetes risk factors. The aim of the study was to illustrate the activity of medical students in the management of diabetes by practice in Family Medicine Clinic.

Methods: During the 5-week studying family medicine the students stay at the rent house near the clinic. After introductions with all clinic staffs, they crowned became part of the team working at the clinic with a Mitra Sehati pin pinned on their shirt. First of all they measured BMI of each, then calculate the number of calories needs as well as composing the appropriate menu. In

addition, they should also make an exercise program at least 3 times a week. They seek his BMI becomes normal. Thus they will feel how difficult it is to motivate patients to change the pattern of their life. Each student is given the task to manage some patients including diabetic patients. Starting from introducing himself as a family doctor, receiving the patients, performing anamnesis, taking a physical examination, making a diagnosis holistic, making patient management plan, providing health education, conducting home visits, counselling, and also make the patient reports.

Results: In the management of diabetes patients, most students received the benefit of family medicine through the learning process. Students not only apply the theory gained from the science education in internal medicine at the hospital onto the patients with diabetes mellitus, but they are also required to apply the theory into their everyday life, such as regulating healthy nutrient intake according to the caloric needs and exercise as per the FITT recommendation. It is expected to foster greater empathy toward diabetic patients and realise the importance of morals, ethics and professionalism in medical practice.

Conclusion: Involving medical students in all activities of Diabetic Patient Management in Family Doctor Clinic will be much useful for medical students in the learning process of family medicine. Apart from the scientific course, students are also aware of the importance of morals, ethics and professionalism in medical practice.

Keywords: Programme on Family Medicine, diabetic patient management, healthy lifestyle

PP105

Correlation of Motivation, Organisational Culture, Performance and Assessment Achievement in Family Medicine Training at Faculty of Medicine University of Indonesia

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Introduction: An achievement can be influenced by motivation, organisational culture and performance. The Faculty of Medicine University of Indonesia has conducted family medicine training for doctors who work in community healthcare (Puskesmas). The purpose of this study was to determine the correlation between assessment achievement (written and portfolio), age and years of working in Puskesmas with question items on motivation, organisational culture and performance.

Methods: Twenty-one trainee Puskesmas doctors filled a self-assessment questionnaire on work motivation, organisational culture and performance, in which all questions have been previously validated. Cronbach alpha values were 62.3%, 87.8% and 88.2%, respectively. Data were analysed using SPSS software to perform descriptive and analytical statistics.

Results: The results showed that there was a significant difference in written test achievement between the groups of participants who were willing to take risks in their work than those who did not want to take risks (performance). There was a significant moderate negative correlation between portfolio score, with self-confidence becoming an important part of Puskesmas (motivation). There was a significant moderate negative correlation between age and perception on fair income (motivation). There was a significant moderate positive correlation between age and years of working in Puskesmas, with a perception of Puskesmas' organisational culture (organisational culture).

Conclusion: Self-assessment of the performance, motivation and

organisational culture in Puskesmas has a moderate correlation with the achievement in family medicine training. Age and duration of work in Puskesmas also play a role in motivation and perception of the organisational culture.

Keywords: motivation, organisational culture, performance, achievement, family medicine training

PP106

'Choshu General Physicians and Family Physicians Training Programme' to Increase the Number of General and Family Physicians in Rural Areas

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Introduction: The rural area of Yamaguchi Prefecture in Japan, as designated by law, comprises 60% of the prefectural land, but only 15% of its population. The shortage of physicians in rural areas is a serious problem. To address this problem, the Jichi Medical University in Japan instituted a system in which physicians were obliged to work for a period of time in rural areas after graduation. However, only this system was insufficient; therefore, the Yamaguchi Prefecture government established scholastic funding programmes in which students from local universities must work in rural areas after graduation. In addition, in 2013, the Ministry of Health initiated a new specialist system for doctors graduating in 2017. In the new system, the term 'general physician' applies to a specialist of the 19th century. However, in Yamaguchi Prefecture, there is no programme to train general physicians; therefore, new graduates are obliged to practice medicine in rural areas to obtain a specialist qualification of 'general physician'.

Methods: In rural areas, there is a need for physicians to meet the medical needs of residents. Therefore, a rural area is a place where a new graduate can acquire the skills necessary for a general physician. In 2012, the Support Center of Rural Medicine established a programme for a qualification of general physician. Residents will be trained at hospitals in rural areas and our hospital over a period of 3 years. To guarantee the quality of the programme, medical advisors of the Japan Primary Care Association are employed in rural hospitals and our hospital.

Results: As of April 2014, three residents have been admitted to this programme; among these, two are training in rural areas.

Conclusion: Doctors are obliged to practice in rural areas to acquire a specialist qualification of general physician.

PP107

Undergraduate Medical and Pharmacy Students Comprehensive Health Care Modules: Expectations of Patients Who Participated in Home Visit

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The Comprehensive Health Care (CHC) module was first introduced in 2008 as a part of training for second-year medical and third-year pharmacy undergraduate students of Universiti Kebangsaan Malaysia. This module aimed for the early clinical exposure to

inter-professional education elements to students. According to this module, students are instructed to conduct a home visit and thus learn the comprehensive aspect of patients' biopsychosocial management. This poster, thus, aims to describe patients' expectations towards home visits as their cooperation is essential to ensure that the teaching-learning objectives are met. This would, in turn, improve patients' willingness to participate in the future. This poster reports the preliminary findings from the first 6 in-depth interviews. Home visits are an effective teaching-learning methodology for healthcare students. Often, patients who agree to be visited by students do not receive any monetary remuneration. However, their expectations from receiving home visits have not been explored. This is a qualitative study involving patients who received home visits in 2013 from healthcare students under an undergraduate CHC module. This poster describes the preliminary findings from the first 6 in-depth interviews. The participants were selected via purposive quota sampling. In-depth interviews were conducted and audio-recorded at their homes. Thematic analysis revealed three major themes; expectations of the student, expectations of the education programme and expecting appreciation. Although involvement in the home visit is voluntary without payment, the interviewed participants still expect the students to learn from the visits and to become good healthcare professionals. The interviewed participants also expressed their wish for the programme to continue as they believed in its benefits. The expected ways of appreciation included emotional appreciation, such as being remembered by the students, and physical appreciation, such as gifts and cash. In conclusion, patients who receive home visits from healthcare students have certain expectations from their participation. Meeting these expectations may facilitate their participation in future home visits.

PP108

Comprehensive Initial Training for Medical Doctors Started in 1980 in Musashino Red Cross Hospital

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Introduction: Medical education in Japan greatly changed after World War II. By instructions of the General Headquarters, the Supreme Commander for the Allied Powers, from 1948 as early clinical training, internal medicine for 5 months, surgery for a month, obstetrics and gynaecology for a month, public health for a month and a total 1-year mandated internship. This system was unpaid before the nation examination system problem, and was abolished in 1968 by the campus dispute that spread throughout Japan. Subsequently became mainstream medical centre by the university personnel, but did not develop the training of general practitioners in Japan was aiming for specialisation of university faculty of medicine. The Musashino Red Cross Hospital (MRCH) started a comprehensive initial training for medical doctors since 1980. The Japan Red Cross Society as the most important philosophy advocates disaster medical for its realisation in general medical education is very important.

Methods: The MRCH employed the intern doctors by a general invitation examination and educated them for 2 years. In principle

mandatory training period within 2 years in internal medicine, surgery, paediatrics, obstetrics and gynaecology training, mental training and regional medical training.

Results: From 1980 to date, the MRCH has provided general medical education to more than 200 doctors. In Japan, from 2004 onwards, medical graduates in all general medical education for 2 years can be mandated.

Conclusion: Comprehensive initial training for medical doctors is very important. In Japan, from the year 2020, general medicine training under the new medical programme has been scheduled.

PP109

A Practical New Professional Attitude Scale With Vignettes for Physicians and the Society Modelling ABIM Vignettes

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Introduction: We begin with the statement by Peabody "Medicine is not a trade to be learned but a profession to be entered". A professional is defined as any group that is sharing special knowledge and standards of education practice under an ethical framework. Professionalism is the medical profession's contract with the society which means service to societal goals and its commitment to healthcare. Professionalism comprises altruism, accountability, excellence, duty, service, honour, integrity and respect for others. There are wide variations in medical delivery and practice besides the different needs and expectations of the societies and cultures resulting in different expressions. We aimed to develop a scale that can reflect the differences and common understandings of physicians and the society depending on American Board of Internal Medicine's vignettes about professionalism.

Methods: We wrote 13 vignettes according to ABIM's three fundamental principles and 10 professional responsibilities using our and colleagues' experiences. Every vignette can be graded in four categories from 'no problem' to 'a serious problem'. After pilot testing with a group of medical students with a 2-week interval we applied this scale to 100 participants, including medical students, faculty, patients and healthy individuals from the society.

Results: Internal consistency and test-retest reliability was good (Cronbach's alpha=0.76; p<0.001). Kaiser-Meyer-Olkin test=0.77, in structural equation modeling (SEM) p=0.04, goodness-of-fit index (GFI)=0.91, comparative fit index (CFI)=0.90, root mean square residual (RMR)=0.85 and root mean square error of approximation (RMSEA)=0.51.

Conclusion: Medicine is said to be a science of probabilities with its reflections as an art in practice and family physicians are often in the forefront of this art. This scale seems to be a good scale to define the different aspects of both physicians and the society with respect to understanding of professionalism and attitudes.

Keywords: professionalism scale, social contract, family medicine, medical education, society

PP110

The Evaluation of Mindful Attention Awareness and Related Characteristics of Phase I Students at Gazi School of Medicine (in English)

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Introduction: Mindful attention awareness (MAA) can be defined as self-regulation of attention and negative emotional stability by escaping from abnormal identification. Self-regulation of attention needs constant concentration. MAA mainly focusses on attention and also contains a huge source of positive emotions.

Understanding and expressing the emotions of the students who have chosen to become a medical doctor plays an important role. This study aimed to evaluate the MAA of medical students.

Methods: The Mindful Attention Awareness Scale (MAAS) developed by Brown and Ryan (2003) was used. It was adapted to Turkish and its reliability and validity were tested. As the score increased, the MAA also increased.

Results: The mean age of the students was 19.01±1.1 years. Thirty nine students were female and 58.8% (n=44) of them were coming from metropolitans. In the study group, nearly all of the students (96%, n=72), of whom one-thirds (32%, n=24) were living in the dormitories, stated that they had chosen medical school by themselves. Thirty students declared that they had chosen medicine for a higher salary, while 14 noted status and 11 noted moral satisfaction as a reason. The average MAAS score was 58.15±12.56 (male: 62.29±11.64, female: 54.44±12.32; p=0.004). The highest score for the ones who had chosen the job for salary was 59.67±12.47. The lowest score was correlated with the ones who had chosen the job due to family influence (48.00±11.79). The MAA score of students living in metropolitans (59.52±11.05) were higher than those who were living in the villages (p=0.03).

Conclusion: There is a correlation between MAA and multiple parameters such as living in metropolitans. It is observed that the doctors with high MAA scores are more prone to be successful in their jobs, and because of this inclusion of social programmes in the education curriculum is recommended.

PP111

Perceptions About 'Being a Doctor': A Professionalism Project

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Introduction: There is a specific increase in violence against physicians and general moaning about paradoxes between Education Blocks and the Hospitals. We hypothesised some misconceptions about understanding of the meaning of 'being a doctor' and 'social contract' between physicians and the society resulting in violence against doctors and stressing teaching as a common professional

understanding. We aimed to express the conceptions of different parts through their words and expressions.

Methods: About 100 individual, semi-structured, audio-taped/noted voluntary interviews with simple random sampling were conducted with written informed consent after ethical approval. Interviewees were medical students, faculty of medical school, patients and healthy individuals. Guiding questions were as follows: "What does the word 'being a doctor' mean to you?", "What do you think that you will be/are a doctor mean for the society?", "What do the words 'social contract between a doctor and a patient' mean to you?" and "From your viewpoint, are there any unacceptable attitudes/behaviours (for a doctor) you observe?" Using a grounded theory approach, interviews were coded with an agreement of 90%. All interviews were decoded and codes were numbered and analysed using SPSS for frequency of attributions to the themes.

Results: Violence was a common theme of interviews although no specific questions were asked (physician 30%; society 23%). The themes "patient-doctor relationship", "giving information to patient" and "changing image of doctor in the society" were specifically related to the violence theme. Nearly all of the participants (98%) stated the importance of doctor-patient relationship and humanistic values. Patient-oriented manner was noted more (75%) compared with a specified job-oriented manner (43%).

Conclusion: This study has a few important implications such as, "a doctor who is a great scholar but rude and unable to smile seem to make no sense for both the physician himself and the society the doctor is living in". The social aspects of medicine should be included in the medical curricula.

Keywords: professionalism, medical education, doctor, society, humanistic values

PP112

Cancer in Asian Men: Findings From the Asian Men's Health Report

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Introduction: Cancer morbidity and mortality differ between men and women. Global and European reports have found that men with cancer had a poorer clinical outcome compared to women. Primary care doctors are frontline healthcare workers who play an important role in cancer screening and diagnosis. It is therefore important for them to be aware of the gender-specific differences in the cancer rate in the respective country. This study aimed to report the incidence and mortality of cancer among men across Asia.

Methods: This study involved secondary data analysis from 47 Asian countries and two regions (Hong Kong and Taiwan). The 2008 data of all cancers (except non-melanoma skin cancer) were extracted from GLOBOCAN and the respective country government websites. Age-standardised incidence and mortality rates were used to make a comparison between countries/regions.

Results: In Asia, men had higher incidence (170.6 vs. 139.6 cases per 100,000) and mortality rates (124.2 vs. 83.2 deaths per 100,000) compared to women. The highest male cancer incidence rates were from Taiwan, South Korea and Israel (317.3, 309.4 and 303.7 cases

per 100,000), while the lowest were from Syria, UAE and Oman (76.6, 80.5 and 82.2 cases per 100,000). In terms of mortality rates, Mongolia, Armenia and Kazakhstan had the highest (230.3, 209.5 and 181.3 deaths per 100,000), while UAE, Syria and Saudi Arabia had the lowest (56.1, 57.9 and 67.9 deaths per 100,000). Compared to Australia, Canada and USA, the cancer incidence rate in South Korea, Japan and India were lower; however, the reverse was true for mortality rates.

Conclusion: There is a huge variation in male cancer incidence and mortality rates across Asia. More research must be done to explain this variation so that appropriate measures can be taken to reduce cancer mortality and morbidity in men, both at the public health and primary care levels.

Keywords: cancer, Asia, male, incidence, mortality

PP113

Suicide Pattern and Its Determinants Among Asian Men: Findings From the Asian Men's Health Report

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Introduction: Suicide is a neglected health problem worldwide. Men are known to have a higher suicide rate compared to women. However, there is a lack of systematic documentation of the suicide pattern and its associated determinants in Asia. This study aimed to report the suicide rates in Asia according to sex, age, socioeconomic status and location.

Methods: The data on self-inflicted injuries of 47 Asian countries from the WHO Global Burden of Disease (2008) were extracted. Age-standardised mortality rate was used to compare suicide rates between sexes and across countries in Asia. Further analysis was performed to determine the association between suicide rates and country income group, region and age group (0–14, 15–59 and ≥60 years).

Results: In Asia, the overall suicide rate in men was 2.5 times higher than that in women (12.0 vs. 4.8 deaths per 100,000). The suicide rate among men was the highest in Kazakhstan and the lowest in Syria (55.5 vs. 0.5 deaths per 100,000). In terms of male:female suicide rate ratio, it was the highest in Jordan (27.8:1) and the lowest in Afghanistan (0.71:1). In terms of age, the suicide rate was the lowest in the 0–14 years age group (men 0.55 vs. women 0.31 deaths per 100,000) and the highest in the ≥60 years age group (men 20.20 vs. women 8.13 deaths per 100,000). Regionally, suicide rates were the lowest in the Middle East (men 5.0 vs. women 1.8 deaths per 100,000) and the highest in central Asia (men 26.4 vs. women 5.2 per 100,000). There was no specific pattern observed in terms of country income group.

Conclusion: The study found that men in the older age group have higher suicide rates. Primary care physicians should consider screening for depression in this high-risk group to reduce suicide rates.

Keywords: suicide, Asia, men, depression

PP114

Prevalence of Depression and Its Associated Factors Among Type 2 Diabetes Mellitus Patients in a Selected Primary Care Clinic in Kuantan, Pahang

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Introduction: Depression is one of the most common mental health disorders in Malaysia. It occurs at any age and diseases. It also has an increasing trend among patients with chronic illnesses including diabetes mellitus. The objectives of this study were to determine the prevalence of depression and its associated risk factors among patients with type 2 diabetes mellitus who attended a primary care clinic.

Methods: A cross-sectional study was carried out. The participants were selected through random sampling from a list of patients who attended the diabetic clinic in a selected primary care clinic in Kuantan, Pahang, during the period from 1 July 2013 to 31 August 2013. The data were collected using a questionnaire comprising two parts. The first part consists of the demographic and clinical characteristics of patients. The second part screened the presence of depression among the participants with diabetes mellitus by using the validated Depression and Anxiety Stress Scale 21 (DASS 21) Malay version.

Results: A total of 103 participants were enrolled and the prevalence of depression in this study was 12.6%. The study also revealed that depression is significantly difference with gender (21.2% vs. 3.9%) and history of a recent significant life event (33.3% vs. 9.1%).

Conclusion: The results indicate that female patients with type 2 diabetes mellitus or those with a history of recent significant life event have a higher risk of suffering from depression and need greater attention from primary care providers.

Keywords: depression, type 2 diabetes mellitus, primary care, DASS 21

PP115

How Does Trait Anxiety Affect Healthcare Utilisation?

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Introduction: Limited information is available on the relationship between anxiety and patients' healthcare utilisation. The aim of this study is to investigate the relationship between trait anxiety and healthcare utilisation in Japan.

Methods: Data were obtained from 7866 persons in the city and suburban and rural areas in Mie, Japan, from 2012 to 2013. Trait anxiety was assessed by the Japanese version of the State-Trait Anxiety Inventory. The questionnaire also measured medical facility visits, emergency calls, emergency room visits, ambulance use, admission rates and other demographic variables. Regression analysis was done and the GLM procedure was used to adjust for possible confounding factors.

Results: A high trait anxiety level showed a significantly higher medical facility use, ambulance use and admission rate. This relationship exists after adjustment for age. In contrast, high trait anxiety might be related to less emergency calls and emergency room use, but the relationship disappeared after adjustment for age.

Conclusion: Less anxiety among patients might contribute to appropriate healthcare use.

PP116

Kuwait's Vision for Change: Mental Health Integration in Primary Care System 2011–2015

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For decades, mental health disorders were treated by the only central psychiatric hospital of Kuwait, which led to enormous shortcomings leaving a large number of affected people under-treated. Following international best practices led to the consideration of integrating mental health problems in government primary care systems. The Al-Yarmouk District Family Medicine Centre was the leading medical facility to initiate such a pilot project. Since 2011, the application of variable integration models and processes within the existing system resulted in positive outcomes of increasing undiagnosed cases and controlling diagnosed cases. Statistical records reflect such positive trends. Throughout the integration application, continuous revisions and optimisation of processes were implemented to arrive at progressive patterns. Upon the successful impact of the initiative, several district primary care centres are adapting the optimised model, which is expected to lead to the consideration for a standard national integration model for the State of Kuwait.

PP117

Development of the Direct Observe Treatment Short Course (DOTS) Programme for Schizophrenia Treatment at Don Mod Daeng Hospital, Ubon Ratchathani Province

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Introduction: Schizophrenia is one of the most severe and disabling mental illnesses. In Thailand, it was the eighth and ninth leading cause of years lived with disability (YLD) in men and women in 1999. In 2011, the reports from Don Mod Daeng Hospital showed that all of the successful suicide cases were of schizophrenic patients who were non-compliant and lost to follow-up. The DOTS programme was proved to enhance medication compliance; however, there is no evidence of applying DOTS in schizophrenia treatment. This study aims to develop a supportive programme with DOTS to enhance medication compliance of schizophrenic patients and to construct the role of village health volunteers (VHVs) in taking care of schizophrenic patients in the community.

Methods: This was a prospective quasi-experimental study conducted in 42 schizophrenic patients who were diagnosed and referred from Prasrimahabodi Psychiatric Hospital to refill antipsychotic drugs at Don Mod Daeng Hospital since 2011. Training the VHV show to prepare a daily/unit package. During 6 months of the study period, the VHVs prepared antipsychotic drugs in daily/unit packages every week. The caregivers administered these drugs to the patients and recorded this in patients' diaries. The medication compliance rate was assessed every month of physician visit. The schizophrenic patients were assessed using the Positive and Negative Syndrome Scale Thai version (PANSS-T) evaluation form.

Results: The assessment using PANSS-T showed that 19 patients were in a stable state, 17 were in a better state and 6 were in a worse state. Ten patients were archived to the recovery state and none were suicidal during the treatment period. The medication compliance rate was more than 95%.

Conclusion: Applying DOTS can enhance the effectiveness of schizophrenia treatment and increase medication compliance. The VHVs might have an important role in taking care of schizophrenic patients in the community.

PP118

Emotional Experiences and Biological Age

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Introduction: This study examined the degree of ageing of the body according to the negative emotional experiences (the trait of anger, anxiety, usually felt depression and the degree of anger expression).

Methods: A total of 237 subjects visited Health Promotion Center of Chungnam National University Hospital in Daejeon from May 2013 to September 2013. The traits of anger, anxiety, usually felt depression and the degree of anger expression were measured in them with the Korean adaptation of Spielberger's Trait Depression Scale, Spielberger's Trait Anxiety Scale, Spielberger's Trait Anger Scale and Spielberger's Anger Expression Scale. The data of general characteristics of subjects—sex, age, body mass index, educational level, family budget income per month, religious degree (not religious or never to little dependent=0, a little dependent=1, moderate dependent=2, deeply dependent=3), smoking, drinking alcohol per week and family APGAR score—were taken from the records of their general medical examination. The degrees of ageing of the body of subjects were converted into the ageing indices that are ratio scale by formula [ageing index= (biological age–chronological age)/chronological age]. Independent t-test, ANOVA, and correlation analyses were performed to assess the relationships between ageing indices, the general characteristics and negative emotional experiences of subjects. Stepwise multiple regression analysis was used to assess how the general characteristics and negative emotional experiences predict ageing indices.

Results: Trait anger ($r=.160$, p value=.014) and low educational level ($r=-.135$, p value=.038) were significantly associated with ageing index by monivariate analysis. Multivariate analysis showed that trait anger ($R^2=.026$, p value=.013) and low educational level ($R^2=.018$, p value=.037) had significant explanatory powers for ageing index.

Conclusion: The results of this study suggested that, among negative emotional experiences, trait anger is the only one significantly affecting ageing of the body, and low educational level does too.

Keywords: ageing index, trait anger, educational level

PP119

Depression and Blood Glucose Level in Patients With Type 2 Diabetes

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Introduction: Diabetes mellitus has a positive association with depression. Depression influences hormone regulation that can increase blood glucose levels, which is difficult to be controlled.

Methods: This was a cross-sectional study conducted in ambulatory patients with type 2 diabetes at Adam Malik Hospital, Medan, North Sumatera, Indonesia. Validated questionnaire were given to 71 patients to measure the depression score, and then random blood glucose levels in the subjects were determine using Accu-test.

Result: The average of duration of diabetes was 8.5 years, with an average random blood glucose level of 196.59 mg/dL. Of the 71 subjects, 50 (70.4%) had vascular complications. 37 (32.1%) subjects had depression whereas the remaining 34 (47.9%) did not have depression. 33.8% had mild depression with 75% got high blood glucose levels, 9.9% had moderate depression with 85.7% got high blood glucose level and 8.5% had severe depression with 83.3% got high blood glucose level. However, there was no statistically significant difference in random blood glucose levels among groups ($p = 0.320$).

Conclusion: In type 2 diabetic patients, vascular complication can result in depression that can increase blood glucose levels, although there was no difference statistically.

Keywords: type 2 diabetes, depression, blood glucose level, vascular complication

PP120

Comprehensive Care of Common Mental Disorders at Tin Shui Wai

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Introduction: The Integrated Mental Health Programme (IMHP) advocates a collaborative approach to manage common mental disorders (CMD) by family physicians while reducing the stigma of attending a psychiatric unit. It was launched in Tin Shui Wai Community Health Centre (TSWCHC) since 2012. The present study evaluated whether this programme bears potential to improve anxiety and symptoms of depression among the service recipients.

Methods: Patients with CMD were referred to IMHP by general outpatient clinic (GOPC) doctors and followed up by key workers and IMHP doctors.

All patients referred to TSWCHC's IMHP from January to July 2013 were reviewed. During the programme, their symptoms were evaluated by the PHQ-9 and GAD-7 questionnaires.

Results: A total of 170 patients with CMD were enrolled to IMHP with an average age of 47.5 years (range 20–71 years). The most common diagnosis was depression (45.9%) and generalised anxiety disorders (31.8%); 61% were prescribed antidepressants. Until January 2014, 48% of patients completed their last follow-up in IMHP (mean duration of 4 months), and only 10% required referral to psychiatric unit for further management.

22.3% of IMHP patients were also diagnosed with hypertension (HTN), of which 31.5% were diagnosed with diabetes mellitus (DM).

Conclusion: Apart from improvements in patient's mental health condition, IMHP in primary healthcare setting also improved chronic disease care. Wider implementation of IMHP could be considered to further enhance patient outcomes.

PP121

Psychological Depression, Stress and Anxiety in Relation to Internet Addiction Among Medical Students in Malaysia

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Introduction: Internet addiction may be associated with underlying psychological disorder. The aim of this study was to describe psychological symptoms suggestive of depression, anxiety and stress in medical students during their undergraduate training in Malaysia.

Methods: It was a cross-sectional study performed among all the 1st to 5th year medical students in University Putra Malaysia in 2013. Students were assessed on their Internet activities using the Internet addiction questionnaires (IAT). Total scores would range from 0 to 100. If the score is ≥ 43 , it is defined as 'at risk' of Internet addiction. Depression anxiety stress scales was used to assess the psychological disorder. Average score for depression, anxiety and stress is < 15 .

Results: 426/622 students were recruited into the analysis. 134 (31.5%), 99 (23.7%), 54 (12.7%), 105 (24.6%) and 34 (8%) students completed assessments in 1st, 2nd, 3rd, 4th and 5th year, respectively. 36.9% students were above threshold on the IA score of 43. Overall, the proportion of female to male is 1.3 to 2 times. They surfed average of 4.8 to 6.6 hours a day and the frequency of Internet use ranged from 5.6 to 6.2 times a day. More than 80% of them have the Internet access at home. Interestingly, $< 10\%$ of the medical students access Internet purely for education purpose and about 40% of them use it for entertainment purpose. The proportion suggestive of depression, anxiety and stress ranged from 20.2% to 37%, 41.2% to 59% and 18.2% to 35.2%, respectively.

Conclusion: This study suggests that every 5th of the medical students repeatedly experience psychological distress and 36% of them had underlying Internet addiction during their medical training.

Keywords: psychological, depression, stress, anxiety, internet addiction

PP122

Diagnostic Characteristics of Symptom Combinations Over Time in Meningitis Patients

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Introduction: Bacterial meningitis (BM) is a life-threatening disease that is diagnosed by examination of the patient's cerebrospinal fluid (CSF). In clinical practice, it is difficult to identify patients who require a CSF examination solely on the basis of their clinical indicators. This is especially true in primary care for outpatients. The aim of this study was to investigate diagnostic characteristics to distinguish BM from aseptic meningitis (AM) in meningitis patients. Indicators from the initial consultation were combined with a measure of time since the onset of fever.

Methods: This was a retrospective chart review. We examined the sensitivity and specificity of the clinical information for BM. The diagnostic characteristics for BM were analysed by considering the duration of fever for each patient at consultation, together with the presence or absence of changes in their mental status. The study

examined 117 inpatients diagnosed with meningitis in their clinical records at the time of admission. The patients were admitted to two emergency hospitals in Japan between 2001 and 2011. Meningitis was defined as the presence of five or more cells per cubic millimetre of CSF.

Results: Twenty-five patients were diagnosed with BM and 92 patients with AM. There was no single clinical symptom that could distinguish BM from AM in patients suspected of meningitis. The sensitivity and specificity of the clinical information for fever duration and disturbance of consciousness at consultation were 95.0% and 40.3%, respectively, for BM patients with disturbance of consciousness or with duration of fever less than 3 days. Thus, the proportion of BM patients without disturbance of consciousness for 3 or more days after fever onset was only 5%.

Conclusion: Patients without disturbance of consciousness for 3 or more days after fever onset rarely suffer from BM.

Keywords: meningitis, diagnosis, fever, time course

PP125

The Knowledge and Attitudes of Obese People About Obesity

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Introduction: Obesity is posing a growing threat to health worldwide. This study investigated the knowledge and attitudes of obese people and the relationship of these data with socio-demographic features.

Methods: 110 participants (BMI>30), aged >18 years, without psychological illness who visited family medicine centres for any health issues were enrolled. Besides the socio-demographic features, weight, height, waist circumference (WC), BMI, chronic disease history, questions about obesity and herbal use were asked in the questionnaire. Chi-square and t-tests were used; $p \leq 0.05$ was considered statistically significant.

Results: Of the 110 obese people, 55 (50%) were men and 55 were (50%) women. 36.4% were aged 35–49 years and 23.6% were aged 50–64 years. 64 (58.2%) participants had low education level and 46 (41.8%) had high education level. There were no significant relationship between education level and BMI, WC ($p=0.301$; $p=0.784$).

Women ($n=40$; 72.7%) had more chronic illness than men ($n=28$; 50.9%) ($p=0.019$). The most common chronic illness ($n=43$; 39.1%) was hypertension. The mean WC was 106.09 ± 9.69 cm and the mean BMI was 34.98 ± 4.11 kg/m² in men and the mean WC was 100.25 ± 19.81 cm and mean BMI was 35.91 ± 4.46 kg/m² in women. Gender was not a significant factor for BMI ($p=0.33$) and WC ($p=0.201$).

Family history of obesity ($n=83$; 75.5%) was more frequent in participants whose BMI was higher ($p=0.025$). Nutrition ($n=48$; 43.6%) and inactivity ($n=25$; 22.7%) were most known reasons of their obesity; most of them thought that the treatment was diet ($n=67$; 60.9%) and exercise ($n=36$; 32.7%). Only 21 (19.1%) of them visited a doctor and 18 (16.4%) a dietitian. Most participants ($n=59$; 53.6%) defined their daily exercise as low. Only 20 (18.2%) of them used herbal medicines to lose weight and they mostly ($n=16$) learnt about these from their friends.

Conclusion: Obese people are aware of the reasons and treatment for their obesity, but they still try to find their own treatments. They should be informed and managed carefully in primary care centres.

Keywords: obesity, knowledge, attitude, primary care

PP126

Perception of Self Body Weight and Attitude Towards Obesity Among Private College Nursing Students in Kelantan

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Introduction: There is a significant increment in overweight and obesity among populations worldwide. Body weight perception is believed to influence a person's desire to lose weight. Attitude towards obesity may influence discrimination and weight bias in obese persons. The objectives of this study were to determine the perception of body weight and its association with weight loss practice and to determine the correlation between attitude towards obesity and body mass index (BMI).

Methods: This was a cross-sectional study conducted between December 2011 and February 2012. A self-administered questionnaire was distributed to 297 nursing students in private colleges in Kelantan, Malaysia. Socio-demographic data, perception of body weight and BMI were obtained. A 20-item ATOP scale was used to assess attitude towards obesity. Higher score indicates more positive attitude. Data analysis was done using SPSS version 20.0.

Results: The majority of the participants were Malay (99.7%), female (89.9%) and single (96.3%), with a median age of 21 years (IQR 3.0). About 64.3% had normal BMI, 18.9% were underweight, 13.8% were overweight, 2.4% in obese type I category and 0.7% in obese type II category. About 54.2% of participants correctly perceived their body weight according to the actual BMI, while the remaining did not. Correctly perceived body weight was associated with weight loss practice after adjusting for marital status, gender and category of obesity. Attitude towards obesity was positive. There was no significant correlation between attitude score and BMI. About 51.5% of participants tried to reduce weight. Food intake restriction and physical exercise were the most popular methods used to reduce weight.

Conclusion: Body weight perception is an important factor that influences weight reduction among young adults. Food intake restriction and physical exercise are methods of choice to reduce weight in this age group.

Keywords: self-perception, body weight, attitude towards obesity

PP127

A Systematic Review on the Role of Non-Exercise Activity Thermogenesis (NEAT) as an Intervention in the Management of Obesity

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Introduction: Obesity occurs when energy intake exceeds energy expenditure. Energy expenditure consists of basal metabolic rate, thermic effect of food and exercise and non-exercise activity thermogenesis (NEAT). NEAT might play an important role in obesity. The aim of this review is to evaluate the evidence on the effect of changing NEAT in obesity management.

Methods: Online databases such as Medline, Cochrane Library (CENTRAL, DARE & Cochrane Systematic Reviews) and pre-appraised databases such as Clinical Evidence, ACP Journal Club, DynaMed, Essential Evidence Plus & UpToDate were searched.

The following search terms were used and were limited to “clinical trial” (“non exercise activity thermogenesis” or “nonexercise activity thermogenesis” or “non-exercise activity thermogenesis” or “NEAT”) AND “obesity” (or “overweight” or “weight loss” or “weight reduction” or “weights and measures” or “weight gain”). No language or date restrictions were applied.

Both the authors appraised the titles and abstracts of the literature searched; relevant studies were retrieved and the full articles were reviewed.

Results: Only five clinical trials related to NEAT and obesity were identified. Three articles were by Levine who studied the role of NEAT in resistance to fat gain, energy expenditure of NEAT and the role of inter-individual variation in posture. An article by Ogata studied the relationship between glucose dynamics and NEAT. Conzett-Baumann studied the relationship between daily walking distance of young doctors and their body mass index. None of these studies attempted to change the NEAT of the participants as a modifiable risk factor.

Conclusion: Humans spend their energy through purposeful exercise and through NEAT. It seems logical to assume that increase in NEAT would help in increasing energy expenditure and thus help in controlling body weight.

So far, there is no study on intentionally changing one’s NEAT and its enduring effect on one’s body weight. Such studies are required to be performed before we can advise our patients to change their NEAT in order to control obesity.

Keywords: obesity, weight, energy expenditure, NEAT, non-exercise activity thermogenesis

PP128

The Risk Factors and Features of Inappropriate Prescribing Among Elderly Home Care Patients in Japan

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Introduction: Although several previous studies have examined the risk factors and features of inappropriate prescribing (IP) among elderly patients, as identified by the Screening Tool of Older Persons’ potentially inappropriate Prescriptions (STOPP) and the Screening Tool to Alert doctors to Right Treatment (START) criteria, no research has been conducted among elderly home care patients. This study aimed to explore the risk factors and features of IP as identified by the STOPP/START criteria among elderly home care patients in Japan.

Methods: This was a cross-sectional study conducted in 89 patients aged ≥ 65 years who received regular home visiting services from Yamato Clinic between May and June 2013. The main outcome measures were the risk factors and features of IP as identified by the STOPP/START criteria.

Results: Risk factors for potentially inappropriate medications (PIMs) were hypertension, constipation and polypharmacy, while those for underprescription were osteoporosis and polypharmacy. The most frequent PIMs as identified by the STOPP criteria was calcium channel blockers for chronic constipation. The most frequent underprescription as identified by the START criteria was metformin for type 2 diabetes with/without metabolic syndrome.

PP129

Association Between Metabolic Syndrome and Chronic Kidney Disease in Elderly Taiwanese

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Introduction: Metabolic syndrome (MetS) is a common risk factor for cardiovascular and chronic kidney disease (CKD) in Western populations. However, the association of MetS with CKD is now emerging in elderly Taiwanese. The aim of this study was to investigate the association between MetS and CKD among the elderly in Taiwan.

Methods: This was a cross-sectional study conducted among senior citizens aged ≥ 65 years undergoing annual health examination in 31 hospitals in Taipei during March to December 2010. MetS was defined according to the criteria set by the Health Promotion Administration, Ministry of Health and Welfare, Taiwan. CKD was defined as an estimated glomerular filtration rate (eGFR) of less than 60 mL/min per 1.73 m² by the MDRD Study Equation. Independent t-test and Chi-square test were used for continuous and categorical variables. Univariate and multivariate logistic regressions were used to assess the association between MetS components and CKD.

PP130

A Cross-Sectional Study of Fall in Senior People Attending the Emergency Ward in BPKIHS, Dharan, Nepal

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Introduction: Senior people are a rapidly growing population in Nepal and they fall unintentionally. The ageing process and environmental factors are the leading causes of fall. The consequences of fall are found to be non-fatal or fatal and treatment is highly cost-effective. The most useful and effective fall prevention strategies are found to be multifactorial interventions targeting identified risk factors, exercises for muscle strengthening combined with balance training and withdrawal of psychotropic drugs. The objective was to study fall in senior people and find out the etiology and consequences of fall.

Methods: This was a descriptive, cross-sectional study conducted in 140 people aged ≥ 60 years. The study duration was from July 2012 to June 2013. Subjects attending the emergency ward of BPKIHS after a fall were interviewed. A semi-structured questionnaire was filled by the investigators. The descriptive statistic has been used for calculation of frequency and percentage using SPSS-20.

Results: Seventy-six (54.3%) male and 64 (45.7%) female subjects were enrolled. Of the 140 subjects, 115 (82.1%) were living with families and 25 (17.9%) were living alone. Fifty-six (40%) subjects fell early morning, 52 (37.1%) fell late evening and 32 (22.9%) fell in the afternoon. 73% subjects fell outside and 26.40% fell in inside the house. Sixty-five (53.6%) subjects were suffering from chronic diseases, 57 (40.7%) from visual impairment and 47 (33.6%) from multiple joint problems. Eighteen (12.9%) subjects had a history of fall, 18 (12.9%) had head injury, 12 (8.6%) had chest injury, 3 (2.1%) had abdominal injury, 24 (17.1%) had spinal injury, 73 (52.1%) had a fracture, 30 (21.4%) had soft tissue injury, 48 (34.3%) had external injury and 11 (7.9%) had eye injury. Eighty-two (30.7%) subjects were admitted to a hospital after a fall.

Conclusion: There is an increasing trend in morbidity and mortality due to fall. Accidental fall is always due to intrinsic and extrinsic factors and treatment is highly cost-effective.

Keywords: senior people, fall, morbidity

PP131

Prevalence of Diabetes and Its Comorbidities Among Non-institutionalised Older Adults in Spain

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Introduction: Type 2 diabetes is considered today a pandemic and it is known that its prevalence increases with age. We aim to estimate the prevalence and comorbidity of diabetes type 2 in the adult population of Spain, aged 50 years and older, with new National data.

Methods: Data were drawn from the 2012 Spanish National Health Survey. We studied 10,746 adults aged 50 years and older. The comorbidities directly associated with diabetes were considered. Logistic regression was applied to find the relationship between variables. The odds ratios (OR) were adjusted for age, sex, educational level, body mass index, smoking status and physical activity.

Results: In the Spanish population aged 50 years or older, the prevalence of diabetes was 15.8%; 16.9% in men and 15.0% in women with no significant difference. Diabetic patients had a significantly higher prevalence of hypertension (63.7%), hyperlipidaemia (52.9%), myocardial infarction (9.8%), stroke (4.4%) and depression (21.9%) than those without diabetes. Adjusting for age and sex (Model 1), diabetes was significantly associated with all comorbidities, mainly with myocardial infarction (OR=2.7; 95% CI: 2.2–3.4; p<0.001), hyperlipidaemia (OR=2.6; 95% CI: 2.3–2.8; p (OR=2.4; 95% CI: 2.1–2.7; p)

Conclusion: In Spain, diabetes type 2 is highly prevalent in adult population of 50 years and older. Persons with diabetes had a significantly higher prevalence of comorbidities. These diseases need to be considered in epidemiological studies, in order to monitor diabetes care, especially at primary health care.

PP132

Responding to Elder Abuse and Neglect: A Qualitative Study on Primary Care Physicians' Perceptions and Barriers in Management

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Introduction: Elder abuse and neglect exist in our community but it is mostly under-reported. Primary care practice is easily accessible to the community members, including the elderly, and thus plays an important role in intervening abuse and neglect of the elders. This study aimed at determining the perceptions of primary care physicians (PCPs) regarding elder abuse and neglect issues and barriers in identifying and managing elder abuse and neglect in the clinical setting.

Methods: Semi-structured in-depth interviews were conducted. The interviews were audio-recorded, transcribed verbatim and analysed using grounded theory approach.

Results: Ten PCPs were interviewed. The interview data revealed that elder abuse and neglect has gained recognition over time and is as prevalent as other types of interpersonal abuse. PCPs felt that they were optimally positioned to intervene in elder abuse and neglect but concerned over missing the cases. Time, lack of confidence and personal values were among the barriers at the individual level. Patients' non-disclosure, refusal to accept further intervention and dependency on caregivers were some of the patient-related barriers. The absence of specific laws and protocols and lack of support resources to the PCPs posed as barriers at the organisational and policy level.

Conclusion: PCPs perceived having a role in identifying and managing elder abuse and neglect, but none of them ever screen for elder mistreatment. They faced numerous barriers at the individual, patient, organisational and policy levels. Addressing these multi-level barriers is important to allow PCPs to offer their best services in identification and management of abuse and neglect among the elderly people.

Keywords: elder abuse and neglect, primary care, perceptions, attitude, barriers

PP133

Factors Associated With Diabetes Mellitus Awareness and Treatment Among the Elderly in Malaysia

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Introduction: Diabetes mellitus (DM) is an important cardiovascular risk factor. Awareness and early treatment is essential to prevent subsequent diabetic complications. The objective of this study is to investigate the factors associated with the awareness and treatment of DM among the elderly population aged 60 years or older in Malaysia.

Methods: Analysis of secondary data from a cross-sectional national population-based survey using two-stage stratified random sampling was conducted from April to July 2011 throughout Malaysia. Adults aged 60 or older who had participated in the survey were included in this study.

Results: A total of 2764 (15.5%) respondents were elderly out of the 17,783 respondents aged 18 years or older for the DM module in NHMS 2011. The overall prevalence of diabetes among the elderly was 34.4% (95% CI: 31.9-36.9), and 65.2% (95% CI: 60.3-69.9) were aware of their diabetes status. Of those who were aware, 87.5% (95% CI: 83.8-90.5) were treated. The results of multiple logistic regression showed that factors associated with higher awareness rates were females (aOR=1.63; CI: 1.21-2.19), of the Indian ethnic group (aOR=2.67; CI: 1.50-4.76) and those from higher income groups (aOR=1.79; CI: 1.20-2.67). Factors associated with higher treatment rates were urban residents (aOR=1.63; CI: 1.02-2.62), those who were married (aOR=7.58; CI: 1.82-31.6) and widow/widower/divorcee (aOR=6.63; CI: 1.54-28.54).

Conclusion: There was a high overall prevalence and treatment rate of diabetes among the elderly in Malaysia but with a suboptimal awareness rate. Reliable information on factors associated with awareness and treatment rate is important for the development of

patient education programmes, health policies to improve disease management and overall healthcare resource allocation especially among the elderly in Malaysia.

Keywords: diabetes, awareness, treatment, elderly, Malaysia

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Older People's Views and Experiences About Falls and Its Prevention: A Qualitative Study

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Introduction: Compliance to fall prevention interventions is often poor and we know little about older people's views and experiences about falls and fall prevention. Previous studies stated that older people have positive perception of their health status and their risk of falls specifically. Therefore, this study aims to explore older people's views on falls and its prevention.

Methods: We conducted two individual interviews (n=2) and three focus group discussions (n=14) with older patients who have experienced falls in the past 1 year. The participants were recruited from the outpatient Primary Care Clinic at the University of Malaya Medical Centre, Kuala Lumpur, Malaysia in 2012 and 2013. A semi-structured topic guide was used to facilitate the interviews, which were audio-recorded, transcribed verbatim and checked for accuracy. WeftQDA qualitative data management software was utilised and thematic analysis was used to analyse the data.

Results: Three main themes emerged from the analysis and they included: views on falls, ways of preventing falls and health-seeking behaviour. Older patients were aware that falls could break their bones especially of those with osteoporosis. The participants attributed it to 'luck' when they fell and did not suffer from any injury or when mildly injured. The ways they tried to prevent falls included: fixing railing in the bathroom and staircase, being alert, changing to non-slip mat, wearing of proper shoes and exercise. However, older people felt that they did not receive advice about falls from the doctors. Thus, there were some who self-medicated their falls.

Conclusion: Older patients were aware of the complications of a fall and how to prevent it. However, they did not receive much support from the healthcare providers. More effort should be made to improve patient education.

Keywords: elderly, life experiences, falls, qualitative study

PP135

Evidence-Based Case Report: Role of Exercise in Improving Daily Physical Activity and Level of HbA1c Among Elderly Patients With Type 2 Diabetes Mellitus

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Introduction: Diabetes mellitus leads to both physical and mental burden for the patient, family and society, especially in geriatric patients. Therefore, management of diabetes mellitus comprises many factors, including exercise. However, the role of exercise among

elderly patients with type 2 diabetes mellitus is not clear, especially in terms of daily physical activity and level of HbA1c. This study aimed to determine the significance of exercise among elderly patients with type 2 diabetes mellitus, specifically in terms of daily physical activity and HbA1c levels, by doing critical appraisal for journals related to this topic so that accurate information for holistic and comprehensive management can be given to patients.

Methods: A journal search was conducted using electronic databases, such as PubMed/Medline, Scopus and Cochrane Library. The inclusion criteria for article search were human studies, elderly patients, male or female, type 2 diabetes mellitus and exercise as the intervention for management. The exclusion criteria for article search were animal studies and non-English studies. The search terms used were 'diabetes mellitus', 'elderly', 'exercise', 'physical activity' and 'HbA1c'. Filters were used, such as year of publication (past 10 years), human studies, adult (+18 years of age), English language and the availability of full text, to find feasible articles to appraise.

Results: Two randomised controlled trials by Balducci et al. and Sung et al. were included in this report. Balducci et al. conducted aerobic and resistance training exercises for 12 months, while Sung et al. conducted walking exercise for 6 months. In both studies, the experimental groups that underwent the exercise programme showed a significant improvement in daily physical activity. Similarly, the experimental groups also showed significant decrease in HbA1c levels.

Conclusion: Exercise for the management of diabetes mellitus in elderly patients significantly improved daily physical activity and decreased HbA1c levels.

Keywords: diabetes mellitus, elderly, exercise, physical activity, HbA1c

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The Effect of the Streptococcus pneumoniae Immunisation in the Elderly After the Great East Japan Earthquake

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Introduction: After the Great East Japan Earthquake, we received immense support and funding from all over the world. The funds could provide free vaccination against Streptococcus pneumoniae to people aged >70 years, and approximately 50% of the targeted population received the vaccination. This study was performed to assess the effect of this vaccination from November 2011 to March 2012.

Methods: Data were obtained from the patient records and the records of the bacteriological tests of all specimens collected by Senmaya Hospital. The data were assessed and the results were compared before and after immunisation.

Results: The average number of inpatients per month was 1.0- to 1.8-fold (average 1.3) compared with that of the previous year (before the earthquake). The highest number of inpatients was found in February 2012, the coldest month in the first winter, but the surge disappeared in 2012–2013 winter. On the cause of admission and cause death, the

surge of pneumonia also disappeared in 2012–2013 winter. However, the amount of *S. pneumoniae* in sputum was similar before and after immunisation (2.0% and 2.5%, respectively). The extremely low incidence of *S. pneumoniae* was considered to be due to the long duration between the collection of the specimen and culturing and the difficulty in culturing *S. pneumoniae*. The culture results showed that *Staphylococcus aureus*, *Candida* and *Klebsiella* were the most frequent organisms found in the sputum.

Conclusion: The winter surge of admission of the elderly patients due to pneumonia may be preventable by *S pneumoniae* vaccination.

PP137

Prevalence, Awareness, Treatment and Control of Hypercholesterolaemia Among the Elderly Based on the National Health and Morbidity Survey, Malaysia, 2011

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Introduction: Hypercholesterolaemia is a major cardiovascular disease risk factor. This study determined the prevalence, awareness, treatment and control of hypercholesterolemia among the elderly in Malaysia.

Methods: This is a cross-sectional population-based survey conducted by Ministry of Health (MOH). The sampling design is a two-stage stratified random sampling. This survey was conducted between April and July 2011. The detailed description of the study protocol was described in the National Health Morbidity Survey (NHMS) 2011 report. Adults aged 60 years and older were included in this study.

Results: A total of 2,764 (15.5%) elderly subjects from the 17,783 respondents aged 18 years old and above from the hypercholesterolaemia module in NHMS 2011 had participated in this study. The overall prevalence of hypercholesterolaemia was 55.4% (95% CI: 52.86–58%) among the elderly. The awareness of hypercholesterolaemia was 39.5% (95% CI: 35.8–43.4%), treatment with medication was 77.7% (95% CI: 72.7–82%), 79.3% were given dietary advice, 60.4% were told to lose weight and 77.1% were advised to exercise. Control of hypercholesterolaemia was 53.8% (95% CI: 51–56.3%) in the elderly. The factors associated with higher awareness rates were the urban residents (aOR=1.552; 95% CI: 1.12–2.14), those with secondary education level (aOR=2.67; 95% CI: 1.61–4.40) and the Indian ethnic group (aOR=2.23; 95% CI: 1.06–3.66). Factors associated with higher treatment rates were male gender (aOR=1.95; 95% CI: 0.99–3.850) and government/semigovernment employees (aOR=8.71; 95% CI: 8.28–9.15). Whereas, factors associated with hypercholesterolaemia control were male gender (aOR=2.51; 95% CI: 1.89–3.33) and the Indian ethnic group (aOR=2.23; 95% CI: 1.36–3.61).

Conclusion: The overall prevalence, treatment and control rate of hypercholesterolaemia among the elderly in Malaysia was high but with suboptimal awareness.

Keywords: hypercholesterolaemia elderly, prevalence, awareness, treatment, control

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Evidence-Based Clinical Audit on Fall Management in the Elderly

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Introduction: Effective fall prevention could reduce injuries, hospitalisations, nursing home placements and functional decline. The aim is to assess and improve the management of fall among elders. The criteria are based on evidence-based guideline developed by international agencies.

Methods: Computer randomly selected 70 subjects (aged >65 years) with recent fall history (past 6 months) detected during health assessment in an elderly health centre. 1st cycle: 1/1-31/12/2010 and 2nd cycle: 1/1-31/12/2012.

Audit criteria: 1. Identify the subjects and address the issue in the management plan; 2. Record the circumstances of fall; 3. Evaluate: a. medications and mobility levels; b. vision, hearing, gait balance and lower extremities function; c. neurological functions; d. cardiovascular status; 4. Refer to: physiotherapists (PT) and occupational therapists (OT) for elders with poor balance nursing for fall prevention health education; 5. Manage identified problems: medication, cardiovascular, visual, hearing, joints and neurological problems; 6. Advice: shoes, assistive devices and home safety measures.

Implementation: A checklist was implemented to the health assessment of the elderly with recent fall history.

Results: The results showed improvement in all criteria:

Criteria 1 (standard 100%), 1st audit cycle 35%, 2nd audit cycle 75%
Criteria 2 (standard 80%), 1st audit cycle 5%, 2nd audit cycle 70%
Criteria 3a (standard 80%), 1st audit cycle 95%, 2nd audit cycle 100%
Criteria 3b (standard 80%), 1st audit cycle 90%, 2nd audit cycle 100%
Criteria 3c (standard 70%), 1st audit cycle 55%, 2nd audit cycle 95%
Criteria 3d (standard 75%), 1st audit cycle 5%, 2nd audit cycle 90%
Criteria 4 (standard 80%), 1st audit cycle 35%, 2nd audit cycle 70%
Criteria 5 (standard 90%), 1st audit cycle 42%, 2nd audit cycle 100%
Criteria 6 (standard 90%), 1st audit cycle 85%, 2nd audit cycle 90%

Conclusion: The experience of this clinical audit provided an opportunity for healthcare professionals to participate in a multi-disciplinary activity and an insight into an evidence-based approach to fall management in the elderly.

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Reasons for Seeking Treatment for Oral Health Problems at Medical General Practitioners' Clinics in Myanmar: A Pilot Study Among Selected Four Medical General Practitioners' Clinics

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Introduction: The evidence of seeking treatment for oral health problems (OHPs) at medical primary care clinics in the Asia-Pacific region including Myanmar is still limited. This study aimed to identify specific reasons for encounters (RFEs) regarding OHPs at medical general practitioners' (GPs) clinics in Myanmar and the reasons for seeking treatment for these problems.

Methods: A mixed method study was conducted at four medical GPs' clinics in Myanmar (three from Yangon City and one from Hinthada Township) from April to December 2012. A total of 191 patients with OHPs participated in the quantitative study and 17 cases were selected for the qualitative case study. A cross analysis was done to infer OHPs between Yangon (urban) and Hinthada (rural) GPs' clinics. Qualitative data were analysed by matrix analysis.

Results: Of the 191 patients, 63% were from Yangon clinics and

37% from the Hinthada clinic. The most common RFE was comorbidity with medical diseases and dental caries and/or periodontal diseases (44%), followed by tooth-ache (31%), periodontal diseases (4.7%) and oral ulcer (1.6%). The reasons for seeking treatment for OHPs were easy accessibility to services (44%) followed by preferring and requiring services provided by GPs (10%), familiarity with GPs (9%), getting emergency treatment (6%) and unaffordable OH care cost (3%). A significant difference was observed between reasons given by patients from Yangon and those from Hinthada. Self-treatment, taking mixed treatment from both GPs and dentists depending on the severity of OHPs, co-morbidity and affordability for OH care cost were significant findings of the qualitative study.

Conclusion: This study highlighted that OHPs was one of the RFEs in medical GPs' clinics and provided more understandable answers for seeking treatment for OHPs with GPs. Coordinated care between GPs and dentists should be initiated and a solution for high OH care cost should be further explored in Myanmar.

Keywords: medical general practitioners clinics, oral health problems, general practitioners, Myanmar

PP144

Is Oral Health Problems One of the Reasons for Encounters in Medical Primary Care Clinics in Malaysia? A Pilot Epidemiological Study Among Selected Three Medical Primary Care Clinics in Kuantan, Malaysia

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Introduction: Primary care physicians provide a wide range of care including oral health problems (OHPs). However, epidemiological studies on OHPs in medical primary care clinics (MPCCs) are still limited. The prevalence of patients with OHPs in MPCCs and their epidemiological variables were verified in this study.

Methods: A comparative cross-sectional study was conducted among three different MPCCs – university clinic (IIUM), public clinic (Balok) and private clinic (Clinic Ar Razi) in Kuantan from April 2012 to March 2013. Data of patients with OHPs were extracted from patient registers and their age, gender, reason for encounter (RFE) and consultation time (day or night) were noted. Interval prevalence was considered for the study. An exploratory analysis between patients' epidemiological variables and RFE among three different clinics was done.

Results: Out of a total of 84,251 patients, 605 patients with OHPs were identified. The prevalence of OHPs in the university, public and private clinic was 9.3, 10.9 and 5.4 per 1000 patients per year, respectively. In the private clinic, 58% of cases were night-calls. The mean (\pm SD) age of patients from the university, public and private clinic was 22.8(\pm 11.7), 23.1(\pm 17.6) and 17.9(\pm 18.8) years, respectively. The male and female ratio in university, public and private clinic was (36.5% vs. 63.5%), (44.4% vs. 55.6%) and (50.8% vs. 49.2%), respectively. The RFEs were mouth ulcer (50.4%), gingivitis (17.7%), toothache (12.6%), mouth pain (8.9%), hand-foot-mouth-disease (7.8%), gum abscess (1.8%), more than one OHP (0.5%) and teething (0.3%). Although there were no significant differences between age groups and

RFEs of patients with OHPs who attended the university clinic, it was significant in the other two clinics ($p < 0.05$).

Conclusion: This study highlighted that OHPs was one of the RFEs in MPCCs. The epidemiological findings of the study will be valuable for health planners to provide better OH care in MPCCs.

Keywords: medical primary care clinics, oral health problems, prevalence, epidemiological study, Malaysia

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Reasons for Seeking Treatment for Oral Health Problems in Medical Primary Care Clinics: A Pilot Mixed Method Study in Kuantan, Malaysia

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Introduction: Limited oral health personnel who engage mostly in secondary care is one of the challenges for primary and emergency oral health care. There has been evidence of seeking treatment for oral health problems (OHPs) at medical primary care clinics (MPCCs) in the morbidity reports and oral health studies since the late 20th century. However, the reasons for seeking treatment at MPCCs are still unclear.

Methods: A pilot study was conducted by applying mixed method approach to explore the reasons of patients with OHPs for seeking treatment in three selected MPCCs in Kuantan university clinic (IIUM), public clinic (Balok) and private clinic (Clinic Ar Razi) from April, 2012 to March, 2013. A verified questionnaire including open-ended questions was used to collect quantitative data from 130 patients who voluntarily participated. In-depth interviews were conducted for 10 cases using guided questions in the qualitative study. A cross analysis between the type of MPCCs and the reasons of participants was done. Interview transcriptions were analysed by matrix analysis.

Results: Regarding reasons for seeking treatment at MPCCs, 60% (78/130) of the answers were non-specific. Among the valid answers, the most common reason was easy access to services (51%) followed by preferring to and requiring services provided by primary care physicians (PCPs) (31%) and getting emergency treatment (18%). The reasons were significantly different among the three MPCCs. In the qualitative analysis, 8 out of 10 patients perceived that OHPs can be treated by PCPs. More understandable reasons such as co morbidity with medical symptoms, familiarity with PCPs and unfamiliarity with dentists and dental phobia were confirmed by the qualitative study.

Conclusion: This study pointed out the role of PCPs in primary and emergency oral health care. Coordinated care between PCPs and dentists should be promoted for OHPs.

PP146

A Pilot Study on the Assessment of Awareness of Prescribed Medications of In-patients Discharged From a Private Tertiary Hospital in Manila, Philippines

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Introduction: The medical services we offer are neither solely limited to the hospital nor does it end upon the patient's discharge. Patients at discharge assume the former responsibilities of the healthcare team for their own healthcare. Continuity of care outside the hospital relies greatly on the patients' compliance not only to their medications but also to their lifestyle. For this to happen, patients must become familiar with their illness, names of their medications, dosing schedule and side effects. Without proper instructions, it may not be possible for patients to be compliant with treatment. This study aims to describe our in-patients' knowledge and attitudes regarding their medications upon discharge at a private tertiary hospital through a self-administered questionnaire.

Methods: This cross-sectional study was conducted in 30 patients using a self-administered questionnaire. Patients were asked to recall all their prescribed medications and a survey of their attitudes towards active participation in treatment was completed. The completed questionnaires were then compared to the medications listed in the medical chart.

Results: All patients recalled less than half of their hospital medications. 96% were able to list the names of their medications, 63% knew the dose, 90% knew the frequency and 93% knew the purpose of their medications. None of the patients knew the side effects. All patients agreed that active participation in their management through medication review had potential to improve satisfaction.

Conclusion: There are significant deficits in patients' knowledge of hospital medications. There is a high risk of decline in patient compliance once the patient is discharged. The results show that our patients have a positive attitude towards taking their medications. There is a need for health practitioners to improve methods to educate patients regarding their hospital medications.

Keywords: patient education, medication, knowledge, attitudes, in-patients

PP147

Drug Information Needs and Concerns of Patients Prescribed With New Chronic Medications

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Introduction: Studies show that patients differ in the extent of drug information required, and inadequate provision of medical information predicts non-adherence to medication. In Singapore's public primary healthcare setting, patients collect their medications from pharmacies within the clinics with essential advice given. Patients starting new chronic medications are less familiar with the medication and thus require more information support. This study aims to evaluate the drug information needs and concerns of local primary healthcare patients prescribed with new chronic medications and their preferences for information delivery.

Methods: Taking into account various statistical factors (e.g., statistical power, margin of error), 127 patients were recruited via consecutive sampling from four public primary healthcare centres ('polyclinics') in Singapore. A questionnaire was developed to evaluate patients' drug information needs, preferences for information delivery and concerns on the new chronic medication. Results were statistically analysed using SPSS and Microsoft Excel.

Results: 95.2% of patients agreed that information about the new medication should be given at the point of collection. Almost half preferred the information to be conveyed verbally. 93.7% preferred to

have the medication's indication stated on the medication label. About two-thirds preferred the information to be dispensed along with a patient information leaflet (PIL) in a language that they understand. Indications, side effects, dosing and cost of the newly prescribed medication were the top four pieces of information important to patients. Side effects, long-term safety and drug interactions were the top three patient concerns. 57.5% would take their new medication even if they have unaddressed doubts about the medication.

Conclusion: Our study suggests that information perceived to be most important to patients at the point of dispensing newly prescribed chronic medications are medication indication, dosing, side effects and cost. Patients also appreciate the provision of PILs and the labelling of indications on medication labels.

Keywords: drug information, patient concerns, new chronic medication

PP148

The Impact of Education on Metered-Dose Inhaling (MDI) Techniques Among COPD Patients in Primary Care

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Introduction: A metered-dose inhaler (MDI) is the most common COPD medication. The efficacy of an MDI depends on the appropriate inhaling techniques. Patient education is a useful way to improve inhaling techniques. There is limited data to show the effect of education on inhaling techniques. This study evaluates the inhaling techniques and the associated factors among COPD patients in a Macau primary care setting.

Methods: Patients with the clinical diagnosis of COPD (ICPC code R97) made between 01/01/2005 and 31/01/2012 were recalled. Patients who were using the MDI were tested for their inhaling technique with a standardised 10-item checklist. One mark was given to the correct technique in each item. The outcome measure was the total score.

Results: Of the 152 COPD patients, 84 (55.3%) were using the MDI. The mean total score was 6.0±2.66. This score was not affected by the patients' age, sex, education, FEV1 or the number of visits to the emergency department. Student's t-test showed that patients who were previously instructed on the use of the MDI scored significantly better (3.9±2.08 vs. 6.8±2.42, p).

Conclusion: Education is useful in improving inhaling techniques and ensuring the efficacy of the MDI.

Keywords: COPD, metered-dose inhaling, primary care, patient education

PP149

Does Introduction of a New Asthma Record Book Improve Asthma Assessment Documentation? An Audit at Two Public Primary Health Clinics in Klang Valley, Malaysia

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Introduction: This audit aims to ascertain whether there would be an improvement in the documentation on asthma assessment at follow-up, following the introduction of the new asthma record book in Selangor in 2012.

Methods: A retrospective audit was conducted in July 2013, in two public primary health care clinics in the Gombak Health District, Malaysia. It involved analysis of the old and new asthma record books of patients aged 18 and above with at least 6 months of follow-up in each book. Eleven standards for the documentation were set based on the achievements in the previous local audit study within the same district.

Results: Of the 243 new asthma record books, 47 met the criteria. None of the standards were met in the old asthma record book and the documentations varied from 0 to 45%. In the new asthma record book, all documentations showed improvement with nine meeting the standards. Improvements were seen in the new asthma book with respect to the documentations of daytime symptoms (83%), use of reliever (85%), limitations of activities (80%), nocturnal symptoms (80%), peak expiratory flow rate (PEFR) assessment (64%), exacerbation frequency (57%), expected PEFR (60%), asthma medications (98%), inhaler technique (53%) and record of asthma diary (76%). No improvement was seen in the documentation of smoking status (8%).

Conclusions: Within these clinic settings, introduction of the new asthma record book resulted in improved documentations in all asthma assessments with the exception of smoking status. More comprehensive strategies are needed for improvements.

Keywords: asthma, audit, primary care clinic, asthma record books

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Clinical Features of Group A Streptococcal Throat Infection: Findings From Randomised Controlled Trials

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Introduction: Group A beta-haemolytic streptococcus (GABHS) is the only commonly occurring bacterial cause of sore throat for which antibiotic treatment may be warranted; however, diagnosing GABHS is difficult using clinical features alone. Our trials on flurbiprofen 8.75 mg lozenge have demonstrated the efficacy of this lozenge for symptom relief in patients with and without streptococcal sore throat. During these trials, practitioners examined patients citing specific clinical features. Here, we report which clinical features were associated with GABHS infection.

Methods: Adults with acute sore throat were enrolled in two double-blind, randomised, placebo-controlled studies on flurbiprofen 8.75 mg lozenge. Practitioners examined patients for objective findings of pharyngitis on the Tonsillo-Pharyngitis Assessment (TPA). They also assessed the likelihood of GABHS infection based on a range of historical features, symptoms and physical findings on the Clinical Assessment of Strep Throat (CAST). Throat swabs were taken so that cultures could be used to make a definitive diagnosis.

Results: Throat culture confirmed GABHS infection in 40/401 (10.0%) patients in the studies. The following clinical features were more common among GABHS-positive patients compared with non-GABHS patients: enlarged tonsils and tender anterior cervical nodes (on the TPA) and fever, pharyngeal swelling, large tonsils, red tonsils and absence of cough or cold symptoms (on the CAST) (all $p < 0.05$). Despite the association of certain clinical features with GABHS infection, the practitioners' diagnoses based on clinical examination were correct for only 34.8% of patients.

Conclusion: This analysis highlights the difficulty in diagnosing GABHS using clinical features alone. Misdiagnosis can lead to inappropriate

antibiotic prescription, contributing to antibiotic resistance. Therefore, in the absence of a microbiologically confirmed diagnosis, practitioners should consider recommending non-antibiotic treatments for acute sore throat and reserve antibiotics for patients at high risk of complications or who appear severely unwell.

Keywords: sore throat, *Streptococcus*, flurbiprofen, lozenge

PP151

Efficacy and Safety of Multiple Doses of Flurbiprofen 8.75 mg Lozenge Over 1 Week

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Introduction: Flurbiprofen 8.75 mg lozenge was developed to provide immediate demulcent effects from its sugar-based lozenge formulation and long-lasting relief of sore throat pain from the non-steroidal anti-inflammatory drug flurbiprofen. Because acute sore throat can last for 7 days, we studied the safety and efficacy of flurbiprofen 8.75 mg lozenge when taken multiple times as needed over 1 week.

Methods: Patients (aged ≥ 18 years) with acute sore throat were enrolled in a double-blind, randomised, placebo-controlled study on flurbiprofen 8.75 mg lozenge at a university health centre in the USA. Pharyngeal findings (e.g., enlarged tonsils, anterior cervical adenitis and oral mucosal erythema) were documented on the Tonsillo-Pharyngitis Assessment (TPA). All patients took their allocated study lozenge (flurbiprofen or placebo) at the study start and were allowed to re-dose every 3–6 hours as needed, up to five lozenges in 24 hours, over 1 week. Patients rated three symptoms, sore throat pain intensity, difficulty swallowing and swollen throat, using 100 mm visual analogue scales before and 2 hours after each re-dose of study lozenge. The treatment groups were compared for the change in symptom score over the 2-hour evaluation periods.

Results: A total of 204 patients with recent onset of sore throat (≤ 4 days) and confirmed pharyngitis (TPA score ≥ 5) were randomised to flurbiprofen 8.75 mg ($n=102$) or placebo ($n=102$) lozenge. Flurbiprofen 8.75 mg provided significantly greater relief than placebo for sore throat pain (74% more relief, p).

Conclusion: Flurbiprofen 8.75 mg lozenge provides effective and well-tolerated treatment for up to 7 days in patients with sore throat, difficulty swallowing and swollen throat due to pharyngitis.

PP152

Leprosy in Long Sait, an Aboriginal Village in Sarawak

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Introduction: Leprosy is an important global health concern and it causes disability in 2 million people worldwide. Since 1994, Malaysia has successfully achieved its goal to decrease leprosy cases as per the World Health Organization (WHO) goal as less than 1 case per 10,000 population reported yearly. However, there was an increase in reported leprosy cases among aboriginal people living in Sarawak. The aim of this study is to estimate the prevalence of leprosy in a Penan village.

Methods: This cross-sectional study was conducted from February 2013 to March 2013 in Long Sait. Eighty-six of Penans were screened by active surveillance. Clinical diagnosis was made by findings of a cardinal sign of leprosy and supported by slit-skin smears. The new cases were started with chemotherapy as per the WHO protocol.

Results: In this study, there were 6 new cases detected among 86 Penans in Long Sait. The age of patients ranged from 24 to 68 years and females were predominant (66.7%). The prevalence of paucibacillary leprosy was higher with a total of 5 cases (83.3%). Slit-skin smear was positive in the only multibacillary case with bacteriological index (BI) of 5.3 and morphological index (MI) of 14.8. There was no disability detected among the new cases. Chemotherapy was effective in treating paucibacillary patients.

Conclusion: Early diagnosis and a full course of treatment remains the cornerstone of preventing permanent disability. Nevertheless, leprosy is still a threat to the aboriginal people in Sarawak. As Penans are nomadic, the number of cases may be underestimated as most of the Penans cannot be fully traced by active surveillance. Joint efforts by government and non-government organisations, in terms of active surveillance, are much needed to combat leprosy among Penans.

PP153

Could Medical Training in Rural Hospitals Change in Retention of Physicians at Rural Remote Areas?

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Introduction: All Japanese medical graduates belong to a teaching hospital and get trained in primary care and basic skills. These curriculums had started in 2004 and include 4 or more weeks of community medicine training. Our department contributes to this training for graduates at rural remote hospitals, and provides lectures on community medicine for medical students. We have two different styles of contributions: one is for postgraduate and the other is for undergraduates. We make comparative study in these contributions.

Methods: This was a follow-up survey of graduates and undergraduates and a questionnaire survey of graduates.

Results: Postgraduates: A total of 114 postgraduates were trained on community medicine in Hirado municipal hospital. The score of recognition was increased in postgraduates. However, none of them worked in rural remote areas.

Undergraduates: 50 students had already graduated and started MD carrier. Two doctors started their careers in the island hospital and stayed there for a year. One doctor works in Hirado municipal hospital for family doctor training program on 1 year.

Discussion: Our training programme for graduates is supported by many hospitals, because the number of trainees has increased in the last 7 years. However, it does not help retain physicians in rural hospitals. Lecture programme for medical students lead three doctors to rural remote hospitals.

Rural lectures are more likely to influence medical student's future practice location. Rural remote area doctors give them a strong impression.

Graduates to be decided on their next training and career before our training. It shows difficulty to change their future. However, they understand the advantages of rural areas such as IPE and medical communications. Short-term training programmes are good for being specialists.

Conclusion: Early exposure is an essential point for doctors to consider rural remote areas. Rural training has many advantages than urban training.

PP154

Impressions and Beliefs of General Practitioner-Serviced Rural Hospitals in Mie Prefecture, Japan: A Qualitative Study

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Introduction: Our hospital is a small prefectural hospital that provides services to the sparsely populated mountainous region of Tsu City, Mie Prefecture, Japan. Before 2007, the on-site full-time services included Internal Medicine, General Surgery, and Orthopaedics before its reorganisation into a general physician (GP)-serviced system. Six years on we have improved the impressions and beliefs of residents and staff in order to decide the future of medical care in remote areas of Japan.

Methods: The duration of this study was approximately 2 months from May 2013. The study participants included local residents, outpatients, social workers, and nurses from our hospital and other nearby hospitals. Semi-structured interviews were conducted until our predefined maximum was reached. The participants were interviewed individually for 15 minutes regarding the comparative benefits and disadvantages between the newer GP-serviced and previous systems. From the interview records, the contents were extracted, summarised, and subsequently categorised.

Results: The impressions and beliefs of more than 50 individuals regarding GP-serviced hospital care yielded seven common and important topics and a number of related subtopics. Of these seven topics, 'hospitality', 'cooperation', 'addressing the patients' and 'patient satisfaction' within the GP-serviced system were highly rated by participants, whereas 'management' and 'visibility' received low ratings. 'Knowledge and skills' was composed of similar numbers of high and low ratings.

Conclusion: A GP-serviced medical care system in a Japanese rural hospital was evaluated by local residents, patients, and nurses. Multi-disciplinary cooperation, hospitality and patient satisfaction were perceived to be superior to the traditional model of care. In contrast, GP procedural and management skills were viewed as inferior. Despite 6 years of implementation and education, the reputation of GP-serviced hospitals was less than expected. From the results of this survey, we will be able to further strengthen community education and spread awareness of GP-staffed and GP-serviced rural hospitals.

PP155

A Rejang River Rash: A Case of Scrub Typhus in Rural Song**Jean-Li Lim***Song Health Clinic, 96850 Song, Sarawak, Malaysia*

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Introduction: Sarawakians along the riverine settlements of the Batang Rejang depend on the river and jungle for their daily living and sustenance. Thus, they have greater contacts with possible scrub typhus bearing vectors.

Case study: A 30-year-old woman presented with a two day history of rash preceded by fever. She also complained of myalgia, arthralgia and malaise. On examination, she had lymphadenopathy and presence of an eschar over her abdomen. All other system examinations were unremarkable. On further questioning, she admitted being bitten by a 'kutu babi' or mite three days before the onset of symptoms.

Investigations: Full blood count showed a predominantly neutrophilic picture with normal parameters. Renal and liver function was normal. Blood film for malaria parasites was negative. Ideally, Weil-Felix or serologic testing should be done to confirm the diagnosis but were not available.

Diagnosis: The presence of an eschar is pathognomonic of scrub typhus. However, differentials of a rash with fever should include malaria, dengue fever and leptospirosis as these were all endemic to the area.

Treatment: Oral doxycycline 100 mg BD for a week.

Outcome: Two weeks later, she had complete resolution of the lymphadenopathy and rash. Only hyperpigmented scarring was seen at the eschar site.

Discussion: Scrub typhus is caused by *Orientia tsutsugamushi* harboured by trombiculid mites whose main hosts are wild rodents. Scrub typhus commonly presents as an acute febrile illness. In endemic countries, it is one of the main causes of 'pyrexia of unknown origin'. Eschars occur at the site where the mite bites. Unfortunately, eschars are uncommon among South East Asians or those in endemic areas where the illness is usually less severe. Therefore, a high index of suspicion is needed in those presenting with a fever. Early treatment with antibiotics is imperative to prevent complications such as septic shock, multi organ failure and death.

Keywords: scrub typhus, fever, rash, lymphadenopathy, eschar

PP156

Subclinical Malaria In Pregnancy: A Community Diagnosis Approach in High Endemic Area of Malaria in Rural Timor Island

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Introduction: A national survey found a declining of malaria prevalence (0.6%) in 2010. However, malaria among pregnant women was higher (2.78%) as reported by the District South Central Timor (TTS) of East Nusa Tenggara (NTT) province. The study aimed to find factors associated with high incidence of malaria among the pregnant women in the high endemic area.

Methods: The study was community diagnosis, a mixed quantitative

and qualitative approach. A village in the Sub District South Amanatun, District TTS of NTT Province, was chosen for further exploration of the problem. Screening of malaria used blood smears under microscopic examination. Other information was obtained from focus group discussion with pregnant women, observation, interview with patients and health cadres and review report from the local primary healthcare (PHC) that served the sub district.

Results: We found 2 out of 14 pregnant women (14%) who had malaria without classical symptoms. Our review of the PHC report in 2011 found that 4.8% of all pregnant women had malaria. There are several risk factors for malaria, as found common among the villagers, that is, incorrect use of bed net, less usage of repellent and long sleeves clothing. Apart from the environmental factors, there are seasonal changes that might increase mosquito's breeding and uncovered water sources. The PHC was limited in resources and rarely provided health promotion related to malaria prevention. We notified that there was lack of knowledge about the prevention in the health cadres as well and these cadres needed more training to provide health promotion consequently.

Conclusion: The prevalence of malaria amongst pregnant women in that village was higher than the whole sub district. This was not unexpected as many risk factors were found in the village related to behaviour and environment. Moreover, the role of PHC and healthcare providers needed to be improved to prevent the epidemic.

Keywords: pregnant women, malaria

PP157

Increasing Rural Equity in Health: Malaysia Mobile Clinics

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Introduction: Access to equitable primary healthcare services is a primary focus of Malaysia's rural health service programmes. Mobile clinics have been an established mode of delivery for the rural population who live far from static health facilities. In attempting to improve these services, in 2010, the Ministry of Health in collaboration with the 1Malaysia Development Berhad Foundation introduced customised buses and boats to be onsite mobile clinics. The 1Malaysia Mobile Clinic, better known as Klinik Bergerak 1Malaysia (KB1M), targeted communities in estates, traditional villages and Orang Asli settlements. A differentiation from the traditional mobile clinic is the introduction of doctor services in addition to the services provided by the paramedics who have been the backbone of the Malaysian rural health delivery services.

Methods: This has enabled the scope of services of the KB1M to be expanded from the current acute curative care and Maternal & Child Health (MCH) services to include the prevention and care of chronic non-communicable diseases.

Results: Presently, five buses and four boats are providing healthcare services to 182,880 rural people in the six states of Perak, Selangor, Pahang, Johore, Sabah and Sarawak. A total of 269 villages are served through 132 KB1M stations. For 2013, a total of 25,883 clients were registered with KB1M, with a population coverage of 14.1%.

Conclusion: As part of the Ministry's efforts towards universal health coverage for the country, the KB1M services have expanded incrementally and are provided free at point of care, increasing access for the public residing in the rural areas of the country.

Keywords: rural health, rural health clinics, mobile health clinics

PP158

Prevalence of Pruritus Among Residents Living in Long-Term-Care FacilitiesChiu Yun-Wen¹, Mu Chia-Fen², Hsu Chao-Yu²¹Department of Dermatology, Taipei Veterans General Hospital, Taipei, Taiwan; ²Department of Family Medicine, Puli Christian Hospital, Puli, Taiwan

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Introduction: Pruritus is one of the most common and easily ignored problems that has a great impact on patients' quality of life. The objective of this study is to investigate the prevalence of pruritus in residents living in long-term-care facilities. We also compared the correlation between pruritus and diabetes.

Methods: The residents living in long-term-care facilities with clear description and communication were enrolled in this study. Pruritus is defined as skin itching at least 3 times in 2 weeks or frequent skin itching in 6 months. 'Had ever pruritus' is defined as having the above symptoms, but disappearing in more than 6 months. Personal data including diabetic history, pruritus history, impact of pruritus on sleep, daily activities and quality of life were recorded. The severity of pruritus was evaluated using a visual scale.

Results: A total of 74 (38 men, 36 women) residents of 3 long-term-care facilities agreed to answer the questionnaire. The mean age was 72.6 years. Twenty-five (33.8%) residents had pruritus symptoms at the time of the study. Among the 25 residents, pruritus caused sleep disruption in 68.0%, had an impact on daily activities in 48.0%, on mood in 60.0% and on appetite in 28.0%. Including these 25 residents, 45 (60.8%) had ever pruritus at some point. The most common locations of pruritus were back, limbs and scalp. Thirty (40.5%) residents had diabetes. There was no significant correlation between pruritus and diabetes ($p=0.99$).

Conclusion: Pruritus is a common problem in long-term-care facilities. It significantly interfered with patients' quality of life including sleep, mood, daily activities and appetite. The causes of skin itching need to be identified before treatment especially in long-term-care facilities.

PP159

Relationship of Neck Length and Sleep, Cardiovascular Risk Factors

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Introduction: Neck circumference, as predictor of obesity, is well known as a risk factor of obstructive sleep apnoea and cardiovascular diseases. However, there has been little research on neck length associated with these. The purpose of this study was to explore the association of neck length with sleep and cardiovascular risk factors by measuring midline neck length and lateral neck length.

Methods: We examined 241 patients aged 30–75 years who visited a health check-up centre from January 2012 to July 2012. Those who suffered from depressive disorder or sleep disturbance are excluded from this study. Midline neck length (MNL) from the upper margin of hyoid bone to jugular notch and lateral neck length (LNL) from the mandibular angle to the mid-portion of the ipsilateral clavicle were measured twice and were adjusted by height to find out its relation with sleep and risk factors of cardiovascular diseases.

Results: Habitual snorers have a shorter LNL height ratio ($p=0.011$), MNL height ratio ($p=0.062$) in male and MNL height ratio ($p=0.052$) in female. Snoring enough to disturb others, MNL height ratio was shorter in male ($p=0.083$) and female ($p=0.035$). Male with objective sleep apnoea likely had a longer distance from mandible to hyoid bone to mandible ($p=0.057$) and female had a shorter MNL height ratio ($p=0.020$). Male with metabolic syndrome had a significantly shorter LNL height ratio ($p=0.021$) and female with diabetes, hyperlipidaemia, metabolic syndrome had a shorter MNL height ratio (p).

Conclusion: This study shows that short neck by measuring the midline neck length is probably associated with snoring and sleep apnoea. Also, midline neck length is related to risk factors of cardiovascular diseases in female.

PP160

Smoking Cessation Rate and Associated Factors Analysis in a Southern Hospital in TaiwanJian-Nan Wang¹, Pi-I Li²¹Department of Community Medicine, Chi-Mei Medical Center, Tainan City, Taiwan; ²Department of Family Medicine, Chi-Mei Medical Center, Tainan City, Taiwan

Introduction: Tobacco use continues to be Taiwan's leading preventable cause of death and disease as it causes 18,800 tobacco-related deaths annually, which is on average one death every half an hour. In Taiwan, the cigarette smoking rate of adults is approximately 19.8%, and male smokers are predominant (35.4%). Hence, the reduction of adult smoking rate is mandatory for promotion of our public health.

Methods: A cross-sectional study was conducted from January to December 2012 in a southern hospital in Taiwan. A total of 150 smokers were enrolled. All participants had to complete their demographic information and scores of Fagerstrom Test for Nicotine Dependence (FTND). Statistical analyses were performed using the SAS software version 9.2. Categorical variables were analysed using the chi-square test or the t-test.

Results: There were 132 male smokers and 18 female smokers. The male smokers were predominant and statistically significant (88.0% vs. 12.0%, p) (24.0 ± 10.7 vs. 17.4 ± 0.9 , p). There were 108 participants (72.0%) smoking more than 10 cigarettes per day. After a follow-up telephone call, the overall smoking cessation rate was 30.7% (46/150), including 40 male smokers and 6 female smokers.

Conclusion: Tobacco use is a curable and preventable addiction disease. Current smokers with a longer duration of smoking, higher FTND scores and smoking more cigarettes daily have more difficulty in quitting due to severe nicotine withdrawal syndrome.

Keywords: nicotine dependence, nicotine withdrawal syndrome, FTND

PP161

A Qualitative Study of Barriers and Facilitators to Smoking Cessation Management Among Malaysian General PractitionersNgieng KK¹, Mohazmi Mohamed², Ng CJ²¹Health Clinic Bintangor, Meradong, Sarawak, Malaysia; ²Department of Primary Care Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia
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Introduction: The provision of smoking cessation advice in primary care is low in Malaysia. However, the reason for this has not been established. This study aimed to explore the barriers and facilitators to delivering smoking cessation activity from general practitioners' (GP) perspective.

Methods: In 2011, we carried out a qualitative study in Klang Valley, Malaysia. We conducted individual in-depth interviews with eight GPs. Purposive sampling was done and the participants were recruited by snowballing method. The interviews were audio-recorded and transcribed verbatim. The transcripts were used as data that were managed using the NVivo 8 software and were analysed using a thematic approach.

Results: Doctor, system and patient factors emerged as the main themes, which explained most of the barriers and facilitators in providing smoking cessation activities in general practice. GPs' perception of smoking cessation management being a 'side issue' was a major barrier. Other doctor barriers included negative attitudes, lack of enthusiasm and motivation, doctor as a smoker, and lack of effective drug and side effects. The key system barriers were lack of time, cost constraint, lack of incentives and lack of staff and training. The main facilitators included doctor's positive attitude, doctor's duty, sense of satisfaction (doctor factor), pregnancy, religious belief and family support (patient factor).

Conclusion: The GPs in this study encountered many barriers in carrying out smoking cessation activities, particularly the lack of support and resources in their clinics. The healthcare policy makers should provide smoking cessation training and incentives to GPs for carrying out smoking cessation activities in general practice in Malaysia.

Keywords: general practitioner, smoking cessation, barrier, facilitator

PP162

Respiratory Co-morbidities and Their Association With Smoking Among Adults in Felda Area

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Introduction: Chronic obstructive pulmonary disease (COPD), a smoking-related disease, is preventable. Studies on the effect of smoking in areas under the land development scheme, which has a wide variation of differences socially or demographically are very limited. This study aimed to determine respiratory co-morbidities associated with smoking among respondents residing in Felda Raja Alias 1 and Felda Serting Hilir 1, Negeri Sembilan.

Methods: This was a cross-sectional study conducted in adults aged ≥ 18 years in Felda using cluster sampling. A self-reporting piloted questionnaire (Cronbach's $\alpha=0.68$) based on the COPD-PS questionnaire was used to assess COPD risk. A score of more than 5 is considered at risk of COPD.

Results: This study involved 498 respondents, with a response rate of 96.2%. The median age of the participants was 50 years (26), with 34.7% of current smokers smoking for a median of 15 pack-years (19). There was a significantly higher history of respiratory disease among smokers compared to non-smokers (mean score of COPD-PS among the respondents was 2.05 [95% CI: 1.90–2.19]). Only

5.3% of respondents were screened to be at risk of COPD. The risk of developing COPD was higher among smokers than non-smokers (p).

Conclusion: There was a higher prevalence of respiratory disease among smokers settled in Felda than non-smokers. The risk of developing COPD is significantly higher among older males, married and unemployed smokers than non-smokers. Interventions to screen and diagnose COPD using a more specific diagnostic tool maybe more logistically appropriate if targeted towards this at-risk Felda population.

Keywords: smoking, respiratory disease, risk of COPD

PP163

Secondhand Smoke Exposure and Cardiometabolic Risk in Adult Women

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Introduction: Existing evidence shows that there is an association between secondhand smoke (SHS) exposure and the risk of cardiovascular disease, especially in non-smokers. Various mechanisms related to cardiometabolic biomarkers have been suggested to be responsible for adverse cardiovascular disease due to SHS exposure, including enhanced oxidative stress, inflammation, reduced adiponectin and lipolysis. The purpose of this study was to explore the association between SHS exposure and various cardiometabolic biomarkers in non-smoker adult women.

Methods: This was a comparative cross-sectional study conducted in 192 healthy non-smoking women aged 18–60 years. They were assigned into SHS ($n=101$) and non-SHS ($n=91$) groups. Based on self-reported, SHS exposure was defined as more than 15 minutes per day and more than one day per week exposure to tobacco smoke either at home, workplace, car or other locations. While those who are free from cigarettes at any location were enrolled as non-SHS. HMW adiponectin, insulin resistance (HOMA-IR), hsCRP, oxidized LDL, 8-isoprostane and NEFA were analysed. Hair nicotine was also measured to objectively verify the exposure to cigarette smoke.

Results: The mean age of subjects was 34.5 ± 8.86 years. The prevalence of women SHS exposure at home was 66.3%, which is greater than workplace, car and other locations. The hair nicotine concentration was significantly higher in women exposed to SHS compared to non-SHS (0.22 ± 0.62 vs. 0.04 ± 0.11 ng/mg; $p=0.009$). However, no difference was observed in HMW adiponectin, insulin resistance, hsCRP, oxidized LDL, 8-isoprostane and NEFA between the SHS and non-SHS groups.

Conclusion: SHS exposure in women was associated with an increase in hair nicotine level, but not in cardiometabolic biomarkers. Further studies are required to clarify the adverse effects of SHS exposure.

PP164

Ambulatory Blood Pressure Profile of Women Exposed to Environmental Tobacco Smoke

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Introduction: Exposure to environmental tobacco smoke (ETS) has been recognised as a strong predictor contributing to cardiovascular mortality. Chronic exposure to ETS gives rise to permanent damage

of blood vessels. The objective was to compare the circadian pattern of blood pressure between ETS and non-ETS.

Methods: A comparative cross-sectional study was conducted from May 2011 to May 2012 among women who were exposed to ETS for at least 15 minutes in 2 days within a week and for 3 years or more. Respondents were selected from Klinik Rawatan Keluarga HUSM using convenience sampling method. Schiller BR-102 plus was put on patients to obtain 24-hour blood pressure (BP) reading. Analysis was done using SPSS Version 20.

Results: A total of 92 participants were involved in this study. 41 respondents were enrolled in the non-ETS group and 51 in the ETS group. Mean age was 33.9 years (SD 6.73 for ETS and SD 7.74 for non-ETS). Mean 24-hour BP for ETS was 112.3 (SD 11.4)/70.0 (SD 7.95) mm Hg respectively. Mean daytime BP was 115.4 (SD 11.56)/72.9 (SD 8.27) mm Hg and mean nighttime BP was 106.1 (11.08)/64.9 (7.94) mm Hg. In non-ETS, mean 24-hour BP was 111.6 (SD 13.30)/71.3 (SD 8.62) mm Hg, mean daytime and nighttime BP was 115.2 (SD 13.95)/74.6 (SD 8.63) mm Hg and 103.9 (SD 12.41)/64.6 (SD 8.79) mm Hg. Percentage for non-dippers among ETS was 63.5% for systolic and 42.3% for diastolic compared with non-ETS, which was 50.0% for systolic and 31% for diastolic.

Conclusion: Both ETS and non-ETS groups had almost similar diurnal of BP profile. However, the daytime and 24-hour diastolic BP were found to be lower among the non-ETS group with statistically significant p value of <0.05 . The percentage for systolic and diastolic of non-dippers was higher in the ETS group but it was not statistically significant.

Keywords: ambulatory blood pressure, dippers and non-dippers, environmental tobacco smoke

PP165

The Effect of Cigarette Smoking on Serum Leptin Concentration and Total Calorie Intake Among Healthy Male Smokers

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Introduction: Leptin has a variety of important central and peripheral actions in regulating energy balance and metabolism, feeding behaviour, fertility and bone metabolism. The role of leptin as an appetite suppressor was believed to be responsible for weight changes among smokers. The aim of this study was to determine the association between nicotine dependence with serum leptin concentration and total calorie intake among healthy male smokers.

Methods: This cross-sectional study was conducted in Universiti Sains Malaysia, Health Campus, Kelantan. Male smokers aged 20–50 years were randomly recruited. Nicotine dependence was evaluated by the Fagerstrom Test for Nicotine Dependence (FTND) Questionnaire and smokers were divided into high, moderate and low dependence. Hair nicotine levels were also measured. Fasting blood samples were collected and serum leptin concentration was measured by ELISA (a solid-phase two-site enzyme immunoassay). The total calorie intake of the subjects was assessed by a 24-hour diet recall interview.

Results: A total of 107 subjects were enrolled. The mean age and BMI of the subjects were 37.00 (9.42) years and 24.59 (4.33) kg/m²,

respectively. There was a significant inverse correlation between the Fagerstrom score and serum leptin concentration ($r=-0.198$, $p=0.048$). The calorie intake was significantly different among the three nicotine dependence groups ($F(2,46)=3.688$, $p=0.03$). However, there was no significant correlation between the hair nicotine level with serum leptin concentration and total calorie intake.

Conclusion: Leptin might not be responsible for total calorie intake and body weight changes among smokers.

Keywords: nicotine dependence, smokers, leptin, total calories intake, weight changes

PP166

Tobacco-Related Knowledge and Anti-Smoking Practice Among the Staff of a Smoke-Free Hospital

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Introduction: According to the European guidelines for the tobacco-free hospital service initiative, Taiwan became a network of smoke-free hospitals in 2011. The objective of this study is to investigate tobacco-related knowledge and anti-smoking practice among the staff of a smoke-free hospital.

Methods: Between 1 and 15 July 2013, a questionnaire was provided to the staff of all departments in our hospital, which is one of the smoke-free hospitals in Taiwan. Twenty-two questions about tobacco-related knowledge and anti-smoking practice were asked. The survey was recorded using the Likert scale and the scaling response was analysed using SPSS v14.0 software.

Results: One hundred and thirty-four participants (98 female, 36 male) agreed to answer the questionnaire. One hundred and twenty-two (91.1%) participants were aware that our hospital is one of the smoke-free hospitals. Most participants considered reducing stress as the reason for smoking (3.77 ± 0.98). The responses from the study participants that were obstacles for the staff during anti-smoking practice are "I'm not interested" (3.50 ± 0.90) and "I don't have time" (2.91 ± 0.99).

Conclusion: Most of the staff supported anti-smoking practice. Health education may be necessary for participants with lower willingness of smoking cessation. A nurse educator can help in providing health education.

PP167

The Prevalence of Relapse and Its Associated Factors Among Smokers Attending Klinik Rawatan Keluarga, Hospital Universiti Sains Malaysia

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Introduction: Relapse is one of the major challenges in smoking cessation programmes. Approximately between 70% and 80% of quitters will relapse within 6 months of achieving abstinence. However, not many studies have identified the factors associated with relapse. The aim of this study was to determine the prevalence of relapse and its associated factors among smokers attending Klinik Rawatan Keluarga, Hospital Universiti Sains Malaysia.

Methods: This was a cross-sectional study. Current smokers who had a past history of quitting or ex-smokers were enrolled via systematic sampling from June to August 2010. Information about smoking history, episode of quitting, stressful life events and other possible factors related to relapse were obtained through a self-administered questionnaire.

Results: A total of 283 respondents completed the questionnaires. The proportion of relapse was 59.4%. The significant factors associated with relapse were age less than 40 years, unmarried status, low Fagerstrom score, long duration of smoking and stressful life events, including interpersonal loss, move to a new residence, life-threatening illness or injury and financial problems.

Conclusion: The prevalence of relapse among smokers attending KRK is consistently high and is similar to those in other countries. Identifying and tackling the associated risk factors are useful in preventing relapse.

Keywords: smoking, relapse, associated factors of relapse, stressful life events

PP168

Duration of 2G Smoking Cessation Programme is Positively Associated With Continued Abstinence

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Introduction: Smokers aged 18 or older, who smoke ≥ 10 cigarettes per day or who score ≥ 4 on the Fagerström Test for Nicotine Dependence (FTND) are eligible for the Second-Generation (2G) Smoking Cessation Programme in Taiwan effective since March 2012. Smokers can receive individualised counselling and reimbursed cessation medications during the treatment course. The programme has substantially alleviated the economical and geographical gaps. However, the clinical factors for continued abstinence are of limited investigation. This study aimed to investigate the clinical factors associated with carbon monoxide-confirmed continued abstinence by week 12 and during weeks 13 to 24.

Methods: A prospective cohort of 411 participants from two regional teaching hospitals in Northern and Central Taiwan from March 2012 to December 2013 were analysed. Multivariate logistic regression analyses were used to estimate the adjusted odds ratios (ORs) and 95% confidence intervals (CIs) of the selected clinical factors.

Results: There were 177 (43%) and 132 (32%) successful quitters at 3 months and 6 months, respectively. The duration of the smoking cessation programme (≥ 4 weeks) was positively associated with continued abstinence by week 12 (OR, 1.66; 95% CI, 1.08–2.55; $p=0.022$) and continued abstinence during weeks 13 to 24 (OR, 1.78; 95% CI, 1.13–2.81; $p=0.014$) after adjusting for age, FTND, cigarettes per day, smoking duration and speciality of physicians.

Conclusion: The duration of individualised counselling and cessation medications in the 2G Smoking Cessation Programme should be 4 weeks or longer to reach higher continued abstinence. More large-scale prospective trials elucidating the effectiveness of inter-professional smoking cessation programmes on continued abstinence and relapse prevention are warranted. Future programmes should further address the health inequality beyond economical and geographical gaps.

PP169

Validation of the Bahasa Malaysia Version of the Short Form Sarason's Social Support Questionnaire (SSQ6-BM)

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Introduction: Social support has been found to have an effect either directly or indirectly on a person's health. The Short Form Sarason's Social Support Questionnaire (SSQ6) is a brief self-administered questionnaire in the English language that was developed to measure the perceived availability of support (SSQN) and satisfaction with the support available (SSQS) to an individual. It has been translated into languages such as Japanese and Russian. This study aimed to translate the SSQ6 into Bahasa Malaysia (Malay language) and validate it for use in the local setting. The reliability of the translated questionnaire was also determined.

Methods: Forward-and-back translations and pre-tests were done to produce the Bahasa Malaysia version of the SSQ6 (SSQ6-BM). The SSQ6-BM was administered to 66 adults attending a primary care clinic. Subjects were selected using purposive quota sampling. Construct validity was determined using exploratory factor analysis and factors were extracted using the Kaiser's criterion, parallel analysis and scree plot methods. The reliability of the SSQ6-BM was measured by determining the internal consistency using Cronbach's alpha.

Results: The original Sarason's Social Support Questionnaire has two factors. In this study, these two factors were also extracted and they were in correlation with the original SSQN and SSQS. The Cronbach's alpha for the two factors SSQN and SSQS was 0.915 and 0.841, respectively.

Conclusion: The SSQ6-BM has good psychometric properties and analyses of the reliability and validity of the SSQ6-BM yielded satisfactory results. Thus, it is suitable to be used in the adult Bahasa Malaysia speaking population in Malaysia for future studies in areas related to social support.

PP170

Continuous Alternating Medical Support Provided by the Japanese Red Cross Society to Ishinomaki Red Cross Hospital After the East Japan Earthquake

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Introduction: The Great East Japan Earthquake struck off the northeast coast of Japan on 11 March 2011, and the subsequent tsunami left almost 20,000 people dead or missing in Japan. Ishinomaki city suffered one of the highest casualty rates, with almost 4000 people left missing. Fortunately, Ishinomaki Red Cross Hospital (IRCH) was intact as it had been moved away from the Pacific Ocean 3 years before. However, other medical facilities closer to the coast suffered enormous damage.

Methods: The Japanese Red Cross Society (JRCS) assembled volunteer doctors from across the country and transferred these teams to IRCH by big bus. The purpose of our mission was to support the provision of emergency medical care in the affected areas and to assist the Accident & Emergency department of IRCH.

Results: As many as 81 doctors were dispatched by the JRCS to IRCH between April and August 2011. The medical team consisted of specialists in internal medicine (38), emergency medicine (12), surgery (6), paediatrics (3), orthopaedics (3), anaesthesiology (2), obstetrics and gynaecology (2) and trainee doctors (15). Dispatch doctors set up temporary medical outpatient facilities in IRCH in shifts to support the provision of secondary care across all medical fields and also helped provide tertiary care when required. The rubble and debris in the affected areas resulted in many respiratory tract infections and cases of bronchial asthma. We presented this activity in Japan, Korea, Turkey, Chile, United Kingdom, Czech Republic and France during 2011–2012.

Conclusion: The mission to help revive the medical system in Ishinomaki and provide emergency support was completed successfully. In Japan, medical facilities should be relocated away from the sea to prevent damage from tsunami. Our Pan-Pacific areas had many big earthquakes; therefore, we should send a word “away from the sea at the tsunami” to the people of the next generation.

PP171

Barriers to Managing Domestic Violence in General Practice Setting in Malaysia and Practice Implications

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Introduction: The primary care response to women who experience domestic violence is important, as primary care practice is the first formal agency to which most victims seek help. Failure of proper response by general practitioners may put victims at risk of further episodes of violence and its consequences. The objective of this study is to explore the experiences of Malaysian general practitioners with domestic violence victims and to determine the barriers to domestic violence identification and intervention in primary care setting.

Methods: Grounded theory approach, a qualitative research method involving semi-structured interviews, was followed. Data collection ended with saturation. The audio-recordings were transcribed verbatim and analysed using NVivo software.

Results: Thirteen general practitioners were interviewed. All general practitioners acknowledged domestic violence as a common problem but felt that the issue has not received adequate attention. Analysis of the interviews revealed that there seemed to be a ‘conspiracy of silence’ surrounding the discussion of domestic violence at clinical setting. At an individual level, time factor, uncertainty of how to respond and personal values were some of the reported barriers. Absence of a specific protocol to guide management of domestic violence and lack of support posed barriers at organisation level. Varied clinical presentations of abuse and victims’ reluctance to disclose abuse constituted barriers arising from the victims’ side.

Conclusion: General practitioners flagged up important barriers encountered by them at various levels when exploring domestic violence. These barriers need to be properly addressed in order to optimise services offered to domestic violence victims at primary care setting.

Keywords: domestic violence, general practice, barriers

PP172

Facilitators of Exclusive Breastfeeding Among Working Mothers: A Qualitative Study

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Introduction: Exclusive breastfeeding for 6 months is recommended for the provision of optimal nutrition for infants. Yet, the prevalence of this practice has been shown to vary widely from a dismal 1.2% to 65.9%. In Malaysia, the prevalence of exclusive breastfeeding was only 14.5%. The prevalence has been shown to be even poorer among working mothers. The objective of this study is to explore the facilitators of exclusive breastfeeding among working mothers.

Methods: This is a qualitative study using in-depth interviews of working mothers who exclusively breastfed for 6 months. The participants were identified through purposive sampling and recruitment continued until data saturation was achieved. A semi-structured interview guide based on the social cognitive theory was used. The interviews were audio-recorded and transcribed verbatim. Codes were developed by two independent coders. The data were analysed using thematic analysis.

Results: Seven participants were interviewed. The following five themes emerged from the study that described the facilitators of exclusive breastfeeding: determination to breastfeed, support for breastfeeding, practices that help with breastfeeding, the child factor and knowledge of breastfeeding. These were the factors that helped participants to overcome the challenges of exclusive breastfeeding for 6 months.

Conclusion: Using the social cognitive theory, self-efficacy as demonstrated by the determination of the women to breastfeed was a driving factor to the practice of exclusive breastfeeding for 6 months in this study population. This was enhanced by support, reinforcement, knowledge and coping strategies.

PP173

Knowledge, Attitude and Barriers to Cervical Cancer Screening Among Women Who Never Had Pap Smear in a Semi-Rural Area in Kelantan, Malaysia

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Introduction: Cervical cancer is the third most common cancer in women in Peninsular Malaysia. However, only 43% of Malaysian women undergo Pap smear screening despite the implementation of health education programme and the most common barrier reported was lack of knowledge. Therefore, this study aimed to determine the level of knowledge and attitude on cervical cancer and its screening and to determine the barriers to cervical cancer screening among women who never had Pap smear in a semi-rural area of Pasir Mas, Kelantan.

Methods: This is a cross-sectional study carried out between September 2012 and February 2013. It involved 102 women who had never undergone Pap smear screening in Pasir Mas, Kelantan. A self-administered questionnaire was used to assess knowledge, attitude and identify the barriers to cervical cancer screening. A score of 75% and above was considered good for both knowledge and attitude. Data were analysed using SPSS version 20.

Results: The mean (SD) knowledge percentage score was 76.0 (6.69). About 57.8% of respondents had good knowledge. The mean (SD) baseline attitude percentage score was 65.4 (8.91). However, only 14.7% of respondents had good attitude. The most common barrier was lack of knowledge (45.1%), despite which 86.2% admitted that they had heard about cervical cancer. Other common barriers included embarrassment (41.2%) and never been advised by a healthcare personnel (28.4%). The most common source of information on cervical cancer was mass media compared with healthcare personnel.

Conclusion: Although more than half of women who had never undergone Pap smear screening had good knowledge, only a small percentage had good attitude. Poor attitude might be contributed by lack of information given by healthcare personnel on cervical cancer screening. Healthcare personnel should be more active in educating the community as well as making use of mass media to promote cervical cancer screening.

PP174

Anaemia in Pregnancy: Socio-demographic Characteristics and Appropriateness of Management at Buntong Health Clinic

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Introduction: Anaemia is the most common medical disorder in pregnancy. Studies have shown that pregnant mothers with anaemia have poor birth outcomes and increased risk of maternal mortality. Buntong Health Clinic in Ipoh, Perak was chosen to be the location to conduct this study because of its high prevalence of anaemia in pregnancy cases (41.4% in 2011).

Methods: A clinical audit on the management of pregnant women with anaemia seen in Buntong Health clinic was carried out in 2011. The staff was subsequently briefed on the findings and remedial measures to be taken. A second audit was conducted on the management of cases seen in 2013. Structure indicators of care assessed in both audits included registry for anaemia in pregnancy, recall system and management protocol. Process indicators of care included monitoring of symptoms and signs of anaemia, full blood count, peripheral blood film, stools for ova and cyst and advice in compliance with haematinics. Outcome indicator was the percentage of cases recovered from anaemia at 36 weeks of pregnancy. Criteria were derived and target standards were set. Case notes were reviewed. The observed levels of performance for both 2011 and 2013 were compared.

Results: A total of 136 and 102 cases were reviewed in 2011 and 2013, respectively. In 2011, target standards were not met for management protocol—monitoring of symptoms, checking signs of anaemia, performing stool examination and percentage of cases recovered from anaemia except for those diagnosed in the second trimester of pregnancy. All target standards were met in 2013 except for stool examination and percentage of cases recovered from anaemia.

Conclusion: Overall, the management of pregnant women with anaemia improved from 2011 to 2013.

Keywords: clinical audit, anaemia, pregnancy

PP175

Causes of Losing Follow-up in Women With Abnormal Screening Mammography in a Medical Centre in Taiwan

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Introduction: Breast cancer has the highest incidence rate among all cancers in women in Taiwan. The current screening policy for breast cancer is biennial mammography in women aged 40–69 years. Women with BI-RADS 0 and BI-RADS 4 results were asked to receive further examination via postal mail. However, there were about 20% of women at high risk of breast cancer losing follow-up. Therefore, we aimed to explore the causes of losing follow-up in women with abnormal screening mammography.

Methods: The target population was women receiving mammography screening at the National Taiwan University Hospital in 2011, with the results of BI-RADS 0 or BI-RADS 4. Two questionnaires were designed according to the conceptual framework of the Health Belief Model. 528 women were interviewed via telephone after getting their oral informed consent. Chi-square test and logistic regression were used for analysis.

Results: The response rates were 51.2% and 56.6% in the BI-RADS 0 BI-RADS 4 groups, respectively. In the BI-RADS 0 group, the causes significantly related to receiving follow-up included agreeing with the possibility of early cancer detection (OR, 95% CI 5.82, 2.244–15.093), worrying about getting breast cancer (2.371, 1.329–4.230), knowing follow-up procedures (2.366, 1.255–4.458) and agreeing with impairment in quality of life from getting breast cancer (1.955, 1.005–3.806). The causes significantly related to not receiving follow-up included agreeing with no need to receive follow-up without symptoms (0.263, 0.115–0.602) and being told that follow-up was not needed (0.208, 0.082–0.529).

In the BI-RADS 4 group, the most likely causes of receiving follow-up included physician's recommendation and agreeing with the importance of follow-up. The most likely causes of not receiving follow-up included follow-up at other hospitals and considering second opinions.

Conclusion: Education and raising breast cancer awareness among both the general public and medical personnel are important in improving breast cancer detection rate.

PP176

Towards Equity in Healthcare—Cervical Cancer Screening Among Ethnic Minorities in Hong Kong

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Introduction: We are a non-governmental organisation providing primary healthcare and medical, dental, psychological and traditional Chinese medicine care. A South Asian Health Programme (SAHP) was established to promote healthcare in ethnic minorities marginalised in mainstream healthcare because of language barrier, lack of awareness and access. This programme, the only one in Hong Kong, is staffed by Nepalese, Pakistani and Chinese healthcare workers and promotional materials are printed in Hindi, Urdu, Nepalese and English.

Methods: From January 2011 to December 2012, data from cervical cancer screening by pap smear were collected. Case finding was done by staff visiting South Asian communities in mosques, Sikh temples, social service centres, government race relations offices and Islamic centres. Pap

smears were done in our clinics by female ethnic minority staff with the relevant language skills. Data were also recorded from routine pap smear screening in local Chinese in our clinics during the same period.

Results: 12,639 pap smears were done in local screening and 749 in SAHP screening. 996 were first-time pap smears in local screening and 315 in SAHP screening. Of the first-time pap smears, 62 in local screening were abnormal and 34 in SAHP screening. The chi-square test showed that these differences were statistically significant ($p < 0.01$).

Conclusion: South Asian ethnic minorities in Hong Kong had more abnormalities in first-time pap smears than the local population. A discussion will be presented on the possible causes. We recommend the government to allocate more resources on ethnic minority medical care.

Keywords: pap smear, ethnic minorities, women's health

PP177

Relationship Between Quality of Antenatal Care and Knowledge and Attitude of Pregnant Women Towards Obstetric Danger Signs at Kecamatan Koja

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Introduction: The maternal mortality rate (MMR) in Indonesia is still high and is the reason why one of the points in the Millennium Development Goals is difficult to achieve. The causes are lack of good-quality antenatal care (ANC) and lack of knowledge about obstetric danger signs. This research aims to find the relationship between the quality of ANC and knowledge and attitude of pregnant woman towards obstetric danger signs.

Methods: 109 pregnant women who visited Puskesmas Kecamatan Koja in March 2013 were enrolled. ANC quality was assessed through observation during the service, while knowledge and attitude were assessed through a questionnaire guided by a researcher.

Results: It was found that there is a significant relationship between the quality of ANC and maternal knowledge about obstetric danger signs ($p = 0.011$). There was a significant relationship between the education level ($p = 0.038$) and experience in ANC visit ($p = 0.043$) with maternal knowledge about danger signs of obstetric complications. There was a significant relationship between the number of pregnancies (≤ 2 ; $p = 0.042$) and being accompanied while attending ANC visits ($p = 0.011$) with maternal attitude towards obstetric danger signs.

Conclusion: The quality of ANC needs to be improved to increase pregnant women's knowledge about obstetric danger signs. There are relationships between several sociodemographic factors of pregnant women and knowledge and attitude of pregnant women towards danger signs of pregnancy. Further research is needed to examine the relationship of other variables that may affect the quality of ANC.

Keywords: quality of ANC, knowledge, attitude, obstetric danger signs

PP178

Urinary Incontinence in Younger Women of Macau: Why Women Do Not Seek Medical Advice for Incontinence

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Introduction: Urinary incontinence (UI) is prevalent in women and even among young adults. However, affected women seldom consult a physician for their UI symptoms despite effective treatment in primary

care. This study aimed to find out why women do not seek medical advice for incontinence and the factors associated with the reasons.

Methods: A convenience sample of 408 women aged 30–50 years attending a Well Women Clinic in a government health centre filled in the Urogenital Distress Inventory Short Form (UDI-6) for detection of urinary symptoms and Incontinence Impact Questionnaire Short Form (IIQ-7) for evaluation of impact on quality of life (QoL). They were also asked about the reasons for not seeking medical help.

Results: Of the 408 women, stress UI was reported in 37.5%, urge UI in 10% and mixed UI in 9.8%. Overall, 163 (40%) UI women did not seek medical help. The reasons included incontinence was inevitable with advancing age (50.3%), they should cope with the problem themselves (23.3%), no useful treatment was available (14.7%) and embarrassment to tell doctors (3.7%). Age, education level and total score of IIQ-7 were not significantly associated with the decision of seeking medical help. The type of incontinence and affected domains of QoL (home, social, physical, emotion, depression) were also not associated with seeking medical help. However, in the logistic regression against age and education, women who had tertiary education (compared to women with primary or secondary education) were significantly more likely to seek advice ($p < 0.001$).

Conclusion: Younger women were commonly affected by UI, but the majority did not seek medical help. The reasons were wrong perceptions about the nature and management of the condition. Patient education could improve QoL by early management.

Keywords: urinary incontinence, UDI-6, IIQ-7, seeking medical help

PP179

The Attitudes and Practices of Primary Care Physicians in the Management of Female Urinary Incontinence

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Introduction: Urinary incontinence is a significant health problem particularly in women. In Malaysia, 64% of women with lower urinary tract symptoms suffer from urinary incontinence. Primary care physicians (PCPs) are the first point of contact for most patients with urinary incontinence. This study was to assess the attitude and practices of PCPs on managing female urinary incontinence (FUI) as it influences the effectiveness of management at the primary care level.

Methods: A cross-sectional study was carried out among 349 PCPs in Selangor between September and November 2012. They were recruited via convenient sampling. Socio-demographic data, attitudes and practices of management of FUI, and participation in Continuous Medical Education (CME) were obtained using a self-administered questionnaire and analysed using SPSS software.

Results: Half of the PCPs agreed that FUI could be managed at the primary care level. Clinical evaluation was inadequate, especially in speculum and vaginal examination. However, treatment of urinary incontinence was in accordance with guideline recommendations where most physicians prescribed lifestyle changes, pelvic floor muscle exercise and behaviour modification. Physicians practising in a tertiary setting, who have postgraduate qualification and experience in urology and gynaecology, were found to be more compliant to guidelines compared to their other counterparts. However, half of the physicians would refer urinary incontinent women for secondary or tertiary management. Majority of physicians expressed their interest in attending urinary incontinence-related CME.

Conclusion: A variable attitude was seen among PCPs in the management of FUI at the primary care level and this was influenced by their experience in gynaecology attachment. PCP practice in managing FUI was good as it was according to the recommendations of many guidelines, but many physicians were not performing vaginal examination as recommended. More urology-related CME should be organised to improve the knowledge of PCP and their management of FUI.

Keywords: urinary incontinence, primary care physicians

PP180

Prevalence and Predictors of Unplanned Pregnancy in Women Attending Government Health Clinic in Selangor

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Introduction: According to the World Health Organization, globally 4 out of 10 women report that their pregnancies are unplanned. However, the prevalence of unplanned pregnancy varies from study to study. In the United States, CDC reported an unplanned pregnancy of 48% in 1995 and 49% in 2002. In contrast, a study carried out in Ethiopia by NegaKassal and colleagues (2010) showed an unplanned pregnancy prevalence rate of 27.9%. One study carried out by Hooi and colleagues (2003) noted that the prevalence rate of unplanned pregnancy amongst renal transplant patients was 54%. There is a dearth of studies carried out on unplanned pregnancy amongst the Malaysian community.

The objective of this study was to determine the prevalence of unplanned pregnancy, and to find out the demographic characteristics and predictors of unplanned pregnancy amongst women attending the government health clinics in Selangor.

Methods: This was a cross-sectional multicentre study carried out in the government health clinics with resident family medicine specialist in Selangor using a self-administered questionnaire. Convenient sampling method was used and data were collected from 1 to 15 November 2013. Analysis was performed using SPSS 17. A descriptive analysis and an analysis of association were performed using the chi square test and logistic regression analysis for the predictors. This study is a subanalysis from a study on "Barriers, knowledge, attitude and practice to the usage of contraception amongst women attending government health clinics in Selangor".

Results: The prevalence rate of unplanned pregnancy was 39.7%. Factors such as extreme age group, Muslim religion, education level, income, child spacing, parity, awareness of family planning and family planning practice showed statistically significant association with unplanned pregnancy. The predictors of unplanned pregnancy included patients belonging to extreme age group, Malay, who earned <RM 3000, who had lower educational level and those who were unaware of family planning.

Conclusion: The prevalence rate of unplanned pregnancy was high (39.7%). The predictors should be identified while interacting with patients in order to provide better emphasis and information on the importance of planned pregnancy and family planning in this targeted group. By doing so, it might be possible to reduce the prevalence of unplanned pregnancy with its much potential harm.

PP181

General Practitioners' Focus on Women's Healthcare

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Introduction: Most deliveries in Japan are handled by obstetricians and midwives. This study aimed to find out whether general practitioners should provide healthcare to women to prevent perinatal medical crises.

Methods: In this study, a certain remote island 'O', where low-risk deliveries were handled by midwives and a general practitioner for 4 years, was investigated. In addition, the training programmes of general practitioners in Japan, with a focus on effectiveness of obstetrics and gynaecology training, were investigated.

Results: On the remote island 'O', there were 154 deliveries. Although most of the deliveries were handled by midwives, the general practitioner treated postpartum haemorrhages without complications. The general practitioner provided women's healthcare in the outpatient department. 31 responses were obtained from the training programmes of general practitioners. 15 programmes reported obstetrics and gynaecology training, but 11 reported the training as optional. There was only one programme that targeted women's healthcare, including prenatal care and unassisted low-risk delivery.

Conclusion: Obstetrics and gynaecology training is necessary for providing women's health care in Japan. General practitioners do not have to handle the delivery process, but they can collaborate with midwives. In addition, Advanced Life Support in Obstetrics (ALSO) and Basic Life Support in Obstetrics (BLSO), which are obstetrics first-aid simulation courses, are spreading in Japan. It is anticipated that these courses will result in an increase in general practitioners who are interested in women's healthcare.

Keywords: general practitioner, obstetrician, women's healthcare, Japan

PP182

Knowledge and Attitude on Exclusive Breastfeeding Practice Among Fathers Attending Primary Health Care Facilities in Machang District Kelantan

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Introduction: In Malaysia, the prevalence of exclusive breastfeeding below 6 months is still low. A father's knowledge and attitude on exclusive breastfeeding are very important factors that contribute to the success of the exclusive breastfeeding practices. This study was conducted to evaluate the knowledge and attitude of fathers towards exclusive breastfeeding practice. The objectives of the study were to compare the knowledge and attitude on breastfeeding between fathers whose child was exclusively and non-exclusively breastfed and their associated factors for practising breastfeeding. This study was also carried out to determine the association between the decision-making style and the breastfeeding practices.

Methods: This was a comparative cross-sectional study. Self-administered questionnaires were provided for data collection. The questionnaires that were used in this study consisted of two sets that required information on the mothers' and fathers' socio-demographic data and information on knowledge and attitude of the fathers on exclusive breastfeeding practice.

Results: A total of 196 respondents were included in this study. There was no significant difference in knowledge ($p=0.537$) and attitude score ($p=0.669$) among fathers whose children were breastfed exclusively and non-exclusively. However, there was an association between mutual decision of parents on exclusive breastfeeding and exclusive breastfeeding practice ($p=0.002$). In addition, the results show that previous exclusive breastfeeding experience (OR=29.1), fathers' age (OR=0.9), mothers' occupation (OR=0.1) and mutual decision for exclusive breastfeeding (OR=6.7) were significant associated factors for exclusive breastfeeding practices.

Conclusion: From this study, it was concluded that there was no difference in terms of knowledge and attitude of fathers in the exclusive or non-exclusive breastfeeding group. However, mutual decision of parents on exclusive breastfeeding practice was an important determinant for exclusive breastfeeding practice. Previous exclusive breastfeeding experiences and mutual decision on exclusive breastfeeding practice were favourable factors for exclusive breastfeeding practice. However, working mothers and older fathers were considered as non-favourable factors for exclusive breastfeeding practice.

PP183

Evaluation of the Knowledge of Individuals Related to Family Planning Methods Before Marriage

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Introduction: Family planning methods are important to lead a healthy life, especially for the mother as well as for children. The aim of this study was to find out the level of knowledge about family planning of the couples who are on the verge of getting married.

Methods: This study was performed by the Department of Family Medicine of Trakya University Medical Faculty in 136 couples who applied to the Edirne Municipality Marriage Office for marital procedure and accepted to take part in the study between June and September 2012.

Results: The mean age of the participants was 24.6±3.7 years for women and 27.7±3.8 years for men. This mean age also reflected the age at marriage for men and women. The mean age of marriage showed coherence with the data of developing countries. Concerning educational status, 52.2% of the couples were university graduates and 32% were higher secondary graduates.

Conclusion: 64.7% of the couples had no knowledge and education about family planning and 69.8% was unaware of any family planning method. 60.5% accepted that they had insufficient knowledge and education on family planning methods. There is a need to raise awareness in public about family planning under the guidance of healthcare providers.

Keywords: primary care, family planning, marriage

PP184

Adherence to Recommended Pap Smear Screening Guideline and Its Associated Factors Among Women at Klinik Kesihatan Bandar (KKB) Kota Bharu

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Introduction: Cervical cancer is the second most frequently occurring cancer among women in Malaysia and worldwide. Although the cervical screening programme had been started since the 1960s and is provided free in all government health facilities in Malaysia, the coverage and adherence rate to the recommendation among Malaysian's women remains to be low. This study aims to explore the adherence rate to pap smear screening guidelines and factors associated with non-adherence according to the Health Belief Model.

Methods: This was a cross-sectional study involving 316 women aged 20–65 years who had done the first pap smear at least 5 years ago and attended KKB Kota Bharu from January to April 2013. A self-administered questionnaire was used to obtain the socio-demographic characteristics, socio-health data and perceptions about cervical cancer and pap smear screening. The data were analysed for descriptive statistics and multiple logistic regression.

Results: The proportion of non-adherence to pap smear screening was 90.5%. Age, marital status, duration of marriage, education level, employment, household income and number of children were not significantly associated with non-adherence. Women with low perceptions of susceptibility were significantly more likely to non-adhere to screening guidelines ($p < 0.002$). Perceived severity, perceived benefit, perceived barrier and cues to action did not show a significant association with non-adherence to pap smear screening.

Conclusion: Non-adherence to pap smear screening was high among women who attended KKB Kota Bharu. Socio-demographic characteristics did not have any influence on pap smear screening practice. Low perceived susceptibility was associated with non-adherence to pap smear screening guidelines. Therefore, health promotion should be targeted to increase awareness regarding risk factors for cervical cancer.

PP185

Maternal Knowledge, Attitude and Practice Regarding Breastfeeding in Temerloh, Pahang, Malaysia

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Introduction: Although, breastfeeding provides the best nutrients for infants, the prevalence of practicing exclusive breastfeeding (EBF) for 6 months and continuing it up to 2 years varies from 75% to less than 20% in the Asia-Pacific region, while in Malaysia it was 23.7% in 2011. The aim of this study was to assess maternal knowledge, attitude and practices on EBF and continuing it up to 2 years, including influencing factors and reasons for discontinuation of breastfeeding before 2 years.

Methods: A cross-sectional study was conducted among 500 mothers of children aged zero to three years who attended the Maternal and Child Care Clinic, Temerloh, Pahang, between July and December 2012. A face-to-face interview was done by using a semi-structured, pre-tested questionnaire with open-ended questions to collect data. A cross-analysis was done to infer statistical significance of influencing factors that affect the pattern of breastfeeding in terms of age, occupation, educational level of the mother and socioeconomic status of family.

Results: Of the 500 mothers, 96% had knowledge regarding benefits of breastfeeding and sources of information were health personnel (45.1%), media (20%), family (16.3%) and friends (14%). All mothers agreed that breast milk is the ideal food for babies. Although 81% of them had early commencement of breastfeeding, the EBF rate and continuing breastfeeding up to 2 years of age were 37.2% and 34.5%, respectively. The reasons for discontinuing breastfeeding were no breast milk production (81.7%), working mother (63.4%), refusal to feed (46.2%), retracted nipple (14%), maternal sickness (13%) and others reasons (37.6%). Influence of maternal employment on EBF and monthly family income on continuing breastfeeding up to 2 years were significant ($p < 0.05$).

Conclusion: Although the EBF rate of Temerloh, Pahang was higher than the national rate, the ways to support mothers to achieve a higher EBF rate should be found.

Keywords: knowledge, attitude, practices, mothers, breastfeeding, up to 2 years, exclusive breastfeeding, Malaysia

PP186

Sociodemographic Characteristics of Patients Applied to the Breast Diseases Outpatient ClinicAydogan U¹, Doganer YC², Sari O³, Kilbas Z⁴, Akbulut H⁵, Usterme N⁶, Yuksel S⁷, Balkan M⁸, Saglam K⁹, Tufan T¹⁰

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Introduction: Especially the increase in incidence of breast cancer has caused to the examination of this aspect in various kinds of women belonging to different socio-cultural structure. In our study, some sociodemographic data of patients were evaluated.

Methods: 376 patients applied to breast diseases outpatient clinic of Gulhane Military Medical Academy were included to this descriptive cross-sectional study. After an informed consent of patients, sociodemographic characteristics of the patients questioned by delivering questionnaire.

Results: Average age of patients participated in the study was 46.16±9.93 years (22-75 years). 92.6% (n=348) of the patients were married. Average duration of marriage was 23.55±10.78 (2-58 years). When educational status were examined, 20.7% (n=78) patients were postgraduate, 37.8% (n=142) were high school graduates. Occupational status were as follows: 75% (n=282) were housewives, 16.2% (n=61) were in a working position. While 86.4% (n=325) of them were in province center, 12.2% (n=46) of them were living in district centre. While 23.1% (n=87) were smokers, 1.1% (n=4) have the habit of alcohol use. 18.9% (n=71) were consuming coffee on a regular basis, 3.5% (n=13) were consuming fizzy drinks. When the number of births was examined, 22.6% (n=85) had a single birth, 60.1% (n=226) had two births. 3.5% (n=13) of patients were using oral contraceptive pills, 1.1% (n=4) of them were using estrogen antagonists as hormonal treatment.

Conclusion: Despite many variables including sociocultural environment, economic structure and related other demographic characteristics, breast diseases are serious health problems affect all women.

Keywords: breast diseases, sociodemographic characteristics, women health

PP187

Relationship Between Severity of Coronary Artery Disease and Oral Glucose Tolerance TestDoganer YC¹, Aydogan U², Nerkiz P³, Akbulut H⁴, Aydogdu A⁵, Cayci T⁶, Barcin C⁷, Saglam K⁸

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Introduction: Gold standart methods used for diagnose of Diabetes Mellitus (DM) and CAD are OGTT and coronary angiography. The association between the value of 0 hour, 2nd hour of OGTT and angiographic stenosis level was evaluated in this study.

Methods: Our study was conducted upon 88 patients carried out elective coronary angiography with suspect of CAD between June 2010 and June 2011 in cardiology department. After informed consent form, detailed medical history of patients were taken. Patients were evaluated dividing to 3 groups as follows: Healthy group, coronary stenosis <50%, coronary stenosis >50%.

Results: Mean age of patients underwent coronary angiography was 51.93±9.31(32-65). 80.7% (n=71) of patients were male, 19.3% (n=17) of patients were female. Average value of 0. hour of OGTT in all patients was detected as 92.58±6.32, the average of 2nd hour of OGTT in all patients was detected as 110.94±20.77. All patients were divided to 3 groups in terms of CAD severity (healthy, <50%, >50%) and evaluated according to value of 0. hour of OGTT and 2nd hour of OGTT. Even the state of pre-diabet and DM were excluded by OGTT, there is a statistically significant difference between groups (p= 0.007).

Conclusions: When OGTT results were evaluated in terms of stenosis of CAD, it was detected that value of OGTT 2nd hour had stronger relation with stenosis of CAD comparing value of OGTT 0. Hour. Thus, 2nd hour value of OGTT can be significant for some of risky patient group.

Keywords: coronary artery disease, oral glucose tolerance test, steno

PP188

Lifestyle and Metabolic SyndromeGokcen Kulahli¹, Mustafa Koksali¹, Zuhar Aydan Saglam¹, Dilek Toprak²

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Introduction: Metabolic syndrome (MetS) can be defined as a dramatically growing pandemic that depends on obesity and environmental factors such as sedentary lifestyle, imbalanced diet and the genetic susceptibility of the individual. This study aimed to demonstrate the relationship between the occurrence of MetS and daily meal frequency of patients who applied to our outpatient clinics for any complaint.

Methods: This cross-sectional study recorded the sociodemographic characteristics of 331 outpatients who applied to Goztepe Training and Research Hospital's Family Medicine outpatient clinics for any complaint. The relationship between MetS and daily meal frequency, dietary training and regular exercise were evaluated. Frequency, t-test and chi-square test were the statistical methods used.

Results: Among the 331 subjects (F/M ratio: 229/102; mean age=46.14±14.32 years; weight: 74.97±11 kg; BMI: 27.54±4.5 kg/m²), no statistically significant difference was found between females and males in terms of MetS frequency (26.2%, n=60; 26.5%, n=27, respectively) (p=0.959). For subjects with MetS (n=87; 26.3%) or without MetS (n=244; 73.7%), their daily meal frequency and dietary training compliance to diet and exercise were investigated. Although 50.6% of subjects with MetS ate 5 times a day, this ratio was considerably higher (p=0.000) in those without MetS (n=244; 73.7%). While 41.4% of subjects with MetS (n=36) took dietary consultation, 82.8% (n=72) stated that they were inadaptable to diet. In this same group, only 39.1% subjects exercised regularly. In the whole study group, 84.6% (n=280) of subjects stated that they were inadaptable to diet. Regarding adaptability to diet and exercising regularly, no significant difference between groups was found (p=0.611; p=0.581). It was determined that more subjects with MetS took ≥6 meals/day than those without MetS (p=0.000). The exercising time of subjects who had ≥6 meals/day were found to be profoundly longer than those who ate less frequently (p=0.014).

Conclusion: High body mass indices reveal that while patients tend to eat frequently for the intention of a healthy diet, they do not care about the nutritional value and exercise. Healthcare professionals should not only advise people to eat less and more frequently but also emphasise the importance of self-specific eating behaviour and exercising regularly.

As a gatekeeper, it is the responsibility of primary care physicians to provide people with healthy life consultations beginning from birth through their whole life to prevent MetS.

PP189

Use of Birth Control Methods and Its Relationship Between Planned and Unplanned Pregnancy

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Introduction: If pregnancy is not planned, it is logical to use an appropriate contraceptive method. In Turkey, the time from the date of noticed pregnancy to the first pre-natal control is about 2 months in urban areas, while it is 3 months in rural areas. In this study, pregnant women were investigated, whether their pregnancy was planned or not and its association with the use of birth control methods.

Methods: A total of 57 pregnant women without any chronic disease were included in the study. Descriptive data of pregnant women, whether their pregnancy was planned and if they were using any method of birth control before the pregnancy were recorded.

Results: The mean age of the participants was 30.48±5.22 (18–39) years. 26.3% (n=15) of women were in the first, 35.1% (n=20) were in the second and 38.6% were in the third trimester. 40.4% (n=23) of the participants were expecting their first baby. 13 (22.8%) of 57 pregnancies were not planned. 56.1% of women with planned pregnancies were using some kind of birth control methods previously, whereas the use of birth control methods among women

with unplanned pregnancy was only 8.8%. The use of birth control methods was significantly lower in unplanned pregnancies (p=0.023). The rate of previous curettage history in pregnant women with unplanned pregnancy was also significantly higher than those with planned pregnancy (p=0.011).

Conclusion: Pre-conceptual care is inevitable for pre-determination of the conditions that may pose a risk to the mother and the foetus during pregnancy. In the light of this fact, the question "In the year ahead, do you plan to have a child?" has the main importance. In unplanned pregnancy, using abortion as a method of birth control is a great concern.

Keywords: pre-conceptual care, unplanned pregnancies, contraception

PP190

Evaluation of the Knowledge of Individuals Related to Baby Care Before Marriage

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Introduction: Babies are important members in families. To have a healthy child, parents should have an idea about baby care.

Methods: This study was performed by the Department of Family Medicine of Trakya University Medical Faculty among 136 couples who applied to the Edirne Municipality Marriage Office for marital procedure and accepted to take part in the study between June and September 2012.

Results: The mean age of the participants was 24.6±3.7 years for females and 27.7±3.8 years for males. This mean age also reflected the age at marriage for men and women. The mean age of marriage showed coherence with the data of developing countries. Concerning educational status, 52.2% of the couples were university graduates and 32% were higher secondary graduates.

94.4% of participants were willing to have children and 46.8% preferred to have children in their second year of marriage. The number of children preferred was two by 71.2% of participants. 87.5% of participants preferred normal vaginal birth. 77.7% of the participants had no knowledge and education on baby care and 82.1% accepted that they have insufficient knowledge and education on baby care.

Conclusion: In this study, we tried to show the level of knowledge of the couples who are on the verge of getting married about baby care. With this, we anticipate to raise awareness among the public under the guidance of healthcare providers.

Keywords: primary care, marriage, baby care

PP191

Evaluation of the Knowledge of Individuals Related to Sexually Transmitted Diseases Before Marriage

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Introduction: Sexually transmitted diseases constitute an important health problem. People on the verge of getting married should have some information about these diseases to protect themselves. This study aimed to determine the level of knowledge of the couples who are on the verge of getting married about sexually transmitted diseases.

Methods: This study was conducted by the Department of Family

Medicine of Trakya University Medical Faculty on 136 couples who applied to the Edirne Municipality Marriage Office for marital procedure and accepted to take part in the study between June and September 2012.

Results: The mean age of the female participants was 24.6±3.7 years and was 27.7±3.8 years for male participants. This mean age also reflected the age at marriage for men and women. The mean age of marriage showed coherence with the data of developing countries. Concerning educational status, 52.2% of the couples were university graduates and 32% were higher secondary graduates.

Conclusion: As a result, 66.2% had no knowledge and education on sexually transmitted diseases, 43.5% had no idea of preventive methods for sexually transmitted diseases and 53.9% accepted that they had insufficient knowledge and education on sexually transmitted diseases. With this study, we hope to raise awareness in public and help under the guidance of healthcare providers.

Keywords: sexual health, family medicine, marriage

PP192

A Case of Prednisolone-Induced Acute Flare-up of HBV Infection in a Patient With Idiopathic Thrombocytopenic Purpura

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Introduction: Hepatitis B virus (HBV) infection is the most common chronic viral infection affecting the liver, with over 350 million people infected worldwide, and is known to be the leading cause of cirrhosis and hepatocellular carcinoma. Reactivation of HBV replication in patients undergoing immunosuppressive therapy is a frequently reported complication of considerable clinical importance. Most of these cases have been reported from the fields of oncology and transplantation, yet there have been some cases reported in patients with rheumatic disease undergoing immunosuppressive therapy and from other fields such as haematology and endocrinology as well. Treatment of all HBsAg-positive patients should be started with prophylactic antiviral drugs before receiving immunosuppressive therapy, including corticosteroids, to avoid them from reactivation.

Methods: A 25-year-old female patient visited the haematology department for bruises on her upper extremities and menorrhagia. In her history, she had two normal pregnancies, and no complication or abnormal bleeding was observed. After detailed investigations, she was diagnosed with idiopathic thrombocytopenic purpura. Prednisolone therapy was initiated by haematologists. She was a HBV carrier, which was detected 3 years ago; yet before receiving steroid treatment, antiviral treatment was not started because HbsAg positivity was overlooked by the haematologists. By the end of 5 months of steroid therapy, she visited our hospital. Transaminase levels were as follows; AST: 205 U/L, ALT: 355 U/L. The viral panels for HbsAg, anti-HbcIgG, anti-Hbe and HBV DNA were found to be positive.

Results: We thought that this condition was an acute flare-up of HBV infection caused by steroid treatment. Lamivudin 100 mg was initiated. After 6 months, her PE and laboratory test results were normal.

Conclusion: In conclusion, reactivation of HBV is an important complication that may cause liver failure and even death. Clinicians should screen hepatitis markers in patients receiving chemotherapy, and also in other patients who will receive immunosuppressive therapies in other clinics as well.

Keywords: hepatitis B, immunosuppressive therapy, idiopathic thrombocytopenic purpura

PP193

Doxycycline-Induced Oesophageal Ulcer: A Case Report

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Introduction: Many orally used drugs (e.g., antibiotics, nonsteroidal anti-inflammatory drugs and bisphosphonates) may cause oesophageal ulcers. Although it is rare, doxycycline-induced oesophageal injury may occur. Doxycycline may cause oesophageal mucosal injury if it is not taken with sufficient liquids or not ingested just before going to sleep.

Case Report: A 19-year-old male patient was admitted to our outpatient clinic with swallowing difficulty, epigastric pain and painful swallowing after the fourth dose of doxycycline tablet. He had been prescribed doxycycline for acne treatment 5 days ago. He had no history of dyspepsia, was not taking any other antibiotics or nonsteroidal anti-inflammatory drugs and was not consuming alcohol and was a nonsmoker. His physical examination results were normal except for epigastric tenderness. Whole blood and routine blood count, urine analysis and chest X-ray examination results were normal and upper gastrointestinal endoscopic examination was performed. On the distal part of the oesophageal mucosa, an ulcer lesion of 0.6-cm diameter was noticed. By endoscopic analysis, the patient was diagnosed for doxycycline-induced oesophageal ulcer. Doxycycline treatment was stopped, oral pantoprazole 40 mg bid and sodium alginate-sodium bicarbonate-calcium carbonate liquid qid treatment were started. Five days later, the patient recovered from his complaints.

Conclusion: In daily practice, doxycycline, tetracycline, nonsteroidal anti-inflammatory drugs and bisphosphonates are the commonly prescribed drugs. These drugs can cause chemical oesophagitis and also gastritis. Drug-induced oesophagitis and/or gastritis are preventable causes of morbidity. When these types of drugs are prescribed, patients should be instructed to ingest adequate fluid and not to sleep at least for 30 minutes after these drugs are taken in order to prevent gastrointestinal mucosal injury.

Keywords: doxycycline, oesophageal ulcer, gastrointestinal mucosal injury

PP194

Prevalence and Predictors of Depression Among Male Adolescent Students in Malaysia

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Introduction: Adolescents' depression may result in chronicity and impaired functioning later in adult life.

Methodology: The objective of this study was to determine the prevalence and factors predicting depression among male adolescents in Malaysia. Data from the National Health and Morbidity Survey 2012 (DASS 21) and Malaysian Global School Health Survey (GSHS) were analysed. This survey was a two-stage cluster sample design involving 12,410 students from Form 1 to 5 from 234 government secondary schools throughout Malaysia. Students completed the self-administered DASS21 and GSHS questionnaires.

Results: The overall prevalence of depression among male adolescent students was 16.8% [95% confidence interval (CI): 13.2-21.90], the highest being among Indians (26.8%; 95% CI: 22.8-31.1). A multivariable logistic regression analysis revealed that Indian male

adolescents [adjusted odds ratio (aOR)=1.99; 95% CI: 1.49-2.67], those who felt lonely most of the time/always (aOR=3.08; 95% CI: 2.49-3.81) and considered attempting suicide during the past 12 months (aOR=2.61; 95% CI: 2.06-3.32); and with the following associated factors in the last 30 days, smoked cigarettes (aOR=1.48; 95% CI: 1.24-1.76), drank at least one drink containing alcohol (aOR=1.35; 95% CI: 1.10-1.66), parents/guardians never/really knew what they were doing in free time (aOR=1.37; 95% CI: 1.19-1.57) and ever been bullied (aOR=1.87; 95% CI: 1.62-2.16) were significantly associated with depression.

Conclusion: These predictors of depression among male adolescents will enable early identification, referral and treatment of depression by primary care physicians, parents and teachers.

Keywords: depression, male adolescents, students, DASS21

RESEARCH CHAMPIONSHIP

RC1

Neonatal Jaundice: Knowledge, Attitude and Practice Among Antenatal mothers in Labuan, Malaysia

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Introduction: Neonatal jaundice (NNJ) is very common worldwide. It is seen in 60% of full-term and 80% of preterm newborns. However, when serum bilirubin rises excessively, it may cause mortality and neurological morbidity such as deafness and mental retardation. The rate of incidence of NNJ in Labuan is among the highest in Malaysia, that is, 87.5% of the total live births. Sixty-three cases of NNJ were severe (319.47 cases per 10,000 live births), which is six times more than the national target. Therefore, knowledge about the risks, complications, early detections and its management is vital among mothers. The only study conducted on this matter in Malaysia by Boo et al. (2011) concluded that the maternal knowledge was still inadequate. But this study was conducted in a tertiary hospital, which may differ from other population setting.

Methods: This will be a descriptive cross-sectional study among antenatal mothers attending the Maternal and Child Health clinic (MCH) and rural clinics (KlinikDesa). All mothers regardless of their race or nationality, gestational age and parity will be included. Data will be collected via self-administered questionnaire (available in English and Bahasa Malaysia). The study is expected to last for 6 weeks, in addition of 1 week pilot study to test the feasibility of the questionnaire. Our target study sample is 300. Data will then be analysed using Statistical Package for Social Science (SPSS).

Summary: NNJ is a very common problem and it is a worrying issue in Labuan. We hope this study will yield some valuable information as basis for planning necessary intervention, especially at the primary care level.

Keywords: neonatal jaundice, antenatal mothers, maternal knowledge

RC2

Why Unassisted Home Birth? Perspectives of Malaysian Women

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Introduction: Unassisted home birth or free birth is defined as a birth at home without any help from health care professionals. The prevalence of home birth varies between countries ranging from 0.2 to 3%. However, data pertaining to unassisted home birth are limited. In Australia, the prevalence is 0.5%. A qualitative study in the United States has shown that women who chose home birth were mainly driven by these factors: the belief that home was the safest place to give birth, avoidance of medical interventions and interference during birth at the hospital, wanting control of their birthing experience and to deliver at a comfortable home environment.

Despite these perceived advantages, many health care professionals have argued against unassisted home birth because it does not ensure women's safety or satisfaction and is not cost effective. Worryingly, it was associated with maternal and perinatal mortality, which can be prevented potentially. Hence, understanding why women choose unassisted home birth is important to improve the antenatal and intrapartum care in Malaysia. This study aims to explore and understand the reasons and motivations on why Malaysian women choose unassisted home birth.

Methods: A qualitative, grounded theory methodology were adopted to allow women to describe their reasons in choosing unassisted home birth. A snowballing technique was used to recruit women with an at least one previous unassisted home birth. In-depth interviews were conducted by two researchers, which were digitally recorded and transcribed verbatim. Data are coded and clustered together to form categories. Similar categories will then be grouped together to form broader themes. Data collection will continue until no new code is gained and theoretical saturation is reached. NVivo 10 software will be used for data storage and organisation.

Results: This study anticipates mixed positive and negative experiences regarding unassisted home birth.

Conclusion: The healthcare team need to work towards understanding the practice of unassisted home birth in order to ensure optimal childbirth outcomes and thus this study was designed to explore this issue.

Keywords: unassisted home birth, free birth, home birth

RC3

Improving the Management of Common Mental Disorders in Primary Care in Malaysia: Current Service Provision and Future Potential

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What is the research idea?

We aim to explore the primary care clinicians' perceptions of challenges and existing opportunities towards an enhanced service provision for people with common mental disorders (CMDs). A pilot psychiatric consultation-liaison service of a 6-month period will be provided by psychiatrists from Penang Medical College for the clinicians in primary health care centres. There will be two-stage qualitative individual pre-post, semi-structure interviews with the primary care clinicians involved before and after this period. We will also aim to determine the educational value of these sessions from perspective of fourth year Penang Medical College students involved in this as a part of their clinical posting in psychiatry. Focus group discussions will be conducted and data will be obtained from the students. Data transcriptions from the interviews and focus groups will be analysed qualitatively.

Why is this research idea important?

There is increasing evidence of CMD contributing enormously to the total global burden of disease with the World Health Organization (WHO) predicting by 2030 it will rank second only to HIV/AIDS. As structures and incentives exist for clinicians to identify CMD in primary care, certain health provider attitudes and beliefs present ongoing barriers to recognising the disorders. Successful

implementation requires accurate and realistic appraisal of the current resource status and potential. We hope that this study would pioneer the future efforts in disseminating the responsibilities of initial managements of CMD to primary care clinicians.

How is the research idea relevant to primary care?

There is limited effectiveness in response by mental health specialist treatments due to high prevalence of CMD. Thus, primary care seems to be the most appropriate locus of care as reflected in the health policies of many countries including Malaysia. This study will help in planning of future service delivery for people with CMD presenting in primary care settings in Malaysia.

RC4

The Perceptions and Experiences in the Use of Primary Health Care Services Among Homosexual Women in Klang Valley, Malaysia

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Homosexual women have specific health care issues that are associated with their sexual orientation such as sexually transmitted infections, depression and gynaecological cancers. In an urban Malaysian setting, homosexual women may also face challenges in obtaining quality primary health care due to stigma in society, discrimination and non-disclosure of their sexual orientation. This research seeks to understand the views and experiences of homosexual women with the utilisation of existing primary health care services in an urban Malaysian setting, and to explore the facilitators, barriers and needs in obtaining quality primary health care. This research will be conducted using a qualitative methodology consisting of purposive sampling and data collection by in-depth interviews and focus group discussions with homosexual women residing in Klang Valley. Coding of the data will be performed to identify the themes. Clarifying the potential facilitators and barriers that homosexual women face may open up further research to improve their accessibility to quality primary health care in Malaysia.

RC5

Does Honey Reduce Cough in Adults Suffering From Upper Respiratory Tract Infections (URTIs)?

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What is the research idea?

We wish to evaluate if honey (diluted and undiluted) would reduce cough in adults suffering from URTIs. We plan to conduct a randomised controlled trial (RCT) in primary care clinics in Malaysia.

Why is this research idea important?

Although URTI is self-limiting, the symptoms, especially cough, are distressing to most sufferers. If more effective symptomatic relief can be made available, then the pressure of prescribing antibiotics will reduce. Undiluted honey has been shown to reduce nocturnal cough in children in a RCT in western countries. This has not been replicated in adults, and no similar study has been published in developing countries.

How is the research idea relevant to primary care?

URTIs are the most common reason for consulting a family physician in most countries. Various symptomatic treatments and antibiotics have been routinely prescribed, many of them have side effects (e.g., sedation) and potential harms (allergy and ecological implication in the case of antibiotics).

RC6

Development of Evidence Retrieval Service (ERS) to Improve Patient Management Among Primary Care Physicians in Rural Areas of Malaysia

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There is an increasing need for the latest literature evidence for primary care physicians to make sound clinical decisions that are evidence-based. This paper aims to develop an evidence retrieval service (ERS) with the aid of a team comprising medical librarians and primary care physicians with evidence-based medicine (EBM) training. A pilot study will be conducted with 25 recruited primary care physicians who have to attend a workshop to learn how to formulate PICO format clinical questions. They submit their clinical questions to the librarian team via a smart phone application, WhatsApp. The team will search for the latest evidence using medical databases. Evidence found is appraised by a panel of experienced physicians in which summarised evidence and reference list will be delivered back to requesting physicians by WhatsApp. The collection of questions, answers and time taken for retrieval and appraisal are documented. Answer consistency is tested by sending answers found by librarian team to an independent external librarian by comparing the different search strategies used. Outcomes are to be measured based on changes in their patient management via self-reported questionnaires on attitude and behaviour of evidence-based medicine. Participants are expected to respond positively to the service.

Keywords: evidence retrieval service, evidence-based medicine, WhatsApp, primary care physicians

